

Global Insight/National City
Housing Valuation Assessment:
A Comparative Analysis of House Valuations
in Major U.S. Metropolitan Areas

“Whether home prices on average for the nation as a whole are overvalued relative to underlying determinants is difficult to ascertain, but there do appear to be, at a minimum, signs of froth in some local markets where home prices seem to have risen to unsustainable levels.”

Alan Greenspan
Monetary Policy Report to the Congress
July 20, 2005

October 2005

Summary

- Over the period from 1985 to 2005, single family house price-to-income ratios were studied for 299 metropolitan areas that now account for 80 percent of U.S. single family housing market value.
- Price-to-income ratios were statistically explained by household population density, mortgage interest rates, relative income levels and characteristics unique to each metro area.
- Markets are considered extremely overvalued when observed prices exceed statistical norms by 30 percent. That threshold was determined from the typical degree of overvaluation that preceded the 63 price declines actually observed over the past 20 years.
- As of the second quarter of this year, 56 metro areas representing 32 percent of the total U.S. housing market are extremely overvalued and confront a high risk of future price correction.
- California and Florida have the highest concentration of overvalued housing markets, as do parts of the Greater New York and Greater Boston areas.

The Issue

As the Greenspan quotation states, it is “difficult to ascertain” whether the U.S. housing market is “overvalued.” Yet such a determination is essential when assessing risks to homeowners, securities investors, real estate developers, lenders and the economy at large.

If home prices are overvalued, then by definition, the risk of a price correction is high. In the event that such a correction plays out with home prices falling broadly, adverse implications abound. Individuals will suffer a wealth decline and spend less freely. Lenders will suffer elevated loan losses and credit conditions will tighten. Mortgage-backed securities will lose value and consumer confidence and home building will decline, all other things being equal.

Given the obvious importance of the issue and the absence of any consensus regarding the question of housing market valuation, this report describes our efforts — and findings — along those lines.

The Approach¹

Our approach to determining fair value in the housing market is statistical in orientation. This contrasts with financial asset valuation, where a

¹ Following is an update of, and enhancement to, research conducted last year (*Metro Area Home Prices: Valuation Methodology*) and released publicly on www.nationalcity.com/economics this February.

vast body of theoretical and empirical literature addresses the question of “intrinsic value.” Rather, our approach examines a particular historical period — 1985 to 2005 — and accepts that house prices, on average, adhered to some normal relationship to underlying determinants during that time.

We conduct our analysis at the metropolitan area level of geographic detail, in recognition of, and controlling for, the disparate conditions that characterize different markets. This is done with a technique called multivariate pooled time series analysis, which combines the virtues of time series analysis (estimating relationships as they develop over time) and cross-section analysis (estimating relationships as they vary across different members of a group). Specifically², we examine the ratio of home prices to household incomes in 299 metropolitan areas and attempt to explain the variation in that ratio as a function of four key determinants:

- Household Population Density_{MSA}
- Conventional Mortgage Rate_{US}
- Relative Income Level_{MSA}
- Constant_{MSA}

Household population density is measured as the number of households per square mile in each metro area and serves as a proxy for the scarcity of land. The fact that Detroit, for example, has 1,246 households per square mile implies a far

² See Appendix I.

greater scarcity of land than in Las Vegas, where there are 82 households per square mile. Also relevant to house prices is the fact that Detroit's household population density has fallen 2 percent over the past decade, while in Las Vegas it climbed 70 percent.

The conventional mortgage rate is not specific to metropolitan areas, captures the extent to which financing costs influence home prices and is incorporated on a payment-equivalent basis. For example, a conventional 30-year mortgage of \$200,000 carries a monthly cost of \$1,468 with mortgage interest rates of 8 percent. At 6 percent, however, a homebuyer could service a far higher \$245,000 mortgage with the same monthly expense. In fact, falling mortgage interest rates have contributed greatly to rising home prices over the past several years by enhancing affordability.

Relative income borrows from the economic concept of the "luxury good." Generally, a luxury good is defined as one toward which consumers allocate more of their income as their real incomes rise. In this case, we recognize that the high-income (twice the national average) residents of Bridgeport, Connecticut, are likely to allocate a larger share of their income toward housing than are the lower-income (three-quarters the national average) residents of Hattiesburg, Mississippi.

Finally, we calculate a "constant" term for each metropolitan area. These control for the historically observed difference in metro area price-to-income ratios that is not explained by the other three determinants. The numbers range from 0 to 3 and reflect a variety of difficult to quantify, but nonetheless important, factors that influence prices. For example, Honolulu has a metro constant of 2.7, meaning that house prices there should be 2.7 times income levels, abstracting from the influence of all other factors. Presumably, their famously pleasant climate, sunshine and beaches influence these high metro area constants. Other factors that influence metro area constants include pollution, cultural amenities, school systems, expected appreciation rates and miscellaneous costs (e.g. tax and utility rates).

While metropolitan area constants, to some extent, reflect the desirability of residential areas, that would be an overly simplistic interpretation. For example, the New York metro area has a relatively

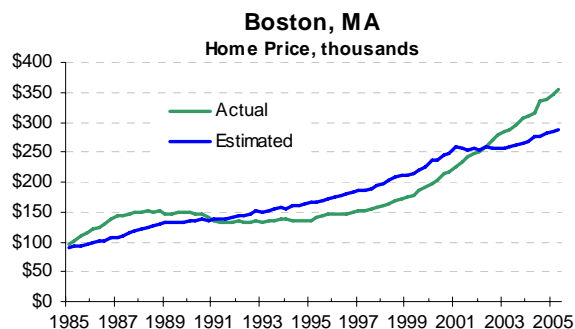
low constant of 0.09. However, because its household population density is the highest (by far) and its residences are largely multifamily properties (as opposed to single family properties, which are covered herein), its low constant term corrects for the overstatement of its relevant population.

On the whole, this statistical model works well. It explains 82 percent of the variation in home price-to-income ratios across places and over time. Additionally, all explanatory variables are very statistically significant.

Once the model has been estimated, we then use it to determine what prices "should" be, in the statistical sense. By comparing those estimated prices to actually observed prices, we then determine the extent to which markets have historically been under or overvalued.

The Findings³

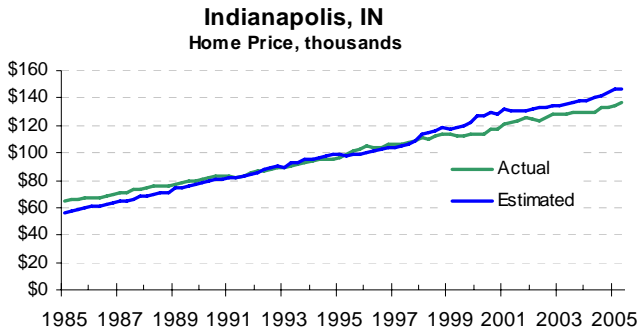
Results for the Boston area are shown as an example in the following chart. As of the second quarter of 2005, the observed median house price of \$355,000 compares to an estimated price of \$289,000, meaning that houses there were overvalued by 23 percent, comparable to the 1987 high. Note that over the 20-year period as a whole, house prices are fairly valued (i.e. average valuation = 0), as is the case for all metro areas.



Boston is not representative, however, as this area is known to experience greater-than-average house price volatility over time. Indianapolis presents the other extreme, where stability is more characteristic. This metro area's valuation has varied between a high of 14 percent overvalued

³ See Appendix II for a summary and Appendix III for 299 detailed metro area charts.

(1985) and 11 percent undervalued (2000). For practical purposes, we recommend treating valuation metrics between +/-15 percent as “fair value.”



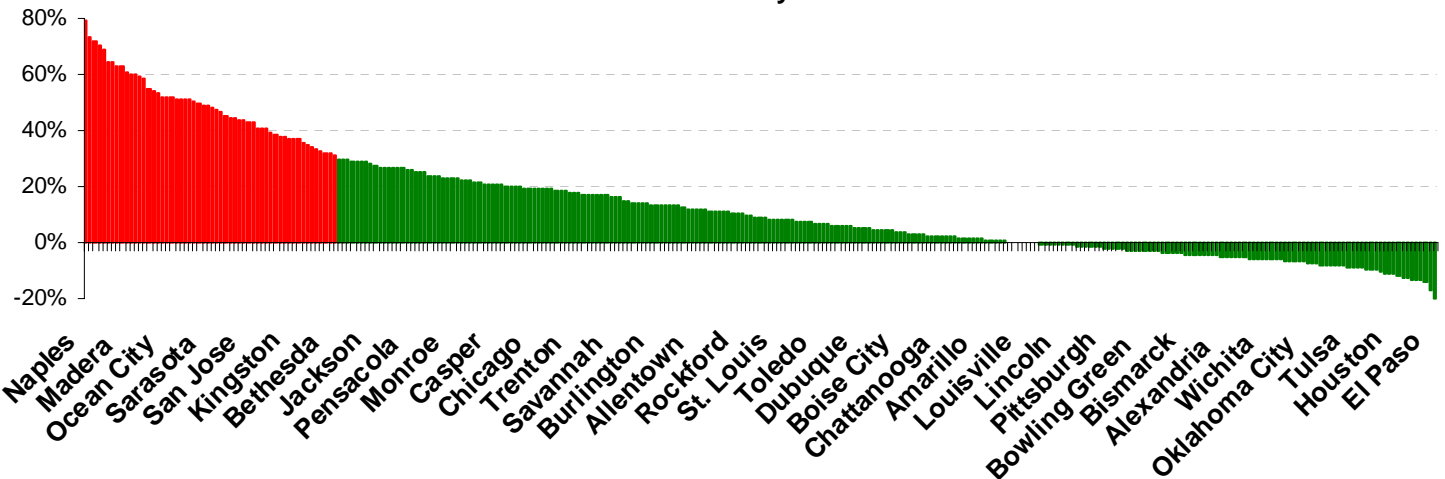
To summarize, the chart below shows valuation metrics for all 299 metro areas as of the first quarter of 2005. Metro areas are ranked from most overvalued (Naples, FL: +79 percent) to most undervalued (College Station, Texas: -20 percent), with only each tenth market labeled. The table that follows shows the actual and predicted housing prices of the 299 metropolitan areas. Again, the gravity of the overvaluation reveals itself in the recurring statistic: the 56 metro areas that are 30 percent

or more overvalued account for 32 percent of the U.S. housing market.

Markets with valuations of +30 percent or greater are indicated in red to signify that these areas are at an especially high risk of future price corrections. We chose the cutoff level of +30 percent based on a review of actually observed price corrections over the past 20-year history⁴. Specifically, we define price corrections as declines of 10 percent or more, lasting a period of two years or more. In all, 63 metro areas — 21 percent of the total — satisfy these criteria. The median degree of overvaluation demonstrated by these 63 areas is 30 percent, the typical price decline is 17 percent, and the typical adjustment period is 13 quarters.

High-risk markets continue to be disproportionately concentrated in California, Southern Florida (east and west coasts) and in parts of the Metropolitan Boston (e.g. Barnstable, Providence), Metropolitan New York (e.g. Nassau-Suffolk, NY and Ocean City, NJ), and Metropolitan Washington DC (e.g., Bethesda MD) areas.

Valuation Summary: 2005Q2



⁴ See Appendix IV.

Metro Housing Market Statistics for 2005Q2

	Actual Home Price	Model-Estimated Home Price	Over/Under Valued (%)	Rank
Abilene, TX	\$ 69,083	\$ 75,248	-8.19	277
Akron, OH	\$ 133,987	\$ 131,435	1.94	192
Albany, GA	\$ 86,864	\$ 91,494	-5.06	257
Albany, NY	\$ 174,061	\$ 155,818	11.71	138
Albuquerque, NM	\$ 155,338	\$ 158,623	-2.07	227
Alexandria, LA	\$ 80,297	\$ 84,466	-4.94	253
Allentown, PA-NJ	\$ 186,330	\$ 166,452	11.94	136
Amarillo, TX	\$ 87,245	\$ 86,279	1.12	199
Anchorage, AK	\$ 213,190	\$ 186,376	14.39	122
Anderson, IN	\$ 95,045	\$ 95,176	-0.14	210
Ann Arbor, MI	\$ 223,014	\$ 185,257	20.38	93
Appleton, WI	\$ 133,483	\$ 134,448	-0.72	216
Asheville, NC	\$ 142,980	\$ 116,160	23.09	80
Athens, GA	\$ 136,758	\$ 133,865	2.16	191
Atlanta, GA	\$ 173,155	\$ 166,539	3.97	180
Atlantic City, NJ	\$ 230,834	\$ 145,247	58.92	13
Augusta, GA-SC	\$ 104,255	\$ 108,281	-3.72	243
Austin, TX	\$ 147,123	\$ 154,917	-5.03	256
Bakersfield, CA	\$ 190,831	\$ 129,605	47.24	30
Baltimore, MD	\$ 244,863	\$ 197,602	23.92	78
Barnstable Town, MA	\$ 347,170	\$ 233,036	48.98	27
Baton Rouge, LA	\$ 106,916	\$ 109,883	-2.70	231
Battle Creek, MI	\$ 101,393	\$ 85,296	18.87	105
Bay City, MI	\$ 105,741	\$ 83,679	26.36	71
Beaumont, TX	\$ 71,958	\$ 80,953	-11.11	288
Bellingham, WA	\$ 252,921	\$ 179,487	40.91	41
Bend, OR	\$ 220,302	\$ 145,903	50.99	23
Bethesda, MD (Div)	\$ 395,710	\$ 300,422	31.72	55
Billings, MT	\$ 138,199	\$ 125,619	10.01	146
Binghamton, NY	\$ 96,094	\$ 99,786	-3.70	242
Birmingham, AL	\$ 117,377	\$ 121,770	-3.61	240
Bismarck, ND	\$ 113,289	\$ 118,167	-4.13	244
Bloomington, IL	\$ 117,963	\$ 117,224	0.63	203
Bloomington, IN	\$ 129,903	\$ 133,112	-2.41	229
Boise City, ID	\$ 150,013	\$ 144,769	3.62	181
Boston, MA (Div)	\$ 355,258	\$ 288,704	23.05	81
Boulder, CO	\$ 294,149	\$ 247,376	18.91	104
Bowling Green, KY	\$ 107,546	\$ 110,693	-2.84	235
Bremerton, WA	\$ 230,614	\$ 192,497	19.80	97
Bridgeport, CT	\$ 441,863	\$ 409,977	7.78	158
Brunswick, GA	\$ 116,174	\$ 98,090	18.44	106
Buffalo, NY	\$ 110,836	\$ 117,864	-5.96	263
Burlington, NC	\$ 112,713	\$ 110,913	1.62	195
Burlington, VT	\$ 201,176	\$ 177,273	13.48	127
Cambridge, MA (Div)	\$ 389,520	\$ 332,706	17.08	112
Camden, NJ (Div)	\$ 210,946	\$ 179,094	17.78	110
Canton, OH	\$ 119,588	\$ 110,653	8.08	153
Cape Coral, FL	\$ 199,957	\$ 138,718	44.15	34

Metro Housing Market Statistics for 2005Q2				
	Actual Home Price	Model- Estimated Home Price	Over/Under Valued (%)	Rank
Casper, WY	\$ 126,591	\$ 104,905	20.67	91
Cedar Rapids, IA	\$ 114,470	\$ 117,785	-2.81	234
Champaign, IL	\$ 115,349	\$ 110,168	4.70	176
Charleston WV	\$ 88,269	\$ 97,095	-9.09	283
Charleston-North Charleston SC	\$ 153,332	\$ 121,577	26.12	72
Charlotte, NC-SC	\$ 142,387	\$ 149,828	-4.97	255
Charlottesville, VA	\$ 226,058	\$ 175,104	29.10	60
Chattanooga, TN-GA	\$ 112,298	\$ 109,865	2.21	190
Cheyenne, WY	\$ 142,101	\$ 134,778	5.43	171
Chicago, IL (Div)	\$ 234,056	\$ 195,821	19.53	100
Chico, CA	\$ 248,223	\$ 156,863	58.24	14
Cincinnati, OH-KY-IN	\$ 139,513	\$ 141,845	-1.64	224
Cleveland, OH	\$ 145,386	\$ 139,389	4.30	178
College Station, TX	\$ 95,758	\$ 119,344	-19.76	299
Colorado Springs, CO	\$ 191,664	\$ 172,688	10.99	141
Columbia, MO	\$ 122,834	\$ 123,230	-0.32	211
Columbia, SC	\$ 113,101	\$ 112,226	0.78	201
Columbus, GA-AL	\$ 106,577	\$ 112,936	-5.63	260
Columbus, IN	\$ 115,944	\$ 120,330	-3.65	241
Columbus, OH	\$ 149,329	\$ 148,507	0.55	204
Corpus Christi, TX	\$ 88,740	\$ 94,872	-6.46	267
Corvallis, OR	\$ 216,363	\$ 185,594	16.58	117
Dallas, TX (Div)	\$ 128,253	\$ 147,479	-13.04	294
Dalton, GA	\$ 105,229	\$ 100,383	4.83	174
Davenport, IA-IL	\$ 102,594	\$ 97,080	5.68	170
Dayton, OH	\$ 121,422	\$ 124,543	-2.51	230
Decatur, AL	\$ 91,554	\$ 99,950	-8.40	279
Decatur, IL	\$ 83,640	\$ 81,763	2.30	189
Deltona, FL	\$ 158,307	\$ 115,725	36.80	48
Denver, CO	\$ 223,520	\$ 199,019	12.31	133
Des Moines, IA	\$ 127,134	\$ 130,861	-2.85	236
Detroit, MI (Div)	\$ 119,546	\$ 99,423	20.24	95
Dubuque, IA	\$ 114,706	\$ 109,249	5.00	172
Duluth, MN-WI	\$ 118,543	\$ 90,640	30.78	56
Durham, NC	\$ 161,125	\$ 155,917	3.34	182
Eau Claire, WI	\$ 121,236	\$ 103,735	16.87	116
Edison, NJ (Div)	\$ 322,421	\$ 244,727	31.75	54
El Paso, TX	\$ 84,802	\$ 102,083	-16.93	298
Elkhart, IN	\$ 112,930	\$ 125,604	-10.09	287
Erie, PA	\$ 100,942	\$ 99,060	1.90	193
Essex County, MA (Div)	\$ 343,063	\$ 263,955	29.97	57
Eugene, OR	\$ 190,656	\$ 143,412	32.94	53
Evansville, IN-KY	\$ 97,972	\$ 102,507	-4.42	248
Fargo, ND-MN	\$ 126,618	\$ 126,599	0.02	209
Farmington, NM	\$ 112,388	\$ 99,488	12.97	132
Fayetteville, AR-MO	\$ 122,916	\$ 114,075	7.75	159

Metro Housing Market Statistics for 2005Q2				
	Actual Home Price	Model- Estimated Home Price	Over/Under Valued (%)	Rank
Flagstaff, AZ	\$ 205,649	\$ 168,508	22.04	84
Flint, MI	\$ 112,228	\$ 89,769	25.02	76
Florence, SC	\$ 83,420	\$ 84,620	-1.42	220
Fond du Lac, WI	\$ 127,560	\$ 122,050	4.51	177
Fort Collins, CO	\$ 219,524	\$ 195,698	12.17	134
Fort Lauderdale, FL (Div)	\$ 221,651	\$ 149,304	48.46	29
Fort Smith, AR-OK	\$ 78,074	\$ 85,013	-8.16	276
Fort Walton Beach, FL	\$ 184,229	\$ 137,228	34.25	51
Fort Wayne, IN	\$ 102,295	\$ 110,600	-7.51	272
Fort Worth, TX (Div)	\$ 105,870	\$ 120,778	-12.34	292
Fresno, CA	\$ 228,724	\$ 148,161	54.37	16
Gainesville, FL	\$ 141,165	\$ 117,366	20.28	94
Gainesville, GA	\$ 142,879	\$ 133,199	7.27	161
Gary, IN	\$ 127,717	\$ 120,169	6.28	166
Grand Junction, CO	\$ 161,731	\$ 124,897	29.49	58
Grand Rapids, MI	\$ 134,860	\$ 118,146	14.15	123
Greeley, CO	\$ 176,023	\$ 145,479	21.00	89
Green Bay, WI	\$ 141,423	\$ 132,465	6.76	164
Greensboro, NC	\$ 118,427	\$ 121,747	-2.73	233
Greenville, NC	\$ 95,961	\$ 98,886	-2.96	237
Greenville, SC	\$ 114,600	\$ 112,722	1.67	194
Harrisburg, PA	\$ 140,164	\$ 140,777	-0.44	212
Harrisonburg, VA	\$ 156,801	\$ 140,362	11.71	137
Hartford, CT	\$ 225,205	\$ 214,891	4.80	175
Hattiesburg, MS	\$ 84,667	\$ 89,041	-4.91	252
Hickory, NC	\$ 102,191	\$ 95,907	6.55	165
Holland, MI	\$ 159,063	\$ 132,683	19.88	96
Honolulu, HI	\$ 503,086	\$ 391,320	28.56	63
Houma, LA	\$ 94,706	\$ 95,745	-1.09	219
Houston, TX	\$ 107,401	\$ 120,941	-11.20	289
Huntsville, AL	\$ 114,399	\$ 133,403	-14.25	297
Idaho Falls, ID	\$ 118,508	\$ 119,110	-0.51	213
Indianapolis, IN	\$ 136,886	\$ 146,653	-6.66	269
Iowa City, IA	\$ 145,890	\$ 155,888	-6.41	266
Jackson, MI	\$ 125,033	\$ 97,845	27.79	64
Jackson, MS	\$ 98,897	\$ 108,748	-9.06	282
Jacksonville, FL	\$ 158,423	\$ 124,376	27.37	65
Janesville, WI	\$ 124,445	\$ 113,528	9.62	147
Jefferson City, MO	\$ 108,257	\$ 114,629	-5.56	258
Kalamazoo, MI	\$ 127,058	\$ 114,580	10.89	142
Kansas City, MO-KS	\$ 135,123	\$ 129,592	4.27	179
Kennewick, WA	\$ 141,563	\$ 137,115	3.24	183
Killeen, TX	\$ 92,250	\$ 106,642	-13.50	296
Kingston, NY	\$ 205,416	\$ 150,123	36.83	46
Knoxville, TN	\$ 121,150	\$ 121,881	-0.60	215

Metro Housing Market Statistics for 2005Q2

	Actual Home Price	Model- Estimated Home Price	Over/Under Valued (%)	Rank
Kokomo, IN	\$ 99,774	\$ 103,170	-3.29	238
La Crosse, WI-MN	\$ 124,379	\$ 111,793	11.26	139
Lafayette, IN	\$ 115,357	\$ 130,263	-11.44	290
Lafayette, LA	\$ 108,765	\$ 107,870	0.83	200
Lake-Kenosha, IL-WI (Div)	\$ 248,819	\$ 219,701	13.25	130
Lakeland, FL	\$ 109,054	\$ 96,124	13.45	128
Lancaster, PA	\$ 164,503	\$ 152,490	7.88	156
Lansing, MI	\$ 136,915	\$ 114,628	19.44	101
Las Cruces, NM	\$ 104,553	\$ 105,134	-0.55	214
Las Vegas, NV	\$ 258,859	\$ 186,053	39.13	42
Lawrence, KS	\$ 155,467	\$ 150,633	3.21	184
Lexington, KY	\$ 134,173	\$ 133,212	0.72	202
Lima, OH	\$ 101,345	\$ 103,679	-2.25	228
Lincoln, NE	\$ 127,771	\$ 128,909	-0.88	217
Little Rock, AR	\$ 102,365	\$ 111,002	-7.78	274
Longview, TX	\$ 80,875	\$ 89,803	-9.94	286
Longview, WA	\$ 158,431	\$ 134,186	18.07	108
Los Angeles, CA (Div)	\$ 432,559	\$ 284,303	52.15	18
Louisville, KY-IN	\$ 125,610	\$ 125,586	0.02	208
Lubbock, TX	\$ 81,351	\$ 85,601	-4.97	254
Lynchburg, VA	\$ 126,657	\$ 115,976	9.21	149
Macon, GA	\$ 97,091	\$ 107,235	-9.46	284
Madera, CA	\$ 256,417	\$ 159,875	60.39	10
Madison, WI	\$ 195,717	\$ 170,851	14.55	121
Manchester, NH	\$ 233,138	\$ 191,853	21.52	87
Mansfield, OH	\$ 106,770	\$ 104,287	2.38	188
Medford, OR	\$ 246,245	\$ 149,438	64.78	6
Memphis, TN-MS-AR	\$ 105,520	\$ 120,831	-12.67	293
Merced, CA	\$ 256,348	\$ 149,290	71.71	3
Miami, FL (Div)	\$ 235,291	\$ 155,437	51.37	21
Michigan City, IN	\$ 114,210	\$ 104,925	8.85	150
Midland, TX	\$ 86,355	\$ 94,130	-8.26	278
Milwaukee, WI	\$ 184,308	\$ 161,822	13.90	124
Minneapolis, MN-WI	\$ 217,911	\$ 173,908	25.30	74
Mobile, AL	\$ 93,394	\$ 97,977	-4.68	251
Modesto, CA	\$ 287,030	\$ 176,338	62.77	9
Monroe, LA	\$ 88,224	\$ 92,239	-4.35	246
Monroe, MI	\$ 157,454	\$ 128,174	22.84	82
Montgomery, AL	\$ 101,473	\$ 116,902	-13.20	295
Mount Vernon, WA	\$ 229,928	\$ 189,643	21.24	88
Muskegon, MI	\$ 105,860	\$ 90,555	16.90	115
Napa, CA	\$ 489,875	\$ 305,644	60.28	11
Naples, FL	\$ 319,572	\$ 178,180	79.35	1
Nashville, TN	\$ 152,199	\$ 156,432	-2.71	232
Nassau-Suffolk, NY (Div)	\$ 405,959	\$ 281,953	43.98	35

Metro Housing Market Statistics for 2005Q2

	Actual Home Price	Model-Estimated Home Price	Over/Under Valued (%)	Rank
New Haven, CT	\$ 244,338	\$ 220,346	10.89	143
New Orleans, LA	\$ 133,495	\$ 129,745	2.89	186
New York, NY-NJ (Div)	\$ 426,350	\$ 336,153	26.83	67
Newark, NJ-PA (Div)	\$ 355,631	\$ 281,222	26.46	69
Niles, MI	\$ 123,905	\$ 102,895	20.42	92
Norwich, CT	\$ 237,689	\$ 203,151	17.00	113
Oakland, CA (Div)	\$ 515,808	\$ 351,327	46.82	31
Ocala, FL	\$ 117,495	\$ 91,318	28.67	62
Ocean City, NJ	\$ 288,339	\$ 189,611	52.07	19
Odessa, TX	\$ 52,987	\$ 60,006	-11.70	291
Ogden, UT	\$ 160,647	\$ 162,144	-0.92	218
Oklahoma City, OK	\$ 98,206	\$ 105,942	-7.30	271
Olympia, WA	\$ 207,522	\$ 168,969	22.82	83
Omaha, NE-IA	\$ 121,886	\$ 121,857	0.02	207
Orlando, FL	\$ 172,341	\$ 137,669	25.19	75
Oshkosh, WI	\$ 121,896	\$ 123,695	-1.45	222
Owensboro, KY	\$ 86,662	\$ 93,748	-7.56	273
Oxnard, CA	\$ 498,343	\$ 325,299	53.20	17
Palm Bay, FL	\$ 183,971	\$ 128,645	43.01	38
Panama City, FL	\$ 154,195	\$ 109,304	41.07	39
Pensacola, FL	\$ 139,728	\$ 111,038	25.84	73
Peoria, IL	\$ 108,448	\$ 99,727	8.74	151
Philadelphia, PA (Div)	\$ 206,118	\$ 182,038	13.23	131
Phoenix, AZ	\$ 199,347	\$ 157,208	26.80	68
Pittsburgh, PA	\$ 109,456	\$ 111,638	-1.95	226
Pittsfield, MA	\$ 186,406	\$ 164,234	13.50	126
Port St. Lucie, FL	\$ 210,727	\$ 128,361	64.17	7
Portland, ME	\$ 211,278	\$ 170,548	23.88	79
Portland, OR-WA	\$ 237,843	\$ 178,017	33.61	52
Poughkeepsie, NY	\$ 272,504	\$ 197,534	37.95	44
Prescott, AZ	\$ 195,250	\$ 138,530	40.94	40
Providence, RI-MA	\$ 268,610	\$ 196,340	36.81	47
Provo, UT	\$ 177,864	\$ 177,802	0.03	206
Pueblo, CO	\$ 119,681	\$ 111,565	7.27	160
Racine, WI	\$ 154,429	\$ 131,678	17.28	111
Raleigh, NC	\$ 167,171	\$ 169,895	-1.60	223
Reading, PA	\$ 151,709	\$ 140,742	7.79	157
Redding, CA	\$ 238,626	\$ 157,968	51.06	22
Reno, NV	\$ 295,581	\$ 214,515	37.79	45
Richmond, VA	\$ 168,470	\$ 146,966	14.63	120
Riverside, CA	\$ 291,170	\$ 178,715	62.92	8
Roanoke, VA	\$ 137,446	\$ 125,454	9.56	148
Rochester, MN	\$ 144,420	\$ 144,223	0.14	205
Rochester, NY	\$ 114,636	\$ 127,213	-9.89	285
Rockford, IL	\$ 119,243	\$ 108,075	10.33	145

Metro Housing Market Statistics for 2005Q2				
	Actual Home Price	Model- Estimated Home Price	Over/Under Valued (%)	Rank
Rockingham County-Strafford County, NH	\$ 246,728	\$ 206,822	19.30	102
Rocky Mount, NC	\$ 89,731	\$ 95,535	-6.08	264
Sacramento, CA	\$ 352,071	\$ 219,668	60.27	12
Saginaw, MI	\$ 102,962	\$ 90,437	13.85	125
Salem, OR	\$ 168,795	\$ 136,171	23.96	77
Salinas, CA	\$ 539,273	\$ 316,314	70.49	4
Salt Lake City, UT	\$ 192,474	\$ 187,649	2.57	187
San Angelo, TX	\$ 78,245	\$ 82,914	-5.63	261
San Antonio, TX	\$ 95,948	\$ 105,504	-9.06	281
San Diego, CA	\$ 461,769	\$ 308,496	49.68	26
San Francisco, CA (Div)	\$ 726,554	\$ 535,249	35.74	49
San Jose, CA	\$ 638,598	\$ 445,827	43.24	37
San Luis Obispo, CA	\$ 455,302	\$ 299,424	52.06	20
Sandusky, OH	\$ 133,210	\$ 129,324	3.00	185
Santa Ana, CA (Div)	\$ 536,835	\$ 372,109	44.27	33
Santa Barbara, CA	\$ 600,999	\$ 346,015	73.69	2
Santa Cruz, CA	\$ 595,483	\$ 415,361	43.37	36
Santa Fe, NM	\$ 249,813	\$ 208,947	19.56	99
Santa Rosa, CA	\$ 492,390	\$ 318,224	54.73	15
Sarasota, FL	\$ 211,596	\$ 142,217	48.78	28
Savannah, GA	\$ 133,037	\$ 114,166	16.53	118
Scranton, PA	\$ 114,975	\$ 113,518	1.28	197
Seattle, WA (Div)	\$ 311,512	\$ 255,518	21.91	86
Sheboygan, WI	\$ 135,732	\$ 126,811	7.03	162
Sherman, TX	\$ 84,739	\$ 83,717	1.22	198
Shreveport, LA	\$ 93,714	\$ 99,796	-6.09	265
Sioux Falls, SD	\$ 119,864	\$ 125,375	-4.40	247
South Bend, IN-MI	\$ 106,079	\$ 112,328	-5.56	259
Spartanburg, SC	\$ 98,223	\$ 100,017	-1.79	225
Spokane, WA	\$ 154,764	\$ 139,184	11.19	140
Springfield, IL	\$ 102,907	\$ 110,203	-6.62	268
Springfield, MA	\$ 200,739	\$ 168,305	19.27	103
Springfield, MO	\$ 109,047	\$ 116,902	-6.72	270
Springfield, OH	\$ 109,591	\$ 103,227	6.17	167
St. George, UT	\$ 193,540	\$ 153,132	26.39	70
St. Joseph, MO-KS	\$ 93,494	\$ 89,171	4.85	173
St. Louis, MO-IL	\$ 136,179	\$ 126,062	8.03	154
Stockton, CA	\$ 307,849	\$ 182,521	68.66	5
Syracuse, NY	\$ 110,647	\$ 115,480	-4.19	245
Tacoma, WA (Div)	\$ 221,639	\$ 181,748	21.95	85
Tallahassee, FL	\$ 140,667	\$ 118,959	18.25	107
Tampa, FL	\$ 151,430	\$ 117,559	28.81	61
Toledo, OH	\$ 118,932	\$ 111,372	6.79	163
Topeka, KS	\$ 102,872	\$ 97,148	5.89	168
Trenton, NJ	\$ 254,819	\$ 216,009	17.97	109

Metro Housing Market Statistics for 2005Q2				
	Actual Home Price	Model- Estimated Home Price	Over/Under Valued (%)	Rank
Tucson, AZ	\$ 165,414	\$ 136,763	20.95	90
Tulsa, OK	\$ 97,067	\$ 106,244	-8.64	280
Tyler, TX	\$ 97,490	\$ 105,893	-7.94	275
Utica, NY	\$ 95,879	\$ 99,272	-3.42	239
Vallejo, CA	\$ 369,752	\$ 245,013	50.91	24
Vero Beach, FL	\$ 181,929	\$ 125,549	44.91	32
Vineland, NJ	\$ 143,206	\$ 122,485	16.92	114
Virginia Beach, VA-NC	\$ 195,420	\$ 153,830	27.04	66
Visalia, CA	\$ 184,200	\$ 132,995	38.50	43
Waco, TX	\$ 83,704	\$ 87,615	-4.46	249
Warner Robins, GA	\$ 103,938	\$ 108,809	-4.48	250
Warren, MI (Div)	\$ 193,319	\$ 166,156	16.35	119
Washington, DC-VA-MD-WV (Div)	\$ 357,019	\$ 264,192	35.14	50
Waterloo, IA	\$ 103,440	\$ 95,378	8.45	152
Wausau, WI	\$ 125,819	\$ 123,854	1.59	196
Wenatchee, WA	\$ 179,986	\$ 163,027	10.40	144
West Palm Beach, FL (Div)	\$ 245,477	\$ 162,923	50.67	25
Wichita, KS	\$ 96,085	\$ 101,885	-5.69	262
Wilmington, DE-MD-NJ (Div)	\$ 210,687	\$ 185,858	13.36	129
Wilmington, NC	\$ 154,131	\$ 128,850	19.62	98
Winston-Salem, NC	\$ 121,859	\$ 123,652	-1.45	221
Worcester, MA	\$ 245,914	\$ 190,169	29.31	59
Yakima, WA	\$ 131,315	\$ 121,709	7.89	155
York, PA	\$ 150,468	\$ 134,142	12.17	135
Youngstown, OH-PA	\$ 99,005	\$ 93,568	5.81	169

