Real Estate Reports

Samples

Gilbert Market Research
and Data Analytics

The U.S and Texas Housing Market

Economic and Residential Real Estate Trends: U.S., Austin-Round Rock, and San Antonio-New Braunfels

First Quarter 2022

Prepared May 8, 2022

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I. Executive Summary

In the first quarter of 2022, the headlines that dominated the real estate market were all about rising prices and diminishing inventory. Home prices were sky rocketing, interest rates were exceeding years-old levels, and construction costs were multiplying. Gone were the discussions about the growing ibuyer market or the new develop-to-rent models. There was less talk about manufactured homes and 3-D printing. Pricing and inventory overwhelmed the top-of-mind of realtors.

Here are the key findings about the U.S. economy as it affects the housing market and also about the residential market in Austin-Round Rock and San Antonio-New Braunfels for the first quarter of 2022. More specific points are made throughout the report.

- Inflation was at 8.5% in March 2022, the highest number since January 1982 (marketwatch.com).
- The construction materials supply chain was still stalled. Everything from raw materials to appliances was delayed, sometimes up to several months.
- Price inputs to residential construction went up 15% for services and 8% for materials since the start of the year.[1] Labor shortages continued. Construction job openings in February 2022 were 381,000, up 48% vs. YA (257,000 in February 2021).[2]
- All home-related prices were on the rise in the first quarter and through March of 2022. Mortgage interest rates for a 30-year fixed were 4.4% in March to 5.5% and beyond in May 2022) after almost two years below 3.5%[3]. Median prices for new homes ($436,700 in March 2022, up 21% YOY)[4] and average prices for existing single-family homes ($391,200 in March 2022, up 9% YOY)[5] continued their steep ascent. Building materials were up 20.4% YOY, March 2022 vs. 2021[6].
- However, there were signs that the blistering pace of prices was weakening. Between the fourth quarter of 2021 and the first quarter of 2022, the median sales price for new homes grew only 1.2% ($423,600 to $428,700).[7] See Table 8.
- Unlike prices, unit sales of single-family homes were heading in negative territory, falling at an estimated -9.1%[8] in the first quarter of 2022. Existing home sales in units were also down for both February (-7.2% from the previous month) and March 2022 (-2.7% from the previous month).[9] (See Section III-E Table 5 and III-F Table 6)
- Inventory remained low: As of February 2022, there was a nationwide supply gap of 3.8 million homes, according to Freddie Mac. The latest U.S. Census-HUD release from April 26, 2022 (For March 2022) reported a 6.4 months' supply of new homes for sale nationally, but this did not reflect the Texas market, where the inventory was languishing at 1.1 months supply in the first quarter of 2022.[10] (See Section V-D)
- Single family starts were also slowing, down by 1.7% in March vs. February 2022, (U.S. Census Bureau and U.S. Department of Housing and Urban Development 2022).
- Multifamily development, however, was on the plus side for construction of five or more units, with a 19.2% increase in permits and a 25.6% increase in starts YOY first quarter of 2022. The completion rate was down for

[1] NAHB, April 15, 2022. https://www.nahb.org/blog/2022/04/building-materials-prices-start-2022-with-8-percent-increase.
[2] Source: State Employment and Unemployment Summary, Released Friday, April 15, 2022, USDL-22-0623, https://www.bls.gov/news.release/laus.nr0.htm
[3] Bankrate monitor, May 5, 2022.
[4] Monthly New Residential Sales, March 2022, U.S. Census Bureau, Hud, April 26, 2022
[5] National Association of Realtors, Mean Sales Price of Existing Single-Family Homes [HSFAVGUSM052N], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/HSFAVGUSM052N, May 5, 2022.
[6] Building Materials Prices Rise Further, April 13, 2022, based on the Producer Price Index Report and analyzed by the NAHB
[7] U.S. Census, Table Q6. Median and Average Sales Price of New Houses Sold by Region.
[8] U.S. Census Bureau, New Home Sales, Annual Rate for Single-Family Houses Sold, Seasonally Adjusted 2000 to 2022 and March 2022 Monthly New Residential Sales Report, April 26, 2022.
[9] Existing Single-Family Home Sales, National Association of Realtors, retrieved from FRED, Federal Reserve Bank of St. Louis.
[10] Monthly New Residential Sales, Release Number: CB22-65, U.S. Census Bureau and HUD, April 26, 2022.

all housing sizes, most likely reflecting materials costs, labor deficits, and supply chain lags. (See Section III-A, Part 4, Table 2)

- In the first quarter of 2022, the main story in Texas, as in most of the nation, was all about high prices and low inventory. The state's median housing sales price for the first quarter of 2022 was $325,000, up 18.6% from a year ago. Inventory was down to 1.1. months' supply (the national average is over six months). First quarter, unit sales in Austin were fairly flat, down 1% for a total of 8,182 YOY, but median prices maintained their meteoric ascent, up 25.9% vs. YA to $500,000. Active listings were also up, which helped push the inventory to 0.5.
- Unit sales gained a modest 2.5% YOY in San Antonio-New Braunfels, but median sales prices were up 18.9% to $309,000. Similar to other areas in Texas, inventories in the San Antonio MSA were at low levels with 1.1 months' supply. A 4.8% downturn in active listings in Q1 2022 added to the market pressure. [11]
- Permits for single-family homes were essentially flat in Austin-Round Rock during this period and down -14% in San Antonio MSA. In a nonparallel fashion, housing permits were down in Q1 2022 for multifamily units in Austin-Round Rock, while they were up significantly in San Antonio-New Braunfels, according to the NAHB's and Census Bureau's figures. Some of the reductions in housing permitting and starts may be the result of construction already in the pipeline from a very active 2021 and from other factors (materials delays and labor shortages--low unemployment rates of 2.7% in Austin and 3.5% in San Antonio) that have held back completions.

As you go through this report, some things to keep in mind are that there is an abundance of housing data available to researchers today. How data are gathered, how numbers are categorized, how sums are calculated, and how the information is described may differ across databases and sources. Numbers are revised often. Every attempt was made to ensure consistency throughout this report, although that was not always possible. Therefore, you will find notations and sources so that further study may be made if so desired. Finally, abbreviations in this report are numerous. *MSA* stands for metropolitan statistical areas as defined by the Census Bureau. *YA* is year ago and is interchangeable with YOY, or year over year. *% CHG* is percent change.

II. National Trends that Impact the Residential Real Estate Market

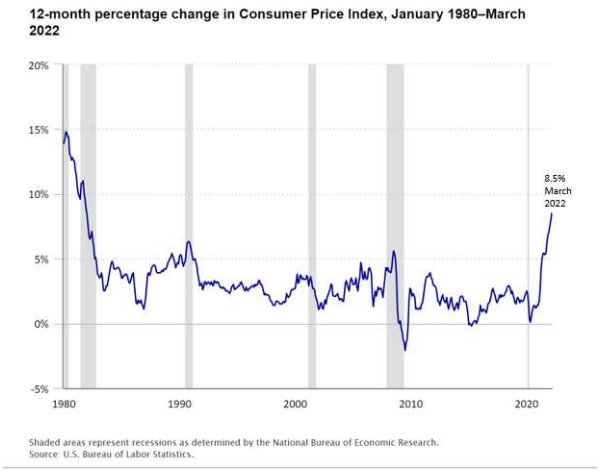
Current statistics, market forces, and predictors of housing supply and demand on the national level appear below.

A. The Economy

1. U.S. Consumer Price Index (Source: BLS)

Key Point: Consumer prices rose 8.5% for the 12 months ending March 2022. According to MarketWatch, the inflation rate hasn't passed the 8% mark since January 1982, over 40 years ago.

Figure 1



[11] Texas Quarterly Housing Report, First Quarter 2022, Texas Realtors Data Relevance Project and the Real Estate Center at Texas A&M University.

2. U.S. Employment/Unemployment Summary – Focus on Construction jobs (Source: BLS)

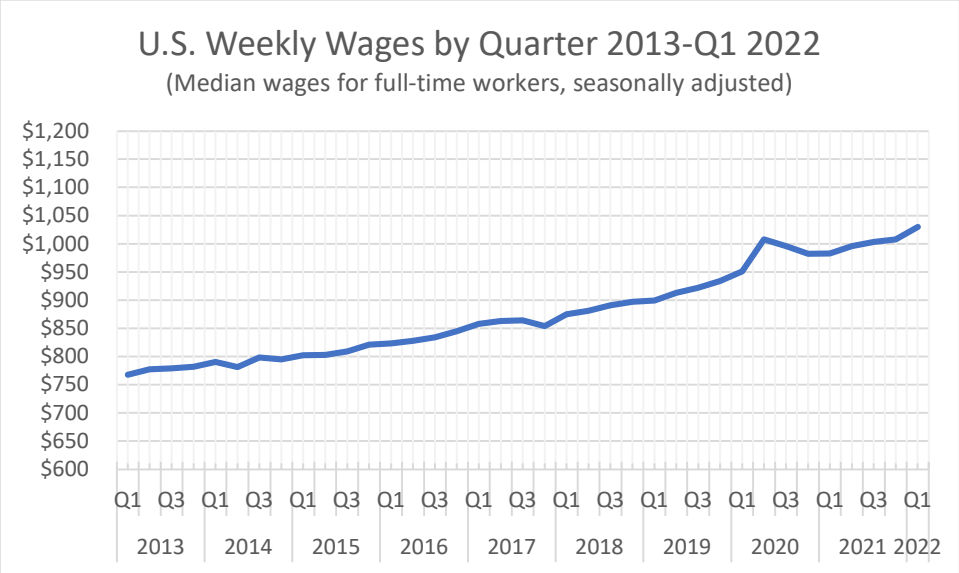
Key Point: The labor shortage, evidenced by the large number of construction job openings, contributed to building delays in first quarter 2022.

The U.S. unemployment rate for March 2022 was 3.6%. Construction job openings in February 2022 were 381,000, up 48% vs. YA (257,000 in February 2021).[12]

3. Weekly Wages (Source: BLS)

Key Point: Weekly earnings by full-time workers were on a slow but steady climb, reaching $1,030 in current dollars in the first quarter of 2022.

Figure 2



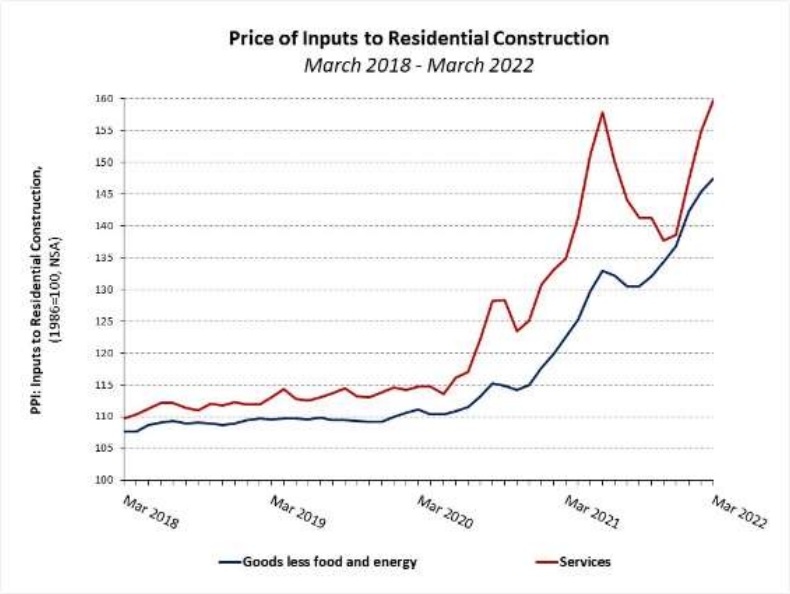
Source: Bureau of Labor Statistics. Table 1. Median usual weekly earnings of full-time wage and salary workers by sex, quarterly averages, seasonally adjusted.

4. Special Issues: Supply Chain and Materials Pricing

Key Point: According to the NAHB, "there was an 8% jump in building materials prices" and a "15.2% increase in service inputs to residential construction since the start of 2022." [13] There were continued delays in goods such as garage doors and appliances of up to 16 weeks. Advancing lumber prices added $18,600 to the price of a single-family home.[14]

[12] Source: State Employment and Unemployment Summary, Released Friday, April 15, 2022, USDL-22-0623, https://www.bls.gov/news.release/laus.nr0.htm
[13] NAHB, https://eyeonhousing.org/2022/04/building-materials-prices-rise-further/
from the Producer Price Index from the BLS
[14] Source: RISING COSTS, SUPPLY CHAIN CHALLENGES CONTINUE TO HINDER HOME BUILDING, https://www.builderonline.com/building/rising-costs-supply-chain-challenges-continue-to-hinder-home-building_o

Figure 3



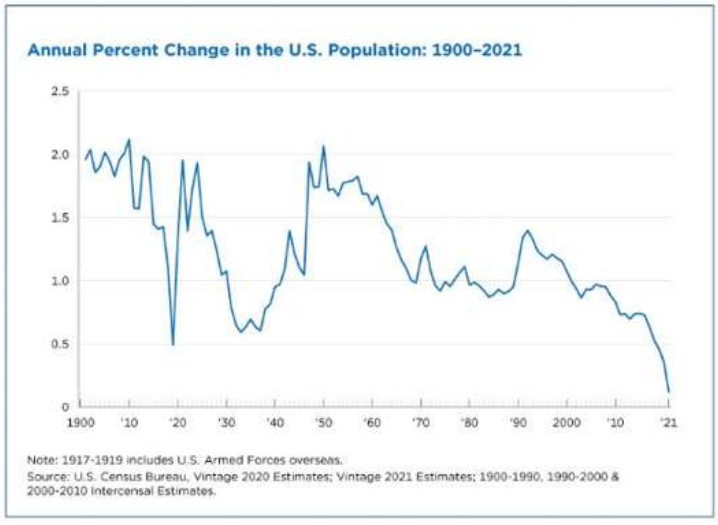
Source: NAHB, https://eyeonhousing.org/2022/04/building-materials-prices-rise-further/
from the Producer Price Index from the BLS

B. Demographics

1. Population Growth (Source: Census)

Key Point: Overall, the nation's population grew about 0.1% from July 1, 2020 to July 1, 2021, the slowest period ever recorded in the U.S. (U.S. population estimate as of July 1 2021: 331,893,745).[15] More deaths than births were reported in many counties in the U.S., and international migration, a major source of population growth, was interrupted by the Covid-19 pandemic.[16]

Figure 4.



[15] U.S. Census Bureau, CBSA-MET-EST2021-CHG database, Annual and Cumulative Estimates of Resident Population Change for Metropolitan Statistical Areas in the United States and Puerto Rico and Metropolitan Statistical Area Rankings: April 1, 2020 to July 1, 2021.
[16] U.S. Census Bureau, Release CB22-51, March 24, 2022.

In 2021, those counties that registered population increases grew as a result of domestic migration, people moving from one U.S. county to another. The biggest population "gainers" were in the Sun Belt counties in Arizona, Texas, California, and Florida. Five of the top ten counties that experienced the highest growth July 2020 to July 2021 were in Texas: Collin, Fort Bend, Williamson, Denton, and Montgomery. The biggest population losers were in some of the most populous urban areas in the country such as New York City, Los Angeles, Cook County (Chicago), and Miami-Dade.[17]

2. Migration Flows (Source: Census)

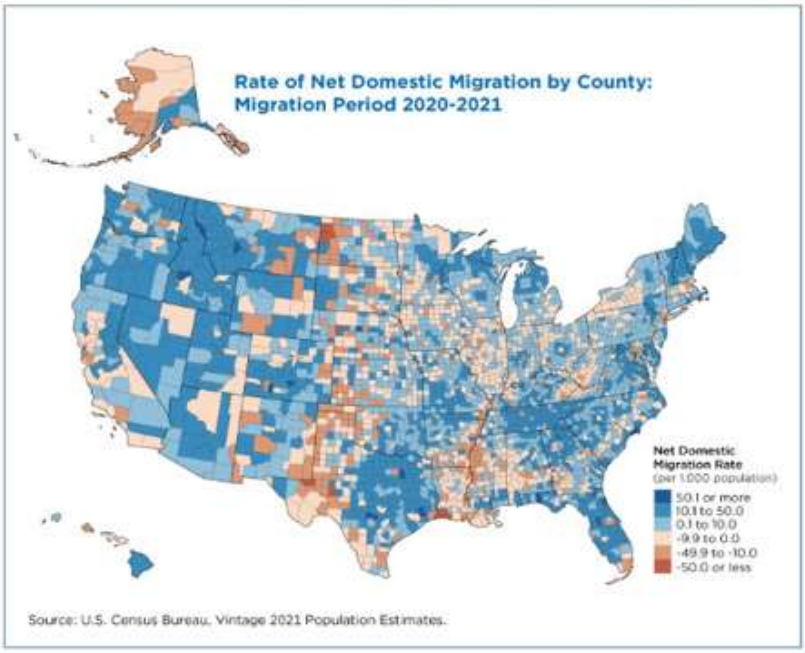
Key Point: Positive net domestic migration (the inflow minus the outflow of people moving from one area of the U.S. to another) was greatest in the Southern region of the U.S., which included two of the states with the greatest positive shifts: Texas and Florida.

Figure 5

Net Domestic Migration by Region: 2019–2020 and 2020–2021

Region	2019–2020	2020–2021	Numeric change
Northeast	-315,166	-389,638	-74,472
Midwest	-207,685	-123,103	84,582
South	503,502	657,682	154,180
West	19,349	-144,941	-164,290

Note: Migration periods represent July 1 to June 30 of specified years.
Source: U.S. Census Bureau, Vintage 2020 and Vintage 2021 Population Estimates.



3. Homeownership and Buyer Profile (Source: Census, NAR)

Key Point: Homeownership in the U.S. is highly correlated to age (Table 1). It remains highest for those 55+ years of age. Younger generations (Millennials, whose oldest members have reached age 40, and Gen Z), however, are increasing their share as they age and as the elderly move on.

[17] Table 2, Census Bureau Release CB22-51, March 24, 2022, https://www.census.gov/newsroom/press-releases/2022/population-estimates-counties-decrease.html

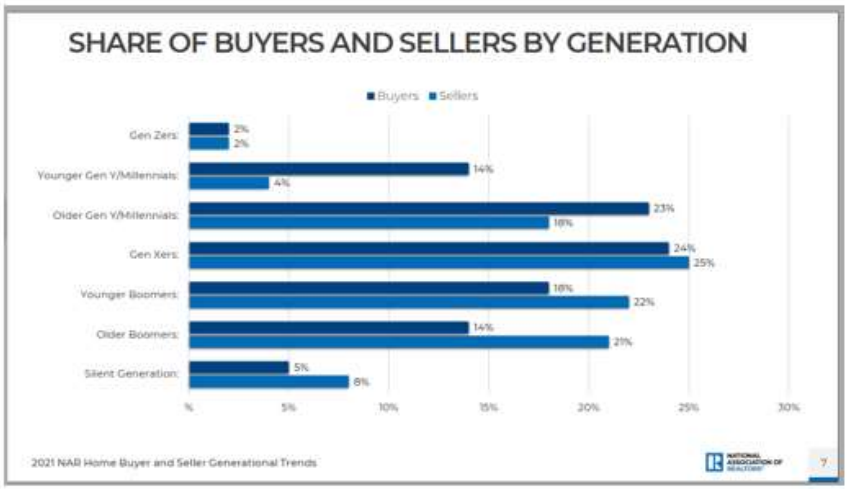
Table 1

Homeownership Rates by Age of Householder for First Quarters 2017 to 2022							
	Q1 2017 (%)	**Q1 2018 (%)**	**Q1 2019 (%)**	**Q1 2020 (%)**	**Q1 2021 (%)**	**Q1 2022 (%)**	**% Chg 2017 to 2022**
U.S.	63.6	64.2	64.2	65.3	65.6	65.4	2.8%
Under 35	34.3	35.3	35.4	37.3	38.1	38.8	13.1%
35-44	59	59.8	60.3	61.5	62	62.3	5.6%
45-54	69.4	70	69.5	70.3	69.4	69.4	0.0%
55 to 64	75.6	75.4	75.4	76.3	75.7	75	-0.8%
65+	75.6	75.4	75.4	76.3	75.7	75	-0.8%

Source: U.S. Census Bureau, Quarterly Residential Vacancies and Homeownership, First Quarter 2022, April 27, 2022.

The chart below may not be duplicated or distributed. It is for informational purposes only. (Subject to NAR copyright)

Figure 6



Generations per this chart: Silent Generation 1925-1945, Older Boomers 1946-1954, Younger Boomers 1955-1964, Gen X 1965-1979, Older Gen Y and Millennials 1980-1989, Younger Millennials 1990-1998, Gen Z 1999 to present.

Source: https://www.nar.realtor/sites/default/files/documents/2020-generational-trends-report-03-05-2020.pdf

C. Regulations Affecting the Housing Market

Key Point: Home builders and developers expressed frustration with zoning regulations that prevent them from producing starter homes or higher-density dwellings. These regulations may be challenged.

Emerson Claus, President of the Home Builders and Remodelers Association of Massachusetts, in a March 29, 2022 interview with NPR explained that one of the problems with meeting the demand for first-time buyers is that "in many places, zoning rules won't let you buy land and divide it up — you can only build one house with a big yard." This sentiment was echoed by Robert Dietz, the chief economist with the National Association of Home Builder.[18]

[18] Arnold, Chris. 2022. "There's never been such a severe shortage of homes in the U.S. Here's why." March 29. Accessed April 21, 2022. https://www.npr.org/2022/03/29/1089174630/housing-shortage-new-home-construction-supply-chain.

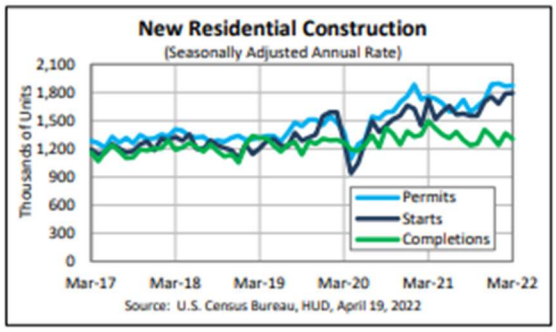
III. The National Housing Market

A. Supply: Building Permits, Starts, and Completions for Residential Construction (Source: US Census, HUD)

Key Point: In the first quarter of 2022, permits increased 5% YOY, starts increased 9.7% YOY, and completions, which have not been keeping pace with permits and starts, decreased 6.4%. The greatest growth in new residential construction was recorded in the permitting and starts of multifamily units of 5 or more, which shot up 19.2% and 25.6% respectively for first quarter 2022 versus year ago.

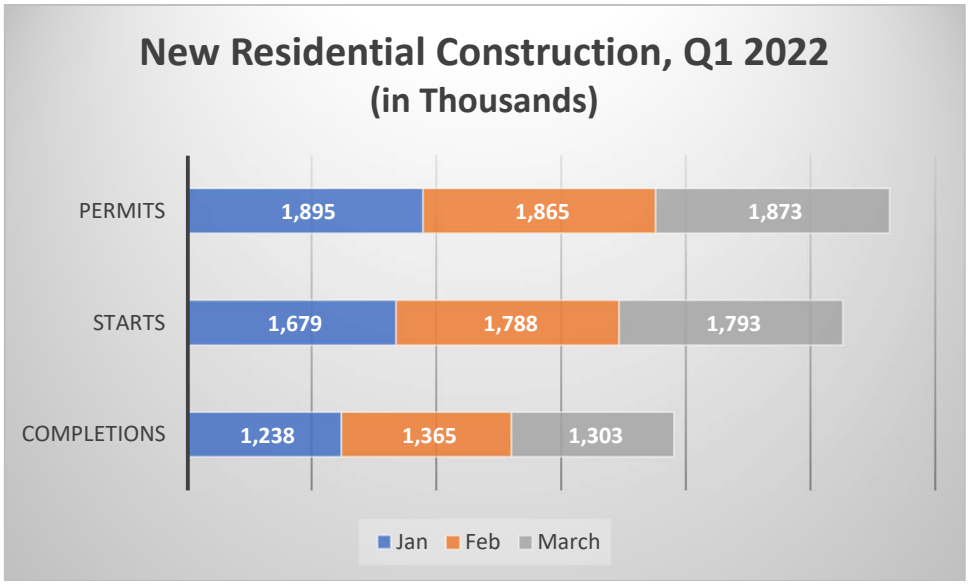
1. Snapshot: March 2022 Permits (↑6.7% YOY), Starts (↑3.9% YOY) and Completions (↓13.0% YOY)

Figure 7



2. U.S. Permits, Starts, and Completions. First Quarter 2022 (Seasonally adjusted)

Figure 8



Source: Census Bureau and HUD, Monthly New Residential Construction, March 2022, Release Number CB22-64, April 19, 2022.

3. U.S. Permits, Starts, and Completions by Unit Size, First Quarter 2021 and 2022

Key Point: The permitting of single-family homes was down 1.2% in the first quarter of 2022, which may have reflected their greater numbers already in the pipeline. Although multifamily units experienced the greatest growth, their completion rate was down 18.7% for the quarter, which was an improvement over the count for individual month of March 2022 YOY. (-36.1%, 457,000 to 292,000).

Table 2

U.S. New Privately-Owned Housing Units by Size (in Thousands)												
	Permits by Size				**Starts by Size**				**Completions by Size**			
Period	**Total**	1 unit	2 to 4 units	5 units or more	**Total**	1 unit	2 to 4 units	5 units or more	**Total**	1 unit	2 to 4 units	5 units or more
2021												
January	1883	1268	55	560	1625	1143	S	469	1328	1012	S	311
February	1726	1145	48	533	1447	1069	S	365	1347	1017	S	320
March (p)	1755	1194	58	503	1725	1255	S	448	1497	1034	S	457
Total	**5364**	**3607**	**161**	**1596**	**4797**	**3467**	**S**	**1282**	**4172**	**3063**	**S**	**1088**
2022												
January	1895	1213	57	625	1679	1167	S	502	1238	921	S	304
February	1865	1205	54	606	1788	1221	S	534	1365	1068	S	289
March (p)	1873	1147	54	672	1793	1200	S	574	1303	1000	S	292
Total	**5633**	**3565**	**165**	**1903**	**5260**	**3588**		**1610**	**3906**	**2989**	**NA**	**885**
% Chg YOY	5.0%	-1.2%	2.5%	19.2%	9.7%	3.5%		25.6%	-6.4%	-2.4%		-18.7%

Source: Census Bureau and HUD, Monthly New Residential Construction, Tables 1A, 3A, and 5A, January-March 2022, April 19, 2022.

4. Permits, Starts, and Completions by Region March 2021-March 2022, Seasonally Adjusted

Key Point: By far, the highest raw numbers for new residential construction were reported in the southern region of the country, led by Texas and Florida. However, the Northeast had the greatest positive change of housing starts 2021 to 2022 at 12.3%. All regions were in the minus column for first quarter completions, 2021 to 2022. See Appendix D for a table.

Figure 9

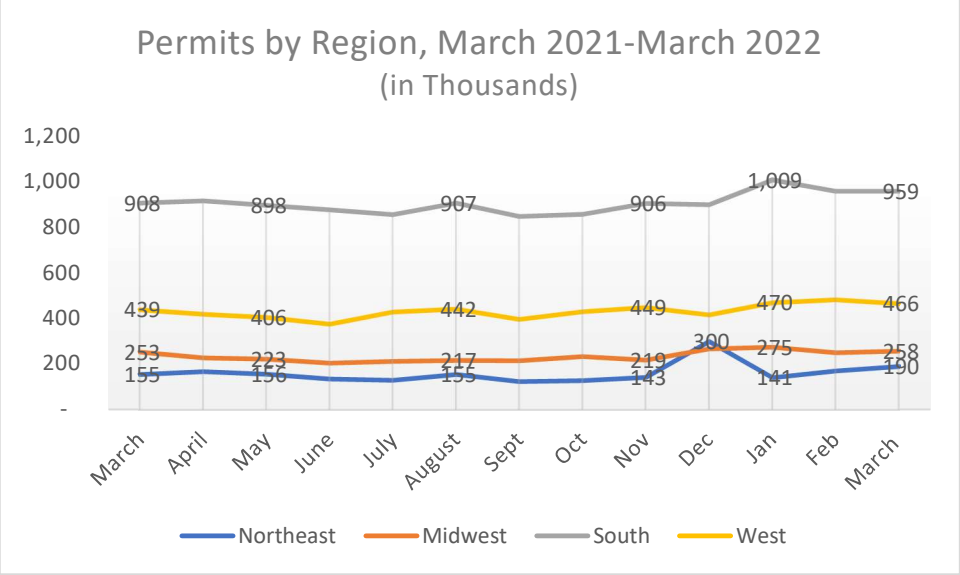


Figure 10

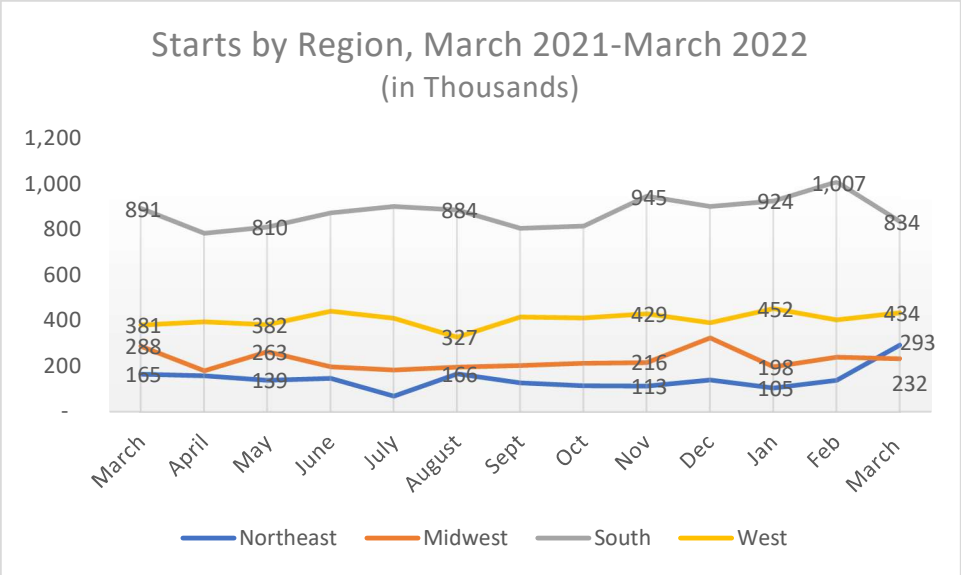
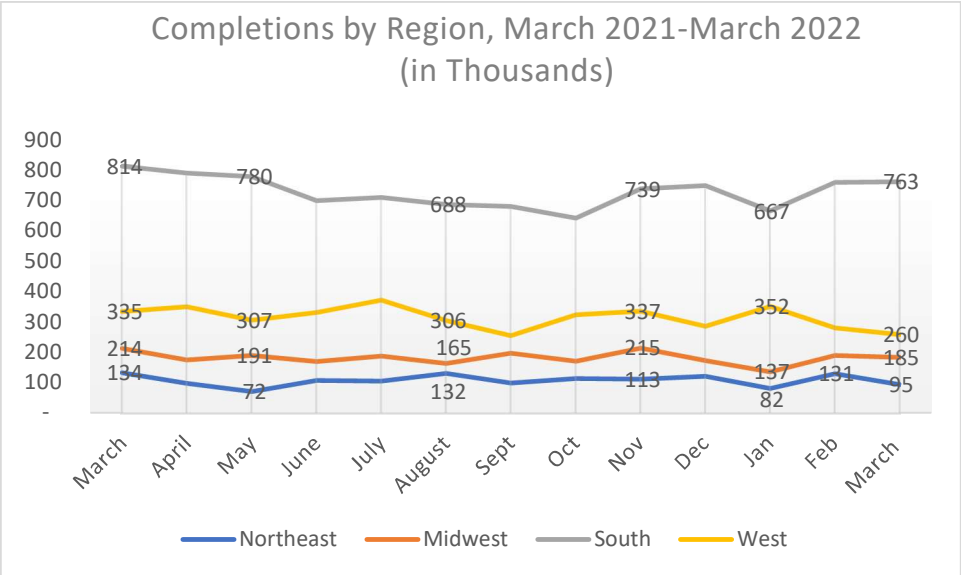


Figure 11

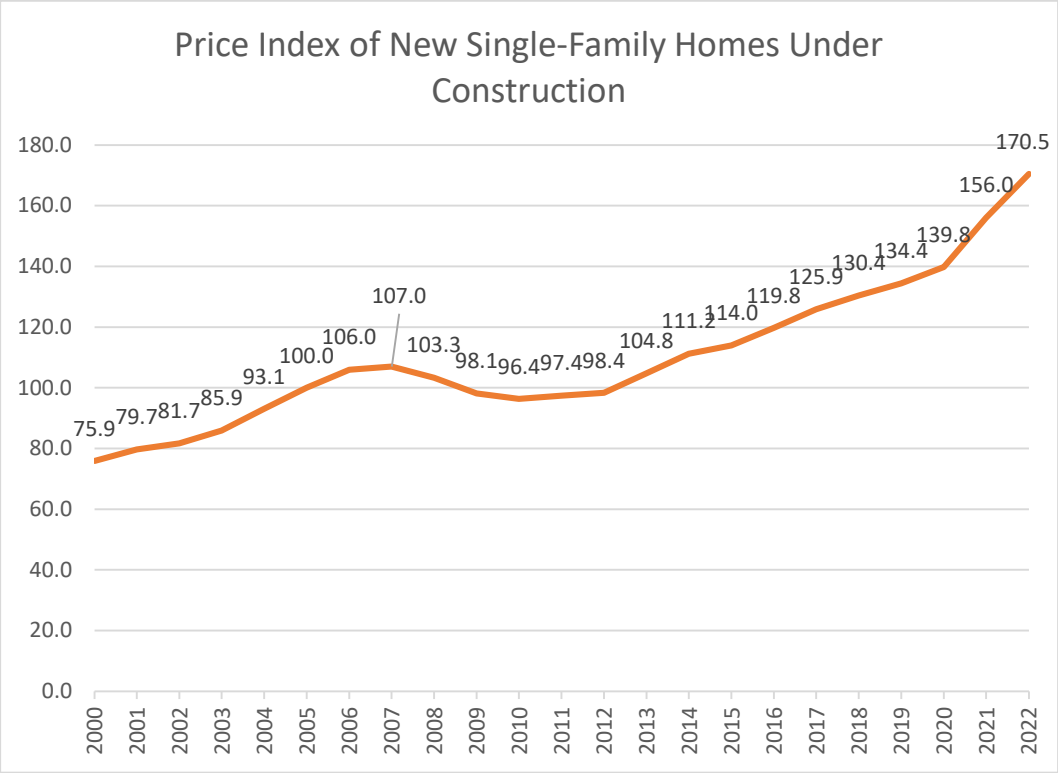


Source: (For all three figures above) Census Bureau and HUD, Monthly New Residential Construction, Tables 1A, 3A, and 5A, January-March 2022, April 19, 2022.

B. Construction Price Index for New Single-Family Homes

Key Point: Between the index year of 2005 and February of 2022, the construction value of a single-family home of similar quality to historical years rose 70.5%. (Note: This is not the same as the sales price or market value of a home, nor does this equate to the "Total New Private Single-Family Construction Value Index used by the Texas A&M University Texas Real Estate Research Center.)

Figure 12



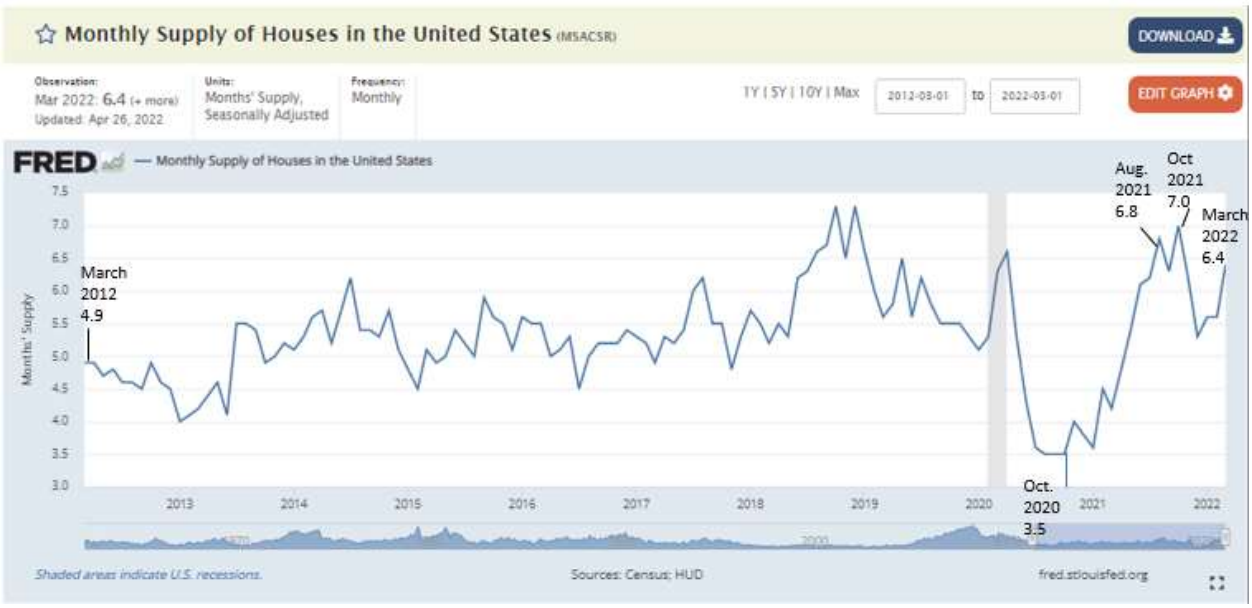
Source: census.gov price_uc_cust.xls based on Constant Quality (Laspeyres) Price Index on an annual basis.
Note: Index year 2005 = 100

C. Supply Inventory: Months' Supply of Houses U.S., March 1, 2021 to March 1, 2022 (6.4 months)

1. U.S. Supply of All Homes

Key Point: At 6.4 months'supply, the U.S. housing inventory in 2022 was still recovering from pandemic depths of 3.5.

Figure 13



Source: U.S. Census Bureau and HUD, https://fred.stlouisfed.org/series/MSACSR

2. U.S. Supply of New and Existing Homes (Source: NAHB)

Key Point: At the beginning of the year, existing home inventories were considerably smaller than those of new homes, 1.6 to 1.7 months' supply in January and February 2022.

Table 3

U.S. New and Existing Home Inventory 2017-Feb. 2022				
	New Homes		**Existing Homes**	
	For Sale (000)	**Months' Supply**	**Inventory (000)**	**Months' Supply**
2017	294	5.3	1,460	3.9
2018	348	7.3	1,530	4
2019	327	5.3	1,390	3.9
2020	302	3.8	1,060	3.1
2021	392	5.4	880	2.3
2021-Feb	306	4.5	1,030	2
Mar	305	4.2	1,050	2.1
Apr	317	4.8	1,150	2.3
May	331	5.4	1,210	2.5
June	347	6.1	1,230	2.5
July	365	6.2	1,310	2.6
Aug	378	6.8	1,280	2.6
Sept	378	6.3	1,260	2.4
Oct	388	7	1,230	2.4
Nov	389	6.2	1,110	2.1
Dec	388	5.4	880	1.7
2022-Jan	398	6.1	850	1.6
Feb	407	6.3	870	1.7

Source: National Association of Home Builders, Table 13, New and Existing Home Sales, U.S., https://www.nahb.org/-/media/NAHB/news-and-economics/docs/housing-economics/sales/nationwide-sales-and-inventory.pdf (For data sources, visit URL).

D. Supply: Home Ownership and Vacancy Rates (includes Rentals) (Source: Census)

Key Point: Home ownership rates from the first quarter of 2020-2022 did not vary much statistically (65.3, 65.6, and 65.4). Meanwhile, vacancy rates for both homes and rentals fell in the first quarter of 2022. This may indicate that people are on the move, in between properties.

1. Snapshot: Residential Vacancy and Ownership Rates, First Quarter 2022

Figure 14

2. U.S. Homeownership Rates 1998-2022

Figure 15

3. U.S. Vacancy Rates, Rentals and Homeowner Units

Table 4

Rental and Homeowner Vacancy Rates for the United States: 2018 to 2022

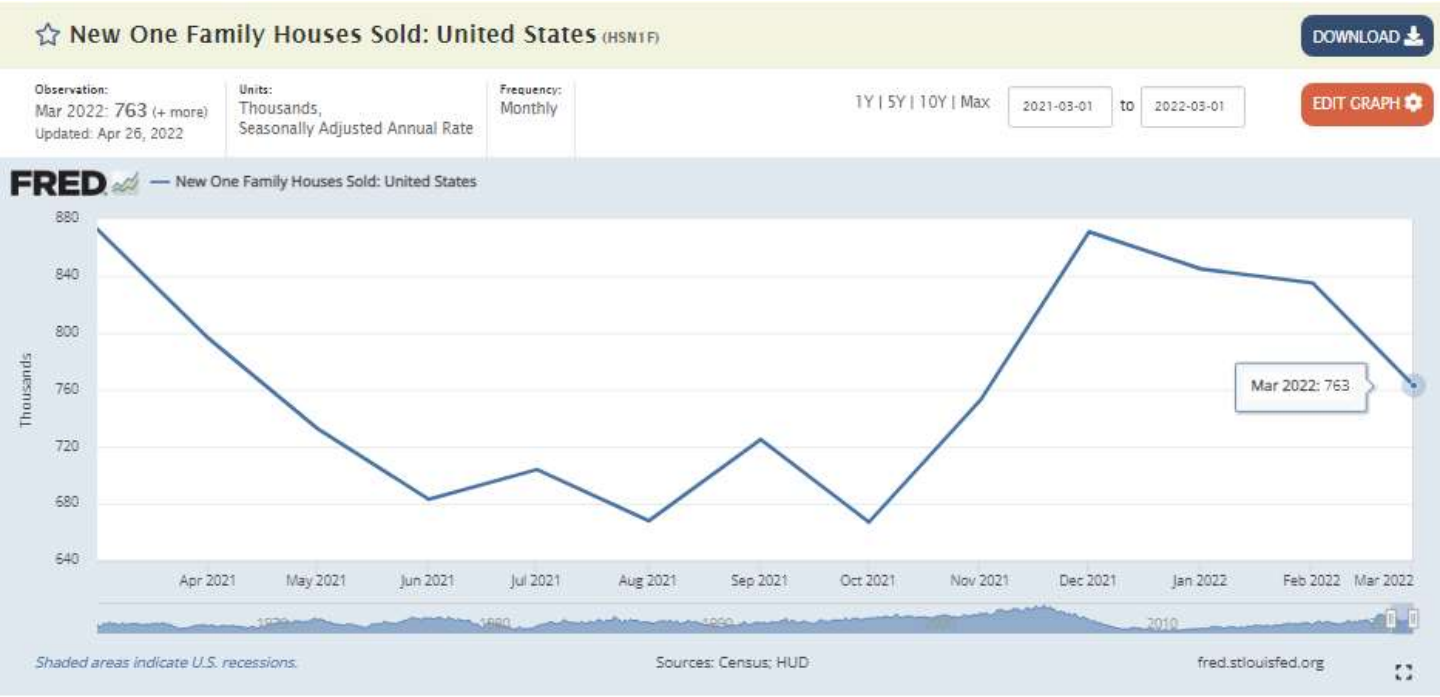
Year	Rental Vacancy Rate (percent)				Homeowner Vacancy Rate (percent)			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2022.....	5.8				0.8			
2021.....	6.8	6.2	5.8	5.6	0.9	0.9	0.9	0.9
2020.....	6.6	5.7	6.4	6.5	1.1	0.9	0.9	1.0
2019.....	7.0	6.8	6.8	6.4	1.4	1.3	1.4	1.4
2018.....	7.0	6.8	7.1	6.6	1.5	1.5	1.6	1.5

Source: U. S. Census Bureau, Quarterly Residential Vacancies and Homeownership, First Quarter 2022, with data from Current Population Survey/Housing Vacancy Survey, April 27, 2022, www.census.gov/housing/hvs.

E. Demand: Residential Sales – Units (Source: Census, HUD, FRED)

Key Point: Sales of new single-family homes decreased two of the three months beginning in January 2022. Unit sales declined -9.1% in Q2 2022 vs. Q1 2021.

Figure 16



Source: U.S. Census Bureau and U.S. Department of Housing and Urban Development, New One Family Houses Sold: United States [HSN1F], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/HSN1F, May 5, 2022.

Table 5

U.S. New Residential Single-Family Sales First Quarter 2021 and 2022 (in Thousands)			
	2021	**2022**	**% CHG**
January	993	845 - r	-14.9
February	823	835 - r	1.46
March	873	763	-12.6
	2,689	2,443	-9.1

Note: numbers for 2022 just revised.

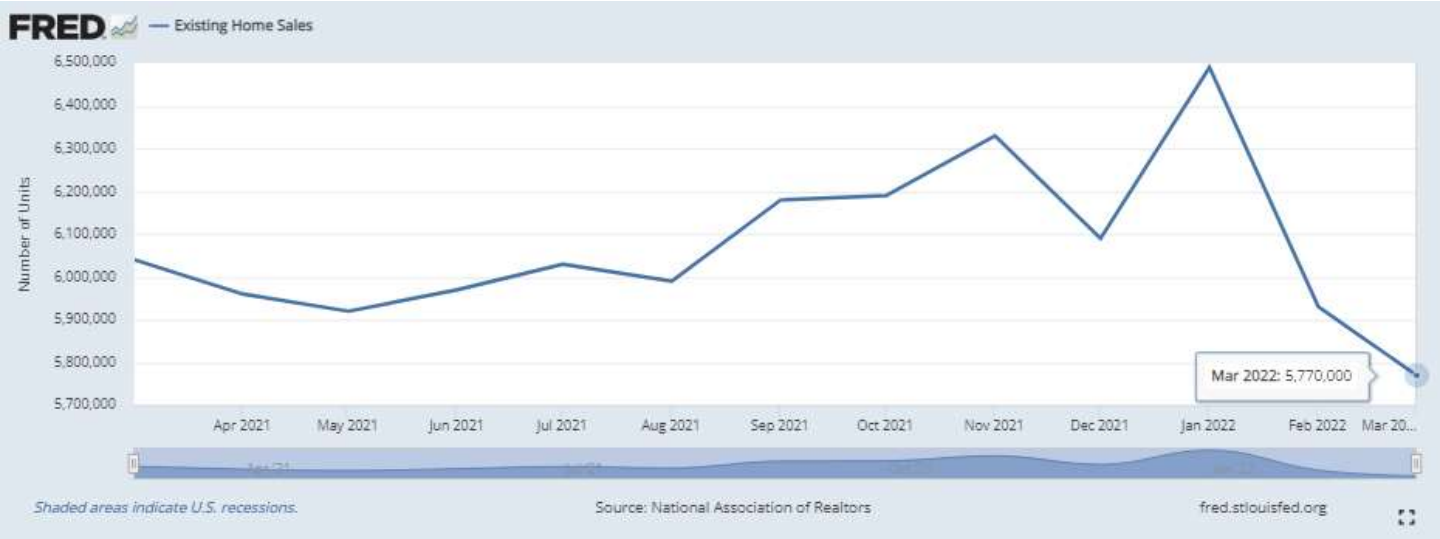
Source: U.S. Census Bureau, Annual Rate for New Single-Family Houses Sold 2000 to 2022 (CIDR) for 2021 and U.S. Census Bureau and U.S. Department of Housing and Urban Development, Monthly New Residential Sales, New Privately Owned Houses Sold, Seasonally-adjusted. April 26, 2022.

F. Demand: Existing Home Sales in Units

Key Point: Sales of existing homes fell in February 2022 vs. the previous month (from 6,490,000 in January to 5,930,000[19] in February—see table below) and then again in March to 5,770,000 million. [20]

[19] National Association of Realtors, Existing Home Sales [EXHOSLUSM495S], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/EXHOSLUSM495S, May 5, 2022.
[20] Existing-Home Sales Dip by 2.7% in March 2022, https://www.investopedia.com/existing-home-sales-dip-in-march-2022-5235701

Figure 17. Existing Home Sales in Units (Thousands)



Source: National Association of Realtors, Existing Home Sales [EXHOSLUSM495S], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/EXHOSLUSM495S, May 5, 2022.

Table 6

Existing Home Sales in Units, Seasonally Adjusted (in Thousands)												
Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb*	Mar
6,040	5,960	5,920	5,970	6,030	5,990	6,180	6,190	6,330	6,090	6,490	5,930	5,770

Note: NAHB shows February 2022 numbers as 6,020,000. See Appendix B for more detail.

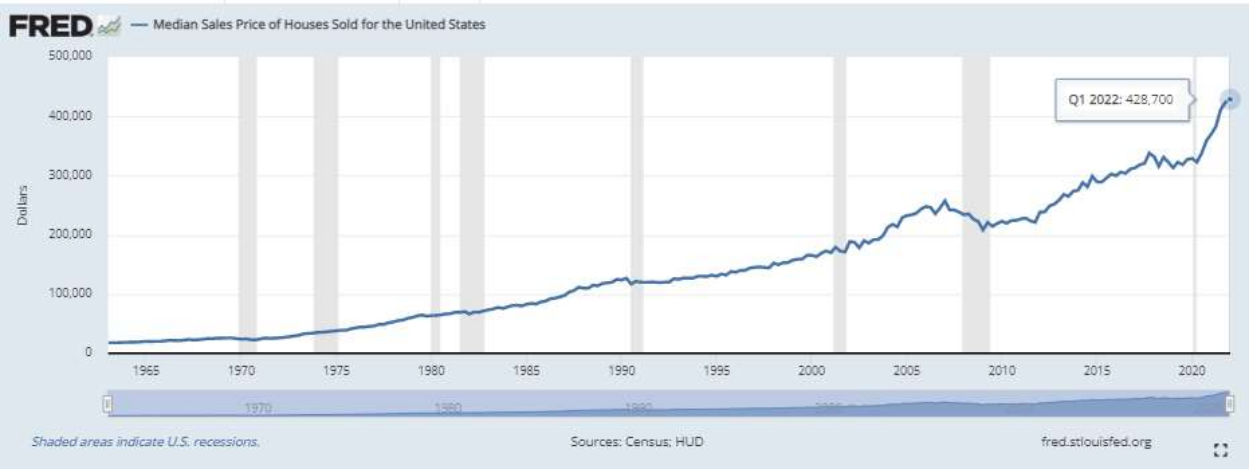
Source: National Association of Realtors, Existing Home Sales [EXHOSLUSM495S], retrieved from FRED, Federal Reserve Bank of St. Louis

G. Demand: Residential Median Sales Prices New Homes

Key Point: According to the Monthly New Residential Sales, March 2022 release from the U.S. Census Bureau, the median sales price for a new single-family home in March was $436,700, and the average sales price was $523,900. For the first quarter of 2022, the median sales price was $428,700, 15.9% more than a year ago. The average sales price in the first quarter was $507,800.[21]

1. Median Sales Price New Houses U.S. through March 2022 (Quarterly)

Figure 18



[21] Quarterly 2022 from census.gov (Quarterly Sales by Price and Financing), URL: https://www.census.gov/construction/nrs/pdf/quarterly_sales.pdf.

Table 7

Median and Average Sales Price New Homes $(in Thousands of Dollars)												
Median Sales Price New Homes												
2021										2022		
Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
359.6	376.6	390.4	374.7	406	404.3	413.2	427.3	430.3	410	431.1	421.6	436.7
Average Sales Price New Homes												
2021										2022		
Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
414.7	434.8	445.3	431.9	462.1	470	470.6	487.7	498.8	491	499.6	508.1	523.9

Source: U.S. Census Bureau and U.S. Department of Housing and Urban Development, Median Sales Price for New Houses Sold in the United States [MSPNHSUS] and Median Sales Price of Houses Sold for the United States [MSPUS], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/MSPUS, May 4, 2022.

2. Median Sales Price by Region

Table 8

Median Sales Price of New Houses by Region by Quarter 2019-2022

Median Sales Price

Period	United States[1]	Northeast	Midwest	South	West
ANNUAL DATA:					
2019	321,500	482,500	289,200	289,000	408,000
2020	336,900	470,700	298,100	299,000	412,600
2021 (r)	397,100	560,900	339,900	355,900	510,400
RSE (%)	*4*	*12*	*7*	*6*	*4*
QUARTERLY DATA:					
2019: 1st quarter	313,000	480,300	288,700	280,000	402,000
2nd quarter	322,500	453,500	273,800	292,400	411,400
3rd quarter	318,400	543,400	294,700	289,900	399,600
4th quarter	327,100	469,500	284,200	290,900	417,500
2020: 1st quarter	329,000	512,100	288,300	279,900	411,900
2nd quarter	322,600	441,000	287,200	290,600	404,300
3rd quarter	337,500	449,500	311,700	294,600	403,000
4th quarter	358,700	508,100	294,600	320,000	427,300
2021: 1st quarter	369,800	511,700	320,600	327,300	473,500
2nd quarter	382,600	543,800	324,100	342,200	490,200
3rd quarter	411,200	523,800	358,800	372,500	516,000
4th quarter (r)	423,600	615,900	372,700	378,000	548,300
2022: 1st quarter (p)	**428,700**	**563,200**	**406,800**	**382,400**	**557,200**
RSE (%)	*4*	*19*	*6*	*2*	*4*

Source: Quarterly 2022 from census.gov (Quarterly Sales by Price and Financing)
URL: https://www.census.gov/construction/nrs/pdf/quarterly_sales.pdf

3. Median and Average Sales Price of Existing Homes through March 2022

Table 9

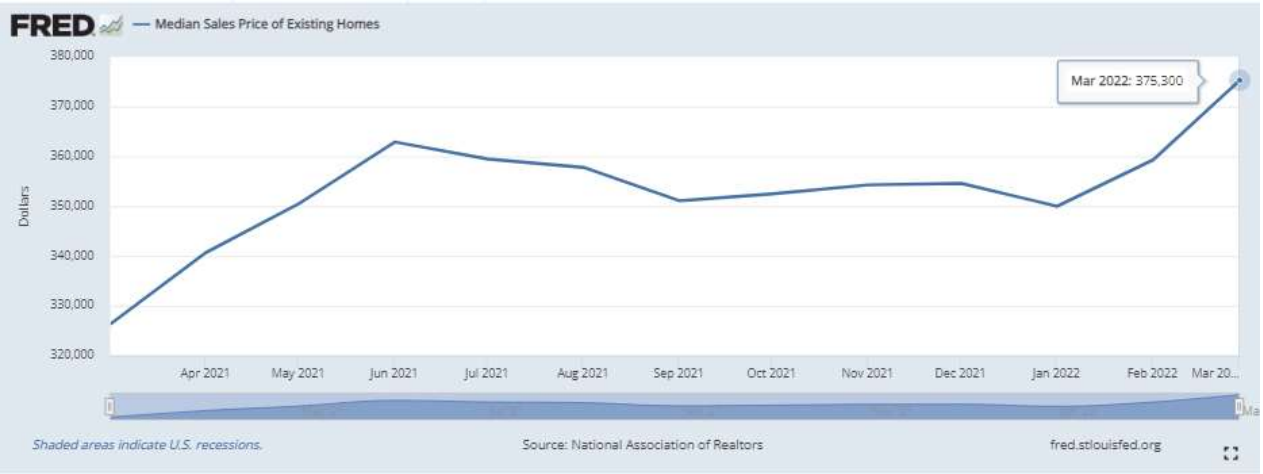
Median and Average Sales Prices of Existing Homes and Single-Family Homes $(000), Mar. 2021-Mar. 2022												
Median Sales Price of Existing Homes												
2021										2022		
Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
326.3	340.7	350.5	362.9	359.5	357.8	351.1	352.5	354.3	354.6	350.0	359.3	375.3
Median Sales Price Existing Single-Family Homes												
2021										2022		
Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
331.5	346.2	356.8	370.1	366.6	364.7	357.9	359.5	361.3	361.3	356.7	366.0	382.0
Average Sales Price of Existing Family Homes												
2021										2022		
Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
353.1	364.1	371.8	381.3	378.4	376.8	371.3	372.0	373.1	373.1	368.5	374.2	387.1
Average Sales Price Existing Single-Family Homes												
2021										2022		
Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar
356.5	367.5	375.9	386.1	383.2	381.4	375.7	376.7	377.6	377.3	372.4	378.3	391.2

Note: Data may be subject to copyright by NAR.

Source: U.S. Census Bureau and U.S. Department of Housing and Urban Development; and
National Association of Realtors, retrieved from FRED, Federal Reserve Bank of St. Louis, May 5, 2022.

Figure 19

Median Sales Price of Existing Homes (in Thousands of Dollars) March 2021-March 2022 (May be subject to copyright NAR)



Source: National Association of Realtors, Median Sales Price of Existing Homes [HOSMEDUSM052N], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/HOSMEDUSM052N, May 5, 2022.

H. Demand: Residential Prices – Rentals

Key Point: The U.S. Census Bureau reported that the median rent in the U.S. for vacant units in the first quarter of 2022 was $1,255. Both rents and home prices were rising precipitously and in tandem, helping fuel a potential housing crisis.

Figure 20

In the first quarter 2022, the median asking rent for vacant for rent units was $1,255.

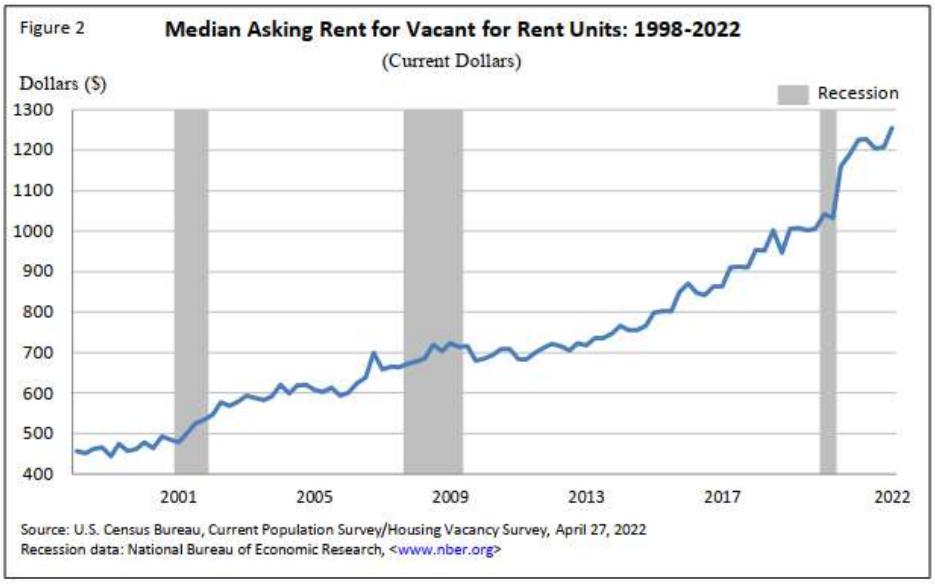
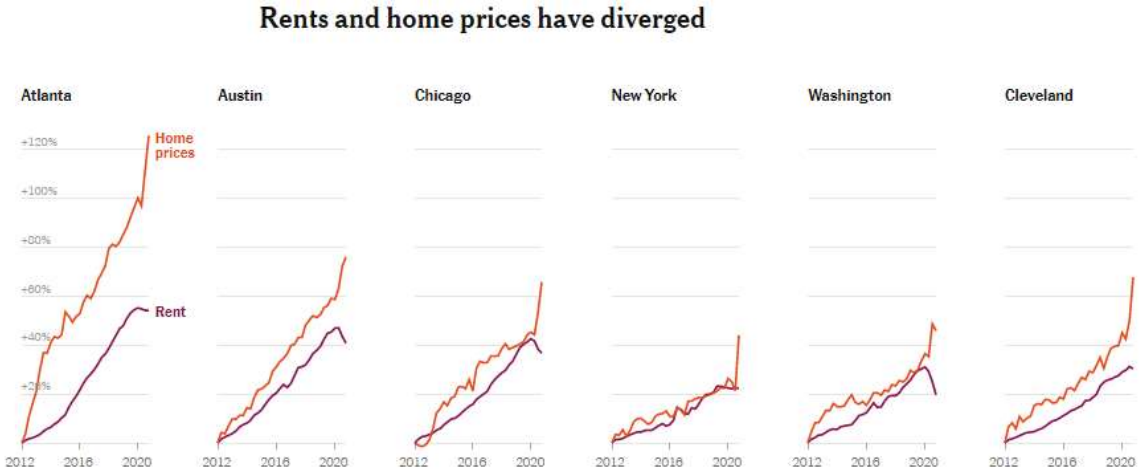


Figure 21



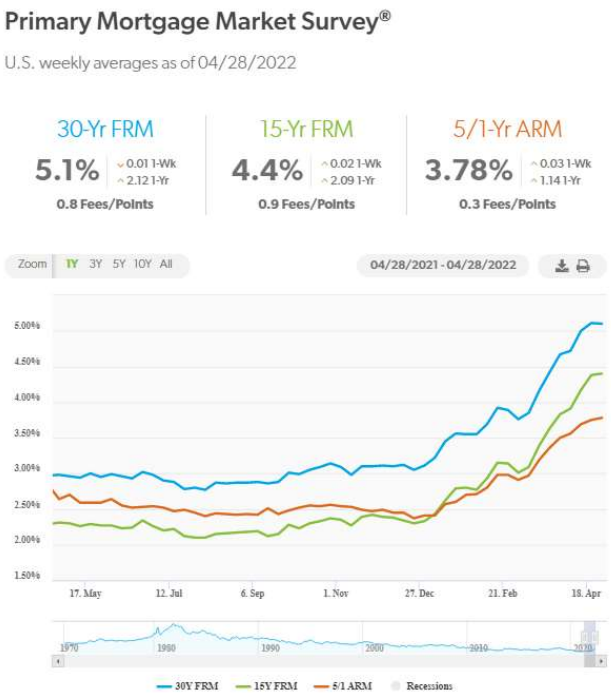
Source: Badger, Emily and Quoctrung, Where Have All the Houses Gone? New York Times, February 26, 2021. Subject to copyright, *New York Times*.

I. Mortgage Rates (Source: Freddie Mac)

Key Point: After an average rate of 2.96%[22] in 2021, rates for a 30-year fixed rate mortgage exceeded 5% (between 5.1 and 5.6% as of May 4, 2022, according to major lenders) in April 2022. The pace of interest rate increases is accelerating.

[22] Peter Miller, "A Look at Mortgage Rate History, April 22, 2022, https://themortgagereports.com/61853/30-year-mortgage-rates-chart.

Figure 22



Source: https://www.freddiemac.com/pmms, retrieved 05/04/2022

J. Affordability Index **May not be reprinted without permission**

Key Point: The NAR affordability index was on a downward trajectory for all regions in January and February 2022. In the South (177.4 in 2/2021 to 137.8 in 2/2022) and West, the drops were greatest. Therefore, homes in these areas were less affordable than similar homes in the Midwest and Northeast.

Table 10

NATIONAL ASSOCIATION OF REALTORS: HOUSING AFFORDABILITY INDEX

Year		Median Priced Existing Single-Family Home	Mortgage Rate*	Monthly P & I Payment	Payment as a % of Income	Median Family Income	Qualifying Income**	Affordability Indexes Fixed
2019		274,600	4.04	1054	15.7	80,808	50,592	159.7
2020		300,200	3.17	1035	14.7	84,414	49,680	169.9
2021		353,600	3.01	1194	16.3	87,965	57,312	150.3
2021	Feb	315,100	2.86	1,044	14.7	85,378	50,112	170.4
2021	Mar	331,500	3.14	1,138	14.3	95,696	54,624	175.2
2021	Apr	346,200	3.11	1,184	16.2	87,767	56,832	154.4
2021	May	356,800	3.01	1,205	16.7	86,757	57,840	150.0
2021	Jun	370,100	3.03	1,253	17.3	86,895	60,144	144.5
2021	Jul	366,600	2.92	1,224	16.8	87,192	58,752	148.4
2021	Aug	364,700	2.89	1,213	16.7	87,392	58,224	150.1
2021	Sep	357,900	2.95	1,199	16.6	86,907	57,552	151.0
2021	Oct	359,500	3.12	1,231	16.9	87,211	59,088	147.6
2021	Nov	361,300	3.12	1,237	17.0	87,501	59,376	147.4
2021	Dec	361,300	3.15	1,242	17.0	87,683	59,616	147.1
2022	Jan r	356,700	3.51	1,283	17.5	88,114	61,584	143.1
2022	Feb p	363,800	3.83	1,361	18.5	88,424	65,328	135.4

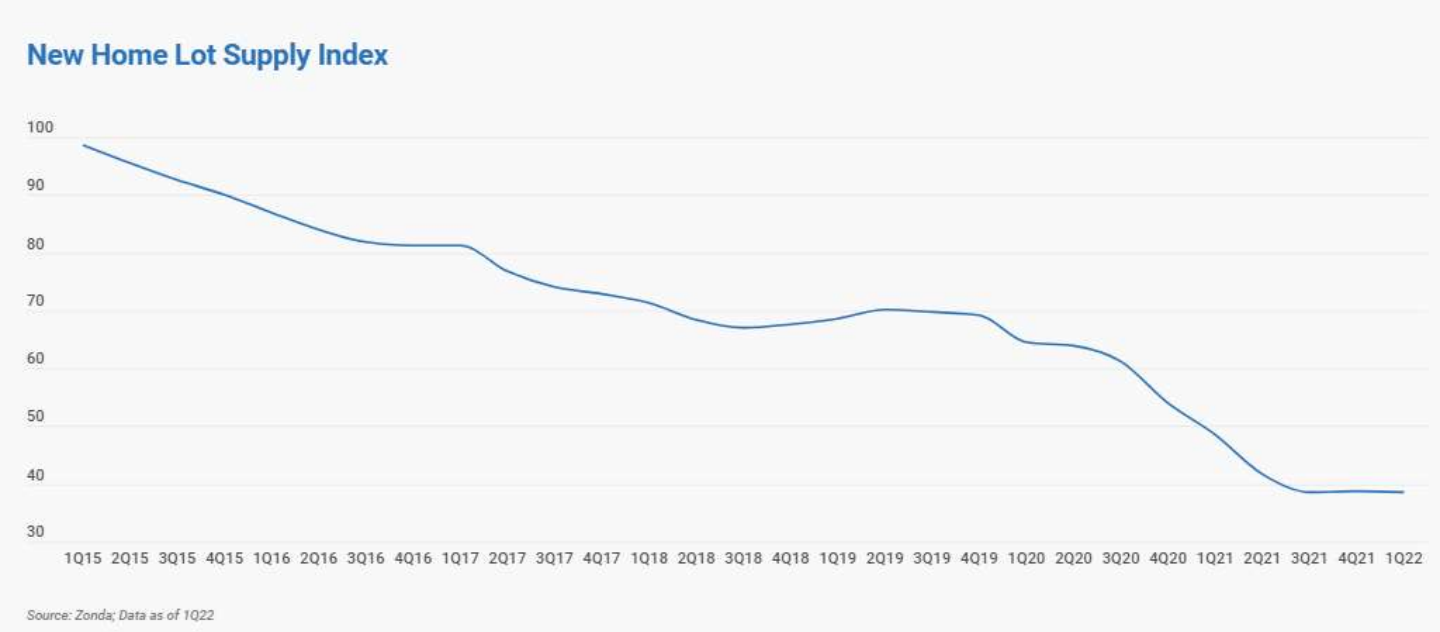
								This Month	Month Ago	Year Ago
	Northeast	392,600	3.83	1,469	17.6	100,348	70,512	142.3	148.0	166.4
	Midwest	251,900	3.83	942	13.0	87,172	45,216	192.8	202.9	226.0
	South	326,900	3.83	1,223	18.1	80,887	58,704	137.8	145.5	177.4
	West	516,600	3.83	1,933	24.5	94,719	92,784	102.1	106.8	118.1

Note: HAI = (Median Family Income/Qualifying Income) * 100. Generally, the higher the index number, the more affordable the region.
Source: National Association of Realtors – Housing Affordability Index (HAI).
URL: https://cdn.nar.realtor/sites/default/files/documents/hai-02-2022-housing-affordability-index-2022-04-08.pdf

K. New Home Lot Supply - currently through Q4 2021 (Source: Zonda)

Key Point: Zonda reported that builders were buying up finished lots faster than inventory could be replenished. The latest available data from the fourth quarter of 2021 showed a decrease of 27.8% in the new home Lost Supply Index from the previous year (38.9 Q4 2020).

Figure 23

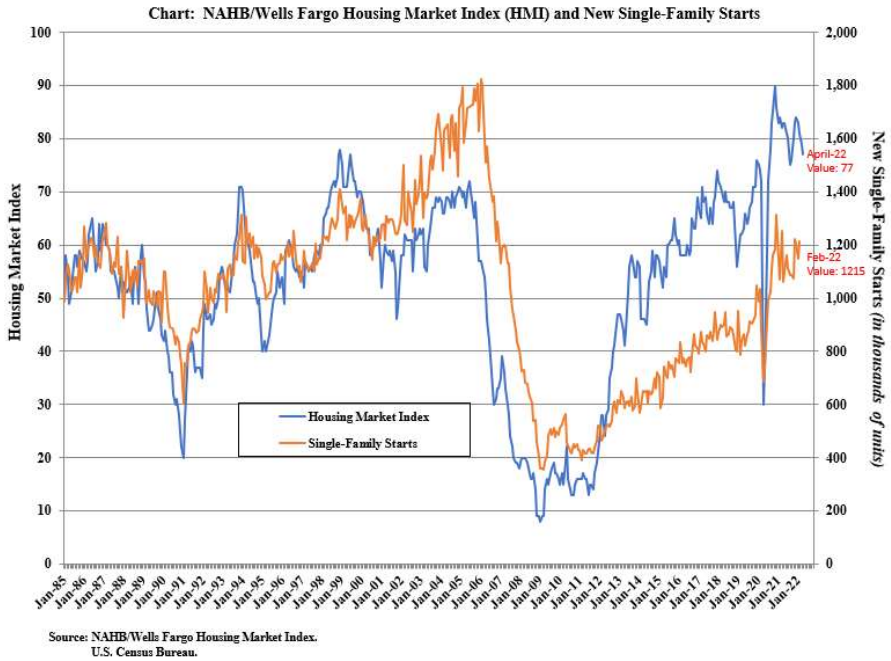


Note: Graph above from zonda.com (retrieved 5/4/22) shows 4Q21 as 38.7 and 1Q22, the final point, as 38.6).
Index explained: A value of 100, represents perfect equilibrium, while a value of 125 and above equals "Significantly Oversupplied", 115-125 – "Slightly Oversupplied", 85-115 – "Appropriately Supply", 75-85 – "Slightly Undersupplied", and 75 and below – "Significantly Undersupplied."
Source: https://zondahome.com/4q21-new-home-lot-supply-index-report/.

L. Builder Sentiment (Source: NAHB)

Key Point: The national Housing Market Index (HMI measures builders' attitudes about the health of the market) was 77 in April 2022, a decrease of 7.23% versus a year ago. The decline most likely stemmed from builders' uncertainty amid rising interest rates, labor shortages, rising materials costs, and supply chain issues. Not surprisingly, builders were most bullish in the South and West (82 and 84), where housing activity is strongest. (See Table 11)

Figure 24



Note: The National Association of Home Builders (NAHB) Housing Market Index (HMI) is a gauge of builder opinion on the relative level of current and future single-family home sales. It is a diffusion index, which means that a reading above 50 indicates a favorable outlook on home sales; below 50 indicates a negative outlook. (https://www.nahb.org)

Source:https://www.nahb.org/news-and-economics/housing-economics/indices/housing-market-index.

Table 11

NAHB Regional Housing Market Index (HMI)								
	Jan 2022	% CHG YOY	Feb 2022	% CHG YOY	Mar 2022	% CHG YOY	Apr 2022 Prelim.	% CHG YOY
Northeast	71	4.4	76	-12.6	65	-24.4	**74**	-11.9
Midwest	72	-10.0	71	-12.3	74	-5.1	**61**	-18.7
South	86	4.9	84	2.4	81	-1.2	**82**	-2.4
West	89	-3.3	91	0	91	3.4	**84**	-7.7

Source: NAHB, t4-regional-him-history-202204, https://www.nahb.org/news-and-economics/housing-economics/indices/housing-market-index

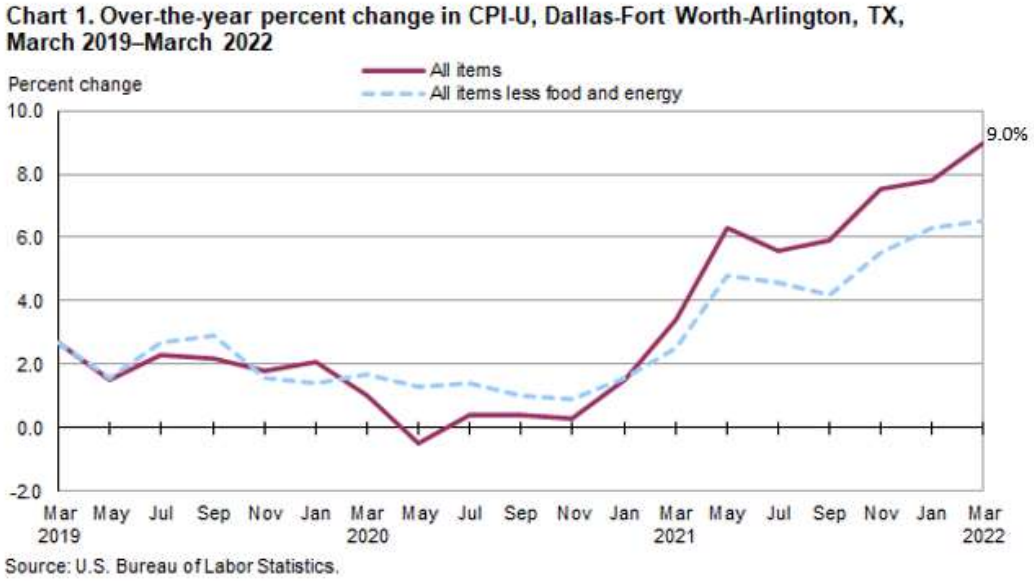
IV. Local Trends that Impact the Residential Real Estate Market

A. The Economy

1. Local Consumer Price Index (Source: BLS)

Key Point: In March 2022, the inflation rate in the Dallas-Fort Worth area was 0.5 percentage points higher than the national index of 8.5. (Austin and San Antonio CPIs were unavailable.)

Figure 25



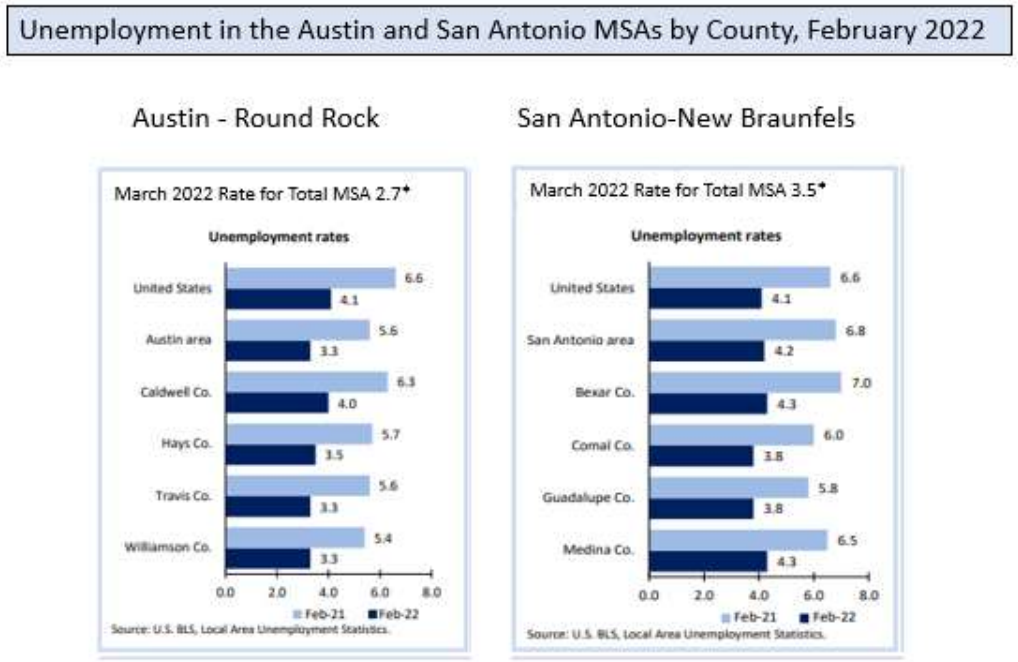
Additional source: Bureau of Labor Statistics, TED: The Economics Daily, Consumer prices up 8.5 percent for year ended March 2022, April 18, 2022, https://www.bls.gov/opub/ted/2022/consumer-prices-up-8-5-percent-for-year-ended-march-2022.htm.

2. Employment/Unemployment Summary – Rates by Austin MSA and San Antonio-New Braunfels MSA (Source: BLS)

Key Point: The unemployment rate for Texas in March 2022 was 4.4%, 0.8 points above the national level of 3.6% (BLS, April 1, 2022).[23] Unemployment rates, not seasonally adjusted, for Austin-Round Rock were 2.7% (down from 4.8% in 2021) and were 3.5% (down from 6.0% in 2021) for San Antonio-New Braunfels in preliminary reports for March 2022.[24]

[23] Bureau of Labor Statistics, State Employment and Unemployment Summary, April 15, 2022, https://www.bls.gov/news.release/laus.nr0.htm
[24] Bureau of Labor Statistic, Metropolitan Employment and Unemployment – March 2022, April 27, 2022, https://www.bls.gov/news.release/pdf/metro.pdf

Figure 26



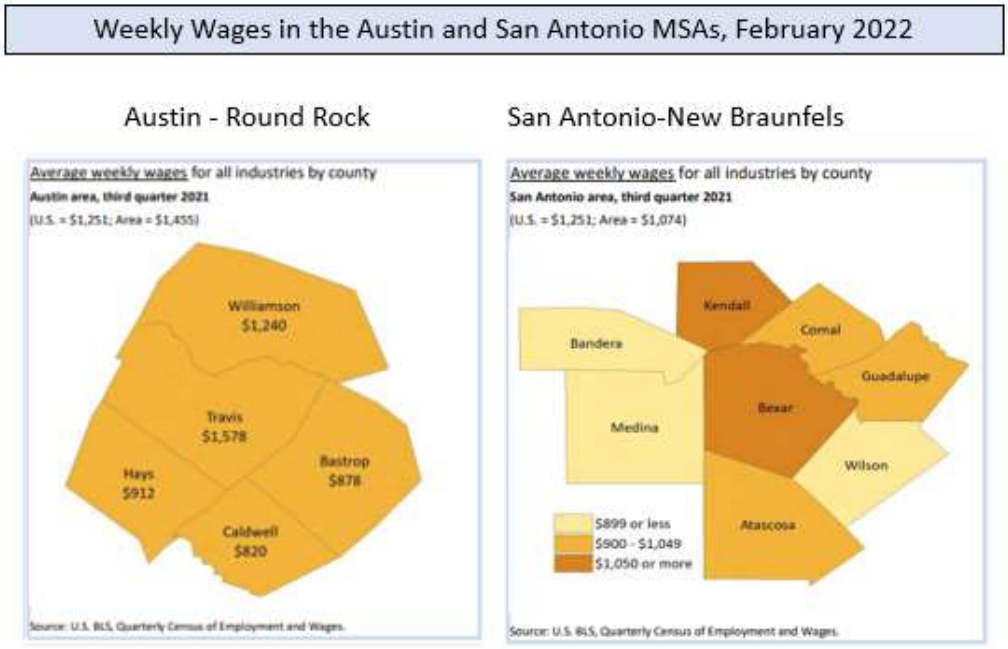
*Source: BLS, Metropolitan Area Employment and Unemployment-March 2022, released April 27, 2022. Not seasonally adjusted.

Source: Bureau of Labor Statistics, Southwest Summary for Austin and San Antonio; and Metropolitan Area Employment and Unemployment-March 2022.

3. Weekly Wages for Austin and San Antonio MSAs - February 2022

Key Point: Average weekly wages in Austin were $1,455 in the third quarter of 2021, the most recent quarter that could be found. For the same period, they were $1,074 in San Antonio. These numbers should probably be viewed as historical data points.

Figure 27



Source: https://www.bls.gov/regions/southwest/summary/blssummary_austin.pdf and https://www.bls.gov/regions/southwest/summary/blssummary_sanantonio.pdf

B. Demographics

1. Population Growth (Source: Census)

Key Point: In 2022, Texas is the second most populous state in the U.S., behind California. The other three in the top five are Florida, New York, and Pennsylvania.[25] Populations in the Austin-Round Rock and San Antonio-New Braunfels MSAs grew 2020 to 2021 and continue to grow.[26]

Table 12

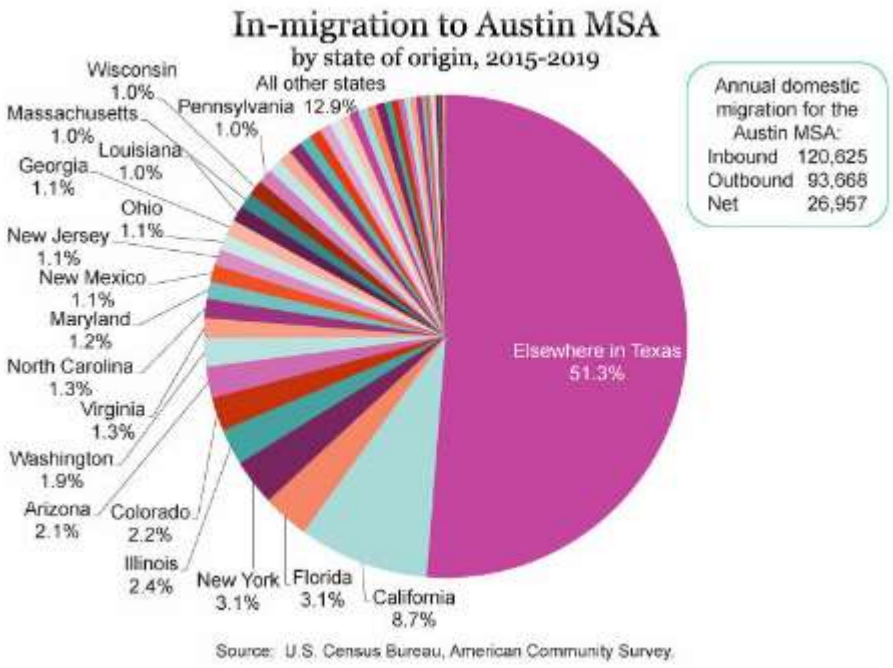
Estimated Population Growth Austin and San Antonio MSAs 2020-2021		
	July 1, 2020	**July 1, 2021**
Austin-Round Rock	2,299,125	2,352,426
San Antonio-New Braunfels	2,566,683	2,601,788

Source: Annual and Cumulative Estimates of Resident Population Change for Metropolitan Statistical Areas in the United States and Puerto Rico and Metropolitan Statistical Area Rankings: April 1, 2020 to July 1, 2021 (CBSA-MET-EST2021-CHG), March 2022.

2. Domestic Migration Flows (Source: Census)

Key Point: Most of the largest metropolitan areas—New York City and Los Angeles, for instance—have experienced declining populations for several years. Smaller metropolitan areas, particularly in the south and west have been flourishing. Both the Austin-Round Rock and San Antonio-New Braunfels MSAs had net positive domestic inflows 2015-2019. Inbound migration for Austin and Bexar (San Antonio) Counties are shown below.

Figure 28

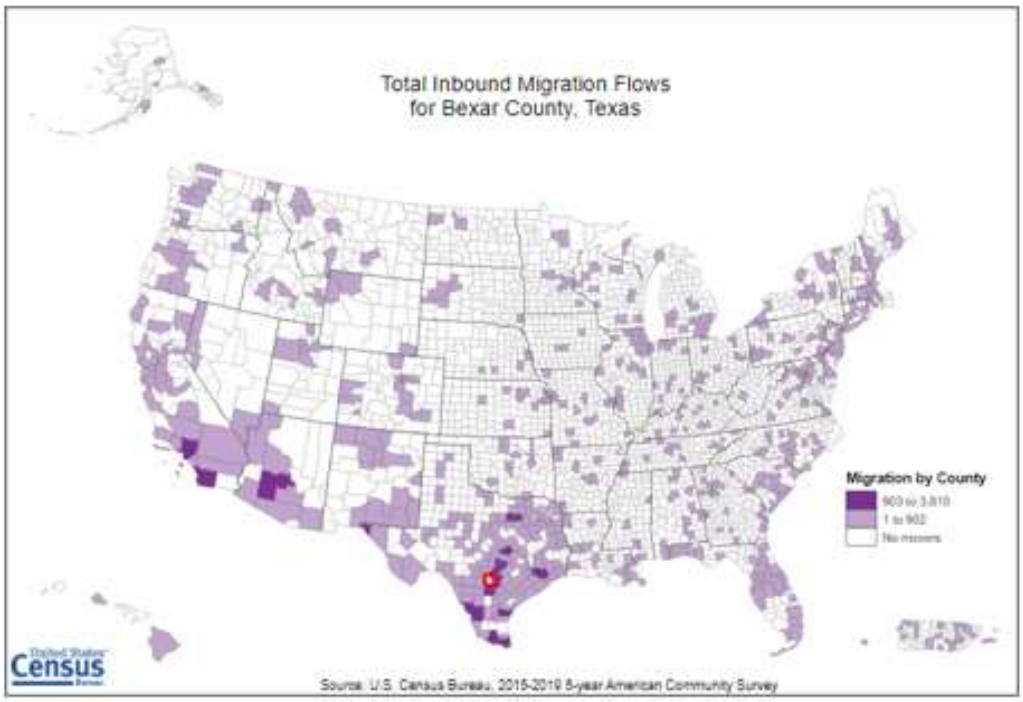


Source: Ramser, Chris, Austin Migration Insights, Austin Chamber, 02/08/2022, https://www.austinchamber.com/blog/02-08-2022-migration, retrieved April 20, 2022.

[25] https://worldpopulationreview.com.

[26] Annual and Cumulative Estimates of Resident Population Change for Metropolitan Statistical Areas in the United States and Puerto Rico and Metropolitan Statistical Area Rankings: April 1, 2020 to July 1, 2021

Figure 29



Source: Census Bureau, https://flowsmapper.geo.census.gov/map.html

3. Home Ownership (Source: Census)

Key Point: In 2021, ownership rates in the state of Texas were slightly below that of the country as a whole. In Austin-Round Rock, first quarter 2022, they were even lower than the state rates, but the margin of error of this Census datum is 6.3. If correct, the low figure might be the result of natural attrition or low inventory combined with more people being priced out of the market, but the reasons are not clear.

Table 13

2021 Homeownership Rates by Quarter for U.S., Texas, Austin-Round Rock, and San Antonio-New Braunfels					
	Q1	Q2	Q3	Q4	Q1 2022
U.S.	65.6	65.4	65.4	65.5	65.4
Texas	64.8	63.9	64.1	63.9	62.8
Austin-Round Rock	64.6	66.7	59.2	59.0	57.7*
San Antonio-New Braunfels	62.9	57.5	65.3	65.1	66.1

*6.3 margin of error

Source: Census Bureau, hmr, Table 6. Homeownership Rates for the 75 Largest Metropolitan Statistical Areas: 2015 to 2022; Quarterly Residential Housing Vacancies and Home Ownership, First Quarter 2022, April 27, 2022. Table 3. Homeownership Rates by State: 2005-Present (Q1 2022, issued May 2022).

V. The Local Housing Market

A. Snapshot: First Quarter 2022 Housing Activity (Unit Sales, Median Sales Price, Days on Market, and Inventory for Texas, Austin-Round Rock and San Antonio-New Braunfels) (Also See Appendices G and H for county summaries)

Key Point: Home sales prices soared while inventory was depressed across Austin-Round Rock and San Braunfels markets.

Table 14

First Quarter 2022 Summary Housing Activity for Texas, San Antonio and New Braunfels										
	Median Sales Price	**% CHG vs. YA**	**Active Listings**	**% CHG vs. YA**	**Closed Sales**	**% CHG vs. YA**	**Days on Market**	**% CHG vs. YA**	**Months of Inventory**	**% CHG vs. YA**
Texas	$325,000	18.6%	38,870	8.2%	88,700	5.6%	37	-21.3%	1.1	-15.4%
Austin-Round Rock MSA	$500,000	25.9%	1,731	46.1%	8,182	1.0%	26	-13.3%	0.5	66.7%
San Antonio-New Braunfels MSA	$309,000	18.9%	4,007	-4.8%	8,947	2.5%	37	-22.9%	1.1	-8.3%

Note: YA=year ago, which is the same as YOY, year over year.

Source: Austin Board of Realtors, *Texas Quarterly Housing Report, First Quarter 2022*, *Texas Quarterly Housing Report, First Quarter 2021*, Texas Realtor Data Relevance Project and Texas A&M Texas Real Estate Research Center, April 2021.

B. Supply: Building Permits, Starts, and Completions (Source: Texas A&M University Texas Real Estate Research Center)

1. Permits for New Residential Construction in Austin-Round Rock and San Antonio-New Braunfels

Key Point: Permits for single-family units in Austin-Round Rock were essentially flat in the first quarter of 2022 (0.1% increase) versus a year ago; multifamily permits decreased in double digits (-25.2% for 5 or more units). San Antonio-New Braunfels, unlike its neighbor, observed an almost 14% decline in single-family homes 2022 over 2021 and a marked increase in 5-or-more unit housing.

Table 15

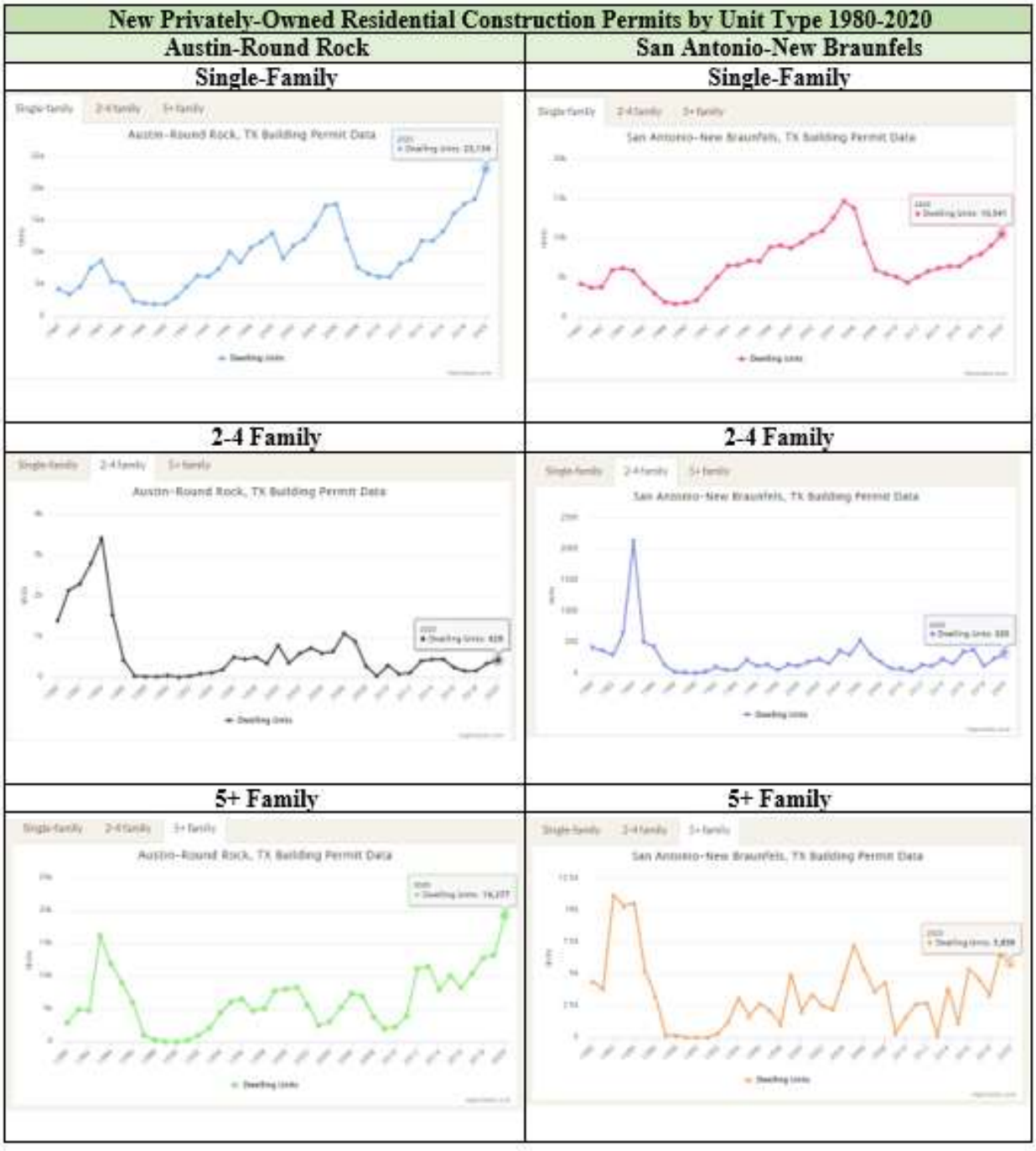
Estimated Number of Permits Issued by Unit Size for New Privately Owned Housing in Austin-Round Rock and San Antonio-New Braunfels, First Quarter 2021 and 2022																		
	Jan 2022			**Feb 2022**			**Mar 2022**			**Total Q1 2022 Unadjusted***			**Total Q1 2021 Unadjusted***			**% Change vs. Year Ago**		
	Units																	
	1	2 -4	5 or More	1	2 -4	5 or More	1	2-4	5 or More	1	2-4	5 or More	1	2-4	5 or More	1	2-4	5 or More
Austin-Round Rock	2000	38	1897	1811	61	983	2424	60	2484	6235	159	5364	6230	184	7168	0.1%	-13.6%	-25.2%
San Antonio-New Braunfels	1042	34	1543	983	60	271	1142	4	988	3167	98	2802	3676	50	1252	-13.8%	96.0%	123.8%

*Totals in future releases may differ due to revision after publication of monthly numbers. Note that the Metropolitan Statistical Area numbers used for this calculation were taken from each month's report without adjustment, so YTD totals may show slightly higher or lower sums. These numbers should be confirmed by other sources.

Source: NAHB, Building Permits by State and MSA and Census Bureau, MSA Monthly_202203.xls, 202202.xls, 202201.xls, 202103.xls, 202102.xls, 202101.xls.

The purpose of the following series of graphs is to provide a sense of the sweep of time in the housing development activity in San Antonio-Round Rock and San Antonio-New Braunfels, 1980-2020.

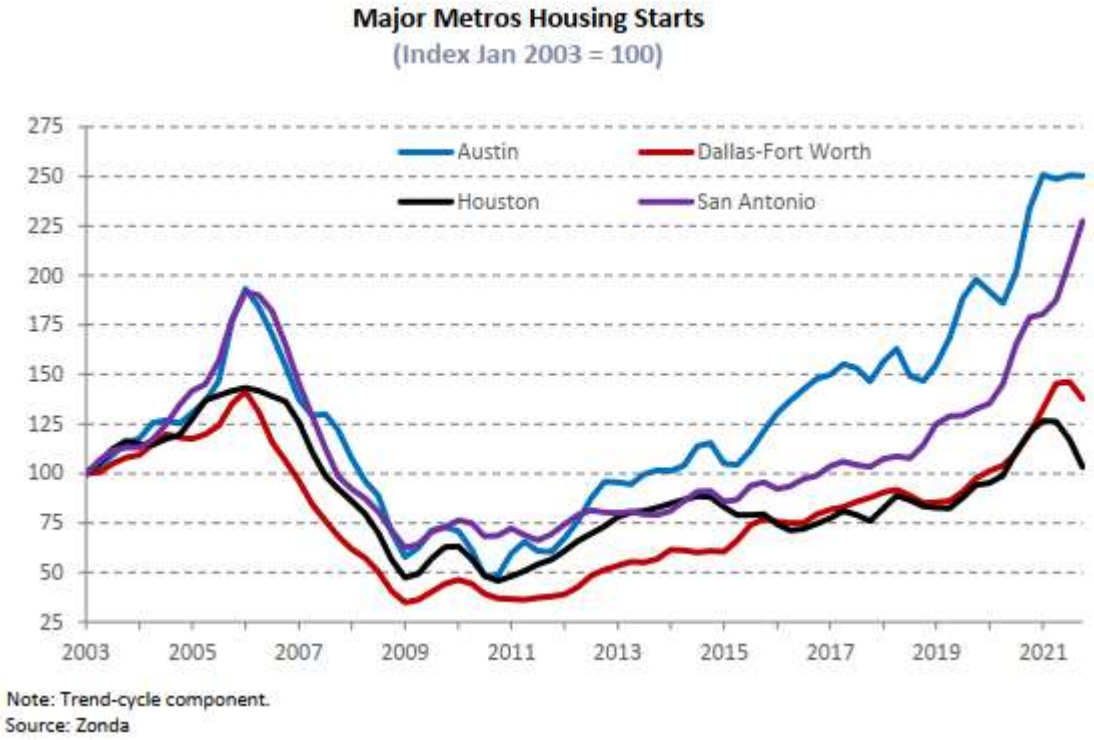
Figure 30



Source: Texas A&M University, Texas Real Estate Research Centerhttps://www.recenter.tamu.edu/data/building-permits/#!/msa/San_Antonio-New_Braunfels,_TX (See Appendix A. for more). “5+” is five or more units.

2. Building Starts by Major MSAs in Texas. Indexed. (Texas A&M, TRERC)

Figure 31



Source: *Texas Housing Insight 2021*, TAMU Texas Real Estate Research Center, February 15, 2022

3. Completions

Timely housing completion data by MSA was not available from publicly available sources. See regional data under the National section, III-A-4.

C. Supply: Inventory by MSA over time (Source: Freddie Mac)

Key Point: Active listings were down statewide by -8.2% and in San Antonio-New Braunfels by -4.8%. In contrast, they were up 46% in Austin-Round Rock (1,731), but that number was actually far behind the count in San Antonio-New Braunfels (4,007).[27]

Table 16

		Active Listings (Units)	%Chg Active Listings YOY
First Quarter 2022	Texas	38,870	-8.2
	Austin-Round Rock	1,731	46.1
	San Antonio-New Braunfels	4,007	-4.8

Source: Austin Board of Realtors, *Texas Quarterly Housing Report, First Quarter 2022*, *Texas Quarterly Housing Report, First Quarter 2021*, Texas Realtor Data Relevance Project and Texas A&M Texas Real Estate Research Center, April 2021.)

[27] Texas Quarterly Housing Report,Texas Realtor Data Relevance Project and the Texas A&M Real Estate Research Center

1. Housing Inventory (Active Listings in Units) for Austin-Round Rock July 1, 2016-March 1, 2022

Key Point: Active listings for first quarter 2022 in Austin-Round Rock were 1,731.[28] (Note that the graph below is monthly, ending March 1, 2022. Also see Appendix G.)

Figure 32

2. Housing Inventory (Active Listings in Units) for San Antonio-New Braunfels July 1, 2016-March 1, 2022

Key Point: Active listings for first quarter 2022 in San Antonio-New Braunfels were 4,007.[29](Note that the graph below is monthly, ending March 1, 2022. Also see Appendix H)

Figure 33

[28] Texas Quarterly Housing Report, First Quarter 2022, Texas Realtor Data Relevance Project and the Texas A&M Real Estate Research Center.

[29] Texas Quarterly Housing Report, First Quarter 2022, Texas Realtor Data Relevance Project and the Texas A&M Real Estate Research Center.

D. Supply Inventory by MSA by County - Q1 2022 and County (Source: ABoR, Texas Realtors, Texas Real Estate Research Center)

Key Point: The months' supply of housing inventory across the nation for March 2022 was 6.4 months, according to the U.S. Census Bureau/HUD Monthly Residential Sales Report. Meanwhile, the Texas Quarterly Housing Report observed first quarter inventories in Austin-Round Rock and San Antonio-New Braunfels as being at far lower levels, hovering between 0.3 to 1. The average for the entire state of Texas was at 1.1 months' supply, down 0.2 points YOY.

1. Months' Supply of Housing Inventory, First Quarter 2022 - Austin-Round Rock

Table 17

Austin-Round Rock Housing Inventory, Q1 2022					
	Jan	Feb	March	Q1 2022	Chg vs. Q1 2021 (in months)
Austin-RR MSA	0.4	0.4	0.5	0.5	0.2
Austin	0.3	0.3	0.5	NA	NA
Bastrop	1.0	0.8	1.0	NA	NA
Caldwell	1.1	0.9	1.0	NA	NA
Hays	0.6	0.6	0.7	NA	NA
Travis	0.4	0.3	0.5	NA	NA
Williamson	0.3	0.3	0.4	NA	NA

Source: Austin Board of Realtors, Central Texas Housing Market Report, January- March 2022; and Texas Quarterly Housing Report, Texas Realtors Data Relevance Project and Texas A&M Real Estate Research Center, April 2022. [30]

2. Months' Supply of Housing Inventory, First Quarter 2022 – San Antonio-New Braunfels

Table 18

San Antonio-New Braunfels Housing Inventory, Q1 2022					
	Jan	Feb	March	Q1 2022 Months' Supply	Chg vs. Q1 2021 (in months)
San Antonio MSA	1.3	1.2	1.1	1.1	-0.1
Bexar/SA	1.2	1.2	1.1	NA	NA
Comal	1.3	1.1	1.1	NA	NA
Guadalupe	1.3	1	1	NA	NA

Source: Austin Board of Realtors, Central Texas Housing Market Report, January- March 2022; and Texas Quarterly Housing Report, Texas Realtors Data Relevance Project and Texas A&M Real Estate Research Center, April 2022.[30]

[30]Texas *A&M Real Estate Center Quarterly Metro Housing Report* for Austin-Red Rock, First Quarter 2022, and separately for San Antonio-New Braunfels) reports the same inventory numbers as the *Texas Quarterly Housing Report,* First Quarter 2022, but notes large changes, a "44.1%" increase and a "7.5% decrease" respectively from the previous year for all "residential properties," which may include rentals. These numbers are not easily reconciled.

E. Supply: Homeowner and Rental Vacancy Rates by MSA (Source: Census)

Table 19

Homeowner and Rental Vacancy Rates by Quarter 2021-2022					
	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022
Homeowner Vacancy Rate					
Texas	0.9	1.2	0.9	1	0.8
Austin-Round Rock	0.9	1.7	1.1	1.4	0.9
San Antonio-NB	1.8	0.9	0.2	1.0	1.3
Rental Vacancy Rate					
Texas	9.5	7.9	8.2	8	7.7
Austin-Round Rock	11	6.2	7.3	5.1	7
San Antonio-NB	10.8	9.2	7.2	6.1	6.9

Source: Table 5. Homeowner Vacancy Rates for the 75 Largest Metropolitan Statistical Areas: 2015 to 2021, U.S. Census, and Table 4. Rental Vacancy Rates for the 75 Largest Metropolitan Statistical Areas: 2015 to 2022. Tables 2 and 3 Homeowner Vacancy Rates and Rental Vacancy Rates: 2005 to present. U.S. Census, https://www.census.gov/housing/hvs/data/rates.html.

F. Demand: Residential Sales – Units New and Existing by Region (Source: NAHB)

Key Point: According to the National Association of Realtors "existing home sales slipped by 2.7% in March." In the south, sales slid even further, down 3% versus a year ago.[31] (The table below goes through February 2022.)

Table 20

New and Existing Homes Sold by Region

	NEW HOMES SOLD				NEW HOMES FOR SALE				EXISTING HOMES SOLD			
	NORTH-EAST (1)	MID-WEST (2)	SOUTH (3)	WEST (4)	NORTH-EAST (5)	MID-WEST (6)	SOUTH (7)	WEST (8)	NORTH-EAST (9)	MID-WEST (10)	SOUTH (11)	WEST (12)
2018	32	76	349	162	27	43	184	95	581	1,192	1,972	997
2019	30	70	399	182	28	40	171	88	581	1,183	2,016	985
2020	38	93	475	217	25	31	170	75	604	1,264	2,175	1,023
2021	36	88	452	195	30	41	227	93	633	1,313	2,358	1,109
2021 - Feb	40	104	465	214	26	30	172	75	660	1,260	2,380	1,170
Mar	47	109	550	167	26	31	169	79	630	1,220	2,360	1,120
Apr	41	98	476	181	26	31	174	83	630	1,240	2,280	1,090
May	40	92	412	189	25	30	186	85	630	1,250	2,270	1,050
Jun	28	96	391	168	26	31	205	88	630	1,280	2,270	1,060
Jul	27	70	415	192	28	32	215	90	630	1,310	2,290	1,090
Aug	31	59	409	169	29	32	226	93	610	1,300	2,300	1,090
Sep	31	66	435	193	29	34	227	92	620	1,340	2,390	1,130
Oct	31	67	400	169	29	36	227	94	610	1,370	2,390	1,130
Nov	33	55	428	237	29	40	230	95	620	1,380	2,490	1,140
Dec	34	86	485	255	30	41	227	93	610	1,360	2,350	1,090
2022 - Jan	27	79	459	223	31	41	231	92	640	1,400	2,590	1,120
Feb	43	84	451	194	30	41	235	95	570	1,230	2,480	1,070

For greater detail and analysis of these and other data, go to HousingEconomics.com

Last Updated: 03/24/2022

All data in thousands.

(1)-(4) & (9)-(12) Monthly data are seasonally adjusted at an annual rate

(5) thru (8) Monthly data are not seasonally adjusted.

Annual data is not seasonally adjusted.

Sources: (1) through (8) U.S. Bureau of the Census, Construction Reports, Series C-25. (9) through (12) Natl. Assn. of Realtors, Home Sales.

Prepared by Economics Department, NAHB. Available at www.HousingEconomics.com

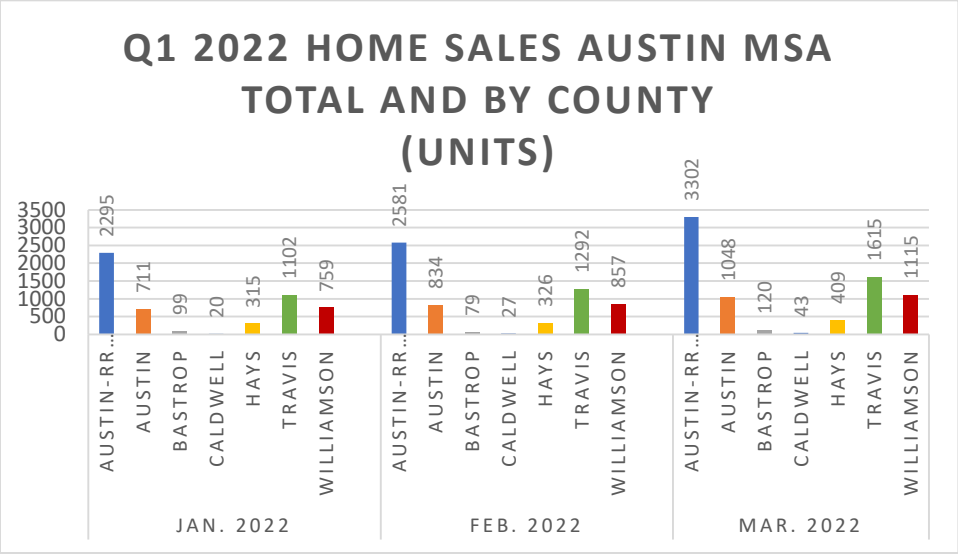
[31] Existing Home Sales Slip 2.7% in March, April 20, 2022, https://www.nar.realtor/newsroom/existing-home-sales-slip-2-7-in-march.

G. Demand: Residential Sales by Units, First Quarter 2022 for Texas, Austin MSA, San Antonio MSA (Source: ABoR, Texas Realtors, Texas Real Estate Research Center)

Key Point: Overall, buyers were not deterred by higher prices and interest rates, as total sales of homes grew in consecutive months from January to February and to March. However, total quarterly unit sales in Austin-Round-Rock did not match the activity of 2021 (estimated sales of 8,182 in 2022 vs. 8,263 in 2021).[32] San-Antonio-New Braunfels showed a similar pattern month to month. However, first quarter unit sales were also up 2.5% versus a year ago to 8,947.

1. Home Sales, First Quarter 2022 - Austin-Round Rock

Figure 34

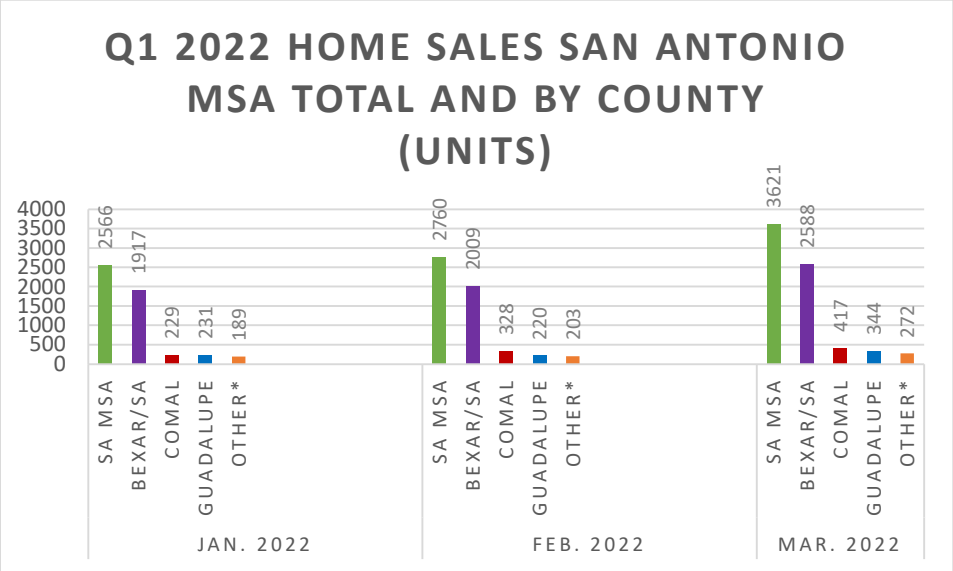


Note: Austin-RR MSA shows 2,299 at recenter.tamu.edu. The city of Austin is also included in Travis County.

Source: Austin Board of Realtors, Central Texas Housing Market Report, January- March 2022, URL: https://www.abor.com/news-center/market-stats (Note from ABoR: Our Central Texas Housing Market Reports are compiled with data sourced from the Texas Data Relevance Project, a partnership between local REALTOR® associations, Texas REALTORS®, and the Real Estate Center at Texas A&M University.)

2. Home Sales, First Quarter 2022 – San Antonio-New Braunfels by County

Figure 35



[32] https://www.recenter.tamu.edu/data/housing-activity/#!/activity/MSA/Austin-Round_Rock

*Other includes Atascosa, Bandera, Kendall, Medina, and Wilson for which there were no individual data at the time. The other category was calculated by subtracting the known county units sold from the total MSA.

Source: Texas A&M University Texas Real Estate Research Center, San Antonio-New Braunfels Housing Activity, Jan1990-March 2022, Retrieved 04/23/2022

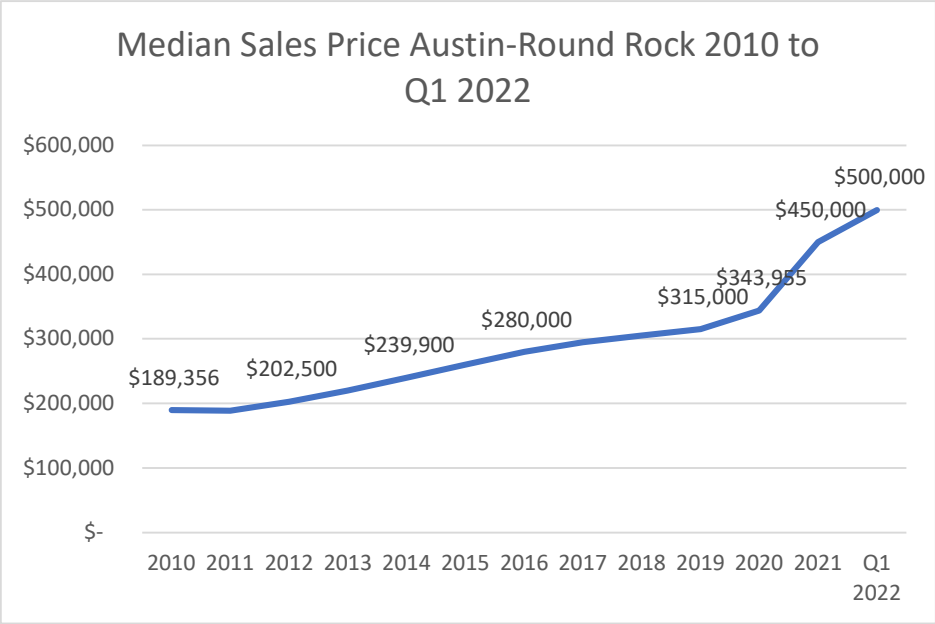
H. Demand: Residential Median Sales Prices Homes by MSA (Source: ABoR, Texas Realtors, TRERC)

Key Point: The median home sales price across Texas was $325,000 in the first quarter of 2022. The median price in Austin-Round Rock was $500,000 and $309,000 in San Antonio-New Braunfels.

1. Austin-Round Rock Sales Prices (Source: Texas A&M Texas Real Estate Center)

A. Median Home Sales Price for Austin Round Rock MSA, 2010 to Q1 2022

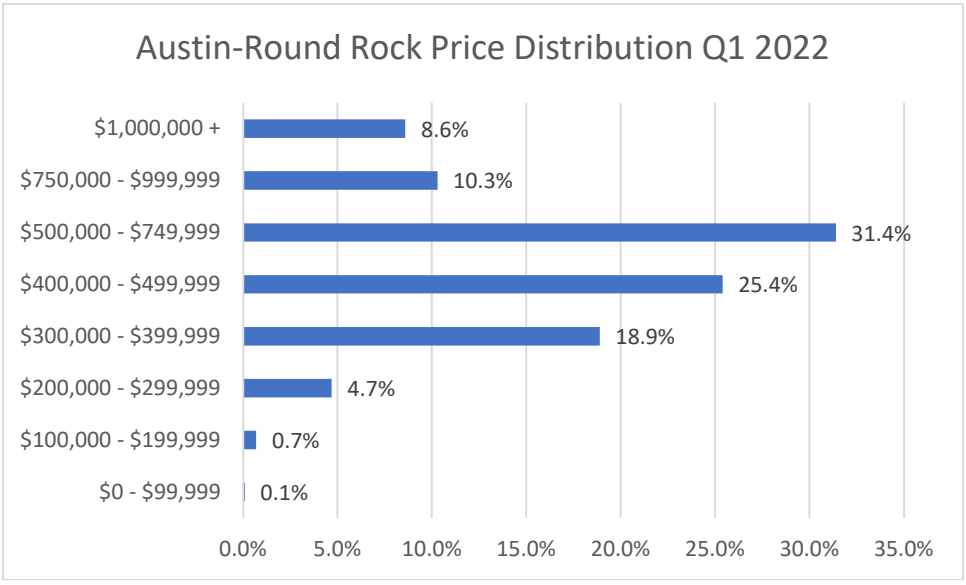
Figure 36



Source: Texas A&M University Texas Real Estate Research Center, https://www.recenter.tamu.edu/data/housing-activity/

B. Price Distribution, First Quarter 2022 – Austin-Round Rock

Figure 37



Source: Texas Quarterly Housing Report, First Quarter 2022

C. Prices by County by Month, First Quarter 2022 – Austin-Round Rock **(Median Price Q1: $500,000, ↑25.9% YOY)**

Table 21

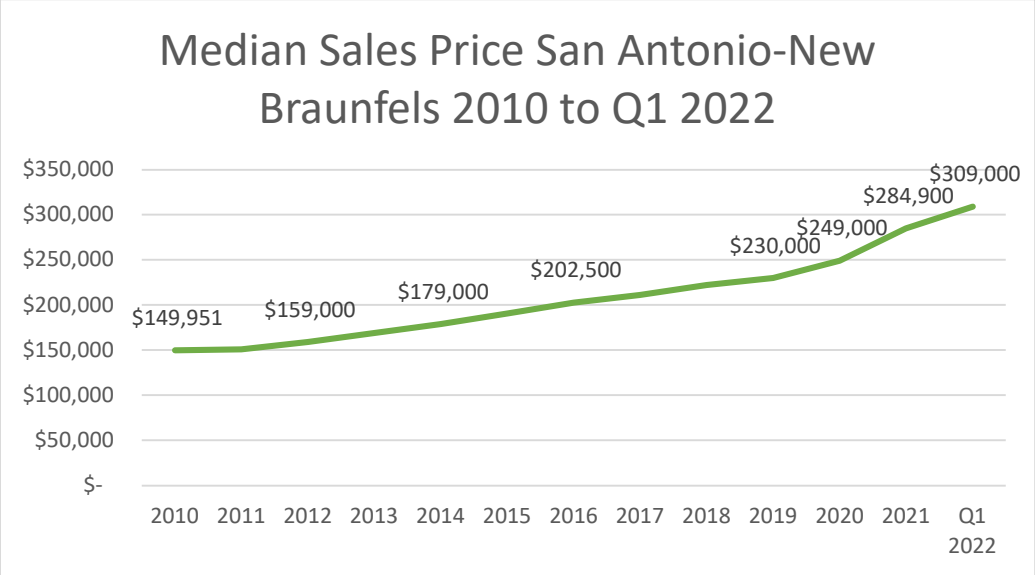
Austin-Round Rock Median Sales in Dollars by County, First Quarter 2022							
	Jan ($)	% Chg Median Sales Price vs. YA	Feb ($)	% Chg Median Sales Price vs. YA	Mar ($)	% Chg Median Sales Price vs. YA	Unit Sales Q1 2022
Austin-RR MSA	476,000	30.4%	499,995	27.9%	521,100	22.6%	8178
Austin	550,000	20.9%	565,000	15.0%	624,000	22.4%	2593
Bastrop	398,000	50.2%	443,835	61.4%	405,500	46.9%	298
Caldwell	315,000	31.3%	314,695	57.4%	329,000	31%	90
Hays	389,000	30.1%	427,350	42.5%	440,000	28%	1050
Travis	530,000	23.8%	541,050	15.1%	600,500	23%	4009
Williamson	460,000	42.2%	479,000	32.7%	490,000	23%	2731

Source: Austin Board of Realtors, Central Texas Housing Market Reports; Texas Quarterly Housing Report, Texas Realtor Data Relevance Project and Texas A&M Texas Real Estate Research Center, April 2022 (lists different medians sales price on website for Austin-RR Feb. 2022)

2. San Antonio-New Braunfels Sales Prices (Source: Texas A&M Texas Real Estate Center)

A. Median Home Sales Price for San Antonio-New Braunfels MSA, 2010 to Q1 2022

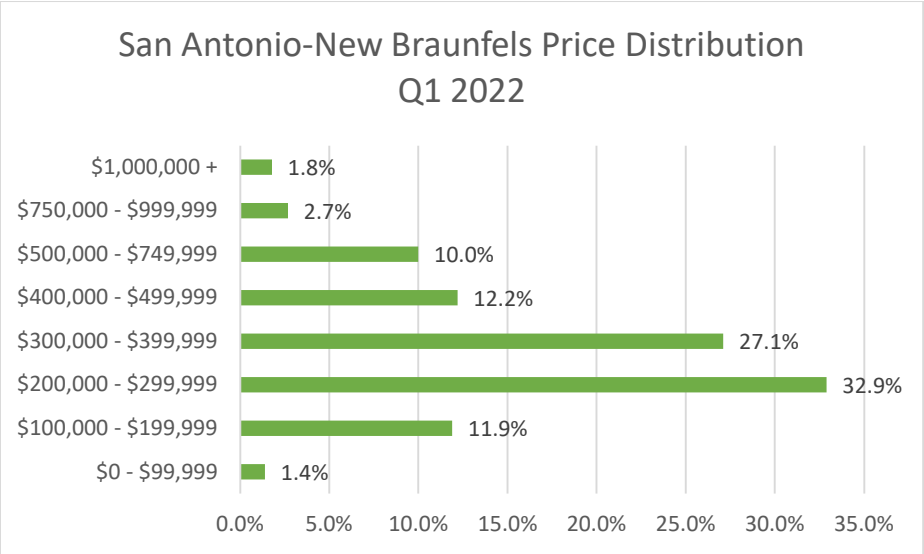
Figure 38



Source: Texas A&M University Texas Real Estate Research Center, https://www.recenter.tamu.edu/data/housing-activity/

B. Price Distribution, First Quarter 2022 – San Antonio-New Braunfels

Figure 39



Source: Texas Quarterly Housing Report, First Quarter 2022, Texas Realtors Data Relevance Project and Texas A&M, Texas Real Estate Research Center.

C. Prices by County by Month, First Quarter 2022 – San Antonio-New Braunfels (**Median Price Q1: $309,000, ↑18.9% YOY**)

Table 22

San Antonio-New Braunfels Median Sales by County, First Quarter 2022							
	Jan	**% Chg Median Sales Price vs. YA 2021 vs. 2022)**	**Feb**	**% Chg Median Sales Price vs. YA 2021 vs. 2022)**	**March**	**% Chg Median Sales Price vs. YA (2021 vs. 2022)**	**Unit Sales Q1 2022**
SA MSA	$300,000	17.7%	$305,000	17.3%	$318,999	21.8%	8947
Atacosa†	$260,000	3.4%	$235,500	-1.7%	$230,000	4.1%	111
Bexar/SA	$282,500	15.3%	$285,000	13.5%	$300,000	17.6%	6514
Comal	$399,020	20.2%	$377,424	18.9%	$395,510	20.2%	901
Guadalupe	$321,500	22.3%	$330,000	26.0%	$346,000	33.1%	795
Kendall†	$612,436	33.9%	$542,000	3.2%	$631,786	29.2%	137
Medina†	$306,000	-8.7%	$340,000	42.3%	$315,000	1.6%	132
Wilson†	$473,000	52.6%	$400,000	17.6%	$359,900	19.8%	182

Source: Texas A&M University Texas Real Estate Research Center, San Antonio-New Braunfels Housing Activity, Jan. 1990-March 2022, Retrieved 04/23/2022, https://www.recenter.tamu.edu/data/housing-activity/.
†The source for all the numbers for these counties is San Antonio Board of Realtors, Market and Research Statistics, County Reports, First Quarter 2021 and 2022, https://sabor.com/Market-Research-and-Statistics/Market-Statistics/County-Reports. These sums may differ from other sources.

I. Demand: Average Days on Market by State, MSA, and County, First Quarter 2022

Key Point: The average number of days on the market plummeted from 2021. With limited inventory, prospective homebuyers had to move fast.

Table 23

Average Days on Market by County, First Quarter 2022								
	Jan	**Chg # Days on market vs. YA (Days)**	**Feb**	**Chg # Days on market vs. YA (Days)**	**Mar**	**Chg # Days on market vs. YA (Days)**	**First Quarter 2022**	**Chg # Days on market vs. YA (Days)**
Texas							**37**	**-10**
Austin-Round Rock							**26**	**-4**
San Antonio-New Braunfels							**37**	**-11**
Austin								
Austin-RR MSA	28	-6	28	-4	21	-6		
Austin	30	-4	30	-1	20	-9		
Bastrop	28	-13	43	-25	40	-6		
Caldwell	28	-36	19	-50	30	-47		
Hays	28	-13	28	-4	23	-11		
Travis	30	-5	31	-2	21	-7		
Williamson	26	-3	24	-1	19	2		
San Antonio								
San Antonio-NB MSA	NA	NA	NA	NA	NA	NA		
Atacosa	45	-38	42	-44	59	5		
Bandera*	NA	NA	NA	NA	NA	NA		
Bexar/SA	36	-5	36	-10	33	-8		
Comal	NA	NA	NA	NA	NA	NA		
Guadalupe	NA	NA	NA	NA	NA	NA		
Kendall*	47	-34	48	-35	30	-36		
Medina*	26	18	36	-38	38	-11		
Wilson*	30	-26	41	-7	31	-18		

Source for Austin MSA: Austin Board of Realtors, Central Texas Housing Market Reports; Texas A&M University Texas Real Estate Research Center.
*Source for San Antonio-New Braunfels except MSA total: San Antonio Board of Realtors, Market and Research Statistics, County Reports, First Quarter (days on market may or may not include days to close).

J. Residential Rental Prices

Key Point: Home rental prices increased at the same rate or even fasterthan home prices in Texas metro markets.

Table 24

Single-Family Average Rent, First Quarter 2022		
	Price ($)	**% Change YOY**
Austin-Round Rock MSA	$2,200	12.8%
San Antonio-New Braunfels MSA	$1,795	12.5%

Source: Quarterly Housing Report, First Quarter 2022, Austin-Round Rock and Quarterly Housing Report, First Quarter 2022, San Antonio-New Braunfels, Texas A&M Real Estate Center.

Table 25

One Bedroom Apartment Average Rent, May 4, 2022		
	Price ($)	**% Change YOY**
Austin (City of)	$1,550	31%
San Antonio (City of)	$1,094	18%

Source: zumper.com, https://www.zumper.com/rent-research/austin-tx, san-antonio-tx, retrieved May 2, 2022 Note: This site uses "average" and "median" synonymously.

K. Mortgage Rates

According to bankrate.com, the average mortgage rate for a 30-year fixed loan in the state of Texas was 5.42% on May 4, 2022. This was up .08 points from the previous week, recorded on April 26.

L. Affordability Index (Source: NAR, 2020 – from publicly available information)

Key Point: The table below, from 2020, is probably best viewed as a historical document, but no more current publicly-sourced data are available. For some context, the Affordability Index for the Southern region of the U.S. was 137.8 in February 2022.

Table 26

Affordability Index of Existing Single-Family Homes by Metro (NAR proprietary)				
	2017	**2018**	**2019**	**2020p**
Austin-Round Rock	168.0	151.7	164.2	169.1
San Antonio-New Braunfels	169.3	158.4	174.0	157.7

Source: National Association of Realtors, Affordability Index of Existing Single-Family Homes for Metropolitan Areas, https://cdn.nar.realtor/sites/default/files/documents/metro-affordability-2020-existing-single-family-2021-10-05.pdf (Note: p is preliminary)

M. New Home Lot Supply- currently through Q4 2021, Need San Antonio MSA (Source: Zonda)

Key Point: In the first quarter of 2022, new home lots were a scarcity in the Austin and San Antonio metros, with sharp reductions versus a year ago.

Table 27

New Home Lot Supply (LSI) by Metro Core City			
	Q3 2021	**Q4 2021**	**Q4 2021 % Change YOY**
National	38.8	38.9	-27.8%
Austin (City of)	39.1	39.3	-29.0%
San Antonio (City of)	53	46.7	-46.7%

Note: An index below 75 is "significantly undersupplied."

Source: zonda.com, 4Q21 New Home Lot Supply Index Report, Feb. 16, 2022 and New Home Lot Supply Index Third Quarter Data Hits New Low, Nov. 9, 2021

N. Builder Sentiment Through April 2022 by Region (Source: NAHB)

Key Point: Builder sentiment in the South fell five points from January to April 2022. Climbing inflation, rising interest rates, and record-breaking home prices making the home process less affordable for potential buyers may have been partially to blame. Labor shortages, material costs, and delays on many construction inputs too were most likely responsible.

The NAHB/Wells Fargo Housing Market Index is not broken down beyond the regional level.
Table 28

NAHB/Wells Fargo Housing Market Index (HMI) April 2022				
	Jan	**Feb**	**Mar-r**	**Apr-p**
Northeast	73	76	71	72
Midwest	74	73	72	69
South	87	86	84	82
West	88	89	90	89

VI. Conclusions and Outlook

Mortgage rates will continue to rise in the near term. Nationally, sales and permits for single-family units will continue to slow as developers and builders wait for completions to catch up. This will require turning the corner on labor shortages and normalizing supply chains. Neither of these seems likely soon.

As rental unit prices and single-family home prices ride the upward wave together, something will have to give. The hint is probably in the growth of multifamily units and builders' desires to modify zoning regulations to permit higher-density housing in smaller spaces.

Looking at the months ahead, the direction up or down that housing variables travel will not be as significant as the rate of movement. For instance, after almost 2 years of mortgage interest rates for 30-year fixed at, around, or below 3.5%, they have now gained 2.0 points since the beginning of the year. Similarly, home sales prices have been on a steep upward trajectory since Q3 2020, but are showing signs of moderating.

The market dynamics of low affordability and inventory, high inflation and interest rates, and inadequate labor pools and materials will combine to squeeze the market and inhibit the growth of sales and prices, for a time.

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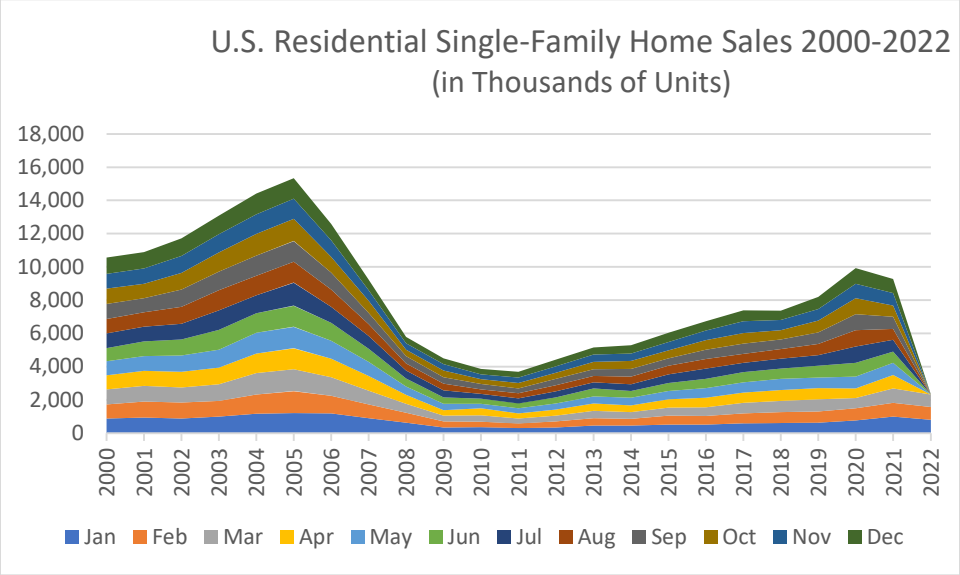
APPENDIX A. Residential Single-Family Home Sales in Units Since 2000



Source: U.S. Census Bureau, New Home Sales, Annual Rate for New Single-Family Houses Sold, Seasonally Adjusted, Monthly 2000 to 2022, Extracted April 8, 2022. March 2022 from Monthly New Residential Sales Report, March 2022.

APPENDIX B. Sales of New and Existing Homes in Units through February 2022 (preliminary)

New and Existing Home Sales, U.S.

	NEW HOMES				EXISTING HOMES									
					SALES				INVENTORY			MONTHS' SUPPLY		
	SOLD (1)	SOLD (2)	FOR SALE (3)	MONTHS' SUPPLY (4)	TOTAL (5)	TOTAL (6)	SINGLE-FAMILY (7)	CONDO-MINIUMS (8)	TOTAL (9)	SINGLE-FAMILY (10)	CONDO-MINIUMS (11)	TOTAL (12)	SINGLE-FAMILY (13)	CONDO-MINIUMS (14)
2017	616	613	294	5.3	5,527	5,511	4,892	619	1,460	1,290	173	3.9	3.9	4.0
2018	614	617	348	7.3	5,334	5,343	4,742	601	1,530	1,340	187	4.0	4.0	4.1
2019	683	682	327	5.3	5,325	5,344	4,765	579	1,390	1,210	175	3.9	3.9	4.3
2020	828	821	302	3.8	5,638	5,644	5,066	578	1,060	880	179	3.1	3.0	4.1
2021	773	771	392	5.4	6,127	6,120	5,413	707	880	760	119	2.3	2.2	2.7
2021 - Feb	823	70	306	4.5	6,170	366	5,470	700	1,030	870	159	2.0	1.9	2.7
Mar	873	83	305	4.2	6,040	484	5,330	710	1,050	890	164	2.1	2.0	2.8
Apr	796	74	317	4.8	5,960	513	5,240	720	1,150	980	168	2.3	2.2	2.8
May	733	65	331	5.4	5,920	528	5,200	720	1,210	1,040	173	2.5	2.4	2.9
Jun	683	61	347	6.1	5,970	615	5,240	730	1,230	1,060	170	2.5	2.4	2.8
Jul	704	62	365	6.2	6,030	584	5,320	710	1,310	1,130	176	2.6	2.5	3.0
Aug	668	55	378	6.8	5,990	576	5,300	690	1,280	1,110	172	2.6	2.5	3.0
Sep	725	58	378	6.3	6,180	546	5,480	700	1,260	1,090	166	2.4	2.4	2.8
Oct	667	51	388	7.0	6,190	526	5,500	690	1,230	1,070	163	2.4	2.3	2.8
Nov	753	54	389	6.2	6,330	503	5,630	700	1,110	960	149	2.1	2.0	2.6
Dec	860	61	388	5.4	6,090	513	5,410	680	880	760	119	1.7	1.7	2.1
2022 - Jan	788	64	398	6.1	6,490	352	5,750	740	850	740	108	1.6	1.5	1.8
Feb	772	65	407	6.3	6,020	357	5,350	670	870	760	113	1.7	1.7	2.0

For greater detail and analysis of these and other data, go to HousingEconomics.com

Last Updated: 03/24/2022
(1), (2), (3) & (5)-(11) Data are in thousands of units.
(4) & (12)-(14) Number of months.
(3) & (4) Monthly data are seasonally adjusted
(1), (5), (7), (8) Monthly data are seasonally adjusted annual rates
(2), (6) & (9)-(14) Monthly data are not seasonally adjusted.
(1) & (5) Annual data is an average of monthly data, seasonally adjusted.
(2) & (6)-(8) Annual data are the sum of monthly data, not seasonally adjusted.
(3), (4), & (9)-(11) Annual data are December data, not seasonally adjusted.
(12)-(14) Annual data are an average of the monthly data, not seasonally adjusted.
(NA) = Not available.

Sources: (1), (2), (3) & (4) U.S. Bureau of the Census; (5) through (14) National Association of Realtors.
Prepared by Economics Department, NAHB. Available at www.HousingEconomics.com

Note: Some of these numbers may differ from other sources, (See III. E and F)
Source: https://www.nahb.org/-/media/NAHB/news-and-economics/docs/housing-economics/sales/nationwide-sales-and-inventory.pdf

APPENDIX C. Sales of New and Existing Homes in Dollars through February 2022 (preliminary)

New and Existing Single Family Home Prices, U.S.

	NEW HOME PRICES						EXISTING HOME PRICES							
	MEDIAN (1)	PCT CHANGE (2)	MEAN (3)	PCT CHANGE (4)	QUALITY ADJ INDX (5)	PCT CHANGE (6)	MEDIAN (7)	PCT CHANGE (8)	MEAN (9)	PCT CHANGE (10)	FHFA INDEX (11)	PCT CHANGE (12)	C/S INDEX (13)	PCT CHANGE (14)
2018	326.4	1.0%	385.0	0.0%	132.4	4.4%	261.6	5.1%	299.4	3.2%	260.8	6.3%	202.5	5.8%
2019	321.5	-1.5%	383.9	-0.3%	135.5	2.3%	274.6	5.0%	310.2	3.6%	274.2	5.2%	209.5	3.5%
2020	336.9	4.8%	391.9	2.1%	140.0	3.3%	300.2	9.3%	334.5	7.8%	295.9	7.9%	222.2	6.1%
2021	392.9	16.6%	453.7	15.8%	159.7	14.1%	353.6	17.8%	372.8	11.4%	345.7	16.8%	260.1	17.1%
2021 - Feb	362.0	9.1%	407.5	5.5%	146.6	7.4%	315.1	15.5%	345.3	12.5%	319.9	12.7%	241.9	12.2%
Mar	359.6	9.6%	414.7	10.5%	148.7	8.2%	331.5	17.3%	356.5	12.5%	325.1	14.3%	245.9	13.5%
Apr	376.6	21.4%	434.8	20.7%	150.5	9.5%	346.2	19.9%	367.5	14.1%	331.1	16.1%	250.1	15.0%
May	390.4	23.1%	445.3	20.8%	152.6	10.0%	356.8	24.5%	375.9	17.5%	337.0	18.3%	254.6	16.9%
Jun	374.7	9.9%	431.9	13.0%	154.4	11.9%	370.1	24.2%	386.1	16.5%	342.9	19.1%	259.3	18.8%
Jul	406.0	23.1%	462.1	21.9%	156.3	11.6%	366.6	18.4%	383.2	12.4%	347.9	19.3%	263.5	19.8%
Aug	404.3	24.2%	470.0	21.7%	158.0	12.1%	364.7	15.9%	381.4	10.4%	351.3	18.6%	267.2	20.0%
Sep	413.2	20.0%	470.6	16.2%	160.0	12.7%	357.9	13.3%	375.7	8.4%	354.5	17.8%	270.2	19.6%
Oct	427.3	23.2%	487.7	23.6%	162.4	14.5%	359.5	13.1%	376.7	8.2%	358.5	17.5%	273.0	19.0%
Nov	430.3	22.7%	498.8	25.9%	164.3	15.5%	361.3	14.5%	377.6	9.0%	362.8	17.6%	276.2	18.8%
Dec	399.1	9.3%	483.3	20.3%	167.7	17.1%	361.3	15.2%	377.3	9.2%	367.2	17.6%	279.8	18.8%
Jan	427.4	14.5%	494.0	18.0%	169.7	17.0%	356.7	15.8%	372.4	9.1%				
2022 - Feb	400.6	10.7%	511.0	25.4%	171.4	16.9%	363.8	15.5%	374.4	8.4%				

For greater detail and analysis of these and other data, go to HousingEconomics.com

Last Updated: 03/24/2022

(1),(3),(7),(9) Sales prices are in thousands of dollars, not seasonally adjusted. (2),(4),(6),(8),(10),(12),(14) Year-over-year percent change. NA = Not available.
(5) 2005 = 100.0. The price index is designed to measure changes over time in the sales price of new single family homes which are the same with respect to several important characteristics, including: floor area, geographic division, inside or outside of a metropolitan areas (MSAs), number of fireplaces, bathrooms and bedrooms, type of parking facility, type of heating, foundation and exterior, and whether unit has a deck. The weights for the index are the proportion of all housing units sold in 2005 of that type.
(11) This index measures average price changes from repeat sales or refinancings of the same single-family homes, whose mortgages have been purchased or securitized by the Fannie Mae or Freddie Mac. 1980 Q1 = 100.00.
(13) The S&P/Case-Shiller® U.S. National Home Price Index is a composite of single-family home price indices for the nine U.S. Census divisions, calculated quarterly. Not seasonally adjusted. 2000 Q1 = 100.00

Sources: (1),(3),(5) U.S. Bureau of the Census, Construction Reports, Series C-25, New One Family Homes Sold and For Sale.
(7),(9) National Association of Realtors, Home Sales. (11) Office of Federal Housing Enterprise Oversight, Home Price Index.
(13) Standard & Poor's, Fiserv Inc. and MacroMarkets LLC.

Prepared by Economics Department, NAHB. Available at www.HousingEconomics.com

Source: Economics Department NAHB, New and Existing Single Family Home Prices U.S. https://www.nahb.org/-/media/NAHB/news-and-economics/docs/housing-economics/sales/median-prices.pdf

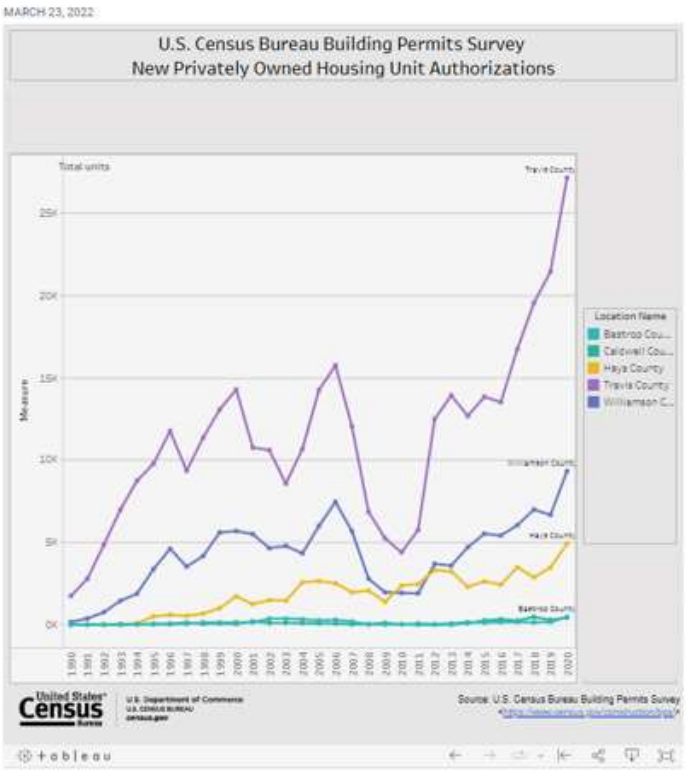
APPENDIX D. New Residential Construction by Region, First Quarter 2021 and First Quarter 2022

	Permits, Starts, and Completions by Region, First Quarter, Seasonally Adjusted (in Thousands)									
		2022				2021				
	Region	Jan	Feb-r	Mar-p	Total	Jan	Feb	March	Total	%CH 2022 vs. 2021
Permits	Northeast	141	171	190	502	195	170	155	520	-3.5%
	Midwest	275	251	258	784	245	250	253	748	4.8%
	South	1,009	960	959	2,928	956	863	908	2,727	7.4%
	West	470	483	466	1,419	487	443	439	1,369	3.7%
Starts	Northeast	105	139	293	537	204	109	165	478	12.3%
	Midwest	198	239	232	669	209	136	288	633	5.7%
	South	924	1,007	834	2,765	811	771	891	2,473	11.8%
	West	452	403	434	1,289	401	431	381	1,213	6.3%
Completions	Northeast	82	131	95	308	108	121	134	363	-15.2%
	Midwest	137	191	185	513	175	188	214	577	-11.1%
	South	667	761	763	2,191	740	723	814	2,277	-3.8%
	West	352	282	260	894	305	315	335	955	-6.4%

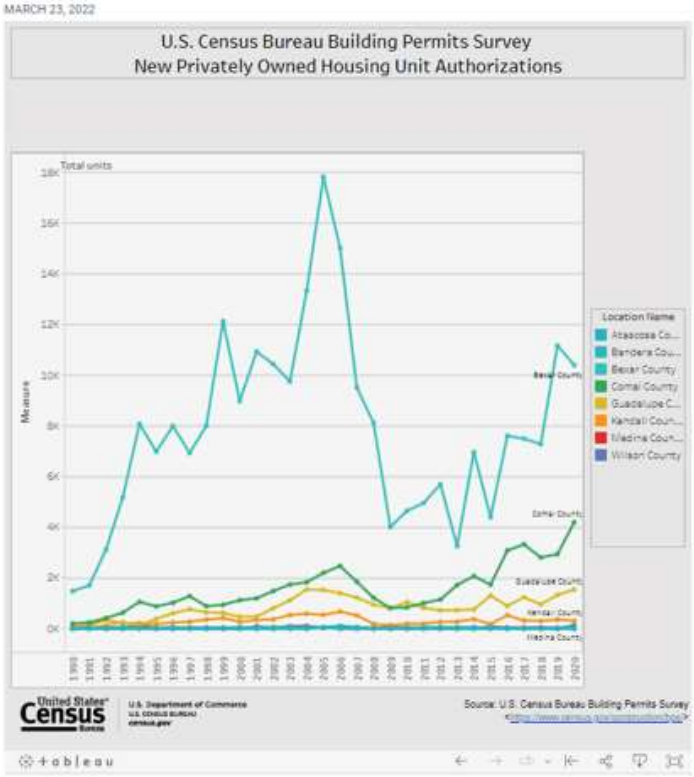
Source: Census Bureau and HUD, Monthly New Residential Construction, Tables 1A, 3A, and 5A, January-March 2022.

APPENDIX E. Construction Permits by County for the Austin-Round Rock and San Antonio-Braunfels MSAs

Permits Issued in the Austin MSA by County for New Privately Owned Housing 1990-2020

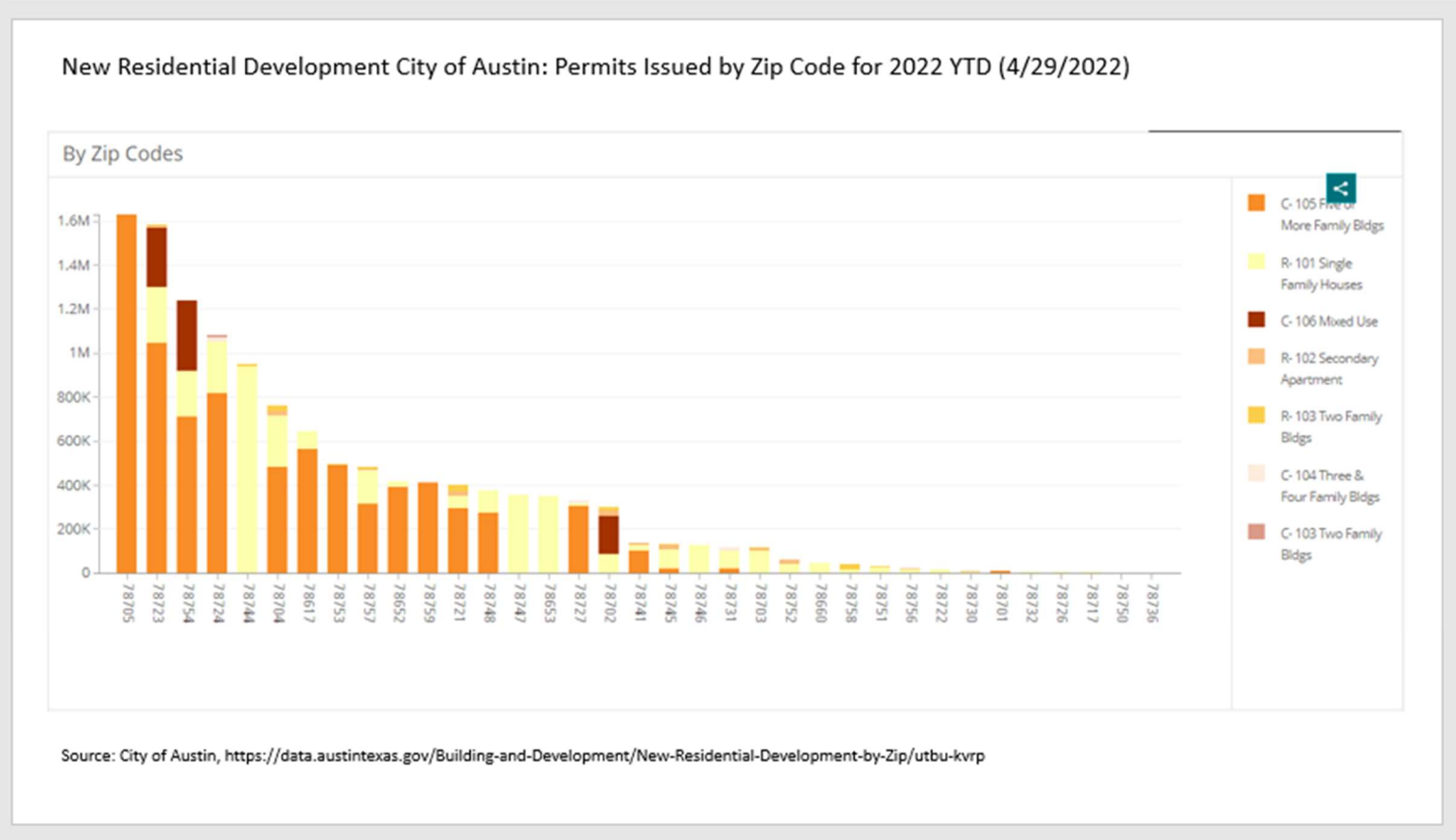


Permits Issued in the Austin MSA by County for New Privately Owned Housing 1990-2020



APPENDIX F. Building Permits Issued for New Residential Development in Austin by Zip Code

Austin Development by Zip Code.



Source: City of Austin, https://data.austintexas.gov/Building-and-Development/New-Residential-Development-by-Zip/utbu-kvrp

APPENDIX G. Summary of Housing Activity Austin-Round Rock MSA, First Quarter2022

Date	MSA/County	Sales (Units)	%Chg YA (Units)	Median Price ($)	% Chg Median Sales Price vs. YA	Avg. # Days on Market	Chg # Days on market (Days)	New Listings (Units)	%Chg New Listings vs. YA	Active Listings (Units)	%Chg Active Listings vs. YA	Inventory (Months' Supply)	Chg vs. YA (Months)
Jan. 2022	Austin-RR MSA	2295	-5.8	476,000	30.4%	28	-6	2614	-10.1	1351	-0.7%	0.4	0
	Austin	711	-10.6	550,000	20.9%	30	-4	784	-18.3	362	-37.7%	0.3	-0.2
	Bastrop	99	-13.2	398,000	50.2%	28	-13	159	-0.6	125	35.9%	1	0.2
	Caldwell	20	-33.3	315,000	31.3%	28	-36	59	126.9	34	-26.1%	1.1	-0.4
	Hays	315	1.3	389,000	30.1%	28	-13	357	-1.7	266	66.3%	0.6	0.2
	Travis	1102	-12.3	530,000	23.8%	30	-5	1206	-14.7	603	-25.7%	0.4	-0.1
	Williamson	759	4.8	460,000	42.2%	26	-3	833	-11.8	323	29.2%	0.3	0.1
Feb. 2022	Austin-RR MSA	2581	11.3	499,995	27.9%	28	-4	2834	10	1240	-4%	0.4	0.1
	Austin	834	2.5	565,000	15%	30	-1	887	10.2	371	-26.8%	0.3	-0.1
	Bastrop	79	-24.8	443,835	61.4%	43	-25	139	25.2	97	19.8%	0.8	0.2
	Caldwell	27	42.1	314,695	57.4%	19	-50	50	233.3	30	3.5%	0.9	0
	Hays	326	7.6	427,350	42.5%	28	-4	384	12	233	46.5%	0.6	0.2
	Travis	1292	3.9	541,050	15.1%	31	-2	1340	5.9	573	-24.2%	0.3	-0.1
	Williamson	857	32.3	479,000	32.7%	24	-1	921	10.8	307	14.6%	0.3	0.1
Mar. 2022	Austin-RR MSA	3302	-5.9	521,100	22.6%	21	-6	4150	-1.2%	1731	46.1%	0.5	0.2
	Austin	1048	-6.3	624,000	22.4%	20	-9	1316	-7.5%	533	20.3%	0.5	0.1
	Bastrop	120	-27.3	405,500	46.9%	40	-6	196	48.5%	128	109.8%	1.0	0.5
	Caldwell	43	19.4	329,000	31%	30	-47	80	150%	34	21.4%	1.0	0.1
	Hays	409	-2.6	440,000	28%	23	-11	482	-10.2%	268	50.6%	0.7	0.3
	Travis	1615	-7.1	600,500	23%	21	-7	2048	-4.5%	873	32.1%	0.5	0.1
	Williamson	1115	-3.0	490,000	23%	19	2	1344	0.8%	428	66.5%	0.4	0.2

Source: Austin Board of Realtors (main source), Central Texas Housing Market Reports with data sourced from the Texas Data Relevance Project and the Real Estate Center at Texas A&M University), Feb-April 2022. Note that the total for the MSA is the sum of the counties minus the city of Austin in this table. Austin number should be included in Travis County.

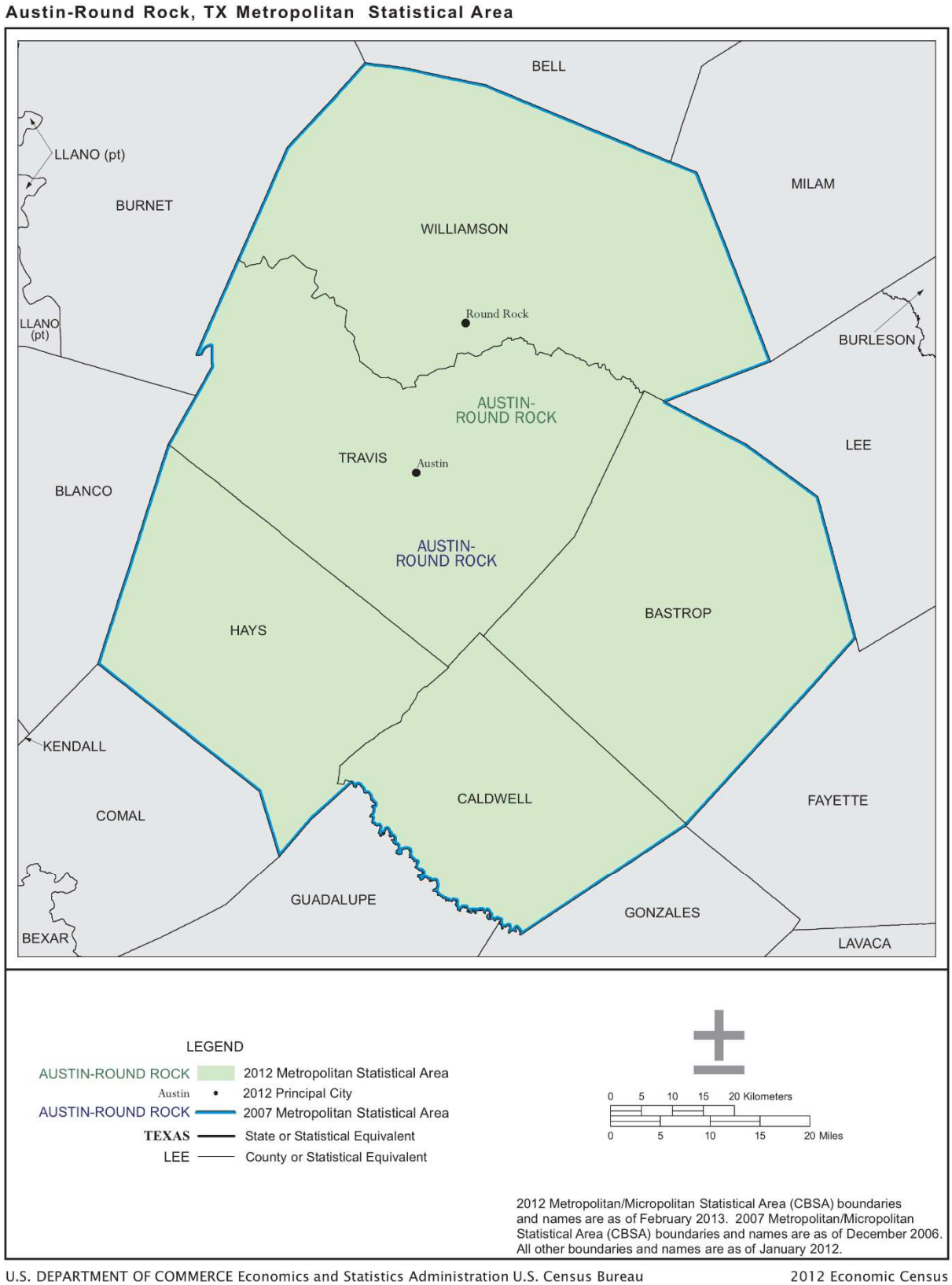
Note: YA= Year ago, which is the same as YOY, year over year.

APPENDIX H. Summary of Housing Activity San Antonio-New Braunfels MSA, First Quarter 2022

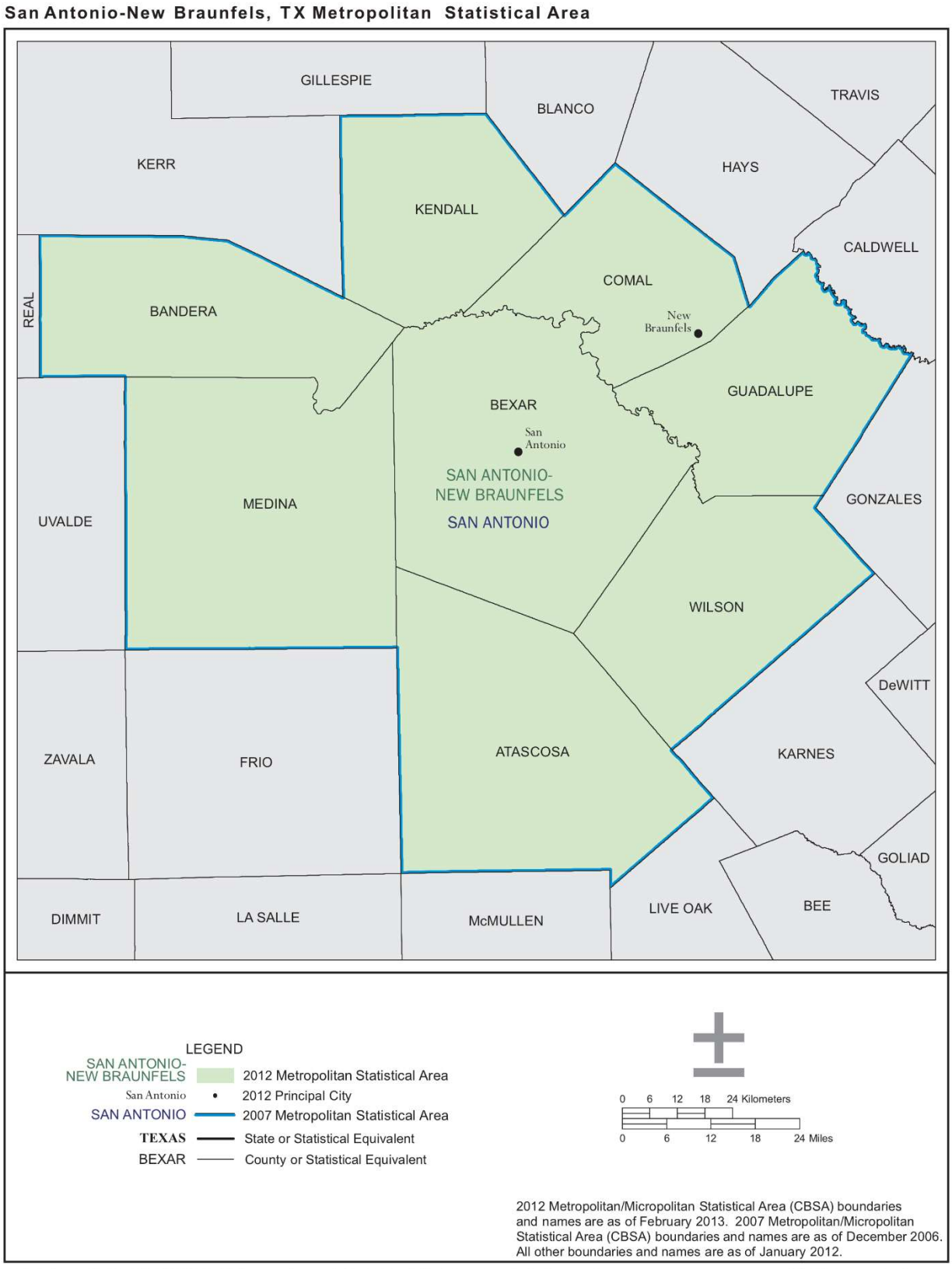
Date	MSA/County	Sales (Units)	Dollar Volume ($)	Average Price ($)	Median Price ($)	Total Listings	Months Inventory
Jan. 2022	San Antonio-NB MSA	2,566	893,312,248	348,134	300,000	4,569	1.3
	Atascosa*	NA		290,000	260,000		
	Bandera	NA					
	Bexar/SA	1,917	611,545,290	319,012	282,500	3,156	1.2
	Comal	229	111,453,511	486,697	399,020	467	1.3
	Guadalupe	231	80,190,196	347,144	321,500	430	1.3
	Kendall*	NA		908,927	612436		
	Medina*	NA		312,944	306,000		
	Wilson*	NA		461,838	473,000		
Feb. 2022	San Antonio-NB MSA	2,760	977,298,798	354,094	305,000	4,232	1.2
	Atascosa*	NA		285,727	235,500		
	Bandera	NA					
	Bexar/SA	2,009	654,525,107	325,796	285,000	2,968	1.2
	Comal	328	154,203,256	470,132	377,424	403	1.1
	Guadalupe*	220	79,570,027	361,682	330,000	339	1
	Kendall*	NA		669,566	542,000		
	Medina*	NA		400,177	340,000		
	Wilson*	NA		429,606	400,000		
Mar. 2022	SA MSA	3,621	1,336,402,352	369,070	318,999	4,007	1.1
	Atascosa*	NA		298,111	230,000		
	Bandera	NA					
	Bexar/SA	2,588	871,321,242	336,677	300,000	2,793	1.1
	Comal	417	208,492,137	499,981	395,510	396	1.1
	Guadalupe	344	129,880,068	377,558	346,000	322	1
	Kendall*	NA		768,296	631,786		
	Medina*	NA		398,820	315,000		
	Wilson*	NA		388,181	359,500		

Source: Texas A&M University Texas Real Estate Research Center, San Antonio-New Braunfels Housing Activity, Jan1990-March 2022, Retrieved 04/23/2022, https://www.recenter.tamu.edu/data/housing-activity/.
*Source: San Antonio Board of Realtors, Market Research and Statistics, County Reports, First Quarter 2021, https://sabor.com/Market-Research-and-Statistics/Market-Statistics/County-Reports.

APPENDIX I. Austin-Round Rock County Map



APPENDIX J. San Antonio-New Braunfels County Map



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E-commerce and the Warehouse Paradox

The Growth of U.S. E-commerce and the Demand for Warehouse Space

December 2020

Prepared by Alison Danis

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I. Executive Summary

The first e-commerce transaction on the modern internet[1] is attributed to Phil Brandenberger of Philadelphia, who purchased a Sting album from Noteworthy Music in Nashua, New Hampshire, using a credit card. That year was 1994 and the album cost $12.48 plus shipping (Lewis, 1994). Twenty-six years later, U.S. e-commerce retail sales are measured in the billions of dollars — $209 billion in just the third quarter of 2020 (U.S. Census Bureau, 2020).

While e-commerce represents less than 11% in total retail sales[2] on an annual basis, it propels much of our economy and the millions of small businesses that make up that economy. Not surprisingly, it also drives the additional warehouse space and the logistics those businesses need to function to get goods into the hands of consumers. (U.S. Census Bureau, 2020).

Getting these goods into the hands of consumers requires more storage and warehouse space. Prologis, a global real estate investment and logistics firm, estimates that e-commerce requires three times the warehouse space of traditional distribution operations (Smith, Warehouse Demand, 2020). Moreover, CBRE[3] estimates that for every $1 billion in incremental e-commerce sales 1.25 million square feet of warehouse space is needed. (CBRE, 2020)

To fill this need, the world's largest retailers, such as Amazon and Walmart, simply build or lease more warehouses. But for small e-tailers, who make up about 90% of e-commerce firms,[4] the choices are more limited. Smaller businesses generally need correspondingly smaller spaces to cover the essentials: basic storage, order processing, and services for the final delivery to customers. Significantly, many of these small retailers will not have the additional footage, if they have a physical store at all, to accommodate their product.

Clearly, there is an imperative to offer smaller warehousing space to the multitude of small and medium physical-goods businesses, dubbed "the Concrete Class," that conduct e-commerce. Yet. there is not the existing space to do so, which creates a vacuum in the market. When there is a vacuum in the market, new or long-standing businesses usually jump in to fill it. That is a guiding principle of market dynamics. That it hasn't happened is part of the paradox and the question that is the subject of this work: **If the supply of small warehousing space cannot meet the demand, why aren't developers creating more small warehousing to serve the growing numbers and requirements of e-businesses?** And, the paradox? *How can the growth of e-commerce be driving small warehousing when small warehousing isn't really growing?*

Key Findings

- The demand for small warehouse space nearly exceeds the current supply. This will continue into the foreseeable future.

- For small warehousing, it is location, location, location. Urban areas are the new frontier for warehousing due to the focus on last-mile logistics, made commonplace by Amazon, and short delivery times. That means being where the customers are and 83% of them are in the cities (Center for Sustainable Systems, University of Michigan, 2020).

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[1] Excludes Arapnet or any version of the Internet until 1991 when the National Science Foundation lifted its ban on commercial intranet use.
[2] Less than 11% e-commerce to retail sales refers to the years prior to the 2020 pandemic (See Figure 7). In 2020, it has been as high as 16.1% (second quarter).
[3] Originally standing for Coldwell Banker Richard Ellis, CBRE is now one of the largest commercial real estate companies in the world.
[4] 92% in 2017 for NAICS 4541, according to the 2017 County Business Patterns and 2017 Economic Census at https://www.census.gov/programs-surveys/susb/data/tables.html

- E-commerce is driving warehouse space in a number of ways. One way, particularly in larger-sized warehouses, is that it requires three times more footage to operate than traditional retail. This also translates to smaller businesses that must eschew garages or warehouses for storage.

- The growth of e-commerce as a share of total retail has accelerated exponentially with the spreading of the coronavirus. E-commerce, which was hovering at about 11% as a percentage of sales, increased its portion by 49% (to 16.1%) in the second quarter and 29% (to 14.3%) in the third quarter of 2020 versus a year ago.5

- Small and medium businesses, which make up the overwhelming majority of e-commerce firms, need appropriately-sized space to store physical goods. They require many fewer square feet, maybe 250-60,000, than the retail giants who typically utilize 500,000 to 1 million square feet of space.

- The construction of small warehouse spaces has lagged behind the need for smaller spaces because of the cost of urban land, the regulations of warehouse operations, the zoning requirements in an urban setting, the investment risk of uncertain returns, and the failure to anticipate the more rapid shifts in consumer buying habits.

- The supply chain has been overwhelmed by high consumer demand for online goods and speedy deliveries, especially during a 2020 holiday season that bore down on a pandemic that restricted consumer movement. Putting added strain on the supply chain and warehousing are the new e-commerce entrants and those enjoying the online boom. They will keep fueling the demand for physical space in close proximity to customers in order to achieve next-day delivery goals, which are becoming standard.

II. Introduction

Even before the coronavirus pandemic disrupted life around the globe and boosted online sales, e-commerce was growing at a healthy double-digit pace over the past 10 years by approximately 15% year over year (See Table 1). This rise has had profound effects on warehousing and logistics. Today, e-commerce drives small warehousing in the U.S.

This paper will explore the impact of e-commerce on U.S. warehouse supply and demand, and especially on small warehousing. It will first outline the general trends in the relevant segments of the industry: warehousing, self-storage, and the supply chain. It will then examine the major forces and influences by which e-commerce drives the demand for warehouse space, including how Amazon has shifted consumer expectations of convenience to make next-day delivery the price of entry into the channel. It will also enumerate the reasons that smaller warehouse spaces are in short supply. Finally, it will offer a glimpse into the future of the small warehousing segment and the prospects for the sustained growth of e-commerce, the most dynamic component of omnichannel retailing.

The purpose of this paper is to pursue the question raised by the warehouse paradox: why is the development of small warehousing defying the laws of supply and demand? It will answer this question.

III. Background: A Look at Warehousing Trends

The Ecosystem

The U.S. Warehouse and Transportation industry comprises a number of sectors that include storage, transportation by all routes — air, sea, and ground — and supply chain logistics. The business costs of logistics and transportation make up about 8% of the total U.S. GDP. That's a lot! (Department of Commerce International Trade Administration, 2019)

[5] Source: U.S. Census Bureau, Quarterly Retail E-Commerce Sales for first and third quarter 2020.

The warehousing segments that most impact small- and medium-sized business storage solutions are general commercial, light industrial, and self-storage. These are the ones discussed below.

Warehousing and Storage: General Commercial, Light Industrial, and Self-Storage

The chief trends across the U.S. warehousing market in 2019-2020 show that revenues and rents are climbing; supply is tight, particularly among the largest and smallest warehouse sizes; and new construction is not keeping up with business demand.

Revenue for the warehousing and transportation industry revenue reached $1.2 trillion in 2019.[6] The warehousing and storage portion of the industry was at valued $42.5 billion for that same period.[7] (U.S. Census Bureau, 2020). According to an IBIS 2020 report, the self-storage industry is expected to end the year at about $21.9 billion in revenue (see Figures 1 and 2).

Renewals and new leases for industrial real estate were reported up by 2.8% overall for 2020 after suffering a precipitous 29% decline in April due to pandemic lockdowns. This was followed by a 43% rebound in May (Smith, Warehouse Demand, 2020). As a result, revenue took a hit in the second quarter followed by remarkable recovery in the third (see Figure 3).

Smaller Warehouses: High Rents, Low Availability, Increased Demand

Of the various building segment sizes, rents for the smallest light-industrial warehousing have increased the most, over 32% for the five-year period from 2014-2019. Rents went from $6.03 per square foot (PSF) to $8.01 PSF (CBRE, 2019; see Figure 4). All warehouse rents are expected to grow through 2021 (CBRE, 2020).

Part of the reason for higher rents has been lower availability. According to CBRE in the report "Bigger Not Always Better" from Oct. 2019, in the five years between 2014 and 2019, the availability of light-industrial spaces of 70,000 to 120,000 square feet decreased from 11.3% to 7.4%. The availability of the smallest commercial warehouse segment, less than 70,000 square feet, also declined 6.8% to 5.8% (CBRE, 2019; see Figures 4 and 5).

Size Matters. Demand for high-end and low-end sizes in warehouse accommodations is growing. Both ends of the warehouse leasing spectrum, the largest (>200,000 SF) and the smallest (<70,000 SF), are in short supply and experiencing accelerated desirability due to e-commerce. For size comparison, an Amazon warehouse is between 600,000 and 1 million square feet, or about 10 to 17 football fields.[8] A small urban warehouse is usually less than one football field and could be as small as 200 square feet.

Construction has not kept pace with potential demand. Since the 2008-2009 recession, companies have been adding only enough supply to meet the demand. However, CBRE, Cushman and Wakefield, and IBIS all report that 2020 and 2021 are going to be better years for warehouse development. Two to over three hundred million square feet each year across America will be produced (Maidenberg, 2020). It's noteworthy, though, that construction of new warehouse space at the lower end of the size spectrum may not enjoy similar construction activity unless things change. CBRE calculates that planned construction of warehouses less than 120,000 square feet did not amount to 1% of planned or newly underway construction in 2019 (see Figure 6).

The location of new warehouse development will also differ by size. Building near metropolitan areas with access to major shipping routes is the geography staked out by the big warehouses. Being near customers, around urban areas, where the majority of people live, is the province of small warehouses. The smallest of storage space categories, self-storage, is most often in suburban areas (Lifschutz, 2018).

[6] All of North American Industry Classification 48-49 for employer and nonemployer firms 2019.
[7] U.S. Census Bureau NAICS 493 for employer and nonemployer firms 2019.
[8] A football field, including endzones, is 57,600 square feet.

Self Storage

The smallest end of warehousing is self-storage. Although the majority of facilities, 52%, are located in suburbs, 32% are in urban areas. These are mostly for residential use, so proximity to dwellings is a key factor in customer decision making.

A 2018 IBISWorld Industry Report on the self-storage market estimates that 18.4% of leasing revenue is from commercial users. They also reported that revenue from commercial self-storage customers has grown at a slower rate than from personal-use segments, which were forecast to grow at 1%. But this can be a high margin business due to low labor, overhead, and technology costs, so the profits will remain healthy. The top three players in the self-storage category are Public Storage, Extra Space Storage, and CubeSmart. They account for less than 13% of the market.

According to IBIS, fewer personal storage facilities are being built due to land costs and oversaturation in and around major metropolitan areas.

Third-Party Logistics (3PL)

A huge contributor to the warehousing industry is supply chain management and logistics. This industry, valued at $831 billion in 2019, is expected to grow at a compound annual growth rate (CAGR) of 8.3% from 2020 to 2027. (Grandview Research, 2020)

Logistics manages the flow of goods through air, over sea, and across ground. To get a feel for this industry one only has to follow the journey of the coronavirus vaccine in the nightly news as it is transported across the U.S. from manufacturer to the eventual recipient who receives the shot in the arm.

Third-party logistics (3PL) is a subset of the supply chain. It includes domestic transportation management (DTM), international transportation management (ITM), warehousing and distribution, contract carriage, and value-added logistic services. Companies run the gamut in size and revenue. They can be of major stature, such as XPO, UPS, and DHL, that offer services at every stage of the supply chain; or they can be independent consultancies, helping the smallest of businesses get their goods into the hands of customers.

In 2018, the 3PL growth rate in the U.S. was 15.8%, which was the greatest it had been in almost a decade. After a decline in 2019, the sector is showing huge spikes in order volume in 2020, according to 3PL Central, a warehouse management systems company (Burnson, Top 50 US and Global Third Party Logistics 2020, 2020). In fact, 3PL companies are feeling the heat from the confluence of the 2020 pandemic, the rise of e-commerce, and the force of Amazon. Imports from China are soaring and billions of packages that have to be delivered in two or three days are putting a huge strain on the industry.

A transformation may be coming. 3PL companies, once the logistics solutions for large companies, are now turning to smaller companies to help them navigate the complexities of an omnichannel world. Clients and warehouses of all sizes can use some logistic assistance, which may be offered as part of “real estate as a service” or as a value-added service by warehouses.

IV. The Rise of E-commerce: Amazon, Covid, and Warehousing

E-commerce has become a disruptive change-agent, altering the retail environment, the supply chain, and the way consumers buy. Starting a business has become easier and barriers to entry lower. Supply chain members have learned to process more frequent and lower-volume orders, to implement better coordination among chain members, and to provide faster, convenient deliveries. Consumers have found that they can easily and conveniently comparison shop among a larger number of retailers that offer a greater variety of merchandise, and then have their purchases on their doorstep in a day or two.

E-commerce and warehousing are inextricably linked: as goes e-commerce, so goes the supply chain and the need for warehouse space. Similarly linked are e-commerce and Amazon. And in an ever-shrinking world, made smaller by digital connectedness and freedom of travel, we have another link: the coronavirus. This intertwining of technology, business, and events makes up the real story of the small warehouse industry in 2020.

But, although Amazon may be a leader and Covid a catalyst, one can't ignore the tens of thousands of small e-tailers that are independent or members of the Amazon, Shopify, and Walmart families. These small businesses play a part in this story because they are also actors here. They have the greatest need for small warehousing, and they are a major component in driving the demand. They will also be the early adopters of on-demand and co-warehousing.

The Amazon Effect

The "Amazon Effect" is the catch-all term for all of the ways Amazon has cast a long shadow over how e-business is conducted. Charting the rise of e-commerce is charting the rise of Amazon.

In 1994, the same year that the first retail transaction was made on the internet, Amazon was a garage-based, online bookseller. Today, Amazon dominates the U.S. e-commerce market, representing over 38% of all online sales. Proof of their dominance is the market share of the company that is ranked second in e-commerce sales among U.S. retailers and that is Walmart with a 5.3% share (emarketer.com, 2020).[9] (See Appendix A)

In 2019 alone, Amazon took in over $280 billion in worldwide revenue (MarketLine, 2020), helped by 1.7 million third-party sellers, mostly small businesses, that make up 60% of the giant's retail business. By contrast, but not so far behind in the number of third-party sellers is Shopify with about one million small businesses. Small business participation on the platform has contributed greatly to this Canadian company's success in the U.S. (Lu, 2020). Both companies can expect record hauls this year, lifted by an overall increase in holiday online sales between 47 and 49%, according to CBS and Bloomberg News Outlets.[10]

Aside from its hosting so many small e-commerce businesses, Amazon's most important effect on the warehouse and logistics industry has been its shipping costs and delivery times. Low or no-cost shipping and one- and two-day delivery are standard.

Other retailers see the need to match their speed and convenience while keeping a cap on shipping costs. This means having goods closer to urban centers and customers. It also means that to achieve next day delivery goals, companies may have to invest in automation (robotics) and digitization (warehouse and logistics management systems), utilize more and smaller delivery trucks, and hire increased labor. There has been a shift in the paradigm and only a powerful disrupter can now change it.

The Covid Effect

The 2020 coronavirus has upended consumer buying habits by accelerating the growth of online shopping. Online sales are experiencing historic growth as people remain isolated in their homes, reducing in-person store visits.

It took 19 years, from 2000 to 2019, for e-commerce to break into the double digits as a percentage of retail sales on an annual basis (U.S. Census Bureau, 2020). It took only six months to go from 11.3% in the 4th quarter of 2019 to 16.1% in the second quarter of 2020, an increase of 42%. (U.S. Census Bureau, 2020). This is a seasonal channel, so by all accounts the 4th quarter holiday season will be a record-breaking one (see Figures 7 and 8).

[9] Shopify is a *Canadian* company that is not so much a retailer or marketplace as a platform. However, it is second to Amazon in sales with about 6% in market share (Lu, 2020).
[10] Reported by CBS Evening News 12/26/20 and MasterCard on bloomberg.com 12/26/20.