

SOUTHERN NEVADA HOUSING MARKET AND LAND AVAILABILITY ANALYSIS

APRIL 7, 2022

April 7, 2022

Mr. Nat Hodgson
Chief Executive Officer
Southern Nevada Home Builders Association
4175 S. Riley St., Suite 100
Las Vegas, NV 89147

RE: Southern Nevada Housing Market and Land Availability Analysis

Dear Mr. Hodgson:

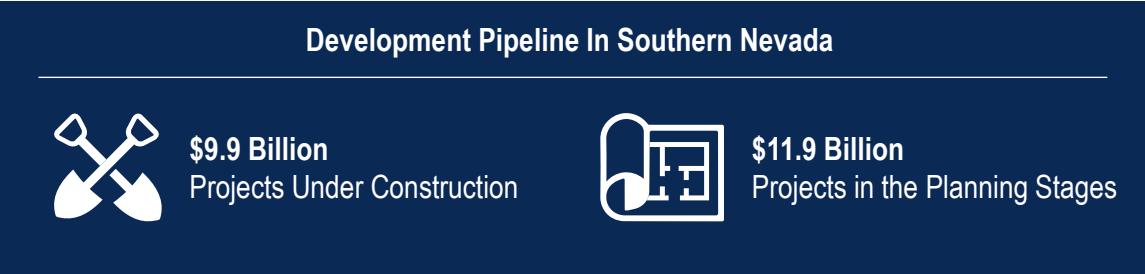
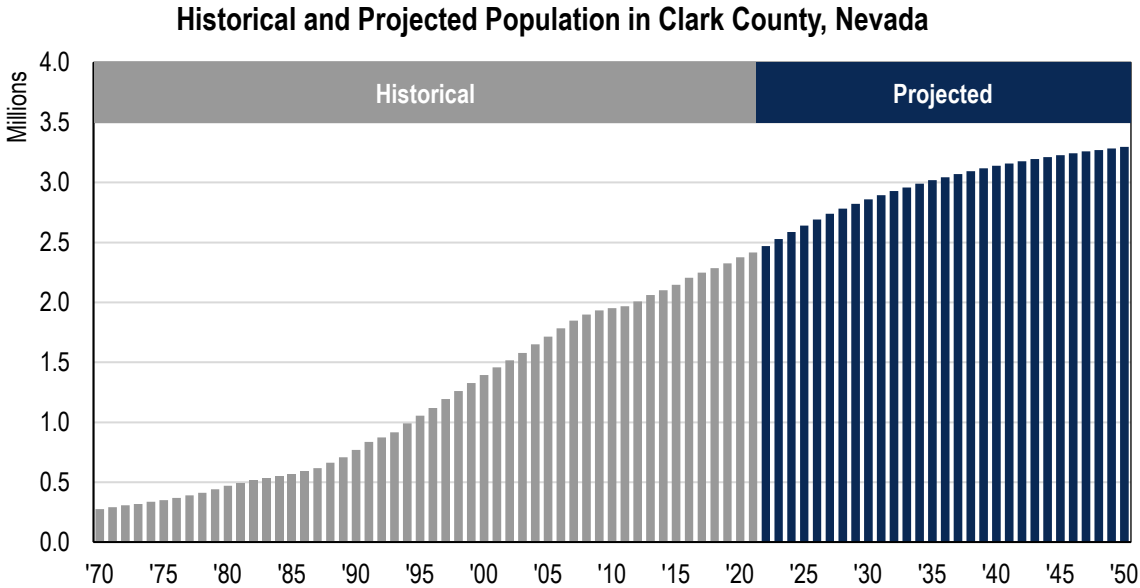
In accordance with your request, Applied Analysis (“AA”) is pleased to submit this analysis focusing on the Southern Nevada housing market and land availability. More specifically, AA was retained by the Southern Nevada Home Builders Association (the “SNHBA”) to consider the long-run demand for residential housing in Clark County, Nevada, and identify any potential land constraints to the market’s ability to meet overall demand. In addition to evaluating the overall land supply-demand dynamics, SNHBA requested an analysis of historical development trends, or demand, within Rural Neighborhood Preservation (“RNP”) districts in Southern Nevada relative to the amount of vacant land designated as such. This briefing report considers the following key factors impacting future land availability: (1) the overall growth in residential housing units needed to meet population growth over the next 30 years, (2) the forecasted absorption of future land based on overall population growth, and (3) the historical development of property within RNP overlay districts and the constraints on future growth imposed by RNP land parcels as outlined in the Clark County Unified Development Code.

This report was designed by AA in response to your request. However, we make no representations as to the adequacy of these procedures for all purposes. Generally speaking, our findings and estimates are as of the date of this letter and utilize the most recent data available. This report contains economic, development and other predominant market data. This information was collected from our internal databases and various third parties, including the SNHBA and other public data providers. The data were assembled by AA. While we have no reason to doubt its accuracy, the information collected was not subjected to any auditing or review procedures by AA; therefore, we can offer no representations or assurances as to its completeness.

Summary of Findings

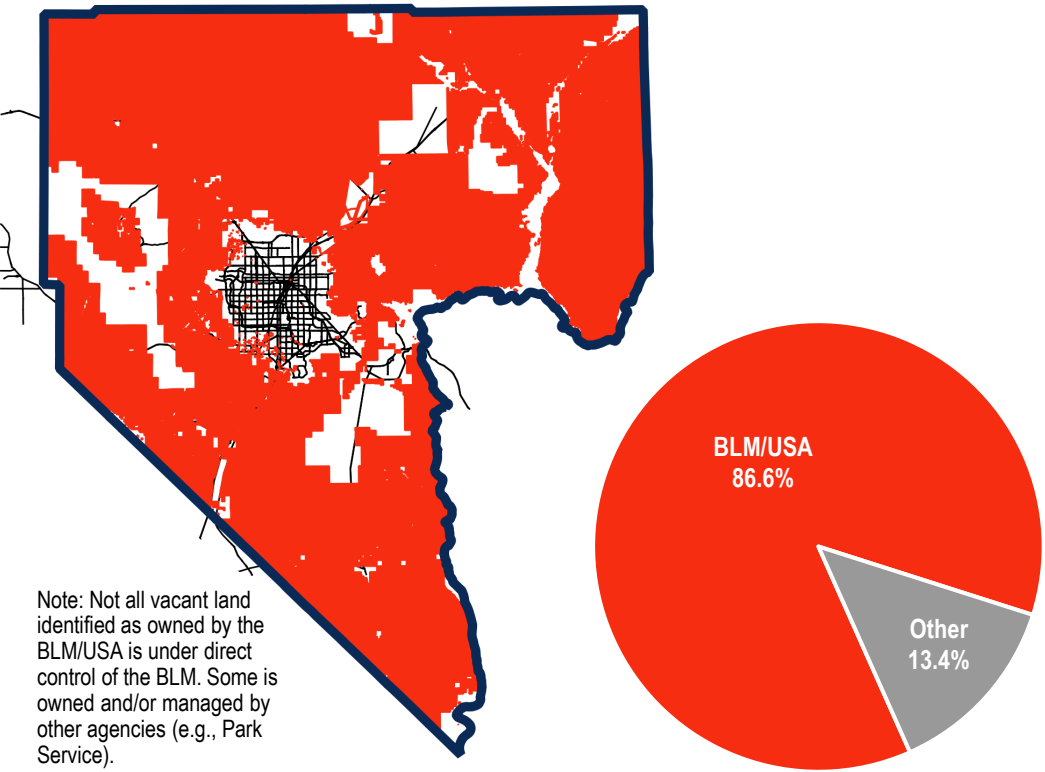
The following summarizes the salient findings of our research and analysis.

- **The Southern Nevada economy continues its recovery following the impact of the COVID-19 pandemic and related response.** Southern Nevada is well positioned for future expansion as key performance measures such as population, employment and income continue to grow. In 2020, Southern Nevada ranked second in the nation in terms of overall population growth among the 30 largest metro areas, and more near-term indicators point toward continued population growth. Additionally, the region’s core tourism industry continues to recover following the direct impact of the COVID-19 response statewide. The current state of the tourism industry is marked by significant year-over-year gains across a number of key performance metrics. Gross gaming revenues are exceeding levels seen prior to the pandemic. Occupancy rates at the region’s nearly 150,000 hotel rooms are trending toward pre-pandemic levels. Tourism volumes are expected to be aided further by the return of large-scale conventions and special events and the broader recovery in international visitation. Southern Nevada is poised to support incremental tourism with the opening of two full-service hotel-casino properties (Circa and Resorts World), completion of the Las Vegas Convention Center Expansion and successful opening of Allegiant Stadium. Additionally, a number of tourism infrastructure projects remain in the development pipeline, including MSG Sphere. The State of Nevada continues to push for economic diversity, supporting the addition of new manufacturing and emerging technology companies to Southern Nevada. Technology giants like Amazon, Google and Switch have a solid footprint in the Las Vegas valley, while manufacturing company Haas Automation continues to invest in its 2.5 million-square-foot facility in Henderson. These additions and the broader economic recovery are expected to provide increased economic activity going forward (and potentially increased stability). Currently, there is a total of nearly \$10 billion in notable projects under construction in Southern Nevada.
- **A review and analysis of unconstrained population and housing forecasts suggest overall demand for housing units will continue to grow significantly over the next 30 years.** While there are a number of sources of population projections, AA utilized forecasts prepared by the University of Nevada, Las Vegas Center for Business and Economic Research (“CBER”) for purposes of updating the population and housing demand analyses. Given historical growth trends in Southern Nevada, there are arguments to be made that the CBER estimates may be too conservative, while others could potentially be too aggressive. In any case, estimating the population in any given year over a 30-year period (i.e., forecasting out to 2050) is a challenge regardless of the forecaster or the methodology employed, but this is the best information available at the time of this update. Overall, this analysis is designed to provide an “order of magnitude” estimate as opposed to identifying a specific date in which land availability will become an insurmountable challenge. The assumptions and modeling contained in this analysis are used to estimate vacant land requirements in the region during the study period.



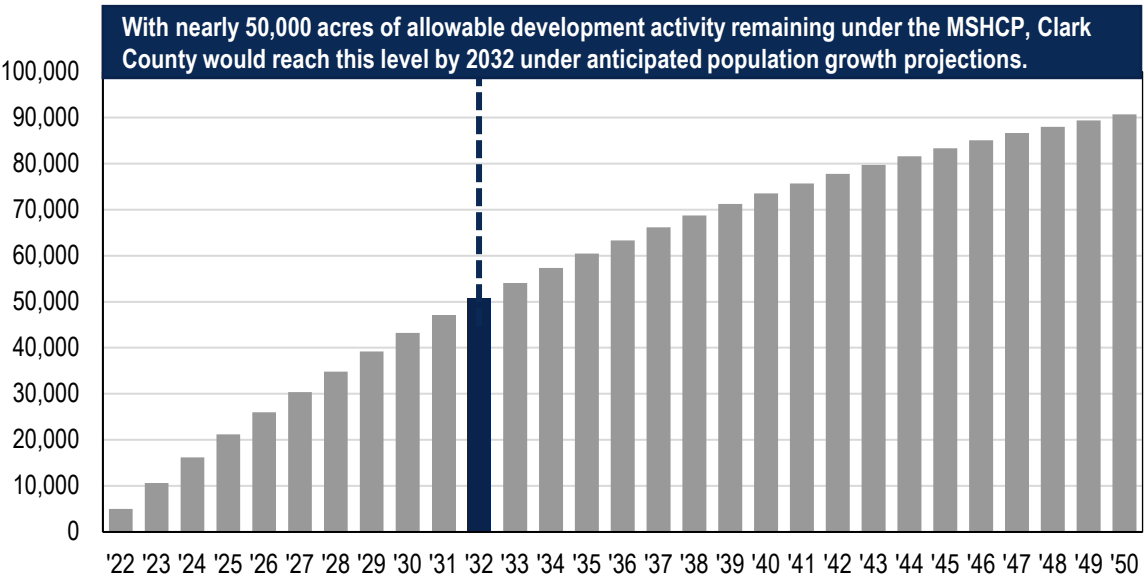
- **Land supply constraints will translate into real implications for the local housing market in Las Vegas.** There is a limited amount of available land in Southern Nevada. It is well documented that much of the state (including Clark County) is owned and managed by public agencies (e.g., federal government). This ownership structure limits the market's ability to develop property to meet the demands of the market. Additionally, and equally as important, the Multiple Species Habitat Conservation Plan ("MSHCP"), which is designed to balance development needs and conservation efforts within the community, also acts as a limiter on overall growth. The MSHCP suggests there are nearly 50,000 acres of additional property that is authorized for development within Clark County.

Vacant Land Ownership Distribution in Clark County



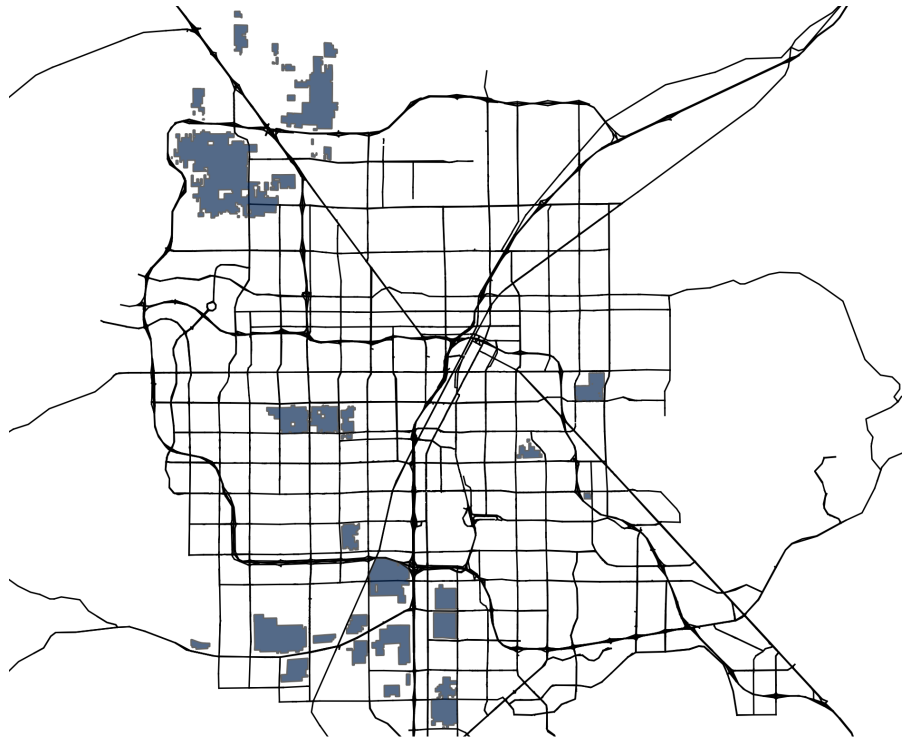
- **Based on projected housing demand, Southern Nevada has the potential to exhaust its ability to develop by 2032 should current population trends play out as expected.** While there are a number of alternative scenarios that could potentially unfold, future development will hinge on the amount of net population growth, overall development densities and the amount of property available for development. Relying on CBER population forecasts and other related assumptions, the nearly 50,000 acres available under the MSHCP cap may be reached in 2032. Should overall growth be slower than currently forecasted, land constraints would extend beyond 2032. For example, the 30-year compound annual growth in population is currently estimated to be 1.1 percent. Should average growth over the next three decades fall to 0.8 percent, land constraints would be reached in 2036 (four years later). Similarly, to the extent growth is faster than currently forecasted, land constraints would be achieved sooner than 2032. Importantly, should development densities increase from historical averages, the timelines would be further pushed out into the future. It is worth noting, this analysis is as of the date of this letter and future amendments to the MSHCP could adjust these timelines. The exhibit to this letter depicts a full range of scenarios that should be contemplated when reviewing this overall assessment.

Future Land Absorption (Cumulatively in Acres)



- **In addition to broader land availability challenges, lands designated for lower densities and rural preservation purposes has the potential to further restrict community expansion opportunities.** More specifically, the Clark County Unified Development Code (“Clark County Code”) limits density in development of certain residential parcels falling in the Rural Neighborhood Preservation (“RNP”) district. The RNP parcels are designed to prevent encroachment of high-density development near established low-density neighborhoods. The RNP designation generally limits development of residential parcels to two units per acre. Importantly, the RNP currently has approximately 3,400 acres of vacant property. At the same time, the average annual absorption (or demand) of RNP lands is approximately 100 acres. Simply translated, this suggests that it would take approximately 34 years to absorb vacant RNP property in Clark County, which is well beyond the community’s buildout timeline discussed earlier

Rural Neighborhood Preservation Land



Conclusion

The overall economic outlook for Southern Nevada remains positive, suggesting population growth will continue and result in increased demand for housing. The market’s ability to meet future demand will be limited by the sufficiency of vacant developable property, along with regulatory constraints such as the MSHCP. At current projected levels, Clark County has approximately 11 years of effective land availability remaining. For reference, Clark County absorbed an average of 4,900 acres since the inception of the MSHCP (21 years ago). The forecasted period assumes an average of 4,600 acres per year through 2032. At the same time, RNP property is experiencing approximately 34 years of effective availability, further limiting the amount of future housing development.

Note, this analysis is as of the date of this letter and future amendments to the MSHCP could adjust these timelines.

This report is an executive summary. It is intended to provide an overview of the analyses conducted and a summary of our salient findings. AA will retain additional working papers relevant to this study. If you reproduce this report, it must be done so in its entirety. We welcome the opportunity to discuss this report with you at any time. Should you have any questions, please contact Brian Gordon at (702) 967-3333.

Sincerely,


Applied Analysis

Exhibit 1	30-Year CAGR in Population	0.1%	0.3%	0.6%	0.8%	1.1%	1.3%	1.6%	1.8%	2.1%	2.3%	2.6%
	Shift From Baseline Model	-1.00%	-0.75%	-0.50%	-0.25%	0.00%	0.25%	0.50%	0.75%	1.00%	1.25%	1.50%
Land Availability (In Acres) Based on Alternative Population Growth Forecasts	2022	47,525	46,858	46,191	45,524	44,857	44,189	43,522	42,855	42,188	41,521	40,854
	2023	44,630	43,281	41,929	40,574	39,215	37,853	36,488	35,119	33,747	32,372	30,993
<i>Note: Positive values suggest land remains available and negative values suggest a shortfall.</i>	2024	41,918	39,872	37,816	35,750	33,674	31,588	29,491	27,385	25,268	23,141	21,003
	2025	39,808	37,054	34,280	31,486	28,670	25,835	22,978	20,100	17,201	14,282	11,341
	2026	37,964	34,493	30,987	27,447	23,872	20,262	16,616	12,934	9,217	5,463	1,673
	2027	36,585	32,391	28,145	23,846	19,495	15,089	10,630	6,115	1,546	(3,079)	(7,761)
	2028	35,150	30,222	25,221	20,145	14,994	9,767	4,463	(920)	(6,382)	(11,924)	(17,547)
	2029	33,914	28,246	22,480	16,613	10,645	4,573	(1,604)	(7,887)	(14,278)	(20,779)	(27,391)
	2030	33,031	26,623	20,087	13,420	6,621	(313)	(7,384)	(14,594)	(21,947)	(29,443)	(37,087)
	2031	32,393	25,243	17,932	10,457	2,815	(4,999)	(12,986)	(21,151)	(29,497)	(38,028)	(46,747)
	2032	31,895	24,002	15,911	7,617	(883)	(9,594)	(18,522)	(27,670)	(37,045)	(46,650)	(56,491)
	2033	31,727	23,095	14,225	5,111	(4,254)	(13,875)	(23,760)	(33,914)	(44,344)	(55,058)	(66,061)
	2034	31,688	22,319	12,667	2,725	(7,516)	(18,064)	(28,926)	(40,113)	(51,632)	(63,492)	(75,704)
	2035	31,773	21,668	11,233	457	(10,670)	(22,159)	(34,020)	(46,265)	(58,905)	(71,952)	(85,418)
	2036	32,168	21,339	10,126	(1,481)	(13,497)	(25,934)	(38,806)	(52,127)	(65,912)	(80,176)	(94,933)
	2037	32,585	21,030	9,038	(3,409)	(16,325)	(29,726)	(43,631)	(58,057)	(73,022)	(88,544)	(104,643)
	2038	33,206	20,936	8,168	(5,115)	(18,934)	(33,309)	(48,261)	(63,810)	(79,980)	(96,794)	(114,276)
	2039	33,936	20,956	7,415	(6,707)	(21,436)	(36,794)	(52,809)	(69,505)	(86,910)	(105,053)	(123,963)
	2040	34,861	21,182	6,877	(8,081)	(23,719)	(40,067)	(57,155)	(75,015)	(93,680)	(113,182)	(133,560)
	2041	35,886	21,516	6,450	(9,342)	(25,894)	(43,240)	(61,417)	(80,461)	(100,412)	(121,311)	(143,201)
	2042	37,008	21,955	6,134	(10,492)	(27,960)	(46,313)	(65,591)	(85,841)	(107,106)	(129,437)	(152,884)
	2043	38,224	22,497	5,927	(11,530)	(29,918)	(49,284)	(69,678)	(91,151)	(113,758)	(137,557)	(162,605)
	2044	39,531	23,140	5,827	(12,458)	(31,766)	(52,153)	(73,674)	(96,391)	(120,366)	(145,667)	(172,362)
	2045	40,926	23,881	5,832	(13,277)	(33,506)	(54,918)	(77,579)	(101,557)	(126,926)	(153,764)	(182,150)
	2046	42,321	24,628	5,846	(14,090)	(35,246)	(57,695)	(81,513)	(106,777)	(133,574)	(161,991)	(192,122)
	2047	43,886	25,561	6,059	(14,692)	(36,769)	(60,253)	(85,230)	(111,791)	(140,032)	(170,054)	(201,966)
	2048	45,530	26,586	6,374	(15,187)	(38,182)	(62,705)	(88,851)	(116,724)	(146,433)	(178,095)	(211,832)
	2049	47,169	27,611	6,693	(15,677)	(39,596)	(65,166)	(92,498)	(121,706)	(152,916)	(186,260)	(221,876)
	2050	48,885	28,726	7,111	(16,062)	(40,901)	(67,522)	(96,046)	(126,606)	(159,340)	(194,398)	(231,938)



Foundational Economic Considerations

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Trends in the Residential Housing Market

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Clark County Land Use and Availability Analysis

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Land Supply Dynamics in RNP Zoning District

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Foundational Economic Considerations



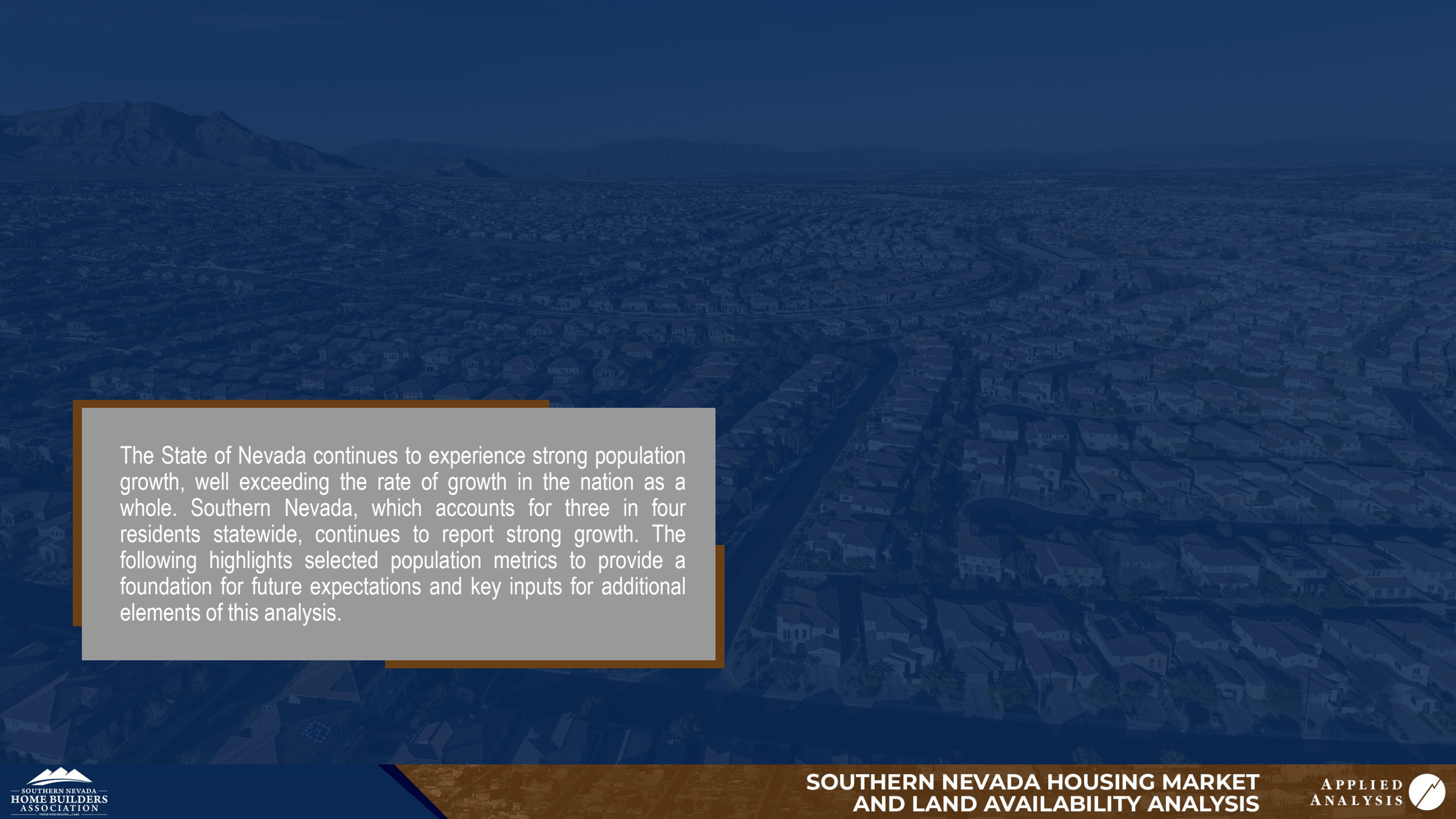
Trends in the Residential Housing Market



Clark County Land Use and Availability Analysis



Land Supply Dynamics in RNP Zoning District

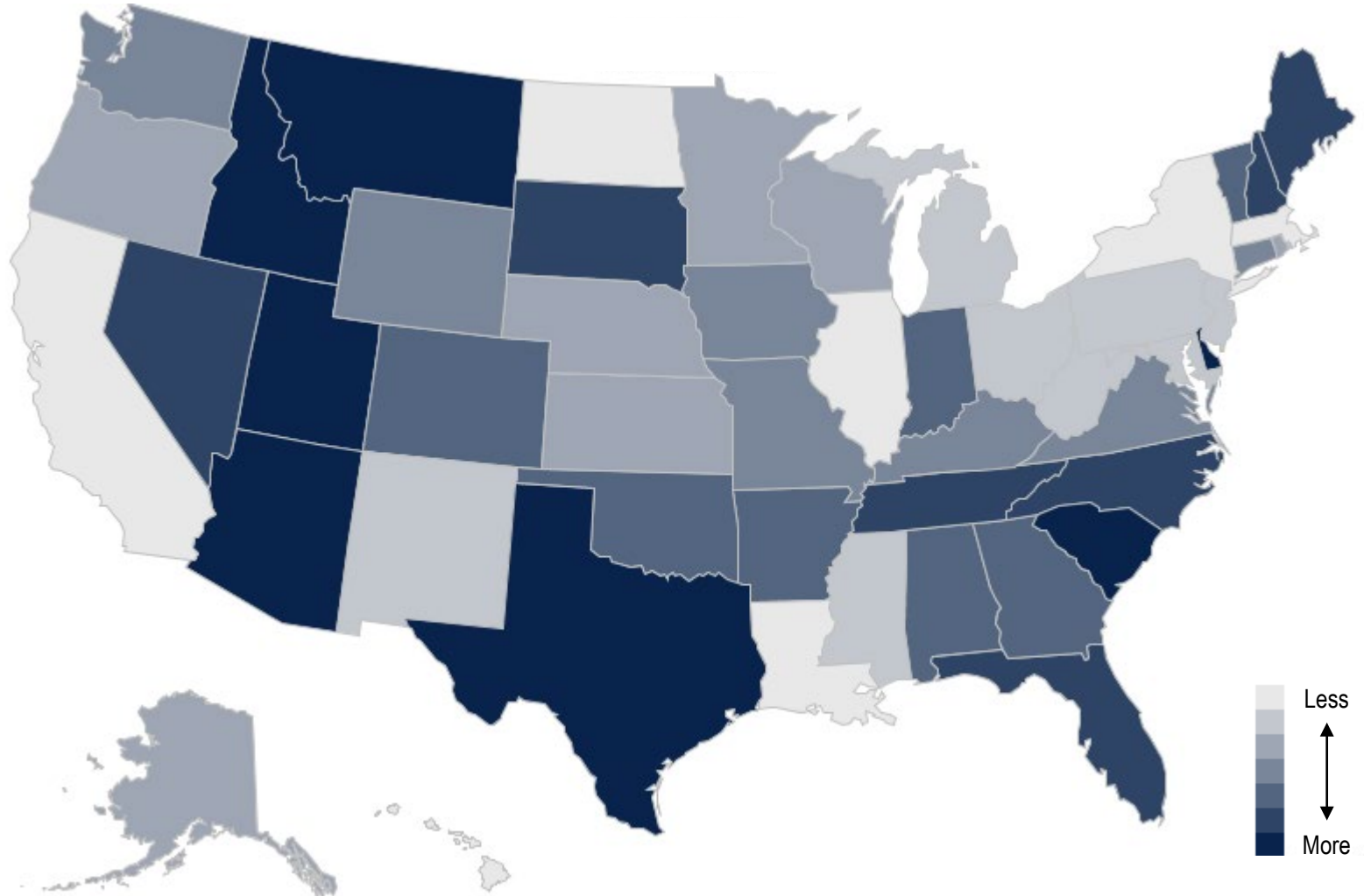


The State of Nevada continues to experience strong population growth, well exceeding the rate of growth in the nation as a whole. Southern Nevada, which accounts for three in four residents statewide, continues to report strong growth. The following highlights selected population metrics to provide a foundation for future expectations and key inputs for additional elements of this analysis.

Population Growth by State

2021 vs 2020

Rank	State	Annual Growth
1	Idaho	+2.88%
2	Utah	+1.72%
3	Montana	+1.66%
4	Arizona	+1.37%
5	South Carolina	+1.17%
6	Delaware	+1.16%
7	Texas	+1.06%
8	Florida	+0.98%
9	Nevada	+0.96%
10	South Dakota	+0.93%
U.S. Average		+0.12%

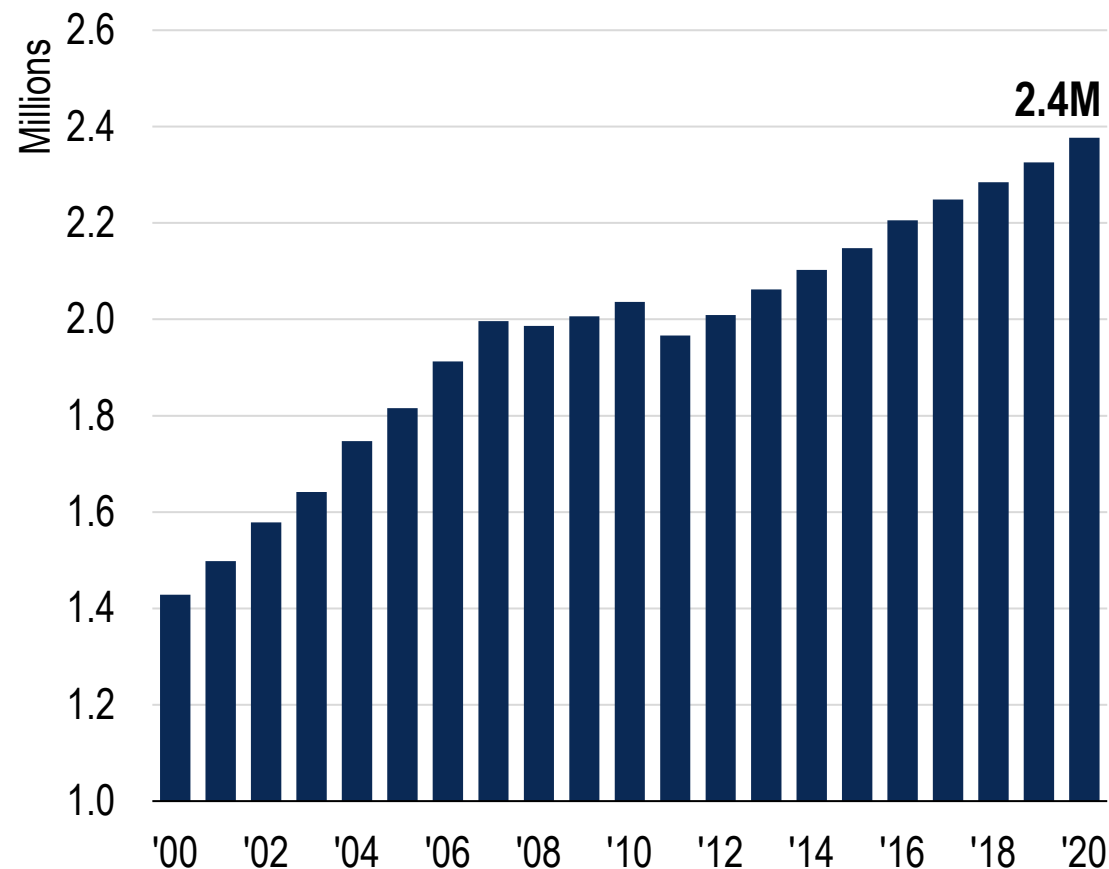


Source: U.S. Census Bureau

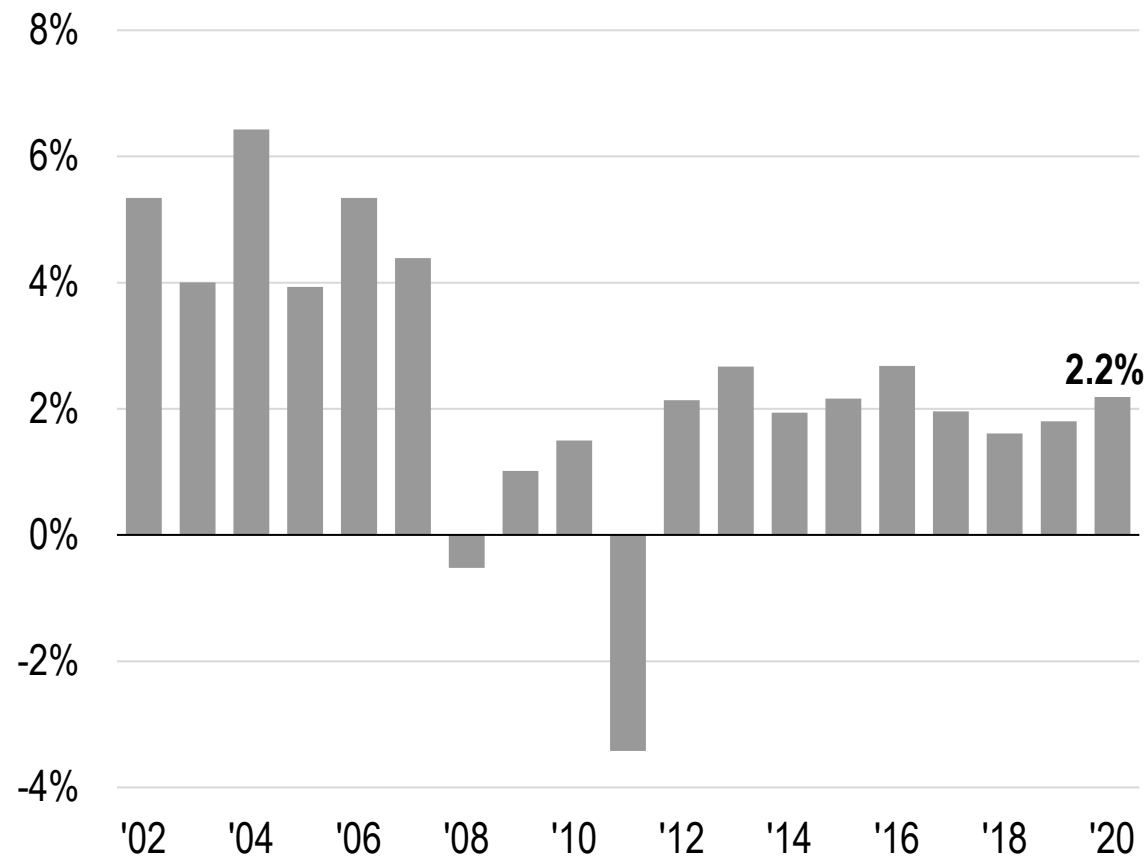
Population and Growth

Southern Nevada (Local Demographer Estimates)

Historical Trend



Annual Growth Rate

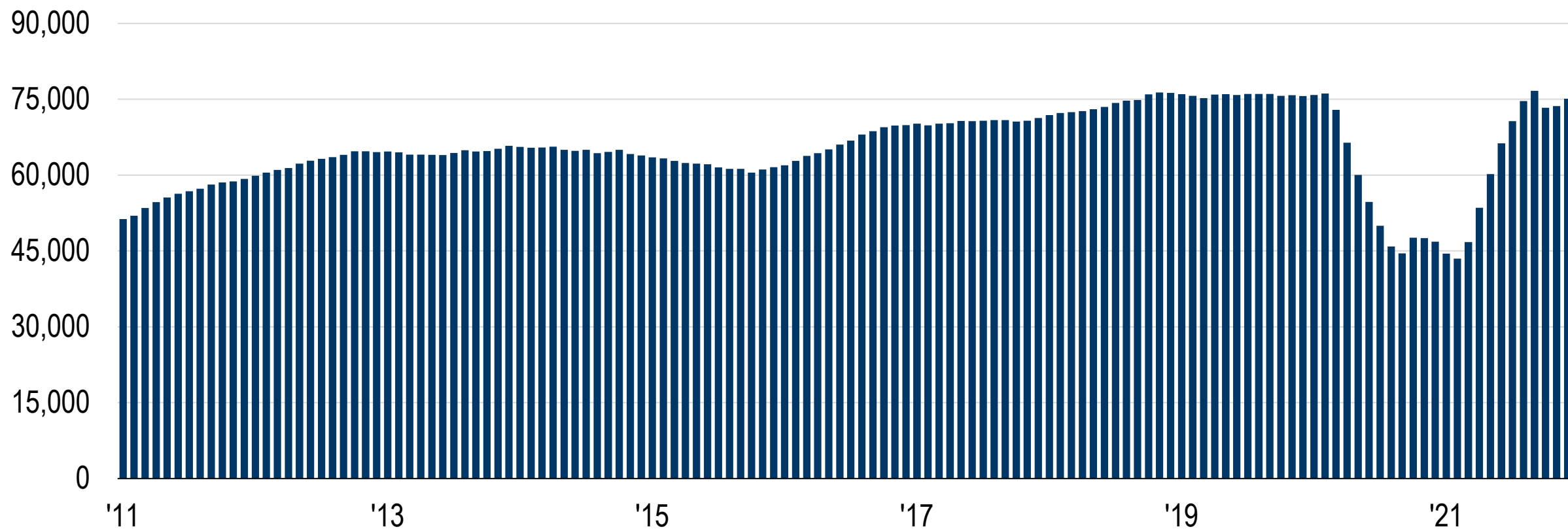


Source: Clark County Comprehensive Planning

Population Migration Metrics

Driver License Surrenders to Clark County

Drivers License Surrenders
(Trailing 12-Month Total)

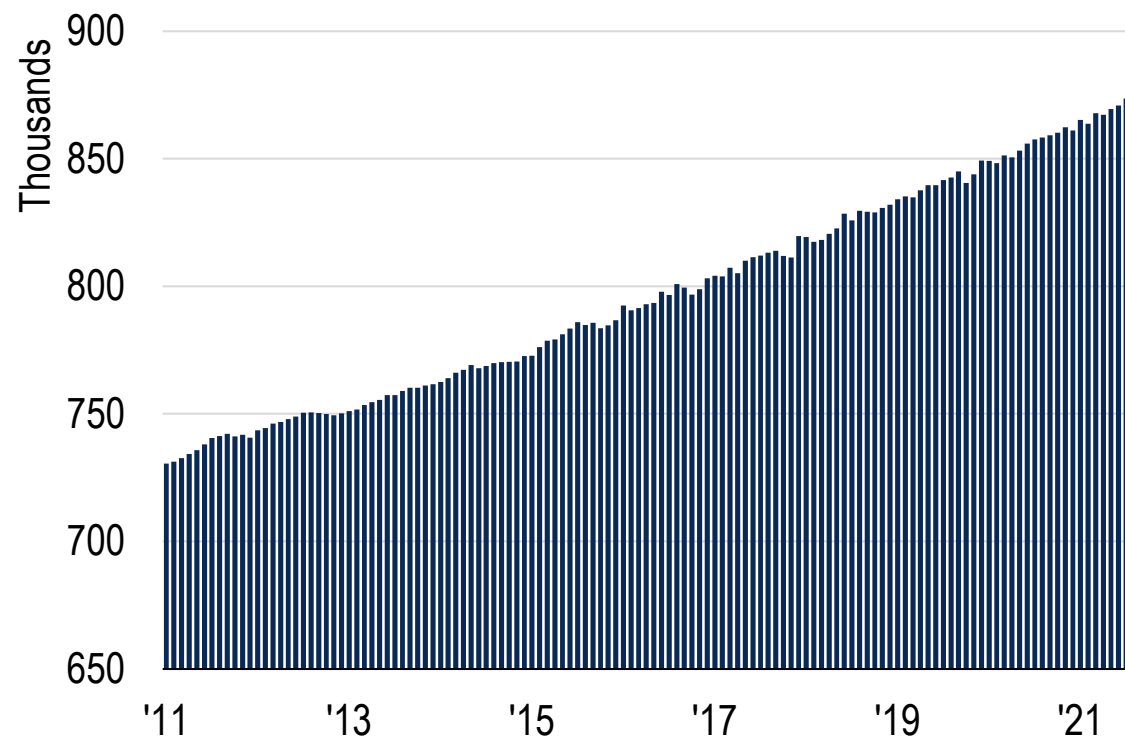


Source: Nevada Department of Motor Vehicles

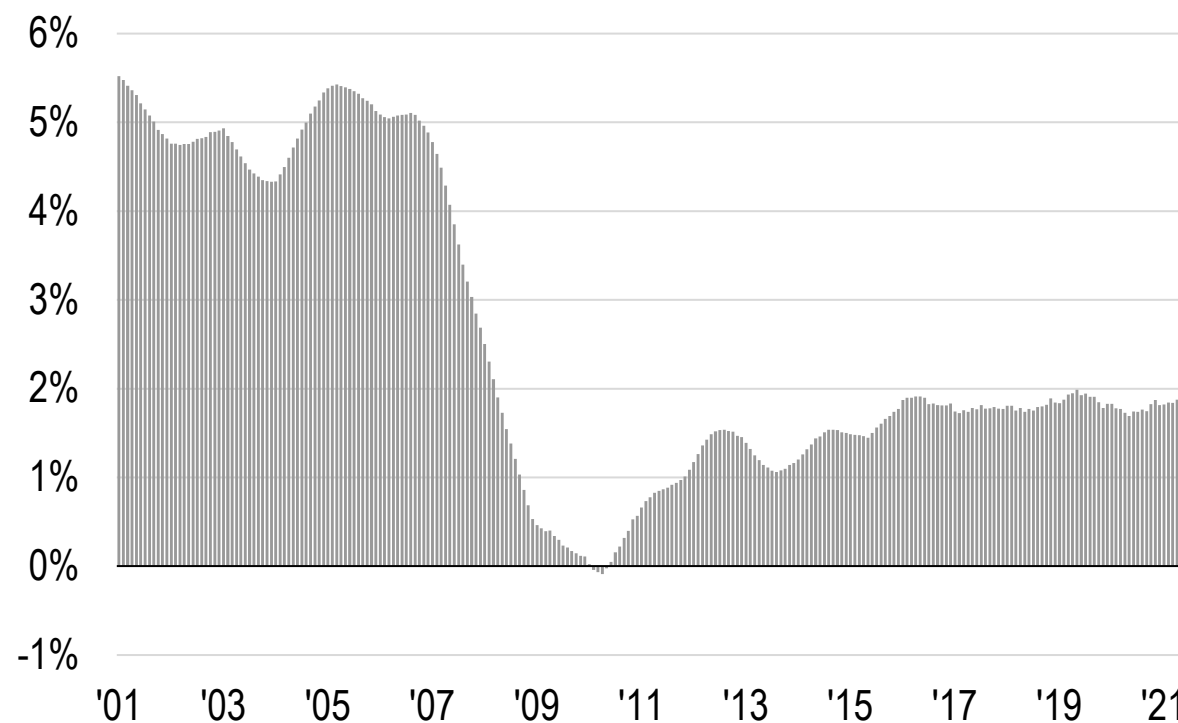
Population Migration Metrics

Year-Over-Year Trailing 12-Month Total and Growth Rate

Electric Meter Connections
(Trailing 12-Month Total)



Electric Meter Connections
(Year-Over-Year Growth Rate)

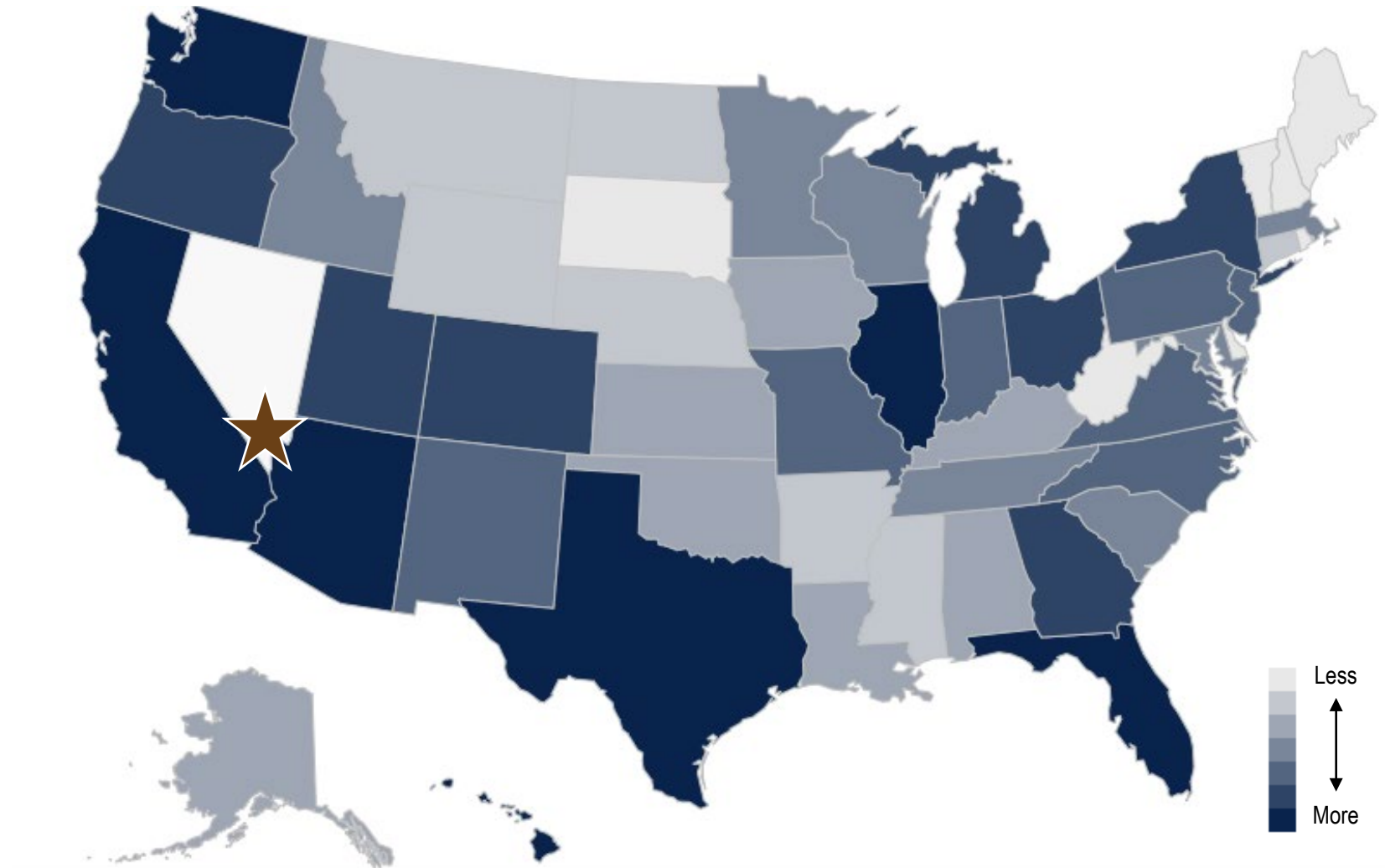


Source: NV Energy

Newcomers to Clark County

2021 | Based on Driver License Surrenders

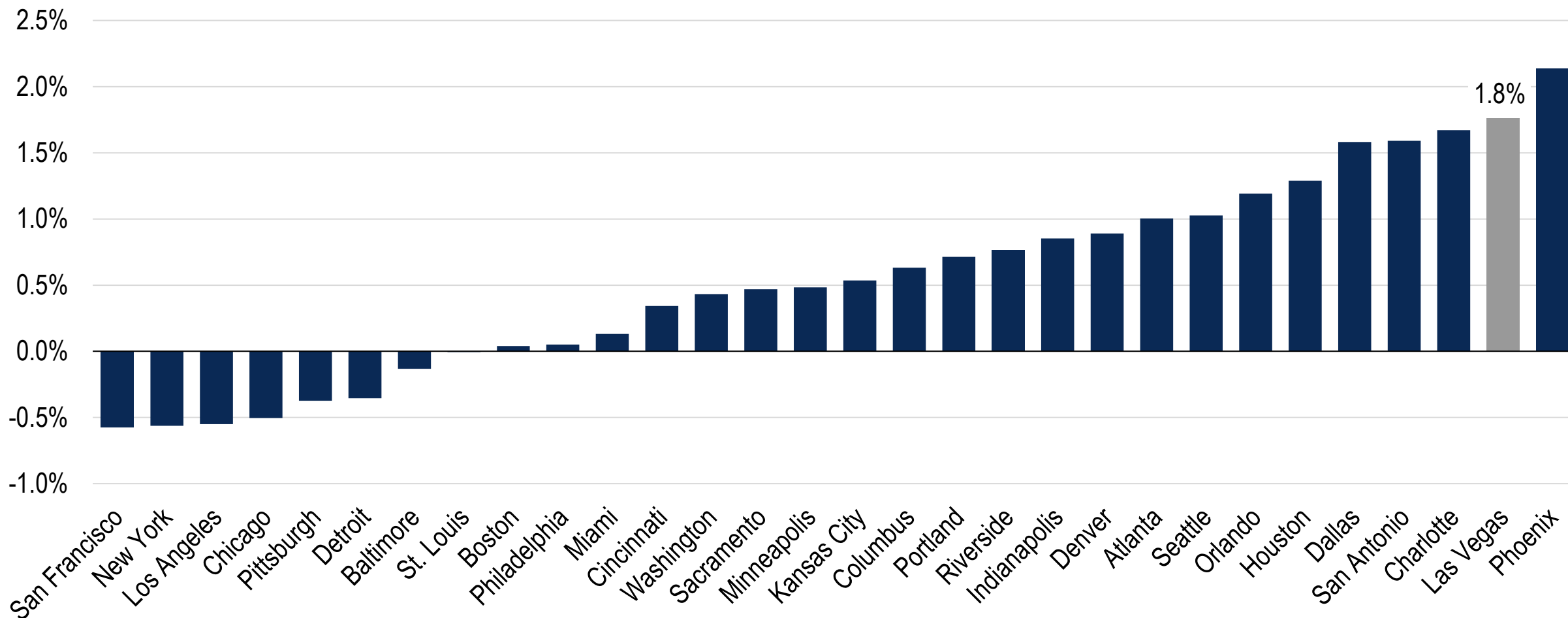
Top 5 States	Share of Newcomers
1 California	39.6%
2 Florida	5.0%
3 Texas	4.1%
4 Washington	4.1%
5 Arizona	4.0%



Source: Nevada Department of Motor Vehicles

Population Growth in Largest 30 MSAs

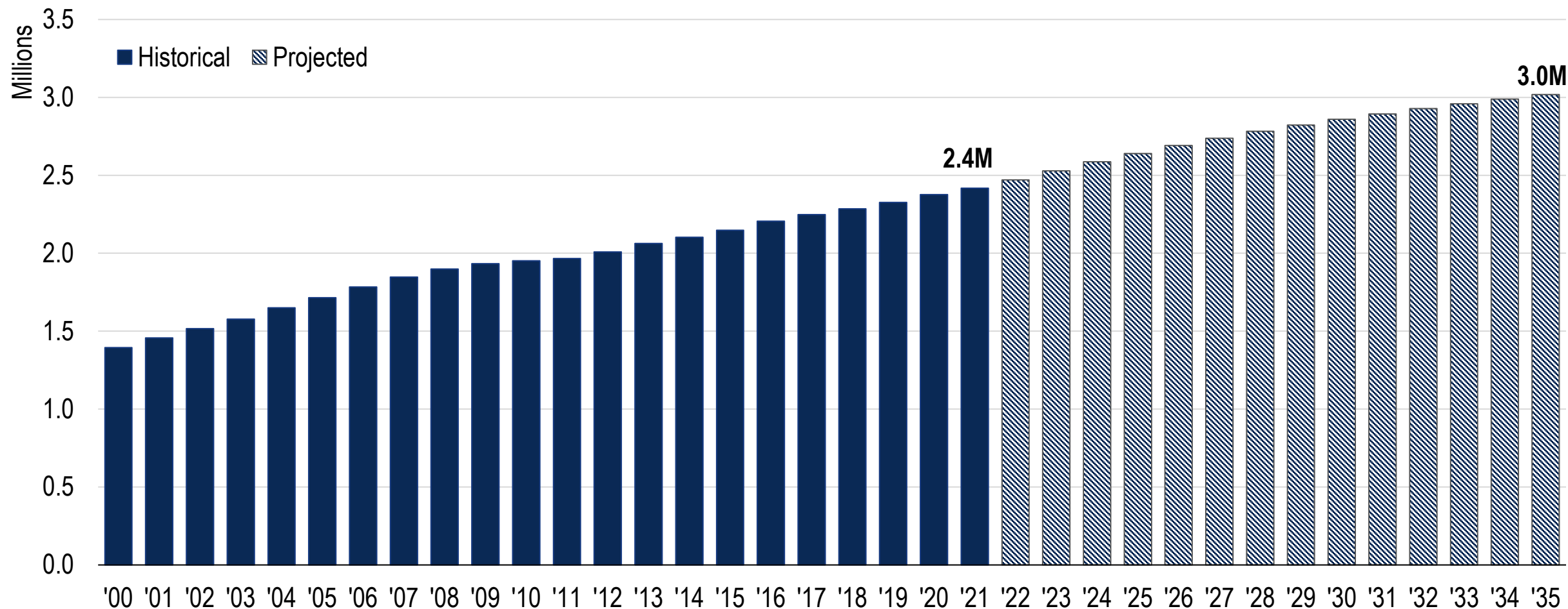
2020 versus 2019 (National Demographer Estimates)



Source: U.S. Census Bureau

Population Projection

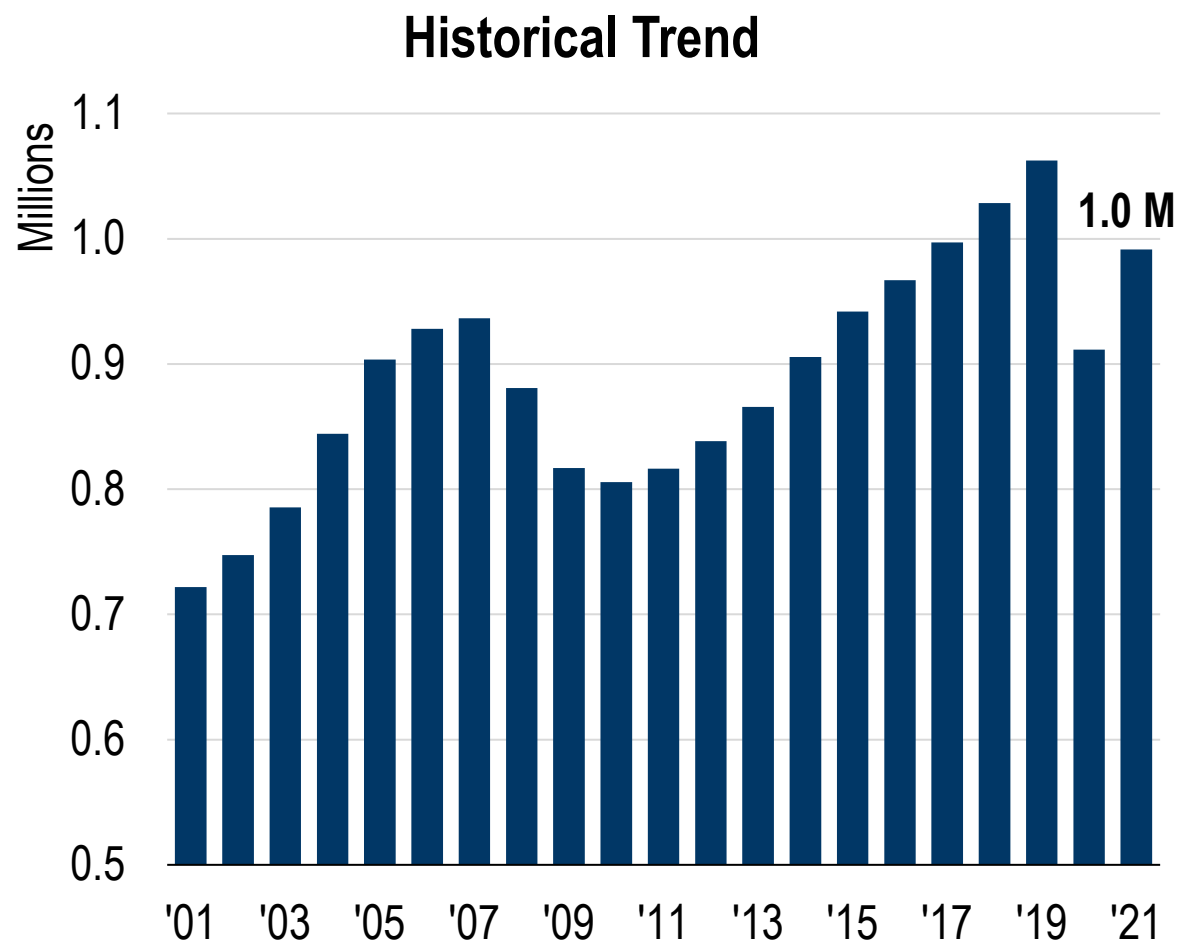
Clark County



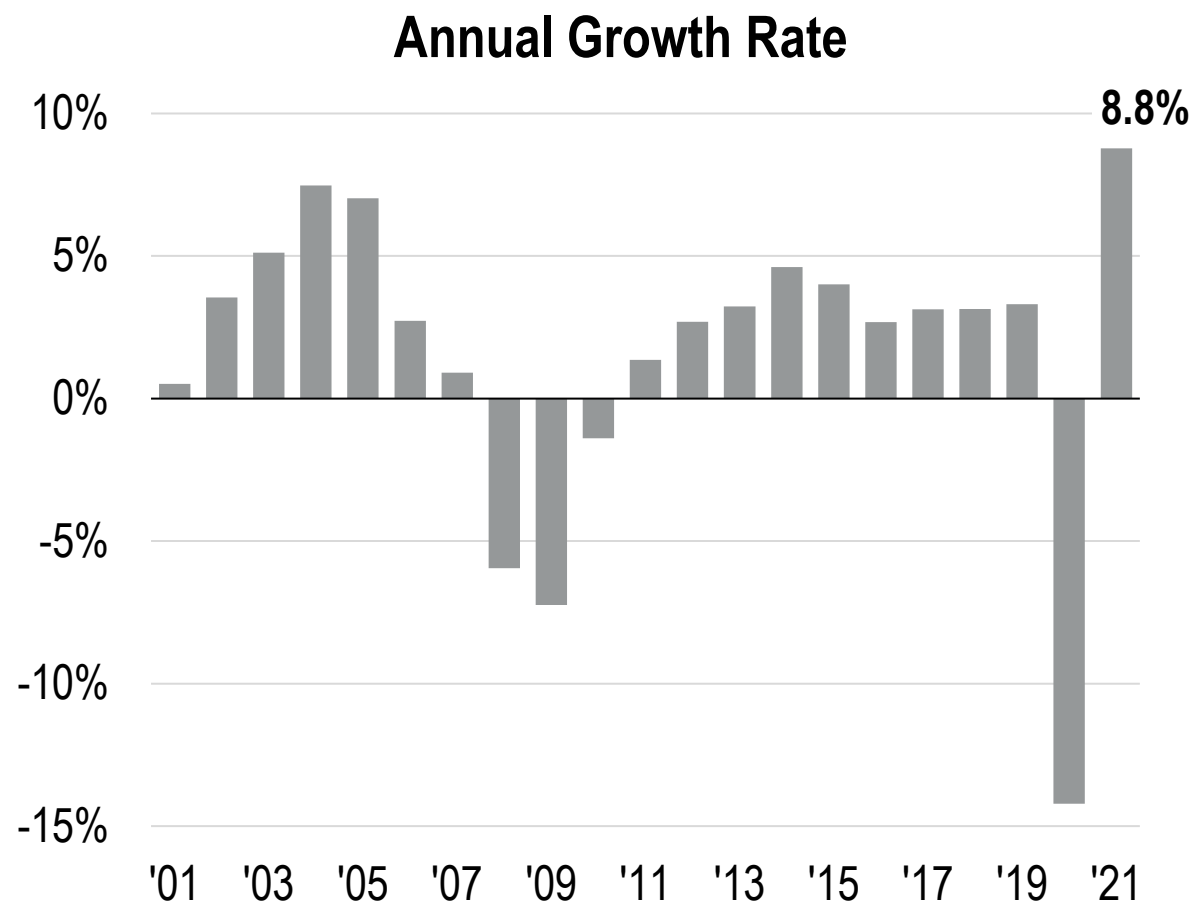
Source: U.S. Census Bureau; UNLV CBER

Employment

Las Vegas Metro Area

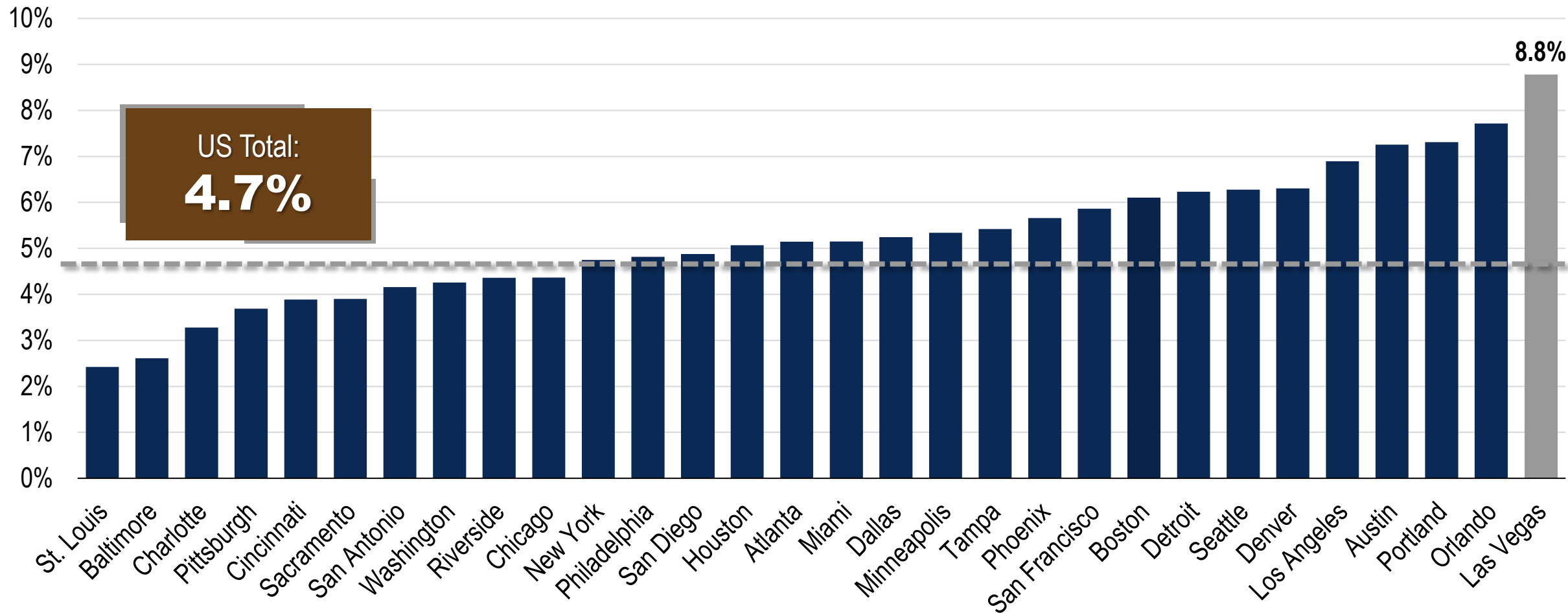


Source: U.S. Bureau of Labor Statistics



Employment Growth in Largest 30 MSAs

Today | October 2021 vs October 2020

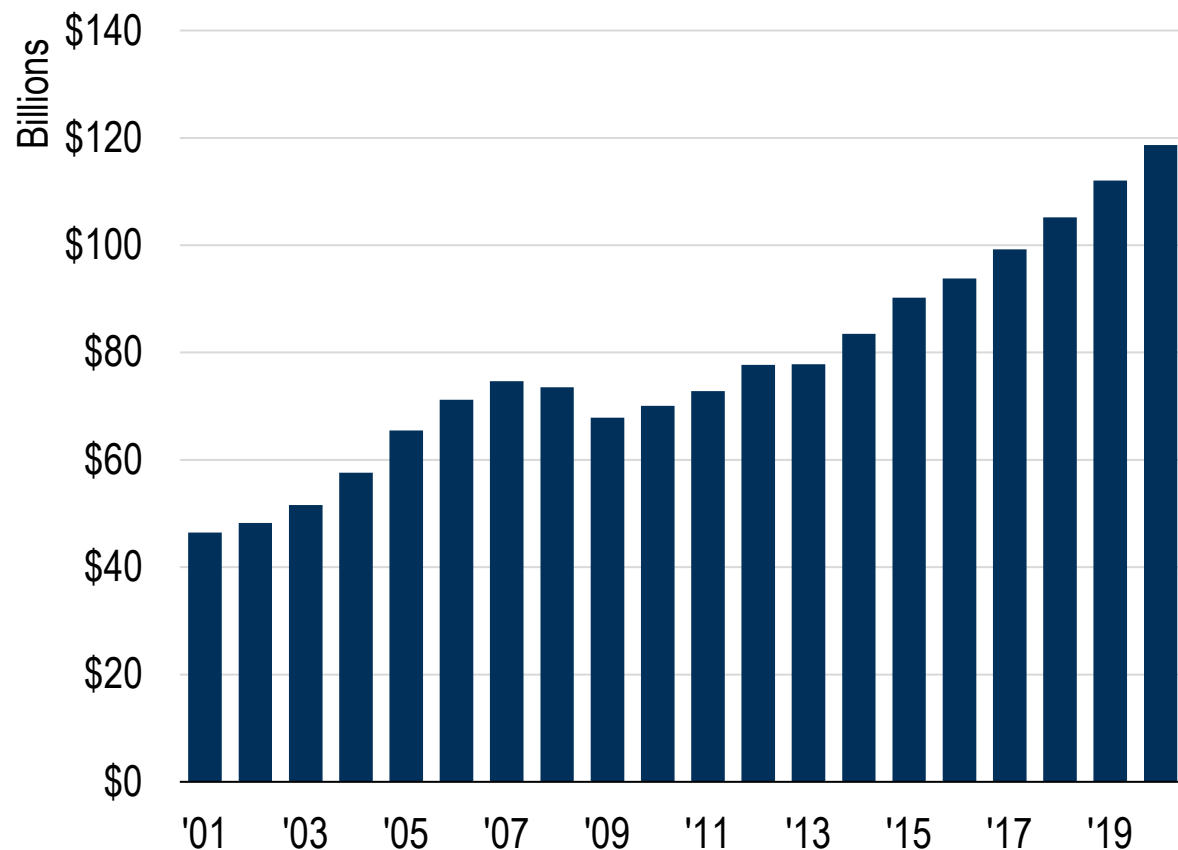


Source: U.S. Bureau of Labor Statistics

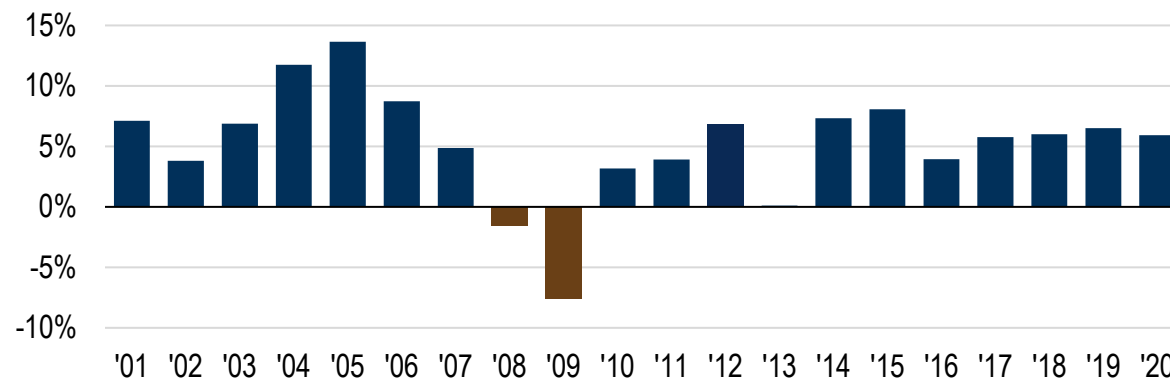
Southern Nevada Income

Aggregate Personal Income and Average Weekly Wages

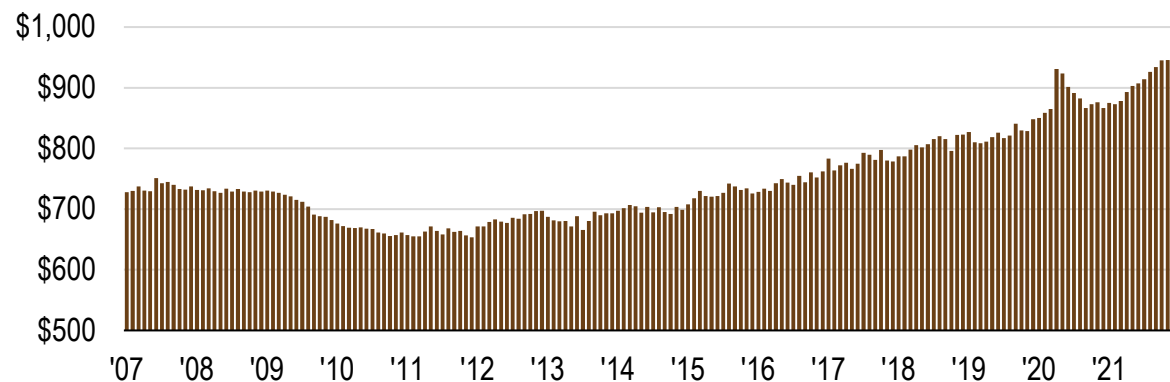
Aggregate Personal Income



Annual Aggregate Personal Income Growth



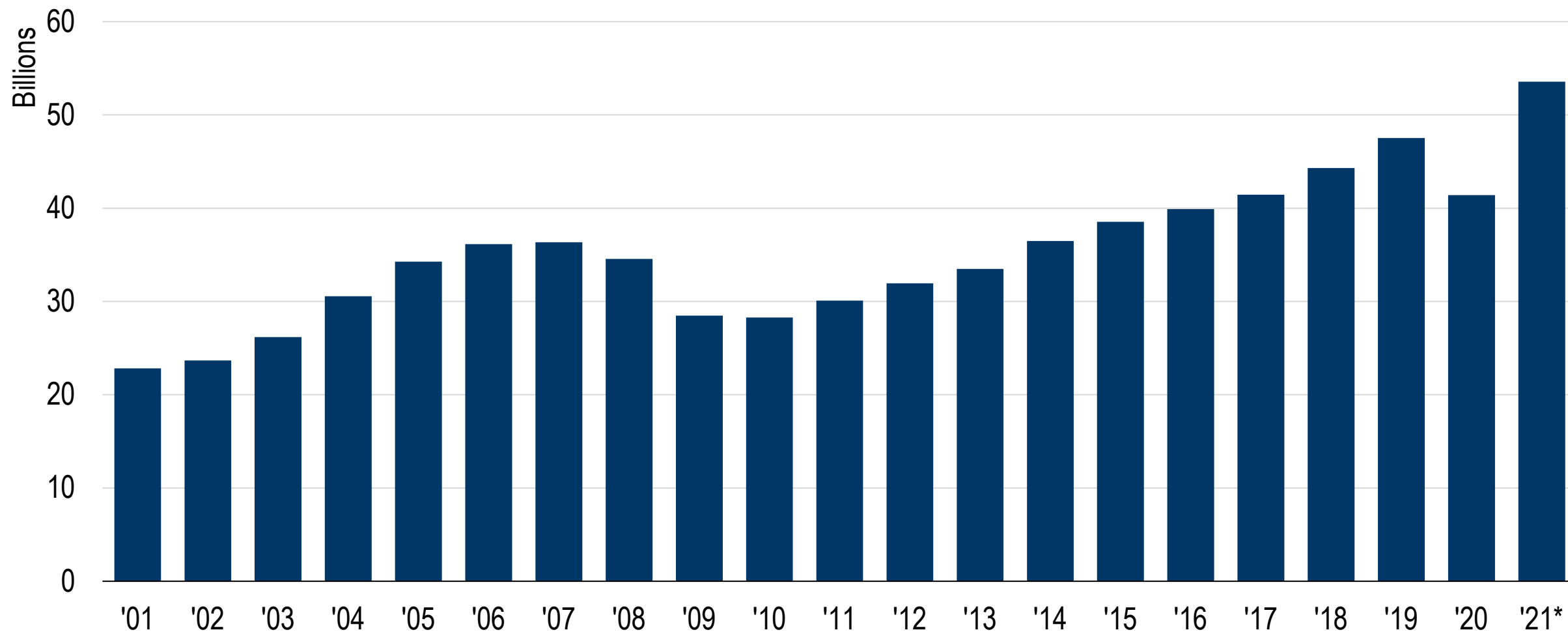
Average Weekly Wages - Private



Source: Bureau of Economic Analysis and Bureau of Labor Statistics

Consumer Spending

Taxable Retail Sales in Clark County

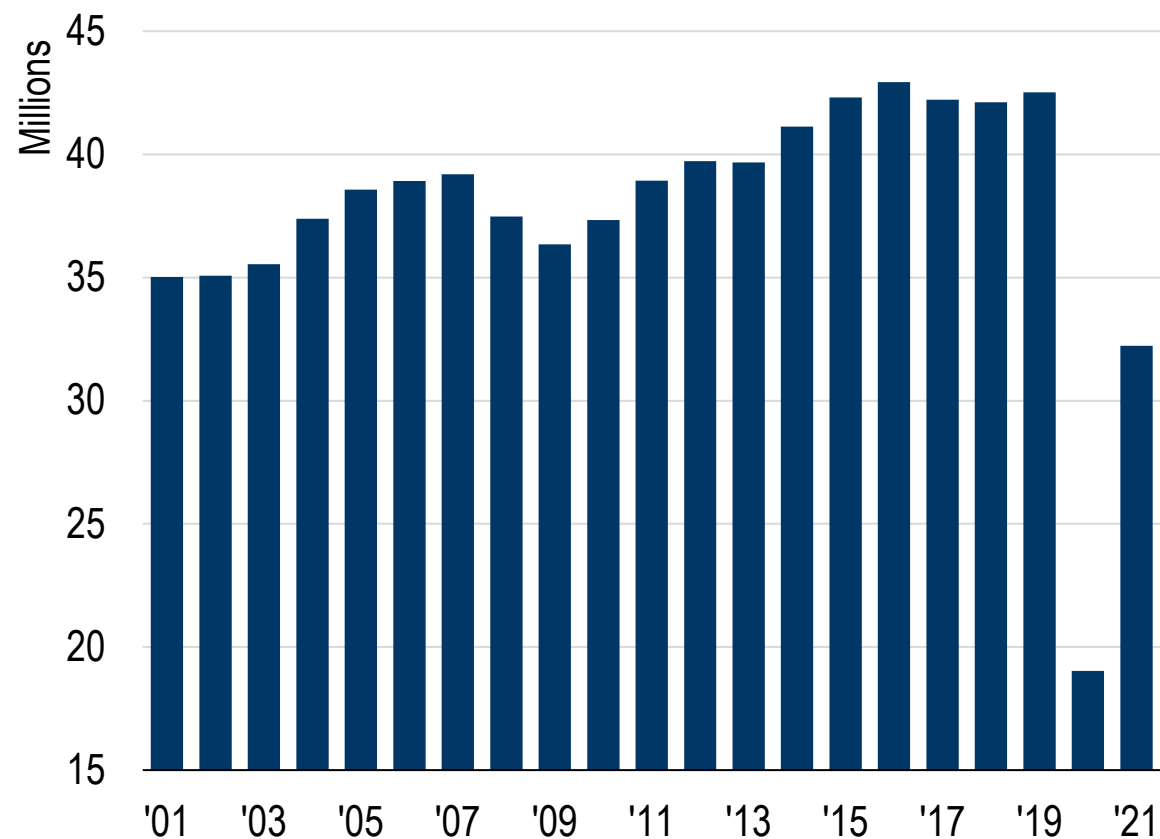


Source: Nevada Department of Taxation and Nevada Gaming Control Board. *Denotes trailing 12-month value.

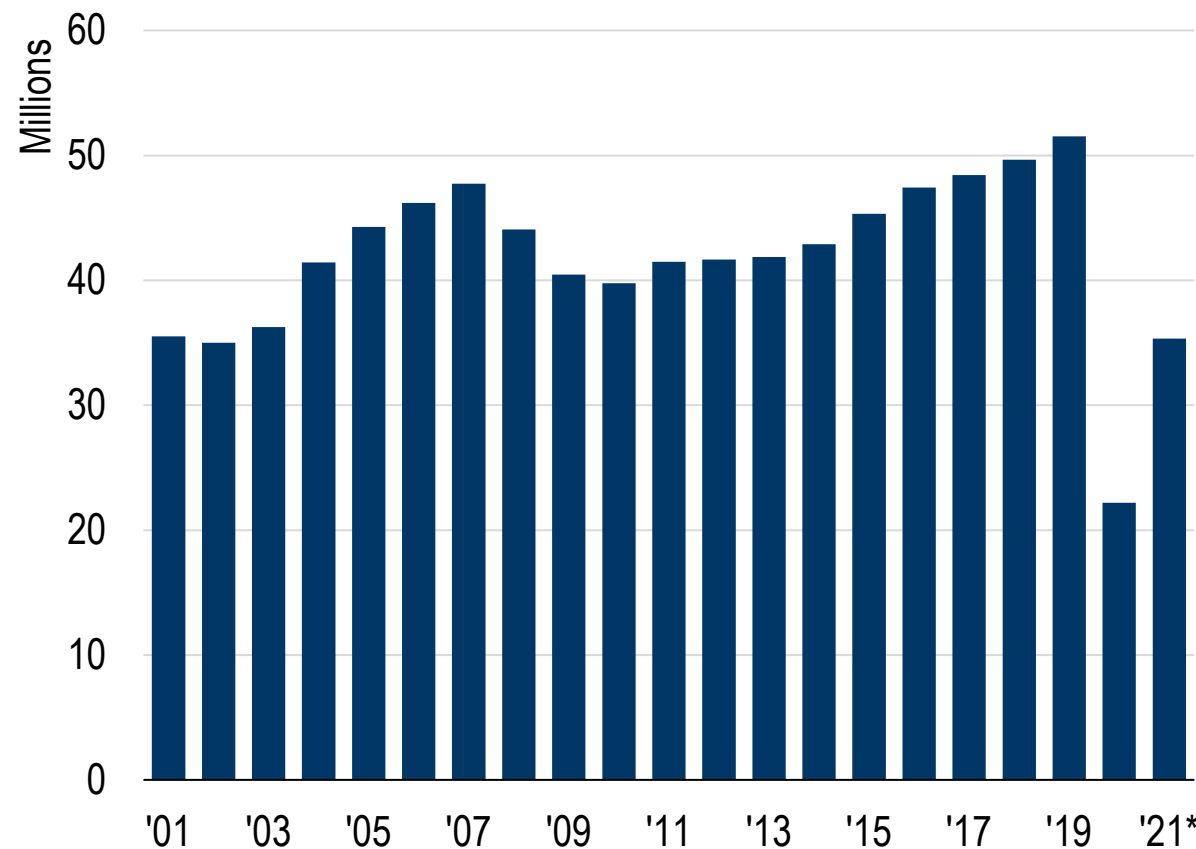
Southern Nevada Tourism

Visitor Volume and Airport Passengers

Visitor Volume



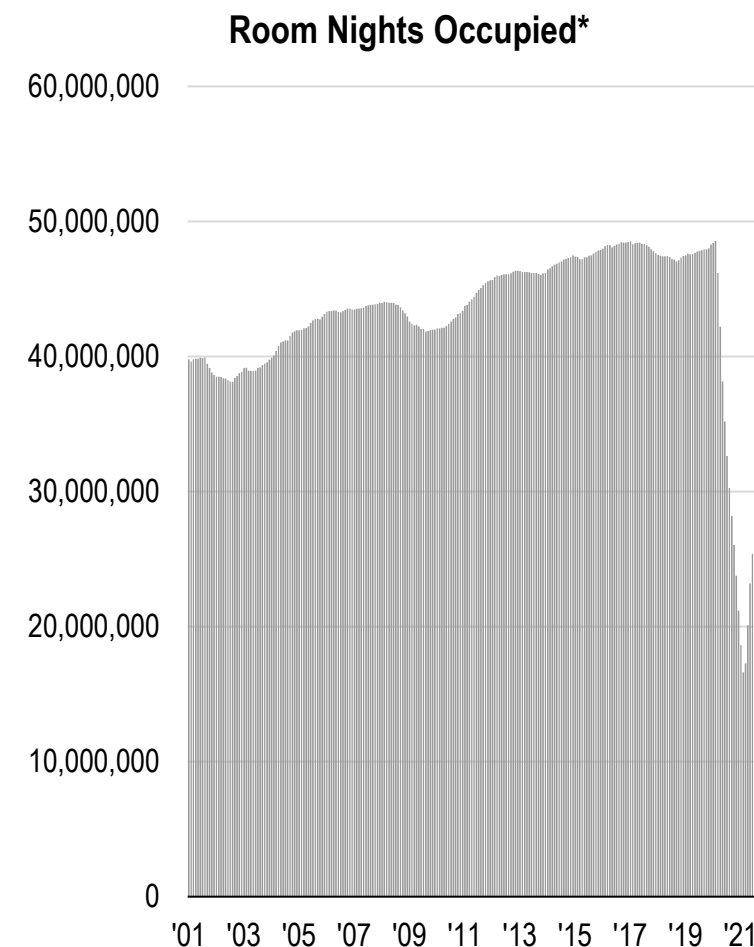
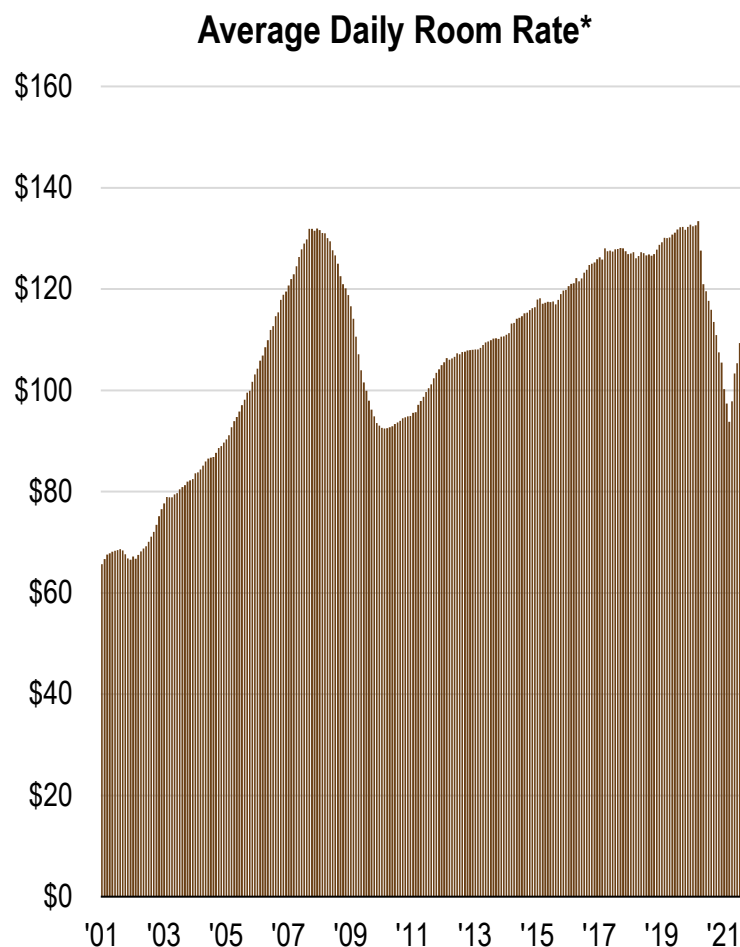
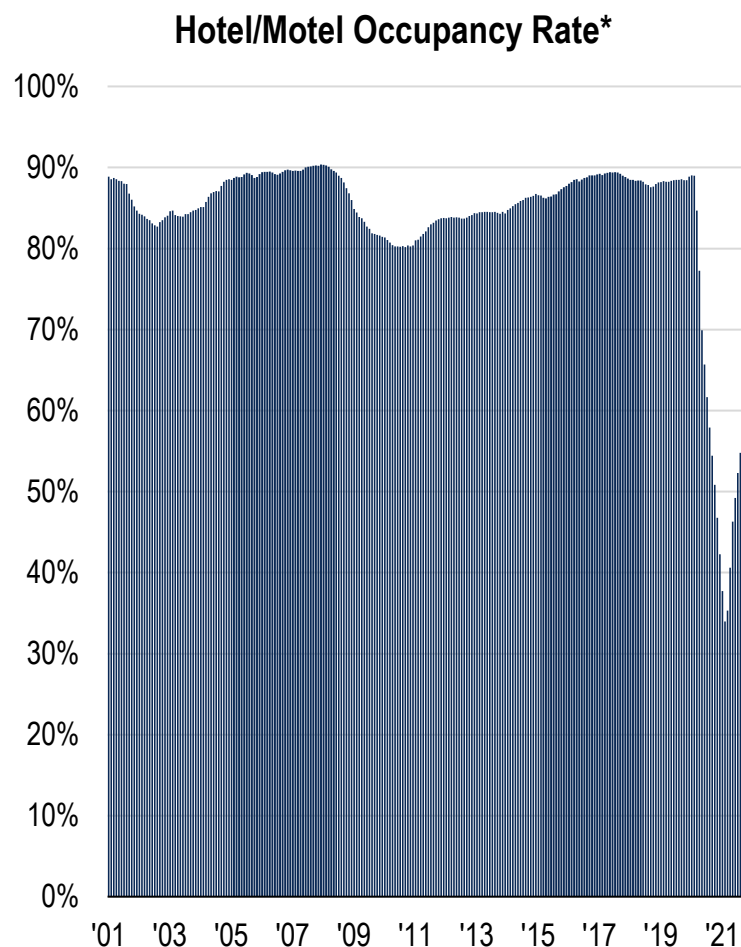
Harry Reid International Airport Passengers



Source: LVCVA, McCarran International Airport. *Denotes trailing 12-month value.

Southern Nevada Tourism

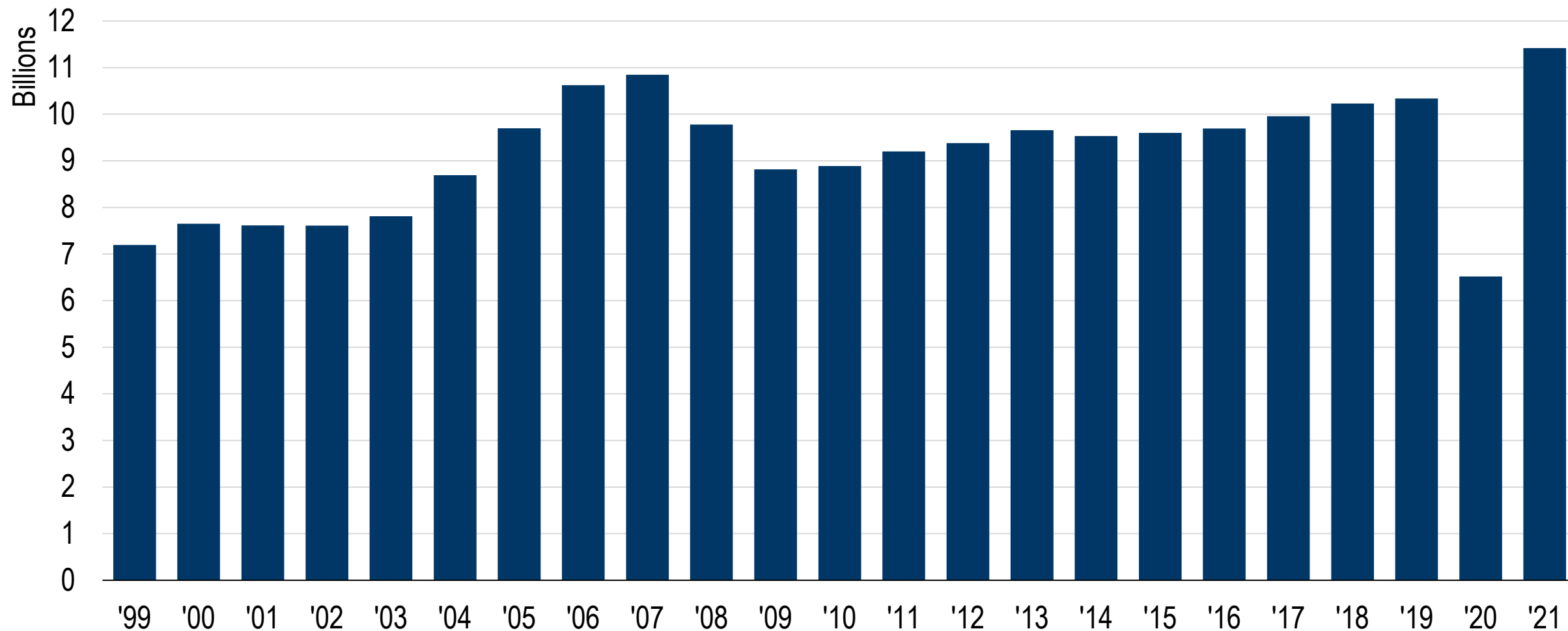
Key Metrics in the Hotel Industry



Source: LVCVA; *Reported as a trailing 12-month value

Southern Nevada Tourism

Gross Casino Gaming Revenue in Clark County



Source: Nevada Department of Taxation and Nevada Gaming Control Board



Foundational Economic Considerations



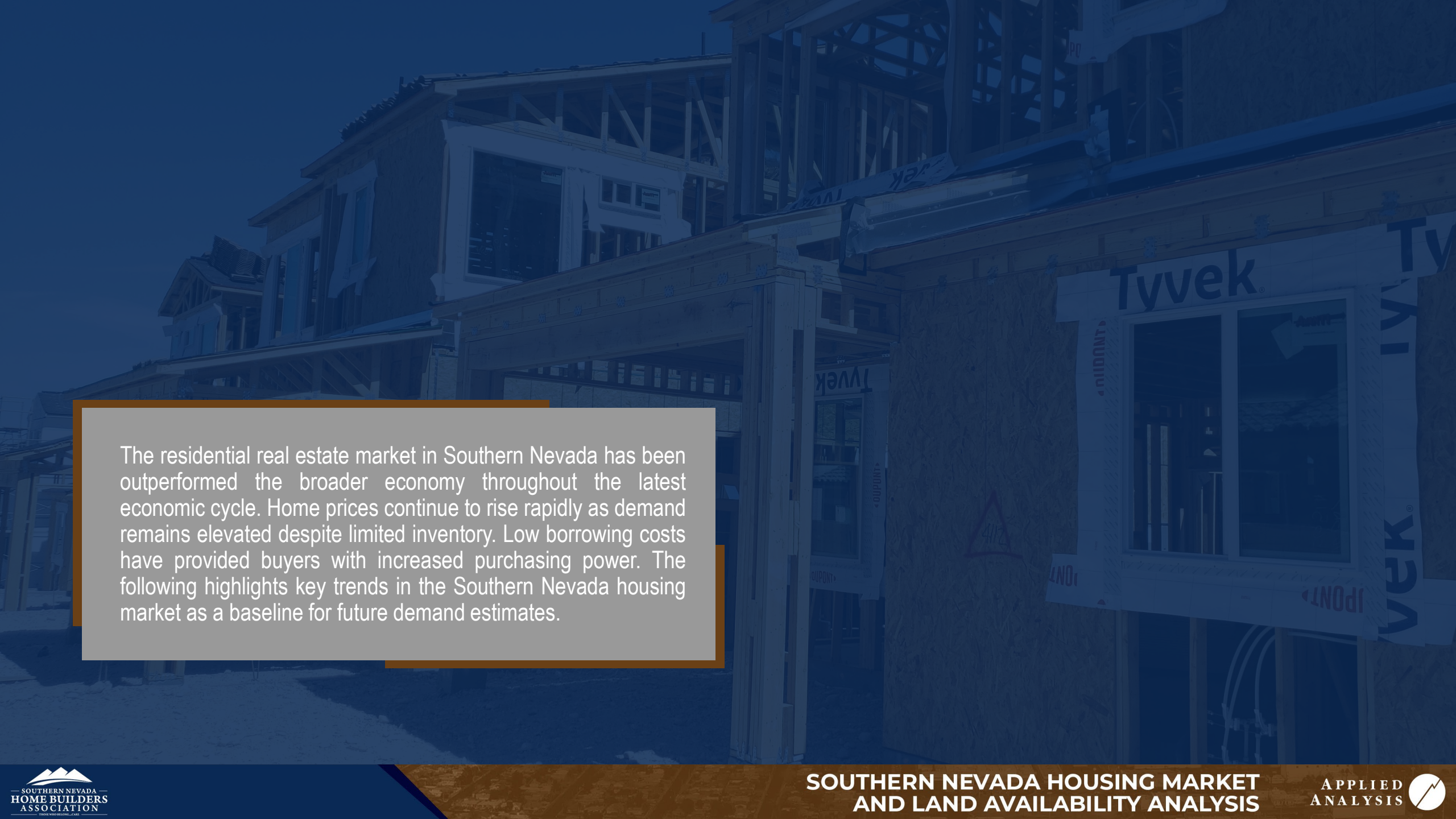
Trends in the Residential Housing Market



Clark County Land Use and Availability Analysis



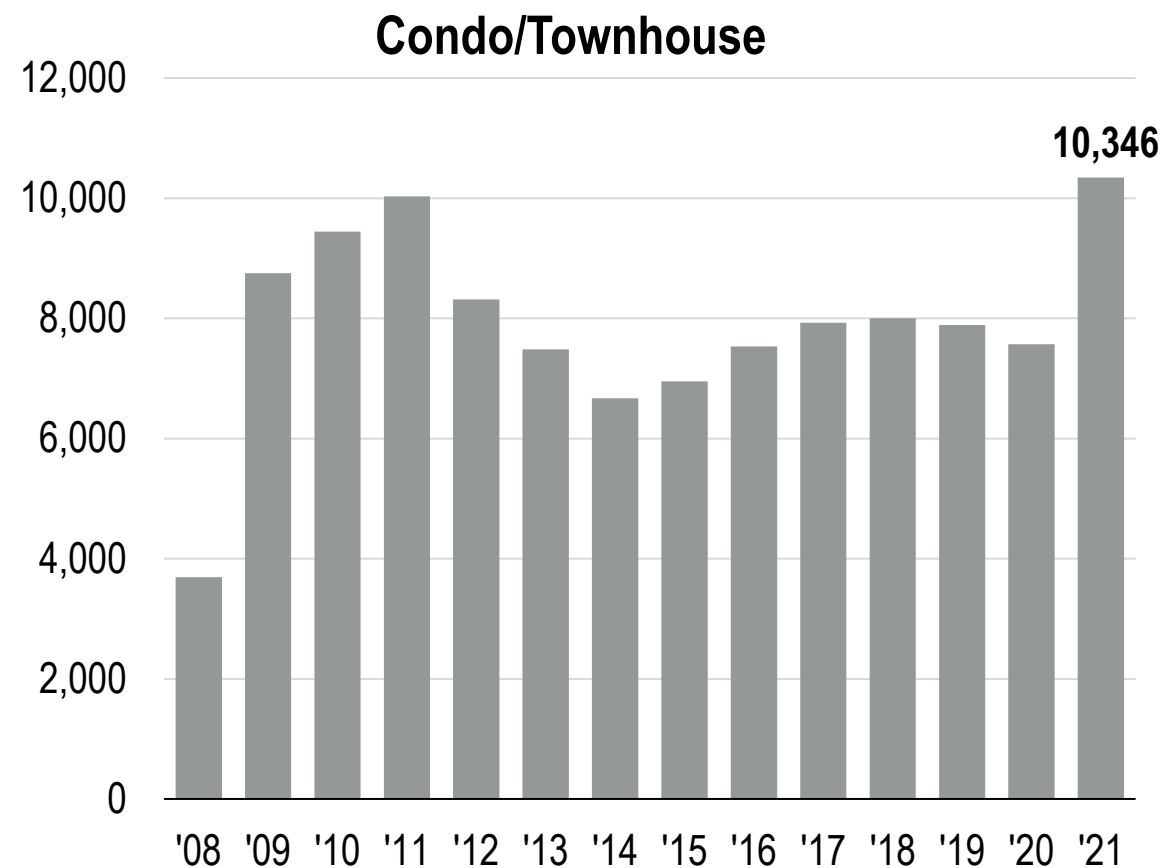
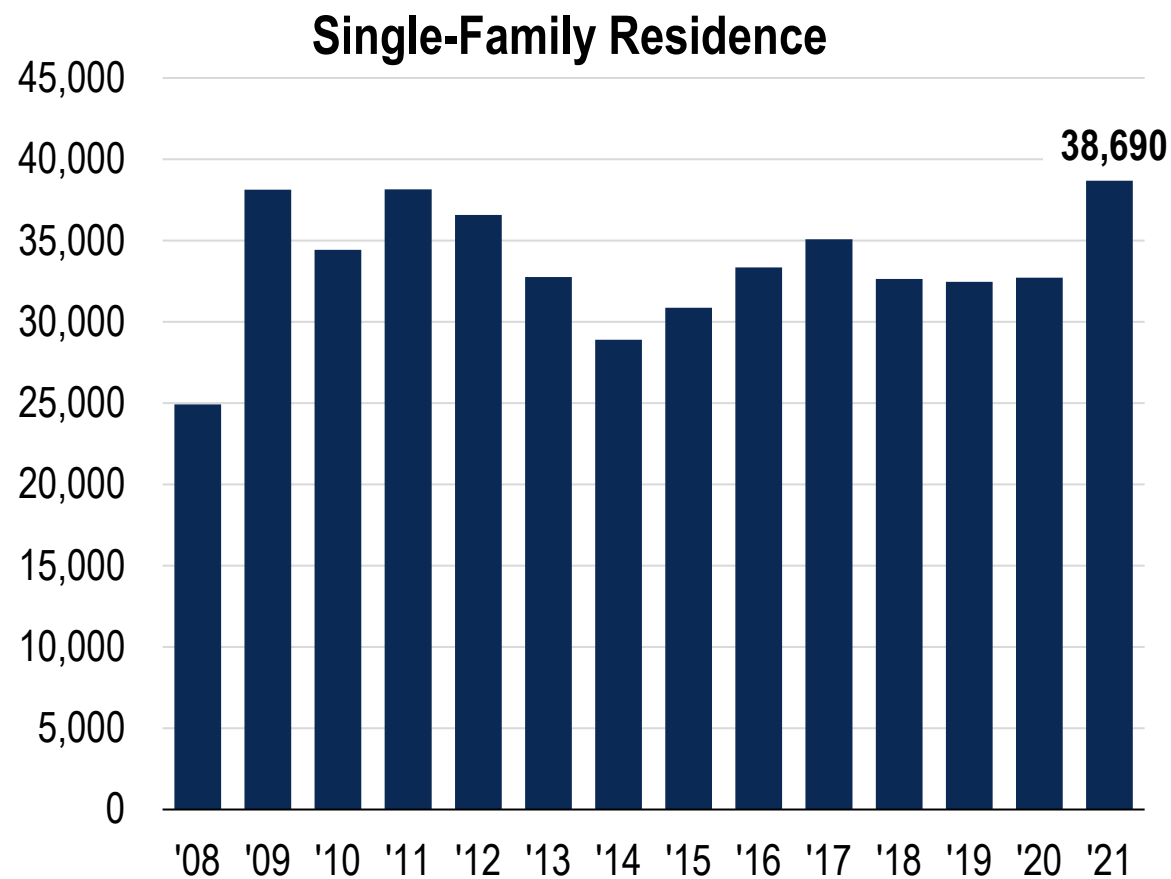
Land Supply Dynamics in RNP Zoning District



The residential real estate market in Southern Nevada has been outperformed the broader economy throughout the latest economic cycle. Home prices continue to rise rapidly as demand remains elevated despite limited inventory. Low borrowing costs have provided buyers with increased purchasing power. The following highlights key trends in the Southern Nevada housing market as a baseline for future demand estimates.

Resale Home Sales

Southern Nevada

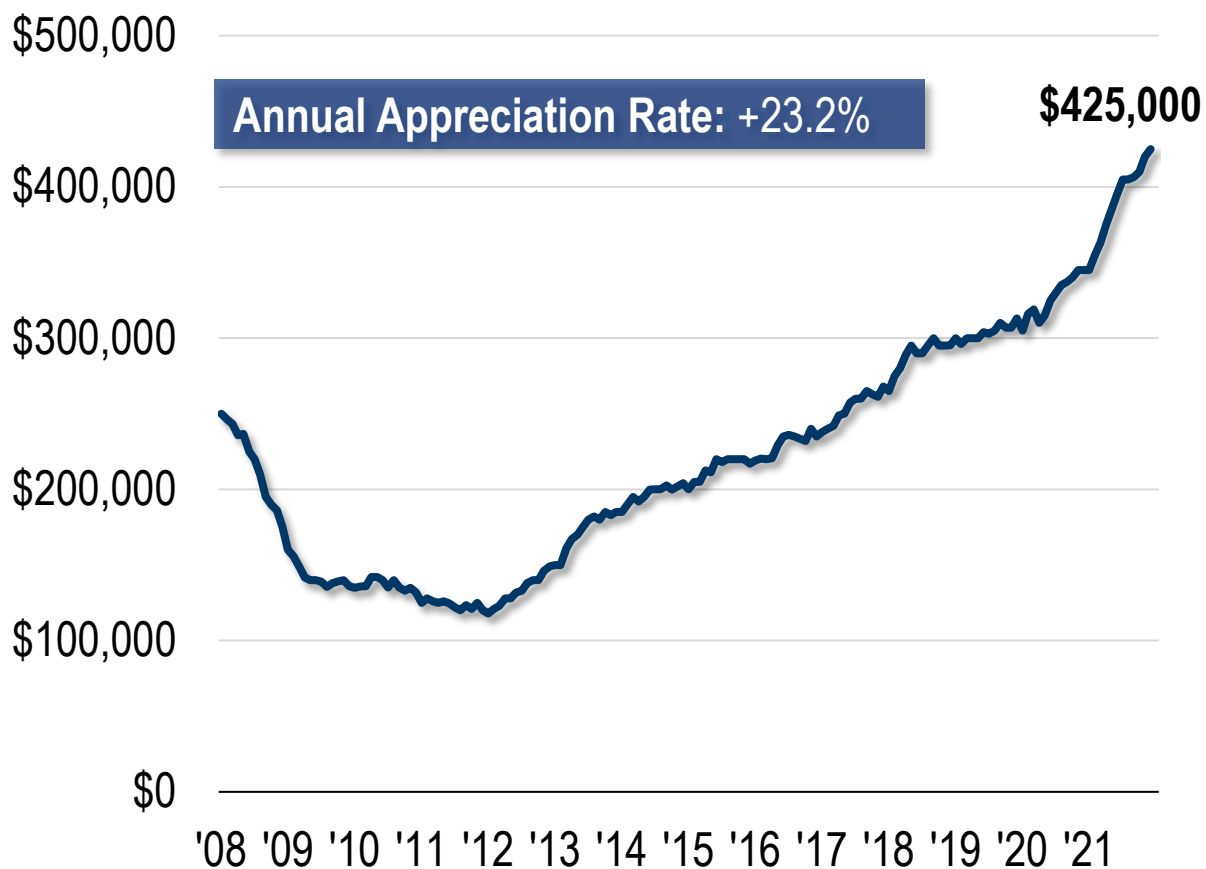


Source: Las Vegas Realtors

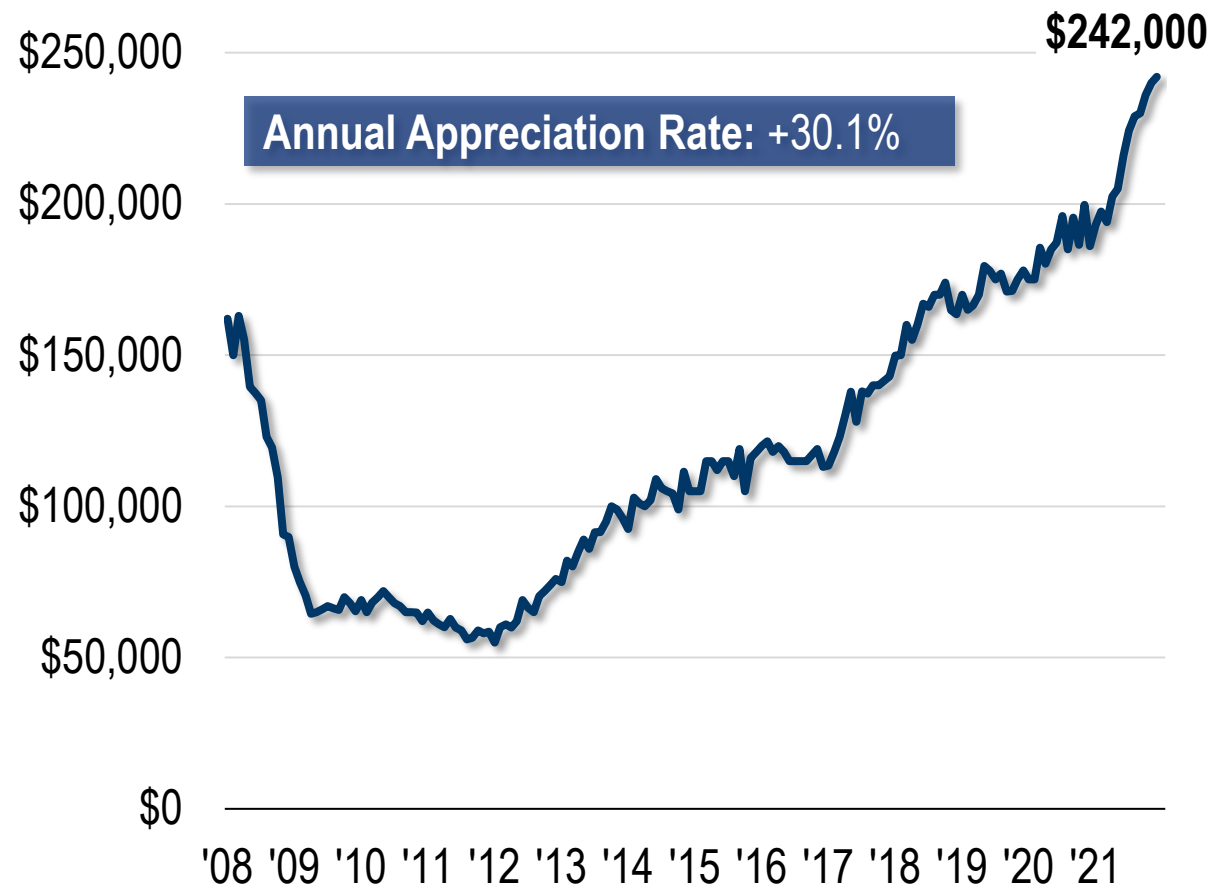
Median Resale Home Prices

Southern Nevada

Single-Family Residence



Condo/Townhouse

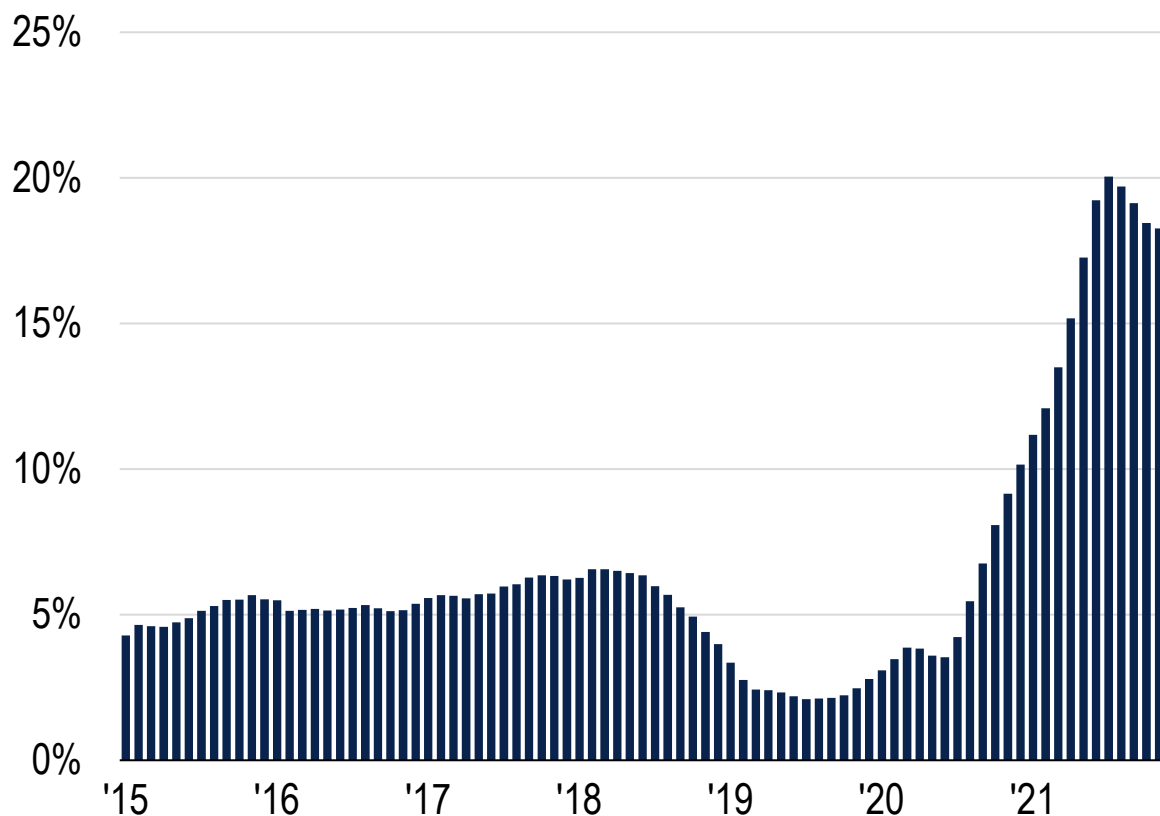


Source: Las Vegas Realtors

House Price Index Growth

National and Las Vegas Home Price Trends

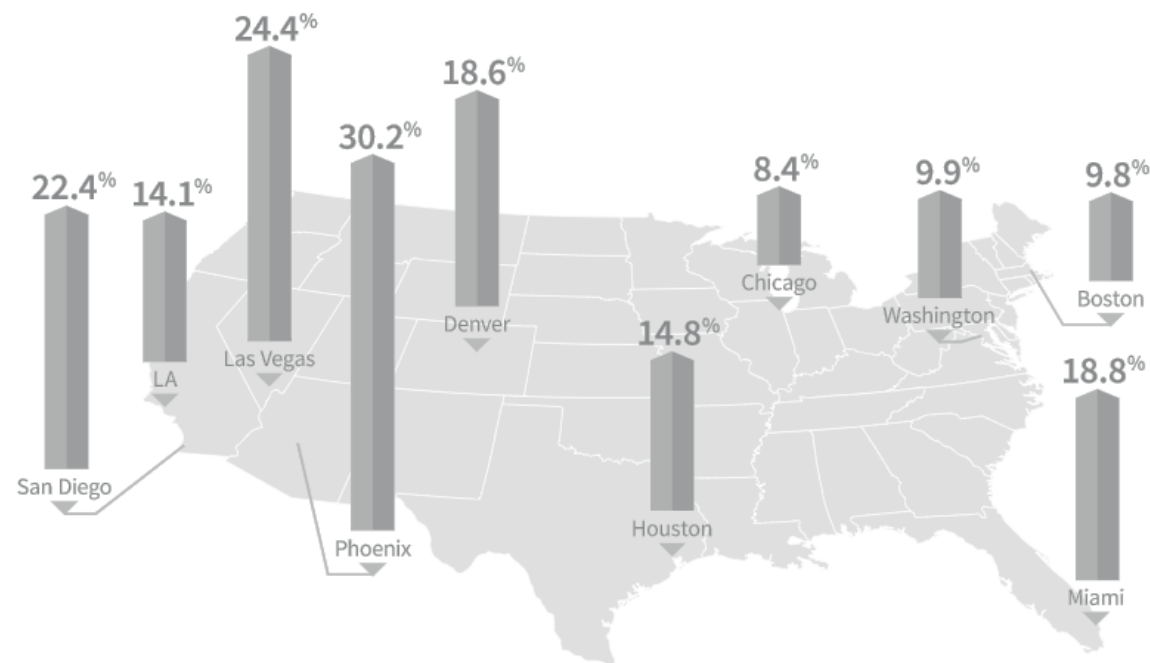
S&P/Case Shiller Index (Composite 20) (Year-Over-Year Growth)



Source: S&P Dow Jones Indices LLC; Map image source: CoreLogic

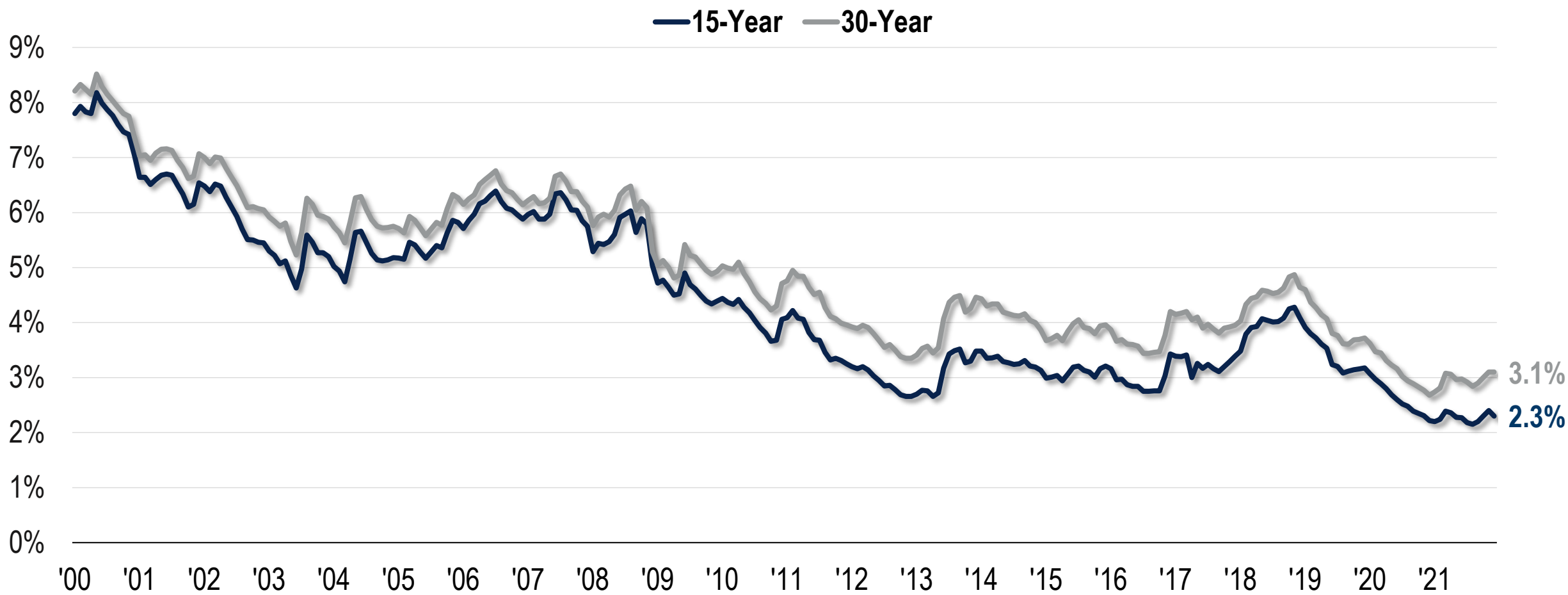
Home Price Growth

Home prices in Las Vegas have increased at one of the fastest rates nationwide. According to CoreLogic, home prices have increased by over 24 percent compared to the prior year (as of December 2021). The annual growth places the Las Vegas home market behind only Phoenix, Arizona as the top large city in terms of price growth.



U.S. Mortgage Interest Rates

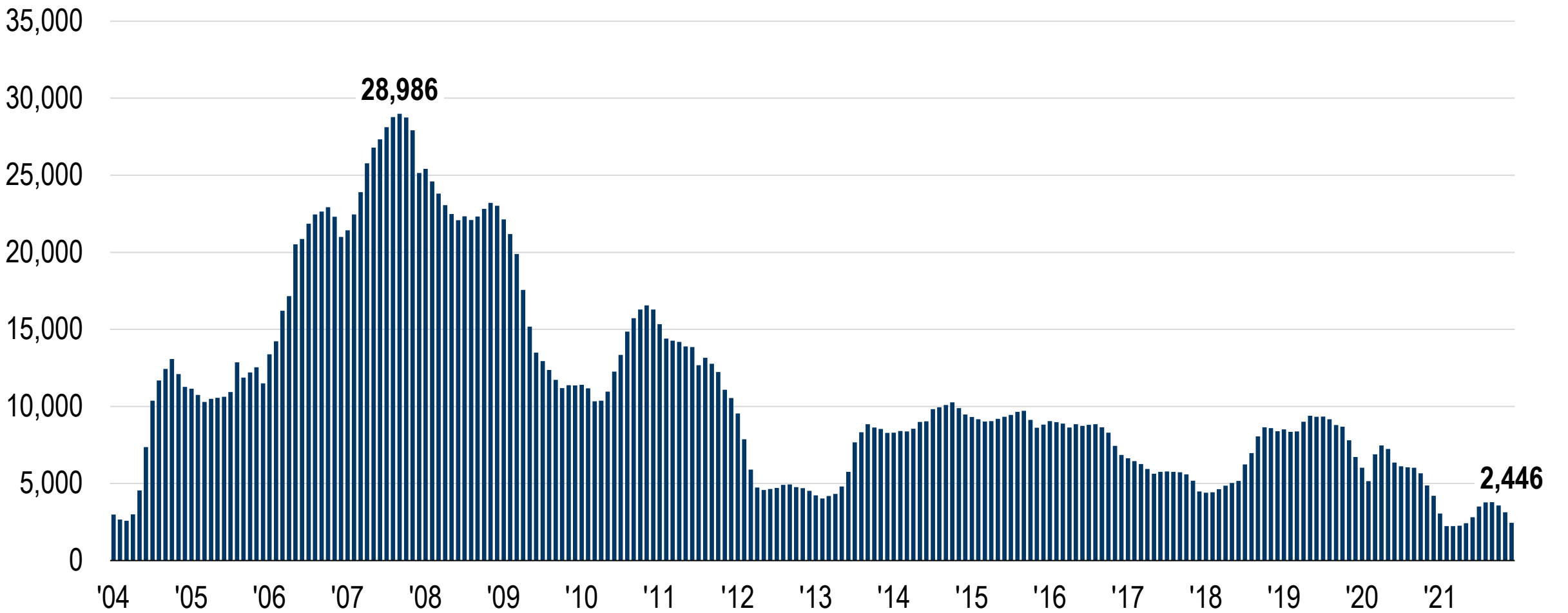
Fixed-Rate



Source: Freddie Mac

MLS Listings

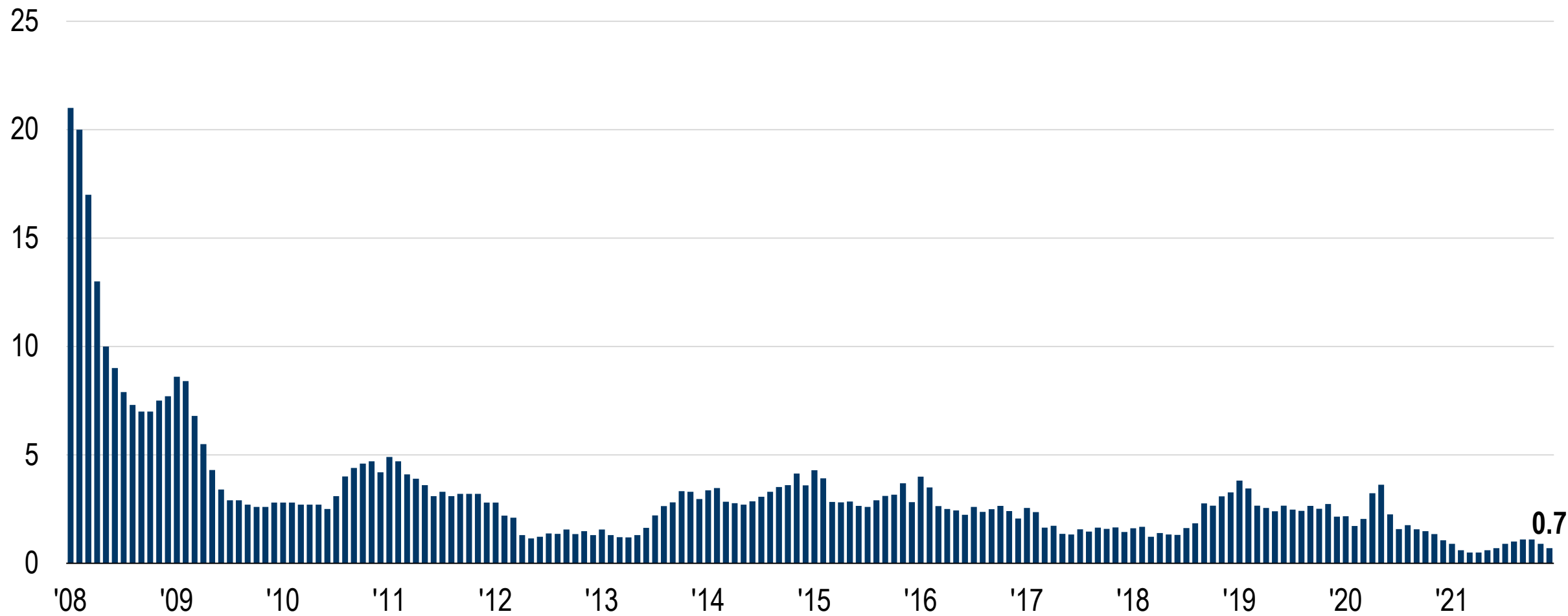
Las Vegas Area



Source: SalesTraq; Las Vegas Realtors

MLS Effective Inventory

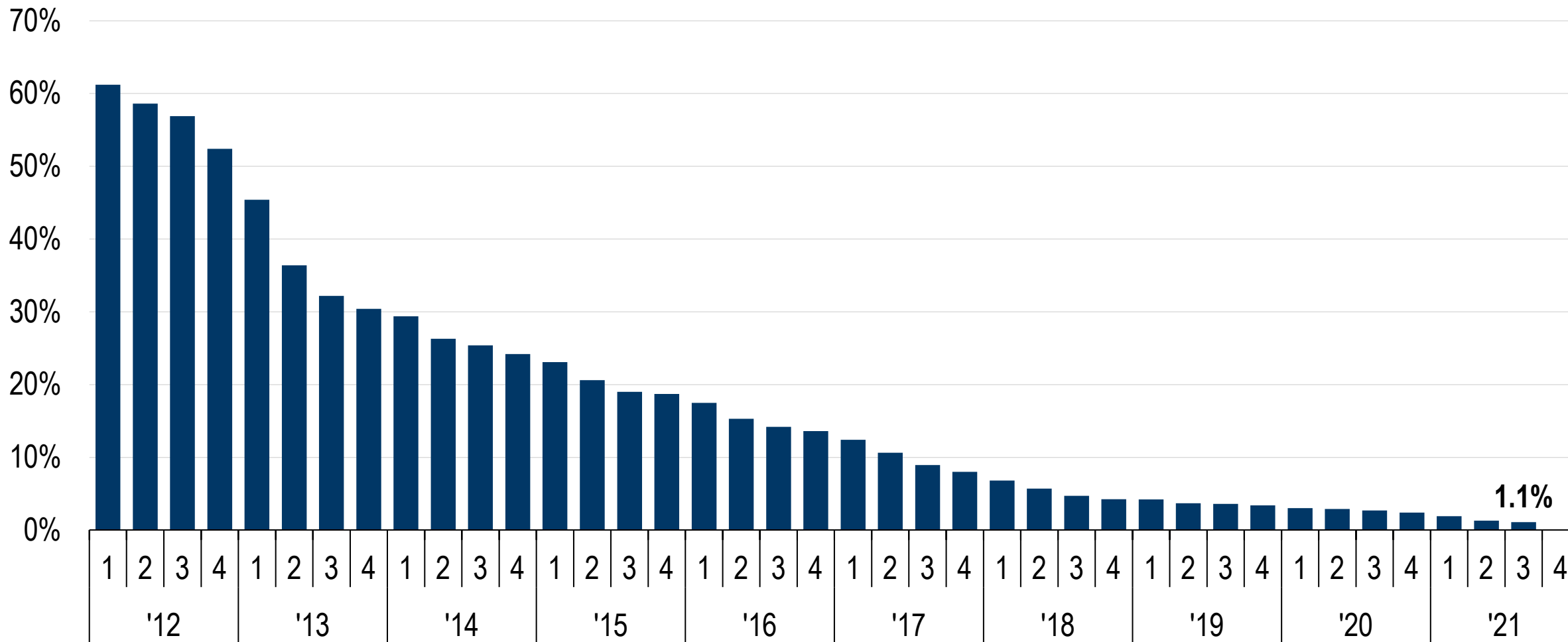
Las Vegas Area | In Months



Source: SalesTraq

Share of Homes with Negative Equity

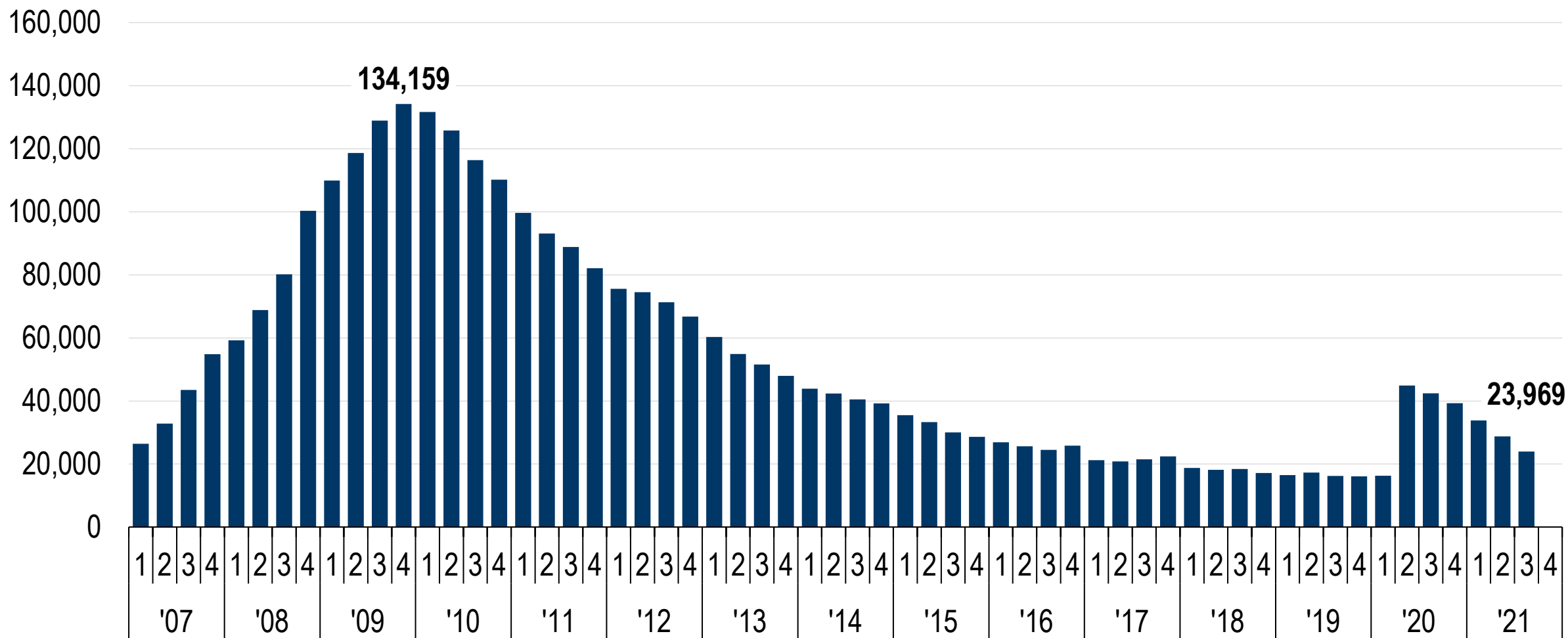
Nevada



Source: CoreLogic (Latest Available)

Mortgage Defaults in Nevada

Past Due or in Foreclosure

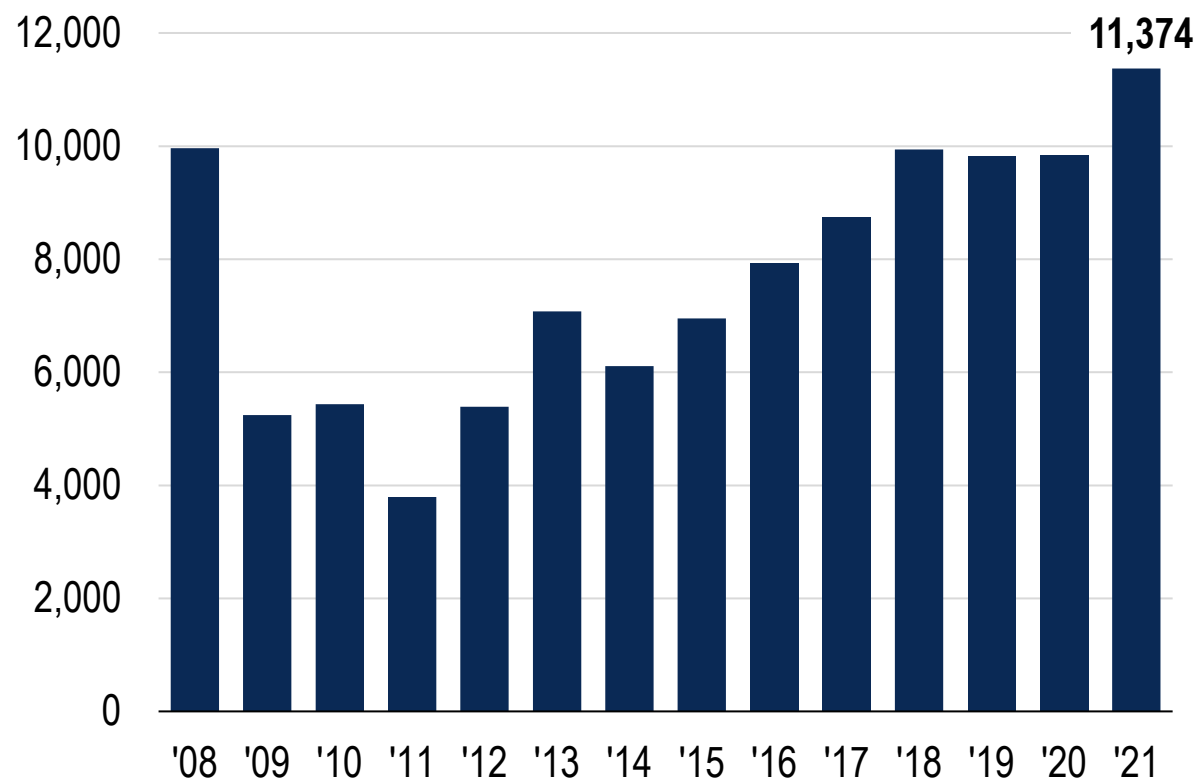


Source: Mortgage Bankers Association

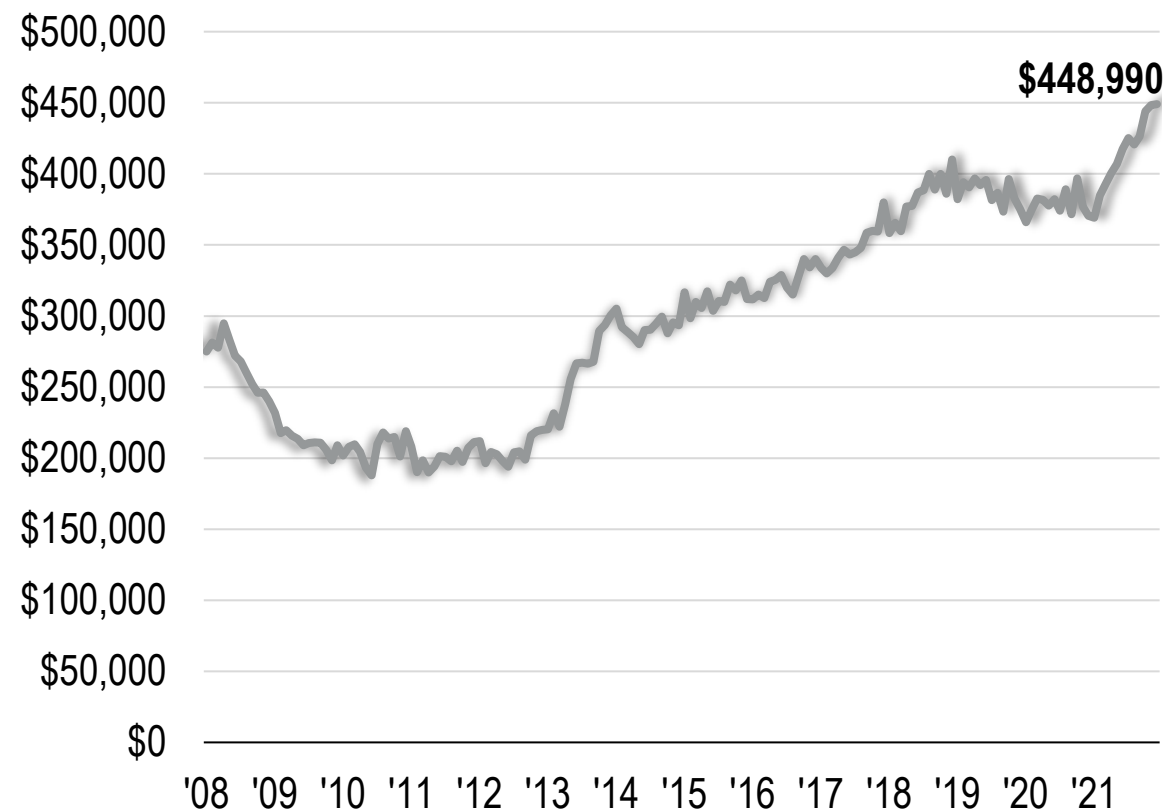
New Home Market

Las Vegas Area

Closings



Median Closing Price

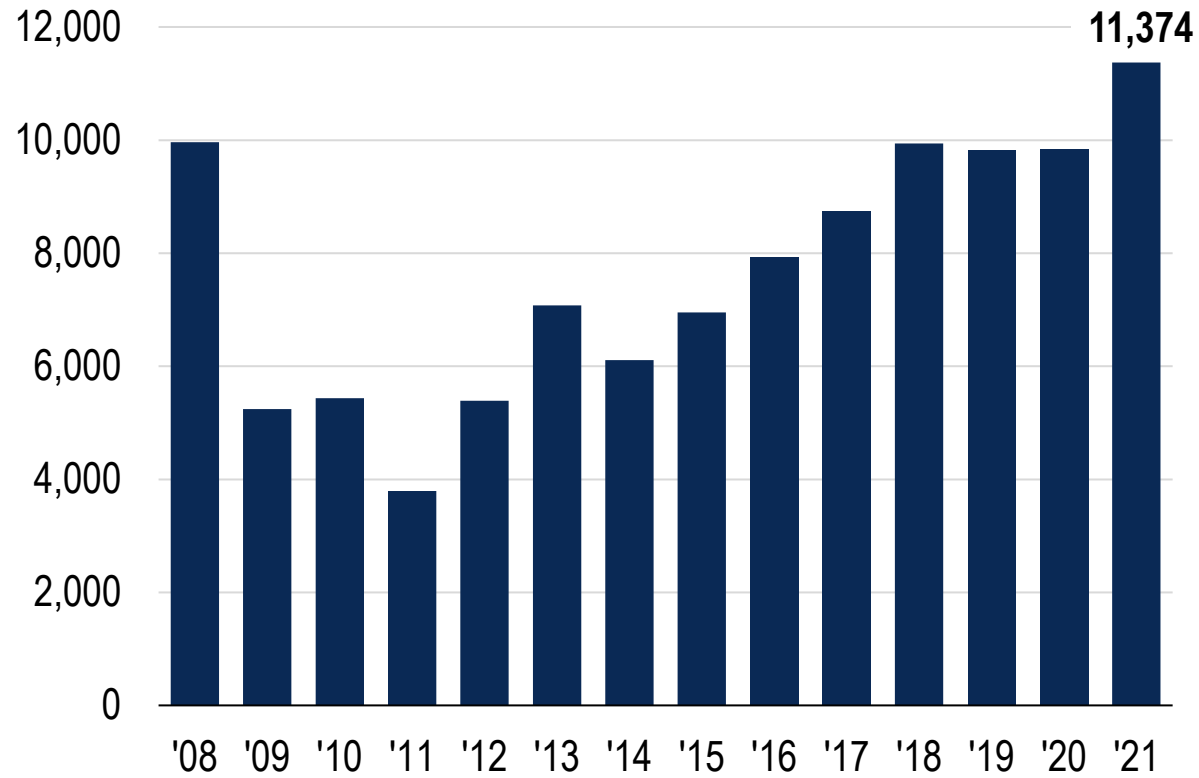


Source: SalesTraq

New Home Market

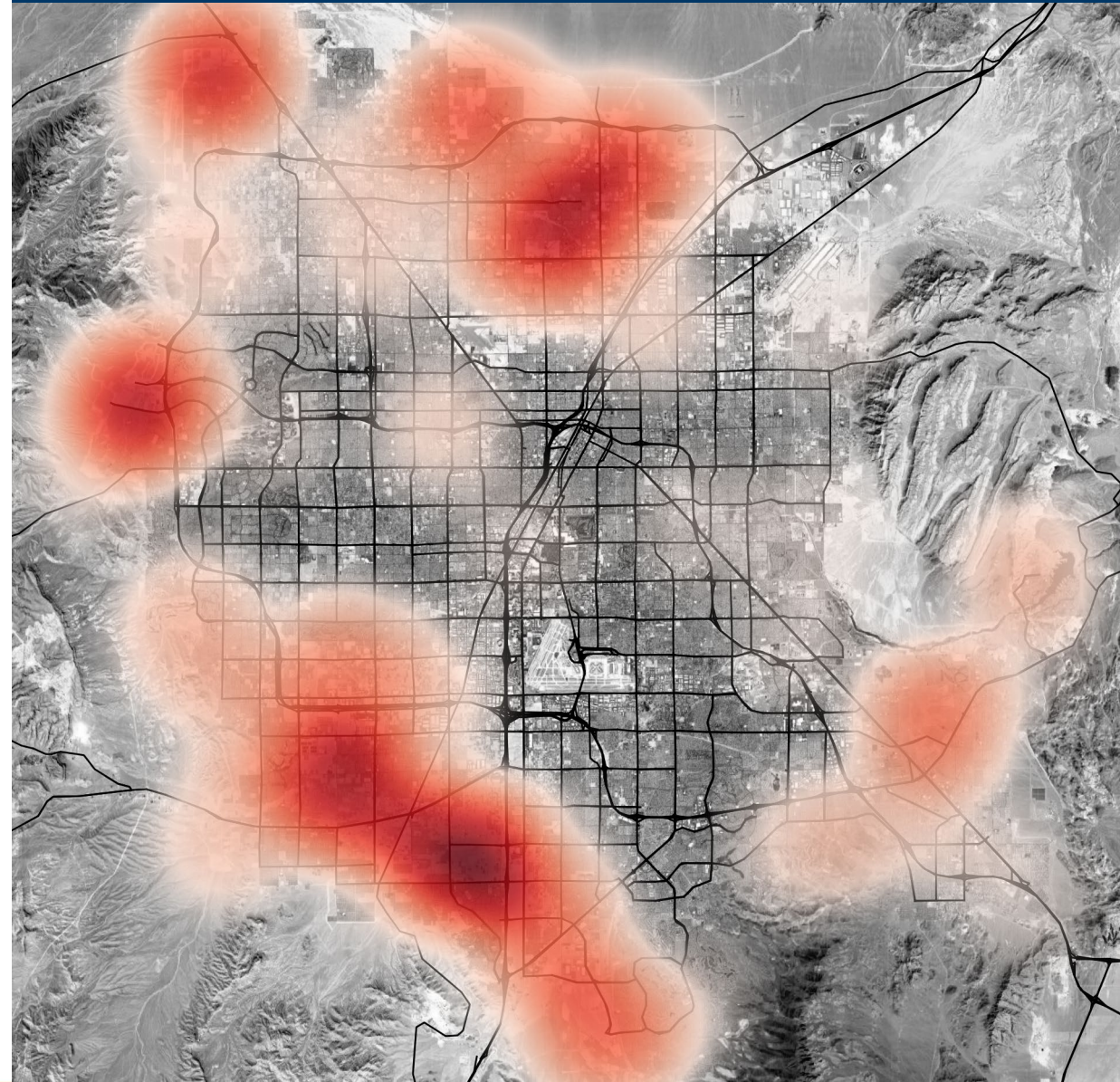
Las Vegas Area

Closings



Source: SalesTraq

Actively Selling Subdivisions



**SOUTHERN NEVADA HOUSING MARKET
AND LAND AVAILABILITY ANALYSIS**

APPLIED
ANALYSIS

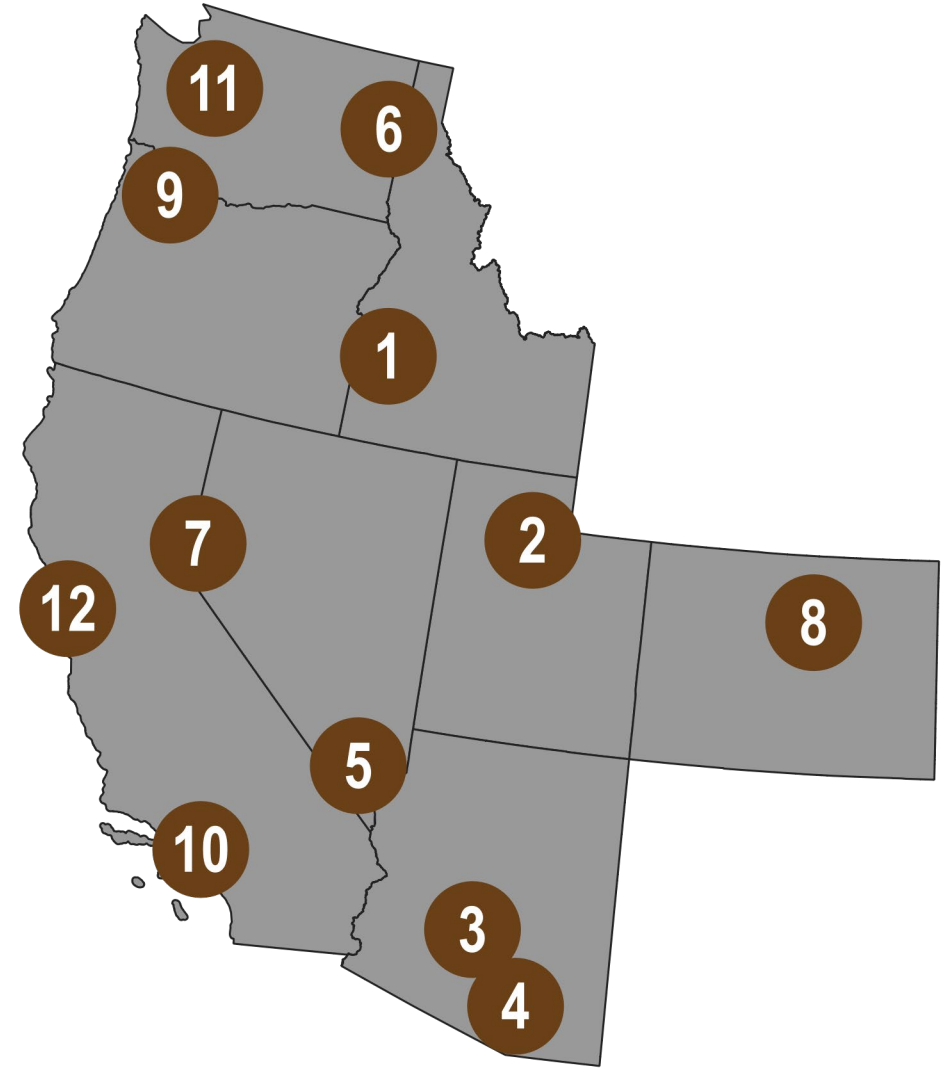


Cost of Living Index (COLI)

Selected Western Urban Areas

Metro		COLI	Metro		COLI
1	Boise	102.1	7	Reno	108.2
2	Salt Lake City	102.1	8	Denver	113.5
3	Phoenix	103.9	9	Portland	130.1
4	Tucson	103.9	10	Los Angeles	149.3
5	Las Vegas	104.3	11	Seattle	152.7
6	Spokane	104.9	12	San Francisco	194.1

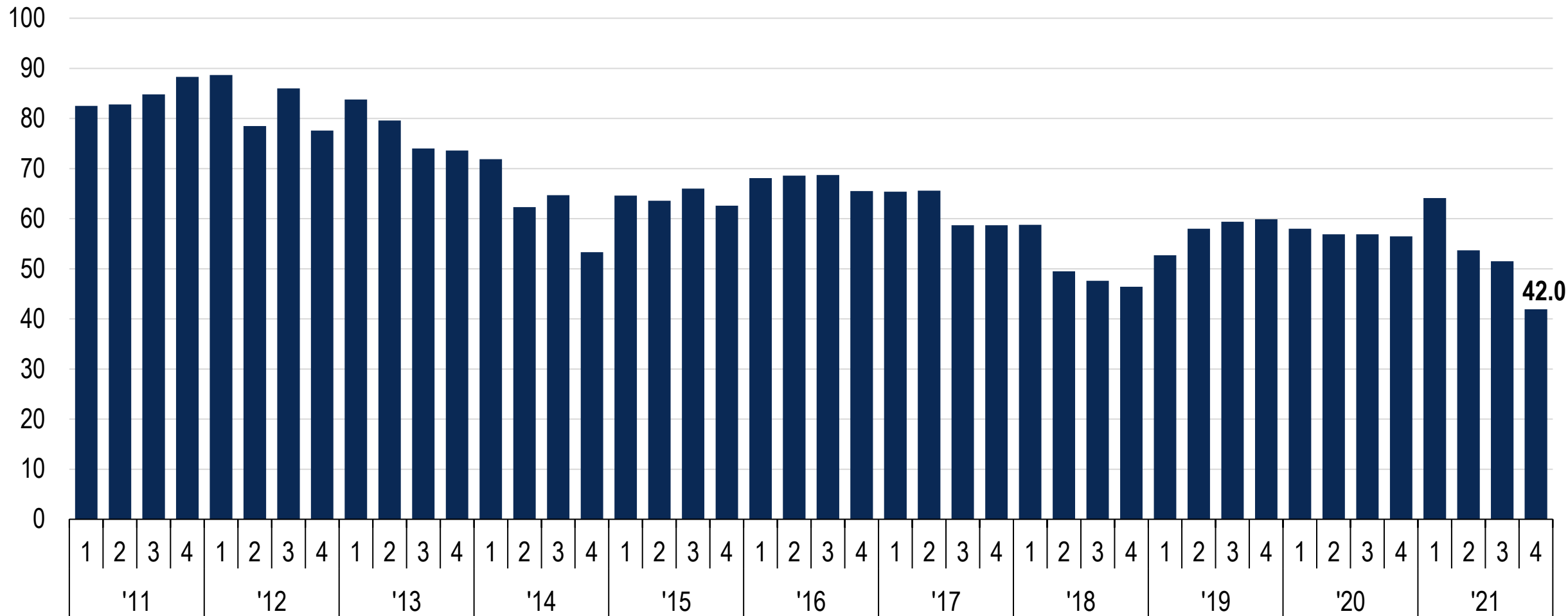
National Average for Urban Areas = 100



Source: C2ER

Housing Opportunity Index

Las Vegas MSA

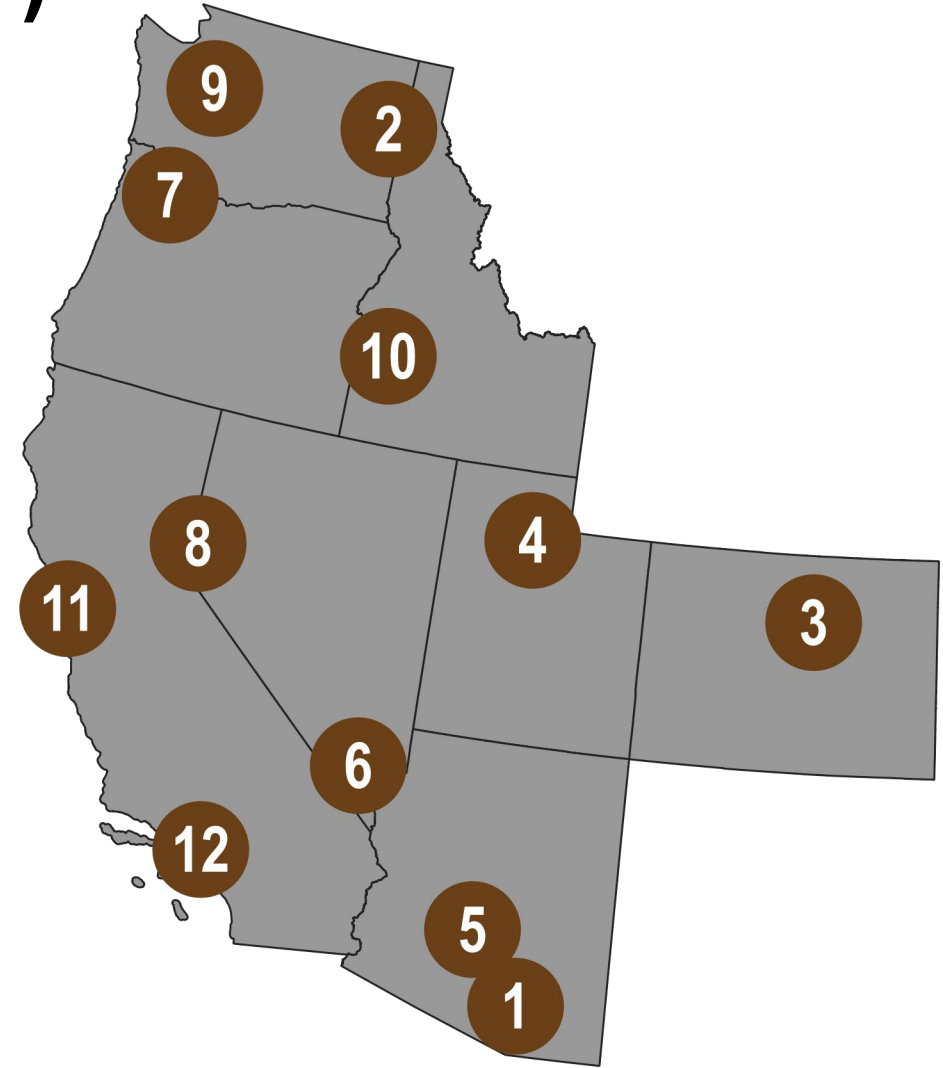


Source: National Association of Homebuilders

Housing Opportunity Index (HOI)

Selected Western Urban Areas

Metro		HOI	Metro		HOI
1	Tucson	58.0	7	Portland	41.6
2	Spokane	51.4	8	Reno	33.8
3	Denver	49.1	9	Seattle	30.9
4	Salt Lake City	48.3	10	Boise	21.7
5	Phoenix	44.5	11	San Francisco	13.0
6	Las Vegas	42.0	12	Los Angeles	7.5
National Average for United States = 54.2					



Source: National Association of Home Builders



Foundational Economic Considerations



Trends in the Residential Housing Market



Clark County Land Use and Availability Analysis

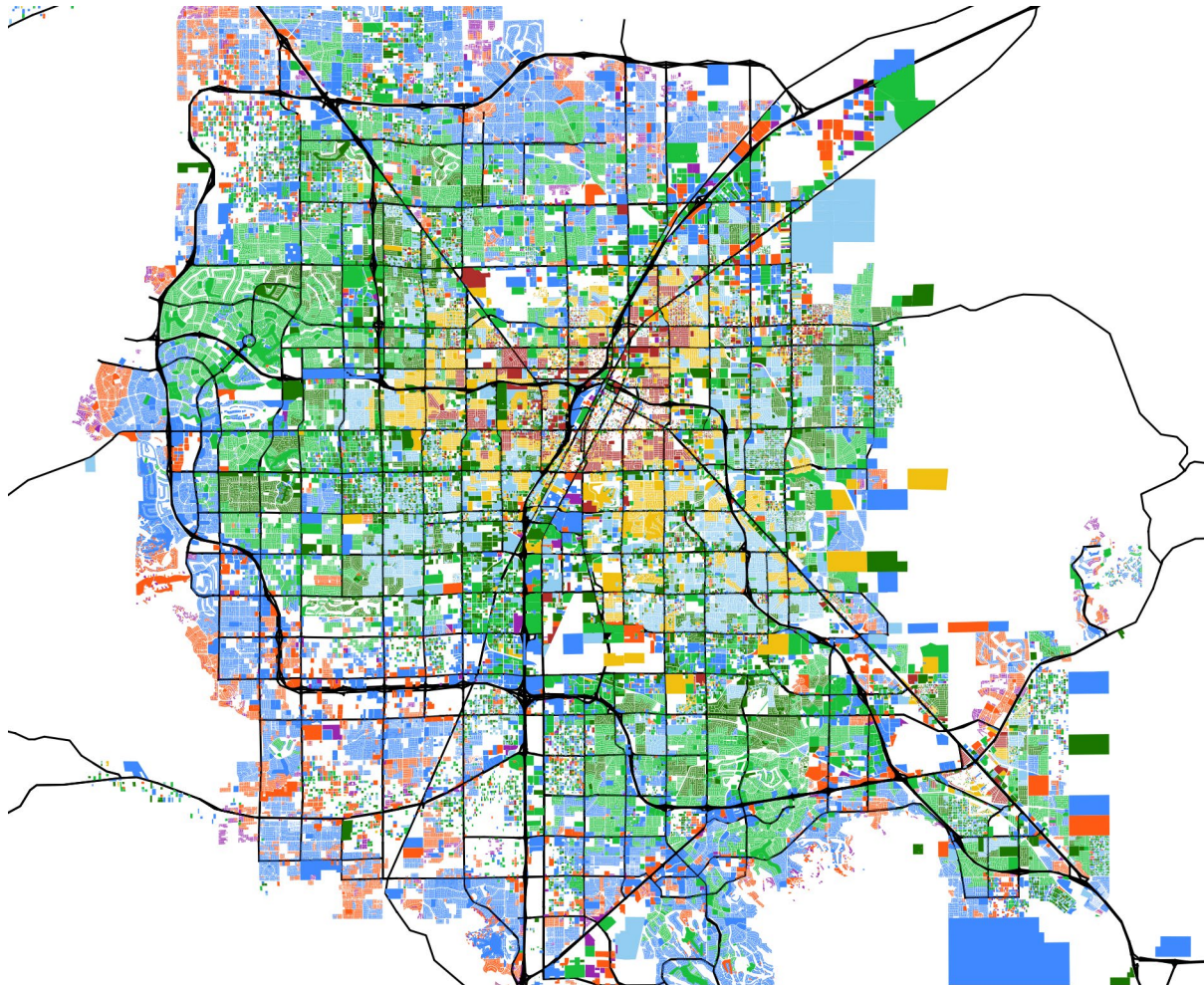


Land Supply Dynamics in RNP Zoning District

The following provides an overview of the historical land development trends in Clark County and an analysis of vacant land going forward. Specifically, the analysis focuses in historical and project trends in demand for land relative to available property and de facto restrictions such as the Multi Species Habitat Conversation Plan (“MSHCP”).

Development Activity in Las Vegas Valley

Historical Development by Decade



Source: Clark County Assessor's Office

2020s

2010s

2000s

1990s

1980s

1970s

1960s

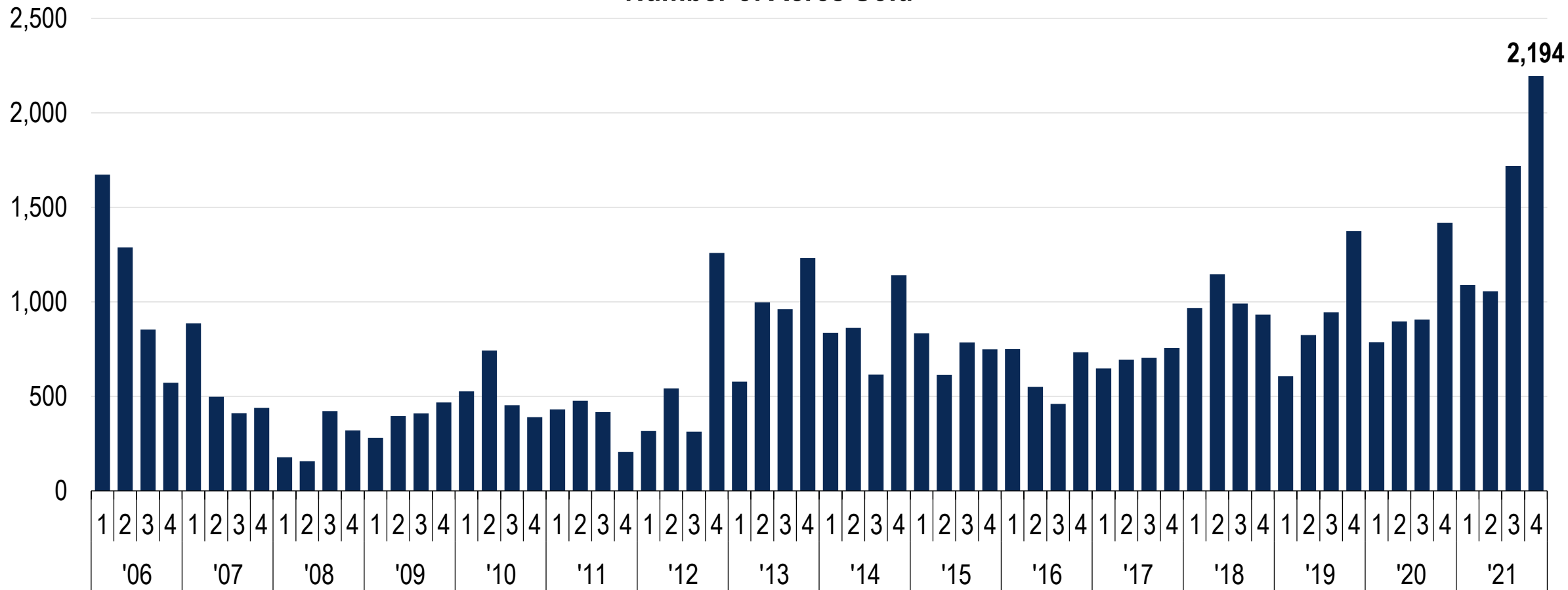
1950s

Development in the central portion of the Las Vegas valley has been largely built-out and new development activity continues to gravitate toward periphery of the valley where vacant lands remain.

Vacant Land Sales by Quarter

Las Vegas Valley | All Land Use Types

Number of Acres Sold



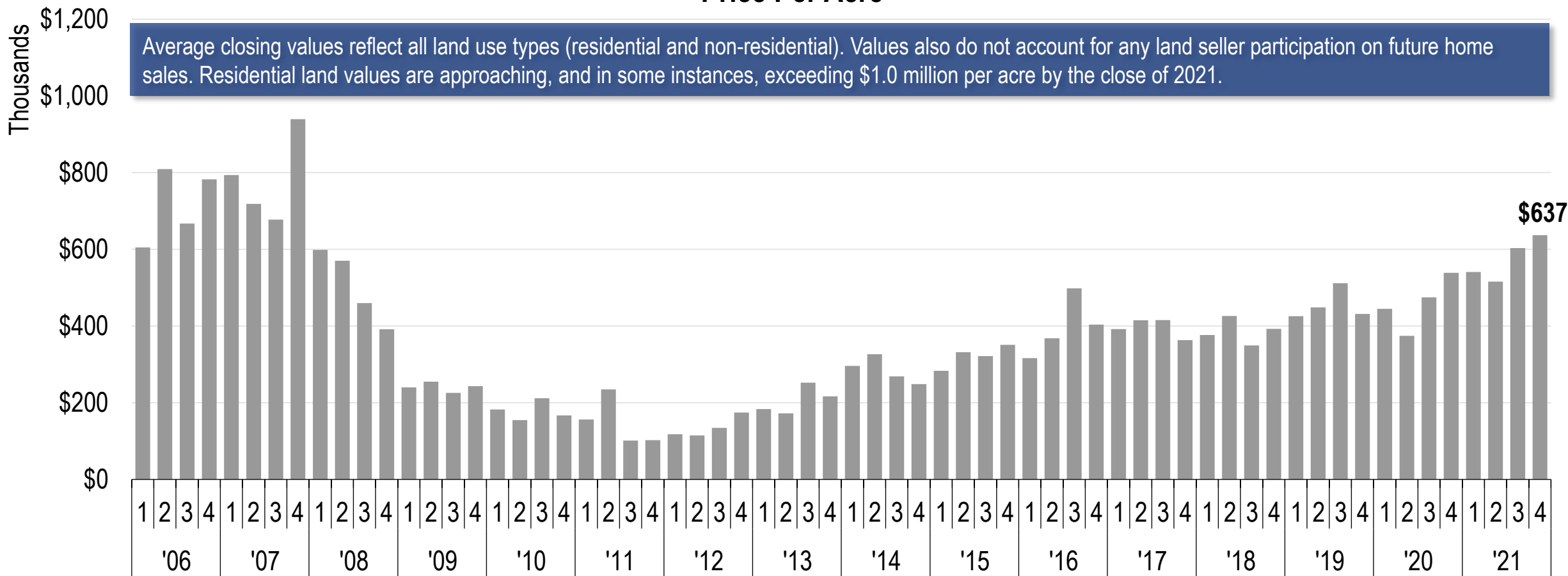
Source: Applied Analysis

Vacant Land Sales by Quarter

Las Vegas Valley | All Land Use Types

Price Per Acre

Average closing values reflect all land use types (residential and non-residential). Values also do not account for any land seller participation on future home sales. Residential land values are approaching, and in some instances, exceeding \$1.0 million per acre by the close of 2021.

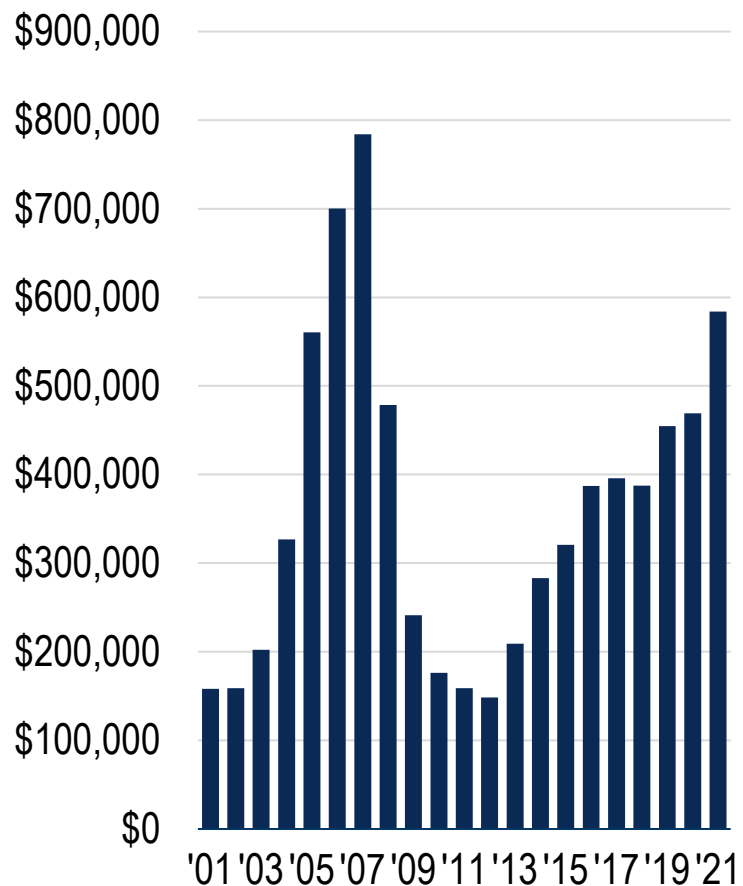


Source: Applied Analysis

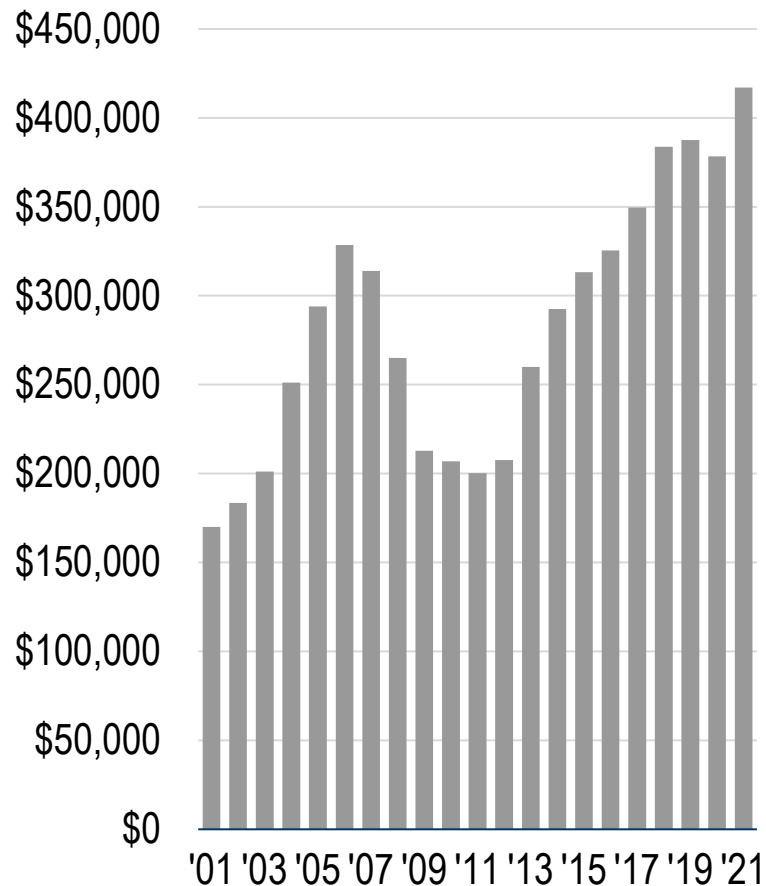
Comparative Analysis of Pricing

Vacant Land (All Land Use Types), New Homes and Resale Homes

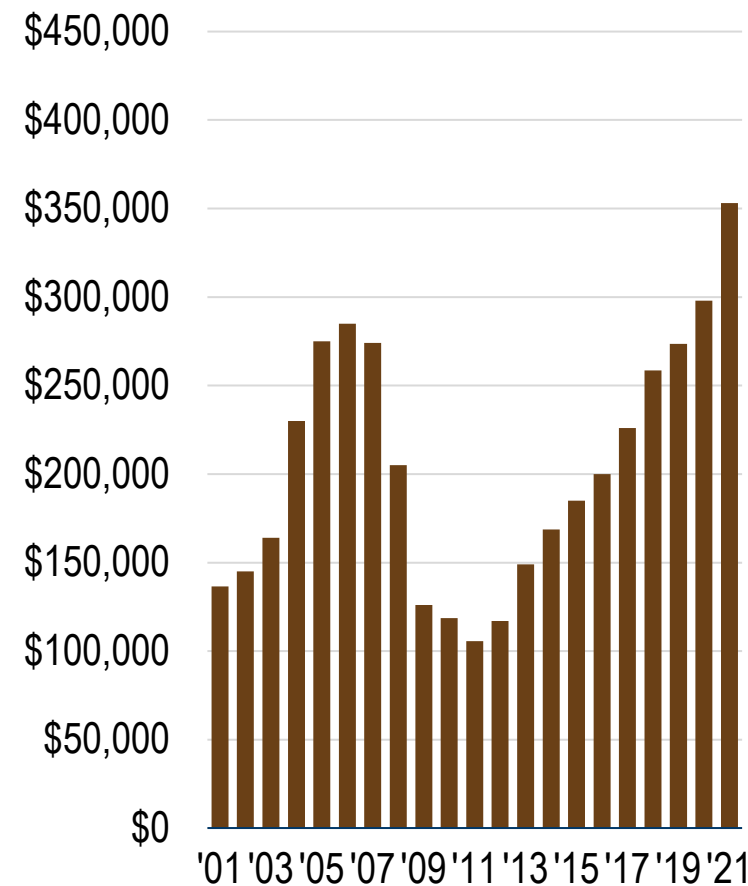
Vacant Land Price per Acre



Median New Home Price



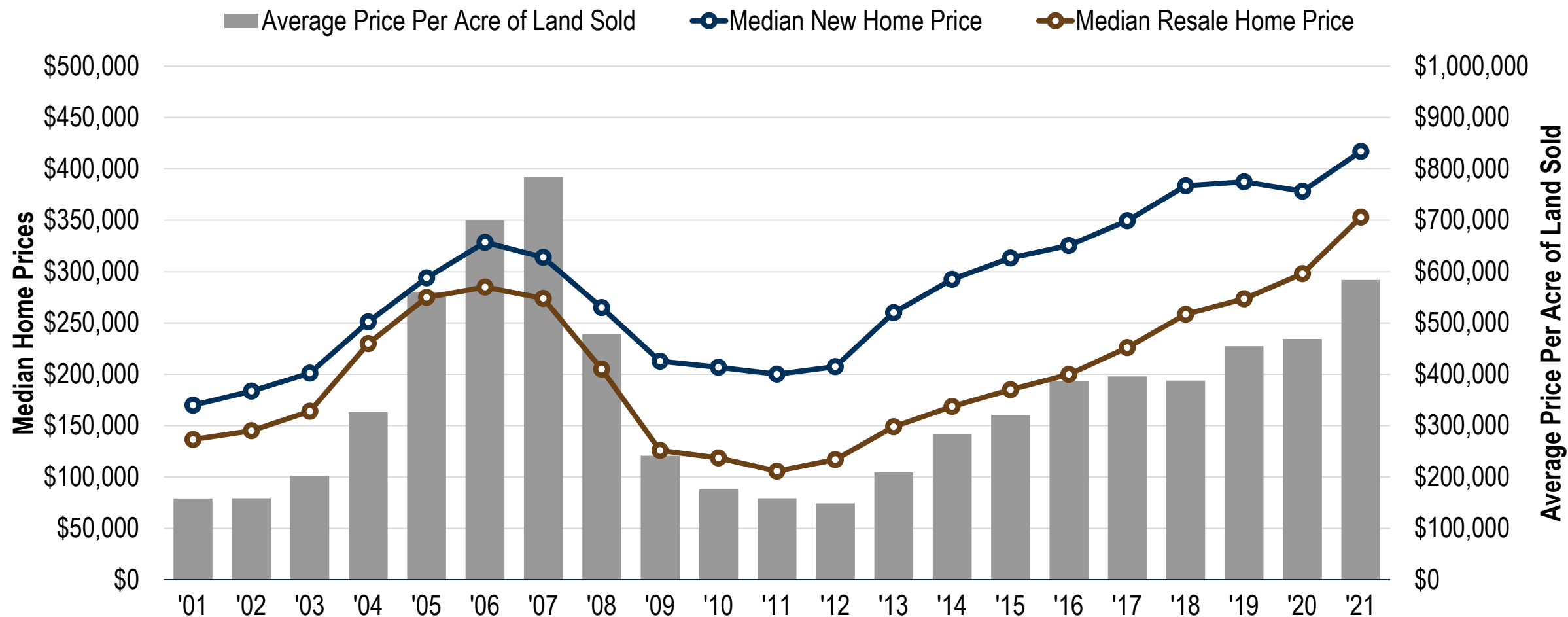
Median Resale Home Price



Source: SalesTraq and Applied Analysis

Comparative Analysis of Pricing

Vacant Land (All Land Use Types), New Homes and Resale Homes



Source: SalesTraq and Applied Analysis

Multiple Species Habitat Conservation Plan (MSHCP)

A Broad Overview

- The Clark County Desert Conservation Program (DCP) manages Endangered Species Act compliance on behalf of Clark County and the cities of Boulder City, Henderson, Las Vegas, North Las Vegas, Mesquite and the Nevada Department of Transportation (collectively, the Permittees) through implementation of the Clark County Multiple Species Habitat Conservation Plan (MSHCP) and associated Section 10(a)(1)(B) incidental take permit.
- In November 1999, the County, the cities and Nevada Department of Transportation submitted the MSHCP along with their application for an incidental take permit. The MSHCP was approved and the new permit (TE34927-0) was issued for 78 species in early 2001, authorized for a period of 30 years.
- This plan directs measures that proactively conserve species through an ecosystems approach. Compliance with this plan and the associated incidental take permit provides two benefits to Clark County. First, it reduces the likelihood that future species will be listed and second, it ensures Clark County's protection against further requirements if any of the species covered in the plan become listed as threatened or endangered in the future.

Source: Clark County

**Final
Clark County Multiple Species Habitat Conservation Plan
and
Environmental Impact Statement
for
Issuance of a Permit to Allow Incidental Take of
79 Species in Clark County, Nevada
September 2000**

Clark County, Nevada, has prepared a proposed Multiple Species Habitat Conservation Plan (MSHCP) to conserve a wide variety of species and their habitats throughout the county. The MSHCP has been prepared pursuant to Section 10(a) of the Endangered Species Act of 1973, as amended (Act). The MSHCP identifies those actions necessary to maintain the viability of natural habitats in the county for approximately 232 species residing in those habitats, including 4 species listed as endangered (southwestern willow flycatcher, *Empidonax traillii eximius*; Moapa dace, *Moapa coriacea*; roundfin, *Platypharodon argenteus*; Virgin River chub, *Gila semimunda*), 1 threatened species (Mojave desert tortoise, *Gopherus agassizii*), and 1 candidate species (blue diamond cholla, *Opuntia whipplei* var. *multigeniculata*). While the MSHCP addresses all 232 species, it proposes that 79 of these species be covered by a Section 10(a) Permit for those species which are currently listed and Prelisting Agreements for those species which are not listed (Covered Species). All Covered Species are treated in this plan as though they were listed and are subject to the standards set forth in Section 10(a)(1)(B) of the Act and 50 CFR 17.32(b) and 17.22(b). By addressing the habitat needs of the Covered Species, the MSHCP benefits many of the other species that utilize the same habitats. In addition, the MSHCP establishes a process that may be utilized to assure the maintenance of the viability of the natural habitats of the remaining approximately 153 species described in the MSHCP.

If the MSHCP is approved by the U.S. Fish and Wildlife Service, the USFWS would authorize incidental take of the listed species covered by the plan through the issuance of a Section 10(a)(1)(B) permit. In addition, the MSHCP would also be the basis for an incidental take permit and implementation agreement for additional species if these species become listed.

Clark County Department of Comprehensive Planning
500 S. Grand Central Parkway, Suite 3012
Las Vegas, Nevada 89155-8270

U.S. Fish and Wildlife Service
1340 Financial Blvd, Suite 234
Reno, Nevada 89502-5093

Prepared by:

RECON
1927 Fifth Avenue, Suite 200
San Diego, California 92101-2358

Multiple Species Habitat Conservation Plan (MSHCP)

A Broad Overview: The MSHCP plan area includes all of Clark County

- About 89 percent of the land in Clark County is owned by the U.S. and managed by seven Federal agencies, five of which are agencies within the Department of the Interior.
- Lands held by the State of Nevada, local government and private parties comprise 11 percent of the county's area, or about 553,600 acres. Major state holdings include Valley of Fire, Floyd Lamb and Spring Mountain Ranch State Parks. Local government holdings consist primarily of parks, office complexes, and storage and maintenance facilities.
- In no event, however, shall the total amount of "take" exceed 145,000 acres. The total number of acres of Federal and non-Federal lands within the permit area that are potentially available for future development is approximately 418,200. This total excludes existing development, the Boulder City Conservation Easement area and state lands managed for wildlife values. The total also includes the 175,000 acres projected to be disposed of by BLM during the term of the MSHCP.
- Should the MSHCP be amended in the future, the total amount of "take" could be adjusted going forward; this analysis is based on the plan as it exists today.

Source: Clark County

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Multiple Species Habitat Conservation Plan (MSHCP)

Key Objectives of the MSHCP

- Achieve balance between long-term conservation and recovery of the diversity of natural habitats and native species of plants and animals that make up Clark County;
- Maintain an orderly and beneficial use of land in order to promote the economy, health, well-being, and custom and culture of the growing population of Clark County;
- Provide substantial recovery and conservation benefits to species and ecosystems in Clark County;
- Maximize flexibility and available options in developing mitigation and conservation programs;
- Reduce the economic and logistical burden of these programs on individual landowners and state and Federal land managers by distributing their impacts in a fair and effective manner;
- Reduce uncoordinated decision making, which can result in incremental habitat loss and inefficient project review;
- Provide the community with long-term planning assurances and increase the number of species for which assurances can be given; and
- Bring a broad range of activities under the permit's legal protection.

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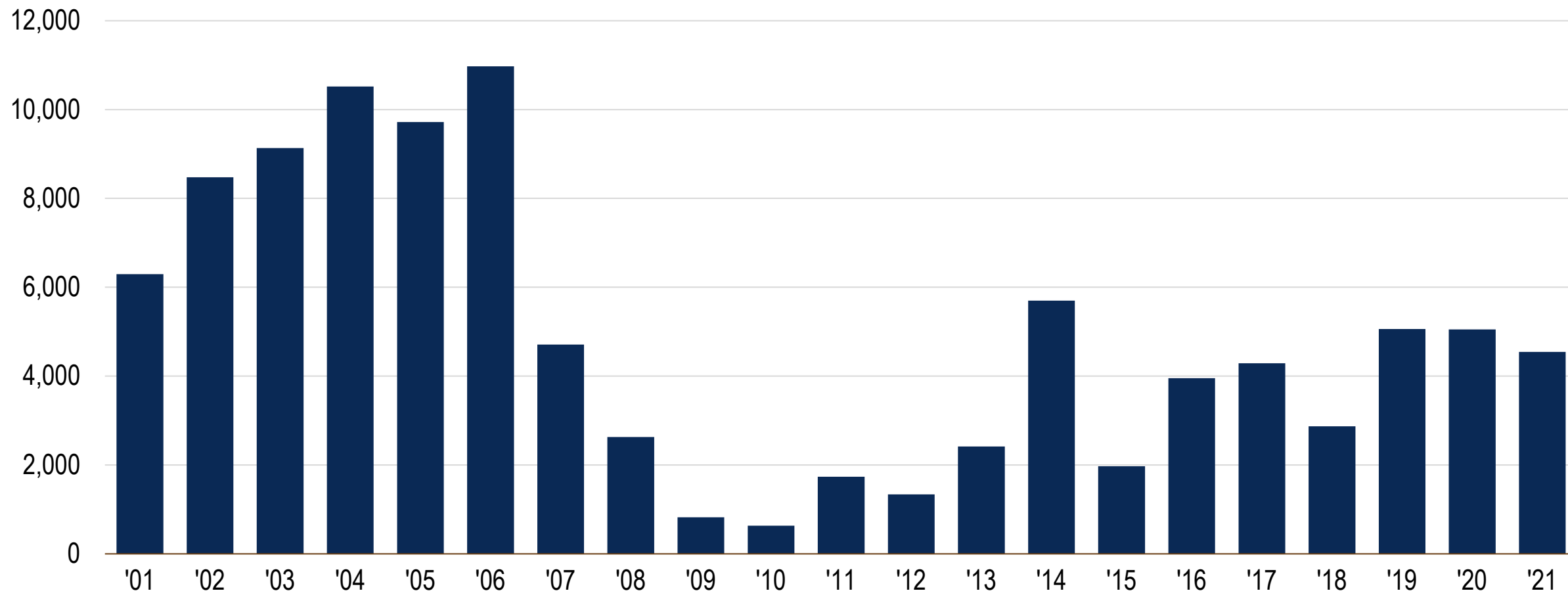
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San Diego, California 92101-2358

Source: Clark County

Land Disturbed (Development Activity) by Year

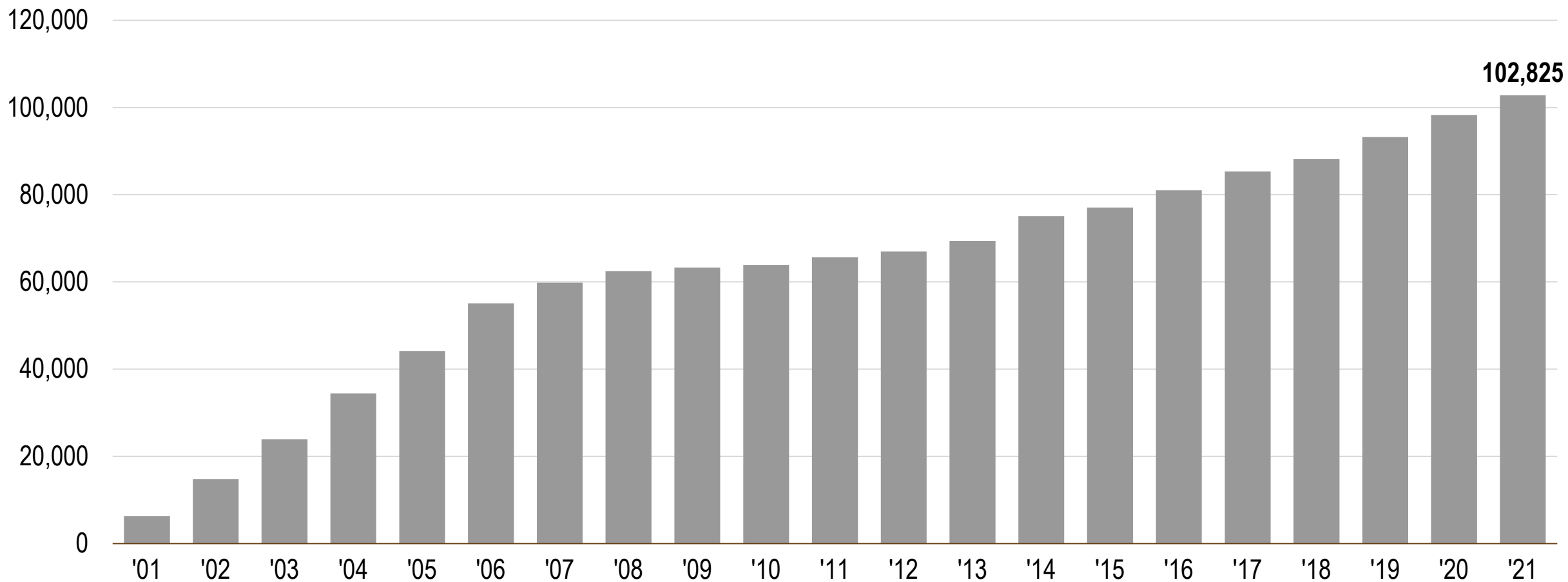
Number of Acres Disturbed Under the Multiple Species Habitat Conservation Plan (MSHCP)



Source: Clark County

Land Disturbed (Development Activity) Cumulatively

Number of Acres Disturbed Under the MSHCP



Source: Clark County

Summary of Development Activity

Number of Acres Disturbed Under the MSHCP

No. of Acres Allowed Under the MSHCP	145,000
Less: No. of Acres Disturbed To Date	(102,825)
Less: No. of Exempt Acres	(15,000)
Plus: No. of Acres Added Through Amendment	<u>22,650</u>
No. of Disturbable Acres Remaining	<u>49,825</u>

Minimum-Year No. of Acres Disturbed	632
Effective Years of Remaining Acreage	78.8

Historical Average No. of Acres Disturbed	4,896
Effective Years of Remaining Acreage (2031)	10.2

Peak-Year No. of Acres Disturbed	10,974
Effective Years of Remaining Acreage (2025)	4.5

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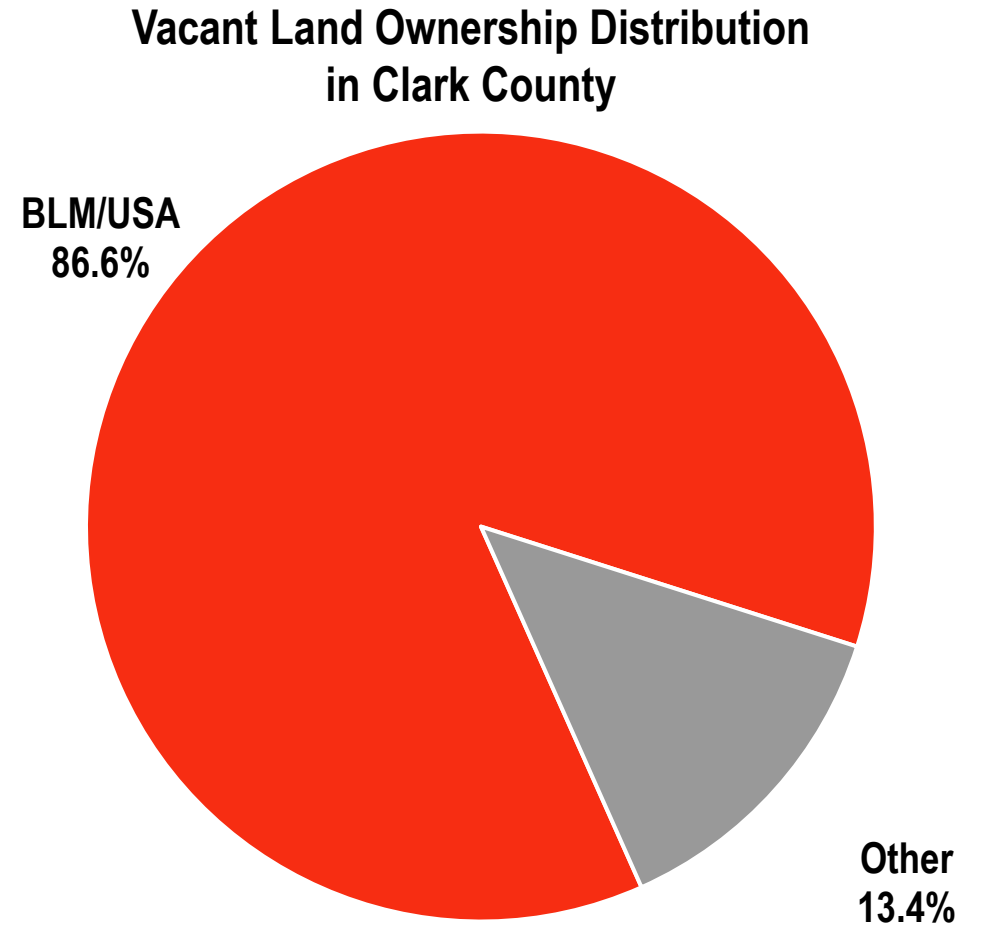
RECON
 1927 Fifth Avenue, Suite 200
 San Diego, California 92101-2358

Source: Clark County/Applied Analysis; Note: an amendment process is underway to consider increasing the cap, reduce the number of species covered, extend the permit term to 50 years (from 30 years), among other attributes.

Vacant Land in Clark County

BLM and USA Owned Land vs. Other Ownership

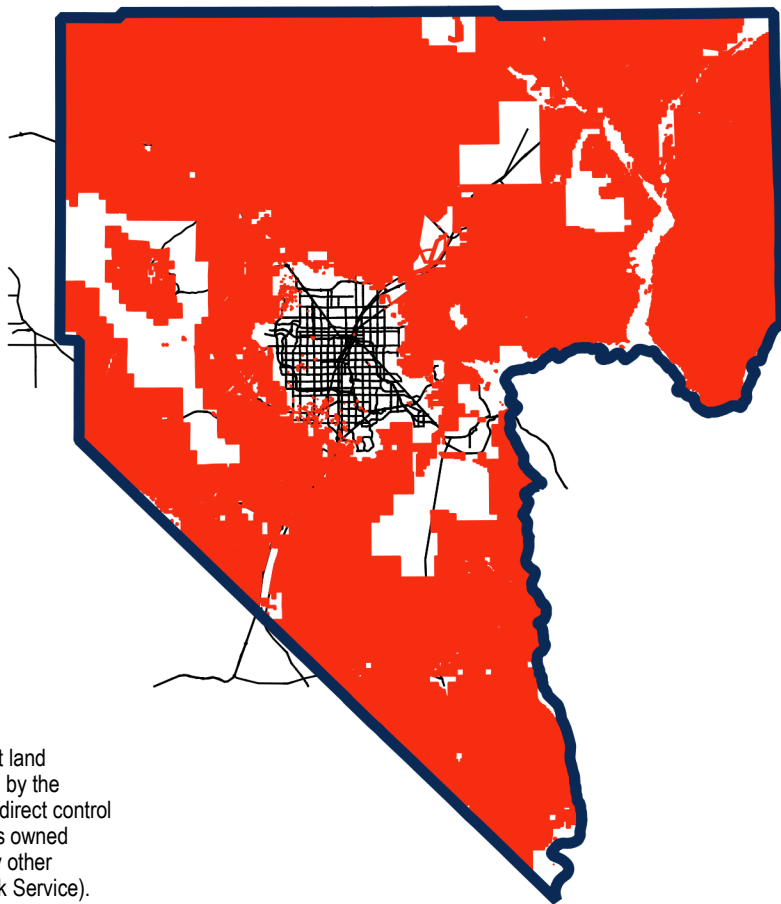
Jurisdiction	BLM/USA	Other	Total
<u>Incorporated Cities</u>			
Boulder City	2,842	112,921	115,763
City of Henderson	9,320	13,296	22,616
City of Las Vegas	15,077	10,145	25,222
City of Mesquite	6,779	7,040	13,819
City of North Las Vegas	18,402	16,530	34,932
<u>Unincorporated Areas</u>			
Bunkerville	359,449	5,919	365,368
Enterprise	12,065	7,883	19,948
Indian Springs	10,356	315	10,671
Laughlin	47,338	18,485	65,823
Moapa	238,970	25,328	264,298
Moapa Valley	145,119	36,909	182,028
Mount Charleston	26,473	13,397	39,870
Paradise	85	1,247	1,332
Searchlight	173,873	3,154	177,027
Spring Valley	219	3,194	3,414
Summerlin	562	1,868	2,430
Sunrise Manor	1,953	2,908	4,861
Whitney	6,939	1,785	8,724
Winchester	0	80	80
Other (Outside of Townships)	2,947,032	341,035	3,288,067
Total	4,022,853	623,440	4,646,293



Note: Not all vacant land identified as owned by the BLM/USA is under direct control of the BLM, some is owned and/or managed by other agencies (e.g., Park Service). Source: Clark County and Applied Analysis Calculations

Vacant Land in Clark County

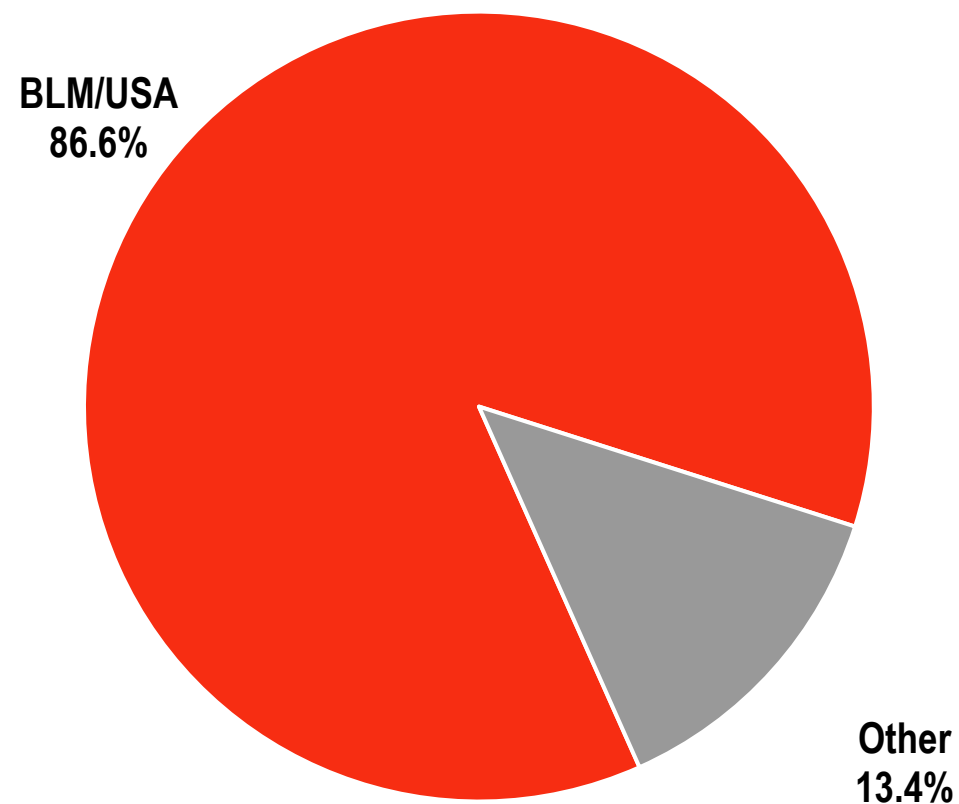
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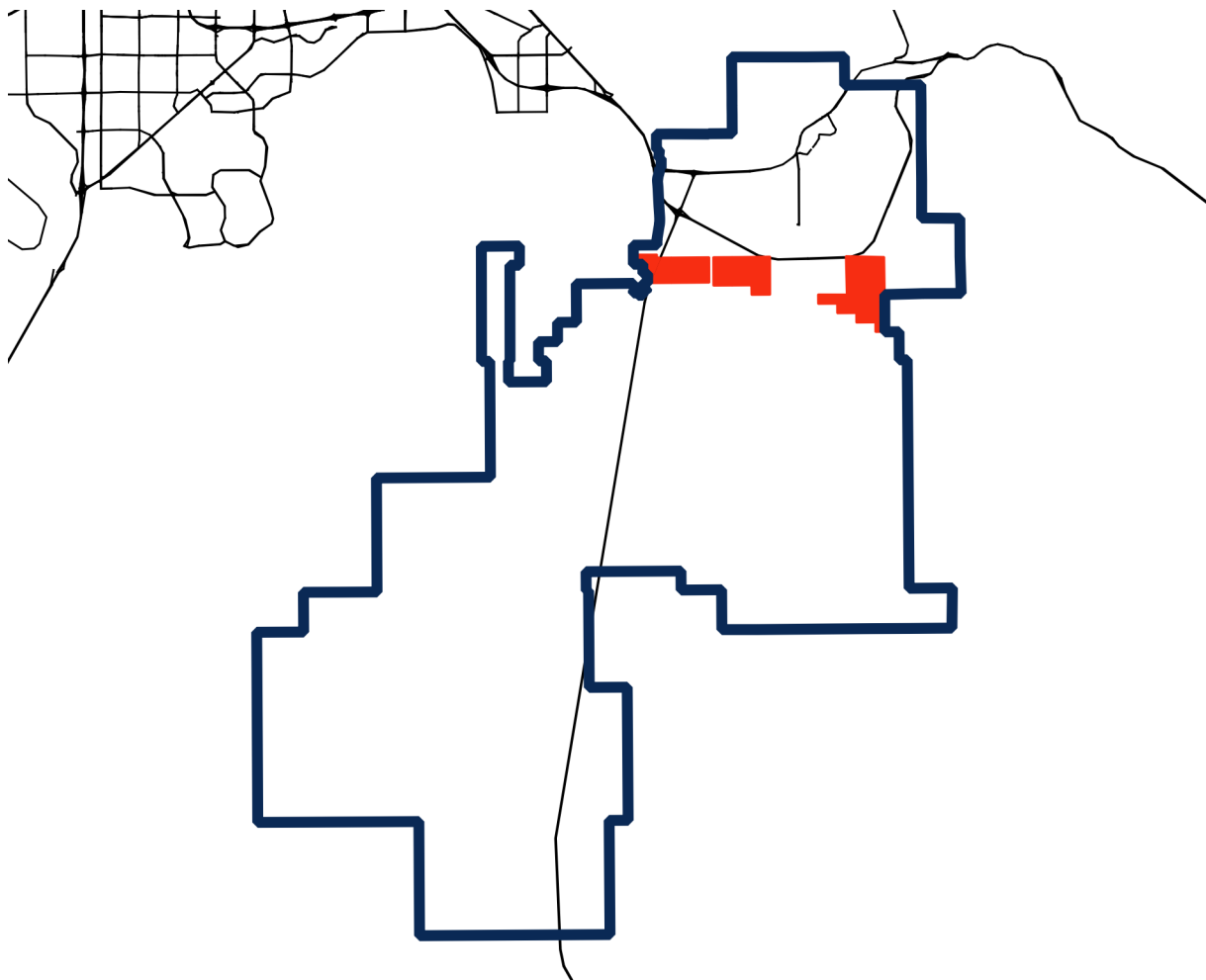
Source: Clark County and Applied Analysis Calculations (Boundaries Are Approximate)

Vacant Land Ownership Distribution in Clark County



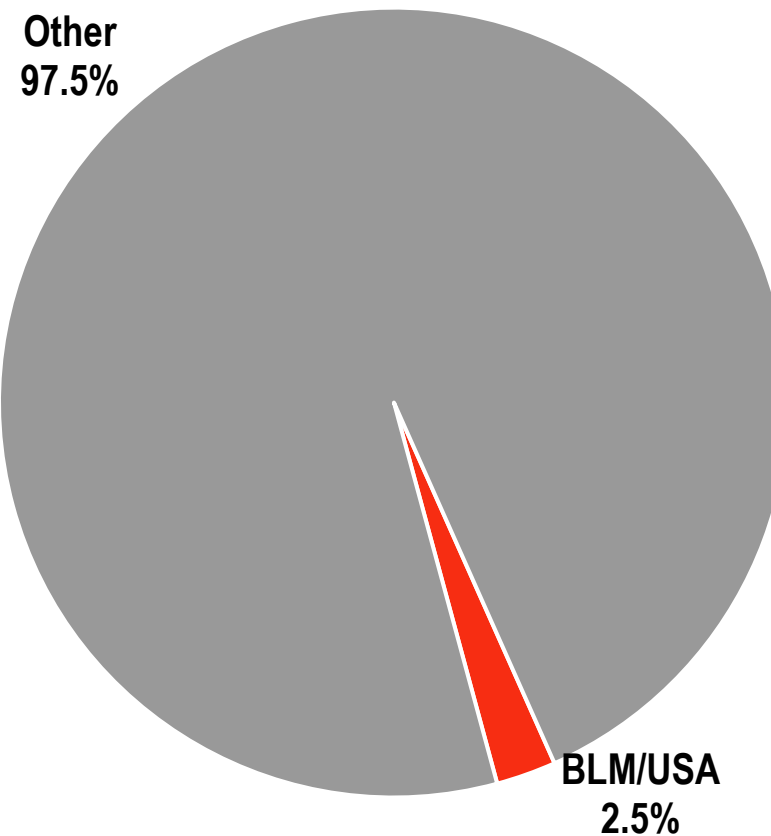
Vacant Land in Boulder City

BLM and USA Owned Land vs. Other Ownership



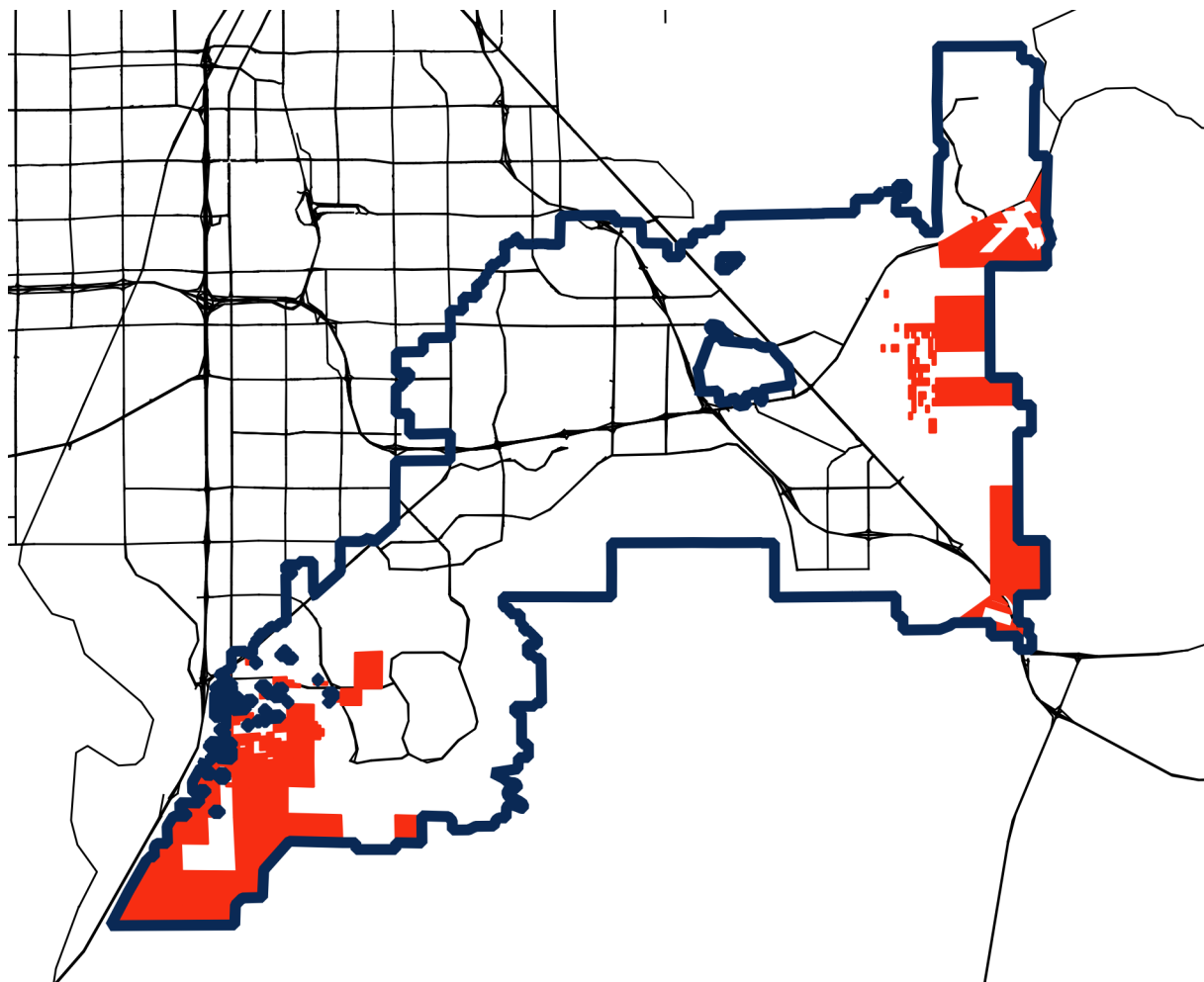
Source: Clark County and Applied Analysis Calculations (Boundaries Are Approximate)

Vacant Land Ownership Distribution
in Boulder City



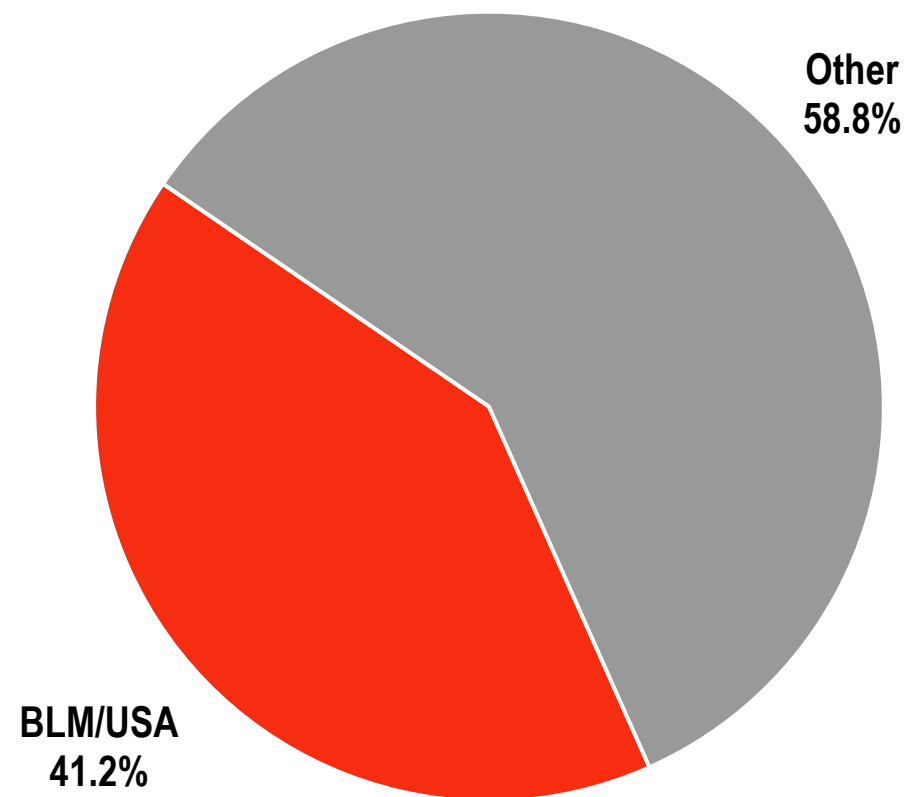
Vacant Land in City of Henderson

BLM and USA Owned Land vs. Other Ownership



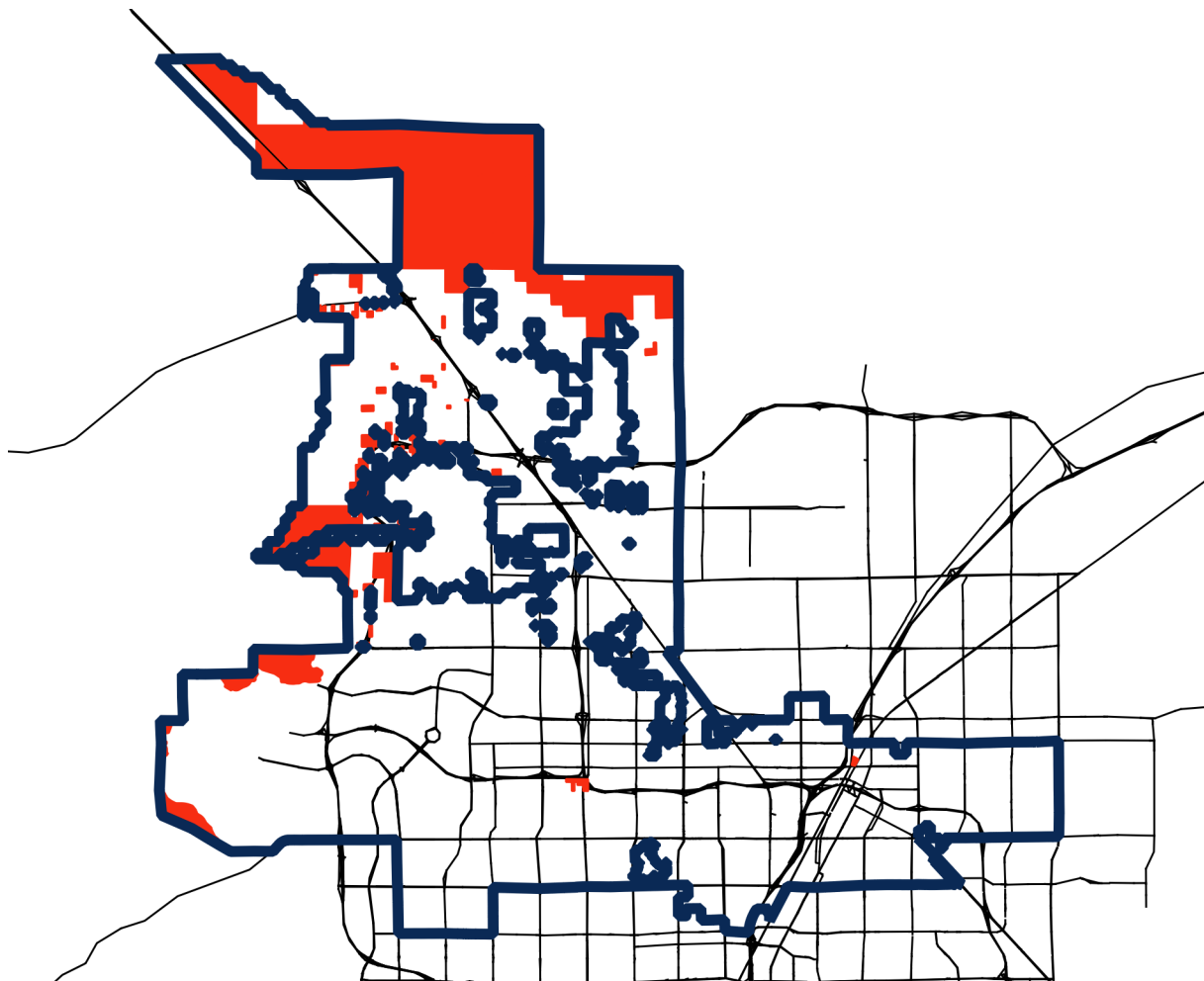
Source: Clark County and Applied Analysis Calculations (Boundaries Are Approximate)

Vacant Land Ownership Distribution
in Henderson



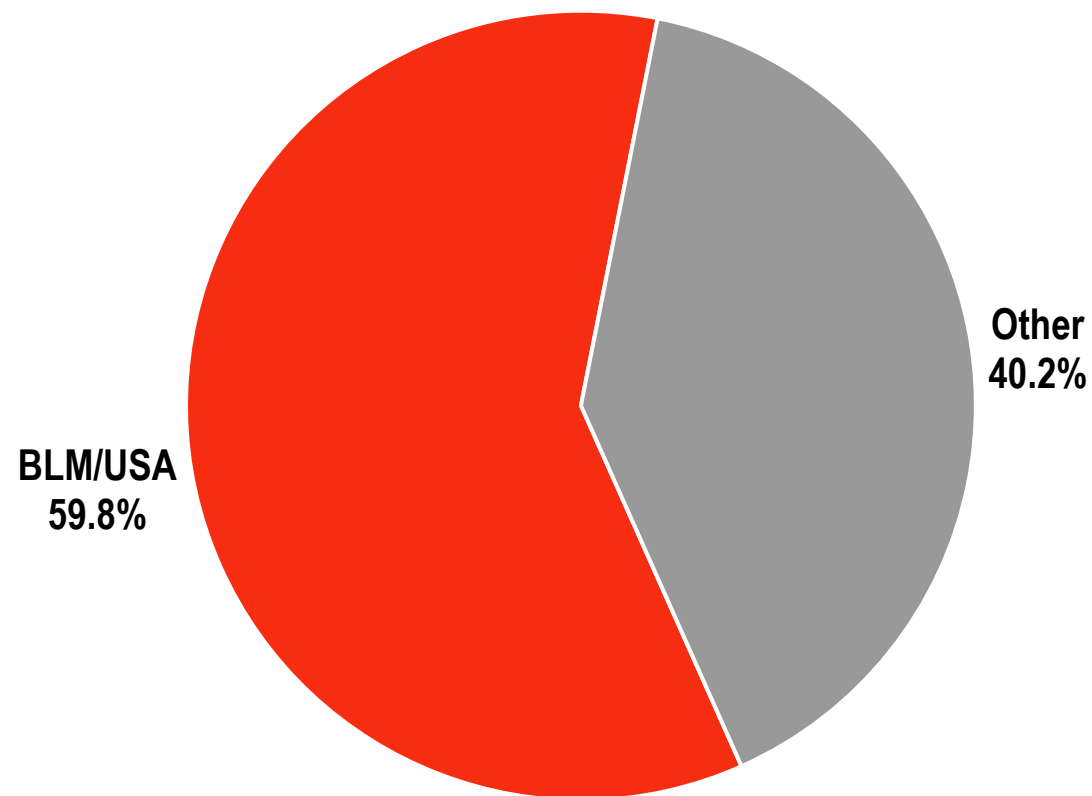
Vacant Land in City of Las Vegas

BLM and USA Owned Land vs. Other Ownership



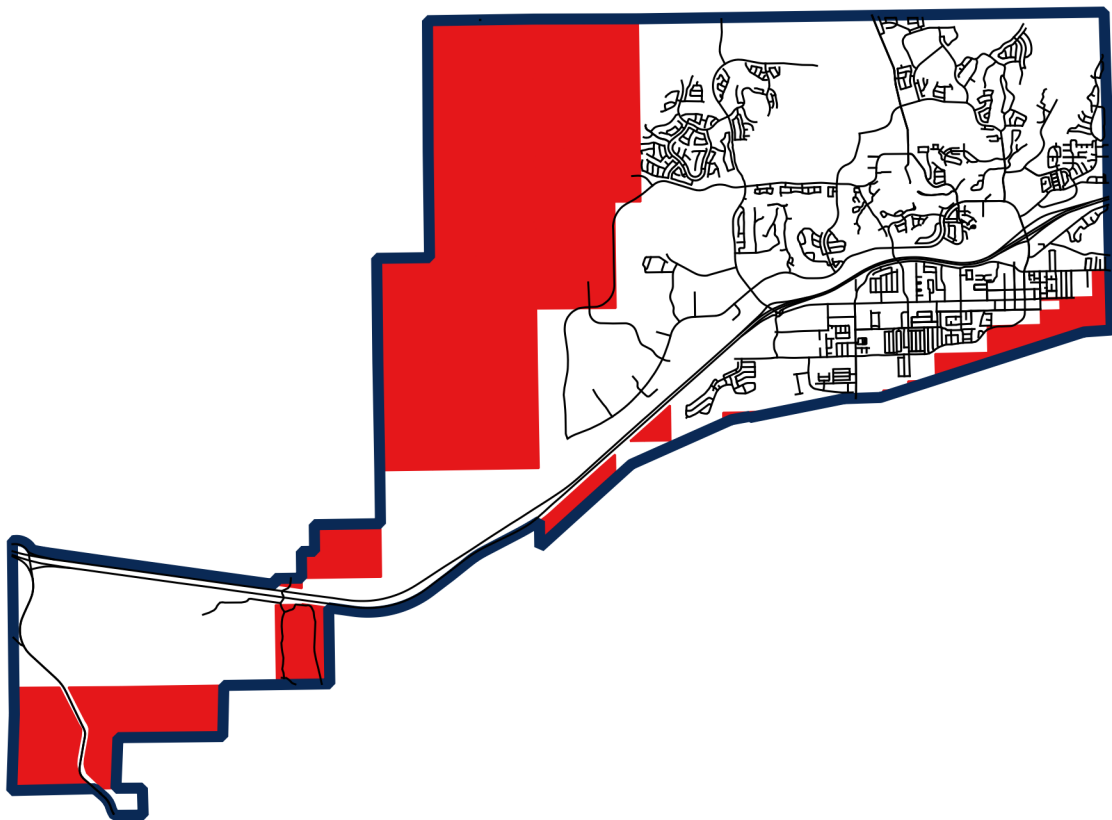
Source: Clark County and Applied Analysis Calculations (Boundaries Are Approximate)

Vacant Land Ownership Distribution
in Las Vegas

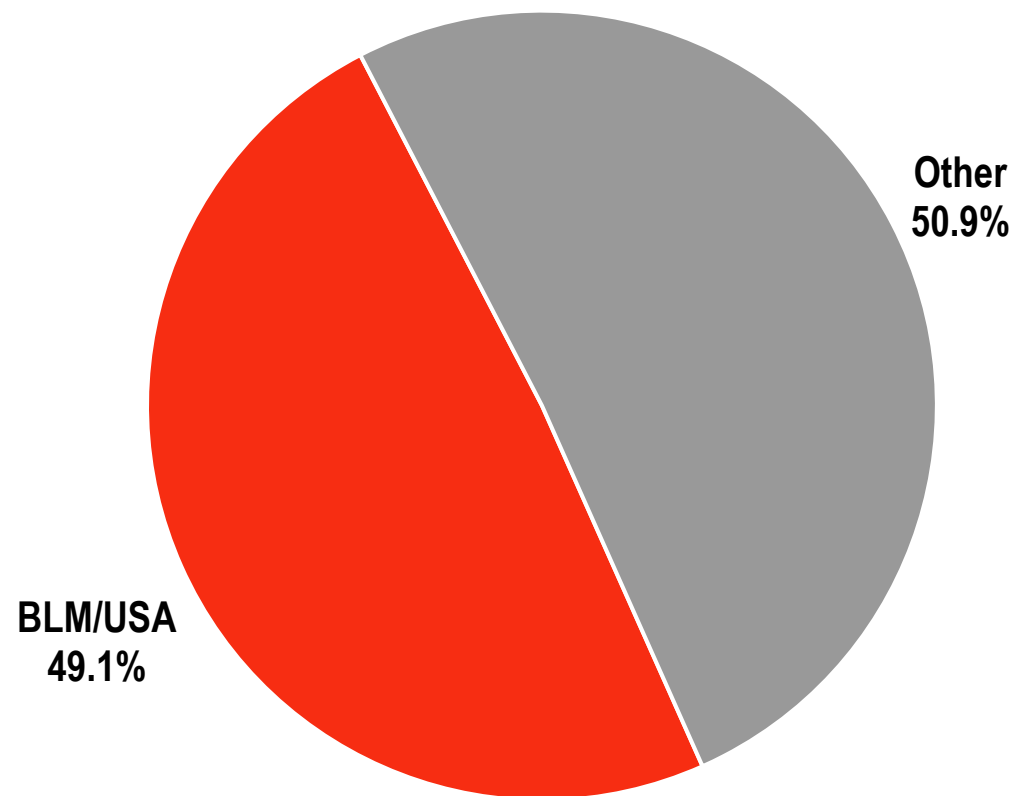


Vacant Land in City of Mesquite

BLM and USA Owned Land vs. Other Ownership



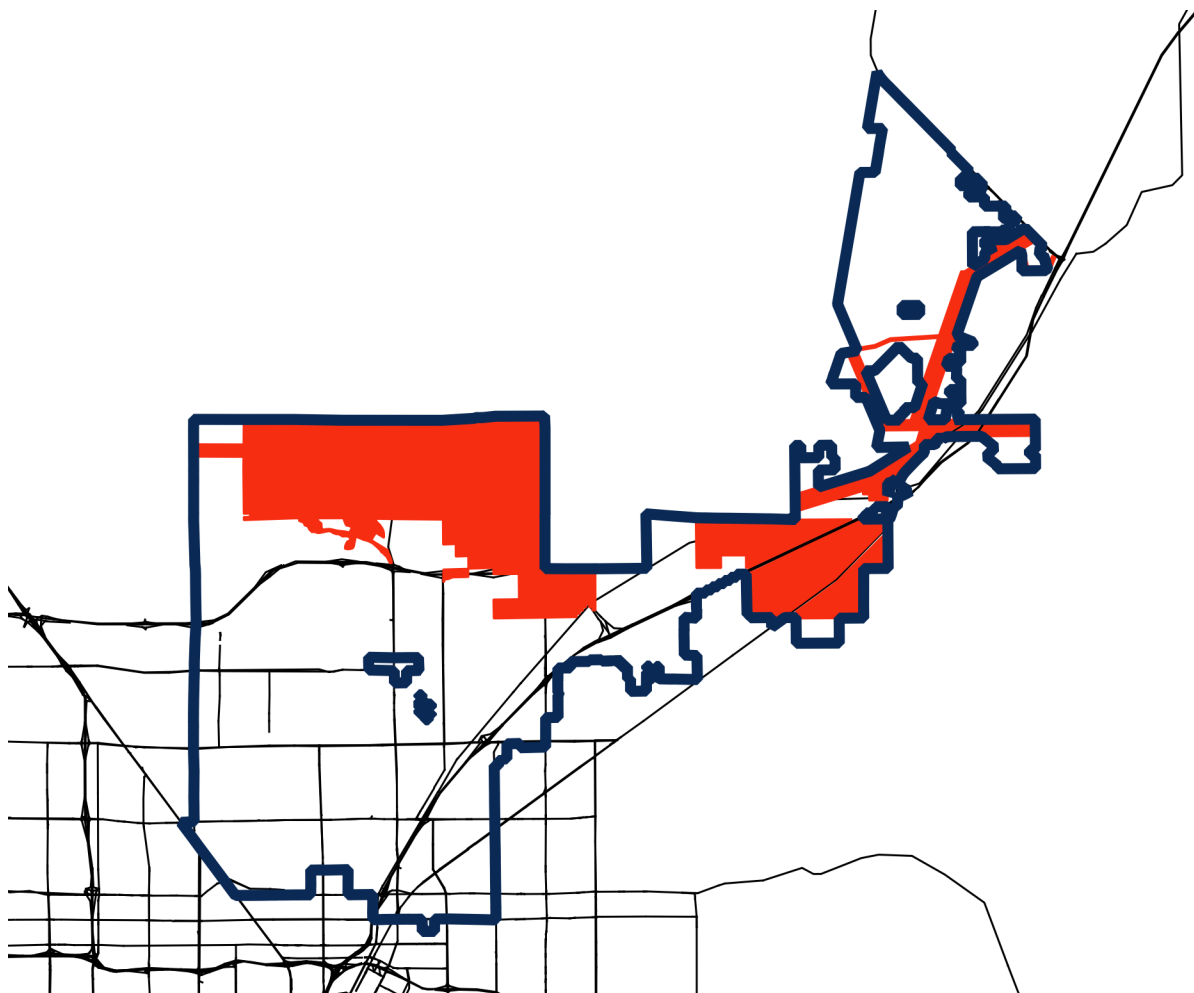
Vacant Land Ownership Distribution
in Mesquite



Source: Clark County and Applied Analysis Calculations (Boundaries Are Approximate)

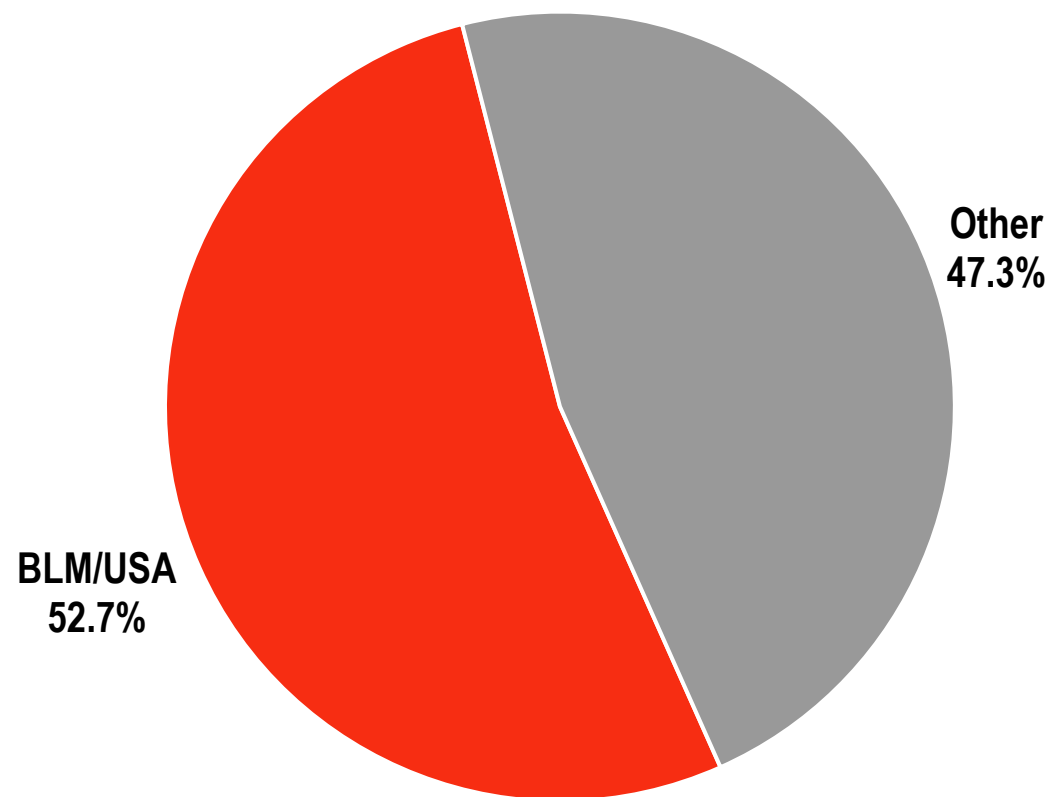
Vacant Land in City of North Las Vegas

BLM and USA Owned Land vs. Other Ownership



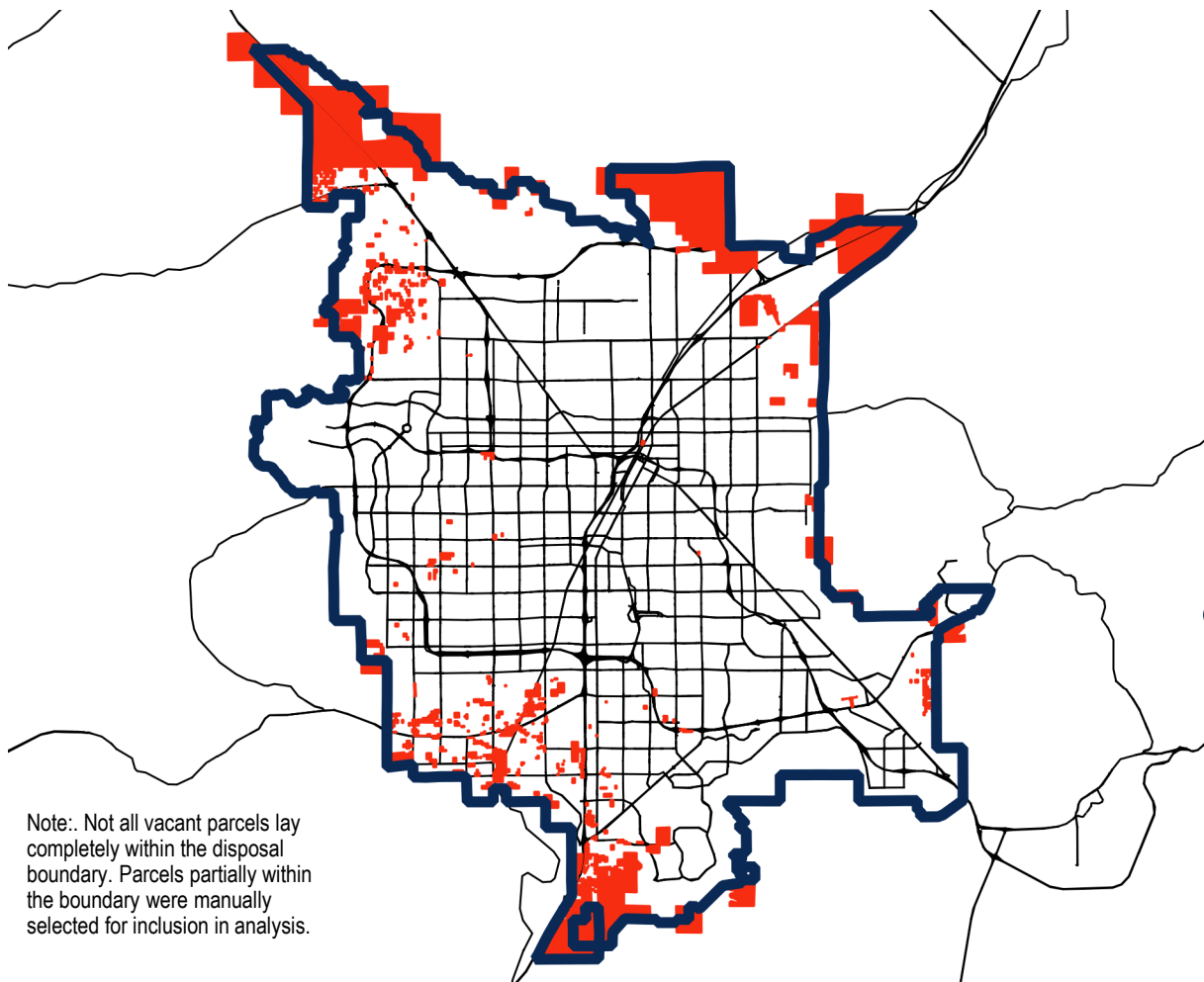
Source: Clark County and Applied Analysis Calculations (Boundaries Are Approximate)

Vacant Land Ownership Distribution
in North Las Vegas



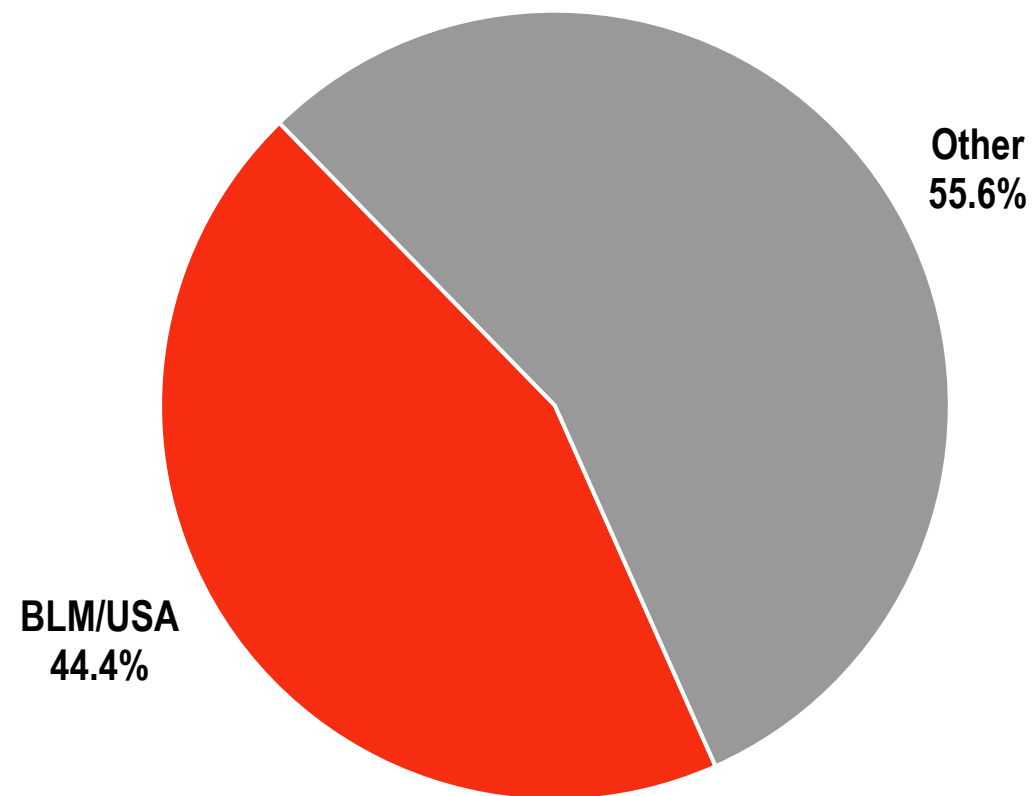
Vacant Land in the Las Vegas Urban Valley

BLM and USA Owned Land vs. Other Ownership



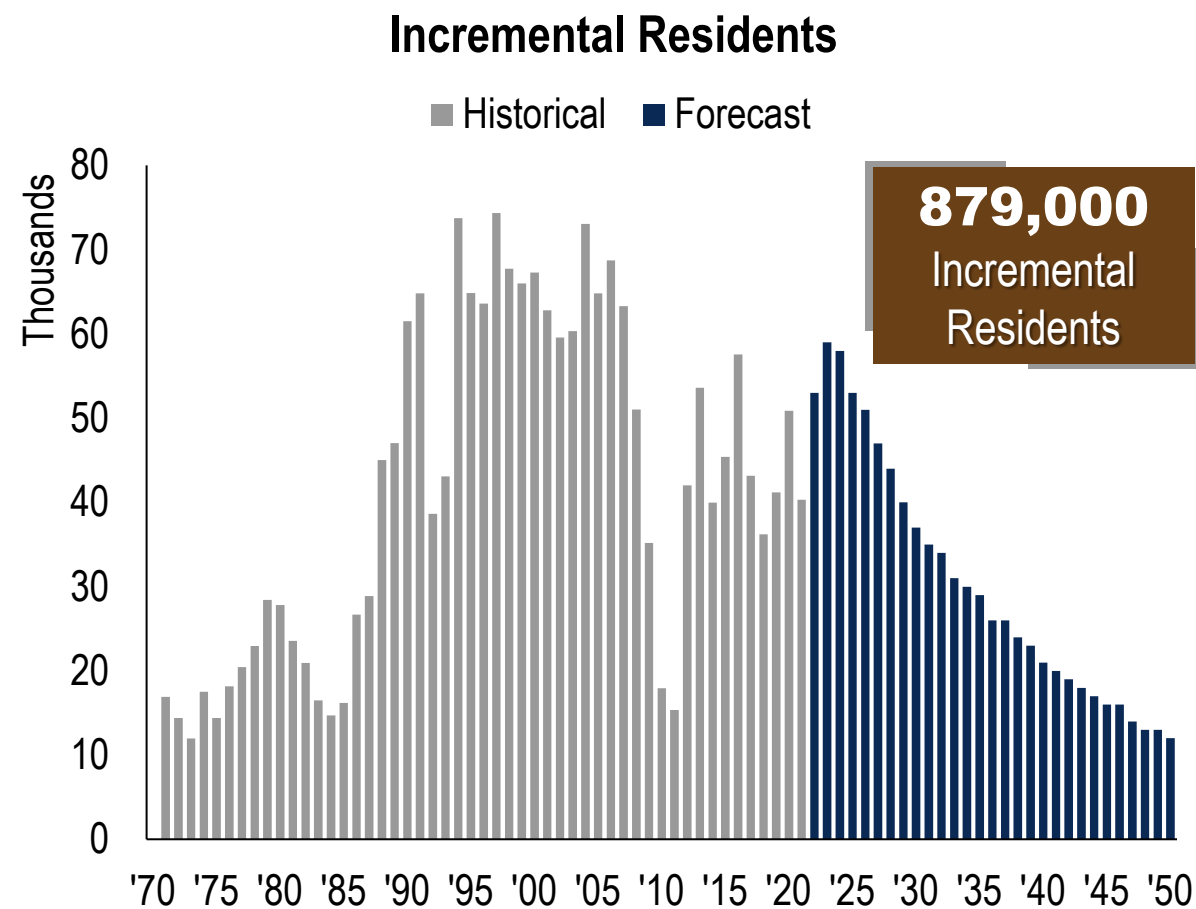
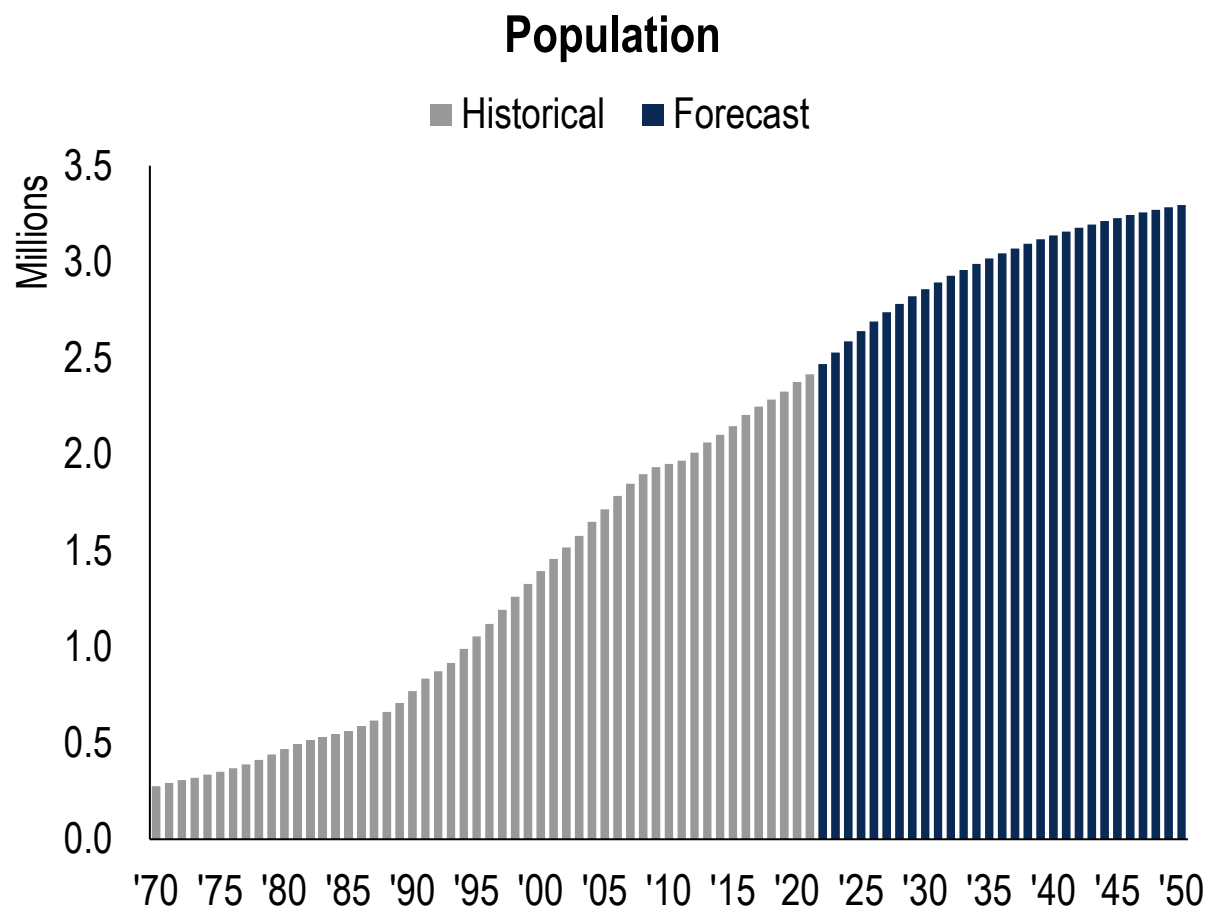
Source: Clark County and Applied Analysis Calculations (Boundaries Are Approximate)

Vacant Land Ownership Distribution
in the Las Vegas Urban Valley



Population and Incremental Growth

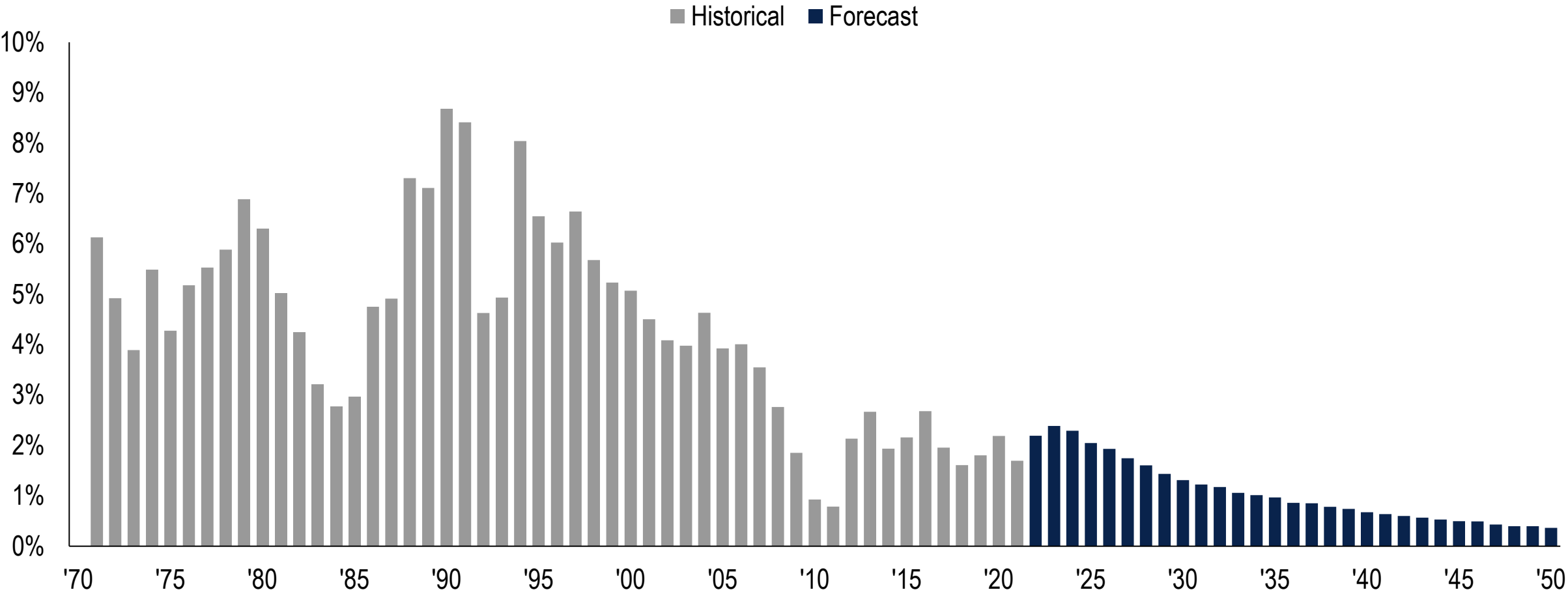
Historical and Projected in Clark County



Source: NV Demographer, UNLV CBER, Applied Analysis

Population Growth in Clark County

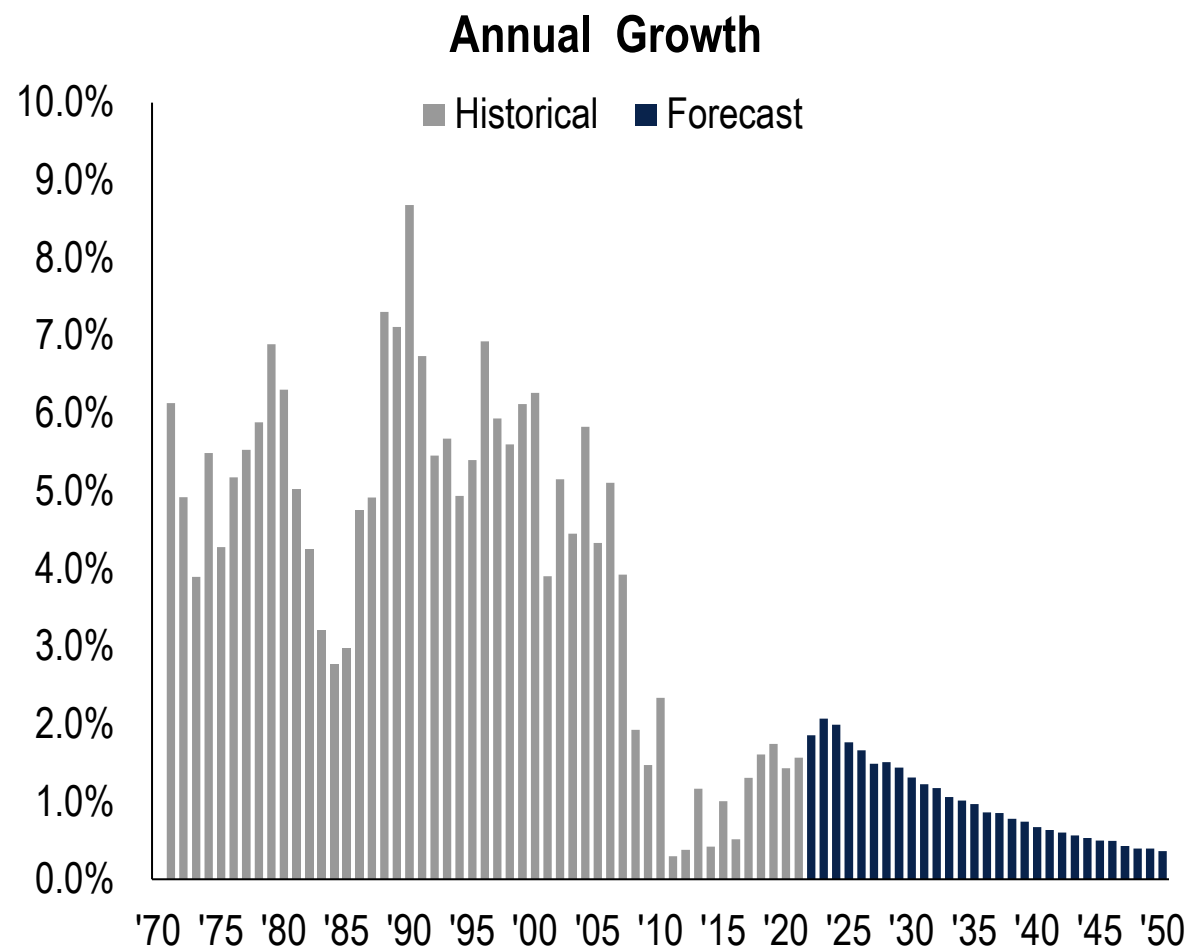
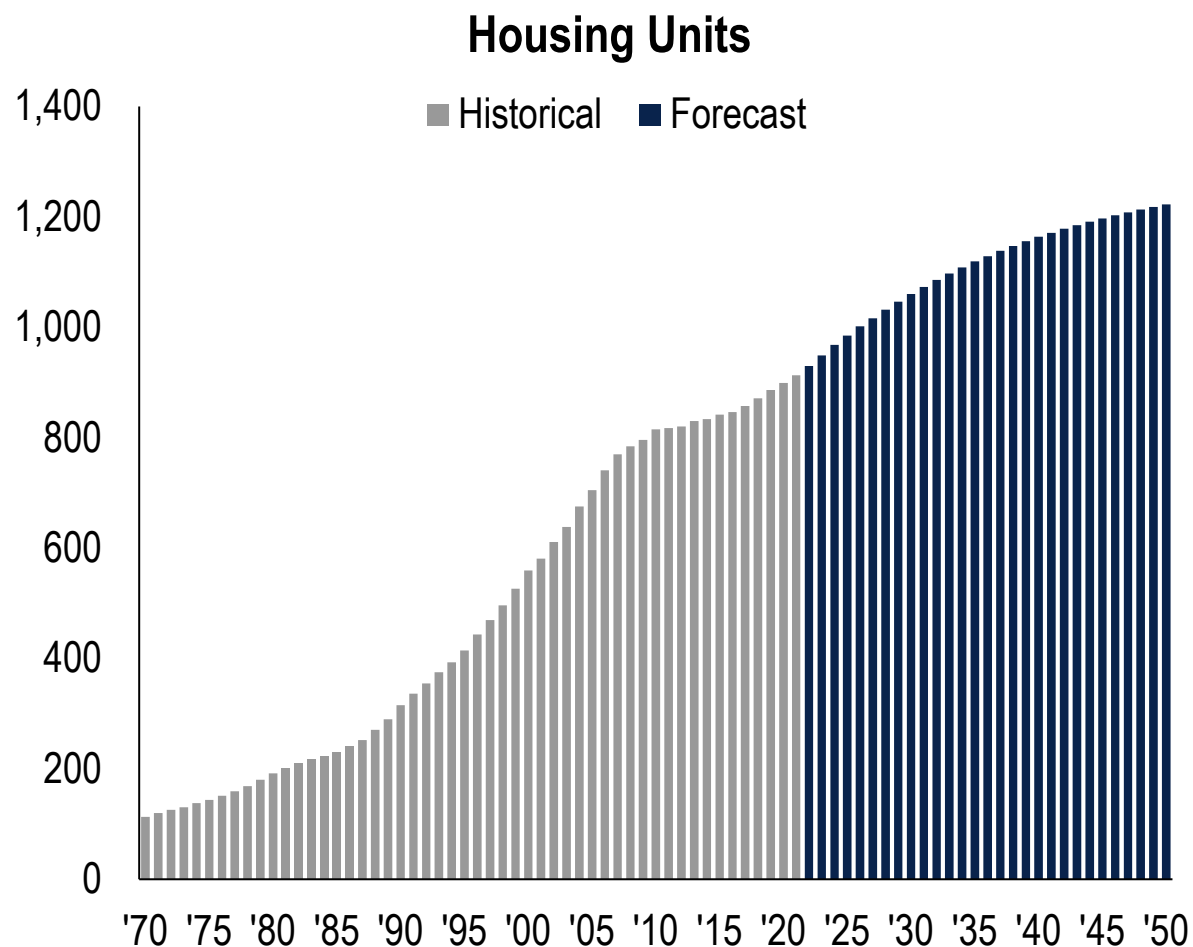
Historical and Forecasted



Source: NV Demographer, UNLV CBER, Applied Analysis

Clark County Housing Units

Historical and Forecasted



Source: Clark County Comprehensive Planning Department and Applied Analysis

Calculating Overall Demand for Land

Assuming Historical Development Patterns

What is the Historical Residential Development Density?

Land Use	Acreage (Net)	Dist.
Residential – Single Family	123,813	92.2%
Residential – Multi Family	10,496	7.8%
Total Acreage	134,309	100.0%
No. of Housing Units	898,944	
Avg. Density (Units per Acre (Net))	6.7	

What Is the Current Mix of Developed Land Uses? (With 898,944 Housing Units Developed)

Land Use	Acreage (Net)	Distribution
Residential	134,309	61.1%
Commercial	72,149	32.8%
Industrial	13,189	6.0%
Total Acreage	219,647	100.0%

Source: Clark County Assessor's Office (acreage data) and Clark County Comprehensive Planning (unit count data)

Calculating Overall Demand for Land

Assuming Historical Development Patterns

Assumptions of Forecast

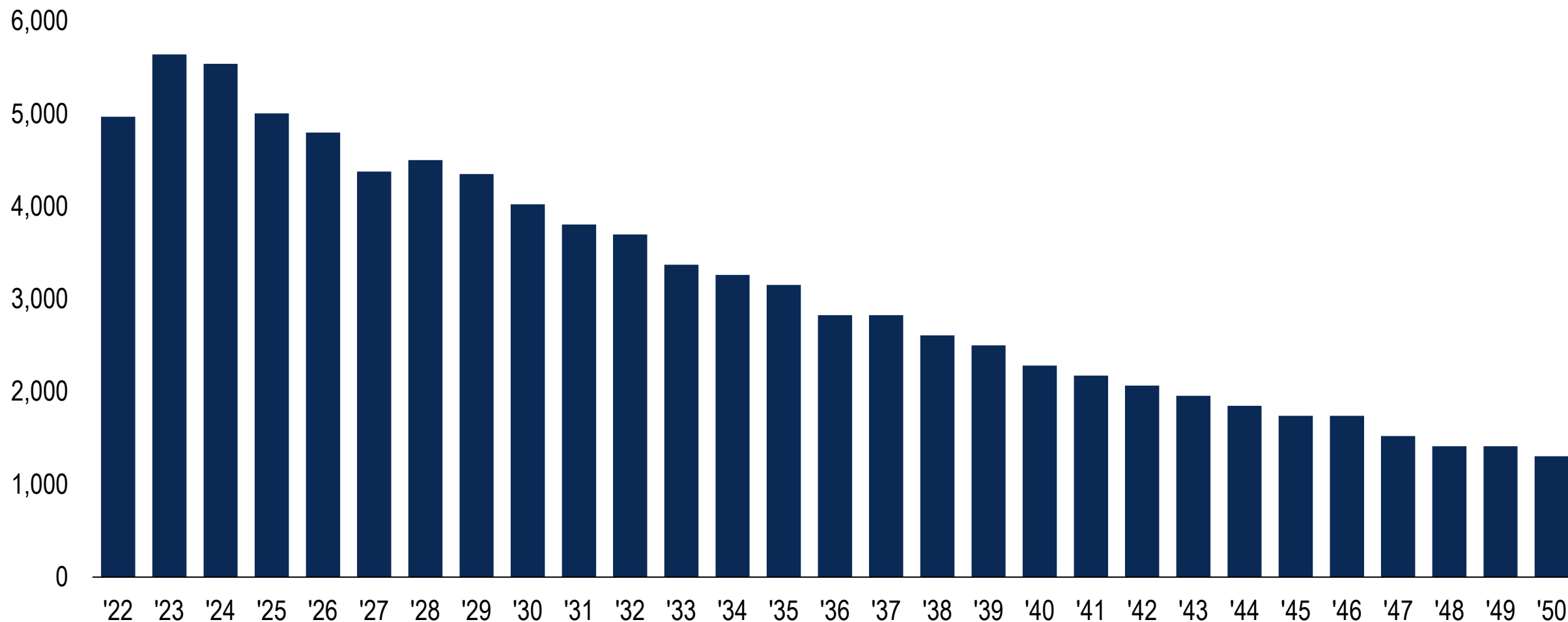
1. Assuming a future development pattern that is similar to historical trends, the market is expected to demand nearly 80,000 net acres of property through 2050
2. When adjusting upwards by 20 percent to account for public rights of way, open spaces and other factors, nearly 95,000 gross acres are potentially demanded
3. The estimated gross acreage demanded exceeds levels in the urban valley and those permitted under the MSHCP
4. While there are more conservative or more aggressive alternatives possible, this order-of-magnitude estimate confirms a potential land constraint issue is on the horizon

Housing Units - Current	898,944
Growth in Housing Units to 2050	36.0%
Housing Units - 2050 (est.)	1,222,438
 Total Acreage Developed (Net) – Current	 219,647
Estimated Growth Based on Housing Units	36.0%
Total Acreage Developed (Net) - 2050 (est.)	298,689
 Total Growth in Developed Acreage (Net) – 2050 (est.)	 79,042
Adjustment Factor (Net-to-Gross)	1.2
Total Growth in Developed Acreage (Gross)	94,850

Source: Clark County Assessor's Office (acreage data) and Clark County Comprehensive Planning (unit count data)

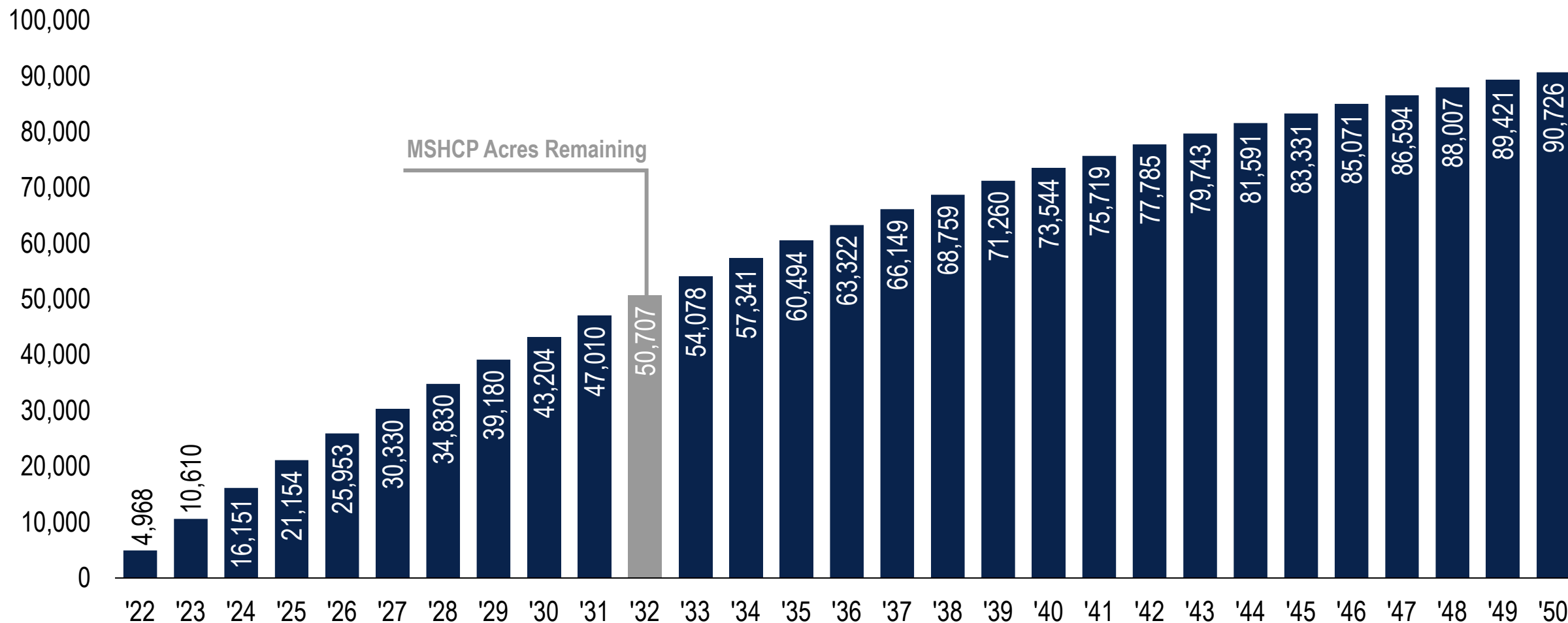
Future Land Demanded Annually (Gross Acres)

Clark County, Nevada



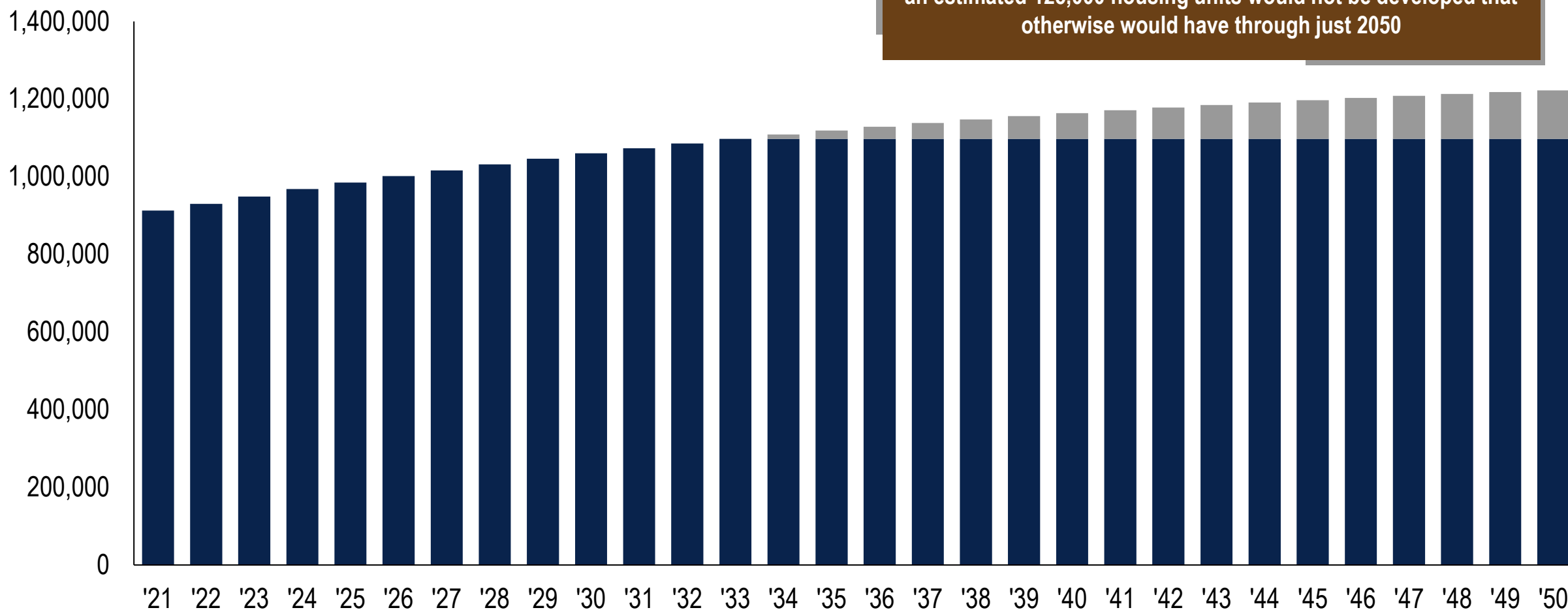
Future Land Demanded Cumulatively (Gross Acres)

Clark County, Nevada



Impact of Constraints on Residential Development

Projected Number of Housing Units



Source: SalesTraq, Applied Analysis



Foundational Economic Considerations



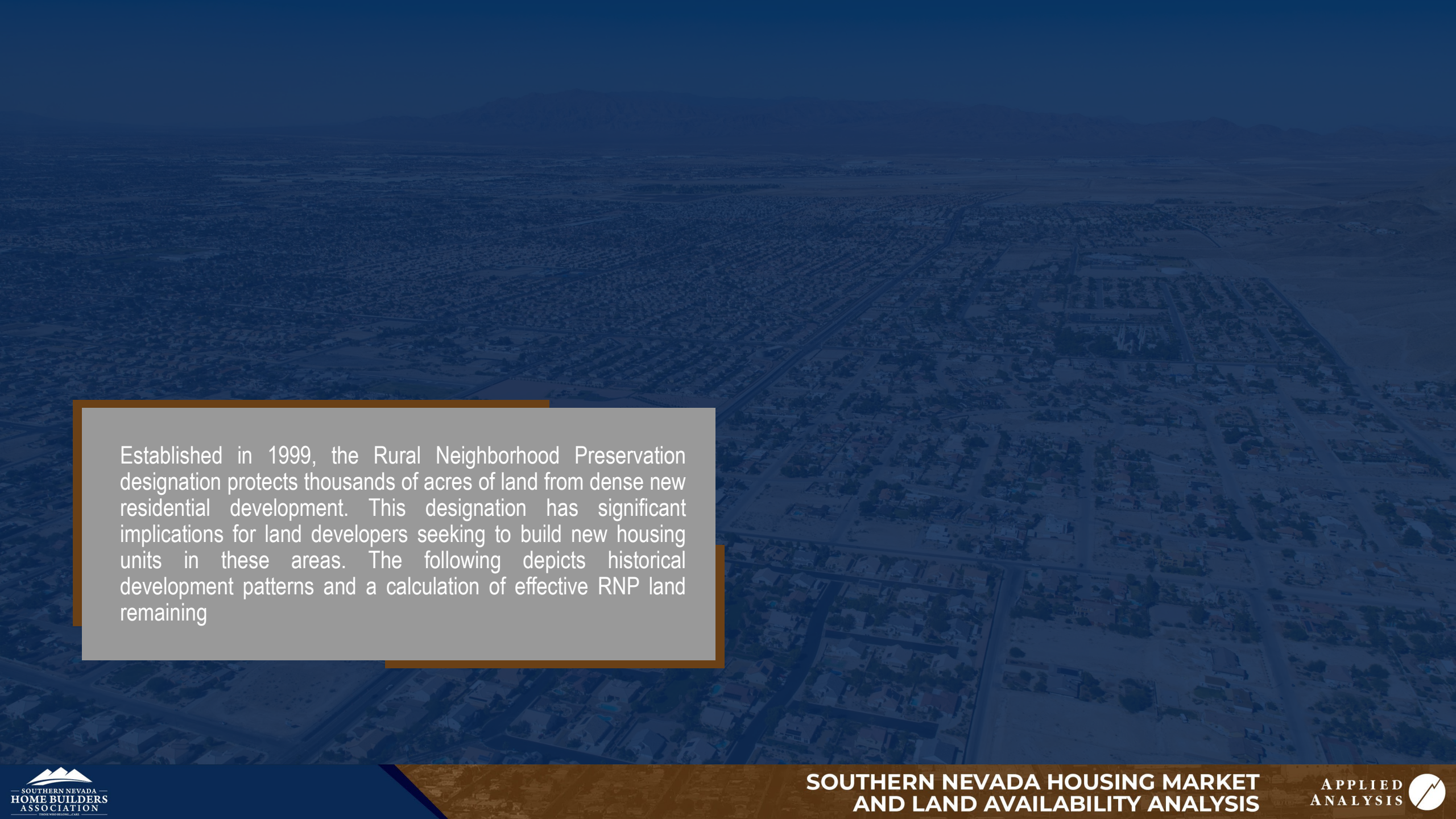
Trends in the Residential Housing Market



Clark County Land Use and Availability Analysis



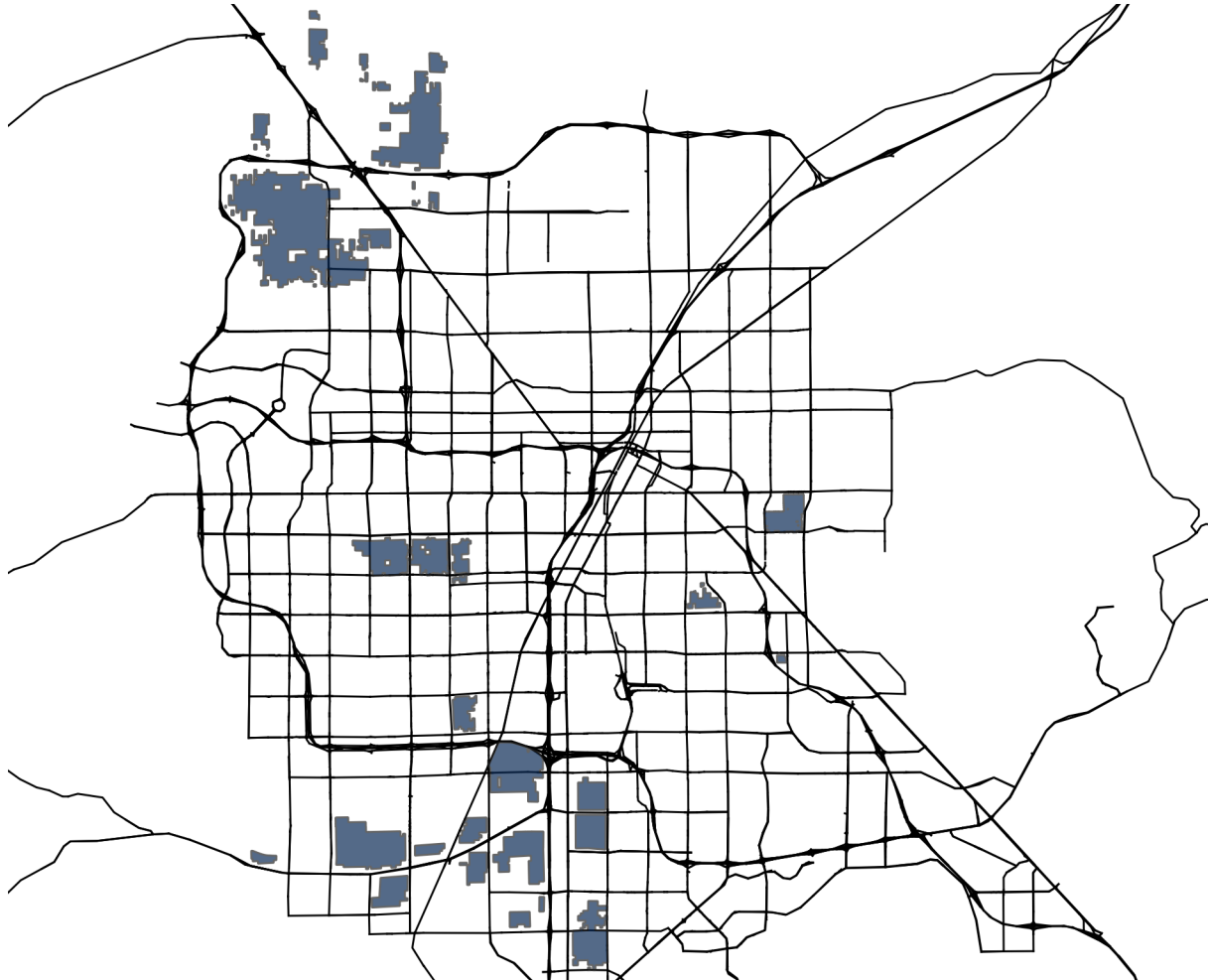
Land Supply Dynamics in RNP Zoning District



Established in 1999, the Rural Neighborhood Preservation designation protects thousands of acres of land from dense new residential development. This designation has significant implications for land developers seeking to build new housing units in these areas. The following depicts historical development patterns and a calculation of effective RNP land remaining

Rural Neighborhood Preservation (RNP)

Clark County, Nevada



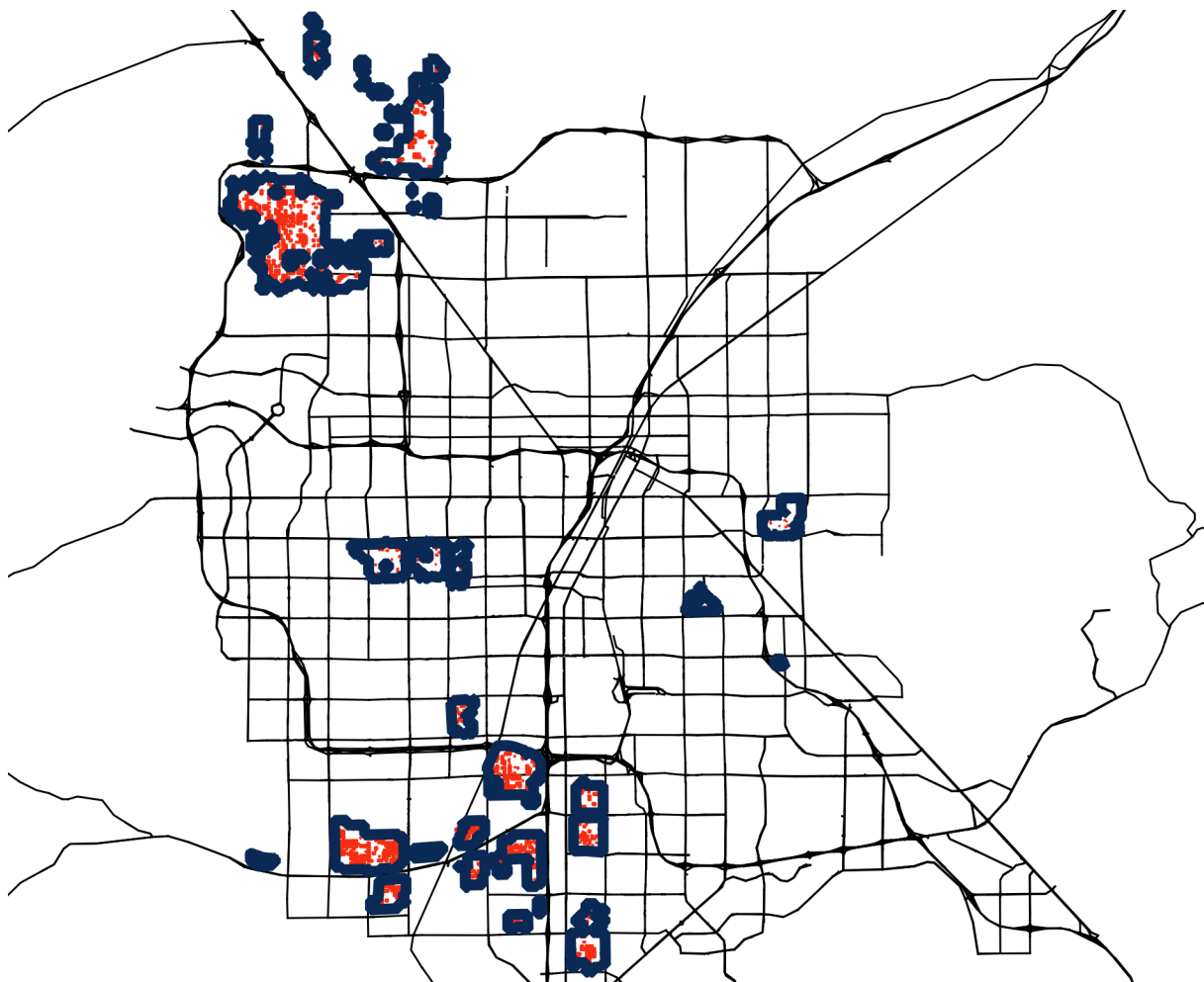
Source: Clark County GIS Management Office (GISMO); Nevada Revised Statutes

NRS 278.150

Per Nevada Revised Statute (NRS) NRS 278.150, Clark County Nevada is required to prepare and adopt a master plan to govern long-term physical development in the County. The master plan includes various elements to address specific issues such as the conservation of natural resources, proper removal and disposal of waste, conservation of historical neighborhoods, development of affordable housing and management of public facilities services.

Vacant Residential Parcels in RNP District

Title 30, Clark County Unified Development Code



Vacant Parcels

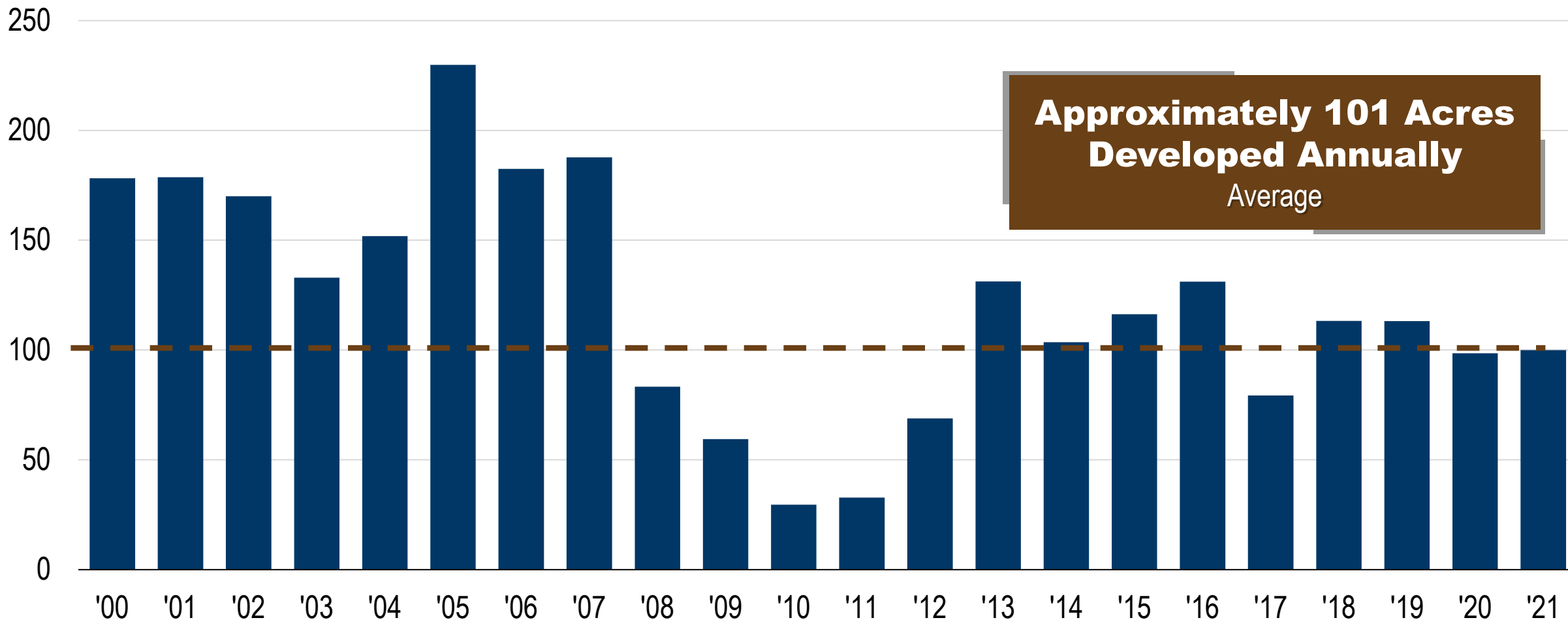
Vacant Acres

1,885 **3,415**

Source: Clark County GIS Management Office (GISMO); Clark County Unified Development Code

Development of RNP Parcels

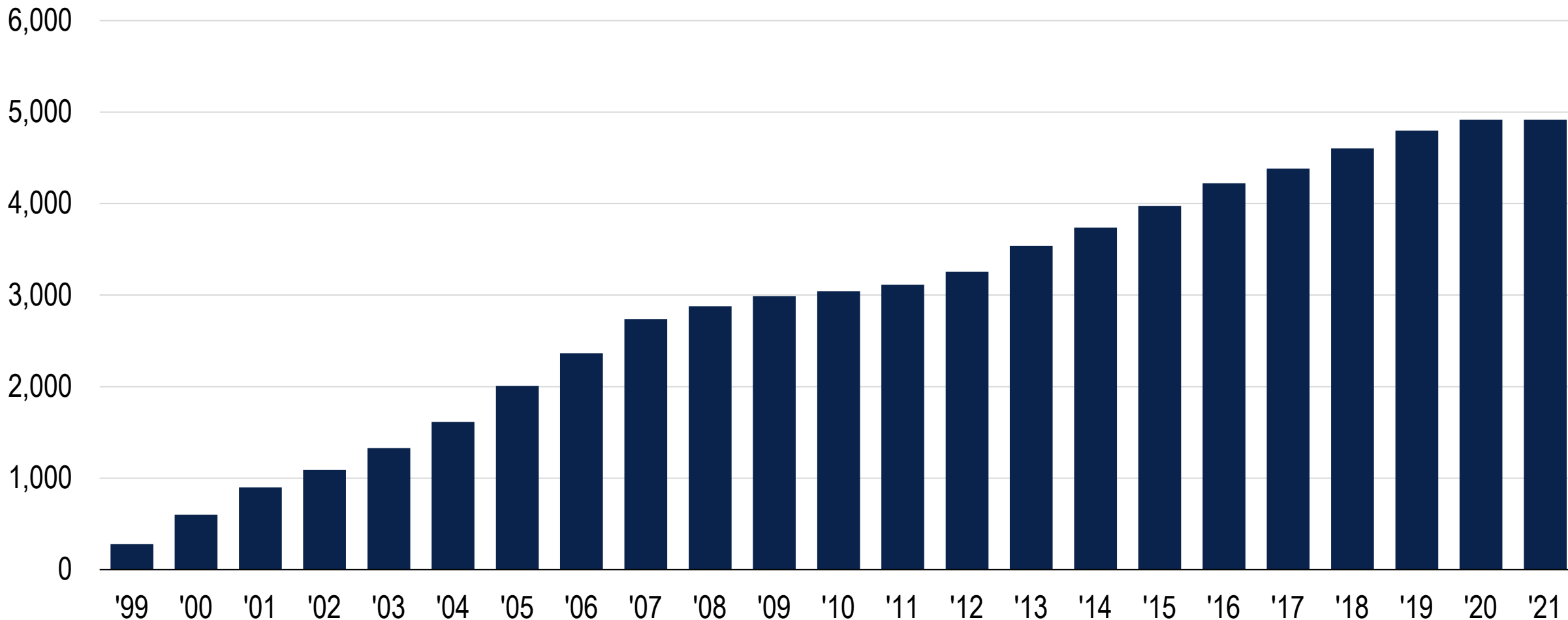
Annual Acres Developed



Source: Clark County Assessor's Office

Total Housing Units Added

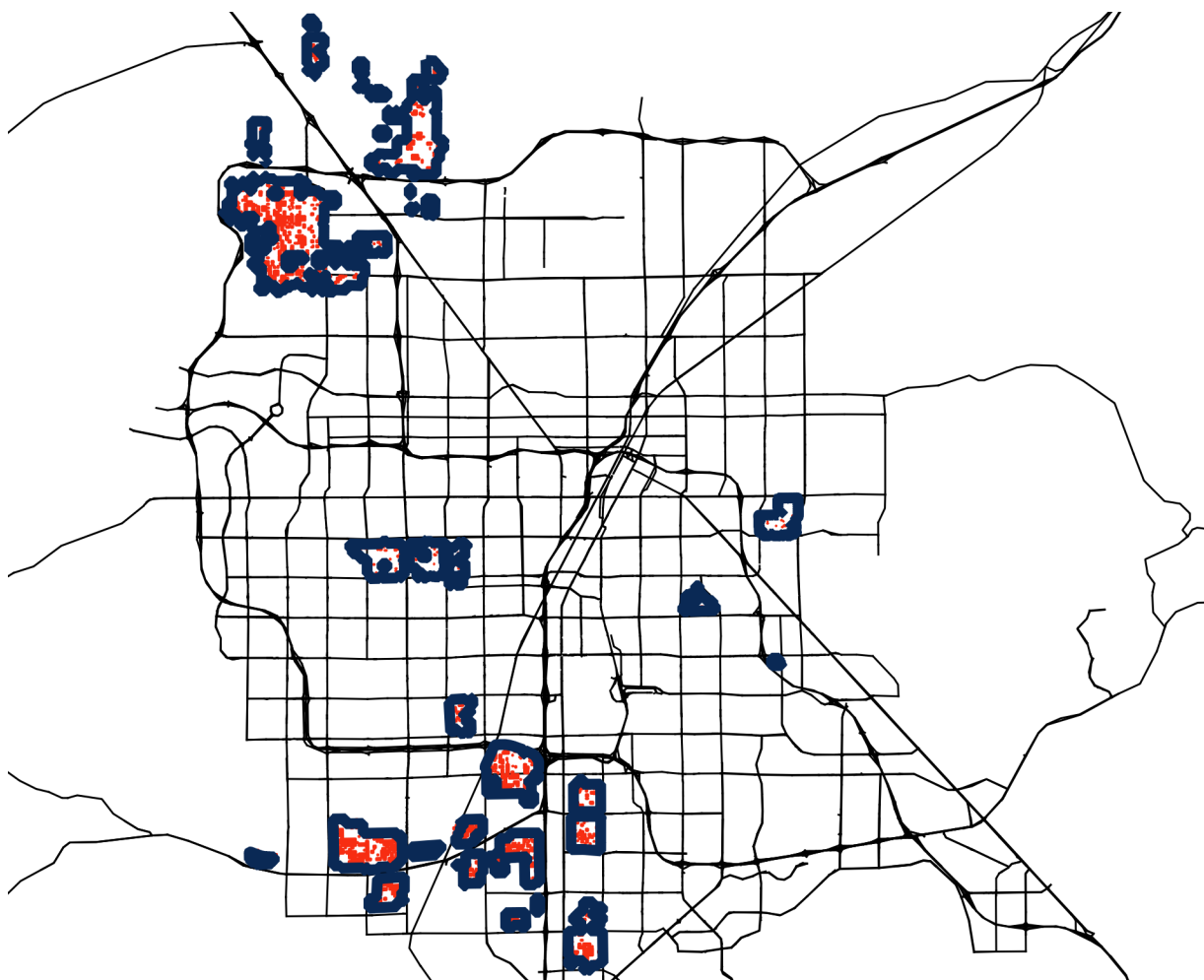
In RNP District



Source: Clark County Assessor's Office

RNP District

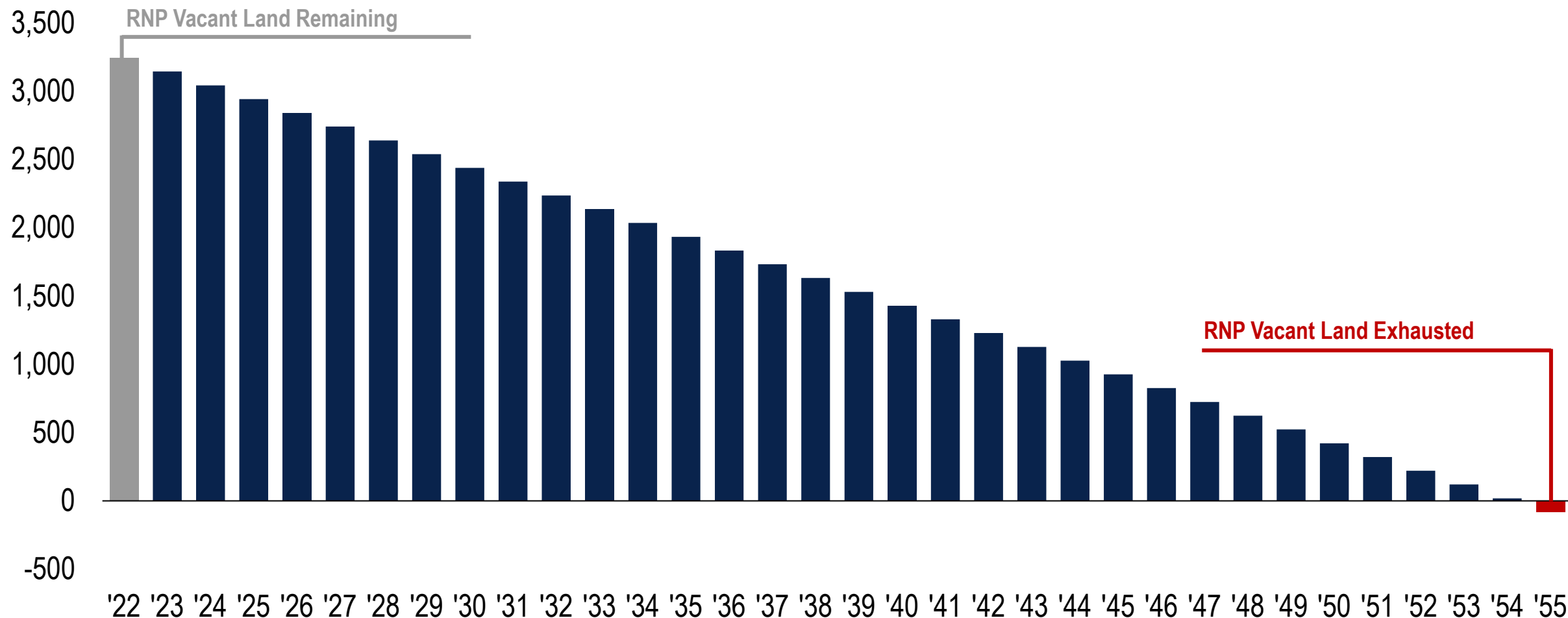
Vacant Land



Current Vacant RNP Land (Acres)	3,415
Annual Average Absorption (Acres)	100.8
Estimated Years of Availability	34 Years

Annual Remaining Vacant Land in RNP District

Assuming Rate of 101 Acres Built Per Year



Source: Clark County Assessor's Office

Research Considerations

Data Collection Process, Methodology and Limitations

A market analysis is used as an economic decision-making tool. Economics is concerned with choices made in a competitive environment under the constraint of limited resources. In a real estate context, market analysis examines the productive attributes of a property vis-à-vis the relationship of supply and demand, delineating the market in which the property competes. For purposes of this analysis, housing demand estimates are sourced to long-range population forecasts in an unconstrained environment. Comparative analyses considered potential limitations of land availability.

Our analysis began by collecting data, which included background economic and demographic information covering Nevada, including the Southern Nevada region. Other relevant market and development information were also collected, analyzed and considered. Subsequently, we performed a demand analysis based on historical market performance. This includes the identification of appropriate demand factors, analyzing demographics, reviewing household incomes and considering several other key elements. Based on these estimates, demand projections were prepared. Following the demand analysis, we alternative conditions in the land market. It is from the combination of these analyses, quantitative and qualitative, that our ultimate conclusions were derived.

The information used in, and arising from, this analysis is based upon assumptions that are subject to uncertainty and variation. As a result, the estimates do not represent results that will be achieved in the future. There will usually be differences between projected and actual results as events and circumstances frequently do not occur as expected; the differences may be material. This report, the findings contained herein, and the analysis underlying the findings have been prepared to demonstrate the possible effect of future hypothetical occurrences showing the potential supply and demand for residential product. These occurrences are deemed reasonable based on the assumptions and underlying analyses contained herein. This analysis also assumes necessary approvals from the appropriate jurisdictions with respect to comprehensive plan amendments, zoning variances, re-subdividing the parcels and/or re-defining the boundaries of any proposed development, as deemed necessary, are obtained.

Real estate development is constantly taking place. Some of the analyses contained in this report are generated using shapefiles and parcel data made available through the Clark County Assessor's website. These data are constantly changing along with parcels as they are developed. AA attempted to use the most recent data available to complete the analysis and generate the accompanying map files. Results contained in this report are as of the latest available information.

The analysis and conclusions contained in this report are subject to further revisions, amendments and adjustments as additional information may become available. Additionally, we may generate updated or supplemental graphs, charts, exhibits and/or analyses to assist in explaining conclusions in the future.