

# AZB ARIZONA BUSINESS

ARIZONA STATE UNIVERSITY'S MONTHLY NEWSLETTER ON THE ARIZONA ECONOMY

## Home sales, appreciation rates were robust in 2002

The single-family housing market, throughout the country, has been the brightest light of an economy struggling to recover from the recession and traumatic events of 2001. It was no different in Arizona, where it accounted for 64 percent (\$8.0 billion) of the recorded total dollar value (\$12.5 billion) of new development throughout the state in 2002.

In Maricopa County, the resale and new home sectors set records, and the annual median rate of appreciation was at its highest level since the tracking of appreciation rates began in 1981. Given that the Greater Phoenix area is growing amid a fairly positive home buying environment of low interest rates and a wide selection of housing, record years should be expected. The growth comes not only from people moving to the area, but from new households being formed, rental households seeking homeownership and people seeking investment opportunities. Thus, the basic housing market has been relatively stable, but the underpinning stimulate of growth has driven it to new levels of activity.

In 2002, Maricopa County accounted for 69 percent (\$8.7 billion) of the total Arizona recorded dollar value of \$12.5 billion, and Pima County registered 12 percent (\$1.5 billion) of that total. As an extension of rapidly developing Maricopa County, construction activity in Pinal County accelerated from \$113 million in 1995 to \$613 million. Other active counties included Yavapai (\$499 million), Mohave (\$380 million) and Coconino (\$255 million). These four counties represented 14 percent (versus 11 percent in 2001) of the state's new development and 75 percent of recorded activity outside Maricopa and Pima counties. Even with some improvement in many areas of the state, over 71 percent of the construction activity permitted during 2002 occurred in the 12 areas reported in Table 1.

### RESIDENTIAL CONSTRUCTION

The single-family sector was the principal construction activity in many areas, including Marana (85 percent), unincorporated Pinal County (85 percent) and Avondale (82 percent). The single-family sector in Maricopa County improved from 33,428 permits in 2001 to 35,360 permits, but was off the record set in 1998 (35,574). Although the number of homes permitted did not set a record, the dollar value did — at \$5.5 billion, compared to \$4.8 billion in 2001 and \$4.6

billion in 1998. In 1998, the average permit value was \$129,260 while it was \$155,115 in 2002.

In Maricopa County for 2002 the leading areas of development were Phoenix (7,090 homes), unincorporated Maricopa County (5,158 homes), Gilbert (3,379 homes) and Chandler (3,276 homes). In 1997, the West Valley communities accounted for only 13 percent of permitted homes, while it now stands at 25 percent with Surprise recording 2,985 permits; El Mirage, 2,094; Goodyear, 1,839; and Avondale, 2,044.

New home development in Pima County, with 6,841 permits, surpassed the record of 6,501 set in 2001. Tucson led with 2,407 permits, closely followed by unincorporated Pima County at 2,346. Marana improved from 787 to 962 permits, while Sahuarita increased from 187 to 690. In the remainder of the state, unincorporated Pinal County increased from 1,946 to 3,361 permits and Lake Havasu City moved from 1,133 to 1,385. Other strong markets were unincorporated Yavapai County with 950 permits; Casa Grande, 595; Prescott, 635; Yuma, 527; Flagstaff, 460; unincorporated Coconino County, 375; and Sierra Vista, 345.

### HOME SALES

Even within an unfavorable economic environment, the housing market in the Greater Phoenix area edged to a new record of 106,535 homes, compared to the previous record of 103,130 homes set in 2001 [see Table 2]. Home buyers were motivated by the desire to improve the quality of their housing, and also to capture the investment potential of their home or rental properties. Declining interest rates have greatly facilitated the driven home buyer. In early November 2002, the Federal Reserve Board lowered interest

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## Annual Real Estate Report

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rates for the first time since December 2001. However, during the year, funds flowed from the uncertain equity market to the bond market, driving down interest rates throughout the year. The average 30-year mortgage rate has declined from 6.7 percent in first part of 2002 to end the year at 5.7

percent, bringing the annual average from 6.7 percent in 2001 to 6.2 percent.

The 2002 resale home market started slowly, with the first half of the year recording 29,980 sales, behind 2001 (30,830 sales). Activity picked up, bringing 2002 to a new record of 62,625 sales [see Table 2]. The new home market also set a record at 29,125 sales, surpassing the 28,235 sales set in 2000. For the new home market, sales activity tends to build through the year and did so from 6,015 sales in the first quarter to 8,645 sales in the fourth quarter.

For most of the last 10 years, the single-family market has greatly benefited from falling interest rates even though home prices have accelerated. Since 1992 [see Table 4], the monthly payment necessary to purchase a median priced home has increased 40 percent from \$645 to \$905, while the median home price increased 75 percent from \$83,000 to \$144,900.

Home prices have been driven by a wide range of forces including increased demand, increased costs for land and materials, and the desire for larger homes with more amenities. The housing market has been following a fairly typical pattern with an increasing importance of move-up buyers satisfying their respective desire for larger and more expensive homes.

Thirty-two percent of all new homes sold for more than \$200,000 in 2002, compared to 21 percent in 1998 and 15 percent in 1996. In the 2002 resale home market, 27 percent of the sales were for more than \$200,000, versus 15 percent in 1998 and 10 percent in 1996.

#### AFFORDABILITY

Even with higher home prices and only moderately greater incomes, lower mortgage rates allowed the resale affordability index to remain at 124, which is well below the record of 139 set in 1993 [see Table 4]. Because new home prices did not increase as much as resale home prices, the 2002 new home affordability index strongly improved from 108 in 2001 to 113 in 2002.

Historically, local median prices have been below national levels. However, the difference has narrowed to the point where the relationship of the local resale value (\$144,900) to the national value (\$158,300) stands at 92 percent and the local new home market (\$159,990) is 86 percent of the national median price (\$185,200).

Just as changes in the median sales price can affect the affordability index, changes in any of the other assumptions used to compute the index also will impact its value [see Table 3]. A key assumption is that a household

TABLE 1

#### REPORTING UNITS WITH GREATEST TOTAL VALUE OF BUILDING PERMITS 2001 and 2002 (In Millions)

Reporting Unit	2001	2002
Phoenix.....	\$3,034	\$2,236
Chandler.....	1,064	946
Scottsdale.....	820	580
Mesa.....	814	739
Gilbert.....	787	712
Unincorporated		
Maricopa County.....	586	916
Tucson.....	561	546
Unincorporated		
Pima County.....	497	602
Surprise.....	375	422
Goodyear.....	306	376
Avondale.....	282	351
Unincorporated		
Pinal County.....	255	427

Source: Arizona Real Estate Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.

TABLE 2

#### GREATER PHOENIX AREA HOME SALES

Median Sales Price	Single-family			Townhouse/Condominium			Grand Total
	Resale	New	Total	Resale	New	Total	
1992.....	\$83,000	\$108,800	\$90,175	\$60,050	\$78,200	\$61,500	\$86,500
1993.....	84,000	112,500	92,700	61,400	79,180	63,500	88,100
1994.....	87,225	124,475	100,000	65,000	89,900	67,000	94,000
1995.....	90,500	127,600	105,100	67,000	100,250	70,000	99,600
1996.....	97,000	130,750	111,400	69,875	110,850	72,900	106,675
1997.....	105,000	136,130	116,230	72,500	116,500	76,000	111,220
1998.....	113,585	139,070	122,000	77,500	119,400	82,500	117,000
1999.....	120,000	146,710	129,900	81,900	136,070	86,000	124,900
2000.....	128,900	150,770	136,820	86,000	152,350	90,000	131,000
2001.....	136,000	156,560	142,680	90,500	163,710	95,000	137,500
2002.....	144,900	159,990	149,900	95,500	162,660	100,000	144,500
Number of Sales							
1992.....	26,570	11,200	37,770	6,480	340	6,820	44,590
1993.....	36,480	14,100	50,580	8,650	930	9,580	60,160
1994.....	39,320	17,000	56,320	10,300	1,300	11,600	67,920
1995.....	37,700	18,170	55,870	9,960	1,120	11,080	66,950
1996.....	43,775	25,100	68,875	10,925	1,225	12,150	81,025
1997.....	45,620	23,870	69,490	11,175	1,445	12,620	82,110
1998.....	53,075	27,600	80,675	11,750	1,725	13,475	94,150
1999.....	56,365	28,120	84,485	12,480	1,760	14,240	98,725
2000.....	55,370	28,235	83,605	12,370	1,645	14,015	97,620
2001.....	61,155	28,005	89,160	12,670	1,300	13,970	103,130
2002.....	62,625	29,125	91,750	13,300	1,485	14,785	106,535

Source: Arizona Real Estate Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.

earns the median income. For example, a household earning \$25,000 annually in 2002 could afford a home priced at \$92,500 versus \$88,500 in 2001 [see Table 5]. To afford the median-priced resale home in 2002, a household would have to earn \$39,000, compared to \$38,400 for 2001.

Home prices and household incomes, both of which affect affordability, vary throughout the Valley. Even though the city of Scottsdale has the highest median household income in the metropolitan area, it is not enough to support the higher median sales prices, so its affordability indexes of 79 for the resale market and 52 for the new home market are well below the metropolitan index values [see Table 11, page 9]. To afford the median resale home price of \$287,500 in Scottsdale, a household would have to earn at least \$6,450 per month or \$77,400 per year. In comparison, to afford the median resale home price of \$119,500 in Phoenix would require a \$2,675 monthly income or \$32,100 per year.

Although the typical term for a mortgage is 30 years, shorter terms are becoming more common, especially for refinancing homes. If the term is reduced to 15 years, the 2002 resale index falls to 90. If the effective interest rate were to rise to 10.5 percent as it did in 1990, the 2002 index value would only be 85. Under current conditions, the effective interest rate could rise to 8.6 percent and the resale index would be 100.

Many households, especially those acquiring a home for the first time, may have difficulty saving enough for the down payment. If the down payment is reduced

from 15 to 10 percent, the larger debt and subsequent higher monthly payment would place a greater strain on the household income, and the 2002 resale index would drop to 117. However, current homeowners may be able to use the appreciated equity in their home to make a 25 percent down payment for their next home — then the resale affordability index would be 141.

### HOUSING APPRECIATION

After the lethargic rates of appreciation in the early 1990s, the annual median rate of appreciation for single-family homes has steadily improved from 0.6 percent in 1993

to 3.5 percent in 1998 and 6.0 percent in 2002. After many years of depreciation, the townhouse/condominium sector (hereafter referred to as townhouses) experienced another year of appreciation with the median annual rate improving from 2.0 percent in 1996 to 4.4 percent.

The housing appreciation measures cited in this article relate to homes sold more than once between 1981 and 2002 in Greater Phoenix. A total of 193,490 transactions (16,050 sales for 2002) constitute the single-family database, and 20,600 (2,210 sales for 2002) make up the townhouse database. Sales that did not meet the selection criteria were

**TABLE 3  
HOUSING AFFORDABILITY:  
DEFINITION OF TERMS**

**Affordability index:** Defined in terms of the median-income household. An index of 100 indicates that a median-income household is able to qualify for a median-priced home under the assumptions provided in this table. An index of 90, for example, suggests that such a household earns only 90 percent of the needed income.

**Income:** Median gross household income is estimated from median effective buying income (similar to disposable income), published in *Sales and Marketing Management*.

**Income qualification factor:** Federal National Mortgage Association (FNMA) guidelines state that "monthly housing expenses should not represent more than 25 to 28 percent of gross monthly income." The upper limit is used.

**Interest rate:** The effective interest rate on 30-year, fixed-rate, conventional mortgage loans for single-family homes includes the contract interest rate plus fees and charges, or "points," amortized over a 10-year period.

**Loan amount:** A down payment of 15 percent is assumed.

**Median sales price:** Single-family homes only. Metropolitan Phoenix data from real estate recordings in Maricopa County. National resale home data from National Association of Realtors; national new home data from U.S. Bureau of the Census.

**Monthly housing payment:** As defined by FNMA, housing expenses comprise principal, interest, taxes and insurance. Data on taxes and insurance are not available; they are estimated at 15 percent of total housing expenses, using information supplied by the National Association of Home Builders.

**TABLE 4  
HOUSING AFFORDABILITY INDEXES  
Greater Phoenix Area, Single-Family Only**

Year	Resale Homes			New Homes				
	Median Gross Monthly Income	Effective Interest Rate	Median Sales Price	Monthly Housing Payment	Affordability Index	Median Sales Price	Monthly Housing Payment	Affordability Index
1992	\$2,850	8.6%	\$83,000	\$640	124	\$108,800	\$856	94
1993	2,890	7.4	84,000	580	139	112,500	780	104
1994	2,985	8.5	87,225	670	125	124,475	955	87
1995	3,150	8.1	90,500	670	132	127,600	945	93
1996	3,280	7.9	97,000	705	130	130,750	950	97
1997	3,425	7.5	105,000	735	131	136,130	950	101
1998	3,595	6.9	113,585	750	135	139,070	915	110
1999	3,780	7.2	120,000	815	130	146,710	995	106
2000	3,900	7.9	128,900	935	117	150,770	1,095	100
2001	3,965	6.9	136,000	890	124	156,560	1,030	108
2002	4,025	6.4	144,900	905	124	159,990	1,000	113

Source: Arizona Real Estate Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.

discarded from the database to eliminate questionable transactions, such as inaccurate filings, recordings of previous sales and non-market transactions.

Housing appreciation always has been an expected benefit of ownership. Homeowners often use the increasing value of their homes as a basis for retirement or to provide for their children's college education. Even now, the home equity credit line has become an increasingly important financial tool for consumers to satisfy other needs, such as vacations or home improvements. Further, strongly appreciating home prices have allowed homeowners to use their increased

equity to move up in the market to further satisfy their housing dreams. On the other side, appreciating home prices make it increasingly difficult for households, especially young and minority households, to enter the market and become homeowners.

Historically, appreciation in the local housing market has barely been able to keep up with the rate of inflation. However, for the last few years, the median rate of appreciation (6.0 percent) has greatly exceeded the rate of inflation (1.6 percent). Although the number of listings has increased over the last few years from less than 14,000 to over 26,000 listings, demand has remained fairly strong,

especially in the move-up market, so price pressures remain in the market. In Table 6, the recent history of appreciation rates is compared to inflation and percent changes in the median sales prices.

More than 94 percent of the single-family homes sold during 2002 brought more than their acquisition prices. In 1996, slightly more than 90 percent of the reported transactions recorded price increases, while it was 97 percent in 2001. Over 50 percent of the homes that sold for a loss during 2002 depreciated less than 2 percent. Nearly 25 percent of the homes that sold at a gain appreciated in the 4 to 5.99 percent range. Over 52 percent of the home transactions reported gains of 6 percent or greater. The increase in appreciation is due primarily to a strong housing market. A related reason is that some of the homes sold in 2002 were purchased during the weak housing market or through foreclosure at very attractive prices, which produced impressive gains when resold during the strong market of the last few years.

The townhouse sector continued to improve with 91 percent selling at a gain, versus 82 percent in 1997. Most of the depreciation (40 percent of those reporting losses) was less than 2 percent per year, while most of the appreciation was under 4 percent. Nearly 29 percent of the townhouses sold showed appreciation of 7 percent or more, while only 2.3 percent posted decreases of 5 percent or

**TABLE 5**  
**AFFORDABLE HOME PRICE AND MONTHLY PAYMENT**  
**By Level of Income**  
**(Greater Phoenix Area; Effective Interest Rate of 6.4 Percent)**

<i>Gross Monthly / Annual Income</i>	<i>Sales Price</i>	<i>Monthly Housing Payment</i>	<i>Affordability Index</i>
\$1,675 / \$20,000 .....	\$75,000	\$470	100
\$2,075 / \$25,000 .....	92,500	580	100
\$2,500 / \$30,000 .....	112,000	700	100
\$2,925 / \$35,000 .....	130,750	820	100
\$3,325 / \$40,000 .....	148,250	930	100
\$3,750 / \$45,000 .....	167,250	1,045	100
\$4,175 / \$50,000 .....	187,750	1,175	100
\$6,250 / \$75,000 .....	278,750	1,745	100
\$8,325 / \$100,000 .....	371,250	2,320	100

Source: Arizona Real Estate Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.

**TABLE 6**  
**INFLATION AND APPRECIATION MEASURES**

	1997	1998	1999	2000	2001	2002	1997-02 Total
U.S. Consumer Price Index.....	2.3	1.6	2.2	3.4	2.8	1.6	14.7
All Phoenix area single-family homes:							
Appreciation rate* .....	2.9	3.5	4.1	4.8	5.4	6.0	29.8
Median sales price .....	4.3	5.0	6.5	5.3	4.3	5.1	34.6
New Phoenix area single-family homes: .....							
Appreciation rate .....	2.9	3.4	3.8	4.2	4.8	5.6	27.4
Median sales price .....	4.1	2.2	5.5	2.8	3.8	2.3	22.5
Existing Phoenix area single-family homes:							
Appreciation rate .....	2.9	3.5	4.3	5.0	5.6	6.0	30.6
Median sales price .....	8.2	8.2	5.6	7.4	5.5	6.5	49.2
Median sales price per square foot.....	5.9	6.9	6.8	7.2	5.7	5.4	44.4
All Phoenix area townhouses and condominiums:							
Appreciation rate .....	2.3	2.8	3.1	3.5	4.0	4.4	21.8
Median sales price .....	4.3	8.6	4.2	4.7	5.6	5.1	37.2
Existing Phoenix area townhouses and condominiums:							
Appreciation rate .....	2.4	2.9	3.2	3.6	4.0	4.4	22.3
Median sales price .....	3.8	6.9	5.7	5.0	5.2	5.5	36.7
Median sales price per square foot.....	5.5	5.6	5.7	6.6	4.6	5.4	38.4

\* Calculated at a compounding rate. Appreciation rates in this table may be slightly higher than those in the rest of the report due to the different method of compounding or rounding of appreciation rates.

Source: Arizona Real Estate Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University. U.S. Consumer Price Index is from the U.S. Department of Labor, Bureau of Labor Statistics.

greater. After years of poor market activity, the townhouse sector continues to recover and is playing a stronger role in the local housing market, especially for entry-level households, seasonal visitors, retirees and investors.

Among single-family homes sold in 2002 the highest rate of appreciation occurred in homes that had last sold since 1994. Again, a primary reason was the weak market of the early 1990s that allowed for the appreciable gains upon resale. For example, homes purchased in 1994 and sold in 2000 had a median annual rate of appreciation of 8.7 percent. However, homes purchased in the “hot” market of 1986 had a median annual rate of appreciation of 2.5 percent, because home buyers in the mid-1980s paid premiums for housing and expected continued rapid increases in home values. Unfortunately, the weak economy and the real estate “bust” created a jolting sense of reality for people selling their homes.

For new homes purchased between 1981 and

2001, the annual median rate of appreciation was 3.3 percent. This appreciation is partially illusory, for it encompasses the costs of turning a house into a home — landscaping, swimming pools and window treatments. New homes resold for the first time in 2002 showed an appreciation rate of 5.6 percent. Between 1981 and 2001, the median rate of appreciation for resale homes has been 3.4 percent, which is better than the 1.0 percent typical of the early 1990s. For resale homes sold in 2002, the median rate of appreciation was 6.0 percent — a big improvement over the 2.9 percent reported in 1997 [see Table 6].

#### Appreciation by District

For the eighth year in a row, no district reported depreciation for 2002 [see Table 7]. District 22 (Sun City West/Rural Maricopa County) reported the lowest rate of appreciation at 3.9 percent, but was up significantly over last year’s 2.9 percent. Maryvale historically has had one of the lowest rates of appreciation, but has recently been strongly

appreciating from 1.0 in 1996 to the current 6.1 percent. For the entire 1981-2002 time period, Districts 4N, 4S, 5 and 6 showed appreciation well below the metropolitan rate (3.4 percent), but these districts do contain some of the oldest housing in the Greater Phoenix area [Table 7].

As homes age and physical problems mount, prices tend to decline. Further, these districts lack new home developments that attract new families, especially the move-up buyers who stimulate the resale market. In addition, the older areas tend to lack modern facilities and infrastructure, such as schools, shopping centers and recreational facilities that would attract buyers to the area. People want to buy homes where they see the potential for growth, which is more likely in the newer areas of the Valley. However, there have been several government programs to assist low-income families in acquiring homes, which tend to be in these districts. Further, there has been a growing trend to buy well-maintained homes in older

**TABLE 7**  
**MEDIAN RATE OF GREATER PHOENIX AREA HOME APPRECIATION**  
**By Geographic District**  
**Percent Change Per Year, Single-Family Only**

District*	1981-93 †	1994	1995	1996	1997	1998	1999	2000	2001	2002	1981-2002 †
1N North Scottsdale .....	1.1	2.2	3.3	3.6	3.9	4.3	5.0	5.9	6.3	5.7	4.2
1S South Scottsdale.....	1.8	1.7	2.6	3.5	4.4	5.3	6.6	7.1	7.0	7.8	5.1
2 Paradise Valley .....	1.6	2.1	2.9	3.4	3.8	4.1	5.2	5.9	6.3	7.9	4.0
3 North Sunnyslope/Moon Valley.....	0.7	1.3	2.0	2.6	3.1	3.5	4.3	5.1	5.6	6.0	3.4
4N North Black Canyon.....	0.9	0.9	1.5	1.8	2.1	2.4	2.9	3.5	4.0	4.8	2.2
4S Metrocenter.....	1.0	0.7	1.2	1.6	1.9	2.5	3.2	4.1	4.8	4.8	2.8
5 Sun City/Youngtown/Peoria .....	1.2	1.7	2.3	2.5	2.6	3.0	3.2	3.6	3.9	4.8	2.8
6 Glendale .....	0.8	0.6	1.1	1.4	1.7	2.1	2.6	3.1	3.9	5.2	2.2
7 Northwest Phoenix.....	1.0	0.1	0.6	1.5	2.0	2.8	3.7	4.5	5.9	6.3	3.4
8 Christown.....	1.4	1.6	2.4	3.1	3.7	5.2	5.9	7.2	7.7	7.7	4.8
9 East Camelback.....	2.0	1.2	1.9	3.0	3.8	5.0	7.1	8.2	8.5	8.6	5.5
10 East Central Phoenix.....	1.7	0.3	1.1	2.0	3.0	3.8	5.0	6.1	7.4	8.2	4.2
11 Uptown Phoenix.....	2.1	1	1.9	2.7	3.7	5.0	6.6	8.8	9.8	9.5	5.3
12 West Central Phoenix.....	1.9	-0.4	0.6	1.5	1.7	3.1	4.4	6.5	6.7	7.9	3.4
13 Maryvale .....	1.3	-0.5	0.3	1.0	1.6	2.2	3.3	4.3	5.6	6.1	2.7
14 Downtown/South Central Phoenix.....	1.2	-0.2	0.8	—	—	—	—	—	—	—	—
15 South Phoenix/Ahwatukee.....	1.8	1.4	2.3	2.8	3.4	4.0	4.5	4.9	5.8	6.1	3.5
16N North Tempe .....	1.2	1.2	2.0	2.7	3.5	4.6	5.7	6.7	7.0	7.0	4.2
16S South Tempe.....	1.4	1.1	1.7	2.3	2.7	3.3	4.0	4.7	5.0	5.4	3.2
17N North Mesa .....	1.8	0.9	1.7	2.4	2.7	3.2	4.1	4.5	5.2	5.7	3.2
17S South Mesa.....	1.3	1.0	1.5	2.1	2.5	3.0	3.6	4.1	4.9	5.7	2.6
18 East Mesa.....	1.6	1.6	2.2	3.0	3.2	3.7	4.1	4.3	4.6	4.5	3.5
19 Chandler/Gilbert.....	1.6	1.3	2.2	2.7	3.0	3.8	4.2	4.6	5.0	5.2	3.5
20 Western Suburbs .....	1.2	0.2	0.9	1.2	1.9	2.6	3.2	3.8	5.5	6.4	3.9
21 Deer Valley.....	1.0	1.3	1.9	2.5	2.7	3.3	3.8	4.6	5.0	5.7	3.2
22 Sun City West/Rural Maricopa County .....	4.5	3.2	3.4	3.3	2.9	3.3	3.3	3.0	2.9	3.9	3.2
GREATER PHOENIX.....	1.2	1.2	1.9	2.5	2.9	3.5	4.1	4.8	5.4	6.0	3.4

\* District numbers correspond to the districts in Figure 1 on page 6.

† Median percent change for each year within time period.

— Insufficient number of sales.

Source: Arizona Real Estate Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.

neighborhoods. This is evident in several districts, not only from the current rate of appreciation but also the improvement over 2000, such as Western Suburbs (3.8 to 6.4 percent), Maryvale (4.3 to 6.1 percent) and Northwest Phoenix (4.5 to 6.3 percent). With the expected new development to be built around the arena and football stadium in Glendale, District 6 has improved from 3.1 percent in 2000 to 5.2 percent.

South Scottsdale again had one of the highest rates of appreciation at 7.8 percent, which has consistently improved from the 1.7 percent of 1994. This district contains some of the older neighborhoods that allow buyers to acquire moderately priced homes in the "status" community of Scottsdale. However, due to declining demand for higher priced homes, North Scottsdale had a decline in its annual rate of appreciation from 6.3 percent to 5.7 percent [see Table 7]. In the slow markets of the early 1990s, District 22, which

is dominated by a rapidly growing housing segment — the active-adult community — usually had the highest rate of appreciation [see Table 7] but now has the lowest for 2001 at 2.9 percent. The main reason for this slowing in appreciation is that this market has seen several new competitive communities throughout the Greater Phoenix area such as Sun City Grand, Sun Lakes and Palm Valley. Further, much of the housing market in this district has begun to be dominated by the lower priced homes that are common throughout the West Valley.

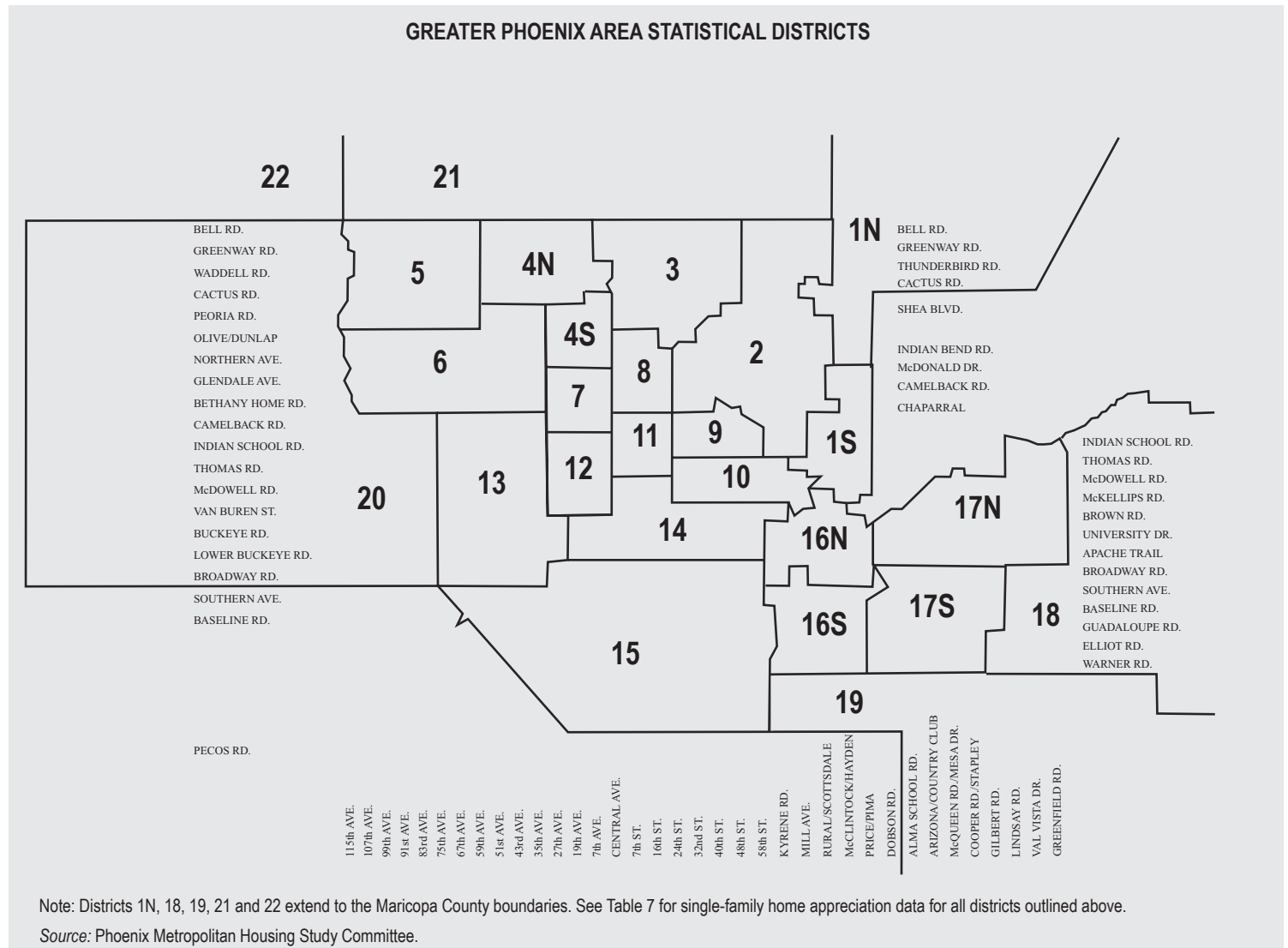
A clear view of the appreciation process may be gained from examining the appreciation rate between 1981 and 2002 for resale single-family homes in various price ranges [see Table 8]. The East Camelback district reported the highest appreciation rate at 5.5 percent, followed by the Uptown Phoenix district at 5.3 percent and South Scottsdale at 5.2 percent. In the lowest price range, a few

districts had depreciation, but the Downtown district at 1.6 percent led all areas and also led in the \$60,000-\$99,999 price range at 8.4 percent. There are many explanations for this, including purchase of the land for redevelopment and increased demand by low-income families to become homeowners.

In the \$100,000-plus price range (overall appreciation rate of 4.6 percent), the Uptown Phoenix district had the highest rate of appreciation at 8.8 percent. Although higher-priced homes tend to have higher rates of appreciation, rates were low in several districts, among them North Black Canyon (3.6 percent), Glendale (3.0 percent), and Sun City West/Rural Maricopa County (2.8 percent). The primary reason may be that these are fairly homogenous districts. The overall rate of appreciation is stronger when the appreciation of lower-priced homes in an area is enhanced by the proximity to more expensive homes.

FIGURE I

GREATER PHOENIX AREA STATISTICAL DISTRICTS



The smaller number of townhouse sales in the database precluded using geographic areas as detailed as those for the single-family sector. The townhouse sector had experienced appreciation mostly in the early 1980s [see Table 10], when it was a popular alternative to the much more expensive single-family home. The affordability, greater space and privacy of the single-family home have typically made it the popular choice of the Phoenix metropolitan home buyer. After a period of low appreciation rates, there are continuing positive signs that the townhouse sector is gaining in popularity, but the rates are still well below those of the single-family sector. Because townhouses are most popular with seasonal visitors and retirees, the higher rates of appreciation in the Southeast Valley and North Scottsdale would be expected, since these are favored visitor destinations.

#### Appreciation by Price

Housing appreciation rates vary throughout the metropolitan area [see Tables 8 and 9, and Figure I], but much of the variation can be explained by differences in price and age of the housing stock. Since much of the Phoenix housing inventory was built in subdivisions for the mass market, the housing districts tend to contain similar types of homes built at about the same time and for comparable prices. Thus, the rate of appreciation in a district can be strongly influenced by the price of its housing.

In the single-family sector, the median rate of appreciation per year of homes that resold between 1981 and 2002 was 3.4 percent. The median rate was positive in all price ranges except for the lowest two ranges [see Table 9]. The rate of appreciation increased with price, up to 6.2 percent for the \$300,000 or more price range. The overall median rate of appreciation for resale homes was 3.4 percent, in comparison to 3.3 percent for new homes. In the price ranges above \$130,000, however, the new home market appreciated more than the resale market. The rate of appreciation of new homes increased throughout all price ranges to the highest rate of 7.5 percent for homes in the \$300,000 or more price range.

After years of depreciation, the townhouse sector continues to show a positive appreciation rate between 1981 and 2002, increasing from the 0.4 percent in 1996 to 2.3 percent. This improvement is particularly evident in the \$130,000-\$139,999 price range, which moved from 2.5 percent in 1997 to 4.2 percent

**TABLE 8**  
**MEDIAN RATE OF GREATER PHOENIX HOME APPRECIATION**  
**By Geographical District and Price of Last Sale, 1981-2002**  
**Percent Change Per Year, Resale Single-Family Only**

		Less than \$60,000	\$60,000– 99,999	\$100,000 or More	Total
District*					
1N	North Scottsdale .....	—	1.3	4.0	4.0
1S	South Scottsdale.....	-2.0	2.1	6.8	5.2
2	Paradise Valley.....	—	1.3	4.6	4.2
3	North Sunnyslope/Moon Valley.....	0.2	2.6	4.3	3.4
4N	North Black Canyon.....	-0.4	1.6	3.6	2.3
4S	Metrocenter.....	0.0	2.4	4.4	2.8
5	Sun City/Youngtown/Peoria.....	1.1	3.0	4.1	3.1
6	Glendale.....	0.0	2.0	3.0	2.2
7	Northwest Phoenix.....	0.3	3.5	6.3	3.4
8	Christown.....	0.0	2.1	5.9	4.8
9	East Camelback.....	-0.2	2.8	8.0	5.5
10	East Central Phoenix.....	0.5	4.1	7.6	4.2
11	Uptown Phoenix.....	0.1	3.7	8.8	5.3
12	West Central Phoenix.....	0.9	5.7	7.1	3.4
13	Maryvale.....	0.4	4.1	6.5	2.8
14	Downtown/South Central Phoenix.....	1.6	8.4	—	4.7
15	South Phoenix/Ahwatukee.....	0.8	3.3	4.2	3.4
16N	North Tempe.....	0.0	2.3	6.2	4.4
16S	South Tempe.....	-0.5	1.7	4.2	3.4
17N	North Mesa.....	0.0	2.7	4.1	3.4
17S	South Mesa.....	0.2	2.0	3.7	2.7
18	East Mesa.....	1.0	3.2	4.1	3.6
19	Chandler/Gilbert.....	1.1	2.3	4.0	3.5
20	Western Suburbs.....	0.3	3.2	4.0	3.0
21	Deer Valley.....	-0.1	2.1	4.2	3.0
22	Sun City West/Rural Maricopa County.....	—	1.7	2.8	2.5
	GREATER PHOENIX.....	0.3	2.7	4.6	3.4

\* District numbers correspond to the districts in Figure I on page 6.

— Insufficient number of sales

Source: Arizona Real Estate Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University. District designations are copyrighted by the Phoenix Metropolitan Housing Study Committee.

**TABLE 9**  
**MEDIAN RATE OF GREATER PHOENIX HOME APPRECIATION**  
**By Price Range, Percent Change Per Year, 1981-2002**

Price Range	Single-Family			Townhouse/Condo	
	Total	New	Resale	Total	Resale
Less than \$40,000.....	-2.1	—	-2.0	-2.7	-2.7
40,000–49,999.....	-0.1	—	0.0	-0.1	-0.1
50,000–59,999.....	1.1	0.5	1.1	1.0	1.1
60,000–69,999.....	1.7	1.1	1.8	1.7	1.8
70,000–79,999.....	2.2	1.5	2.3	2.5	2.5
80,000–89,999.....	2.6	1.8	2.8	2.7	2.8
90,000–99,999.....	3.1	2.3	3.3	2.9	3.0
100,000–109,999.....	3.4	2.9	3.6	3.3	3.3
110,000–119,999.....	3.7	3.5	3.8	3.4	3.5
120,000–129,999.....	3.8	3.6	3.9	4.0	4.1
130,000–139,999.....	4.0	4.1	4.0	4.2	4.2
140,000–149,999.....	4.2	4.3	4.1	4.0	4.0
150,000–174,999.....	4.3	4.6	4.1	4.2	4.3
175,000–199,999.....	4.5	5.0	4.2	4.2	4.2
200,000–299,999.....	5.2	6.1	4.9	5.2	5.3
300,000+.....	6.2	7.5	5.8	5.0	5.5
TOTAL, GREATER PHOENIX.....	3.4	3.3	3.4	2.5	2.6

— Insufficient number of sales

Source: Arizona Real Estate Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.

for 2002 [see Table 9]. The lowest-priced townhouses (under \$50,000) have continued to depreciate, but at lower rates than a year ago, and the \$50,000-\$59,999 priced townhouses posted a positive appreciation rate (1.0 percent).

#### ANALYSIS BY CITY

**Phoenix.** The Valley's largest city continued to have the lowest home prices. The median resale home price increased from \$112,000 to \$119,500, while the median new home price declined from \$157,120 to \$152,870. The reason for the lower new home median price is that much of the new home market was on the west side where lower price homes dominate the market.

Since Phoenix is large geographically, it contains a diversity of housing submarkets. Median resale prices ranged from \$70,000 in the Downtown district to \$194,500 in the Christown district. The median new home sales price also reflected the market diversity, from \$138,860 in the South Phoenix area to \$275,110 in the Union Hills area. As shown in Table 11, the City of Phoenix had a rate of appreciation slightly above the Greater Phoenix area in 2002.

**Ahwatukee/Foothills.** While most of this area lies within the city of Phoenix, it has been a primary area of new home development over the last few years and merits its own consideration. However, as the area has built out, the resale sector has come to dominate the market with 2,130 sales versus 235 new home sales. Since most of the homes in this popular housing area are only a few years

old, the median sale price for resale homes increased from \$183,900 to \$193,000. With most of the areas available for tract housing being filled, much of the new home construction is in the custom and semi-custom markets as evidenced by a median price of \$232,370.

**Tempe.** Because Tempe is landlocked, its new home market represented less than 1 percent of homes sold in the city for 2002. Arizona State University and several other major local employers make Tempe a popular place to live. Hence, the Tempe housing market supports higher home prices than the metropolitan area with a median resale price of \$157,000 (\$145,000 in North Tempe to \$160,000 in South Tempe). The popularity of the city combined with limited housing supply resulted in a median rate of appreciation for 2002 of 5.9 percent (7.0 percent in North Tempe versus 5.4 percent in South Tempe).

**Mesa.** With 12 percent of the resale market and 9 percent of the new market, Mesa continues to be an important element of the local housing market. Mesa remains relatively affordable, with the median sale price of new homes at \$166,915 and \$132,500 for resale homes. Because the city offers a wide range of housing at affordable prices, it has a very stable rate of appreciation at 4.9 percent. Since Mesa is also a large city, some variation in the rate of appreciation would be expected — from 5.7 percent in North Mesa and South Mesa to 4.5 percent in East Mesa. The townhouse sector, popular with retirees and seasonal visitors, accounted for 19 percent of Mesa's total resale market and

14 percent of the Greater Phoenix area's resale townhouse market. The burgeoning popularity is evident in the rising median prices from \$84,000 in 2001 to \$87,945, while the metropolitan area moved from \$90,500 to \$95,500. Due to the appeal of this housing sector, the median rate of appreciation was 4.4 percent (4.4 percent for Greater Phoenix area) and was 7.0 percent in North Mesa.

**Chandler/Gilbert.** The rapid expansion of the metropolitan area is especially evident in the growing communities of Chandler and Gilbert. New home activity represented 38 percent of all single-family homes sold in the city of Chandler with a median sales price of \$201,950 (\$193,450 in 2001), while the median resale home price was \$152,900 (\$144,900 in 2001).

Although Gilbert still is a rapidly growing community, its housing market is beginning to show signs of maturing. In 1998, nearly 64 percent of all single-family homes sold in Gilbert were new, but this has dropped to 46 percent with a median sales price of \$177,965 (\$177,050 in 2001). Prior to the current housing boom, most of the housing development in Gilbert consisted of high-priced custom or semi-custom homes on large rural lots. Hence, the typical resale home in Gilbert is fairly large: 1,840 square feet versus 1,640 square feet in the Greater Phoenix area, with a median sales price of \$164,000.

**Scottsdale, Paradise Valley and Carefree/Cave Creek.** These communities contain the highest-priced homes in the Valley. Paradise

**TABLE 10**  
**COMPARISON OF SINGLE-FAMILY HOME TO TOWNHOUSE/CONDOMINIUM APPRECIATION**  
By Combined Geographic District  
Median Percent Change Per Year

District	Area	Single-family			Townhouse/Condominium		
		1981-85	1986-2002	1981-2002	1981-85	1986-2002	1981-2002
1N, 2	North Scottsdale/Paradise Valley.....	4.1	4.8	4.1	3.2	4.6	3.7
1S	South Scottsdale.....	2.8	6.7	5.1	1.2	6.2	3.9
3, 8	North Central Phoenix.....	2.8	4.8	3.7	0.1	4.6	2.9
4N, 4S	Northwest Phoenix.....	2.6	3.2	2.3	1.0	3.6	1.7
5	Sun City/Youngtown/Peoria.....	4.2	3.6	2.8	3.0	3.4	2.1
6	Glendale.....	2.5	2.8	2.2	1.2	3.0	1.3
7, 12, 13	West Phoenix.....	2.0	4.5	2.9	-0.8	2.3	0.2
9, 10, 11, 14, 15	East Central and South Phoenix.....	3.4	4.8	4.0	1.6	4.6	3.1
16N, 16S	Tempe.....	2.6	4.6	3.5	0.9	5.1	3.4
17N, 17S, 18, 19	Southeast Valley.....	3.6	3.8	3.3	1.3	3.6	3.0
20, 22	West Valley.....	5.6	3.5	3.3	6.8	1.2	1.3
21	North Valley.....	2.7	4.0	3.2	1.2	2.6	1.9
	GREATER PHOENIX.....	3.0	4.2	3.4	1.6	3.9	2.6

Source (Tables 10 and 11): Arizona Real Estate Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University. District designations are copyrighted by the Phoenix Metropolitan Housing Study Committee.

Valley not only has the highest median resale price at \$775,000 but also the largest median size at 3,465 square feet. The new home market was at \$2.1 million and 6,540 square feet. Carefree had the second largest resale homes with a median size of 2,900 square feet and a median resale price of \$449,420, while Cave Creek stood at 2,190 square feet and \$247,000.

While these two areas have relatively small housing markets, Scottsdale is the third largest in the Valley with a wider mix of housing styles, types and prices. The median resale home price was \$287,500 (2,240 square feet), in comparison with \$262,500 (2,195 square feet) in 2001. The new home market stood at \$433,335 (3,500 square feet) versus \$362,280 (3,060 square feet) in 1998. Because higher-priced homes tend to experience greater rates of appreciation, the 7.1 percent rate in Scottsdale would be expected.

As in Mesa, and for the same reasons, the townhouse market is important in Scottsdale, accounting for 31 percent of the recorded resale market (a median sale price of \$142,500) and 21 percent of the Greater Phoenix resale townhouse market (a median resale price of \$95,500). Scottsdale represented 31 percent of recorded new townhouse transactions with a median sales price of \$215,500, much higher than the \$162,660 for the Greater Phoenix

area. Since this housing sector is important in Scottsdale, the 6.2 percent rate of appreciation — significantly above the metropolitan rate of 4.4 percent — is not surprising.

**Glendale/Peoria.** In 2002, more than 38 percent of the single-family homes sold in Peoria were new, with a median sales price of \$185,370, compared to \$170,240 a year ago. In the resale home sector, the median sales price rose from \$128,500 to \$136,900. In Glendale, new homes represent 10 percent of the single-family market. The median resale home price was \$135,000 (\$126,500 in 2001), while the median new home sales price was \$165,015 (\$168,700 in 2001). Because both areas have median sales prices below those of the metropolitan area, their affordability indexes are among the highest in the Valley [see Table 11]. The median appreciation rates are well below the metropolitan levels because most of the homes are in the lower price ranges, which tend to have lower rates of appreciation. The proposed arena, stadium and adjacent development probably accounts for Glendale's slightly higher appreciation rate.

**West Valley Communities: Avondale, El Mirage, Goodyear and Surprise.** The Valley's west side is no longer overlooked in discussions of growing housing areas. It has become increasingly important as the other housing markets run out of available

land and lose affordability. The combined activity in these communities represent 32 percent (versus 23 percent in 2000) of the new homes sold in Maricopa County and only 5 percent of the resale market. A fundamental force in these communities is the relative affordability of their homes. For example, the median price of new homes for 2002 were \$135,400 in Avondale, \$118,000 in El Mirage, \$155,560 in Goodyear and \$144,915 in Surprise.

**Sun City/Sun City West.** Due to differences in the age and style of their respective housing stocks, the median sales prices for resale homes are significantly different in these two communities. The median sales price in Sun City (\$101,575 versus \$99,900 in 2001) is one of the lowest in the metropolitan area while Sun City West has \$139,000 (\$135,000 in 2001). The difference occurs even in the townhouse sector, with Sun City at \$74,000 and Sun City West at \$91,000.

Over the years, these communities have had a dominant role in the active adult market, with strong rates of appreciation. However, competition with other developments throughout the Greater Phoenix area is beginning to adversely impact these communities, lowering appreciation in Sun City West (2.7 percent) and Sun City (3.2 percent). This slowing is even evident in the townhouse sector [see Table 11].

**TABLE 11**  
**2002 HOME SALES, AFFORDABILITY AND APPRECIATION**  
**Greater Phoenix Area, By Community**

Community	Number of Sales <sup>1</sup>	Median Sales Price <sup>1</sup>	Resale Home Affordability Index <sup>2</sup>	New Home Affordability Index <sup>2</sup>	Single-family Appreciation Rate	Twnhse/condo Appreciation Rate
Ahwatukee/Foothills <sup>3</sup>	2,485	\$195,010	NA	NA	*	*
Carefree/Cave Creek	1,410	268,860	NA	NA	*	*
Chandler	8,670	164,000	140	106	5.3%	*
Gilbert	6,620	169,000	NA	NA	4.9	*
Glendale	6,980	133,330	141	116	5.5	3.5%
Mesa	12,625	133,480	125	99	4.9	4.4
Paradise Valley	590	643,500	NA	NA	*	*
Peoria	5,140	146,900	147	109	5.1	*
Phoenix <sup>3</sup>	26,565	121,000	145	113	6.5	4.9
Scottsdale	10,495	245,000	79	52	7.1	6.2
Sun City	2,675	90,000	NA	NA	3.2	2.0
Sun City West	1,550	129,000	NA	NA	2.7	*
Tempe	3,025	143,900	106	NA	5.9	5.9
GREATER PHOENIX <sup>4</sup>	106,535	\$144,500	124	113	6.0	4.4

<sup>1</sup> Includes new and resale single-family homes and townhouses/condominiums.

<sup>2</sup> See definition of terms, Table 4, page 3.

<sup>3</sup> Most of Ahwatukee / Foothills is within the Phoenix city limits; sales figures for Phoenix do not include this area.

<sup>4</sup> Total does not add to sum of cities due to exclusion of unincorporated areas and cities with fewer than 100 sales.

NA = Income estimates necessary to calculate affordability are not available.

\* Insufficient number of sales

Source: Arizona Real Estate Center, L William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.

## COMMERCIAL CONSTRUCTION

For much of the 1990s, the primary focus of the commercial market in Maricopa County was on absorbing the considerable amount of space developed during the 1980s. Just as most of the commercial sectors were regaining the economic viability needed to support new activity, the weakening economy created additional problems. The hardest hit has been the office building sector with declining new development [see Table 12] as vacancy increased from 13 percent in 2000 to 22 percent and absorption dropping from 3.4 million square feet to 813,900 square feet over the same time frame. The leading areas of activity were Phoenix (\$114 million) and Mesa (\$44 million). As shown in Table 12, the retail sector also slowed, with the primary areas of development being Phoenix (\$109 million) and Glendale (\$45 million).

A total of 6,957 apartment units were permitted in Maricopa County in 2002, mostly in Phoenix (1,928 units), unincorporated Maricopa County (986) and Chandler (760). Much like new development, commercial remodeling and tenant improvements decreased from last year's \$197 million to \$145 million.

Pima County's multi-family sector continued to slow from 811 units in 2001 to 793 units. Tucson accounted for 475 units and Marana had 160 units. Counter to the weakening, both the office building and the retail sectors showed improvement during the year [see Table 12]. Unincorporated Pima County led both sectors with \$21 million in office projects

and \$29 million in retail activity, while Tucson had \$14 million in office activity and \$20 million in retail development.

The multi-family sector improved slightly in the rest of Arizona, with most of the activity in Prescott Valley (240 units) and Prescott (183 units). The office sector fell [see Table 12]; significant activity occurred in unincorporated Pinal County (\$13.5 million), Cottonwood (\$7.0 million), and Bullhead City (\$3.5 million). Retail development improved with activity in Lake Havasu City (\$20.3 million), Apache Junction (\$8.5 million) and unincorporated Yuma County (\$6.0 million).

The current weak tourist activity led the hotel/motel sector to post only \$27 million, down from last year's \$198 million.

Without the Intel project, the industrial sector in Maricopa County fell appreciably [see Table 12], with most of the activity in Phoenix (\$47 million) and a single permit valued at \$11.4 million in Tolleson. For the rest of Arizona, active industrial development areas were Flagstaff (\$14 million), Tucson (\$5 million), and unincorporated Pima County (\$5 million).

and Phoenix (\$11 million). The construction of educational facilities remained stable at \$205 million, with major projects in unincorporated Pinal county (\$13 million), unincorporated Maricopa County (\$11 million), Phoenix (\$64 million) and Chandler (\$27 million). Construction of public projects improved from \$58 million to \$75 million, with \$11 million in El Mirage. Permit activity for structures other than buildings, such as swimming pools, fences and billboards, has decreased from \$732 million in 2001 to \$503 million.

## LOOKING AHEAD

The local and national economies have been struggling and have been unable to launch a sustained recovery. Even though interest rates are at historically low levels, other factors have held the economy back — especially the absence of job growth combined with declining consumer confidence. The most watched barometer of the economy has been the volatile stock market, which has had serious impact on personal wealth and confidence in the future. Further, the unstable international situation, with the unknown impacts of a country at war, has heightened concerns and uncertainty about the future.

Any real estate recovery must depend on three fundamental factors: (1) The economy is able to sustain a recovery and strengthen throughout the year with the resultant increase in job growth and consumer confidence. (2) The home buyer remains in the market to sustain the residential sector, while the commercial sector is able to recover enough to

## OTHER CONSTRUCTION

This sector encompasses a wide variety of types of construction activity, including health care and educational facilities, and public projects. Without major health care development in Phoenix, this sector fell to a fairly typical \$80 million with activity in Flagstaff (\$9 million), Mesa (\$11 million),

**TABLE 12**  
**KEY SECTOR CONSTRUCTION ACTIVITY**  
**2002 and 2001**

	COMMERCIAL									
	Single-family		Apartments <sup>a</sup>		Office Buildings <sup>b</sup>		Retail Stores <sup>c</sup>		Industrial	
	Number of Permits	Dollar Value	Number of Units	Dollar Value	Number of Permits	Dollar Value (000's)	Number of Permits	Dollar Value	Number of Permits	Dollar Value
<i>Maricopa County</i>										
2002 .....	35,360	\$5,484,747	6,957	\$428,217	400	\$346,786	552	\$405,348	97	\$86,044
2001 .....	33,428	4,863,609	8,656	471,899	385	506,801	469	532,242	143	345,985
<i>Pima County</i>										
2002 .....	6,841	1,034,480	793	47,456	123	35,423	82	69,245	45	10,766
2001 .....	6,501	946,843	811	36,582	80	32,540	54	25,845	21	23,526
<i>Rest of Arizona</i>										
2002 .....	13,448	1,494,777	466	29,746	124	45,179	182	72,757	82	28,906
2001 .....	11,001	1,205,664	458	21,527	140	53,729	152	67,487	68	26,209
<i>Arizona Total</i>										
2002 .....	55,649	8,014,004	8,216	505,419	647	427,388	816	547,350	224	125,716
2001 .....	50,930	7,016,116	9,925	530,008	605	593,070	675	625,574	232	395,720

<sup>a</sup> Five or more housing units

<sup>b</sup> Office, bank, medical and professional buildings

<sup>c</sup> Shopping centers and other mercantile buildings

Source: Arizona Real Estate Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.

contribute new levels of activity. (3) Future traumatic events are limited as they impact the economy and the consumer psyche.

The primary concern is that, as the other construction sectors recover, the single-family sector would not significantly slow down. There are mounting concerns about the basic strength of the near-term housing market and its ability to boost any economic recovery through unsatisfied pent-up demand. Many analysts contend that the recovery is being held back by the uncertainty of war, and once the uncertainty is removed, the economy will sustain a strong rally. The drawback is that the stock market should also rally and draw money from the debt market, with a resulting rise in mortgage rates. Thus, there will be little incentive or pent-up demand for people to change their housing investment.

Although low mortgage rates have been very important in sustaining the market, they need not remain at current levels because affordability can be maintained interest rates slightly above 8 percent. As people settle into their homes, the market will become increasingly dependent on population growth and new household formation. Further, the local housing market has been greatly stimulated by the rapid change from renters to owners, and should have a diminishing role in the coming years as most housing markets rarely exceed the current level of 70 percent.

In the late 1990s, the concept of "disconnect" arose to try to explain the movement of the stock market within the economic environment. Because the market was not rationally reacting within the economic environment, it is now paying the price. There are now mounting arguments that the housing market is disconnected from the stagnant economic environment. Related to this disconnect premise is that it will end in the bursting bubble. While this concept may have significance for the short term, home buyers are less concerned with the short term than the longer investment horizon, typically beyond five years. As long as the economy does not worsen, the low-rate mortgages should allow people to retain their housing investments, whether rental investments or their homes. The bubble concept may relate to a slowdown in the rapid and strong rates of appreciation, rather than to reduced home prices. It is the increased value that has allowed homeowners to refinance their homes and to draw out the trapped value to be spent on other items.

In many areas of the state, the housing market is influenced by other factors including a limited supply of private land, a small economic base, and a strong second home market. Thus, the supply of both rental and owner housing is limited, forcing prices up and seriously affecting affordability, especially for young households. These forces have led to a greater reliance on manufactured housing.

Development in Pinal County should continue to be active as an extension of the growth in Maricopa and Pima counties, especially in the areas of Apache Junction and Casa Grande. Because Buckeye represents one of the largest planning areas in Maricopa County and already has authorized some major developments, it will become a leading housing market over the next few years. In other areas of the state, retirees and seasonal residents have been drawn to the quality of life in the smaller communities, and now many younger people and businesses also are seeking out these communities to escape mounting urban problems.

A slowing single-family market should benefit the apartment market in Maricopa and Pima counties. Because the apartment market in other counties has been largely overlooked, some companies have an increasing interest to develop apartments to supply affordable housing to a growing population. Even with growth, most of these apartment markets are relatively small, so it is difficult to sustain more than one or two projects in a year's time.

The remodeling of the Intel project in Chandler will, as in the past, overshadow any other industrial development. Until job growth returns, the construction of the typical multi-tenant industrial project or back-office project should not be evident in the industrial market. Although most cities have the bonding capability to build new projects, the mounting fiscal issues do not allow them to operate new facilities. Thus, many cities have postponed projects until fiscal conditions improve.

Because the office market was worsening over the last year, it could take longer for recovery. The current vacant space needs to be absorbed before any significant levels of new development can occur. The future market will be somewhat restricted because tenants remain sensitive to economic uncertainty and seek ways to reduce costs, such as the use of industrial or retail space as a substitute for crowded office space, or increasing reliance on technology to reduce

their space needs.

The retail sector appears to be the commercial sector drawing little concern, because space continues to be absorbed and vacancy rates remain under 10 percent. However, there still is uneasiness about the health of retail sales activity and the saturation of existing markets. The extreme competitiveness of the local markets has resulted in some store closings; chains such as Kmart have been struggling. Further, the problems could increase if the consumer further reduces spending through continued loss of confidence, income or wealth. When the major retail markets have difficulties, this frequently benefits smaller communities where retailers can develop in smaller, underserved areas such as the West Valley and Pinal County.

Although the primary concern tends to focus on sprawl, a related concept will become even more apparent: infill. This concept encompasses both the development of left-behind vacant lands (such as along Baseline road in South Phoenix) or the redevelopment of existing sites such as Los Arcos. Although Greater Phoenix is a relatively new area, it has reached the age when it can no longer just look outward, but must look inward, not just for new commercial or entertainment projects, but to enhance and preserve its aging neighborhoods and infrastructure.

While a strong economic recovery is the key to sustaining the housing market and resuscitating the commercial and industrial sectors, there are other issues that could well influence its timing and strength. The first is the recovery of the fiscal health of the state and cities alike. The provision and quality of public services are an important consideration attracting new businesses, supporting the growth of existing businesses and attracting and keeping households. The other is the availability and quality of water. The continuing drought has raised many concerns about the ability to provide the needed water to support the current population and provide for future growth.

There are many pressing concerns at all levels, from individual jobs and community growth to those beyond the boundaries of the United States such as international stability. Our ability to address these critical issues will drive the health and direction of the real estate market.

— Jay Q. Butler

*Arizona Realtor Professor  
Director, Arizona Real Estate Center*

## ARIZONA BUILDING PERMITS: 2002 REPORT

	Residential		Commercial		Industrial		Other		Total	
	Number of Permits	Dollar Value*	Number of Permits	Dollar Value*	Number of Permits	Dollar Value*	Number of Permits	Dollar Value*	Number of Permits	Dollar Value*
<b>APACHE COUNTY</b>										
Eager .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
St Johns ** .....	24	N/C	0	0	0	0	1	N/C	25	N/C
Springerville .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Unincorporated .....	235	12,607	1	148	0	0	26	5,816	262	18,571
Total, Apache County .....	259	12,607	1	148	0	0	27	5,816	287	18,571
Percent Change, Previous Year .....	-12	-18	-90	-93	—	—	29	940	-11	2
<b>COCHISE COUNTY</b>										
Benson .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Bisbee .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Douglas .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Huachuca City ** .....	37	1,957	4	31	0	0	16	57	57	2,045
Sierra Vista ** .....	499	25,552	72	23,897	0	0	455	10,428	1,026	59,877
Tombstone ** .....	17	753	3	1,408	0	0	9	73	29	2,234
Unincorporated ** .....	844	36,947	11	743	1	N/C	147	3,716	1,003	41,406
Willcox ** .....	39	391	3	100	0	0	14	164	56	655
Total, Cochise County .....	1,436	65,600	93	26,179	1	0	641	14,438	2,171	106,217
Percent Change, Previous Year .....	0	-1	0	54	—	—	12	99	3	17
<b>COCONINO COUNTY</b>										
Flagstaff .....	900	69,527	140	15,362	8	14,341	22	11,442	1,070	110,672
Fredonia .....	15	278	0	0	0	0	12	113	27	391
Page .....	186	2,522	68	10,280	0	0	15	575	269	13,377
Sedona .....	220	19,930	96	19,071	0	0	361	5,546	677	44,547
Unincorporated .....	1,165	68,671	106	9,945	3	351	97	2,216	1,371	81,183
Williams .....	52	3,247	12	1,603	0	0	14	206	78	5,056
Total, Coconino County .....	2,538	164,175	422	56,261	11	14,692	521	20,098	3,492	255,226
Percent Change, Previous Year .....	13	9	34	1	267	2,153	34	113	19	18
<b>GILA COUNTY</b>										
Globe ** .....	30	1,007	5	662	0	0	13	220	48	1,889
Hayden .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Miami .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Payson .....	371	26,615	46	10,457	1	878	23	2,711	441	40,661
Unincorporated .....	562	22,834	13	2,917	3	120	69	5,526	647	31,397
Total, Gila County .....	963	50,456	64	14,036	4	998	105	8,457	1,136	73,947
Percent Change, Previous Year .....	1	11	-19	58	33	111	-9	11	-2	18
<b>GRAHAM COUNTY</b>										
Pima .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Safford ** .....	53	1,164	11	327	0	0	17	419	81	1,910
Thatcher ** .....	14	828	2	191	0	0	13	41	29	1,060
Unincorporated ** .....	129	5,370	4	5,077	0	0	23	102	156	10,549
Total, Graham County .....	196	7,362	17	5,595	0	0	53	562	266	13,519
Percent Change, Previous Year .....	-26	-36	6	210	—	—	89	-90	-14	-28
<b>GREENLEE COUNTY</b>										
Clifton ** .....	1	6	1	1	0	0	0	0	2	7
Duncan ** .....	1	N/C	0	0	0	0	2	N/C	3	N/C
Unincorporated ** .....	6	272	1	50	0	0	3	88	10	410
Total, Greenlee County .....	8	278	2	51	0	0	5	88	15	417
Percent Change, Previous Year .....	-73	-72	100	-27	—	—	400	144	-53	-62
<b>LA PAZ COUNTY</b>										
Parker .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Quartzsite .....	86	1,511	10	210	0	0	46	997	142	2,718
Unincorporated .....	383	15,017	39	8,460	0	0	152	1,841	574	25,318
Total, La Paz County .....	469	16,528	49	8,670	0	0	198	2,838	716	28,036
Percent Change, Previous Year .....	12	33	390	2,112	—	—	-8	36	11	85
<b>MARICOPA COUNTY</b>										
Avondale .....	2,168	287,493	53	45,806	0	0	844	17,327	3,065	350,626
Buckeye ** .....	100	10,895	0	0	0	0	0	0	100	10,895
Carefree .....	104	24,401	20	5,009	0	0	168	2,881	292	32,291
Cave Creek .....	125	28,917	14	1,849	0	0	163	1,299	302	32,065
Chandler .....	3,627	648,421	156	127,692	5	7,049	2,312	162,633	6,100	945,795
El Mirage .....	2,318	227,620	12	5,105	1	60	340	18,674	2,671	251,459
Fountain Hills .....	228	49,710	30	16,698	0	0	486	8,212	744	74,620
Gila Bend ** .....	5	428	1	10	0	0	2	25	8	463
Gilbert .....	3,656	540,972	252	120,041	13	5,835	1,615	45,587	5,536	712,435
Glendale .....	1,193	128,004	400	128,296	5	2,050	1,110	35,267	2,708	293,617
Goodyear .....	1,839	292,300	52	65,027	0	0	2,559	18,923	4,450	376,250
Guadalupe .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Litchfield Park ** .....	126	6,633	23	12,395	0	0	21	3,326	170	22,354
Mesa .....	3,564	380,441	227	192,479	10	5,714	2,995	160,316	6,796	738,950
Paradise Valley .....	358	76,956	13	7,257	0	0	469	13,690	840	97,903
Peoria .....	2,041	180,731	287	81,581	5	1,765	1,201	25,965	3,534	290,042
Phoenix .....	10,587	1,233,033	403	429,049	47	47,250	11,981	526,263	23,018	2,235,595
Queen Creek .....	670	131,114	4	5,110	2	429	707	6,828	1,383	143,481
Scottsdale .....	1,684	359,679	662	170,918	3	2,803	2,687	46,978	5,036	580,378
Surprise .....	3,257	350,308	70	24,430	0	0	1,015	47,052	4,342	421,790
Tempe .....	567	19,206	459	82,514	2	820	280	26,164	1,308	128,704
Tolleson .....	26	1,208	27	12,183	1	11,400	35	2,322	89	27,113
Unincorporated .....	7,347	768,564	208	85,789	3	869	3,023	60,543	10,581	915,765
Wickenburg .....	56	3,410	3	220	0	0	11	289	70	3,919
Youngtown .....	137	406	30	1,264	0	0	86	439	253	2,109

## ARIZONA BUILDING PERMITS: 2002 REPORT (continued)

	Residential		Commercial		Industrial		Other		Total	
	Number of Permits	Dollar Value*	Number of Permits	Dollar Value*	Number of Permits	Dollar Value*	Number of Permits	Dollar Value*	Number of Permits	Dollar Value*
Total, Maricopa County .....	45,783	5,750,850	3,406	1,620,722	97	86,044	34,110	1,231,003	83,396	8,688,619
Percent Change, Previous Year .....	7	13	-10	-28	-32	-75	-3	-25	2	-7
<b>MOHAVE COUNTY</b>										
Bullhead City .....	805	42,843	67	7,096	1	278	803	5,740	1,676	55,957
Colorado City .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Dolan Springs .....	153	5,594	2	138	3	8	40	211	198	5,951
Kingman Area .....	207	8,291	10	437	4	1,425	84	344	305	10,497
Kingman City** .....	354	24,970	43	13,010	1	150	60	9,756	458	47,886
Lake Havasu Area .....	142	8,813	7	149	1	8	97	517	247	9,487
Lake Havasu City .....	2,358	148,469	66	26,894	1	109	522	10,728	2,947	186,200
Mohave General .....	351	16,808	10	772	15	126	119	1,975	495	19,681
Mohave Valley South .....	610	28,092	22	3,962	2	2	427	2,603	1,061	34,659
Sacramento Valley .....	319	9,342	3	281	2	27	87	446	411	10,096
Total, Mohave County .....	5,299	293,222	230	52,739	30	2,133	2,239	32,320	7,798	380,414
Percent Change, Previous Year .....	26	22	18	40	43	7	14	10	22	23
<b>NAVAJO COUNTY</b>										
Holbrook .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Pinetop-Lakeside .....	105	8,413	8	1,034	0	0	4	895	117	10,342
Show Low .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Snowflake .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Taylor .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Unincorporated .....	769	57,330	1	542	0	0	64	1,302	834	59,174
Winslow .....	43	1,404	15	649	1	12	16	93	75	2,158
Total, Navajo County .....	917	67,147	24	2,225	1	12	84	2,290	1,026	71,674
Percent Change, Previous Year .....	-13	-13	26	24	—	—	8	-52	-11	-14
<b>PIMA COUNTY</b>										
Marana .....	1,046	138,335	296	23,236	3	552	2,031	3,491	3,376	165,614
Oro Valley .....	591	85,413	49	3,109	0	0	485	1,100	1,125	89,622
Sahuarita .....	760	100,386	13	3,087	0	0	202	1,095	975	104,568
South Tucson .....	30	840	7	225	0	0	10	511	47	1,576
Tucson .....	3,962	301,825	922	152,226	16	5,208	3,244	86,411	8,144	545,670
Unincorporated .....	4,929	462,440	258	95,879	26	5,006	1,034	39,163	6,247	602,488
Total, Pima County .....	11,318	1,089,239	1,545	277,762	45	10,766	7,006	131,771	19,914	1,509,538
Percent Change, Previous Year .....	8	10	15	18	114	-54	34	34	17	12
<b>PINAL COUNTY</b>										
Apache Junction .....	516	27,439	127	18,257	5	1,665	206	10,080	854	57,441
Casa Grande .....	1,140	77,099	144	7,775	1	1,239	415	28,874	1,700	114,987
Coolidge** .....	68	3,756	1	55	0	0	144	1,861	213	5,672
Eloy** .....	84	3,330	18	2,496	2	1,600	71	253	175	7,679
Florence .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Kearny** .....	0	0	0	0	0	0	0	0	0	0
Mammoth** .....	0	0	0	0	0	0	0	0	0	0
Superior .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Unincorporated .....	3,784	375,324	54	23,526	1	99	555	28,002	4,394	426,951
Total, Pinal County .....	5,592	486,948	344	52,109	9	4,603	1,391	69,070	7,336	612,730
Percent Change, Previous Year .....	28	35	2	20	-31	-43	-15	84	15	36
<b>SANTA CRUZ COUNTY</b>										
Nogales** .....	6	529	1	102	0	0	7	61	14	692
Patagonia .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Unincorporated .....	415	40,683	22	2,950	1	758	60	4,337	498	48,728
Total, Santa Cruz County .....	421	41,212	23	3,052	1	758	67	4,398	512	49,420
Percent Change, Previous Year .....	29	32	-8	42	-80	-73	91	830	31	34
<b>YAVAPAI COUNTY</b>										
Camp Verde** .....	114	4,991	14	1,401	0	0	70	949	198	7,341
Chino Valley .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Clarkdale** .....	64	3,769	2	317	0	0	24	364	90	4,450
Cottonwood .....	309	13,450	74	8,852	8	824	33	7,562	424	30,688
Jerome .....	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R
Prescott .....	926	133,422	35	21,537	1	697	402	14,899	1,364	170,555
Prescott Valley .....	1,206	64,394	246	24,108	0	0	29	17,252	1,481	105,754
Unincorporated .....	2,266	157,813	108	7,040	7	1,229	514	14,157	2,895	180,239
Total, Yavapai County .....	4,885	377,839	479	63,255	16	2,750	1,072	55,183	6,452	499,027
Percent Change, Previous Year .....	5	20	15	13	7	-36	2	20	5	19
<b>YUMA COUNTY</b>										
San Luis .....	488	20,554	48	4,221	0	0	10	7,158	546	31,933
Somerton .....	162	8,271	10	1,426	0	0	5	2,883	177	12,580
Unincorporated .....	1,308	74,317	31	7,802	1	302	1,018	7,605	2,358	90,026
Wellton** .....	1	14	0	0	0	0	3	115	4	129
Yuma** .....	976	56,417	20	7,459	8	2,658	513	21,158	1,517	87,692
Total, Yuma County .....	2,935	159,573	109	20,908	9	2,960	1,549	38,919	4,602	222,360
Percent Change, Previous Year .....	30	52	76	13	29	-62	18	134	27	50
<b>TOTAL, ARIZONA</b> .....	<b>83,019</b>	<b>8,583,036</b>	<b>6,808</b>	<b>2,203,712</b>	<b>224</b>	<b>125,716</b>	<b>49,068</b>	<b>1,617,251</b>	<b>139,119</b>	<b>12,529,715</b>
Percent Change, Previous Year .....	9	14	1	-19	-3	-68	3	-15	6	0

\* Dollar value in thousands

\*\* Incomplete data: One or more months not available

N/R: No Report

N/C: Some communities do not collect dollar valuations.

Note: A dash indicates that a percent change could not be calculated because at least one period had no activity.

Source: Arizona Real Estate Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.

## ARIZONA HOUSING UNITS AUTHORIZED: 2002 REPORT

	One Family	Mobile Homes	Duplex	3-4 Family	5 or More	Total		One Family	Mobile Homes	Duplex	3-4 Family	5 or More	Total
<b>APACHE COUNTY</b>							<b>MOHAVE COUNTY</b>						
Eager .....	N/R	N/R	N/R	N/R	N/R	N/R	Bullhead City .....	373	116	2	0	0	491
St Johns ** .....	2	8	0	0	0	10	Colorado City .....	N/R	N/R	N/R	N/R	N/R	N/R
Springerville .....	N/R	N/R	N/R	N/R	N/R	N/R	Dolan Springs .....	30	79	0	0	0	109
Unincorporated .....	71	92	0	0	0	163	Kingman Area .....	54	97	0	0	0	151
Total, Apache County .....	73	100	0	0	0	173	Kingman City ** .....	258	0	4	0	6	268
Percent Change, Previous Year .....	-5	-28	—	—	—	-31	Lake Havasu Area .....	68	40	0	3	0	111
<b>COCHISE COUNTY</b>							<b>NAVAJO COUNTY</b>						
Benson .....	N/R	N/R	N/R	N/R	N/R	N/R	Holbrook .....	N/R	N/R	N/R	N/R	N/R	N/R
Bisbee .....	N/R	N/R	N/R	N/R	N/R	N/R	Pinetop-Lakeside .....	39	4	2	8	0	53
Douglas .....	N/R	N/R	N/R	N/R	N/R	N/R	Show Low .....	N/R	N/R	N/R	N/R	N/R	N/R
Huachuca City ** .....	23	0	0	0	0	23	Snowflake .....	N/R	N/R	N/R	N/R	N/R	N/R
Sierra Vista ** .....	345	25	0	0	0	370	Taylor .....	N/R	N/R	N/R	N/R	N/R	N/R
Tombstone ** .....	4	10	2	0	0	16	Unincorporated .....	373	0	0	0	0	373
Unincorporated ** .....	220	414	0	0	0	634	Winslow .....	12	2	0	0	0	14
Willcox ** .....	2	13	0	0	0	15	Total, Navajo County .....	424	6	2	8	0	440
Total, Cochise County .....	594	462	2	0	0	1,058	Percent Change, Previous Year .....	-15	-83	0	—	—	-18
Percent Change, Previous Year .....	11	-9	—	—	—	-6	<b>PIMA COUNTY</b>						
<b>COCONINO COUNTY</b>							<b>PINAL COUNTY</b>						
Flagstaff .....	460	151	16	15	6	648	Apache Junction .....	258	137	0	31	0	426
Fredonia .....	5	5	0	0	0	10	Casa Grande .....	595	85	0	0	0	680
Page .....	6	22	0	0	0	28	Coolidge ** .....	25	19	0	0	0	44
Sedona .....	95	8	0	7	8	118	Eloy ** .....	29	20	6	8	0	63
Unincorporated .....	375	163	0	50	0	588	Florence .....	N/R	N/R	N/R	N/R	N/R	N/R
Williams .....	22	0	0	4	0	26	Kearny ** .....	0	0	0	0	0	0
Total, Coconino County .....	963	349	16	76	14	1,418	Mammoth ** .....	0	0	0	0	0	0
Percent Change, Previous Year .....	2	4	167	850	-63	6	Superior .....	N/R	N/R	N/R	N/R	N/R	N/R
<b>GILA COUNTY</b>							<b>SANTA CRUZ COUNTY</b>						
Globe ** .....	6	3	0	0	0	9	Nogales ** .....	0	0	0	0	0	0
Hayden .....	N/R	N/R	N/R	N/R	N/R	N/R	Patagonia .....	N/R	N/R	N/R	N/R	N/R	N/R
Miami .....	N/R	N/R	N/R	N/R	N/R	N/R	Unincorporated .....	346	0	2	4	5	357
Payson .....	183	48	0	0	0	231	Total, Santa Cruz County .....	346	0	2	4	5	357
Unincorporated .....	112	149	0	0	0	261	Percent Change, Previous Year .....	24	—	—	0	—	25
Total, Gila County .....	301	200	0	0	0	501	<b>YAVAPAI COUNTY</b>						
Percent Change, Previous Year .....	16	2	—	—	—	9	Camp Verde ** .....	24	37	0	0	0	61
<b>GRAHAM COUNTY</b>							<b>YUMA COUNTY</b>						
Pima .....	N/R	N/R	N/R	N/R	N/R	N/R	Chino Valley .....	N/R	N/R	N/R	N/R	N/R	N/R
Safford ** .....	4	18	0	0	6	28	Clarkdale ** .....	24	8	0	3	0	35
Thatcher ** .....	6	0	0	0	0	6	Cottonwood .....	75	64	4	6	0	149
Unincorporated ** .....	23	78	0	0	0	101	Jerome .....	N/R	N/R	N/R	N/R	N/R	N/R
Total, Graham County .....	33	96	0	0	6	135	Prescott .....	635	23	22	4	183	867
Percent Change, Previous Year .....	-34	-27	—	—	—	-26	Prescott Valley .....	604	14	88	11	240	957
<b>GREENLEE COUNTY</b>							<b>TOTAL ARIZONA</b>						
Clifton ** .....	0	0	0	0	0	0	55,649	6,057	576	569	8,216	71,067	
Duncan ** .....	0	0	0	0	0	0	Percent Change, Previous Year .....	9	-6	25	16	-17	4
Unincorporated ** .....	2	1	0	0	0	3	<b>N/R: No Report</b>						
Total, Greenlee County .....	2	1	0	0	0	3	** Incomplete data: One or more months not available						
Percent Change, Previous Year .....	0	-89	—	—	—	-73	Note: A dash indicates that a percent change could not be calculated because at least one period had no activity.						
<b>LA PAZ COUNTY</b>							<b>Source: Arizona Real Estate Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.</b>						
Parker .....	N/R	N/R	N/R	N/R	N/R	N/R							
Quartzsite .....	2	48	0	0	0	50							
Unincorporated .....	35	191	0	0	0	226							
Total, La Paz County .....	37	239	0	0	0	276							
Percent Change, Previous Year .....	-8	4	—	—	—	2							
<b>MARICOPA COUNTY</b>													
Avondale .....	2,044	0	0	0	200	2,244							
Buckeye ** .....	100	0	0	0	0	100							
Carefree .....	62	0	0	24	0	86							
Cave Creek .....	71	0	0	4	0	75							
Chandler .....	3,276	0	0	0	760	4,036							
El Mirage .....	2,094	63	0	0	10	2,167							
Fountain Hills .....	143	0	4	4	23	174							
Gila Bend ** .....	4	0	0	0	0	4							
Gilbert .....	3,379	0	0	0	272	3,651							
Glendale .....	769	84	0	0	568	1,421							
Goodyear .....	1,839	0	0	8	197	2,044							
Guadalupe .....	N/R	N/R	N/R	N/R	N/R	N/R							
Litchfield Park ** .....	21	0	0	0	0	21							
Mesa .....	2,725	1	6	72	569	3,373							
Paradise Valley .....	61	0	0	0	0	61							
Peoria .....	1,456	27	0	56	644	2,183							
Phoenix .....	7,090	1	68	67	1,928	9,154							
Queen Creek .....	649	0	0	0	0	649							
Scottsdale .....	1,292	0	10	31	311	1,644							
Surprise .....	2,985	20	2	0	256	3,263							
Tempe .....	101	0	0	0	5	106							
Tolleson .....	3	0	2	0	228	233							
Unincorporated .....	5,158	950	2	0	986	7,096							
Wickenburg .....	38	3	0	0	0	41							
Youngtown .....	0	0	0	0	0	0							
Total, Maricopa County .....	35,360	1,149	94	266	6,957	43,826							
Percent Change, Previous Year .....	6	-3	-41	-14	-20	0							

# Arizona Leading Index moves up in February

The Bank One Arizona Index of Leading Economic Indicators rose in February to 118.7, which is 0.5 percent above the revised 118.1 recorded for the previous month and 3.4 percent above the February 2002 number of 114.8 (1987 = 100).

Positive index components were the inflation-adjusted value of the M2 money supply, delivery times, employment from the Business Conditions Survey, hours worked in manufacturing, sensitive materials prices, inventories and the inflation-adjusted value of Maricopa County residential building permits. Production and new orders were negative. Hours worked in manufacturing had to be estimated due to delays associated with the recent switchover from SIC code to NAICS code accounting for the employment numbers.

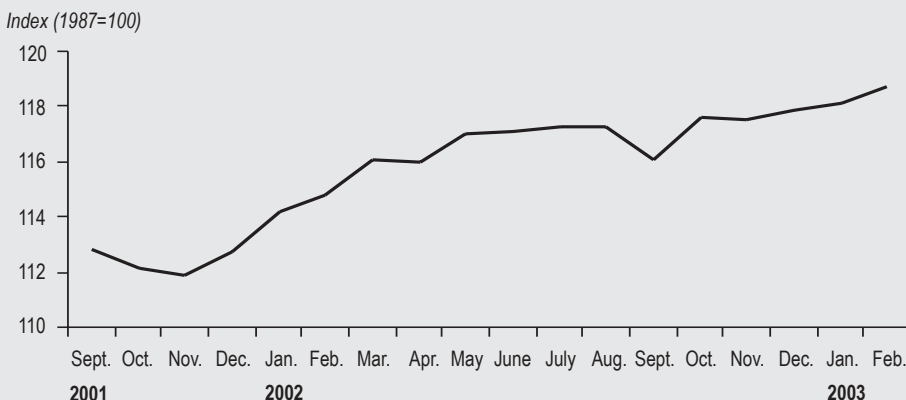
The overall trend of the index remains positive, which is an encouraging indication for the economy. However, new orders now have been a negative influence for two months. If this continues, it could spell trouble for the economy. The new orders data can be split into manufacturing and nonmanufacturing starting in December

2000. The new orders manufacturing index has been below 50 since June 2002. Worldwide semiconductor billings have softened since the beginning of the year, suggesting that any recovery for manufacturing will be further delayed for Arizona. It appears that worries over the international situation short-circuited a recovery in Arizona manufacturing, and

that situation is unlikely to change until the international situation stabilizes. Non-manufacturing has in general fared much better, with only sporadic negatives during the period.

— Tracy Clark  
Associate Director  
Bank One Economic Outlook Center

FIGURE I  
ARIZONA INDEX OF LEADING ECONOMIC INDICATORS



Source: Bank One Economic Outlook Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.

# Business Conditions Index slips in February

The seasonally adjusted Arizona Business Conditions Index declined to 51.2 in February from 51.5 the previous month. An index reading over 50 indicates that the local economy is growing, while a reading below 50 suggests a slowdown in the overall level of economic activity in the near term.

portends a period of continued sluggish recovery in the local economy.

The Price Index jumped by 3.2 points to 59.7 in February. This is likely a reaction to higher energy prices caused by concerns over war with Iraq and a disruption in the flow of oil from Venezuela. The Price Index

fell during the recession in reaction to a reduction in demand, but has edged upward as the economy recovers.

— Dawn McLaren  
Research Economist  
Bank One Economic Outlook Center

## ANALYSIS

February was the third month the index remained above the critical 50-point benchmark. A decline in the production subindex, which fell by 4.1 points to 53.9, was somewhat offset by an increase in the employment subindex, which rose by 1.9 points.

The production subindex has been above the critical 50-point mark for 13 of the last 14 months, while the employment subindex has remained in the 30s and 40s since January 2001. As production has moved substantially higher, employment has responded with only incremental gains. Productivity has been at extraordinarily high levels, a situation which is not sustainable in the long term. In February, the employment subindex rose slightly, while production slowed. This

FIGURE I  
ARIZONA BUSINESS CONDITIONS INDEX\*



\*Excludes Price Index

Source: Bank One Economic Outlook Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.



## AZB/ARIZONA BUSINESS

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## ARIZONA ECONOMIC INDICATORS

	Month or Quarter	Current Value	Previous Value	Percent Change Previous Period	Percent Change from Year Ago	Year-to-Date	
						Value	Percent Change from Year Ago
<b>LEADING ECONOMIC INDEX (1987 = 100)</b>							
Arizona .....	February	118.7	118.1 r	0.5	3.4	NA	NA
<b>BUSINESS CONDITIONS INDEX</b>							
Arizona .....	February	51.2	51.5	-0.6	4.6	NA	NA
<b>BUILDING PERMITS (Thousands of \$)</b>							
Maricopa County .....	January	631,447	671,925	-6.0	-5.5	631,447	-5.5
Pima County .....	January	124,274	124,150	0.1	30.9	124,274	30.9
Balance of State .....	January	192,435	187,376	2.7	24.5	192,435	24.5
Arizona .....	January	948,156	983,451	-3.6	3.4	948,156	3.4
<b>TOTAL HOUSING UNITS AUTHORIZED</b>							
Maricopa County .....	January	2,724	3,377	-19.3	-1.7	2,724	-1.7
Pima County .....	January	599	874	-31.5	9.9	599	9.9
Balance of State .....	January	1,535	1,229	24.9	19.1	1,535	19.1
Arizona .....	January	4,858	5,480	-11.4	5.5	4,858	5.5
<b>HOME SALES</b>							
Maricopa County - Number .....	January	7,240	11,240	-35.6	21.5	7,240	21.5
Maricopa County - Median Price(\$)	January	147,375	149,900	-1.7	4.4	147,375	12.1
<b>HOUSING AFFORDABILITY INDEXES</b>							
Metropolitan Phoenix - New Homes .....	4th Quarter	115	115	0.0	2.7	NA	NA
Metropolitan Phoenix - Resale Homes .....	4th Quarter	128	126	1.6	0.8	NA	NA
<b>MORTGAGE RATES (30-year Fixed)</b>							
Maricopa County .....	February	5.5	5.6	-1.8	-16.7	NA	NA
<b>POPULATION ESTIMATES (Thousands)</b>							
Maricopa County .....	4th Quarter	3,329	3,310	0.6	2.7	NA	NA
Pima County .....	4th Quarter	893	888	0.5	1.8	NA	NA
Balance of State .....	4th Quarter	1,314	1,304	0.8	2.8	NA	NA
Arizona .....	4th Quarter	5,536	5,502	0.6	2.6	NA	NA
<b>RETAIL SALES (Millions of \$)</b>							
Maricopa County .....	January	2,426	3,284	-26.1	3.7	2,426	3.7
Arizona .....	January	3,583	4,813	-25.5	4.1	3,583	4.1

Note: The above figures reflect the latest data available as of date of publication and are subject to revision.

NA = Not Applicable r = Revised

Source: Center for Business Research, Arizona Real Estate Center, and Bank One Economic Outlook Center, affiliates of the L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University. Retail sales data are from the Arizona Department of Revenue.