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THAI MAKE OVER

BY JAMES P. GAINES

It is common knowledge that housing in Texas is more affordable than in most other parts of the country. Just how much more affordable is clearer in light of changes to the Real Estate Center's Texas Housing Affordability Index (THAI). The Texas median-income family earns 79 percent more than necessary to acquire the median-priced Texas home at $129,100.

Beginning with the first quarter of 2005, the Real Estate Center revised its calculations of the THAI to be more consistent with other published indices and to reduce the complexity and subjectivity of the analysis that goes into the computations.

While the basic computations and interpretations remain the same, alternate sources have been used for some key data. These changes make the index easier to understand, more comparable to other indices (especially the National Association of Realtors index) and make it easier to replicate or trace results.

The equation for the affordability index is:

$$\text{Index} = \frac{\text{Median Family Income (MFI)}}{\text{Required Income to Qualify for a Conventional Purchase Mortgage (RI)}}$$

Where:

$$\text{RI} = \frac{\text{Required Monthly Mortgage Payment} \times 12}{\text{Qualifying Ratio (QR)}}$$

The qualifying ratio is the lender-stipulated maximum ratio of monthly mortgage payment to gross monthly income allowed for a borrower to qualify for a mortgage loan. The required monthly mortgage payment is the amount the borrower will have to pay on an 80 percent, conventional mortgage at the effective interest rate for the area.

Changes were made to three principal elements of the THAI: estimated local median family income, local property tax and insurance costs of homeownership and effective mortgage interest rate.

Median Family Income

Median family income (MFI) replaces median household income. The new data derive from HUD's MFI estimates by metropolitan statistical area (MSA) and by nonmetropolitan county. These estimates are produced annually to determine local income qualification levels for HUD and other government housing programs and initiatives.

For Texas locales not included in the MSAs, county-level Federal Financial Institutions Examination Council (FFIEC) median family income estimates are applied. FFIEC provides further refinement of the HUD income estimates down to county and even census-track levels based on historical allocations and ratios of areawide median income. For areas within the MSAs that report median home prices separately, FFIEC census-track-level median family income estimates are used.

Table 1. Texas Housing Affordability Index: 1Q2005

Location	1Q05 Median Home Price	1Q05 Interest Rate (Percent)	Required Monthly Payment at 80% Loan to Value	Required Income to Qualify at 25 Percent QR	2005 HUD Median Family Income	Texas Housing Affordability Index
Abilene	72,700	5.93	346.09	16,612	47,200	2.84
Amarillo	102,600	5.93	488.42	23,444	49,850	2.13
Arlington	121,600	5.88	575.76	27,636	62,700	2.27
Austin	153,900	5.93	732.63	35,166	67,300	1.91
Baytown	129,700	5.95	618.76	29,701	61,000	2.05
Beaumont	97,800	5.95	466.58	22,396	48,850	2.18
Brazoria (Brazoria Co.)	104,000	5.95	496.15	23,815	63,200	2.65
Brownsville	89,600	6.21	439.48	21,095	31,850	1.51
Bryan-College Station	126,900	5.93	604.10	28,997	54,000	1.86
Collin Co.	175,700	5.88	831.91	39,932	99,609	2.49
Corpus Christi	116,500	5.93	554.59	26,620	47,000	1.77
Dallas	147,700	5.88	699.34	33,568	65,100	1.94
Denton (Denton Co.)	153,600	5.88	727.27	34,909	74,480	2.13
El Paso	105,400	5.93	501.75	24,084	38,250	1.59
Fort Bend Co.	153,100	5.95	730.40	35,059	79,982	2.28
Fort Worth	102,500	5.88	485.32	23,296	62,700	2.69
Galveston	133,800	5.95	638.32	30,639	59,800	1.95
Garland	107,700	5.88	509.94	24,477	65,100	2.66
Harlingen	78,500	6.21	385.04	18,482	31,850	1.72
Houston	134,800	5.95	643.09	30,868	61,000	1.98
Irving	116,500	5.88	551.61	26,477	65,100	2.46
Killeen	0	5.93	0.00	-	47,500	-
Longview	92,900	5.93	442.25	21,228	47,500	2.24
Lubbock	93,700	5.93	446.06	21,411	47,150	2.20
Lufkin (Angelina Co.)	86,300	5.93	410.83	19,720	44,465	2.25
McAllen	96,000	6.21	470.87	22,602	29,800	1.32
Montgomery Co.	147,800	5.95	705.11	33,845	68,728	2.03
Nacogdoches (Nacogdoches Co.)	61,900	5.93	294.67	14,144	42,156	2.98
Northeast Tarrant Co.	151,500	5.88	717.33	34,432	63,178	1.83
Odessa-Midland	76,200	5.93	373.76	17,940	48,500	2.79
Palestine (Anderson Co.)	75,600	5.88	357.96	17,182	44,841	2.61
Paris (Lamar Co.)	91,700	5.88	434.19	20,841	41,672	2.00
Port Arthur	78,200	5.95	373.07	17,907	61,000	3.41
San Angelo	84,000	5.93	412.02	19,777	45,050	2.35
San Antonio	119,100	6.21	584.18	28,041	50,500	1.80
San Marcos (Hays Co.)	0	6.21	0.00	-	58,646	-
Sherman-Denison	93,600	5.88	443.18	21,273	51,400	2.42
Temple	97,000	5.93	461.76	22,165	65,100	2.94
Texarkana	86,200	5.93	410.35	19,697	45,550	2.31
Tyler	117,100	5.93	557.45	26,758	50,950	1.90
Victoria	95,600	5.93	468.91	22,508	53,000	2.43
Waco	88,400	5.93	420.82	20,200	47,350	2.34
Wichita Falls	90,600	5.93	431.30	20,702	47,350	2.29
Texas	**129,100**	**5.93**	**614.58**	**29,500**	**52,900**	**1.79**
United States	**188,800**	**5.93**	**898.77**	**43,141**	**58,000**	**1.34**

Source: Real Estate Center at Texas A&M University

Elimination of Local Property Taxes and Insurance Costs

Local property tax and insurance rates vary significantly, not only from county to county within an MSA but also within the same county. Overlapping tax jurisdictions, special tax jurisdictions and different school districts within the same county or metropolitan area can cause widely varying monthly costs. In the past, Center staff estimated the additional costs of homeownership from reported county and city property tax rates and state insurance rates and applied a 28 percent QR. Now, following conventional mortgage underwriting standards and using the QR applied by NAR and others, a 25 percent QR is applied only to the

Table 2. Revised Texas Housing Affordability Index Estimates: 1Q2005 – 1999

Location	1Q05	2004	2003	2002	2001	2000	1999
Abilene	2.84	3.14	2.83	2.40	2.29	2.37	2.28
Amarillo	2.13	2.79	2.25	2.00	1.97	1.97	1.97
Arlington	2.27	3.03	2.23	2.16	2.16	2.13	2.23
Austin	1.91	2.59	1.89	1.87	1.71	1.53	1.66
Baytown	2.05	2.86	1.95	1.82	1.94	1.83	1.96
Beaumont	2.18	2.82	2.16	2.11	2.09	1.93	2.05
Brazoria (Brazoria Co.)	2.65	3.55	0.00	2.49	2.68	2.54	2.63
Brownsville	1.51	2.07	1.54	1.23	1.54	1.47	1.50
Bryan/College Station	1.86	2.79	1.88	1.62	1.48	1.62	1.71
Collin Co.	2.49	2.93	2.53	2.05	1.99	1.87	1.98
Corpus Christi	1.77	2.55	2.00	1.85	1.92	0.00	1.84
Dallas	1.94	2.60	1.94	1.87	1.82	1.74	1.85
Denton Co.	2.13	2.74	2.17	1.96	1.87	1.75	1.86
El Paso	1.59	2.14	1.78	1.67	1.69	1.58	1.67
Fort Bend Co.	2.28	3.16	2.27	1.95	2.01	1.95	2.04
Fort Worth	2.69	3.87	2.72	2.62	2.75	2.64	2.74
Galveston	1.95	3.61	2.04	0.00	1.61	1.86	2.34
Garland	2.66	-	2.61	2.48	2.54	2.46	2.60
Harlingen	1.72	1.92	0.00	0.00	1.47	1.19	1.36
Houston	1.98	3.02	1.95	1.87	1.97	1.85	2.05
Irving	2.46	2.44	2.44	2.42	2.27	2.30	2.51
Killeen	-	2.86	2.33	1.97	2.05	2.07	2.08
Longview	2.24	2.62	2.28	0.00	1.98	1.81	1.85
Lubbock	2.20	2.74	2.19	2.10	2.15	1.87	2.11
Lufkin (Angelina Co.)	2.25	2.94	2.96	2.07	1.86	1.91	2.00
McAllen	1.32	1.84	0.00	0.00	1.34	1.37	1.35
Montgomery Co.	2.03	2.64	2.10	1.80	1.84	1.64	1.78
Nacogdoches (Nacogdoches. Co.)	2.98	2.81	2.09	-	-	-	-
Northeast Tarrant Co.	1.83	2.30	1.81	1.69	1.68	1.56	1.67
Odessa-Midland	2.79	3.08	2.58	2.44	2.57	2.25	2.17
Palestine (Anderson Co.)	2.61	3.56	-	-	-	2.10	2.29
Paris (Lamar Co.)	2.00	3.04	2.35	2.27	2.35	1.99	2.26
Port Arthur	2.73	3.81	2.78	2.78	0.00	2.39	2.67
San Angelo	2.35	3.01	2.30	2.31	2.24	2.08	2.14
San Antonio	1.80	2.60	1.92	1.77	1.87	1.74	1.80
San Marcos (Hays Co.)	-	4.51	0.00	0.00	1.89	1.77	2.00
Sherman-Denison	2.42	-	2.58	2.10	2.21	2.17	2.12
Temple	2.14	2.61	2.11	-	-	-	1.85
Texarkana	2.31	-	2.38	-	-	-	-
Tyler	1.90	2.47	1.93	1.88	1.93	1.83	1.90
Victoria	2.43	3.11	2.39	2.18	2.26	1.91	2.14
Waco	2.34	3.04	2.02	-	-	-	-
Wichita Falls	2.29	2.27	3.59	2.15	2.21	2.22	2.16
Texas	**1.79**	**1.46**	**1.81**	**1.68**	**1.69**	**1.58**	**1.74**
United States	**1.34**	**1.53**	**1.61**	**1.43**	**1.45**	**1.38**	**1.38**

Note: – represents an area or time period for which we did not have median home price data.
Source: Real Estate Center at Texas A&M University

mortgage payment to estimate the income required for a homebuyer to qualify for a conventional, 80 percent home loan.

Mortgage Interest Rates

Previously, the Center used the *weighted average contract rate* of fixed- and adjustable-rate loans according to the Federal Housing Finance Board (FHFB). Now the *effective rate* reported by FHFB's monthly survey of rates and terms on conventional, single-family non-farm mortgage loans for selected metropolitan areas will be used.

The effective rate includes the amortization of initial fees and charges made to close the loan. The quarterly rate equals the average of the three monthly rates reported in the FHFB data for the period covered. Texas MSAs not included in the FHFB report and not part of one of the large MSAs are assumed to have prevailing interest rates equal to the nearest major MSA or to the state rate.

First Quarter 2005 Results

The first quarter 2005 THAI for selected Texas reporting areas (areas for which the Center collects median home sales prices) is depicted in Table 1. The new data significantly raise the magnitude of Texas housing affordability. The higher index measures tend to confirm the intuitive belief that Texas housing is particularly affordable relative to many other areas of the country, especially in a climate of relatively low interest rates and modest house price appreciation. The higher local and state indices result primarily from employing the greater HUD median family income estimates rather than the prior computed incomes.

For more detailed information on the first quarter 2005 THAI along with an estimate of First Time Homebuyer Affordability Indices, go to www.recenter.tamu.edu/pdf/1742.pdf.

A five-year perspective of the revised THAI employing the new measures for median family income, interest rate and omitting the property tax and insurance components is shown in Table 2. The data indicate that Texas has been a highly affordable housing state for some time. The trend of increasing affordability may have peaked in 2004, however, as most of the individual metropolitan areas have a lower first quarter 2005 affordability index than for 2004.

Dr. Gaines (jpgaines@tamu.edu) is a research economist with the Real Estate Center at Texas A&M University.

MAYS BUSINESS SCHOOL

Texas A&M University
2115 TAMU
College Station, TX 77843-2115

http://recenter.tamu.edu
979-845-2031

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