

Austin-Round Rock-Georgetown Housing Affordability Outlook



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Austin-Round Rock-Georgetown MSA Housing Affordability Outlook 2Q2022

About this Report

Texas Real Estate Research Center economists continuously monitor many facets of both state and local housing markets. *Austin-Round Rock-Georgetown MSA Housing Affordability Outlook* summarizes significant housing activity and trends as related to affordability in the Austin-Round Rock-Georgetown Metropolitan Statistical Area (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 it as useful as we do. Your feedback is appreciated. Send comments and suggestions to info@recenter.tamu.edu.

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Purchase Affordability

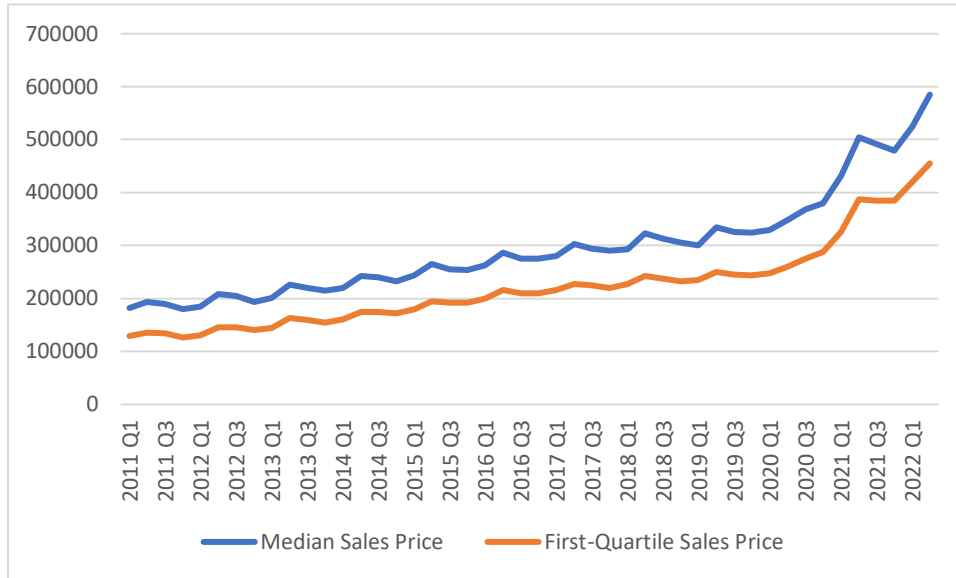
The second quarter saw an uptick in both the median sales price and first-quartile sales price for the Austin-Round Rock-Georgetown MSA (Figure 1).¹ The year-over-year (YOY) growth in the median sales price and first-quartile sales price in the Austin-Round Rock-Georgetown MSA measured a robust 16.1 percent and 17.4 percent, respectively (Table 1). However, while still significantly higher than average YOY growth for the second quarter, YOY growth for 2Q2022 measured much lower than that of 2Q2021. The median sales price measured \$585,000; the first-quartile sales price, \$455,000.

Meanwhile, following years of generally sluggish growth, family income increased considerably. From 2021 to 2022, median family income in the Austin-Round Rock-Georgetown MSA increased 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.

At the same time, mortgage interest rates ticked upward, averaging 5.27 percent in 2Q2022 (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 interest rates 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 3 percentage points in the first half of 2022. For more information on the effect of mortgage interest rates on purchase affordability, see “How Higher Interest Rates Affect Homebuying” at <https://assets.recenter.tamu.edu/Documents/Articles/2339.pdf>.

¹ 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.

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



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

Table 1. Median Sales Price, First-Quartile Sales Price by Quarter

Year	Median Sales Price	YOY Change	First-Quartile Sales Price	YOY Change
2Q2011	\$193,000		\$135,000	
2Q2012	\$208,375	8.0%	\$145,000	7.4%
2Q2013	\$226,250	8.6%	\$163,000	12.4%
2Q2014	\$242,500	7.2%	\$175,000	7.4%
2Q2015	\$265,100	9.3%	\$195,000	11.4%
2Q2016	\$287,000	8.3%	\$216,250	10.9%
2Q2017	\$302,500	5.4%	\$228,000	5.4%
2Q2018	\$322,850	6.7%	\$242,000	6.1%
2Q2019	\$335,000	3.8%	\$250,000	3.3%
2Q2020	\$348,000	3.9%	\$260,000	4.0%
2Q2021	\$504,000	44.8%	\$387,550	49.1%
2Q2022	\$585,000	16.1%	\$455,000	17.4%

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%
2022	\$88,250	11.6%	\$110,300	11.5%

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. U.S. 30-Year Fixed Rate Mortgage Average



Sources: Federal Reserve Economic Data and Freddie Mac

Repeat Homebuyer

Purchase affordability declined YOY as the gap between median sales price and family income continued to widen. For households earning the median family income for the Austin-Round Rock-Georgetown MSA in 2022 (\$110,300), the median sales price for 2Q2022 was not affordable unless the home price-to-income multiplier exceeded 5 (Table 3). Only 3.7 percent of homes sold during that quarter 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 at least \$195,000 annually to be able to afford the median sales price (\$585,000) 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
	\$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	\$550,000
	\$105,000	\$210,000	\$262,500	\$315,000	\$367,500	\$420,000	\$472,500	\$525,000	\$577,500
Median Family Income	\$110,300	\$220,600	\$275,750	\$330,900	\$386,050	\$441,200	\$496,350	\$551,500	\$606,650
	\$115,000	\$230,000	\$287,500	\$345,000	\$402,500	\$460,000	\$517,500	\$575,000	\$632,500
	\$120,000	\$240,000	\$300,000	\$360,000	\$420,000	\$480,000	\$540,000	\$600,000	\$660,000
	\$125,000	\$250,000	\$312,500	\$375,000	\$437,500	\$500,000	\$562,500	\$625,000	\$687,500
	\$130,000	\$260,000	\$325,000	\$390,000	\$455,000	\$520,000	\$585,000	\$650,000	\$715,000
Workforce Households (120%)	\$132,400	\$264,800	\$331,000	\$397,200	\$463,400	\$529,600	\$595,800	\$662,000	\$728,200
	\$135,000	\$270,000	\$337,500	\$405,000	\$472,500	\$540,000	\$607,500	\$675,000	\$742,500
	\$140,000	\$280,000	\$350,000	\$420,000	\$490,000	\$560,000	\$630,000	\$700,000	\$770,000
	\$150,000	\$300,000	\$375,000	\$450,000	\$525,000	\$600,000	\$675,000	\$750,000	\$825,000
	\$155,000	\$310,000	\$387,500	\$465,000	\$542,500	\$620,000	\$697,500	\$775,000	\$852,500
	\$160,000	\$320,000	\$400,000	\$480,000	\$560,000	\$640,000	\$720,000	\$800,000	\$880,000
	\$165,000	\$330,000	\$412,500	\$495,000	\$577,500	\$660,000	\$742,500	\$825,000	\$907,500

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 2Q2022 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
	\$90,000	0.4%	0.8%	1.5%	2.9%	6.7%	13.8%	24.5%	33.4%
	\$95,000	0.5%	1.0%	1.9%	3.8%	8.9%	18.3%	29.8%	38.7%
	\$100,000	0.6%	1.1%	2.4%	5.7%	13.0%	24.5%	34.9%	44.7%
	\$105,000	0.7%	1.4%	2.9%	7.3%	16.8%	28.9%	39.5%	48.9%
Median Family Income	\$110,300	0.7%	1.7%	3.7%	9.8%	21.8%	33.4%	44.9%	53.3%
	\$115,000	0.9%	1.9%	5.0%	13.3%	26.6%	37.9%	48.8%	56.8%
	\$120,000	1.0%	2.4%	6.7%	16.8%	31.0%	42.6%	52.7%	60.8%
	\$125,000	1.1%	2.8%	8.3%	20.8%	34.9%	46.5%	55.9%	63.9%
	\$130,000	1.4%	3.4%	10.9%	25.3%	38.5%	50.2%	59.7%	67.0%
Workforce Households (120%)	\$132,400	1.4%	3.8%	11.8%	26.9%	39.8%	51.4%	60.9%	68.4%
	\$135,000	1.5%	4.1%	13.8%	28.9%	42.6%	53.3%	62.8%	69.4%
	\$140,000	1.7%	5.7%	16.8%	32.7%	46.4%	56.6%	65.6%	71.9%
	\$150,000	2.4%	8.3%	24.5%	39.5%	52.7%	62.8%	70.7%	76.0%
	\$155,000	2.7%	10.0%	27.6%	42.8%	55.0%	64.6%	72.3%	77.8%
	\$160,000	3.1%	13.0%	31.0%	46.4%	58.0%	67.4%	74.2%	79.2%
	\$165,000	3.7%	14.9%	33.4%	48.9%	60.8%	69.4%	76.0%	80.7%

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 4.24 percent rate, this payment was \$4,251 for the median-priced home in 2Q2022, more than three times the total monthly mortgage payment for the median-priced home in 2Q2011.

Table 6 shows the home price-to-income multiplier by mortgage interest rate. A 4.24 percent interest rate translates into a home price-to-income multiplier of 3.44², meaning a household could afford a maximum home price of 3.44 times its annual income. The home price-to-income multiplier declines as the mortgage interest rate increases.

² 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.

The income required to qualify for a loan with a 4.24 percent mortgage interest rate was \$170,031 for the median sales price in 2Q2022 (Table 7). An estimated 35 percent of current Austin-Round Rock-Georgetown homeowners could afford the median sales price with a 4.24 percent interest rate (Table 8), a decline of more than 34 percentage points from 2Q2011.

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

Year	Home Price	Mortgage Interest Rate						
		3%	4%	4.24%	4.5%	5%	5.5%	6%
2Q2011	\$193,000	\$1,294	\$1,380	\$1,402	\$1,426	\$1,472	\$1,520	\$1,569
2Q2012	\$208,375	\$1,397	\$1,490	\$1,514	\$1,539	\$1,589	\$1,641	\$1,694
2Q2013	\$226,250	\$1,517	\$1,618	\$1,644	\$1,671	\$1,726	\$1,782	\$1,839
2Q2014	\$242,500	\$1,626	\$1,735	\$1,762	\$1,791	\$1,850	\$1,910	\$1,971
2Q2015	\$265,100	\$1,778	\$1,896	\$1,926	\$1,958	\$2,022	\$2,088	\$2,155
2Q2016	\$287,000	\$1,925	\$2,053	\$2,085	\$2,120	\$2,189	\$2,260	\$2,333
2Q2017	\$302,500	\$2,029	\$2,164	\$2,198	\$2,235	\$2,307	\$2,382	\$2,459
2Q2018	\$322,850	\$2,165	\$2,309	\$2,346	\$2,385	\$2,463	\$2,543	\$2,625
2Q2019	\$335,000	\$2,247	\$2,396	\$2,434	\$2,475	\$2,555	\$2,638	\$2,723
2Q2020	\$348,000	\$2,334	\$2,489	\$2,529	\$2,571	\$2,655	\$2,741	\$2,829
2Q2021	\$504,000	\$3,380	\$3,605	\$3,662	\$3,723	\$3,844	\$3,969	\$4,097
2Q2022	\$585,000	\$3,923	\$4,184	\$4,251	\$4,321	\$4,462	\$4,607	\$4,756

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

Mortgage Interest Rate	Home Price-to-Income Multiplier
3%	3.73
4%	3.50
4.24%	3.44
4.5%	3.38
5%	3.28
5.5%	3.17
6%	3.08

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

		Mortgage Interest Rate						
Year	Home Price	3%	4%	4.24%	4.5%	5%	5.5%	6%
2Q2011	\$193,000	\$51,772	\$55,219	\$56,096	\$57,026	\$58,887	\$60,800	\$62,762
2Q2012	\$208,375	\$55,896	\$59,617	\$60,565	\$61,569	\$63,579	\$65,644	\$67,761
2Q2013	\$226,250	\$60,691	\$64,732	\$65,760	\$66,851	\$69,033	\$71,275	\$73,574
2Q2014	\$242,500	\$65,050	\$69,381	\$70,483	\$71,652	\$73,991	\$76,394	\$78,858
2Q2015	\$265,100	\$71,112	\$75,847	\$77,052	\$78,330	\$80,886	\$83,513	\$86,208
2Q2016	\$287,000	\$76,987	\$82,112	\$83,417	\$84,801	\$87,568	\$90,412	\$93,329
2Q2017	\$302,500	\$81,145	\$86,547	\$87,922	\$89,380	\$92,298	\$95,295	\$98,370
2Q2018	\$322,850	\$86,603	\$92,369	\$93,837	\$95,393	\$98,507	\$101,706	\$104,987
2Q2019	\$335,000	\$89,863	\$95,846	\$97,368	\$98,983	\$102,214	\$105,534	\$108,938
2Q2020	\$348,000	\$93,350	\$99,565	\$101,147	\$102,824	\$106,180	\$109,629	\$113,166
2Q2021	\$504,000	\$135,196	\$144,198	\$146,489	\$148,918	\$153,779	\$158,773	\$163,896
2Q2022	\$585,000	\$156,924	\$167,372	\$170,031	\$172,851	\$178,493	\$184,290	\$190,236

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

		Mortgage Interest Rate						
Year	Home Price	3%	4%	4.24%	4.5%	5%	5.5%	6%
2Q2011	\$193,000	72.7%	70.0%	69.4%	68.7%	67.2%	65.8%	64.3%
2Q2012	\$208,375	69.3%	66.5%	65.8%	65.0%	63.5%	62.0%	60.4%
2Q2013	\$226,250	66.2%	63.3%	62.5%	61.7%	60.1%	58.4%	56.7%
2Q2014	\$242,500	63.7%	60.6%	59.8%	59.0%	57.3%	55.7%	54.2%
2Q2015	\$265,100	60.1%	56.9%	56.1%	55.3%	53.7%	52.1%	50.4%
2Q2016	\$287,000	57.7%	54.6%	53.8%	52.9%	51.2%	49.5%	47.7%
2Q2017	\$302,500	57.5%	54.2%	53.4%	52.5%	50.8%	49.0%	47.1%
2Q2018	\$322,850	56.9%	53.5%	52.7%	51.8%	50.0%	48.3%	46.8%
2Q2019	\$335,000	57.3%	53.9%	53.0%	52.1%	50.5%	49.0%	47.5%
2Q2020	\$348,000	57.4%	53.9%	53.2%	52.4%	50.8%	49.2%	47.6%
2Q2021*	\$504,000	40.3%	36.1%	35.0%	33.9%	32.3%	32.1%	31.9%
2Q2022*	\$585,000	35.5%	35.1%	35.0%	34.9%	34.7%	34.5%	34.2%

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.

*Represents estimates using historical ACS data.

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 \$4,251 for the median sales price in 2Q2022, more than three times the total monthly mortgage payment for the median-priced home in 2Q2011.

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 3.44³, meaning a household could afford a maximum home price of 3.44 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 \$170,031 for the median sales price in 2Q2022 (Table 11). An estimated 35 percent of current Austin-Round Rock-Georgetown homeowners could afford the median sales price with an 80 percent LTV ratio (Table 12), a decline of more than 34 percentage points from 2Q2011.

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

Year	Home Price	LTV Ratio				
		80%	85%	90%	95%	100%
2Q2011	\$193,000	\$1,402	\$1,499	\$1,549	\$1,599	\$1,649
2Q2012	\$208,375	\$1,514	\$1,618	\$1,672	\$1,727	\$1,781
2Q2013	\$226,250	\$1,644	\$1,757	\$1,816	\$1,875	\$1,934
2Q2014	\$242,500	\$1,762	\$1,883	\$1,946	\$2,009	\$2,073
2Q2015	\$265,100	\$1,926	\$2,058	\$2,127	\$2,197	\$2,266
2Q2016	\$287,000	\$2,085	\$2,228	\$2,303	\$2,378	\$2,453
2Q2017	\$302,500	\$2,198	\$2,349	\$2,428	\$2,506	\$2,585
2Q2018	\$322,850	\$2,346	\$2,507	\$2,591	\$2,675	\$2,759
2Q2019	\$335,000	\$2,434	\$2,601	\$2,688	\$2,776	\$2,863
2Q2020	\$348,000	\$2,529	\$2,702	\$2,793	\$2,883	\$2,974
2Q2021	\$504,000	\$3,662	\$3,913	\$4,045	\$4,176	\$4,307
2Q2022	\$585,000	\$4,251	\$4,542	\$4,695	\$4,847	\$5,000

Note: Assumes a 30-year loan term, 4.24 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 more than 80 percent.

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

³ The home price-to-income multiplier is based on a 30-year loan term, 4.24 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 LTV ratio of more than 80 percent.

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

LTV Ratio	Home Price-to-Income Multiplier
80%	3.44
85%	3.22
90%	3.12
95%	3.02
100%	2.93

Note: Assumes a 30-year loan term, 4.24 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 more than 80 percent.

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%
2Q2011	\$193,000	\$56,096	\$59,942	\$61,955	\$63,967	\$65,979
2Q2012	\$208,375	\$60,565	\$64,717	\$66,890	\$69,063	\$71,235
2Q2013	\$226,250	\$65,760	\$70,269	\$72,628	\$74,987	\$77,346
2Q2014	\$242,500	\$70,483	\$75,316	\$77,844	\$80,373	\$82,901
2Q2015	\$265,100	\$77,052	\$82,335	\$85,099	\$87,863	\$90,627
2Q2016	\$287,000	\$83,417	\$89,137	\$92,129	\$95,122	\$98,114
2Q2017	\$302,500	\$87,922	\$93,951	\$97,105	\$100,259	\$103,413
2Q2018	\$322,850	\$93,837	\$100,271	\$103,637	\$107,004	\$110,370
2Q2019	\$335,000	\$97,368	\$104,045	\$107,538	\$111,031	\$114,523
2Q2020	\$348,000	\$101,147	\$108,082	\$111,711	\$115,339	\$118,968
2Q2021	\$504,000	\$146,489	\$156,533	\$161,788	\$167,043	\$172,298
2Q2022	\$585,000	\$170,031	\$181,690	\$187,790	\$193,889	\$199,989

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, 4.24 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 more than 80 percent

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	LTV Value Ratio				
		80%	85%	90%	95%	100%
2Q2011	\$193,000	69.4%	66.4%	64.9%	63.4%	61.9%
2Q2012	\$208,375	65.8%	62.7%	61.1%	59.4%	57.8%
2Q2013	\$226,250	62.5%	59.2%	57.4%	55.7%	54.2%
2Q2014	\$242,500	59.8%	56.4%	54.8%	53.3%	51.7%
2Q2015	\$265,100	56.1%	52.8%	51.1%	49.3%	47.6%
2Q2016	\$287,000	53.8%	50.2%	48.4%	46.6%	44.7%
2Q2017	\$302,500	53.4%	49.8%	47.9%	46.1%	44.7%
2Q2018	\$322,850	52.7%	49.0%	47.4%	45.9%	44.4%
2Q2019	\$335,000	53.0%	49.7%	48.1%	46.6%	45.0%
2Q2020	\$348,000	53.2%	49.9%	48.2%	46.5%	44.9%
2Q2021*	\$504,000	35.0%	32.2%	32.0%	31.8%	31.5%
2Q2022*	\$585,000	35.0%	34.6%	34.3%	34.1%	33.9%

Note: Assumes a 30-year loan term, 4.24 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 more than 80 percent. As repeat homebuyers constitute owner-occupied households, this table reflects income data solely for owner-occupied households.

*Represents estimates using historical ACS data.

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 3.44⁴ (Table 13), meaning a household could afford a maximum home price of 3.44 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 \$170,031 for the median sales price in 2Q2022 (Table 14). An estimated 35 percent of current Austin-Round Rock-Georgetown homeowners could afford the median sales price with a 30 percent DTI ratio (Table 15), a decline of more than 34 percentage points from 2Q2011.

⁴ The home price-to-income multiplier is based on a 30-year loan term, 4.24 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%	2.29
25%	2.87
30%	3.44
35%	4.01
40%	4.59
45%	5.16
50%	5.73

Note: Assumes a 30-year loan term, 4.24 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%	30%	35%	40%	45%	50%
2Q2011	\$193,000	\$84,144	\$67,315	\$56,096	\$48,082	\$42,072	\$37,397	\$33,657
2Q2012	\$208,375	\$90,847	\$72,678	\$60,565	\$51,913	\$45,423	\$40,376	\$36,339
2Q2013	\$226,250	\$98,640	\$78,912	\$65,760	\$56,366	\$49,320	\$43,840	\$39,456
2Q2014	\$242,500	\$105,725	\$84,580	\$70,483	\$60,414	\$52,862	\$46,989	\$42,290
2Q2015	\$265,100	\$115,578	\$92,462	\$77,052	\$66,044	\$57,789	\$51,368	\$46,231
2Q2016	\$287,000	\$125,126	\$100,101	\$83,417	\$71,500	\$62,563	\$55,611	\$50,050
2Q2017	\$302,500	\$131,883	\$105,507	\$87,922	\$75,362	\$65,942	\$58,615	\$52,753
2Q2018	\$322,850	\$140,755	\$112,604	\$93,837	\$80,432	\$70,378	\$62,558	\$56,302
2Q2019	\$335,000	\$146,053	\$116,842	\$97,368	\$83,459	\$73,026	\$64,912	\$58,421
2Q2020	\$348,000	\$151,720	\$121,376	\$101,147	\$86,697	\$75,860	\$67,431	\$60,688
2Q2021	\$504,000	\$219,733	\$175,786	\$146,489	\$125,562	\$109,866	\$97,659	\$87,893
2Q2022	\$585,000	\$255,047	\$204,038	\$170,031	\$145,741	\$127,524	\$113,354	\$102,019

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, 4.24 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%
2Q2011	\$193,000	49.1%	60.8%	69.4%	75.4%	79.8%	83.2%	85.7%
2Q2012	\$208,375	45.0%	56.7%	65.8%	72.2%	77.0%	80.7%	83.6%
2Q2013	\$226,250	40.9%	53.2%	62.5%	69.4%	74.6%	78.5%	81.6%
2Q2014	\$242,500	38.7%	50.7%	59.8%	67.0%	72.5%	76.6%	79.8%
2Q2015	\$265,100	35.1%	46.4%	56.1%	63.7%	69.4%	73.9%	77.4%
2Q2016	\$287,000	32.6%	43.5%	53.8%	61.3%	67.4%	72.1%	75.9%
2Q2017	\$302,500	32.1%	43.7%	53.4%	61.0%	67.1%	71.9%	75.7%
2Q2018	\$322,850	30.6%	43.4%	52.7%	60.5%	66.5%	71.3%	75.2%
2Q2019	\$335,000	30.8%	44.0%	53.0%	60.9%	66.8%	71.6%	75.4%
2Q2020	\$348,000	27.9%	43.7%	53.2%	61.1%	67.1%	71.8%	75.5%
2Q2021*	\$504,000	30.8%	32.4%	35.0%	44.7%	52.0%	57.8%	63.0%
2Q2022*	\$585,000	31.7%	33.7%	35.0%	37.8%	46.2%	52.8%	58.0%

Note: Assumes a 30-year loan term, 4.24 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.

*Represents estimates using historical ACS data.

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 total cost of property taxes and insurance is 4 percent of the home price, the monthly mortgage payment was \$4,251 for the median sales price in 2Q2022, more than three times the total monthly mortgage payment for the median-priced home in 2Q2011.

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 3.44⁵, meaning a household could afford a maximum home price of 3.44 times its annual income. The home price-to-income multiplier declines as the costs of property taxes and insurance increase.

The income required to qualify for a loan with property taxes and insurance at 4 percent of home price was \$170,031 for the median sales price in 2Q2022 (Table 18). An estimated 35 percent of current Austin-Round Rock-Georgetown homeowners could afford the median sales

⁵ The home price-to-income multiplier is based on a 30-year loan term, 4.24 percent mortgage interest rate, 80 percent LTV ratio, and 30 percent DTI ratio.



price with property taxes and insurance at 4 percent of home price (Table 19), a decline of more than 34 percentage points from 2Q2011.

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

Year	Home Price	Property Taxes & Insurance				
		2%	3%	4%	5%	6%
2Q2011	\$193,000	\$1,081	\$1,242	\$1,402	\$1,563	\$1,724
2Q2012	\$208,375	\$1,167	\$1,340	\$1,514	\$1,688	\$1,861
2Q2013	\$226,250	\$1,267	\$1,455	\$1,644	\$1,833	\$2,021
2Q2014	\$242,500	\$1,358	\$1,560	\$1,762	\$1,964	\$2,166
2Q2015	\$265,100	\$1,484	\$1,705	\$1,926	\$2,147	\$2,368
2Q2016	\$287,000	\$1,607	\$1,846	\$2,085	\$2,325	\$2,564
2Q2017	\$302,500	\$1,694	\$1,946	\$2,198	\$2,450	\$2,702
2Q2018	\$322,850	\$1,808	\$2,077	\$2,346	\$2,615	\$2,884
2Q2019	\$335,000	\$1,876	\$2,155	\$2,434	\$2,713	\$2,993
2Q2020	\$348,000	\$1,949	\$2,239	\$2,529	\$2,819	\$3,109
2Q2021	\$504,000	\$2,822	\$3,242	\$3,662	\$4,082	\$4,502
2Q2022	\$585,000	\$3,276	\$3,763	\$4,251	\$4,738	\$5,226

Note: Assumes a 30-year loan term, 4.24 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%	4.46
3%	3.89
4%	3.44
5%	3.09
6%	2.80

Note: Assumes a 30-year loan term, 4.24 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%
2Q2011	\$193,000	\$43,229	\$49,662	\$56,096	\$62,529	\$68,962
2Q2012	\$208,375	\$46,673	\$53,619	\$60,565	\$67,510	\$74,456
2Q2013	\$226,250	\$50,677	\$58,218	\$65,760	\$73,302	\$80,843
2Q2014	\$242,500	\$54,316	\$62,400	\$70,483	\$78,566	\$86,650
2Q2015	\$265,100	\$59,378	\$68,215	\$77,052	\$85,888	\$94,725
2Q2016	\$287,000	\$64,284	\$73,850	\$83,417	\$92,984	\$102,550
2Q2017	\$302,500	\$67,756	\$77,839	\$87,922	\$98,006	\$108,089
2Q2018	\$322,850	\$72,314	\$83,075	\$93,837	\$104,599	\$115,360
2Q2019	\$335,000	\$75,035	\$86,202	\$97,368	\$108,535	\$119,702
2Q2020	\$348,000	\$77,947	\$89,547	\$101,147	\$112,747	\$124,347
2Q2021	\$504,000	\$112,889	\$129,689	\$146,489	\$163,289	\$180,089
2Q2022	\$585,000	\$131,031	\$150,531	\$170,031	\$189,531	\$209,031

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, 4.24 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%
2Q2011	\$193,000	78.9%	74.2%	69.4%	64.5%	59.6%
2Q2012	\$208,375	76.1%	70.9%	65.8%	60.6%	55.4%
2Q2013	\$226,250	73.6%	68.1%	62.5%	56.9%	52.0%
2Q2014	\$242,500	71.4%	65.6%	59.8%	54.4%	49.4%
2Q2015	\$265,100	68.3%	62.1%	56.1%	50.6%	45.0%
2Q2016	\$287,000	66.2%	59.7%	53.8%	47.9%	42.4%
2Q2017	\$302,500	65.9%	59.5%	53.4%	47.4%	42.6%
2Q2018	\$322,850	65.3%	58.9%	52.7%	47.0%	42.1%
2Q2019	\$335,000	65.6%	59.3%	53.0%	47.7%	42.7%
2Q2020	\$348,000	65.9%	59.5%	53.2%	47.8%	42.4%
2Q2021	\$504,000	50.6%	42.8%	35.0%	32.9%	32.3%
2Q2022	\$585,000	44.6%	35.8%	35.0%	34.3%	33.5%

Note: Assumes a 30-year loan term, 4.24 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.

*Represents estimates using historical ACS data.

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

First-Time Homebuyer

Purchase affordability continued to decline in 2Q2022 for first-time Austin-Round Rock-Georgetown homebuyers, particularly among the lowest-income cohorts. Combined with the rise in mortgage interest rates, the YOY uptick in the first-quartile sales price 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. That range increases to between \$132,400 and \$220,600 with a home price-to-income multiplier of 4.

Depending on the home price-to-income multiplier, only households earning at least \$50,000 annually could afford the first-quartile sales price in 2Q2022. Homeownership is largely not feasible to households earning no more than 50 percent of 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 1.4 percent of homes for sale in the Austin-Round Rock-Georgetown MSA were affordable to households earning no more than 80 percent of area median income in 2Q2022 (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 Households (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	\$440,000
	\$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

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 2Q2022 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	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%
	\$25,000	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.2%
	\$30,000	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.3%	0.4%
Extremely Low-Income Households (30%)	\$33,100	0.0%	0.1%	0.1%	0.1%	0.2%	0.2%	0.4%	0.4%
	\$35,000	0.0%	0.1%	0.1%	0.1%	0.2%	0.3%	0.4%	0.5%
	\$40,000	0.1%	0.1%	0.1%	0.2%	0.3%	0.4%	0.6%	0.7%
	\$45,000	0.1%	0.1%	0.2%	0.3%	0.4%	0.6%	0.8%	1.1%
	\$50,000	0.1%	0.2%	0.3%	0.4%	0.6%	0.8%	1.1%	1.7%
Very Low-Income Households (50%)	\$55,150	0.1%	0.2%	0.4%	0.5%	0.7%	1.1%	1.7%	2.4%
	\$60,000	0.1%	0.3%	0.4%	0.7%	1.0%	1.5%	2.4%	3.7%
	\$65,000	0.2%	0.3%	0.5%	0.8%	1.4%	2.0%	3.4%	6.3%
	\$70,000	0.2%	0.4%	0.7%	1.1%	1.7%	2.9%	5.7%	9.7%
	\$75,000	0.3%	0.5%	0.8%	1.4%	2.4%	4.1%	8.3%	14.9%
	\$80,000	0.3%	0.6%	1.0%	1.7%	3.1%	6.7%	13.0%	21.7%
	\$85,000	0.4%	0.7%	1.3%	2.1%	4.5%	9.2%	18.0%	27.9%
Low-Income Households (80%)	\$88,250	0.4%	0.7%	1.4%	2.6%	5.9%	11.8%	21.8%	31.9%

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 4.17 percent rate brought the mortgage payment to \$3,752 for the first-quartile sales price in 2Q2022, more than three times the total monthly mortgage payment for the same home in 2Q2011.

Table 23 shows the home price-to-income multiplier by mortgage interest rate. A 4.17 percent interest rate translates into a home price-to-income multiplier of 3.54⁶, meaning a household could afford a maximum home price of 3.54 times its annual income. The home price-to-income multiplier declines as the mortgage interest rate increases.

⁶ 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.

The income required to qualify for a loan with a 4.17 percent mortgage interest rate was \$128,629 for the first-quartile sales price in 2Q2022 (Table 24). An estimated 14 percent of renters in the Austin-Round Rock-Georgetown MSA could afford the first-quartile sales price with a 4.17 percent interest rate (Table 25), a decline of nearly 35 percentage points from 2Q2011.

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

Year	Home Price	Mortgage Interest Rate						
		3%	4%	4.17%	4.5%	5%	5.5%	6%
2Q2011	\$135,000	\$1,026	\$1,100	\$1,113	\$1,138	\$1,178	\$1,219	\$1,261
2Q2012	\$145,000	\$1,102	\$1,181	\$1,196	\$1,223	\$1,265	\$1,309	\$1,354
2Q2013	\$163,000	\$1,239	\$1,328	\$1,344	\$1,375	\$1,423	\$1,472	\$1,522
2Q2014	\$175,000	\$1,330	\$1,426	\$1,443	\$1,476	\$1,527	\$1,580	\$1,634
2Q2015	\$195,000	\$1,482	\$1,589	\$1,608	\$1,644	\$1,702	\$1,761	\$1,821
2Q2016	\$216,250	\$1,643	\$1,762	\$1,783	\$1,824	\$1,887	\$1,953	\$2,019
2Q2017	\$228,000	\$1,733	\$1,857	\$1,880	\$1,923	\$1,990	\$2,059	\$2,129
2Q2018	\$242,000	\$1,839	\$1,972	\$1,995	\$2,041	\$2,112	\$2,185	\$2,260
2Q2019	\$250,000	\$1,900	\$2,037	\$2,061	\$2,108	\$2,182	\$2,257	\$2,334
2Q2020	\$260,000	\$1,976	\$2,118	\$2,144	\$2,193	\$2,269	\$2,348	\$2,428
2Q2021	\$387,550	\$2,945	\$3,157	\$3,196	\$3,268	\$3,382	\$3,499	\$3,619
2Q2022	\$455,000	\$3,458	\$3,707	\$3,752	\$3,837	\$3,971	\$4,108	\$4,249

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
4%	3.58
4.24%	3.54
4.5%	3.46
5%	3.34
5.5%	3.23
6%	3.12

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

		Mortgage Interest Rate						
Year	Home Price	3%	4%	4.17%	4.5%	5%	5.5%	6%
2Q2011	\$135,000	\$35,174	\$37,708	\$38,165	\$39,033	\$40,395	\$41,792	\$43,222
2Q2012	\$145,000	\$37,779	\$40,501	\$40,992	\$41,925	\$43,387	\$44,887	\$46,423
2Q2013	\$163,000	\$42,469	\$45,529	\$46,080	\$47,129	\$48,773	\$50,460	\$52,186
2Q2014	\$175,000	\$45,596	\$48,881	\$49,473	\$50,599	\$52,364	\$54,174	\$56,028
2Q2015	\$195,000	\$50,806	\$54,467	\$55,127	\$56,382	\$58,348	\$60,366	\$62,431
2Q2016	\$216,250	\$56,343	\$60,403	\$61,134	\$62,526	\$64,707	\$66,944	\$69,234
2Q2017	\$228,000	\$59,404	\$63,685	\$64,456	\$65,923	\$68,223	\$70,581	\$72,996
2Q2018	\$242,000	\$63,052	\$67,596	\$68,414	\$69,971	\$72,412	\$74,915	\$77,479
2Q2019	\$250,000	\$65,136	\$69,830	\$70,675	\$72,284	\$74,806	\$77,392	\$80,040
2Q2020	\$260,000	\$67,742	\$72,623	\$73,502	\$75,175	\$77,798	\$80,488	\$83,241
2Q2021	\$387,550	\$100,975	\$108,251	\$109,561	\$112,055	\$115,964	\$119,973	\$124,078
2Q2022	\$455,000	\$118,548	\$127,091	\$128,629	\$131,557	\$136,146	\$140,853	\$145,672

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

		Mortgage Interest Rate						
Year	Home Price	3%	4%	4.24%	4.5%	5%	5.5%	6%
2Q2011	\$135,000	52.2%	49.2%	48.7%	47.7%	46.1%	44.4%	42.8%
2Q2012	\$145,000	50.2%	47.0%	46.4%	45.3%	43.6%	41.8%	40.0%
2Q2013	\$163,000	45.4%	41.8%	41.2%	40.0%	38.1%	36.3%	35.1%
2Q2014	\$175,000	43.3%	39.5%	38.8%	37.8%	36.5%	35.2%	33.8%
2Q2015	\$195,000	39.7%	36.9%	36.4%	35.5%	34.0%	32.5%	31.0%
2Q2016	\$216,250	38.3%	35.1%	34.5%	33.4%	31.6%	29.8%	28.0%
2Q2017	\$228,000	38.5%	35.0%	34.4%	33.2%	31.3%	29.3%	27.3%
2Q2018	\$242,000	38.3%	34.5%	33.8%	32.5%	30.4%	28.3%	27.1%
2Q2019	\$250,000	39.4%	35.5%	34.8%	33.4%	31.3%	30.0%	28.7%
2Q2020	\$260,000	40.0%	36.0%	35.3%	34.0%	32.6%	31.2%	29.8%
2Q2021*	\$387,550	21.8%	19.6%	19.2%	18.5%	17.3%	16.1%	14.9%
2Q2022*	\$455,000	17.3%	14.5%	14.0%	13.1%	11.6%	10.1%	8.5%

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.

*Represents estimates using historical ACS data.

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 \$3,752 for the first-quartile sales price in 2Q2022, more than three times the payment for the same home in 2Q2011.

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 3.54⁷, meaning a household could afford a maximum home price of 3.54 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 \$128,629 for the first-quartile sales price in 2Q2022 (Table 28). An estimated 14 percent of renters in the Austin-Round Rock-Georgetown MSA could afford the first-quartile sales price with a 95 percent LTV ratio (Table 29), a decline of nearly 35 percentage points from 2Q2011.

Table 26. Total Monthly Mortgage Payment by LTV Ratio

Year	Home Price	LTV Ratio				
		95%	96.5%	97%	98%	100%
2Q2011	\$135,000	\$1,113	\$1,124	\$1,127	\$1,134	\$1,148
2Q2012	\$145,000	\$1,196	\$1,207	\$1,211	\$1,218	\$1,233
2Q2013	\$163,000	\$1,344	\$1,357	\$1,361	\$1,369	\$1,386
2Q2014	\$175,000	\$1,443	\$1,457	\$1,461	\$1,470	\$1,488
2Q2015	\$195,000	\$1,608	\$1,623	\$1,628	\$1,638	\$1,658
2Q2016	\$216,250	\$1,783	\$1,800	\$1,805	\$1,817	\$1,839
2Q2017	\$228,000	\$1,880	\$1,898	\$1,904	\$1,915	\$1,939
2Q2018	\$242,000	\$1,995	\$2,014	\$2,020	\$2,033	\$2,058
2Q2019	\$250,000	\$2,061	\$2,081	\$2,087	\$2,100	\$2,126
2Q2020	\$260,000	\$2,144	\$2,164	\$2,171	\$2,184	\$2,211
2Q2021	\$387,550	\$3,196	\$3,226	\$3,236	\$3,256	\$3,296
2Q2022	\$455,000	\$3,752	\$3,787	\$3,799	\$3,822	\$3,869

Note: Assumes a 30-year loan term, 4.17 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

⁷ The home price-to-income multiplier is based on a 30-year loan term, 4.17 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
95%	3.54
96.5%	3.50
97%	3.49
98%	3.47
100%	3.43

Note: Assumes a 30-year loan term, 4.17 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%
2Q2011	\$135,000	\$38,165	\$38,524	\$38,643	\$38,883	\$39,361
2Q2012	\$145,000	\$40,992	\$41,377	\$41,506	\$41,763	\$42,277
2Q2013	\$163,000	\$46,080	\$46,514	\$46,658	\$46,947	\$47,525
2Q2014	\$175,000	\$49,473	\$49,938	\$50,093	\$50,404	\$51,024
2Q2015	\$195,000	\$55,127	\$55,645	\$55,818	\$56,164	\$56,855
2Q2016	\$216,250	\$61,134	\$61,709	\$61,901	\$62,284	\$63,051
2Q2017	\$228,000	\$64,456	\$65,062	\$65,264	\$65,669	\$66,477
2Q2018	\$242,000	\$68,414	\$69,057	\$69,272	\$69,701	\$70,559
2Q2019	\$250,000	\$70,675	\$71,340	\$71,562	\$72,005	\$72,891
2Q2020	\$260,000	\$73,502	\$74,194	\$74,424	\$74,885	\$75,807
2Q2021	\$387,550	\$109,561	\$110,592	\$110,935	\$111,622	\$112,996
2Q2022	\$455,000	\$128,629	\$129,839	\$130,243	\$131,049	\$132,662

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, 4.17 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%
2Q2011	\$135,000	48.7%	48.3%	48.1%	47.8%	47.3%
2Q2012	\$145,000	46.4%	45.9%	45.8%	45.5%	44.9%
2Q2013	\$163,000	41.2%	40.7%	40.5%	40.2%	39.5%
2Q2014	\$175,000	38.8%	38.3%	38.2%	37.9%	37.5%
2Q2015	\$195,000	36.4%	36.0%	35.9%	35.7%	35.1%
2Q2016	\$216,250	34.5%	34.0%	33.9%	33.6%	32.9%
2Q2017	\$228,000	34.4%	33.9%	33.7%	33.4%	32.7%
2Q2018	\$242,000	33.8%	33.2%	33.1%	32.7%	32.0%
2Q2019	\$250,000	34.8%	34.2%	34.0%	33.7%	32.9%
2Q2020	\$260,000	35.3%	34.7%	34.5%	34.1%	33.6%
2Q2021*	\$387,550	19.2%	18.9%	18.8%	18.6%	18.2%
2Q2022*	\$455,000	14.0%	13.6%	13.5%	13.2%	12.7%

Note: Assumes a 30-year loan term, 4.17 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.

*Represents estimates using historical ACS data.

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 3.54⁸ (Table 30), meaning a household could afford a maximum home price of 3.54 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 \$128,629 for the first-quartile sales price in 2Q2022 (Table 31). An estimated 14 percent of renters in the Austin-Round Rock-Georgetown MSA could afford the first-quartile sales price with a 35 percent DTI ratio (Table 32), a decline of nearly 35 percentage points from 2Q2022.

⁸ The home price-to-income multiplier is based on a 30-year loan term, 4.17 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%	2.02
25%	2.53
30%	3.03
35%	3.54
40%	4.04
45%	4.55
50%	5.05

Note: Assumes a 30-year loan term, 4.17 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%	35%	40%	45%	50%
2Q2011	\$135,000	\$66,788	\$53,431	\$44,526	\$38,165	\$33,394	\$29,684	\$26,715
2Q2012	\$145,000	\$71,736	\$57,388	\$47,824	\$40,992	\$35,868	\$31,882	\$28,694
2Q2013	\$163,000	\$80,641	\$64,513	\$53,760	\$46,080	\$40,320	\$35,840	\$32,256
2Q2014	\$175,000	\$86,577	\$69,262	\$57,718	\$49,473	\$43,289	\$38,479	\$34,631
2Q2015	\$195,000	\$96,472	\$77,178	\$64,315	\$55,127	\$48,236	\$42,876	\$38,589
2Q2016	\$216,250	\$106,985	\$85,588	\$71,323	\$61,134	\$53,492	\$47,549	\$42,794
2Q2017	\$228,000	\$112,798	\$90,238	\$75,199	\$64,456	\$56,399	\$50,132	\$45,119
2Q2018	\$242,000	\$119,724	\$95,779	\$79,816	\$68,414	\$59,862	\$53,211	\$47,890
2Q2019	\$250,000	\$123,682	\$98,946	\$82,455	\$70,675	\$61,841	\$54,970	\$49,473
2Q2020	\$260,000	\$128,629	\$102,903	\$85,753	\$73,502	\$64,315	\$57,169	\$51,452
2Q2021	\$387,550	\$191,732	\$153,386	\$127,821	\$109,561	\$95,866	\$85,214	\$76,693
2Q2022	\$455,000	\$225,101	\$180,081	\$150,068	\$128,629	\$112,551	\$100,045	\$90,041

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, 4.17 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%	35%	40%	45%	50%
2Q2011	\$135,000	22.4%	32.3%	41.2%	48.7%	54.7%	60.1%	64.3%
2Q2012	\$145,000	18.8%	29.4%	37.4%	45.4%	51.4%	56.9%	61.5%
2Q2013	\$163,000	14.5%	24.1%	32.0%	39.4%	46.2%	51.4%	56.4%
2Q2014	\$175,000	12.4%	20.6%	29.1%	35.4%	42.7%	48.3%	52.9%
2Q2015	\$195,000	9.0%	15.7%	24.3%	31.0%	36.9%	43.2%	48.2%
2Q2016	\$216,250	7.1%	12.8%	19.1%	26.6%	32.2%	37.7%	43.3%
2Q2017	\$228,000	6.4%	11.2%	16.3%	24.2%	30.1%	34.7%	40.5%
2Q2018	\$242,000	5.7%	9.3%	14.7%	21.2%	27.5%	32.4%	37.3%
2Q2019	\$250,000	5.3%	8.2%	13.8%	19.6%	26.1%	31.1%	35.4%
2Q2020	\$260,000	4.8%	7.5%	12.7%	17.5%	24.3%	29.5%	33.7%
2Q2021*	\$387,550	6.7%	7.1%	14.3%	20.2%	25.7%	32.0%	36.9%
2Q2022*	\$455,000	6.3%	6.8%	7.1%	14.0%	19.3%	23.3%	29.1%

Note: Assumes a 30-year loan term, 4.17 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.

*Represents estimates using historical ACS data.

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 \$3,752 for the first-quartile sales price in 2Q2022, more than three times the total monthly mortgage payment for the same home in 2Q2011.

Table 34 shows the home price-to-income multiplier⁹ by the costs of property taxes and insurance. At a 4 percent property tax and insurance rate, a household could afford a maximum home price of 3.54 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 \$128,629 for the first-quartile sales price in 2Q2022 (Table 35). An estimated

⁹ The home price-to-income multiplier is based on a 30-year loan term, 4.17 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 95 percent LTV ratio, and 35 percent DTI ratio.

14 percent of Texas households could afford the first-quartile sales price with property taxes and insurance at 4 percent (Table 36), a decline of nearly 35 percentage points from 2Q2022.

Table 33. Total Monthly Mortgage Payment by Additional Homeownership Costs

Year	Home Price	Property Taxes & Insurance				
		2%	3%	4%	5%	6%
2Q2011	\$135,000	\$888	\$1,001	\$1,113	\$1,226	\$1,338
2Q2012	\$145,000	\$954	\$1,075	\$1,196	\$1,316	\$1,437
2Q2013	\$163,000	\$1,072	\$1,208	\$1,344	\$1,480	\$1,616
2Q2014	\$175,000	\$1,151	\$1,297	\$1,443	\$1,589	\$1,735
2Q2015	\$195,000	\$1,283	\$1,445	\$1,608	\$1,770	\$1,933
2Q2016	\$216,250	\$1,423	\$1,603	\$1,783	\$1,963	\$2,143
2Q2017	\$228,000	\$1,500	\$1,690	\$1,880	\$2,070	\$2,260
2Q2018	\$242,000	\$1,592	\$1,794	\$1,995	\$2,197	\$2,399
2Q2019	\$250,000	\$1,645	\$1,853	\$2,061	\$2,270	\$2,478
2Q2020	\$260,000	\$1,710	\$1,927	\$2,144	\$2,360	\$2,577
2Q2021	\$387,550	\$2,550	\$2,873	\$3,196	\$3,518	\$3,841
2Q2022	\$455,000	\$2,993	\$3,373	\$3,752	\$4,131	\$4,510

Note: Assumes a 30-year loan term, 4.17 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%	4.43
3%	3.93
4%	3.54
5%	3.21
6%	2.94

Note: Assumes a 30-year loan term, 4.17 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%
2Q2011	\$135,000	\$30,450	\$34,308	\$38,165	\$42,022	\$45,879
2Q2012	\$145,000	\$32,706	\$36,849	\$40,992	\$45,135	\$49,277
2Q2013	\$163,000	\$36,766	\$41,423	\$46,080	\$50,738	\$55,395
2Q2014	\$175,000	\$39,473	\$44,473	\$49,473	\$54,473	\$59,473
2Q2015	\$195,000	\$43,984	\$49,555	\$55,127	\$60,698	\$66,270
2Q2016	\$216,250	\$48,777	\$54,956	\$61,134	\$67,313	\$73,491
2Q2017	\$228,000	\$51,427	\$57,942	\$64,456	\$70,970	\$77,485
2Q2018	\$242,000	\$54,585	\$61,500	\$68,414	\$75,328	\$82,242
2Q2019	\$250,000	\$56,390	\$63,533	\$70,675	\$77,818	\$84,961
2Q2020	\$260,000	\$58,645	\$66,074	\$73,502	\$80,931	\$88,360
2Q2021	\$387,550	\$87,415	\$98,488	\$109,561	\$120,634	\$131,707
2Q2022	\$455,000	\$102,629	\$115,629	\$128,629	\$141,629	\$154,629

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, 4.17 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%
2Q2011	\$135,000	59.0%	53.4%	48.7%	44.2%	39.6%
2Q2012	\$145,000	55.7%	50.2%	45.4%	40.5%	35.6%
2Q2013	\$163,000	50.3%	44.9%	39.4%	34.3%	30.8%
2Q2014	\$175,000	47.2%	41.3%	35.4%	31.5%	27.8%
2Q2015	\$195,000	41.9%	35.3%	31.0%	26.9%	22.8%
2Q2016	\$216,250	36.2%	31.2%	26.6%	22.1%	17.5%
2Q2017	\$228,000	33.7%	29.0%	24.2%	19.4%	15.5%
2Q2018	\$242,000	31.4%	26.3%	21.2%	16.3%	13.9%
2Q2019	\$250,000	30.1%	24.8%	19.6%	15.4%	13.0%
2Q2020	\$260,000	28.4%	23.0%	17.5%	14.4%	11.8%
2Q2021*	\$387,550	30.7%	24.2%	20.2%	16.6%	13.0%
2Q2022*	\$455,000	22.5%	18.3%	14.0%	9.8%	7.0%

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, 4.17 percent mortgage interest rate, 0.5 percent mortgage insurance premium, 95 percent LTV ratio, and 35 percent DTI ratio.

*Represents estimates using historical ACS data.

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.¹⁰ 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—according to the National Association of Realtors, 87 percent in 2021—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.¹¹

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

¹⁰ 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.

¹¹ 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

Loan or Applicant Characteristics	Effect on Purchase Affordability
Mortgage interest rate	An increase in the mortgage interest rate diminishes purchase affordability
Loan term	An increase in the loan term increases purchase affordability
LTV ratio	An increase in the loan-to-value ratio diminishes purchase affordability
DTI ratio	An increase in the DTI ratio increases purchase affordability
Additional costs of homeownership (property taxes and insurance)	An increase in the additional costs of homeownership diminishes purchase affordability
Additional costs of borrowing mortgage capital (such as the mortgage insurance premium)	An increase in the additional costs of borrowing mortgage capital diminishes 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 (4.24 percent in 2Q22)¹², 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

¹² The source for the prevailing mortgage interest rate is CoreLogic.

for first-time homebuyers reflect the prevailing mortgage interest rate (4.17 percent in 2Q2022), 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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