

# Austin-Round Rock-Georgetown Housing Affordability Outlook



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TEXAS A&M UNIVERSITY

Texas Real Estate Research Center

TECHNICAL REPORT

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# Austin-Round Rock-Georgetown Housing Affordability Outlook 1Q2022

## About this Report

Texas Real Estate Research Center economists continuously monitor many facets of both state and local housing markets. *Austin-Round Rock-Georgetown Housing Affordability Outlook* summarizes significant housing activity and trends as related to affordability in the Austin-Round Rock-Georgetown MSA. Home prices reflect single-family existing homes unless otherwise stated. This report does not seasonally adjust home prices.

This publication is designed to be a one-stop resource for information on housing affordability for potential homebuyers in the Austin-Round Rock-Georgetown MSA. We hope you find them as useful as we do. Your feedback is always appreciated. Send comments and suggestions to [info@recenter.tamu.edu](mailto:info@recenter.tamu.edu).

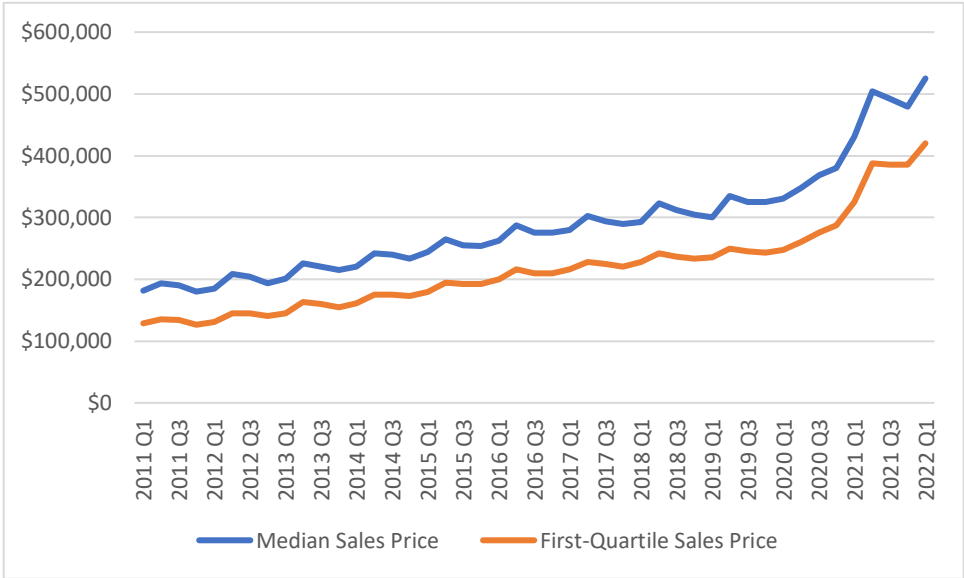
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## Purchase Affordability

The first quarter saw an uptick in both the median sales price and first-quartile sales price for the Austin-Round Rock-Georgetown MSA. (Figure 1).<sup>1</sup> The year-over-year (YOY) growth in median sales price and first-quartile sales price in the Austin-Round Rock-Georgetown MSA measured a robust 21.8 percent and 29.2 percent, respectively, significantly higher than average YOY growth for the first quarter (Table 1). The median sales price measured \$525,000; the first-quartile sales price, \$420,000. Following years of generally sluggish growth, family income increased considerably. From 2021 to 2022, median family income in the Austin-Round Rock-Georgetown MSA rose 11.5 percent (Table 2). However, as long as the rise in home prices continues to outpace the increase in income, purchase affordability, or the ability of a household to buy a home, will continue to diminish.

Meanwhile, mortgage interest rates remained low by historical standards, averaging 3.82 percent in 1Q2022 (Figure 2). All other things being equal, lower (higher) mortgage interest rates translate into lower (higher) monthly mortgage payments and ease (diminish) purchase affordability. The Federal Reserve is widely anticipated to continue to raise the federal funds rate over the near-term to reduce inflationary pressures, which will likely prompt additional increases in mortgage interest rates. The average rate on the 30-year fixed-rate mortgage increased nearly one percentage point in March, rising from 3.76 percent to 4.67 percent. For more information on the effect of mortgage interest rates on purchase affordability, please see “How Higher Interest Rates Affect Homebuying” at <https://assets.recenter.tamu.edu/Documents/Articles/2339.pdf>.

**Figure 1. Median and First-Quartile Sales Prices in the Austin-Round Rock-Georgetown MSA**



Source: Texas Real Estate Research Center at Texas A&M University

<sup>1</sup> The first quartile reflects the lowest-priced 25 percent of homes sold in a particular geography. The first-quartile sales price represents the highest home price among those lowest-priced 25 percent of homes sold. If the price of the lowest 25 percent of homes sold ranges from \$100,000 to \$150,000, then the first-quartile sales price would be \$150,000.

**Table 1. Median Sales Price and First-Quartile Sales Price by Quarter**

Year	Median Home Price	YOY Change	First-Quartile Home Price	YOY Change
1Q2011	\$181,500		\$129,000	
1Q2012	\$185,000	1.9%	\$131,000	1.6%
1Q2013	\$201,000	8.6%	\$144,900	10.6%
1Q2014	\$220,000	9.5%	\$161,000	11.1%
1Q2015	\$244,250	11.0%	\$179,000	11.2%
1Q2016	\$263,000	7.7%	\$199,500	11.5%
1Q2017	\$280,000	6.5%	\$216,500	8.5%
1Q2018	\$293,000	4.6%	\$227,500	5.1%
1Q2019	\$300,000	2.4%	\$235,000	3.3%
1Q2020	\$330,000	10.0%	\$247,500	5.3%
1Q2021	\$431,000	30.6%	\$325,000	31.3%
<b>1Q2022</b>	<b>\$525,000</b>	<b>21.8%</b>	<b>\$420,000</b>	<b>29.2%</b>

Source: Texas Real Estate Research Center at Texas A&M University

**Table 2. Median Family Income by Year**

Year	Income for First-Time Homebuyers	YOY Change	Median Family Income	YOY Change
2011	\$59,900		\$74,900	
2012	\$60,700	1.3%	\$75,900	1.3%
2013	\$58,550	-3.5%	\$73,200	-3.6%
2014	\$60,300	3.0%	\$75,400	3.0%
2015	\$61,450	1.9%	\$76,800	1.9%
2016	\$62,250	1.3%	\$77,800	1.3%
2017	\$65,100	4.6%	\$81,400	4.6%
2018	\$68,800	5.7%	\$86,000	5.7%
2019	\$75,500	9.7%	\$95,900	11.5%
2020	\$78,100	3.4%	\$97,600	1.8%
2021	\$79,100	1.3%	\$98,900	1.3%
<b>2022</b>	<b>\$88,250</b>	<b>11.6%</b>	<b>\$110,300</b>	<b>11.5%</b>

Note: The income for first-time homebuyers reflects the income limit for low-income families, who earn no more than 80 percent of the median family income. This table reflects income figures for a four-person family.

Source: United States Department of Housing and Urban Development

**Figure 2. 30-Year Fixed Rate Mortgage Average in the United States**



Sources: Federal Reserve Economic Data and Freddie Mac

## Repeat Homebuyer

Purchase affordability declined YOY as the gap between the median sales price and family income continued to rise. For households earning the median family income for the Austin-Round Rock-Georgetown MSA in 2022 (\$110,300), the median sales price for 1Q2022 was not affordable to them unless the home price-to-income multiplier exceeded 4.5 (Table 3). Only 6.5 percent of homes sold in 1Q2022 were affordable to households earning the median family income with a home price-to-income multiplier of 3 (Table 4). Households would have to earn \$175,000 annually to be able to afford the median sales price with a home price-to-income multiplier of 3.

**Table 3. Maximum Home Price Affordable by Family Income  
and Home Price-to-Income Multiplier**

		Home-Purchasing Power							
	Family Income	2	2.5	3	3.5	4	4.5	5	5.5
	\$85,000	\$170,000	\$212,500	\$255,000	\$297,500	\$340,000	\$382,500	\$425,000	\$467,500
Low-Income Households (80%)	\$88,250	\$176,500	\$220,625	\$264,750	\$308,875	\$353,000	\$397,125	\$441,250	\$485,375
	\$90,000	\$180,000	\$225,000	\$270,000	\$315,000	\$360,000	\$405,000	\$450,000	\$495,000
	\$95,000	\$190,000	\$237,500	\$285,000	\$332,500	\$380,000	\$427,500	\$475,000	\$522,500
	\$100,000	\$200,000	\$250,000	\$300,000	\$350,000	\$400,000	\$450,000	\$500,000	<b>\$550,000</b>
	\$105,000	\$210,000	\$262,500	\$315,000	\$367,500	\$420,000	\$472,500	<b>\$525,000</b>	<b>\$577,500</b>
Median Family Income	\$110,300	\$220,600	\$275,750	\$330,900	\$386,050	\$441,200	\$496,350	<b>\$551,500</b>	<b>\$606,650</b>
	\$115,000	\$230,000	\$287,500	\$345,000	\$402,500	\$460,000	\$517,500	<b>\$575,000</b>	<b>\$632,500</b>
	\$120,000	\$240,000	\$300,000	\$360,000	\$420,000	\$480,000	<b>\$540,000</b>	<b>\$600,000</b>	<b>\$660,000</b>
	\$125,000	\$250,000	\$312,500	\$375,000	\$437,500	\$500,000	<b>\$562,500</b>	<b>\$625,000</b>	<b>\$687,500</b>
	\$130,000	\$260,000	\$325,000	\$390,000	\$455,000	\$520,000	<b>\$585,000</b>	<b>\$650,000</b>	<b>\$715,000</b>
	\$135,000	\$270,000	\$337,500	\$405,000	\$472,500	<b>\$540,000</b>	<b>\$607,500</b>	<b>\$675,000</b>	<b>\$742,500</b>
	\$140,000	\$280,000	\$350,000	\$420,000	\$490,000	<b>\$560,000</b>	<b>\$630,000</b>	<b>\$700,000</b>	<b>\$770,000</b>
	\$150,000	\$300,000	\$375,000	\$450,000	<b>\$525,000</b>	<b>\$600,000</b>	<b>\$675,000</b>	<b>\$750,000</b>	<b>\$825,000</b>
	\$155,000	\$310,000	\$387,500	\$465,000	<b>\$542,500</b>	<b>\$620,000</b>	<b>\$697,500</b>	<b>\$775,000</b>	<b>\$852,500</b>
	\$160,000	\$320,000	\$400,000	\$480,000	<b>\$560,000</b>	<b>\$640,000</b>	<b>\$720,000</b>	<b>\$800,000</b>	<b>\$880,000</b>
	\$165,000	\$330,000	\$412,500	\$495,000	<b>\$577,500</b>	<b>\$660,000</b>	<b>\$742,500</b>	<b>\$825,000</b>	<b>\$907,500</b>
	\$170,000	\$340,000	\$425,000	\$510,000	<b>\$595,000</b>	<b>\$680,000</b>	<b>\$765,000</b>	<b>\$850,000</b>	<b>\$935,000</b>

Note: Figures in red indicate the maximum affordable home price meets or exceeds the current median sales price.

Source: Texas Real Estate Research Center at Texas A&M University



**Table 4. Percentage of Homes Sold in 1Q2022 Affordable by Family Income and Home Price-to-Income Multiplier**

		Home Price-to-Income Multiplier							
	Family Income	2	2.5	3	3.5	4	4.5	5	5.5
	\$85,000	0.5%	0.9%	1.8%	3.5%	7.7%	15.5%	26.8%	37.7%
Low-Income Households (51-80%)	\$88,250	0.5%	1.1%	2.0%	4.1%	9.8%	18.6%	31.3%	42.1%
	\$90,000	0.5%	1.1%	2.3%	4.7%	11.1%	21.4%	33.8%	43.9%
	\$95,000	0.6%	1.3%	3.0%	6.6%	15.2%	27.0%	39.8%	49.6%
	\$100,000	0.8%	1.7%	3.8%	9.5%	20.2%	33.8%	45.7%	54.8%
	\$105,000	0.9%	2.0%	4.7%	12.5%	25.4%	38.9%	50.4%	58.4%
Median Family Income	\$110,300	1.1%	2.5%	6.5%	16.4%	31.3%	44.0%	54.8%	62.5%
	\$115,000	1.2%	3.0%	8.3%	20.7%	36.2%	48.5%	58.2%	66.8%
	\$120,000	1.4%	3.8%	11.1%	25.4%	41.0%	52.8%	61.6%	70.6%
	\$125,000	1.7%	4.5%	14.2%	29.9%	45.7%	56.5%	65.9%	73.2%
	\$130,000	2.0%	6.0%	17.5%	34.9%	49.3%	59.4%	69.4%	76.0%
	\$135,000	2.3%	7.3%	21.4%	38.9%	52.8%	62.5%	71.9%	78.1%
	\$140,000	2.7%	9.5%	25.4%	43.2%	56.3%	66.6%	74.6%	80.3%
	\$150,000	3.8%	14.2%	33.8%	50.4%	61.6%	71.9%	79.1%	83.4%
	\$155,000	4.4%	16.5%	37.4%	52.9%	64.5%	73.7%	80.6%	85.0%
	\$160,000	5.3%	20.2%	41.0%	56.3%	67.9%	76.4%	82.2%	86.0%
	\$165,000	6.5%	23.5%	43.9%	58.4%	70.6%	78.1%	83.4%	87.0%
	\$170,000	7.7%	26.8%	47.3%	60.5%	72.6%	80.1%	84.9%	88.0%

Source: Texas Real Estate Research Center at Texas A&M University

## Mortgage Interest Rate

Holding home price constant, the total monthly mortgage payment increases as the mortgage interest rate increases (Table 5). At a 3.23 percent rate, this payment was \$3,574 for the median sales price in 1Q2022, nearly three times the total monthly mortgage payment for the median-priced home in 1Q2011.

Table 6 shows the home price-to-income multiplier by mortgage interest rate. A 3.23 percent interest rate translates into a home price-to-income multiplier of 3.67<sup>2</sup>, meaning a household could afford a maximum home price of 3.67 times its annual income. The home price-to-income multiplier declines as the mortgage interest rate increases.

The income required to qualify for a loan with a 3.23 percent mortgage interest rate was \$142,948 for the median sales price in 1Q2022 (Table 7). An estimated 39.1 percent of current homeowners in the Austin-Round Rock-Georgetown MSA could afford the median sales price in 1Q2022 with a 3.23 percent interest rate (Table 8), a decline of over 35 percentage points from 1Q2011.

**Table 5. Total Monthly Mortgage Payment for Repeat Buyers by Mortgage Interest Rate**

		Mortgage Interest Rate						
Year	Home Price	3%	<b>3.23%</b>	3.5%	4%	4.5%	5%	5.5%
1Q2011	\$181,500	\$1,217	<b>\$1,235</b>	\$1,257	\$1,298	\$1,341	\$1,384	\$1,429
1Q2012	\$185,000	\$1,241	<b>\$1,259</b>	\$1,281	\$1,323	\$1,367	\$1,411	\$1,457
1Q2013	\$201,000	\$1,348	<b>\$1,368</b>	\$1,392	\$1,438	\$1,485	\$1,533	\$1,583
1Q2014	\$220,000	\$1,475	<b>\$1,498</b>	\$1,524	\$1,574	\$1,625	\$1,678	\$1,733
1Q2015	\$244,250	\$1,638	<b>\$1,663</b>	\$1,692	\$1,747	\$1,804	\$1,863	\$1,924
1Q2016	\$263,000	\$1,764	<b>\$1,790</b>	\$1,821	\$1,881	\$1,943	\$2,006	\$2,071
1Q2017	\$280,000	\$1,878	<b>\$1,906</b>	\$1,939	\$2,003	\$2,068	\$2,136	\$2,205
1Q2018	\$293,000	\$1,965	<b>\$1,994</b>	\$2,029	\$2,096	\$2,164	\$2,235	\$2,308
1Q2019	\$300,000	\$2,012	<b>\$2,042</b>	\$2,078	\$2,146	\$2,216	\$2,288	\$2,363
1Q2020	\$330,000	\$2,213	<b>\$2,246</b>	\$2,285	\$2,360	\$2,438	\$2,517	\$2,599
1Q2021	\$431,000	\$2,890	<b>\$2,934</b>	\$2,985	\$3,083	\$3,184	\$3,288	\$3,394
<b>1Q2022</b>	<b>\$525,000</b>	<b>\$3,521</b>	<b>\$3,574</b>	<b>\$3,636</b>	<b>\$3,755</b>	<b>\$3,878</b>	<b>\$4,005</b>	<b>\$4,135</b>

Note: Assumes a 30-year loan term, 80 percent loan-to-value (LTV) ratio, 30 percent debt-to-income (DTI) ratio, and additional costs of homeownership at 4 percent of home price.

Source: Texas Real Estate Research Center at Texas A&M University

<sup>2</sup> The home price-to-income multiplier assumes a 30-year loan term, 80 percent loan-to-value ratio, 30 percent DTI ratio, and property taxes and insurance of 4 percent.



**Table 6. Home Price-to-Income Multiplier for Repeat Buyers by Mortgage Interest Rate**

Mortgage Interest Rate	Home Price-to-Income Multiplier
3%	3.73
<b>3.23%</b>	<b>3.67</b>
3.5%	3.61
4%	3.50
4.5%	3.38
5%	3.28
5.5%	3.17

Note: Assumes a 30-year loan term, 80 percent LTV ratio, 30 percent DTI ratio, and additional costs of homeownership at 4 percent of home price.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 7. Required Qualifying Income for Repeat Buyers by Mortgage Interest Rate**

Year	Home Price	Mortgage Interest Rate						
		3%	<b>3.23%</b>	3.5%	4%	4.5%	5%	5.5%
1Q2011	\$181,500	\$48,687	<b>\$49,419</b>	\$50,281	\$51,928	\$53,628	\$55,379	\$57,177
1Q2012	\$185,000	\$49,626	<b>\$50,372</b>	\$51,250	\$52,930	\$54,662	\$56,447	\$58,280
1Q2013	\$201,000	\$53,918	<b>\$54,729</b>	\$55,683	\$57,507	\$59,390	\$61,328	\$63,320
1Q2014	\$220,000	\$59,014	<b>\$59,902</b>	\$60,946	\$62,943	\$65,004	\$67,126	\$69,306
1Q2015	\$244,250	\$65,519	<b>\$66,505</b>	\$67,664	\$69,881	\$72,169	\$74,525	\$76,945
1Q2016	\$263,000	\$70,549	<b>\$71,610</b>	\$72,858	\$75,246	\$77,709	\$80,246	\$82,852
1Q2017	\$280,000	\$75,109	<b>\$76,239</b>	\$77,568	\$80,110	\$82,732	\$85,433	\$88,207
1Q2018	\$293,000	\$78,596	<b>\$79,778</b>	\$81,169	\$83,829	\$86,573	\$89,399	\$92,303
1Q2019	\$300,000	\$80,474	<b>\$81,684</b>	\$83,108	\$85,832	\$88,642	\$91,535	\$94,508
1Q2020	\$330,000	\$88,521	<b>\$89,853</b>	\$91,419	\$94,415	\$97,506	\$100,688	\$103,959
1Q2021	\$431,000	\$115,614	<b>\$117,353</b>	\$119,399	\$123,312	\$127,349	\$131,505	\$135,776
<b>1Q2022</b>	<b>\$525,000</b>	<b>\$140,829</b>	<b>\$142,948</b>	<b>\$145,440</b>	<b>\$150,206</b>	<b>\$155,123</b>	<b>\$160,186</b>	<b>\$165,389</b>

Note: The required qualifying income reflects the minimum income a household must earn to qualify for a mortgage loan for a particular home price. Assumes a 30-year loan term, 80 percent LTV ratio, 30 percent DTI ratio, and additional costs of homeownership at 4 percent of home price.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 8. Percentage of Repeat Buyers Who Earned Required Qualifying Income by Mortgage Interest Rate**

Year	Home Price	Mortgage Interest Rate						
		3%	<b>3.23%</b>	3.5%	4%	4.5%	5%	5.5%
1Q2011	\$181,500	75.0%	<b>74.4%</b>	73.8%	72.5%	71.2%	69.9%	68.5%
1Q2012	\$185,000	73.9%	<b>73.4%</b>	72.7%	71.5%	70.2%	68.8%	67.5%
1Q2013	\$201,000	71.2%	<b>70.6%</b>	69.9%	68.6%	67.2%	65.8%	64.3%
1Q2014	\$220,000	68.0%	<b>67.4%</b>	66.7%	65.2%	63.8%	62.2%	60.7%
1Q2015	\$244,250	64.0%	<b>63.3%</b>	62.5%	61.0%	59.4%	57.7%	56.2%
1Q2016	\$263,000	62.0%	<b>61.2%</b>	60.4%	58.8%	57.3%	55.7%	54.1%
1Q2017	\$280,000	61.1%	<b>60.4%</b>	59.6%	58.1%	56.5%	54.9%	53.2%
1Q2018	\$293,000	61.5%	<b>60.8%</b>	60.0%	58.5%	56.9%	55.3%	53.6%
1Q2019	\$300,000	62.6%	<b>61.9%</b>	61.1%	59.5%	57.9%	56.3%	54.6%
1Q2020	\$330,000	60.0%	<b>59.3%</b>	58.4%	56.8%	55.1%	53.4%	51.9%
1Q2021	\$431,000	49.3%	<b>48.5%</b>	47.6%	45.8%	43.9%	42.0%	40.0%
<b>1Q2022</b>	<b>\$525,000</b>	<b>40.0%</b>	<b>39.1%</b>	<b>37.9%</b>	<b>35.8%</b>	<b>35.6%</b>	<b>35.4%</b>	<b>35.2%</b>

Note: Assumes a 30-year loan term, 80 percent LTV ratio, 30 percent DTI ratio, and additional costs of homeownership at 4 percent of home price. As repeat homebuyers constitute owner-occupied households, this table reflects income data solely for owner-occupied households.

Sources: American Community Survey, U.S. Census Bureau, and Texas Real Estate Research Center at Texas A&M University

## LTV Ratio

Holding home price constant, the total monthly mortgage payment increases as the LTV ratio increases (Table 9). For an 80 percent LTV ratio, the mortgage payment was \$3,574 for the median sales price in 1Q2022, nearly three times the total monthly mortgage payment for the median-priced home in 1Q2011.

Table 10 shows the home price-to-income multiplier by LTV ratio. An 80 percent LTV ratio translates into a home price-to-income multiplier of 3.67<sup>3</sup>, meaning a household could afford a maximum home price of 3.67 times its annual income. The home price-to-income multiplier declines as the LTV ratio increases.

The income required to qualify for a loan with an 80 percent LTV ratio was \$142,948 for the median sales price in 1Q2022 (Table 11). An estimated 39.1 percent of current homeowners in the Austin-Round Rock-Georgetown MSA could afford the median sales price in 1Q2022 with an 80 percent LTV ratio (Table 12), a decline of over 35 percentage points from 1Q2011.

<sup>3</sup> The home price-to-income multiplier is based on a 30-year loan term, 3.23 percent mortgage interest rate, 30 percent DTI ratio, and property taxes and insurance of 4 percent. A 0.5 percent mortgage insurance premium is added to loans with a 90 percent or more LTV ratio.

**Table 9. Total Monthly Mortgage Payment for Repeat Buyers by LTV Ratio**

Year	Home Price	LTV Ratio				
		80%	85%	90%	95%	100%
1Q2011	\$181,500	<b>\$1,235</b>	\$1,275	\$1,360	\$1,402	\$1,444
1Q2012	\$185,000	<b>\$1,259</b>	\$1,299	\$1,386	\$1,429	\$1,472
1Q2013	\$201,000	<b>\$1,368</b>	\$1,412	\$1,506	\$1,552	\$1,599
1Q2014	\$220,000	<b>\$1,498</b>	\$1,545	\$1,648	\$1,699	\$1,750
1Q2015	\$244,250	<b>\$1,663</b>	\$1,716	\$1,830	\$1,886	\$1,943
1Q2016	\$263,000	<b>\$1,790</b>	\$1,847	\$1,970	\$2,031	\$2,092
1Q2017	\$280,000	<b>\$1,906</b>	\$1,967	\$2,098	\$2,162	\$2,227
1Q2018	\$293,000	<b>\$1,994</b>	\$2,058	\$2,195	\$2,263	\$2,331
1Q2019	\$300,000	<b>\$2,042</b>	\$2,107	\$2,248	\$2,317	\$2,386
1Q2020	\$330,000	<b>\$2,246</b>	\$2,318	\$2,472	\$2,549	\$2,625
1Q2021	\$431,000	<b>\$2,934</b>	\$3,027	\$3,229	\$3,329	\$3,428
<b>1Q2022</b>	<b>\$525,000</b>	<b>\$3,574</b>	<b>\$3,688</b>	<b>\$3,933</b>	<b>\$4,055</b>	<b>\$4,176</b>

Note: Assumes a 30-year loan term, 3.23 percent mortgage interest rate, 30 percent DTI ratio, and additional costs of homeownership at 4 percent of home price. A mortgage insurance premium of 0.5 percent is added to loans with an LTV ratio of 90 percent or more.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 10. Home Price-to-Income Multiplier for Repeat Buyers by LTV Ratio**

LTV Ratio	Home Price-to-Income Multiplier
<b>80%</b>	<b>3.67</b>
85%	3.56
90%	3.34
95%	3.24
100%	3.14

Note: Assumes a 30-year loan term, 3.23 percent mortgage interest rate, 30 percent DTI ratio, and additional costs of homeownership at 4 percent of home price. A mortgage insurance premium of 0.5 percent is added to loans with an LTV ratio of 90 percent or more.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 11. Required Qualifying Income for Repeat Buyers by LTV Ratio**

Year	Home Price	LTV Ratio				
		80%	85%	90%	95%	100%
1Q2011	\$181,500	<b>\$49,419</b>	\$50,995	\$54,393	\$56,070	\$57,748
1Q2012	\$185,000	<b>\$50,372</b>	\$51,979	\$55,442	\$57,151	\$58,861
1Q2013	\$201,000	<b>\$54,729</b>	\$56,474	\$60,237	\$62,094	\$63,952
1Q2014	\$220,000	<b>\$59,902</b>	\$61,812	\$65,931	\$67,964	\$69,997
1Q2015	\$244,250	<b>\$66,505</b>	\$68,626	\$73,198	\$75,455	\$77,713
1Q2016	\$263,000	<b>\$71,610</b>	\$73,894	\$78,817	\$81,248	\$83,678
1Q2017	\$280,000	<b>\$76,239</b>	\$78,670	\$83,912	\$86,500	\$89,087
1Q2018	\$293,000	<b>\$79,778</b>	\$82,323	\$87,808	\$90,516	\$93,223
1Q2019	\$300,000	<b>\$81,684</b>	\$84,290	\$89,906	\$92,678	\$95,451
1Q2020	\$330,000	<b>\$89,853</b>	\$92,719	\$98,896	\$101,946	\$104,996
1Q2021	\$431,000	<b>\$117,353</b>	\$121,096	\$129,164	\$133,148	\$137,131
<b>1Q2022</b>	<b>\$525,000</b>	<b>\$142,948</b>	<b>\$147,507</b>	<b>\$157,335</b>	<b>\$162,187</b>	<b>\$167,039</b>

Note: The required qualifying income reflects the minimum income a household must earn to qualify for a mortgage loan for a particular home price. Assumes a 30-year loan term, 3.23 percent mortgage interest rate, 30 percent DTI ratio, and additional costs of homeownership at 4 percent of home price. A mortgage insurance premium of 0.5 percent is added to loans with an LTV ratio of 90 percent or more.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 12. Percentage of Repeat Buyers Who Earned Required Qualifying Income by LTV Ratio**

Year	Home Price	Loan-to-Value Ratio				
		80%	85%	90%	95%	100%
1Q2011	\$181,500	<b>74.4%</b>	73.2%	70.7%	69.4%	68.1%
1Q2012	\$185,000	<b>73.4%</b>	72.2%	69.6%	68.3%	67.0%
1Q2013	\$201,000	<b>70.6%</b>	69.3%	66.6%	65.2%	63.8%
1Q2014	\$220,000	<b>67.4%</b>	66.0%	63.1%	61.6%	60.2%
1Q2015	\$244,250	<b>63.3%</b>	61.9%	58.7%	57.1%	55.7%
1Q2016	\$263,000	<b>61.2%</b>	59.7%	56.6%	55.1%	53.6%
1Q2017	\$280,000	<b>60.4%</b>	59.0%	55.8%	54.3%	52.7%
1Q2018	\$293,000	<b>60.8%</b>	59.4%	56.2%	54.6%	53.0%
1Q2019	\$300,000	<b>61.9%</b>	60.4%	57.2%	55.7%	54.1%
1Q2020	\$330,000	<b>59.3%</b>	57.7%	54.3%	52.8%	51.4%
1Q2021	\$431,000	<b>48.5%</b>	46.8%	43.1%	41.2%	39.4%
<b>1Q2022</b>	<b>\$525,000</b>	<b>39.1%</b>	<b>37.0%</b>	<b>35.5%</b>	<b>35.3%</b>	<b>35.1%</b>

Note: Assumes a 30-year loan term, 3.23 percent mortgage interest rate, 30 percent DTI ratio, and additional costs of homeownership at 4 percent of home price. A mortgage insurance premium of 0.5 percent is added to loans with an LTV ratio of 90 percent or more. As repeat homebuyers constitute owner-occupied households, this table reflects income data solely for owner-occupied households.

Sources: American Community Survey, U.S. Census Bureau, and Texas Real Estate Research Center at Texas A&M University

### DTI Ratio

A 30 percent DTI ratio translates into a home price-to-income multiplier of 3.67<sup>4</sup> (Table 13), meaning a household could afford a maximum home price of 3.67 times its annual income at that interest rate. The home price-to-income multiplier increases as the DTI ratio increases.

The income required to qualify for a loan with a 30 percent DTI ratio was \$142,948 for the median sales price in 1Q2022 (Table 14). An estimated 39.1 percent of owner-occupied households in the Austin-Round Rock-Georgetown MSA could afford the median sales price in 1Q2022 with a 30 percent DTI ratio (Table 15), a decline of over 35 percentage points from 1Q2011.

<sup>4</sup> The home price-to-income multiplier is based on a 30-year loan term, 3.23 percent mortgage interest rate, 80 percent LTV ratio, and property taxes and insurance of 4 percent.

**Table 13. Home Price-to-Income Multiplier  
for Repeat Buyers by DTI Ratio**

DTI Ratio	Home Price-to-Income Multiplier
20%	2.45
25%	3.06
<b>30%</b>	<b>3.67</b>
35%	4.28
40%	4.90
45%	5.51
50%	6.12

Note: Assumes a 30-year loan term, 3.23 percent mortgage interest rate, 80 percent LTV ratio, and additional costs of homeownership at 4 percent of home price.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 14. Required Qualifying Income for Repeat Buyers by DTI Ratio**

Year	Home Price	DTI Ratio						
		20%	25%	<b>30%</b>	35%	40%	45%	50%
1Q2011	\$181,500	\$74,129	\$59,303	<b>\$49,419</b>	\$42,359	\$37,064	\$32,946	\$29,651
1Q2012	\$185,000	\$75,558	\$60,446	<b>\$50,372</b>	\$43,176	\$37,779	\$33,581	\$30,223
1Q2013	\$201,000	\$82,093	\$65,674	<b>\$54,729</b>	\$46,910	\$41,046	\$36,486	\$32,837
1Q2014	\$220,000	\$89,853	\$71,882	<b>\$59,902</b>	\$51,344	\$44,926	\$39,935	\$35,941
1Q2015	\$244,250	\$99,757	\$79,806	<b>\$66,505</b>	\$57,004	\$49,879	\$44,336	\$39,903
1Q2016	\$263,000	\$107,415	\$85,932	<b>\$71,610</b>	\$61,380	\$53,708	\$47,740	\$42,966
1Q2017	\$280,000	\$114,358	\$91,487	<b>\$76,239</b>	\$65,348	\$57,179	\$50,826	\$45,743
1Q2018	\$293,000	\$119,668	\$95,734	<b>\$79,778</b>	\$68,382	\$59,834	\$53,186	\$47,867
1Q2019	\$300,000	\$122,527	\$98,021	<b>\$81,684</b>	\$70,015	\$61,263	\$54,456	\$49,011
1Q2020	\$330,000	\$134,779	\$107,823	<b>\$89,853</b>	\$77,017	\$67,390	\$59,902	\$53,912
1Q2021	\$431,000	\$176,030	\$140,824	<b>\$117,353</b>	\$100,589	\$88,015	\$78,236	\$70,412
<b>1Q2022</b>	<b>\$525,000</b>	<b>\$214,422</b>	<b>\$171,537</b>	<b>\$142,948</b>	<b>\$122,527</b>	<b>\$107,211</b>	<b>\$95,299</b>	<b>\$85,769</b>

Note: The required qualifying income reflects the minimum income a household must earn to qualify for a mortgage loan for a particular home price. Assumes a 30-year loan term, 3.23 percent mortgage interest rate, 80 percent LTV ratio, and additional costs of homeownership at 4 percent of home price.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 15. Percentage of Repeat Buyers Who Earned Required Qualifying Income by DTI Ratio**

Year	Home Price	DTI Ratio						
		20%	25%	30%	35%	40%	45%	50%
1Q2011	\$181,500	55.7%	66.9%	<b>74.4%</b>	79.6%	83.4%	86.1%	88.1%
1Q2012	\$185,000	54.7%	65.9%	<b>73.4%</b>	78.6%	82.5%	85.5%	87.5%
1Q2013	\$201,000	51.2%	62.6%	<b>70.6%</b>	76.3%	80.5%	83.7%	86.1%
1Q2014	\$220,000	47.4%	58.8%	<b>67.4%</b>	73.5%	78.0%	81.4%	84.2%
1Q2015	\$244,250	41.9%	54.4%	<b>63.3%</b>	70.0%	75.0%	78.7%	81.7%
1Q2016	\$263,000	40.3%	52.2%	<b>61.2%</b>	68.2%	73.4%	77.4%	80.4%
1Q2017	\$280,000	39.8%	51.3%	<b>60.4%</b>	67.5%	72.8%	76.9%	80.1%
1Q2018	\$293,000	40.2%	51.6%	<b>60.8%</b>	67.7%	73.0%	77.1%	80.2%
1Q2019	\$300,000	41.4%	52.7%	<b>61.9%</b>	68.6%	73.7%	77.7%	80.8%
1Q2020	\$330,000	37.5%	50.1%	<b>59.3%</b>	66.4%	71.8%	76.0%	79.3%
1Q2021	\$431,000	32.4%	37.7%	<b>48.5%</b>	56.3%	62.9%	68.1%	72.2%
<b>1Q2022</b>	<b>\$525,000</b>	<b>33.3%</b>	<b>35.0%</b>	<b>39.1%</b>	<b>48.5%</b>	<b>55.6%</b>	<b>61.4%</b>	<b>66.2%</b>

Note: Assumes a 30-year loan term, 3.23 percent mortgage interest rate, 80 percent LTV ratio, and additional costs of homeownership at 4 percent of home price. As repeat homebuyers constitute owner-occupied households, this table reflects income data solely for owner-occupied households.

Sources: American Community Survey, U.S. Census Bureau, and Texas Real Estate Research Center at Texas A&M University

### Property Taxes and Insurance

Holding home price constant, the total monthly mortgage payment increases as the annual costs of property taxes and insurance increase (Table 16). Assuming the cost of property taxes and insurance is 4 percent of the home price, the monthly mortgage payment was \$3,574 for the median sales price in 1Q2022, nearly three times the total monthly mortgage payment for the median-priced home in 1Q2011.

Table 17 shows the home price-to-income multiplier by the costs of property taxes and insurance. A 4 percent property tax and insurance rate translates into a home price-to-income multiplier of 3.67<sup>5</sup>, meaning a household could afford a maximum home price of 3.67 times its annual income. The home price-to-income multiplier declines as the mortgage interest rate increases.

The income required to qualify for a loan with property taxes and insurance at 4 percent of home price was \$142,948 for the median sales price in 1Q2022 (Table 18). An estimated 39.1 percent of owner-occupied households in the Austin-Round Rock-Georgetown MSA could afford

<sup>5</sup> The home price-to-income multiplier is based on a 30-year loan term, 3.23 percent mortgage interest rate, 80 percent LTV ratio, and 30 percent DTI ratio.

the median sales price in 1Q2022 with property taxes and insurance of 4 percent of home price (Table 19), a decline of over 35 percentage points from 1Q2011.

**Table 16. Total Monthly Mortgage Payment for Repeat Buyers by Additional Homeownership Costs**

Year	Home Price	Property Taxes & Insurance				
		2%	3%	4%	5%	6%
1Q2011	\$181,500	\$933	\$1,084	<b>\$1,235</b>	\$1,387	\$1,538
1Q2012	\$185,000	\$951	\$1,105	<b>\$1,259</b>	\$1,413	\$1,568
1Q2013	\$201,000	\$1,033	\$1,201	<b>\$1,368</b>	\$1,536	\$1,703
1Q2014	\$220,000	\$1,131	\$1,314	<b>\$1,498</b>	\$1,681	\$1,864
1Q2015	\$244,250	\$1,256	\$1,459	<b>\$1,663</b>	\$1,866	\$2,070
1Q2016	\$263,000	\$1,352	\$1,571	<b>\$1,790</b>	\$2,009	\$2,229
1Q2017	\$280,000	\$1,439	\$1,673	<b>\$1,906</b>	\$2,139	\$2,373
1Q2018	\$293,000	\$1,506	\$1,750	<b>\$1,994</b>	\$2,239	\$2,483
1Q2019	\$300,000	\$1,542	\$1,792	<b>\$2,042</b>	\$2,292	\$2,542
1Q2020	\$330,000	\$1,696	\$1,971	<b>\$2,246</b>	\$2,521	\$2,796
1Q2021	\$431,000	\$2,215	\$2,575	<b>\$2,934</b>	\$3,293	\$3,652
<b>1Q2022</b>	<b>\$525,000</b>	<b>\$2,699</b>	<b>\$3,136</b>	<b>\$3,574</b>	<b>\$4,011</b>	<b>\$4,449</b>

Note: Assumes a 30-year loan term, 3.23 percent mortgage interest rate, 80 percent LTV ratio, and 30 percent DTI ratio.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 17. Home Price-to-Income Multiplier for Repeat Buyers by Additional Homeownership Costs**

Property Taxes and Insurance	Home Price-to-Income Multiplier
2%	4.86
3%	4.19
<b>4%</b>	<b>3.67</b>
5%	3.27
6%	2.95

Note: Assumes a 30-year loan term, 3.23 percent mortgage interest rate, 80 percent LTV ratio, and 30 percent DTI ratio.

Source: Texas Real Estate Research Center at Texas A&M University



**Table 18. Required Qualifying Income for Repeat Homebuyers by Additional Homeownership Costs**

Year	Home Price	Property Taxes & Insurance				
		2%	3%	4%	5%	6%
1Q2011	\$181,500	\$37,319	\$43,369	<b>\$49,419</b>	\$55,469	\$61,519
1Q2012	\$185,000	\$38,039	\$44,205	<b>\$50,372</b>	\$56,539	\$62,705
1Q2013	\$201,000	\$41,329	\$48,029	<b>\$54,729</b>	\$61,429	\$68,129
1Q2014	\$220,000	\$45,235	\$52,569	<b>\$59,902</b>	\$67,235	\$74,569
1Q2015	\$244,250	\$50,221	\$58,363	<b>\$66,505</b>	\$74,646	\$82,788
1Q2016	\$263,000	\$54,077	\$62,843	<b>\$71,610</b>	\$80,377	\$89,143
1Q2017	\$280,000	\$57,572	\$66,905	<b>\$76,239</b>	\$85,572	\$94,905
1Q2018	\$293,000	\$60,245	\$70,012	<b>\$79,778</b>	\$89,545	\$99,312
1Q2019	\$300,000	\$61,684	\$71,684	<b>\$81,684</b>	\$91,684	\$101,684
1Q2020	\$330,000	\$67,853	\$78,853	<b>\$89,853</b>	\$100,853	\$111,853
1Q2021	\$431,000	\$88,620	\$102,987	<b>\$117,353</b>	\$131,720	\$146,087
<b>1Q2022</b>	<b>\$525,000</b>	<b>\$107,948</b>	<b>\$125,448</b>	<b>\$142,948</b>	<b>\$160,448</b>	<b>\$177,948</b>

Note: The required qualifying income reflects the minimum income a household must earn to qualify for a mortgage loan for a particular home price. Assumes a 30-year loan term, 3.23 percent mortgage interest rate, 80 percent LTV ratio, and 30 percent DTI ratio.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 19. Percentage of Repeat Homeowners Who Earned Required Qualifying Income by Additional Homeownership Costs**

Year	Home Price	Property Taxes & Insurance				
		2%	3%	4%	5%	6%
1Q2011	\$181,500	83.2%	78.8%	<b>74.4%</b>	69.8%	65.2%
1Q2012	\$185,000	82.4%	77.9%	<b>73.4%</b>	68.8%	64.2%
1Q2013	\$201,000	80.3%	75.5%	<b>70.6%</b>	65.7%	60.8%
1Q2014	\$220,000	77.8%	72.7%	<b>67.4%</b>	62.2%	56.9%
1Q2015	\$244,250	74.7%	69.0%	<b>63.3%</b>	57.6%	52.5%
1Q2016	\$263,000	73.2%	67.2%	<b>61.2%</b>	55.6%	50.2%
1Q2017	\$280,000	72.5%	66.5%	<b>60.4%</b>	54.8%	49.2%
1Q2018	\$293,000	72.7%	66.7%	<b>60.8%</b>	55.2%	49.5%
1Q2019	\$300,000	73.5%	67.6%	<b>61.9%</b>	56.2%	50.8%
1Q2020	\$330,000	71.5%	65.4%	<b>59.3%</b>	53.3%	48.2%
1Q2021	\$431,000	62.6%	55.2%	<b>48.5%</b>	41.9%	35.2%
<b>1Q2022</b>	<b>\$525,000</b>	<b>55.3%</b>	<b>47.2%</b>	<b>39.1%</b>	<b>35.4%</b>	<b>34.7%</b>

Note: Assumes a 30-year loan term, 3.23 percent mortgage interest rate, 80 percent LTV ratio, and 30 percent DTI ratio. As repeat homebuyers constitute owner-occupied households, this table reflects income data solely for owner-occupied households.

Sources: American Community Survey, U.S. Census Bureau, and Texas Real Estate Research Center

## First-Time Homebuyer

Purchase affordability declined YOY for Texas' first-time homebuyers, particularly among the lowest-income cohorts. Despite growth in family income, the significant uptick in the first-quartile sales price—29.2 percent YOY—left homeownership increasingly unaffordable for lower-income households.

Table 20 shows the maximum home price affordable by family income and home-purchasing power. For example, households earning between \$33,100 and \$55,150 annually (i.e., between 31 and 50 percent of median family income) could afford a maximum home price between \$99,300 and \$165,450 with a home price-to-income multiplier of 3. Meanwhile, the range in the maximum home price affordable to that range in household income rises to between \$132,400 and \$220,600 should the home price-to-income multiplier measure 4.

Depending on the home price-to-income multiplier, only households earning at least \$80,000 annually could afford the first-quartile sales price in 1Q2022. Homeownership is largely not feasible to households earning no more than 50 percent of Texas' median family income. In fact, homeownership really only becomes viable for households earning at least 80 percent of area median income. Even at that point it largely depends on whether mortgage lenders are willing to accept loans with high home price-to-income multipliers. Moreover, few homes are available for sale at these income thresholds. For instance, with a home price-to-income multiplier of 3, only 2 percent of homes for sale were affordable to households earning no more than 80 percent of area median income in 1Q2022 (Table 21).



**Table 20. Maximum Home Price Affordable by Family Income and Home Price-to-Income Multiplier**

		Home Price-to-Income Multiplier							
	Family Income	2	2.5	3	3.5	4	4.5	5	5.5
	\$20,000	\$40,000	\$50,000	\$60,000	\$70,000	\$80,000	\$90,000	\$100,000	\$110,000
	\$25,000	\$50,000	\$62,500	\$75,000	\$87,500	\$100,000	\$112,500	\$125,000	\$137,500
	\$30,000	\$60,000	\$75,000	\$90,000	\$105,000	\$120,000	\$135,000	\$150,000	\$165,000
Extremely Low-Income (30%)	\$33,100	\$66,200	\$82,750	\$99,300	\$115,850	\$132,400	\$148,950	\$165,500	\$182,050
	\$35,000	\$70,000	\$87,500	\$105,000	\$122,500	\$140,000	\$157,500	\$175,000	\$192,500
	\$40,000	\$80,000	\$100,000	\$120,000	\$140,000	\$160,000	\$180,000	\$200,000	\$220,000
	\$45,000	\$90,000	\$112,500	\$135,000	\$157,500	\$180,000	\$202,500	\$225,000	\$247,500
	\$50,000	\$100,000	\$125,000	\$150,000	\$175,000	\$200,000	\$225,000	\$250,000	\$275,000
Very Low-Income (50%)	\$55,150	\$110,300	\$137,875	\$165,450	\$193,025	\$220,600	\$248,175	\$275,750	\$303,325
	\$60,000	\$120,000	\$150,000	\$180,000	\$210,000	\$240,000	\$270,000	\$300,000	\$330,000
	\$65,000	\$130,000	\$162,500	\$195,000	\$227,500	\$260,000	\$292,500	\$325,000	\$357,500
	\$70,000	\$140,000	\$175,000	\$210,000	\$245,000	\$280,000	\$315,000	\$350,000	\$385,000
	\$75,000	\$150,000	\$187,500	\$225,000	\$262,500	\$300,000	\$337,500	\$375,000	\$412,500
	\$80,000	\$160,000	\$200,000	\$240,000	\$280,000	\$320,000	\$360,000	\$400,000	<b>\$440,000</b>
	\$85,000	\$170,000	\$212,500	\$255,000	\$297,500	\$340,000	\$382,500	<b>\$425,000</b>	<b>\$467,500</b>
Low-Income (80%)	\$88,250	\$176,500	\$220,625	\$264,750	\$308,875	\$353,000	\$397,125	<b>\$441,250</b>	<b>\$485,375</b>

Note: Figures in red indicate the maximum affordable home price meets or exceeds the first-quartile home sales price.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 21. Percentage of Homes Sold in 1Q2022 Affordable by Family Income and Home Price-to-Income Multiplier**

	Family Income	Home Price-to-Income Multiplier							
		2	2.5	3	3.5	4	4.5	5	5.5
<b>Extremely Low-Income (0-30%)</b>	<b>\$20,000</b>	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%
	<b>\$25,000</b>	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%
	<b>\$30,000</b>	0.0%	0.1%	0.1%	0.1%	0.1%	0.2%	0.3%	0.4%
	<b>\$33,100</b>	0.0%	0.1%	0.1%	0.1%	0.2%	0.3%	0.4%	0.5%
<b>Very Low-Income (31-50%)</b>	<b>\$35,000</b>	0.0%	0.1%	0.1%	0.1%	0.3%	0.4%	0.5%	0.6%
	<b>\$40,000</b>	0.1%	0.1%	0.1%	0.3%	0.4%	0.5%	0.8%	1.1%
	<b>\$45,000</b>	0.1%	0.1%	0.2%	0.4%	0.5%	0.8%	1.1%	1.6%
	<b>\$50,000</b>	0.1%	0.2%	0.3%	0.5%	0.8%	1.1%	1.7%	2.5%
<b>Low-Income (51-80%)</b>	<b>\$55,150</b>	0.1%	0.2%	0.4%	0.6%	1.1%	1.6%	2.5%	3.9%
	<b>\$60,000</b>	0.1%	0.3%	0.5%	0.9%	1.4%	2.3%	3.8%	6.5%
	<b>\$65,000</b>	0.2%	0.4%	0.7%	1.2%	2.0%	3.4%	6.0%	10.3%
	<b>\$70,000</b>	0.3%	0.5%	0.9%	1.5%	2.7%	4.7%	9.5%	16.3%
	<b>\$75,000</b>	0.3%	0.5%	1.1%	2.0%	3.8%	7.3%	14.2%	23.5%
	<b>\$80,000</b>	0.4%	0.8%	1.4%	2.7%	5.3%	11.1%	20.2%	31.1%
	<b>\$85,000</b>	0.5%	0.9%	1.8%	3.5%	7.7%	15.5%	26.8%	37.7%
<b>\$88,250</b>	0.5%	1.1%	2.0%	4.1%	9.8%	18.6%	31.3%	42.1%	

Source: Texas Real Estate Research Center at Texas A&M University

### Mortgage Interest Rate

Holding home price constant, the total monthly mortgage payment increases as the mortgage interest rate increases (Table 22). A 3.38 percent rate brought the mortgage payment to \$3,277 for the first-quartile sales price in 1Q2022, more than three times the total monthly mortgage payment for the same home in 1Q2011.

Table 23 shows the home price-to-income multiplier by mortgage interest rate. A 3.38 percent interest rate translates into a home price-to-income multiplier of 3.74<sup>6</sup>, meaning a household could afford a maximum home price of 3.74 times its annual income. The home price-to-income multiplier declines as the mortgage interest rate increases.

The income required to qualify for a loan with a 3.38 percent mortgage interest rate was \$112,342 for the first-quartile sales price in 1Q2022 (Table 24). An estimated 19.3 percent of renters in the Austin-Round Rock-Georgetown MSA could afford the first-quartile sales price in

<sup>6</sup> The home price-to-income multiplier is based on a 30-year loan term, 95 percent LTV ratio, 35 percent DTI ratio, and property taxes and insurance of 4 percent.

1Q2022 with a 3.38 percent interest rate (Table 25), a decline of nearly 34 percentage points from 1Q2011.

**Table 22. Total Monthly Mortgage Payment for First-Time Buyers by Mortgage Interest Rate**

Year	Home Price	Mortgage Interest Rate						
		3%	<b>3.38%</b>	3.5%	4%	4.5%	5%	5.5%
1Q2011	\$129,000	\$980	<b>\$1,006</b>	\$1,015	\$1,051	\$1,088	\$1,126	\$1,165
1Q2012	\$131,000	\$996	<b>\$1,022</b>	\$1,031	\$1,067	\$1,105	\$1,143	\$1,183
1Q2013	\$144,900	\$1,101	<b>\$1,130</b>	\$1,140	\$1,180	\$1,222	\$1,265	\$1,308
1Q2014	\$161,000	\$1,223	<b>\$1,256</b>	\$1,267	\$1,312	\$1,358	\$1,405	\$1,454
1Q2015	\$179,000	\$1,360	<b>\$1,396</b>	\$1,409	\$1,458	\$1,510	\$1,562	\$1,616
1Q2016	\$199,500	\$1,516	<b>\$1,556</b>	\$1,570	\$1,625	\$1,682	\$1,741	\$1,801
1Q2017	\$216,500	\$1,645	<b>\$1,689</b>	\$1,704	\$1,764	\$1,826	\$1,889	\$1,955
1Q2018	\$227,500	\$1,729	<b>\$1,775</b>	\$1,790	\$1,853	\$1,919	\$1,985	\$2,054
1Q2019	\$235,000	\$1,786	<b>\$1,833</b>	\$1,849	\$1,915	\$1,982	\$2,051	\$2,122
1Q2020	\$247,500	\$1,881	<b>\$1,931</b>	\$1,948	\$2,016	\$2,087	\$2,160	\$2,235
1Q2021	\$325,000	\$2,470	<b>\$2,536</b>	\$2,557	\$2,648	\$2,741	\$2,836	\$2,934
<b>1Q2022</b>	<b>\$420,000</b>	<b>\$3,192</b>	<b>\$3,277</b>	<b>\$3,305</b>	<b>\$3,422</b>	<b>\$3,542</b>	<b>\$3,665</b>	<b>\$3,792</b>

Note: Assumes a 30-year loan term, 95 percent LTV ratio, 35 percent DTI ratio, and additional costs of homeownership at 4 percent of home price.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 23. Home Price-to-Income Multiplier for First-Time Buyers by Mortgage Interest Rate**

Mortgage Interest Rate	Home Price-to-Income Multiplier
3%	3.84
<b>3.38%</b>	<b>3.74</b>
3.5%	3.71
4%	3.58
4.5%	3.46
5%	3.34
5.5%	3.23

Note: Assumes a 30-year loan term, 95 percent LTV ratio, 35 percent DTI ratio, and additional costs of homeownership at 4 percent of home price.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 24. Required Qualifying Income by Mortgage Interest Rate**

Year	Home Price	Mortgage Interest Rate						
		3%	<b>3.38%</b>	3.5%	4%	4.5%	5%	5.5%
1Q2011	\$129,000	\$33,610	<b>\$34,505</b>	\$34,802	\$36,032	\$37,299	\$38,600	\$39,934
1Q2012	\$131,000	\$34,132	<b>\$35,040</b>	\$35,342	\$36,591	\$37,877	\$39,198	\$40,553
1Q2013	\$144,900	\$37,753	<b>\$38,758</b>	\$39,092	\$40,474	\$41,896	\$43,357	\$44,856
1Q2014	\$161,000	\$41,948	<b>\$43,065</b>	\$43,436	\$44,971	\$46,551	\$48,175	\$49,840
1Q2015	\$179,000	\$46,638	<b>\$47,879</b>	\$48,292	\$49,998	\$51,755	\$53,561	\$55,413
1Q2016	\$199,500	\$51,979	<b>\$53,363</b>	\$53,822	\$55,724	\$57,683	\$59,695	\$61,759
1Q2017	\$216,500	\$56,408	<b>\$57,910</b>	\$58,409	\$60,473	\$62,598	\$64,782	\$67,021
1Q2018	\$227,500	\$59,274	<b>\$60,852</b>	\$61,376	\$63,545	\$65,778	\$68,073	\$70,427
1Q2019	\$235,000	\$61,228	<b>\$62,858</b>	\$63,400	\$65,640	\$67,947	\$70,317	\$72,748
1Q2020	\$247,500	\$64,485	<b>\$66,202</b>	\$66,772	\$69,132	\$71,561	\$74,058	\$76,618
1Q2021	\$325,000	\$84,677	<b>\$86,932</b>	\$87,681	\$90,779	\$93,969	\$97,247	\$100,610
<b>1Q2022</b>	<b>\$420,000</b>	<b>\$109,429</b>	<b>\$112,342</b>	<b>\$113,310</b>	<b>\$117,315</b>	<b>\$121,437</b>	<b>\$125,674</b>	<b>\$130,019</b>

Note: The required qualifying income reflects the minimum income a household must earn to qualify for a mortgage loan for a particular home price. Assumes a 30-year loan term, 95 percent LTV ratio, 35 percent DTI ratio, and additional costs of homeownership at 4 percent of home price.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 25. Percentage of Renter-Occupied Households That Earned Required Qualifying Income by Mortgage Interest Rate**

Year	Home Price	Mortgage Interest Rate						
		3%	<b>3.38%</b>	3.5%	4%	4.5%	5%	5.5%
1Q2011	\$129,000	54.4%	<b>53.1%</b>	52.7%	51.2%	49.7%	48.2%	46.6%
1Q2012	\$131,000	54.7%	<b>53.4%</b>	53.0%	51.6%	50.1%	48.5%	46.9%
1Q2013	\$144,900	50.9%	<b>49.7%</b>	49.3%	47.7%	46.1%	44.4%	42.6%
1Q2014	\$161,000	47.4%	<b>46.2%</b>	45.7%	44.0%	42.2%	40.3%	38.4%
1Q2015	\$179,000	44.1%	<b>42.7%</b>	42.2%	40.3%	38.9%	37.6%	36.2%
1Q2016	\$199,500	41.8%	<b>40.7%</b>	40.3%	38.8%	37.2%	35.6%	34.0%
1Q2017	\$216,500	41.0%	<b>39.7%</b>	39.3%	37.6%	35.9%	34.1%	32.3%
1Q2018	\$227,500	41.5%	<b>40.1%</b>	39.7%	37.9%	36.0%	34.1%	32.1%
1Q2019	\$235,000	42.7%	<b>41.3%</b>	40.9%	39.0%	37.1%	35.1%	33.0%
1Q2020	\$247,500	42.7%	<b>41.2%</b>	40.8%	38.9%	36.9%	34.8%	33.2%
1Q2021	\$325,000	30.5%	<b>29.3%</b>	28.9%	27.2%	25.4%	23.6%	21.9%
<b>1Q2022</b>	<b>\$420,000</b>	<b>20.3%</b>	<b>19.3%</b>	<b>19.0%</b>	<b>17.7%</b>	<b>16.4%</b>	<b>15.0%</b>	<b>13.6%</b>

Note: Assumes a 30-year loan term, 95 percent LTV ratio, 35 percent DTI ratio, and additional costs of homeownership at 4 percent of home price. As first-time homebuyers constitute renter-occupied households, this table reflects income data solely for renter-occupied households.

Sources: American Community Survey, U.S. Census Bureau, and Texas Real Estate Research Center at Texas A&M University

## LTV Ratio

Holding home price constant, the total monthly mortgage payment increases as the LTV ratio increases (Table 26). For a 95 percent LTV ratio, this payment amounted to \$3,277 for the first-quartile sales price in 1Q2022, more than three times the total monthly mortgage payment for the same home in 1Q2011.

Table 27 shows the home price-to-income multiplier by LTV ratio. A 95 percent LTV ratio translates into a home price-to-income multiplier of 3.74<sup>7</sup>, meaning a household could afford a maximum home price of 3.74 times its annual income. The home price-to-income multiplier declines as the LTV ratio increases.

The income required to qualify for a loan with a 95 percent LTV ratio was \$112,342 for the first-quartile sales price in 1Q2022 (Table 28). An estimated 19.3 percent of renters in the Austin-Round Rock-Georgetown MSA could afford the first-quartile sales price in 1Q2022 with a 95 percent LTV ratio (Table 29), a decline of nearly 34 percentage points from 1Q2011.

**Table 26. Total Monthly Mortgage Payment by LTV Ratio**

Year	Home Price	LTV Ratio				
		95%	96.5%	97%	98%	100%
1Q2011	\$129,000	<b>\$1,006</b>	\$1,016	\$1,019	\$1,025	\$1,037
1Q2012	\$131,000	<b>\$1,022</b>	\$1,031	\$1,034	\$1,040	\$1,053
1Q2013	\$144,900	<b>\$1,130</b>	\$1,141	\$1,144	\$1,151	\$1,165
1Q2014	\$161,000	<b>\$1,256</b>	\$1,267	\$1,271	\$1,279	\$1,294
1Q2015	\$179,000	<b>\$1,396</b>	\$1,409	\$1,413	\$1,422	\$1,439
1Q2016	\$199,500	<b>\$1,556</b>	\$1,570	\$1,575	\$1,585	\$1,603
1Q2017	\$216,500	<b>\$1,689</b>	\$1,704	\$1,709	\$1,720	\$1,740
1Q2018	\$227,500	<b>\$1,775</b>	\$1,791	\$1,796	\$1,807	\$1,828
1Q2019	\$235,000	<b>\$1,833</b>	\$1,850	\$1,855	\$1,867	\$1,889
1Q2020	\$247,500	<b>\$1,931</b>	\$1,948	\$1,954	\$1,966	\$1,989
1Q2021	\$325,000	<b>\$2,536</b>	\$2,558	\$2,566	\$2,581	\$2,612
<b>1Q2022</b>	<b>\$420,000</b>	<b>\$3,277</b>	<b>\$3,306</b>	<b>\$3,316</b>	<b>\$3,336</b>	<b>\$3,375</b>

Note: Assumes a 30-year loan term, 3.38 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 35 percent DTI ratio, and additional costs of homeownership at 4 percent of home price.

Source: Texas Real Estate Research Center at Texas A&M University

<sup>7</sup> The home price-to-income multiplier is based on a 30-year loan term, 3.38 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 35 percent DTI ratio, and property taxes and insurance of 4 percent.

**Table 27. Home Price-to-Income Multiplier  
for First-Time Buyers by LTV Ratio**

LTV Ratio	Home-Purchasing Power
<b>95%</b>	<b>3.74</b>
96.5%	3.71
97%	3.69
98%	3.67
100%	3.63

Note: Assumes a 30-year loan term, 3.38 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 35 percent DTI ratio, and additional costs of homeownership at 4 percent of home price.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 28. Required Qualifying Income by LTV Ratio**

Year	Home Price	LTV Ratio				
		95%	96.5%	97%	98%	100%
1Q2011	\$129,000	<b>\$34,505</b>	\$34,817	\$34,921	\$35,129	\$35,545
1Q2012	\$131,000	<b>\$35,040</b>	\$35,357	\$35,463	\$35,674	\$36,096
1Q2013	\$144,900	<b>\$38,758</b>	\$39,109	\$39,225	\$39,459	\$39,926
1Q2014	\$161,000	<b>\$43,065</b>	\$43,454	\$43,584	\$43,843	\$44,363
1Q2015	\$179,000	<b>\$47,879</b>	\$48,312	\$48,457	\$48,745	\$49,322
1Q2016	\$199,500	<b>\$53,363</b>	\$53,845	\$54,006	\$54,328	\$54,971
1Q2017	\$216,500	<b>\$57,910</b>	\$58,433	\$58,608	\$58,957	\$59,655
1Q2018	\$227,500	<b>\$60,852</b>	\$61,402	\$61,586	\$61,953	\$62,686
1Q2019	\$235,000	<b>\$62,858</b>	\$63,427	\$63,616	\$63,995	\$64,753
1Q2020	\$247,500	<b>\$66,202</b>	\$66,800	\$67,000	\$67,399	\$68,197
1Q2021	\$325,000	<b>\$86,932</b>	\$87,718	\$87,980	\$88,504	\$89,552
<b>1Q2022</b>	<b>\$420,000</b>	<b>\$112,342</b>	<b>\$113,358</b>	<b>\$113,697</b>	<b>\$114,374</b>	<b>\$115,729</b>

Note: The required qualifying income reflects the minimum income a household must earn to qualify for a mortgage loan for a particular home price. Assumes a 30-year loan term, 3.38 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 35 percent DTI ratio, and additional costs of homeownership at 4 percent of home price.

Source: Texas Real Estate Research Center at Texas A&M University



**Table 29. Percentage of Renter-Occupied Households That Earned Required Qualifying Income by LTV Ratio**

Year	Home Price	LTV Ratio				
		95%	96.5%	97%	98%	100%
1Q2011	\$129,000	<b>53.1%</b>	52.7%	52.5%	52.2%	51.8%
1Q2012	\$131,000	<b>53.4%</b>	53.0%	52.9%	52.7%	52.2%
1Q2013	\$144,900	<b>49.7%</b>	49.3%	49.2%	48.9%	48.4%
1Q2014	\$161,000	<b>46.2%</b>	45.7%	45.6%	45.3%	44.7%
1Q2015	\$179,000	<b>42.7%</b>	42.2%	42.0%	41.7%	41.0%
1Q2016	\$199,500	<b>40.7%</b>	40.3%	40.2%	39.9%	39.4%
1Q2017	\$216,500	<b>39.7%</b>	39.3%	39.2%	38.9%	38.3%
1Q2018	\$227,500	<b>40.1%</b>	39.7%	39.5%	39.2%	38.6%
1Q2019	\$235,000	<b>41.3%</b>	40.8%	40.7%	40.4%	39.7%
1Q2020	\$247,500	<b>41.2%</b>	40.8%	40.6%	40.3%	39.6%
1Q2021	\$325,000	<b>29.3%</b>	28.8%	28.7%	28.4%	27.8%
<b>1Q2022</b>	<b>\$420,000</b>	<b>19.3%</b>	<b>19.0%</b>	<b>18.9%</b>	<b>18.7%</b>	<b>18.2%</b>

Note: Assumes a 30-year loan term, 3.38 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 35 percent DTI ratio, and additional costs of homeownership at 4 percent of home price. As first-time homebuyers constitute renter-occupied households, this table reflects income data solely for renter-occupied households.

Sources: American Community Survey, U.S. Census Bureau, and Texas Real Estate Research Center at Texas A&M University

### DTI Ratio

A 35 percent DTI ratio translates into a home price-to-income multiplier of 3.74<sup>8</sup> (Table 30), meaning a household could afford a maximum home price of 3.74 times its annual income. The home price-to-income multiplier increases as the DTI ratio increases.

The income required to qualify for a loan with a 35 percent DTI ratio was \$112,342 for the first-quartile sales price in 1Q2022 (Table 31). An estimated 19.3 percent of Texas households could afford the first-quartile sales price in 1Q2022 with a 35 percent DTI ratio (Table 32), a decline of nearly 34 percentage points from 1Q2011.

<sup>8</sup> The home price-to-income multiplier is based on a 30-year loan term, 3.38 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 95 percent LTV ratio, and property taxes and insurance of 4 percent.

**Table 30. Home Price-to-Income Multiplier  
for First-Time Buyers by DTI Ratio**

DTI Ratio	Home Price-to-Income Multiplier
20%	2.14
25%	2.67
30%	3.20
<b>35%</b>	<b>3.74</b>
40%	4.27
45%	4.81
50%	5.34

Note: Assumes a 30-year loan term, 3.38 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 95 percent LTV ratio, and additional costs of homeownership at 4 percent of home price.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 31. Required Qualifying Income for First-Time Buyers by DTI Ratio**

Year	Home Price	DTI Ratio						
		20%	25%	30%	<b>35%</b>	40%	45%	50%
1Q2011	\$129,000	\$60,384	\$48,307	\$40,256	<b>\$34,505</b>	\$30,192	\$26,837	\$24,154
1Q2012	\$131,000	\$61,320	\$49,056	\$40,880	<b>\$35,040</b>	\$30,660	\$27,253	\$24,528
1Q2013	\$144,900	\$67,827	\$54,261	\$45,218	<b>\$38,758</b>	\$33,913	\$30,145	\$27,131
1Q2014	\$161,000	\$75,363	\$60,290	\$50,242	<b>\$43,065</b>	\$37,681	\$33,495	\$30,145
1Q2015	\$179,000	\$83,789	\$67,031	\$55,859	<b>\$47,879</b>	\$41,894	\$37,239	\$33,515
1Q2016	\$199,500	\$93,385	\$74,708	\$62,256	<b>\$53,363</b>	\$46,692	\$41,504	\$37,354
1Q2017	\$216,500	\$101,342	\$81,074	\$67,561	<b>\$57,910</b>	\$50,671	\$45,041	\$40,537
1Q2018	\$227,500	\$106,491	\$85,193	\$70,994	<b>\$60,852</b>	\$53,246	\$47,329	\$42,596
1Q2019	\$235,000	\$110,002	\$88,001	\$73,335	<b>\$62,858</b>	\$55,001	\$48,890	\$44,001
1Q2020	\$247,500	\$115,853	\$92,682	\$77,235	<b>\$66,202</b>	\$57,927	\$51,490	\$46,341
1Q2021	\$325,000	\$152,130	\$121,704	\$101,420	<b>\$86,932</b>	\$76,065	\$67,613	\$60,852
<b>1Q2022</b>	<b>\$420,000</b>	<b>\$196,599</b>	<b>\$157,279</b>	<b>\$131,066</b>	<b>\$112,342</b>	<b>\$98,300</b>	<b>\$87,377</b>	<b>\$78,640</b>

Note: The required qualifying income reflects the minimum income a household must earn to qualify for a mortgage loan for a particular home price. Assumes a 30-year loan term, 3.38 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 95 percent LTV ratio, and additional costs of homeownership at 4 percent of home price.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 32. Percentage of Households That Earned Required Qualifying Income by DTI Ratio**

Year	Home Price	DTI Ratio						
		20%	25%	30%	<b>35%</b>	40%	45%	50%
1Q2011	\$129,000	27.2%	36.8%	46.2%	<b>53.1%</b>	59.3%	64.2%	68.0%
1Q2012	\$131,000	26.5%	35.9%	45.5%	<b>52.4%</b>	58.6%	63.6%	67.5%
1Q2013	\$144,900	21.7%	31.7%	40.4%	<b>48.0%</b>	54.0%	59.4%	63.7%
1Q2014	\$161,000	16.3%	27.2%	34.6%	<b>42.9%</b>	49.3%	54.6%	59.4%
1Q2015	\$179,000	13.4%	22.3%	30.5%	<b>37.3%</b>	44.3%	49.8%	54.5%
1Q2016	\$199,500	10.1%	16.6%	25.8%	<b>32.3%</b>	38.7%	44.8%	49.6%
1Q2017	\$216,500	7.7%	14.3%	21.9%	<b>29.0%</b>	34.3%	40.6%	45.9%
1Q2018	\$227,500	7.1%	12.9%	19.3%	<b>26.8%</b>	32.4%	37.9%	43.5%
1Q2019	\$235,000	6.7%	11.9%	17.6%	<b>25.3%</b>	31.1%	36.1%	41.8%
1Q2020	\$247,500	6.1%	10.3%	15.6%	<b>22.9%</b>	29.0%	33.7%	39.1%
1Q2021	\$325,000	7.1%	16.3%	22.9%	<b>31.0%</b>	37.3%	43.9%	49.4%
<b>1Q2022</b>	<b>\$420,000</b>	<b>6.6%</b>	<b>7.0%</b>	<b>13.2%</b>	<b>19.3%</b>	<b>24.3%</b>	<b>30.7%</b>	<b>35.8%</b>

Note: Assumes a 30-year loan term, 3.38 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 95 percent LTV ratio, and additional costs of homeownership at 4 percent of home price. As first-time homebuyers constitute renter-occupied households, this table reflects income data solely for renter-occupied households.

Sources: American Community Survey, U.S. Census Bureau, and Texas Real Estate Research Center at Texas A&M University

## Property Taxes and Insurance

Holding home price constant, the total monthly mortgage payment increases as additional annual homeownership costs (property taxes and insurance) increase (Table 33). With a rate of 4 percent of home price, this payment amounted to \$3,277 for the first-quartile sales price in 1Q2022, more than three times the total monthly mortgage payment for the same home in 1Q2011.

Table 34 shows the home price-to-income multiplier by the costs of property taxes and insurance. A 4 percent property tax and insurance rate translates into a home price-to-income multiplier of 3.74<sup>9</sup>, meaning a household could afford a maximum home price of 3.74 times its annual income. The home price-to-income multiplier declines as the mortgage interest rate increases.

The income required to qualify for a loan with property taxes and insurance at 4 percent of home price was \$112,342 for the first-quartile sales price in 1Q2022 (Table 35). An estimated 19.3 percent of Texas households could afford the first-quartile sales price in 1Q2022 with property taxes and insurance at 4 percent of home price (Table 36), a decline of nearly 34 percentage points from 1Q2011.

<sup>9</sup> The home price-to-income multiplier is based on a 30-year loan term, 3.38 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 95 percent LTV ratio, and 35 percent DTI ratio.

**Table 33. Total Monthly Mortgage Payment  
by Additional Homeownership Costs**

Year	Home Price	Property Taxes & Insurance				
		2%	3%	4%	5%	6%
1Q2011	\$129,000	\$791	\$899	<b>\$1,006</b>	\$1,114	\$1,221
1Q2012	\$131,000	\$804	\$913	<b>\$1,022</b>	\$1,131	\$1,240
1Q2013	\$144,900	\$889	\$1,010	<b>\$1,130</b>	\$1,251	\$1,372
1Q2014	\$161,000	\$988	\$1,122	<b>\$1,256</b>	\$1,390	\$1,524
1Q2015	\$179,000	\$1,098	\$1,247	<b>\$1,396</b>	\$1,546	\$1,695
1Q2016	\$199,500	\$1,224	\$1,390	<b>\$1,556</b>	\$1,723	\$1,889
1Q2017	\$216,500	\$1,328	\$1,509	<b>\$1,689</b>	\$1,869	\$2,050
1Q2018	\$227,500	\$1,396	\$1,585	<b>\$1,775</b>	\$1,964	\$2,154
1Q2019	\$235,000	\$1,442	\$1,638	<b>\$1,833</b>	\$2,029	\$2,225
1Q2020	\$247,500	\$1,518	\$1,725	<b>\$1,931</b>	\$2,137	\$2,343
1Q2021	\$325,000	\$1,994	\$2,265	<b>\$2,536</b>	\$2,806	\$3,077
<b>1Q2022</b>	<b>\$420,000</b>	<b>\$2,577</b>	<b>\$2,927</b>	<b>\$3,277</b>	<b>\$3,627</b>	<b>\$3,977</b>

Note: Assumes a 30-year loan term, 3.38 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 95 percent LTV ratio, and 35 percent DTI ratio.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 34. Home Price-to-Income Multiplier for First-Time  
Buyers by Additional Homeownership Costs**

Property Taxes & Insurance	Home Price-to-Income Multiplier
2%	4.75
3%	4.19
<b>4%</b>	<b>3.74</b>
5%	3.38
6%	3.08

Note: Assumes a 30-year loan term, 3.38 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 95 percent LTV ratio, and 35 percent DTI ratio.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 35. Required Qualifying Income by Additional Homeownership Costs**

Year	Home Price	Property Taxes & Insurance				
		2%	3%	4%	5%	6%
1Q2011	\$129,000	\$27,134	\$30,819	<b>\$34,505</b>	\$38,191	\$41,877
1Q2012	\$131,000	\$27,554	\$31,297	<b>\$35,040</b>	\$38,783	\$42,526
1Q2013	\$144,900	\$30,478	\$34,618	<b>\$38,758</b>	\$42,898	\$47,038
1Q2014	\$161,000	\$33,865	\$38,465	<b>\$43,065</b>	\$47,665	\$52,265
1Q2015	\$179,000	\$37,651	\$42,765	<b>\$47,879</b>	\$52,994	\$58,108
1Q2016	\$199,500	\$41,963	\$47,663	<b>\$53,363</b>	\$59,063	\$64,763
1Q2017	\$216,500	\$45,538	\$51,724	<b>\$57,910</b>	\$64,096	\$70,281
1Q2018	\$227,500	\$47,852	\$54,352	<b>\$60,852</b>	\$67,352	\$73,852
1Q2019	\$235,000	\$49,430	\$56,144	<b>\$62,858</b>	\$69,572	\$76,287
1Q2020	\$247,500	\$52,059	\$59,130	<b>\$66,202</b>	\$73,273	\$80,345
1Q2021	\$325,000	\$68,360	\$77,646	<b>\$86,932</b>	\$96,217	\$105,503
<b>1Q2022</b>	<b>\$420,000</b>	<b>\$88,342</b>	<b>\$100,342</b>	<b>\$112,342</b>	<b>\$124,342</b>	<b>\$136,342</b>

Note: The required qualifying income reflects the minimum income a household must earn to qualify for a mortgage loan for a particular home price. Assumes a 30-year loan term, 3.38 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 95 percent LTV ratio, and 35 percent DTI ratio.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 36. Percentage of Households That Earned the Required Qualifying Income by Additional Homeownership Costs**

Year	Home Price	Property Taxes & Insurance				
		2%	3%	4%	5%	6%
1Q2011	\$129,000	63.7%	58.4%	<b>53.1%</b>	48.7%	44.3%
1Q2012	\$131,000	63.1%	57.7%	<b>52.4%</b>	48.0%	43.6%
1Q2013	\$144,900	58.9%	52.9%	<b>48.0%</b>	43.1%	38.3%
1Q2014	\$161,000	54.0%	48.3%	<b>42.9%</b>	37.5%	33.1%
1Q2015	\$179,000	49.3%	43.3%	<b>37.3%</b>	32.6%	28.8%
1Q2016	\$199,500	44.2%	37.5%	<b>32.3%</b>	28.1%	23.9%
1Q2017	\$216,500	40.0%	33.5%	<b>29.0%</b>	24.4%	19.9%
1Q2018	\$227,500	37.3%	31.6%	<b>26.8%</b>	22.0%	17.2%
1Q2019	\$235,000	35.5%	30.3%	<b>25.3%</b>	20.4%	16.0%
1Q2020	\$247,500	33.3%	28.1%	<b>22.9%</b>	17.7%	14.6%
1Q2021	\$325,000	43.3%	36.4%	<b>31.0%</b>	25.5%	21.5%
<b>1Q2022</b>	<b>\$420,000</b>	<b>30.1%</b>	<b>23.2%</b>	<b>19.3%</b>	<b>15.4%</b>	<b>11.5%</b>

Note: Because first-time homebuyers constitute renter-occupied households, this table reflects income data solely for renter-occupied households. Assumes a 30-year loan term, 3.38 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 95 percent LTV ratio, and 35 percent DTI ratio.

Sources: American Community Survey, U.S. Census Bureau, and Texas Real Estate Research Center at Texas A&M University

## Overview of Housing Affordability

Housing affordability persistently proves one of the most salient topics in housing markets across the state. Although definitions vary, housing affordability broadly denotes the relationship between home price (or rent) and household (or family) income.<sup>10</sup> As such, housing affordability generally reflects the two housing tenures: owner- and renter-occupied housing. However, Center economists further classify owner-occupied housing affordability into two distinct categories: purchase and repayment affordability.

This report focuses only on purchase affordability. Purchase affordability measures the ability of a household to buy a home. In other words, it reflects home-purchasing potential. Repayment affordability, on the other hand, measures an existing homeowner's ability to make timely monthly mortgage payments. While purchase affordability involves all potential homebuyers, regardless of whether a household already owns a home, repayment affordability solely involves current homeowners (i.e., only owner-occupied households).

## Measuring Purchase Affordability

The vast majority of homebuyers—86 percent in Texas in 2020—rely on mortgage financing to purchase a home. As such, purchase affordability largely acts as a function of income, wealth, and credit. These three factors typically constitute the primary determinants of a mortgage applicant's creditworthiness, or the applicant's ability to repay the mortgage loan, a factor heavily weighed by the mortgage lender in the decision to extend mortgage financing to an applicant. In mortgage financing, income, wealth, and credit materialize through the DTI ratio, LTV ratio, and credit score.<sup>11</sup>

Other factors that affect purchase affordability include the mortgage interest rate, any additional costs of borrowing mortgage capital (such as the mortgage insurance premium, which is generally charged if the LTV ratio is 80 percent or higher), and the additional costs of homeownership—property taxes and insurance.

Table 37 shows how characteristics of a mortgage loan or applicant affect the maximum home price affordable to a particular household. Holding all else equal, an increase in the loan term decreases the total monthly mortgage payment, which increases the maximum affordable home price. Meanwhile, an increase in the DTI ratio also raises the maximum affordable home

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<sup>10</sup> Household income reflects all households in the income distribution, including both family and nonfamily households, which consist of a householder living alone or a householder who shares his/her home with individual(s) of no relation to him/her. Meanwhile, family income includes only households in which the householder lives with at least one other related family member.

<sup>11</sup> There are two types of DTI ratios: "front-end" and "back-end" ratios. The front-end DTI ratio measures mortgage debt as a percentage of household income, while the back-end ratio reflects total household debt—mortgage loans, car loans, credit card loans, student loans, etc.—as a percentage of household income. Should mortgage debt equal \$800 per month and the monthly household income equal \$2,400, then the front-end DTI ratio is 30 percent. Should total household debt equal \$1,200 per month, then the back-end DTI ratio is 50 percent. This report uses the front-end DTI ratio. The LTV ratio measures the household's down payment as a percentage of the home price. A 5 percent down payment translates into a 95 percent LTV ratio.

price. However, an increase in the mortgage interest rate, LTV ratio, additional costs of homeownership, and additional costs of borrowing mortgage capital increase the total monthly mortgage payment, which decreases the maximum affordable home price and reduces home-purchasing potential.

**Table 37. How Loan, Applicant Characteristics Affect Purchase Affordability**

<b>Loan or Applicant Characteristics</b>	<b>Effect on Purchase Affordability</b>
Mortgage interest rate	An increase in the mortgage interest rate <b>diminishes</b> purchase affordability
Loan term	An increase in the loan term <b>increases</b> purchase affordability
LTV ratio	An increase in the loan-to-value ratio <b>diminishes</b> purchase affordability
DTI ratio	An increase in the DTI ratio <b>increases</b> purchase affordability
Additional costs of homeownership (property taxes and insurance)	An increase in the additional costs of homeownership <b>diminishes</b> purchase affordability
Additional costs of borrowing mortgage capital (such as the mortgage insurance premium)	An increase in the additional costs of borrowing mortgage capital <b>diminishes</b> purchase affordability

Source: Texas Real Estate Research Center at Texas A&M University

The Center uses the home price-to-income multiplier (also known as “home-purchasing power”) to find the ratio between home price and household income, or the maximum home price affordable to a household of a particular income. For example, a multiplier of 3 indicates a household could afford a home priced at three times the household’s income (so, a household earning \$50,000 annually could afford a maximum home price of \$150,000).

The multiplier generally measures lower for conventional borrowers, a function of the lower DTI ratios that such borrowers tend to present, and higher for first-time borrowers, who depict higher DTI ratios. The home price-to-income multiplier typically measures around 3 for the repeat homebuyer, and between 3 and 4 for first-time homebuyers.

This report computes purchase affordability for both repeat and first-time homebuyers. For the repeat buyer, calculations in this report assume the prevailing mortgage interest rate (3.23 percent in 1Q2022)<sup>12</sup>, 80 percent LTV ratio, 30 percent DTI ratio, and property taxes and insurance of 4 percent of home value. First-time homebuyers, who tend to be younger and therefore have not accumulated as much wealth or achieved peak earnings, tend to have higher LTV and DTI ratios. The lower income, wealth, and credit of first-time homebuyers generally reduces the maximum home price affordable to them. The calculations of purchase affordability

<sup>12</sup> The source for the prevailing mortgage interest rate is CoreLogic.

for first-time homebuyers reflect the prevailing mortgage interest rate (3.38 percent in 1Q2022), 0.5 percent mortgage insurance premium, 95 percent LTV ratio, 35 percent DTI ratio, and property taxes and insurance of 4 percent of home value.





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