

FOCUS
ON
METROPOLITAN PHOENIX
HOUSING APPRECIATION
1981-1988

ARIZONA REAL ESTATE CENTER
COLLEGE OF BUSINESS
ARIZONA STATE UNIVERSITY

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Focus on Arizona Real Estate

This study represents a continuing series in which the Arizona Real Estate Center will examine specific aspects of the Arizona real estate market. In future months, research will be conducted concerning housing affordability, the characteristics of the non-metropolitan housing market and other topics of interest to the Arizona real estate industry. For additional information, please contact:

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Methodology

The appreciation measure presented in this report is calculated from home sales recorded with the Maricopa County Recorder's Office between 1981 and 1988. This information has been collected by the Arizona Real Estate Center in the College of Business, Arizona State University, from data supplied by Marketron Services, Inc., Phoenix, Arizona.

Even though real estate recordings may contain mistakes or other inaccurate information, they represent the most comprehensive and unbiased source of sales transactions. The use of recordings presents various problems: inaccurate information is not uncommon; newly built homes are not specifically indicated; transactions other than sales, such as a non-monetary transfer or a correction of an earlier recording, must be eliminated. Further, identification of specific units is frequently lacking for condominiums that share the same street address.

The appreciation study tracks the sales history of individual properties, by specific address, over time. The database consists of each property that sold more than once between 1981 and 1988 which passed the screening criteria imposed due to the problems inherent in the recordings.

The screening process consists of many steps. A transaction is eliminated if it is an exact duplicate of a previous recording, a duplicate in all respects except price, or if the price is less than \$10,000, since these transactions are typically re-recordings or errors. Properties recorded four or more times between 1981 and 1988 have been deleted, with the assumption that they have either been re-recorded or that they are not true market transactions. Sales recorded within three months of a prior sale have been deleted with the assumption that they may be either re-recordings or "fix-up"

investment purchases, rather than market transactions. Finally, if a property appreciated or depreciated more than 24 percent per year, it has been eliminated in a further attempt to delete mistakes and non-market transactions.

The appreciation rate for single-family homes was first calculated for the period from 1981 to 1983, and has been reported both quarterly and annually since. The townhouse/condominium rate was first measured for 1984; less history is provided due to the smaller number of sales, and the resulting smaller database.

The median (mid-point) appreciation rate is reported throughout this study. Use of the median rather than the mean (average) is preferred because the mean can be heavily skewed by a few extreme values.

Introduction

Home appreciation in the Phoenix area decelerated sharply during 1981 and 1982 from the high rates of appreciation that had characterized the late 1970s. The appreciation rate for single-family homes has been relatively stable since late 1982. However, a downward trend, extending through 1988, is evident.

In 1988, the median appreciation rate for single-family homes fell to 1.8 percent, from 2.4 percent in 1987 and 2.6 percent in 1986. This was the lowest annual rate, as well the largest decline from the prior year, since the study began in 1981.

The median townhouse/condominium depreciated for the first time in 1988. The median rate in 1988 was -0.8 percent, down from 0.0 in 1987 and 0.6 in 1986.

The continued slowing of the appreciation rate is partially explained by continued relatively low inflation rates. Gradually, the termination of the inflationary environment of the 1970s and early 1980s has been recognized, with the substitution of more moderate inflationary expectations.

In addition, the nature of the appreciation measure causes it to react slowly to changes in inflation rates. For example, even if inflation in home prices were to sharply accelerate during 1989, the appreciation rate would measure much less acceleration. A home sold at the end of 1989 that previously had sold at the end of 1981 would have experienced only one year of higher inflation and six years of relatively low inflation. The overall rate of appreciation on the home would not be great between 1981 and 1989.

Appreciation is also highly affected by demand and supply conditions in the housing market. In the late 1970s, when appreciation rates surged to levels higher than inflation rates, housing supply did not keep pace with the increased demand.

Many households had increased buying power, due at least partially to the further addition of women in the marketplace and the lender's acceptance of dual incomes when applying for mortgage loans. The additional buying power increased demand for housing. Material shortages, combined with the increased demand, created long waits for new homes, as well as higher prices. The increased demand, combined with the new home wait, resulted in upward pressure on resale homes as well, increasing price levels and therefore appreciation rates for both housing types.

Several factors have contributed to the current situation in which appreciation rates are lower than the inflation rate. Higher home prices in the late 1970s and early 1980s drove affordability down, reducing demand, so prices were restricted from accelerating as fast as they had been. The supply of and demand for housing became more stabilized, reducing the upward pressure on price. Many investors dropped out of the market, at least temporarily, waiting for higher appreciation and inflation to increase their investment potential. The combination of these factors has returned home ownership primarily to its pre-1970s status as a "place to live" rather than as an investment.

During 1988, the local real estate market was much weaker than during earlier years in the 1980's. Overbuilding in all sectors resulted in generally weak conditions and high vacancy rates. Low job growth and low net in-migration exacerbated the problem, resulting in a cycle in which

construction, resale of real estate properties, job growth, migration and vacancy rates all affected each other.

The pattern of appreciation of townhouses/condominiums has been different from that of single-family homes. In early 1984, the appreciation rate of townhouses/condominiums was not that much lower than the single-family rate, but by 1988 appreciation of townhouses/condominiums was negative. The townhouse/condominium market slumped badly, particularly during 1985 and 1988, with a decline in the number of sales as well as in the median sales price per-square-foot.

Obviously, not all homes appreciate at the same rate. A home's value is partially controlled by the owner, through maintenance, repair and improvement. Not controllable by the homeowner are determinants of appreciation that are a function of the entire market, such as the market price of the home.

Some homes inevitably decline in value, for a number of reasons. Many factors may contribute to a loss in price from one sale to the next, such as foreclosure sales; selling the home under "emergency" conditions, such as death, divorce or financial difficulties; originally purchasing the home for a price greater than the home's value; neighborhood deterioration or home deterioration.

Of all the 38,257 single-family homes selling more than once between 1981 and 1988 used in calculating the appreciation rate, sales prices increased on 74 percent; 23 percent declined. In contrast, only 52 percent of the 3,369 townhouses/condominiums that were used to calculate the appreciation rate from 1981-88 increased in price; 43 percent lost value.

Comparison to Other Measures of Inflation

Between 1983 and 1988, the appreciation rate did not keep up with the rate of inflation in consumer prices (see Table 1). In a stable environment, the two measures should be approximately equal over a period of a few years, though the appreciation rate would be expected to slightly lag changes in the general inflation rate.

While the median sales price of homes sold increased more rapidly than the appreciation and inflation rates between 1983 and 1988, most of the difference resulted from the increasing size of the typical home sold. The median sales price per-square-foot of existing single-family homes rose less than both the inflation rate and the appreciation rate of existing single-family homes.

The overall inflation rate is only an indication of the expected future trend in appreciation. Housing prices are themselves a component of inflation, thereby facilitating its movement, while other items included in the inflation rate have less than full impact on appreciation. For example, the 1.3 percent inflation rate in 1986 was considerably lower than the long-term average rate, due to dramatic declines in oil prices. However, only a portion of the drop in the inflation rate would be expected to show up in appreciation rates.

TABLE 1
INFLATION MEASURES

	1983	1984	Percent Change*			1988	1983-1988 Total*
			1985	1986	1987		
Metropolitan Phoenix Consumer							
Price Index	1.6	5.8	5.0	1.3	4.1	4.1	23.8
U.S. Consumer Price Index	3.2	4.3	3.6	1.9	3.7	4.1	22.6
Phoenix Area							
All single-family homes:							
Appreciation rate	3.6	3.2	2.9	2.8	2.5	2.0	18.2
Median sales price.	4.8	6.3	4.0	6.5	5.0	0.1	29.7
New single-family homes:							
Appreciation rate	5.7	4.7	4.8	4.2	3.7	3.0	29.1
Median sales price.	6.0	9.9	8.1	11.3	7.6	4.3	57.3
Existing single-family homes:							
Appreciation rate	2.9	2.7	2.6	2.4	2.1	1.7	15.3
Median sales price.	4.6	4.8	3.2	2.0	3.5	0.5	20.0
Median sales price per-square-foot.	2.9	3.0	2.2	3.1	2.2	-0.3	13.8
All townhouses and condominiums:							
Appreciation rate	NA	NA	1.3	0.7	0.1	-0.5	NA
Median sales price.	1.8	8.8	1.0	6.8	-2.9	-1.5	14.3
Existing townhouses and condominiums:							
Appreciation rate	NA	NA	1.5	1.1	0.2	-0.5	NA
Median sales price.	2.9	3.3	-1.6	2.6	-2.9	-0.8	3.4
Median sales price per-square-foot.	3.3	2.5	-1.4	3.6	-0.7	-1.2	6.1

*Calculated at a quarterly compound rate. Appreciation rates in this table may differ slightly from those in the rest of the report due to the different method of compounding.

NA: Not available due to insufficient number of sales

Source: Arizona Real Estate Center, College of Business, Arizona State University. U.S. Consumer Price Index is from the U.S. Department of Labor, Bureau of Labor Statistics.

By Quarter of First Sale

During much of 1981-88, the rate of appreciation for single-family homes was relatively stable near 2.4 percent per year, regardless of when the home first sold during this period. Two exceptions, however, are obvious from Table 2:

- ° Homes that first sold during the 1981-82 recession had the lowest appreciation rates.
- ° The highest appreciation rate occurred for homes first sold in mid-1986. In this case, the time of the first sale is not significant. Instead, the correlation is with the elapsed time between sales (see page 10).

Little pattern exists in appreciation of townhouses/condominiums. The second half of the time period is not available because of the relatively few number of properties that sold more than once within one-to-three years.

TABLE 2
 MEDIAN RATE OF METRO PHOENIX HOME APPRECIATION
 By Quarter of First Sale¹
 Percent Change Per Year

		<u>Single- family</u>	<u>Townhouse/ Condominium</u>			<u>Single- family</u>	<u>Townhouse/ Condominium</u>
1981	I	2.8%	1.2%	1985	I	2.3%	-0.2%
	II	2.4	0.0		II	2.2	0.0
	III	2.2	0.2		III	2.4	*
	IV	2.0	0.6		IV	2.8	-0.6
1982	I	2.0	1.6	1986	I	2.4	-0.1
	II	1.8	0.6		II	3.3	0.1
	III	2.1	0.9		III	3.2	*
	IV	2.6	0.4		IV	3.4	*
1983	I	3.0	0.0	1987	I	3.3	*
	II	2.6	0.0		II	3.9	*
	III	2.5	0.0		III	2.8	*
	IV	2.4	0.0		IV	0.5	*
1984	I	2.4	0.0	1988	I	*	*
	II	2.0	0.0		II	*	*
	III	2.3	0.0		III	*	*
	IV	2.4	0.3		IV	*	*
					TOTAL	2.4	0.3

¹As an example, if a property sold in 1981, 1984 and 1988, the appreciation rate on the period from 1981 to 1988 is shown in 1981.

*Insufficient number of sales.

Source: Arizona Real Estate Center, College of Business, Arizona State University.

By Quarter of Subsequent Sale

The appreciation rate for single-family homes has been relatively stable since its sharp deceleration during 1981 and 1982 from the high rates in the late 1970s. However, a downward trend is evident (see Table 3). Between 1981 and 1988, appreciation rates for single-family homes decreased from 3.4 percent to 1.8 percent per year.

Townhouses and condominiums followed the same downward trend, but the decrease was more dramatic than for single-family homes. Townhouse rates fell from 2.8 percent per year to -0.8 percent per year.

TABLE 3
 MEDIAN RATE OF METRO PHOENIX HOME APPRECIATION
 By Quarter of Subsequent Sale¹
 Percent Change Per Year

		<u>Single- family</u>	<u>Townhouse/ Condominium</u>			<u>Single- family</u>	<u>Townhouse/ Condominium</u>
1981	IV	6.0%	*	1985	I	2.8%	1.2%
					II	2.9	1.1
1982	I	4.8	*		III	3.0	0.6
	II	4.0	*		IV	2.7	0.8
	III	4.8	*				
	IV	3.2	*	1986	I	2.6	0.7
					II	2.7	0.8
1983	I	3.6	*		III	2.8	0.2
	II	3.2	*		IV	2.4	0.3
	III	3.2	*				
	IV	3.2	*	1987	I	2.4	0.2
					II	2.6	0.0
1984	I	3.2	2.4		III	2.6	0.0
	II	3.2	2.4		IV	2.2	-0.3
	III	3.2	1.6				
	IV	2.8	1.6	1988	I	1.8	-0.4
					II	1.7	-0.8
					III	1.9	-0.8
					IV	1.7	-1.0
					TOTAL	2.4	0.3

¹As an example, if a home sold in the fourth quarters of 1981, 1984 and 1988, the appreciation rate from 1981-1984 is shown in fourth quarter 1984, and the rate for 1981-1988 is shown in fourth quarter 1988.

*Insufficient number of sales.

Source: Arizona Real Estate Center, College of Business, Arizona State University.

By Number of Elapsed Quarters Between Sales

Single-family homes recorded the highest rate of appreciation per quarter when the property was resold approximately three-to-five quarters later (see Table 4). Rates were more erratic for townhouses/condominiums, but properties held for shorter periods of time had the highest appreciation rates. The explanation for this phenomenon is probably similar to the reasons for new homes apparently appreciating more rapidly than existing homes (see page 15). After purchasing a home, improvements and/or repairs are frequently added, raising the home's value. The gain in value is a one-time phenomenon, however, and may merely represent recovery of the cost of the repairs/improvements.

Because of the one-time nature of the increase in value, its impact dissipates over time when measured by a rate per quarter. Thus, the greater the number of elapsed quarters between sales, the lower the appreciation rate per quarter, especially for townhouses/condominiums.

TABLE 4
 MEDIAN RATE OF METRO PHOENIX HOME APPRECIATION
 By Number of Elapsed Quarters Between Sales¹
 Percent Change Per Year, 1981-88

<u>Number of Quarters</u>	<u>Single- family</u>	<u>Townhouse/ Condominium</u>	<u>Number of Quarters</u>	<u>Single- family</u>	<u>Townhouse/ Condominium</u>
2	1.3% ¹	2.6%	15	2.3%	0.0%
3	3.9	2.2	16	2.2	-0.5
4	4.6	3.4	17	2.0	0.0
5	4.0	2.1	18	2.0	0.0
6	3.8	2.6	19	2.0	0.0
7	3.5	1.4	20	2.0	-0.3
8	3.1	1.0	21	1.7	-0.1
9	3.0	1.1	22	2.0	-0.2
10	2.6	0.0	23	1.8	*
11	2.4	0.6	24	1.8	*
12	2.4	0.4	25	1.7	*
13	2.3	0.7	26	1.7	*
14	2.3	-0.5	27	1.6	*
			28	1.8	*
			29	1.8	*
			30	2.0	*
			TOTAL	2.4	0.3

¹The mean rate, 3.1 percent, was sharply higher than the median, indicating wide dispersion in the increase in price during such a short span of time.

*Insufficient number of sales.

Source: Arizona Real Estate Center, College of Business, Arizona State University.

By Price Range

The price of the home exerts the strongest influence on the rate of appreciation. Single-family homes that sold for more than \$100,000 appreciated about three times as fast as those that sold for less than \$60,000 (see Tables 5, 6 and 7). The overall median rate of appreciation for both new and resale homes is inhibited by the abundance of lower-priced homes. All price ranges of both new and resale homes greater than \$100,000 appreciated more than 3 percent per year. Resale single-family homes priced less than \$40,000 experienced no appreciation.

Townhouses/condominiums at all price levels appreciated slower than single-family homes of the same level. Townhouses selling for more than \$80,000 appreciated at approximately 1.0 to 1.5 percent per year, less than the comparable rate for single-family homes. The typical townhome selling for less than \$50,000 depreciated.

The wide differential in the appreciation rates of townhouses/condominiums and single-family homes is partially explained by lower townhouse/condominium prices. Other factors, however, such as relatively low demand for townhomes, probably better explain the difference.

The positive relationship between appreciation and price holds after adjusting the sales price for the size of the home. Homes that should sold between 1981 and 1988 for a price in excess of the median \$55 per square foot appreciated 3.9 percent per year, compared to a rate of 2.1 percent per year for less expensive homes. This relationship is the same as last year, when a median per-square-foot amount of \$54 was used.

New single-family homes that sold for more than \$200,000 had the highest rate of appreciation between 1981 and 1988 - about 6.6 percent annually. All

categories of new single-family homes selling for \$90,000 or more had rates in excess of the 3.7 percent rate for all new homes, while all categories under \$90,000 had rates below the overall median.

For resale single-family homes, the highest rate of appreciation (4.6 percent) occurred for homes selling for \$200,000-299,999, followed by homes selling for \$300,000 or more. The difference between rates for new and resale homes increased as the price increased. Resale homes appreciated at rates equal to or slightly above new homes at prices below \$70,000, but the spread between new and resale homes increased to 1.5 percent or more when sales prices were \$100,000 or more.

Townhouses showed less upward trending as the price increased, but the lowest priced units did exceptionally poorly. Units selling for less than \$40,000 depreciated 4.0 percent, and positive rates were not reached until the price was \$60,000 or higher.

TABLE 5
 MEDIAN RATE OF METRO PHOENIX HOME APPRECIATION
 By Price Range
 Percent Change Per Year, 1981-88

	Single-family			Townhouse/Condominium
	<u>Total</u>	<u>New</u>	<u>Resale</u>	<u>Total</u>
Less than \$40,000	-0.8%	*	-0.6%	-4.0%
\$40,000 - 49,999	0.6	0.4	0.6	-0.8
\$50,000 - 59,999	1.7	1.4	1.8	0.0
\$60,000 - 69,999	2.0	2.0	2.0	0.9
\$70,000 - 79,999	2.4	2.8	2.3	1.8
\$80,000 - 89,999	2.6	3.5	2.4	1.2
\$90,000 - 99,999	2.8	3.8	2.6	1.5
\$100,000 - 109,999	3.7	4.9	3.2	0.8
\$110,000 - 119,999	3.8	5.3	3.2	1.2
\$120,000 - 149,999	3.3	3.8	3.2	1.0
\$130,000 - 139,999	3.6	4.6	3.2	*
\$140,000 - 149,999	3.6	4.7	3.2	*
\$150,000 - 174,999	3.1	5.1	3.0	1.2
\$175,000 - 199,999	3.9	6.2	3.6	*
\$200,000 - 299,999	4.8	6.6	4.6	*
\$300,000 or more	4.0	*	3.8	*
TOTAL	2.4	3.7	2.0	0.3

*Insufficient number of sales.

Source: Arizona Real Estate Center, College of Business, Arizona State University.

TABLE 6
 MEDIAN RATE OF METRO PHOENIX HOME APPRECIATION
 By Price Range
 Percent Change Per Year, Single-family Only, 1981-1988

	<u>Less Than \$60,000</u>	<u>\$60,000 to \$99,999</u>	<u>\$100,000 to \$149,999</u>	<u>\$150,000 or more</u>
1982	1.4%	4.3%	*	*
1983	1.3	3.5	5.5	*
1984	2.1	3.2	4.6	4.0
1985	1.5	2.8	4.9	5.0
1986	1.5	2.7	3.7	3.7
1987	1.0	2.4	3.7	3.7
1988	0.1	1.8	2.9	3.5
TOTAL 1981-88	1.2	2.4	3.6	3.8

Source: Arizona Real Estate Center, College of Business, Arizona State University.

TABLE 7
 MEDIAN RATE OF METRO PHOENIX HOME APPRECIATION¹
 By Quarter of Subsequent Sale and Price Range¹
 Percent Change Per Year, Single-family Only, 1981-88

		<u>Less Than \$60,000</u>	<u>\$60,000 to \$99,999</u>	<u>\$100,000- 149,999</u>	<u>\$150,000 or more</u>
1982	I	*	*	*	*
	II	*	3.2	*	*
	III	*	5.8	*	*
	IV	1.4	3.9	*	*
1983	I	1.8	3.6	*	*
	II	0.0	3.5	*	*
	III	1.6	3.4	5.9	*
	IV	1.7	3.5	5.0	*
1984	I	1.8	3.4	3.9	3.8
	II	2.6	3.2	4.6	2.4
	III	2.3	3.3	5.5	4.4
	IV	1.6	3.0	4.3	5.5
1985	I	1.7	2.8	5.5	5.4
	II	1.6	2.8	4.8	5.2
	III	1.6	2.8	4.6	5.0
	IV	1.2	2.7	4.6	4.3
1986	I	1.3	2.8	3.6	4.5
	II	2.0	2.7	3.2	3.6
	III	1.6	2.8	3.8	3.6
	IV	1.2	2.4	4.0	3.1
1987	I	1.4	2.4	3.7	3.6
	II	1.0	2.6	3.9	3.7
	III	1.3	2.3	3.7	3.9
	IV	0.4	2.2	3.5	3.7
1988	I	0.3	1.7	3.2	2.6
	II	0.0	1.9	2.5	3.8
	III	0.0	1.8	3.0	4.0
	IV	0.0	1.7	2.8	3.5
TOTAL	1981-88	1.2	2.4	3.6	3.8

¹As an example, if a home sold in the fourth quarters of 1981, 1984 and 1988, the rate between 1981-1984 is shown in fourth quarter 1984, and the rate for 1981-1987 is shown in fourth quarter 1988, each in the price range of the second sale.

*Insufficient number of sales.

Source: Arizona Real Estate Center, College of Business, Arizona State University.

New vs. Resale Homes

New homes, defined as those originally built and later resold between 1981 and 1988, appreciated significantly faster than resale homes (see Table 8). This relationship applied to both single-family homes and townhouses/condominiums, for all time periods and all price ranges (see Table 9).

The more rapid 3.5 percent appreciation of new homes is largely illusory, however. The higher rate - nearly double the 2.0 percent of existing homes - lasted only until the first resale of the home. At least a portion of the gain reflects additional expenses that most buyers of new homes incur in making improvements, such as landscaping and draperies, which add to the value of the property. Further, new homes generally are more expensive than resale homes, even on a price-per-square-foot basis. Thus, new homes appreciate faster mainly because of improvements and higher prices.

In contrast to single-family homes, new townhouses/condominiums appreciated no faster than resale units from 1981 to 1987. During 1988, resale townhouses depreciated 0.8 percent, lowering their 1981-88 rate to 0.3 percent, below the 1981-88 rate for new townhouses of 0.8 percent. One cause for the lower townhouse appreciation rate is the smaller price difference between new and existing townhomes. Other factors, however, such as relatively low demand for townhomes and high foreclosure rates, probably better explain the difference.

TABLE 8
 MEDIAN RATE OF METRO PHOENIX HOME APPRECIATION
 By Quarter of Subsequent Sale and New vs. Resale
 Percent Change Per Year

		Single-family		Townhouse/Condominium
		<u>New</u>	<u>Resale</u>	<u>Resale</u>
1981	IV	*	5.5%	*
1982	I	*	4.4	*
	II	*	3.5	*
	III	*	3.9	*
	IV	*	2.8	*
1983	I	6.1	2.4	*
	II	4.2	2.4	*
	III	5.1	2.4	*
	IV	4.4	2.8	*
1984	I	5.0	2.5	*
	II	4.4	2.8	2.4
	III	5.0	2.8	1.4
	IV	5.1	2.4	1.7
1985	I	4.3	2.4	1.7
	II	4.2	2.4	1.5
	III	4.5	2.4	0.6
	IV	4.2	2.0	0.8
1986	I	3.9	2.2	1.2
	II	3.8	2.3	1.0
	III	3.8	2.4	0.2
	IV	3.7	2.0	0.4
1987	I	3.6	2.0	0.0
	II	3.6	2.1	0.0
	III	3.5	2.2	0.1
	IV	3.0	1.8	-0.3
1988	I	2.7	1.4	-0.7
	II	2.3	1.5	-1.0
	III	2.6	1.5	-0.8
	IV	2.4	1.3	-1.3
TOTAL		3.5	2.0	0.3

¹As an example, if a home sold in the fourth quarters of 1981, 1984 and 1988, the rate for 1981-1984 is shown in fourth quarter 1984, and the rate for 1981-1988 is shown in fourth quarter 1988, each in the price range of the second sale.

*Insufficient number of sales. New townhouse/condominiums had an insufficient number for all periods; their 1981-88 appreciation rate was 0.9 percent.

Source: Arizona Real Estate Center, College of Business, Arizona State University.

TABLE 9
 MEDIAN RATE OF METRO PHOENIX HOME APPRECIATION
 By Quarter of Subsequent Sale, Price Range and New vs. Resale¹
 Percent Change Per Year, Single-family Only

		Resale			New	
		Less Than \$60,000	\$60,000 to \$99,999	\$100,000 or more	\$60,000 to \$99,999	\$100,000 or more
1982	III	*	4.3	*	*	*
	IV	1.5	3.1	*	*	*
1983	I	1.4	3.0	*	*	*
	II	0.0	2.9	*	*	*
	III	1.5	2.9	4.6	5.2	*
	IV	1.6	3.1	3.9	4.3	*
1984	I	1.7	2.7	3.2	5.9	*
	II	2.6	2.8	3.4	4.6	*
	III	2.3	2.8	3.5	4.7	*
	IV	1.2	2.4	3.1	4.5	*
1985	I	1.4	2.5	4.5	3.6	*
	II	1.2	2.3	3.8	4.1	7.4
	III	1.6	2.2	4.0	4.2	6.9
	IV	1.0	2.0	2.8	3.6	6.0
1986	I	1.2	2.3	2.9	3.8	5.4
	II	1.9	2.4	2.6	3.6	5.2
	III	1.5	2.5	2.9	3.4	5.8
	IV	1.2	2.0	3.0	3.5	5.2
1987	I	1.5	2.0	2.6	3.4	5.5
	II	1.0	2.3	2.7	3.0	5.5
	III	1.4	2.1	3.0	2.9	5.0
	IV	0.4	2.0	2.7	2.5	5.4
1988	I	0.4	1.5	2.3	2.2	4.7
	II	0.0	1.8	2.0	2.0	4.0
	III	0.0	1.7	2.6	2.1	4.0
	IV	0.0	1.5	2.2	1.9	3.9
TOTAL		1.2	2.2	2.8	3.2	5.1

¹As an example, if a home sold in the fourth quarters of 1981, 1984 and 1988, the rate for 1981-1984 is shown in fourth quarter 1984, and the rate for 1981-1988 is shown in fourth quarter 1988, each in the price range of the second sale.

*Insufficient number of sales. Insufficient number in all subcategories prior to third quarter 1982 and all time periods for new homes priced less than \$60,000. The 1981-88 appreciation rate for the latter category was 1.3 percent per year.

Source: Arizona Real Estate Center, College of Business, Arizona State University.

Comparison of Townhomes to Single-family Homes

The small number of townhouses/condominiums that sold more than once prevented using a geographic division with the same amount of detail as that for single-family homes. Except in the West Valley, where townhouse sales occurred primarily in Sun City West, the appreciation rate for townhouses between 1981-88 was less than that for single-family homes (see Table 10). The geographic pattern was similar for townhomes and single-family homes, with the highest rates in the new and/or more expensive areas and in retirement communities. The lowest rates, including depreciation of townhouses/condominiums, occurred in the north and west areas of Phoenix.

TABLE 10
 COMPARISON OF SINGLE-FAMILY HOME APPRECIATION
 TO TOWNHOUSE/CONDOMINIUM APPRECIATION
 By Combined Geographic District
 Median Percent Change Per Year, 1981-88

District	<u>Single- family</u>	<u>Townhouse/ Condominium</u>
1N - North Scottsdale	3.5%	0.3%
1S - South Scottsdale	2.4	0.6
2 - Paradise Valley.	3.1	0.9
3, 8 - North Central Phoenix.	2.2	-0.7
4N - Northwest Phoenix.	2.1	-0.4
4S - Metrocenter.	1.7	-1.5
5 - Sun City/Youngtown/Peoria.	2.8	0.9
6 - Glendale	2.0	-0.2
7, 12, 13- West Phoenix	1.5	-1.0
9, 10, 11 14, 15 - East Central and South Phoenix	2.8	0.1
16N, 16S - Tempe.	2.3	0.0
17N, 17S 18, 19 - Southeast Valley	3.0	1.3
20, 22W - West Valley.	4.0	4.6
21 - North Valley	2.0	0.3
TOTAL, METROPOLITAN PHOENIX	2.4	0.3

Source: Arizona Real Estate Center, College of Business, Arizona State University. District designations are copyrighted by the Phoenix Metropolitan Housing Study Committee.

By City

Housing appreciation rates vary by city throughout the Valley. While the median rate in 1988 for single-family homes in the overall metropolitan area was 1.8 percent, the rate in Valley cities ranged from 0.8 percent to 2.6 percent in all the larger areas except Sun City West, where the rate was 7.2 percent (see Table 11). Chandler, Mesa, Peoria and Scottsdale all had rates somewhat higher than the overall median of 1.8 percent, but only Sun City West's rate was higher than the 4.1 percent rate of inflation.

The overall metro rate in 1988 for townhouses/condominiums was -0.8 percent. Rates in valley cities ranged from -2.3 percent to -0.2 percent (see Table 12). The small number of townhouses in many cities results in an insufficient number of sales to produce a reliable appreciation rate.

Census tracts from 1980 were combined to form city boundaries; unfortunately, not all tracts coincide exactly with these boundaries. For example, a small portion of Peoria is included in a tract which is primarily Sun City. In some areas where growth has increased dramatically in recent years (such as Gilbert and Chandler), the old tracts may include portions of these areas with bordering cities (such as Mesa).

In many areas of recent growth, an insufficient number of properties have sold more than once during the time under study to produce reliable annual rates. However, the number of sales in many of these areas is large enough to produce an overall 1981-88 rate. Examples of these smaller areas include Fountain Hills, Gilbert, and Paradise Valley; each of these areas appreciated faster than the metro median of 2.4 percent for single-family homes between 1981 and 1988, but the small number of sales reduces the reliability of their annual rates.

Most of the deviation in appreciation rates throughout the Valley can be explained by price and the proportion of new homes in the area. The highest rates from 1981-88 occurred in Sun City West, Fountain Hills, Gilbert, and Paradise Valley, all areas with high concentrations of new and/or expensive homes. The lowest rates occurred in Glendale, Phoenix, Sun City and Tempe, areas with lower proportions of new and/or expensive homes.

All of the larger cities followed the pattern of declining rates between 1981 and 1988. Rates for single-family homes were higher than the metro median each year in Chandler, Mesa, Peoria and Sun City West.

TABLE 11
 MEDIAN RATE OF METRO PHOENIX HOME APPRECIATION
 By City
 Percent Change Per Year, Single-family Only

<u>City</u>	<u>1981-83¹</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1981-88¹</u>
Chandler. . . . .	.4.3%	4.6%	4.3%	3.6%	3.3%	2.6%	3.3%
Fountain Hills.	*	*	*	*	*	*	5.5
Gilbert	*	*	*	*	*	*	3.9
Glendale. . . . .	.3.7	3.2	2.4	2.3	2.1	1.4	2.1
Mesa. . . . .	.3.6	3.2	3.4	2.8	3.1	2.0	2.8
Paradise Valley	*	*	*	*	*	*	3.8
Peoria.	*	4.3	3.3	3.6	2.9	1.9	2.8
Phoenix . . . . .	.3.0	2.8	2.4	2.4	2.1	1.5	2.1
Scottsdale. . . . .	.3.2	3.2	3.6	2.8	2.9	2.4	2.8
Sun City.	*	5.7	3.6	2.5	2.1	0.8	2.3
Sun City West	*	*	10.5	8.9	9.0	7.2	8.4
Tempe . . . . .	.3.3	2.0	2.8	2.6	2.1	2.0	2.3
TOTAL, METROPOLITAN PHOENIX	3.4	3.1	2.9	2.6	2.4	1.8	2.4

¹Median percent change for each year within range.

*Insufficient number of sales.

Source: Arizona Real Estate Center, College of Business, Arizona State University.

TABLE 12
 MEDIAN RATE OF METRO PHOENIX HOME APPRECIATION
 By City
 Percent Change Per Year, Townhouse/Condominium

City	<u>1981-83</u> ¹	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1981-88</u> ¹
Chandler	*	*	*	*	*	*	*
Fountain Hills	*	*	*	*	*	*	*
Gilbert	*	*	*	*	*	*	*
Glendale	*	*	*	*	*	2.3	-0.4
Mesa	*	*	*	*	*	*	1.4
Paradise Valley	*	*	*	*	*	*	*
Peoria	*	*	*	*	*	*	*
Phoenix	2.3	*	*	0.0	-0.8	-1.4	-0.1
Scottsdale	*	*	*	0.4	0.5	-0.3	0.6
Sun City	*	*	*	1.1	0.2	-1.0	0.8
Sun City West	*	*	*	*	*	*	5.0
Tempe	*	*	*	*	-0.1	-0.2	0.0
TOTAL, METROPOLITAN PHOENIX	2.8	1.7	1.0	0.6	0.0	-0.8	0.3

¹Median percent change for each year within range.

*Insufficient number of sales.

Source: Arizona Real Estate Center, College of Business, Arizona State University.

By Geographic District

District comparison may be used as an alternative to city comparison. The benefit is evident primarily in extremely large and/or diverse cities, such as Phoenix and Scottsdale, where various areas within the city may be vastly different. When district designations were originally determined, an attempt was made to group "like" areas to the extent possible, while considering the requirement for a minimum number of resales in each area. Since all parts of Maricopa County are included, the outer districts, such as North Scottsdale and Sun City West, include transactions in the rural areas of the county as well as the primary area covered by the district (see Figure 1).

Between 1981 and 1988, appreciation in most districts was either relatively stable or it declined modestly, similar to the deceleration measured Valleywide. The rate was erratic from year to year in several districts, largely the result of few homes reselling.

The 1988 rate ranged between 0.3 percent and 3.9 percent in all districts except Sun City West, which measured 6.8 percent (see Table 13). For the period from 1981 to 1988, rates varied from 1.3 to 3.5 percent in all areas except Sun City West, which appreciated 7.8 percent. While the 1981-88 rate in a number of districts differed significantly from the metro total in a statistical sense, the difference was usually slight in a practical sense.

Most of the deviation in district appreciation rates can be explained by price and the proportion of new homes. Higher-priced homes appreciated considerably faster than lower-priced homes in all districts except north Scottsdale, south Phoenix, and north Mesa (see Table 14). Rates were higher for new homes than for resale homes in all districts (see Table 15).

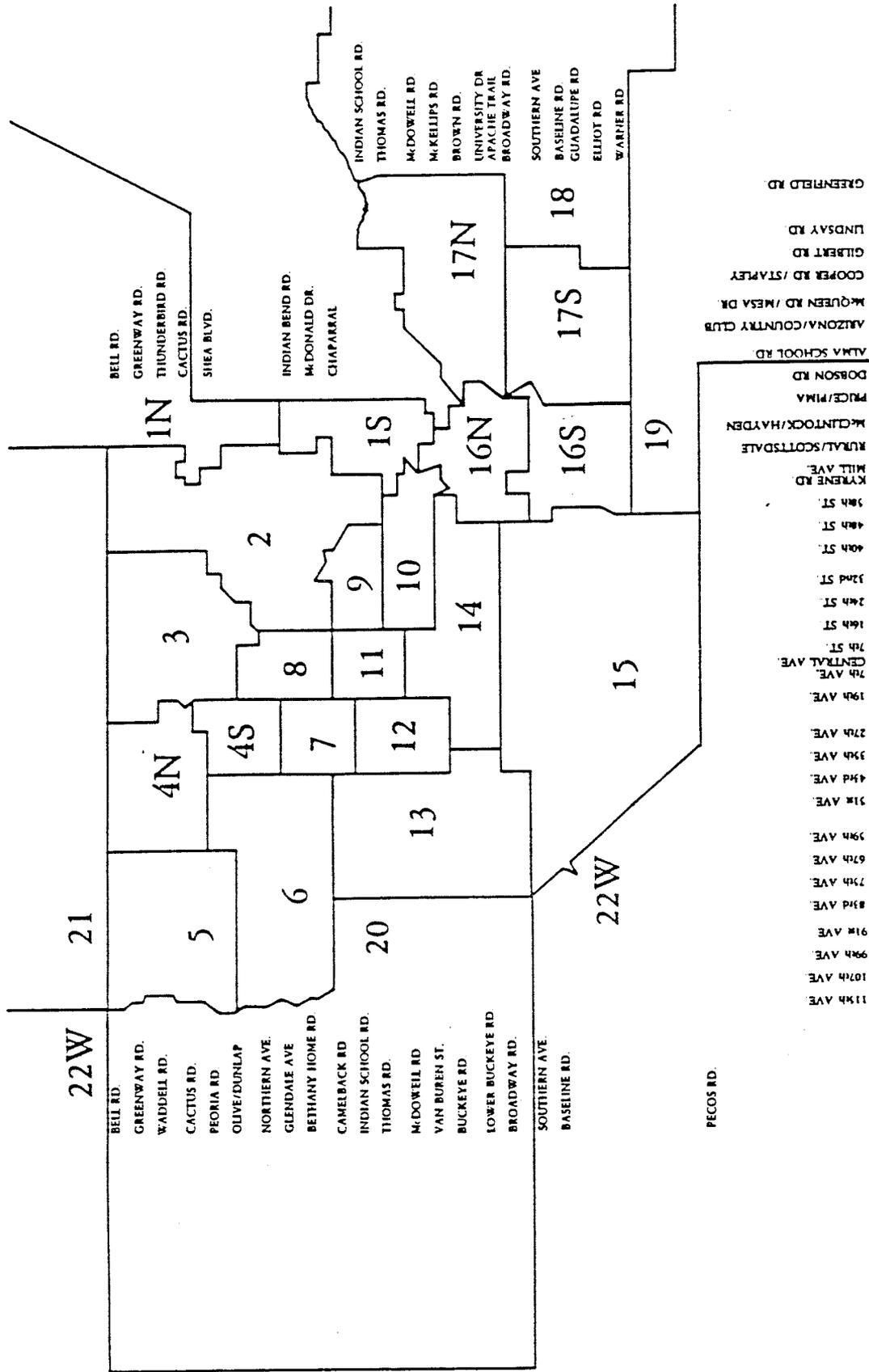
The highest rates in 1988 occurred in the newer, more expensive districts of North Scottsdale, Paradise Valley and south central Phoenix and in the retirement area of Sun City West. The lowest rates were measured in the older and/or less expensive areas of Phoenix, including Maryvale, Christown, Metrocenter and the western suburbs.

Between 1981 and 1988, homes appreciated fastest in Sun City West, North Scottsdale, East Mesa and Chandler/Gilbert. The lowest rates occurred in Maryvale, Metro Center, Christown and the western suburbs.

Home values appreciated considerably faster than the metro median during 1981-88 in the districts of Sun City West, North Scottsdale, East Mesa and Chandler/Gilbert. The most significant downward trends occurred in Sun City and the Western Suburbs. Rates in Sun City fell from the third-highest overall in 1981-83 to slightly below the metro median in 1988. The Western Suburbs, which had been fifth-highest, dropped to the second lowest rate in 1987.

In 1988, home appreciation kept up with the Valley's 4.1 percent rate of inflation only in the district of Sun City West. All other districts recorded appreciation less than inflation.

**FIGURE I
PHOENIX METROPOLITAN AREA STATISTICAL DISTRICTS**



Note: Districts 1N, 18, 19, 21, 22E and 22W extend to the Maricopa County boundaries.

Source: Phoenix Metropolitan Housing Study Committee.

TABLE 13
 MEDIAN RATE OF METRO PHOENIX HOME APPRECIATION
 By Geographic District
 Percent Change Per Year, Single-family Only

District	1981-83 ¹	1984	1985	1986	1987	1988	1981-88
1N - North Scottsdale	3.4%	3.5%	4.6%	3.4%	3.7%	3.1%	3.5% ^H
1S - South Scottsdale	2.6	2.8	2.5	2.4	2.3	1.8	2.4 ^H
2 - Paradise Valley	5.3	4.2	3.5	2.9	3.2	2.8	3.1 ^H
3 - North Sunnyslope/Moon Valley	2.9	2.6	2.5	2.5	2.1	1.5	2.1 ^L
4N - Northwest Phoenix	3.6	3.0	2.2	2.4	2.0	1.2	2.1 ^L
4S - Metrocenter	1.7	2.3	2.3	1.8	1.8	1.1	1.7 ^L
5 - Sun City/Youngtown/Peoria	4.9	5.0	3.6	3.6	2.7	1.5	2.8 ^L
6 - Glendale	3.4	2.6	2.4	2.0	2.0	1.4	2.0 ^L
7 - Christown	1.9	2.1	2.0	1.9	1.5	1.2	1.7 ^L
8 - North Central Phoenix	2.5	3.8	4.4	3.0	2.9	1.8	2.8
9 - East Camelback	2.6	3.9	3.5	2.6	2.8	2.2	2.7
10 - East Central Phoenix	2.2	4.5	2.1	3.4	1.7	2.4	2.6
11 - Mid-town Phoenix	1.9	3.0	4.3	3.0	3.9	2.2	3.0
12 - West Central Phoenix	2.7	2.6	2.7	2.4	2.6	1.4	2.4 ^L
13 - Maryvale	2.0	2.0	1.8	1.6	1.3	0.3	1.3 ^L
14 - Downtown/South Central Phoenix	0.0	3.9	0.7	2.7	3.1	3.9	2.8
15 - South Phoenix/Ahwatukee	3.3	4.3	2.9	3.6	2.9	2.4	3.0
16N- North Tempe	3.0	0.9	3.0	3.2	2.1	2.0	2.5 ^L
16S- South Tempe	3.0	2.2	2.7	2.5	2.1	2.0	2.2 ^L
17N- North Mesa	3.8	2.0	2.5	3.2	2.8	1.8	2.4
17S- South Mesa	3.6	3.9	3.6	2.6	2.6	1.9	2.7 ^H
18 - East Mesa	4.7	3.4	3.7	3.4	3.7	2.4	3.4 ^H
19 - Chandler/Gilbert	3.4	3.6	4.5	3.6	3.6	2.6	3.4 ^H
20 - Western Suburbs	4.6	2.2	3.9	2.5	1.5	0.7	1.6 ^L
21 - Deer Valley	4.0	2.8	2.3	2.3	1.9	1.4	2.0 ^L
22W- Sun City West/Rural Maricopa Co.	6.3	8.8	9.8	7.0	7.8	6.8	7.8 ^H
TOTAL, METROPOLITAN PHOENIX	3.4	3.1	2.9	2.6	2.4	1.8	2.4

* District numbers correspond to the district in Figure I on page 28.

¹Median percent change for each year within range.

^HThe mean associated with this median is significantly higher than the mean for all of metropolitan Phoenix, tested at the .01 level of statistical significance.

^LThe mean associated with this median is significantly lower than the mean for all of metropolitan Phoenix, tested at the .01 level of statistical significance.

Source: Arizona Real Estate Center, College of Business, Arizona State University. District designations are copyrighted by the Phoenix Metropolitan Housing Study Committee.

TABLE 14
 MEDIAN RATE OF METRO PHOENIX HOME APPRECIATION
 By Geographic District and Price Range
 Percent Change Per Year, 1981-1988, Single-family Only

District	Less Than \$60,000	\$60,000 to \$99,999	\$100,000 to \$149,999	\$150,000 or more
1N - North Scottsdale	*	3.9%	3.3%	3.6%
1S - South Scottsdale	*	2.2	3.4	*
2 - Paradise Valley	*	2.3	3.2	4.0
3 - North Sunnyslope/Moon Valley . . .	1.1	2.2	3.1	2.6
4N - Northwest Phoenix	0.0	1.8	4.3	*
4S - Metrocenter	0.4	1.9	*	*
5 - Sun City/Youngtown/Peoria	2.3	2.7	4.2	*
6 - Glendale	0.9	2.0	2.6	*
7 - Christown	1.2	2.0	*	*
8 - North Central Phoenix	*	2.4	3.0	4.8
9 - East Camelback	0.6	2.7	*	*
10 - East Central Phoenix	2.6	2.7	*	*
11 - Mid-town Phoenix	1.1	3.9	*	*
12 - West Central Phoenix	2.1	*	*	*
13 - Maryvale	0.8	2.6	*	*
14 - Downtown/South Central Phoenix . .	2.8	*	*	*
15 - South Phoenix	2.5	2.8	3.6	2.7
16N- North Tempe	1.6	2.6	4.1	*
16S- South Tempe	*	2.2	2.6	*
17N- North Mesa	2.2	2.8	2.0	*
17S- South Mesa	2.0	2.8	3.7	*
18 - East Mesa	2.3	3.8	5.6	*
19 - Chandler/Gilbert	2.6	3.0	4.8	*
20 - Western Suburbs	0.3	2.2	*	*
21 - Deer Valley	0.8	2.1	3.3	*
22W- Sun City West/Rural Maricopa Co. .	*	6.6	8.5	*
TOTAL, METROPOLITAN PHOENIX	1.2	2.4	3.6	3.8

*Insufficient number of sales.

Source: Arizona Real Estate Center, College of Business, Arizona State University.
 District designations are copyrighted by the Phoenix Metropolitan Housing Study
 Committee.

TABLE 15
 MEDIAN RATE OF METRO PHOENIX HOME APPRECIATION
 By Geographic District and New vs. Resale
 Percent Change Per Year, 1981-88, Single-family Only

<u>District</u>	<u>New</u>	<u>Resale</u>
1N - North Scottsdale	4.9%	2.2%
1S - South Scottsdale	*	2.3
2 - Paradise Valley	4.6	2.2
3 - North Sunnyslope/Moon Valley	3.1	2.0
4N - Northwest Phoenix	3.2	1.7
4S - Metrocenter	*	1.7
5 - Sun City/Youngtown/Peoria	3.0	2.5
6 - Glendale	3.2	1.7
7 - Christown	*	1.7
8 - North Central Phoenix	*	2.8
9 - East Camelback	*	2.6
10 - East Central Phoenix	*	2.6
11 - Mid-town Phoenix	*	3.0
12 - West Central Phoenix	*	2.2
13 - Maryvale	1.6	1.3
14 - Downtown/South Central Phoenix	*	2.9
15 - South Phoenix	3.4	2.6
16N- North Tempe	*	2.4
16S- South Tempe	2.9	2.1
17N- North Mesa	3.1	2.3
17S- South Mesa	3.8	2.1
18 - East Mesa	3.9	2.8
19 - Chandler/Gilbert	3.6	3.0
20 - Western Suburbs	2.5	1.4
21 - Deer Valley	2.4	1.4
22W- Sun City West/Rural Maricopa Co.	10.5	4.3
TOTAL, METROPOLITAN PHOENIX	3.5	2.0

*Insufficient number of sales.

Source: Arizona Real Estate Center, College of Business, Arizona State University. District designations are copyrighted by the Phoenix Metropolitan Housing Study Committee.

Comparison of Districts to Metro Area

A discussion primarily of the single-family appreciation rate in each district during 1981-88 follows. Comparisons are made to these metro area proportions: 74 percent of all single-family homes appreciated; 15 percent appreciated at least 8.0 percent per year, 21 percent increased between 4 percent and 8 percent, and 38 percent appreciated less than 4 percent annually. Seven percent of the single-family homes depreciated more than 4 percent per year, and 15 percent declined between zero and 4 percent annually (see Table 16). The median overall rate was 1.8 percent in 1988 and 2.4 percent per year from 1981-88. All comparisons are made to the single-family rates unless stated otherwise.

Only 53 percent of all townhouse/condos appreciated between 1981 and 1988. Eleven percent appreciated 8 percent or more per year; 13 percent increased between 4 and 8 percent; 29 percent appreciated less than 4 percent annually (see Table 17). Almost half of all townhomes depreciated; sales prices on 17 percent of all townhouses fell more than 4 percent per year; 26 percent depreciated less than 4 percent annually. The median overall townhouse rate was -0.8 percent in 1988 and 0.3 percent per year from 1981-1988.

TABLE 16
 DISTRIBUTION OF SINGLE-FAMILY APPRECIATION/DEPRECIATION RATES
 By Geographic District
 Percent of Total Within Range, 1981-88*

District	Appreciation			Zero Change	Depreciation	
	8.0 Percent or More	4.0-7.99 Percent	.01-3.99 Percent		.01-3.99 Percent	4.0 Percent or More
1N	22%	24%	28%	6%	12%	8%
1S	14	19	40	4	16	7
2	18	24	35	4	14	6
3	13	21	38	4	16	9
4N	10	20	41	3	19	7
4S	9	18	42	4	18	8
5	16	22	37	4	15	6
6	11	18	43	3	19	7
7	12	16	39	4	20	8
8	19	21	32	4	15	9
9	19	19	38	6	11	7
10	21	20	30	6	12	12
11	23	21	27	5	14	11
12	19	18	31	5	15	12
13	12	15	35	4	23	11
14	23	19	20	12	10	17
15	17	22	38	3	13	8
16N	15	22	40	4	12	7
16S	9	20	49	4	15	4
17N	17	21	30	5	15	12
17S	12	23	46	2	12	4
18	18	25	38	3	11	6
19	15	27	40	3	10	5
20	12	18	37	3	21	9
21	10	20	44	3	18	7
22W	49	25	16	2	6	3
METRO PHOENIX	15	21	38	4	15	7

*Categories may not add to 100 due to differences in rounding.

Source: Arizona Real Estate Center, College of Business, Arizona State University.
 District designations are copyrighted by the Phoenix Metropolitan Housing Study
 Committee.

TABLE 17
 DISTRIBUTION OF TOWNHOUSE/CONDO APPRECIATION/DEPRECIATION RATES
 By Geographic District
 Percent of Total Within Range, 1981-88*

District	Appreciation			Zero Change	Depreciation	
	8.0 Percent or more	4.0-7.99 Percent	.01-3.99 Percent		.01-3.99 Percent	4.0 Percent or more
1N	15%	12%	25%	5%	21%	22%
1S	11	13	31	6	26	14
2	9	16	33	4	24	14
3	4	7	26	4	39	19
4N	7	11	23	7	32	19
4S	6	9	18	3	39	26
5	11	15	31	4	26	13
6	6	10	28	4	33	20
7,12,13	7	9	23	5	25	31
8	10	8	26	3	31	23
9,10,11,14,15	10	15	25	5	25	19
16N	13	13	22	4	32	16
16S	5	10	36	8	24	18
17N,17S,18,19	11	15	36	3	20	16
20,22W	32	22	29	4	10	3
21	11	10	32	6	25	16
METRO PHOENIX	11	13	29	5	26	17

*Categories may not add to 100 due to differences in rounding.

Source: Arizona Real Estate Center, College of Business, Arizona State University.
 District designations are copyrighted by the Phoenix Metropolitan Housing Study
 Committee.

- 1N - North Scottsdale - Significantly higher single-family appreciation prevailed, particularly for new homes and mid-priced homes, which appreciated faster than more-expensive homes. Excepting Sun City West, this district recorded the highest new-home rate and the highest rate for homes selling for \$60,000-99,999 during 1988, as well as having the highest overall rate between 1981 and 1988. The higher rate, which has been generally steady, is related to very few inexpensive homes in the area, as well as a large proportion of new homes. The district had the second-highest proportion (46 percent) of homes with an appreciation rate of at least 4 percent per year in 1981-1988. Townhouses appreciated 0.3 percent between 1981 and 1988, equal to the Valley's median, but a larger-than-average proportion of townhouses appreciated.
- 1S - South Scottsdale - Average to slightly lower-than-average appreciation occurred in all categories. This district followed the Valleywide pattern of slowing appreciation rates, with a 1981-88 overall rate equal to the valley's 2.4 percent. This district followed closely the distribution of rates in the metro area, with 33 percent of all homes appreciating 4 percent or more. Townhomes appreciated 0.6 percent, slightly more than the Valley's 0.3 percent.
- 2 - Paradise Valley - Appreciation was higher than the overall median, though it has been falling from significantly higher-than-average levels in the early 1980s. New homes performed exceptionally well, higher than all areas except Sun City West and North Scottsdale. Forty-two percent of single-family homes appreciated at least 4 percent, somewhat higher than the metro median. The townhouse rate of 0.9 percent was tied for third highest.

- 3 - North Sunnyslope/Moon Valley - Lower-than-average appreciation was measured, though it was near average in a practical sense. The lower rate was particularly noticeable in higher-priced homes, and to a lesser extent in new homes. The distribution of single-family rates approximated that of the overall Valley, although significantly more townhomes depreciated and fewer appreciated more than 4 percent, contributing to the weak performance of townhomes.
- 4N - Northwest Phoenix - Lower appreciation was measured, particularly during 1988, due primarily to subpar rates in the lower price ranges. However, high-priced homes appreciated slightly faster than their metro counterparts. Only 30 percent of single-family homes appreciated at least 4 percent, the second lowest proportion of all districts. Townhomes performed considerably worse than the overall metro area. The 1981-88 rate was -0.7 percent vs. 0.3 percent for the Valley, and 51 percent of the area's townhomes depreciated.
- 4S - Metrocenter - This district was one of four with rates less than 2 percent per year from 1981-88; the low rate was related to significantly lower sales prices and to few new properties. This area tied for the smallest proportion of homes appreciating at least 4 percent per year. The townhouse rate was significantly lower than any other district. The median townhouse depreciated 1.5 per year between 1981 and 1988; sales prices on 65 percent of this districts' townhomes declined in value during 1981-88.
- 5 - Sun City/Youngtown/Peoria - Homes selling for \$100,000 to \$149,999 performed the best, and resale homes appreciated faster than average. However, appreciation in this area contributed its decline from significantly higher-than-average rates in the early 1980s, falling

below the metro median for the first time in 1988. Townhouses tied for the third highest rate between 1981-88, and a smaller-than-average percentage of townhomes depreciated 4 percent or more.

- 6 - Glendale - Since 1984, appreciation in this district has been below the norm. Sales prices in the area are slightly lower than the metro median, but the appreciation rate was significantly lower than the median only on high-priced homes. The range of appreciation/depreciation rates was relatively small; a larger-than-average proportion fell within 4 percent positive or negative. More than half of all townhomes depreciated, though the median decline was only -0.2 percent per year.
- 7 - Christown - This district was tied for the third lowest appreciation rate from 1981-88, though the rate has remained relatively steady. The area has few new or expensive homes, contributing to its low overall rate. Inexpensive homes and resale homes appreciated only slightly slower than the metro area. More single-family homes than average fell within 4 percent appreciation/depreciation, but 56 percent of the townhouses in West Phoenix depreciated, contributing to this area's second-lowest rate of -1.0 percent.
- 8 - North Central Phoenix - Slightly higher-than-average appreciation prevailed until 1988, when it equalled the metro median. This area has significantly higher sales prices, and registered the highest rate for homes selling for \$150,000 or more, even though the district has few new homes. The small number of townhomes required this district to be merged with North Sunnyslope/Moon Valley. Townhomes in the combined districts had the second lowest appreciation rate of -0.7 percent per year, and 54 percent of the townhomes in this district alone depreciated.

- 9 - East Camelback - Slightly higher appreciation was experienced, due primarily to homes priced \$60,000-99,999. The higher-than-average rates are more impressive after considering the almost entirely mid-priced, resale composition of the area. The combined district for townhomes recorded almost flat prices, rising only 0.1 percent per year, but only slightly below the Valley's townhouse rate of 0.3 percent.
- 10 - East Central Phoenix - The small number of sales in this district resulted in erratic year-to-year rates, but the rate from 1981-88 was average. The area consists mostly of lower-priced resale homes, and outperformed the overall Valley in these categories. A larger-than-average proportion of homes appreciated more than 8 percent, and depreciated more than 4 percent.
- 11 - Mid-town Phoenix - Greater-than-average appreciation was measured, due to higher rates in the \$60,000-99,999 price range. The area has few expensive homes, few new homes, and an erratic year-to-year rate. Conversions from residential to commercial land use probably affect the appreciation measure. This area has a wider distribution of rates than the overall Valley, and is tied for the second-highest proportion of homes appreciating 8 percent or more per year.
- 12 - West Central Phoenix - Steady appreciation, unaffected by changes in the Valley median, prevailed until 1988, when the area's rate fell significantly. The area consists almost solely of low-priced resale homes, but still produced a rate for 1981-88 which equalled the metro median. This district had a wider range of rates than the overall Valley; more homes appreciated and depreciated by large amounts.
- 13 - Maryvale - This district had the lowest appreciation rate in 1988 and from 1981-88, as well as the highest proportion (34 percent) of

depreciating properties. The low rate related to significantly lower sales prices, as well as the fact that this district had the lowest rate for new homes. The area's combined townhouse district had the second-lowest rate of -1.0 percent per year.

- 14 - Downtown/South Central Phoenix - The small size of the database precludes most conclusions. The rate was erratic, but the overall rate from 1981-88 was slightly higher than the median level. The area consists of lower-priced resale homes, but the inexpensive homes appreciated faster than the low-priced median, resulting in the average overall rate. The distribution of rates varied significantly from the Valley. This district had the second-highest proportion of homes appreciating 8 percent or more, the second lowest appreciating less than 4 percent, and the highest depreciating more than 4 percent per year.
- 15 - South Phoenix/Ahwatukee - Homes in this district enjoyed higher-than-average appreciation, especially lower-priced homes and resale homes. The proportion of homes with high appreciation rates fell from last year, resulting in a distribution essentially the same as for the overall metro area.
- 16N- North Tempe - This district had average appreciation between 1981-88, although homes selling for less than \$60,000 and for \$100,000-149,999 outperformed the median. The area is dominated by mid-priced resale homes, resulting in the median rate. Townhouse rates were flat at 0.0 percent, and the distribution of rates approximated the Valley norm.
- 16S- South Tempe - This district is an anomaly of slightly lower appreciation in all categories. The area has mostly mid-priced homes and mostly resale homes. Low rates resulted from the lowest proportion (9 percent) of homes appreciating 8 percent or more per year, and the

highest proportion of homes appreciating less than 4 percent per year.

Townhouse rates were flat at 0.0 percent, with a distribution similar to the single-family rates.

17N- North Mesa - Rates were erratic, but the 1981-88 rate was equal to the metro median. Homes selling for less than \$100,000 recorded rates higher than average, but homes priced \$100,000-149,999 had the lowest rate of all districts. New homes appreciated faster than average, but resale homes appreciated more slowly. The combined townhouse district of the southeast Valley had the second-highest rate at 1.3 percent per year, due partially to the smaller-than-average percentage of homes depreciating.

17S- South Mesa - Overall rates in this district were slightly higher than the metro median, but rates for the past three years have been almost equal to the median. Low-priced homes and new homes appreciated slightly faster than the metro area, and the combined district townhouse rate was significantly higher than the overall rate. A low proportion of both single-family and townhouse units depreciated.

18 - East Mesa - Appreciation was significantly higher in this district (tied for third from 1981-88). All price ranges, as well as both new and resale homes, appreciated faster than the norm. A large proportion of homes appreciated at least 4 percent per year, with a lower proportion that depreciated. The higher rate, which had been nearly steady prior to dropping in 1988, particularly affected homes selling for \$100,000-149,999. Retirement villages in this district probably create a positive impact on appreciation.

19 - Chandler/Gilbert - Significantly higher appreciation was measured overall, as well as in all price ranges and in resale homes. The

combined townhouse rate was also significantly higher than the metro median. This district had a low proportion of both single-family homes and townhouses depreciating.

- 20 - Western Suburbs - This district had significantly low overall appreciation rates, due primarily to the drop in 1988, when the rate became second lowest. Homes priced less than \$60,000 had the second-lowest rate, and the area had few high-priced homes. Both new homes and resale homes posted subpar rates. This district had the second-lowest proportion of homes appreciating at least 4 percent per year, and the highest proportion depreciating.
- 21 - Deer Valley - Lower-than-average appreciation has prevailed since 1984. All price ranges and both new and resale homes had rates below the norm. Slightly fewer homes than typical appreciated 8 percent or more per year, while a higher proportion appreciated less than 4 percent per year. The townhouse rate was equal to the metro median, though only 0.3 percent per year, with an average distribution.
- 22W- Sun City West/Rural Maricopa County - Homes in this district enjoyed more than double the appreciation rate of the next-highest district, and triple the overall median. Nearly all sales in the district are in Sun City West, which has few lower-priced homes and a large proportion of new homes. Even townhomes did well in this area, with an overall rate twice as high as the Valley's single-family rate. Only 9 percent of the single-family homes and 13 percent of the townhomes depreciated, while 74 percent of the single-family homes and 56 percent of the townhomes appreciated more than 4 percent per year. This is the only district where the appreciation rate between 1981 and 1988 surpassed the metropolitan Phoenix inflation rate.