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HOUSEHOLD RESPONSES TO HIGH HOME PRICES: AN ANALYSIS OF RECENT MOVERS

BY

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An Analysis of Recent Movers

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Household Responses to High Home Prices:
An Analysis of Recent Movers

Housing prices in the United States have increased sharply since the mid-1970, with the median existing home price rising from $35,300 in 1975, to $93,100 in 1989. The rise in home prices has been inexorable, but it has also been uneven, with the largest such increases along the west coast of California, and in the Northeast. An analysis of the American Housing Survey for eleven metropolitan during the 1974-86 period reveals how recent movers are responding to high housing prices and high rates of housing price appreciation. Among first-time homebuyers, the major impact has been to postpone homeownership in more expensive markets--often by as much as 10 years. First-time homebuyers in expensive markets are not buying smaller homes in less desirable neighborhoods than first-time homebuyers in inexpensive markets. Neither are they working harder. First-time homebuyer commute times tend to be longer in bigger metropolitan areas, but they have not increased disproportionately in expensive markets. First-time homebuyers mature into move-up buyers more quickly in expensive markets than in inexpensive markets--the result, no doubt of faster equity build-up.

A. Introduction: Rising Housing Prices--A National Issue?

Housing prices in the United States have increased sharply since the mid-1970s. According to the National Association of Realtors, the median price of existing single-family homes rose from $35,300 in 1975, to $93,100 in 1989, an increase of 164% (Figure 1). By comparison, over the same 14 year period, per capita incomes increased 187%, and the cost of living (as measured by the Consumer Price Index) increased 130.5%.

The increase in housing prices has been inexorable, but it has also been extremeley uneven (Figure 2; Appendix A). Housing price increases since the 1970s have been much greater in the West (particularly in California) and in the Northeast (during the mid-1980s) than in other parts of the country. These sharp differences in rates of home price appreciation have fragmented what once was effectively a national housing market. As recently as 1975, houses in most parts of the country cost about the same. Regardless of the specific market, the prices of starter-homes--those purchased by first-time homebuyers--were in the range of $30-$40,000. And the prices of move-up homes--those purchased by households who had already owned a home--averaged $40,000-$60,000.[2] Because home price levels were comparable across the country, households could move from one metropolitan area to another without facing significantly higher housing costs or mortgage payments. Similarly, companies could relocate themselves and their employees without worrying about differences in housing prices across markets.

By the late 1980s, this picture had changed considerably. Home prices in California's coastal metropolitan areas, in the urban Northeast, and in Washington D.C. had increased much more rapidly, and to much higher levels, than for the nation as a whole. In Texas, home prices had jumped dramatically during the late 1970s, but then, just as dramatically, fallen during the

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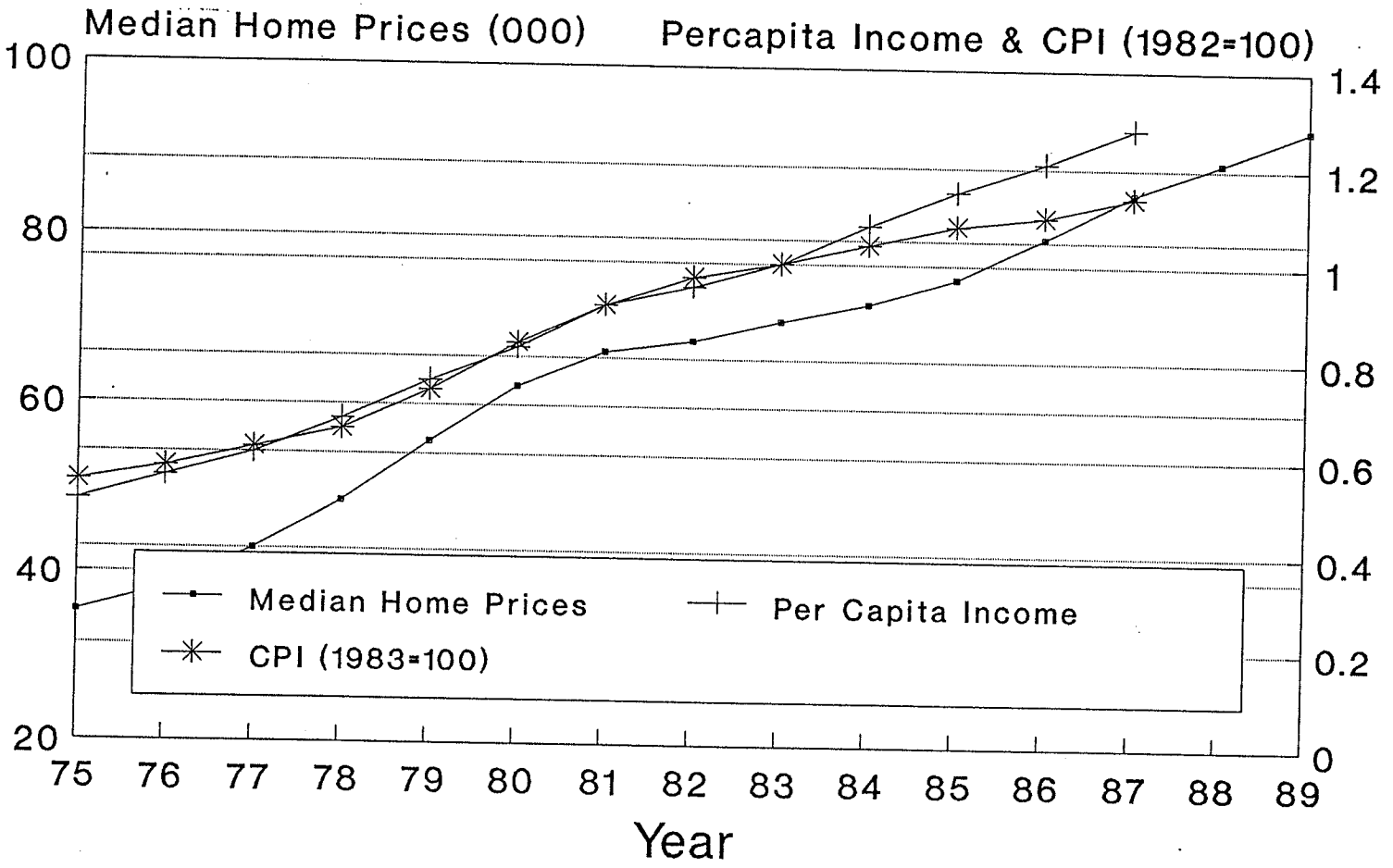
[2] There were some significant regional variations around these numbers. Homes in the Southeast were significantly less expensive than the national average, while homes in the New York area were significantly more expensive than the national average.

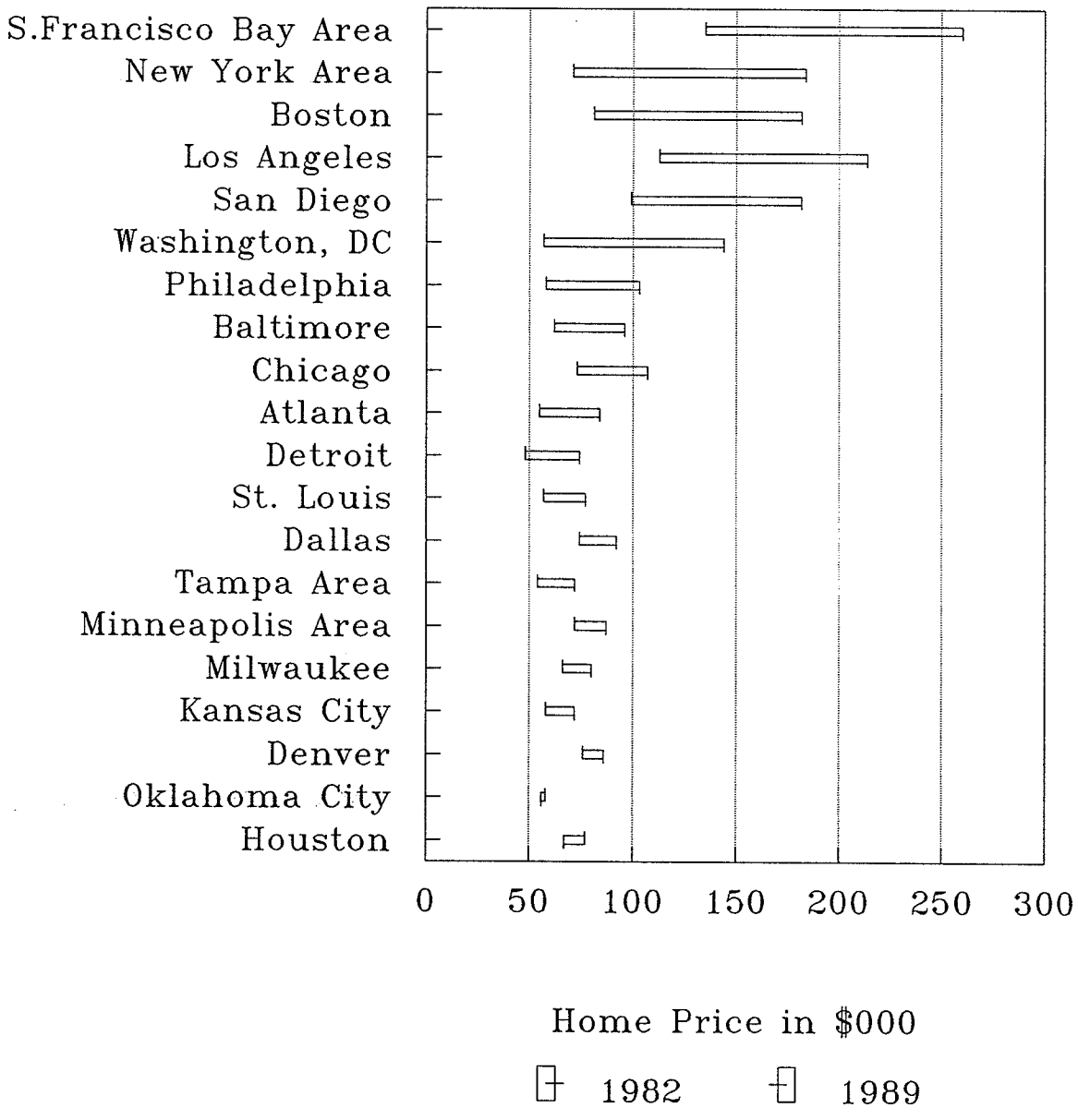
FIGURE 1

Median Existing Home Prices and Personal Income Per Capita, 1975-89



Source: National Association of Realtors Existing Home Sales; Bureau of the Census, Statistical Abstract of the U.S.

Median Sales Price (Unadjusted) of 1-Family Homes in Selected Metropolitan Areas: 1982-1989



Source: Nat'l. Assocation of Realtors

Figure 2

early 1980s. And in some parts of the country--notably the Midwest--average and median housing prices, corrected for inflation, had actually decreased.

There are numerous reasons why housing prices vary so sharply by market. On the demand side, coastal California and New England have experienced continued employment growth over the last 15 years[3]; California has also been the beneficiary of a vast wave of foreign and domestic immigration. The resulting increases in households and incomes have helped push up housing prices in those areas. Housing prices in Texas (during the late 1970s), and Arizona (during the mid-1980s) also rose in response to job growth[4]. The most recent examples of how an expanding economy pushes up housing prices are Seattle (where median existing home prices increased 64.8% between 1986 and 1990), and Sacramento (where prices surged 45.9% between 1986 and 1990).

Housing supply limitations have also played a role in the rise of housing prices, especially in California. Reacting to perceptions that growth is out of control, local governments in California and New England have tried to limit new development, especially housing. (Freiden, 1979; Dowall, 1984). The result, in most California markets, has been higher housing prices. By contrast local governments in Florida, Arizona, and Texas have embraced all forms of new housing development, and the resulting rush of supply has helped moderate housing prices in those states.

Nor are local governments the only actors working to limit housing supply. In California, citizens groups have used and continue to use the initiative process to slow growth and

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[3] The New England economy began sputtering in 1987, and by late 1989, was in recession. The California economy has continued to expand through 1990, albeit at a slower pace in 1988 and 1989 than during the mid 1980s.

[4] Home prices in Texas and Arizona would later decline as job-growth tailed off and speculative over-building became a problem.

development (Glickfeld and Levine, 1990; Landis and Kroll, 1989). And just about everywhere, from Maine to Washington, neighborhood groups are using the environmental impact review process to down-zone developable land, to reduce residential densities, and to keep open-space open.

Speculation has also played a role in pushing up housing prices, first in the in the late 1970s, and then again in the late 1980s. Confronted with rising housing prices, many households have willingly "overbid[5]" for housing, hoping that continuing price increases would further boost their equity. Such activity feeds on itself. In the San Francisco Bay Area for example, housing prices increased at an annual (compounding) rate of 25% in 1988 and 24% in 1989 (California Association of Realtors). Only in 1990, when buyers could not longer qualify for available mortgages, did housing prices in the Bay Area begin to moderate.

The Tax Reform Act of 1986 further encouraged such speculative behavior. Although the Act reduced the magnitude of the homeowner tax deduction, more importantly, it eliminated virtually all other tax shelters. This left owner-occupied housing as the only remaining tax shelter available to most middle-income Americans.

This paper is concerned not with the causes of rising housing prices, but with the *effects*. Households have any number of ways to adjust to high or rising housing prices. They can move to more affordable locations. They can purchase a smaller home, an older home, or a home with less land. They can defer homeownership and remain as renters. They can, subject to mortgage lending criteria, increase their spending on housing at the expense of other purchases. They can try to obtain downpayment and/or monthly payments funds from other sources. Or, they can try to increase their incomes by taking on additional jobs and/or working additional hours. Some of

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[5] That is, many households willing bought a better home than they otherwise needed, not for lifestyle or consumption reasons, but to maximize their return on investment.

these adjustments impose costs which are borne privately. Others, such as moving to less-expensive, more distant locations may impose social costs in the form of traffic congestion or air pollution.

The effects of high housing prices, and/or rising housing prices, vary with the magnitude and speed of the increase. Gradually rising housing and real estate prices are usually good for regions, cities, businesses, and households. Rising home prices create wealth and create a beneficial investment climate. All else being equal, rising home prices indicate a healthy and growing economy. And rising real estate prices allow cities to keep pace with the rising costs of public services. Ultimately, then, the issue of high housing prices comes down to the question of when "high" is "too-high:" when and if households, business and metropolitan areas find that the difficulties of coping with high housing prices outweigh the increases in property values, tax revenue and wealth.

This paper explores how rapid housing price appreciation and "too high" housing prices have affected the housing purchase and location decision of recent movers between 1974 and 1986. Rather than focusing just on national trends, or on high-priced markets (as some studies have done), we compare housing consumption and location decisions between several high-priced, moderately-priced, and low-priced markets. Using this type of comparative framework, we can separate those changes in housing consumption that are the result of locally high and rising housing prices, from those housing consumption changes that have their roots in broader social and demographic trends.

B. Issues and Approaches

Responses to High Housing Prices

Households can respond to high or rapidly rising home prices in a number of ways:

1. They can defer or delay homeownership by remaining as renters, assuming suitable rental housing is available. Depending on their incomes and preferences, this may serve to push up rents.

2. They can reduce their consumption of other goods and services in order to devote a greater share of their income to housing. This may or may not be a viable option depending on the underwriting criteria of specific lenders.

3. They can reduce their housing consumption by purchasing a less expensive home. Less expensive homes are presumably smaller, have fewer features, or are in less desirable neighborhoods than are more expensive homes.

4. They can choose a less desirable and thus less expensive area. As we often assume that the desirability of an area is related to accessibility to major workplaces and activity centers, this approach would entail moving further out from existing job and activity centers--leading to a rise in work trip distances and times.

5. They can try to reduce the size of their mortgage by tapping into relatives or other associates for assistance with the downpayment.

6. They can increase their income, either by working harder or longer, or more typically, by expanding their labor force participation. This commonly entails a second (or even a third or fourth) household member finding a job.

Obviously, there is no single best strategy for responding to high and/or rising housing prices. Most households respond by combining aspects of each of these options. But are certain ways of coping more prevalent than others? Or more common to certain types of areas? Or more frequently pursued by certain types of households? In the following sections we explore the specific responses of households in different markets to high and rapidly rising housing prices.

Case Study Metropolitan Areas

To better understand how households have responded to high housing prices we examined the housing tenure, consumption, and locational choices of *recent movers* in eleven metropolitan

areas between 1974 and 1986. The eleven case study markets include three high-priced markets (San Francisco-Oakland, Orange County[Anaheim-Santa Ana Metropolitan Area], and Boston), three mid-priced markets (Phoenix, Minneapolis-St.Paul, and Dallas-Fort Worth), and three low-priced markets (Portland, Pittsburgh, and Rochester). Two other housing markets, Sacramento and San Bernardino, were selected as representative of mid-priced California markets; that is, housing markets that are expensive by national standards but inexpensive by the standards of coastal California.

The choice or metropolitan areas and periods was shaped by the fact that the only available time-series data on housing preferences *by metropolitan area* is that which is collected as part of the American Housing Survey (AHS)[6]. The American Housing survey is conducted nationally on an annual basis and every three or four years in 48 metropolitan areas (Figure 3). The AHS was was conducted in the San Francisco-Oakland metropolitan area in 1975, 1978, 1982, and 1985; in the Orange County metropolitan area in 1974, 1977, 1981, and 1986; and in the Boston metropolitan area in 1974, 1977, 1981 and 1985. AHS survey results are available for Minneapolis, Phoenix, and Dallas-Ft. Worth for 1974, 1977, 1981, and 1985. The American Housing Survey was conducted in Portland and Rochester in 1975, 1979, 1983, and 1986; and in Pittsburgh in 1977 and 1986. The San Bernardino market was surveyed in 1975, 1978, 1982, and

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6. The national sample of the American Housing Survey is undertaken annually. Samples for specific metropolitan areas are undertaken every three or four years, depending on the area (Appendix B). AHS sample sizes for metropolitan areas range from less than 1,000 to 6,000 depending on the metropolitan area and year. The sample is carefully drawn to represent an accurate cross-section of both the housing stock and the residents of a particular metropolitan area. The AHS is administered in such a way as to allow panel studies; that is, efforts are made to survey many of the same housing units (but not households) over time. As of October 1990, the most recent metropolitan area samples were for 1986.

1986. The Sacramento market was surveyed in 1976, 1980, and 1983[7].

For the purposes of this anlaysis, the most significant aspect of the American Housing Survey is that it distinguishes between existing residents and recent movers. Recent movers are defined as those households who have moved to or within the metropolitan area within the last year. By analyzing the AHS respondents who are recent movers, it is possible to examine the housing choices and location decisions made by those households actively seeking housing--that is, those households actually in the housing market at the time of the sample.

The use of recent mover data avoids one of the basic problems with using surveys results of *all* homeowners or *all* renters (including non-movers) to evaluate current housing choices. Whereas the housing characteristics of recent movers reflect contemporary market conditions (especially prices), the housing characteristics of non-movers reflect prior market conditions. Thus, we would expect high and/or rising housing prices to substantially influence the housing consumption choices of recent movers, but only slightly influence the housing consumption patterns of non-residents.

Almost all recent movers fall into one of four tenure classifications: previous homeowner-current homeowner, previous renter-current homeowner, previous renter-current renter, and previous homeowner-current renter. Regardless of market, the largest single cohort of movers are previous renters-current renters.

Just as a household's prior tenure influences its current tenure, so too can a household's previous location influence current location--both for better and for worse. For example, an owner household moving from a low-priced market (e.g. Pittsburgh) may find that their home-

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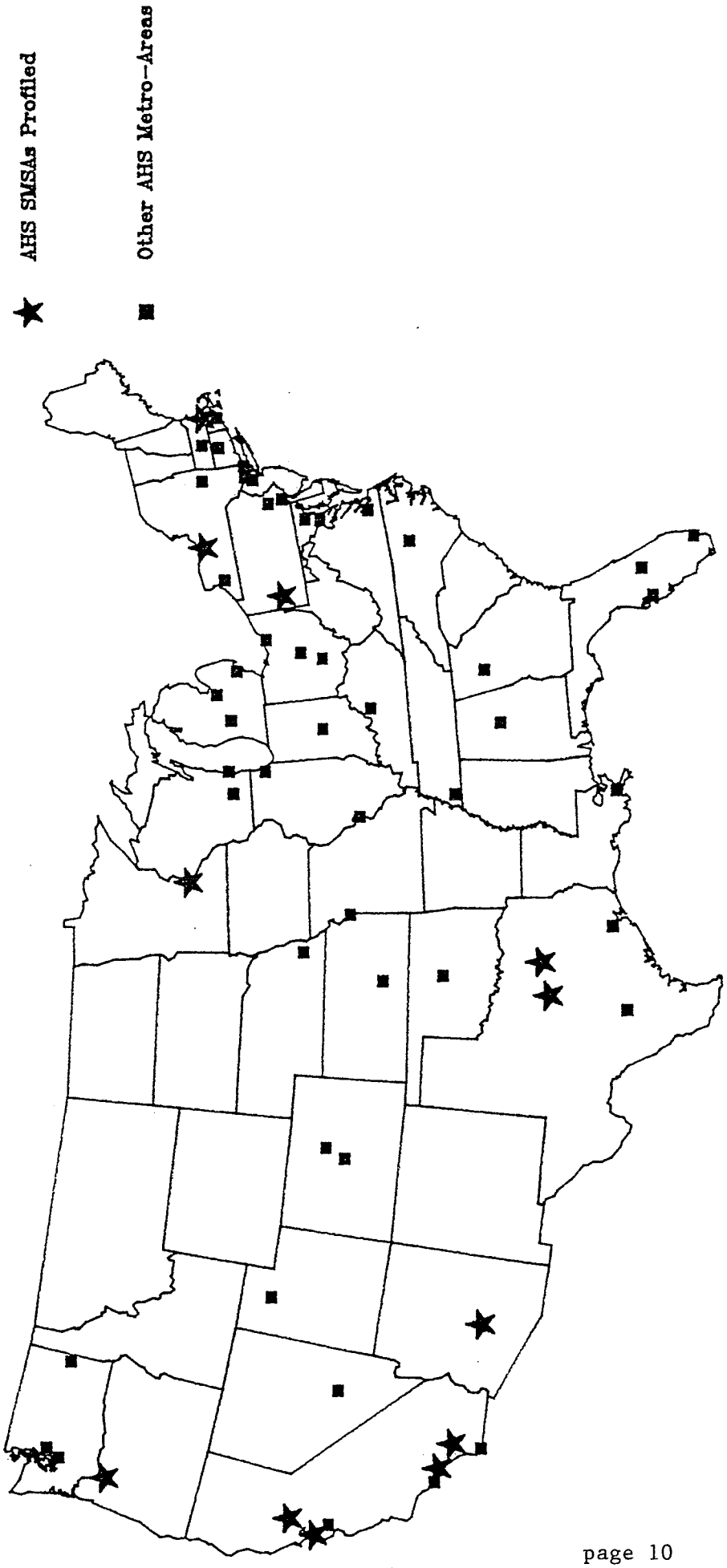
[7] This latter date poses something of a problem. Because of very high mortgage interest rates, the market for first-time homebuyers was much smaller in 1983 than in subsequent years. As a result, market-wide indicators of housing prices and quality for 1983 tend to be biased upward--tilted toward those relatively few homes which were affordable not to traditional first-time homebuyers, but to those households able to afford high interest rates.

FIGURE 3

ANNUAL HOUSING SURVEY OF METROPOLITAN AREAS



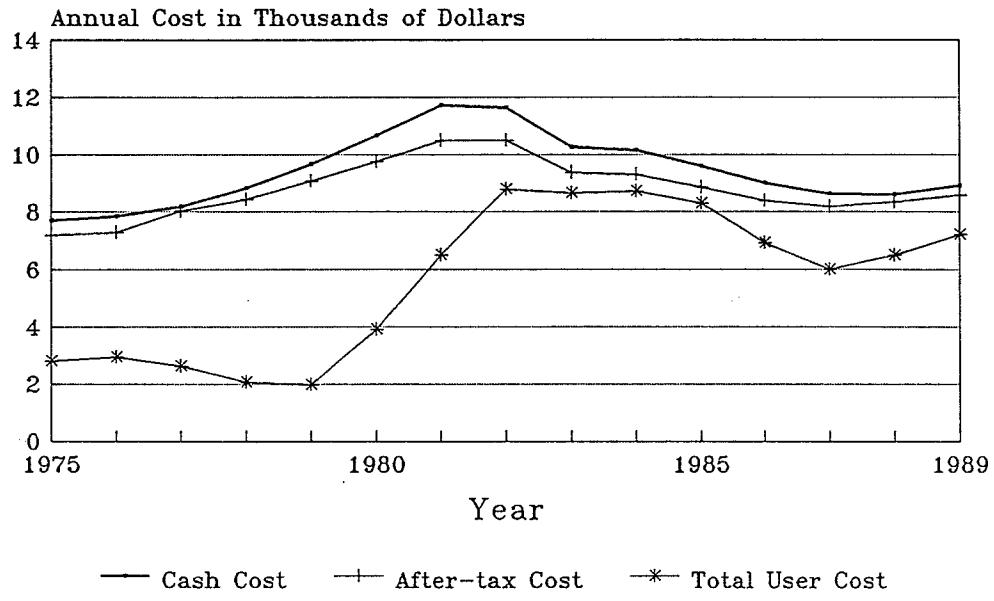
buying dollar doesn't go as far in a high-priced market (e.g. Boston). Conversely, a renter moving from a high-priced market (e.g. San-Francisco) to a low-priced market (e.g. Rochester) may find that they are able to become homeowners. Because of the importance of prior location, we initially distinguished between households that moved within the same metropolitan area and those that moved from one metropolitan area to another. It quickly became apparent, however, that there was very little differences in the housing choices made by inter- and intra-metropolitan movers. Accordingly, this distinction was dropped.

Price vs. Cost

This analysis focuses on housing prices, not homeownership costs. Housing price is the lump sum purchase price of the house itself. Housing cost is how much a household pays for the housing services (including utilities, insurance, taxes and maintenance) associated with a particular house on a monthly basis or annual basis. Economists distinguish between the cash costs of homeownership (which includes all cash outlays), the after-tax cost-of homeownership (which includes the tax savings attributable to the mortgage interest and property tax deductions) and the total user-cost of housing (which, in addition to tax savings, includes a prorated share of expected appreciation and the costs of foregone savings) {Hendershott, 1980, Diamond, 1980}.[8] According to the Harvard Joint Center for Housing, nationwide, the cash and after-tax costs of homeownership rose throughout the 1970s, peaked in 1981, declined during the mid 1980s, and then began rising during the late 1980s. By contrast, the total cost of housing fell throughout the 1970s, then skyrocketed in 1980, declined sharply during the mid 1980s, and then began rising again in 1986 (Figure 4A). As total user costs rise as home price appreciation falls, the

[8] For a fuller explanation of the cash, after-tax, and total cost of housing concepts, see: Harvard Joint Center for Housing, The Nations Housing: 1988.

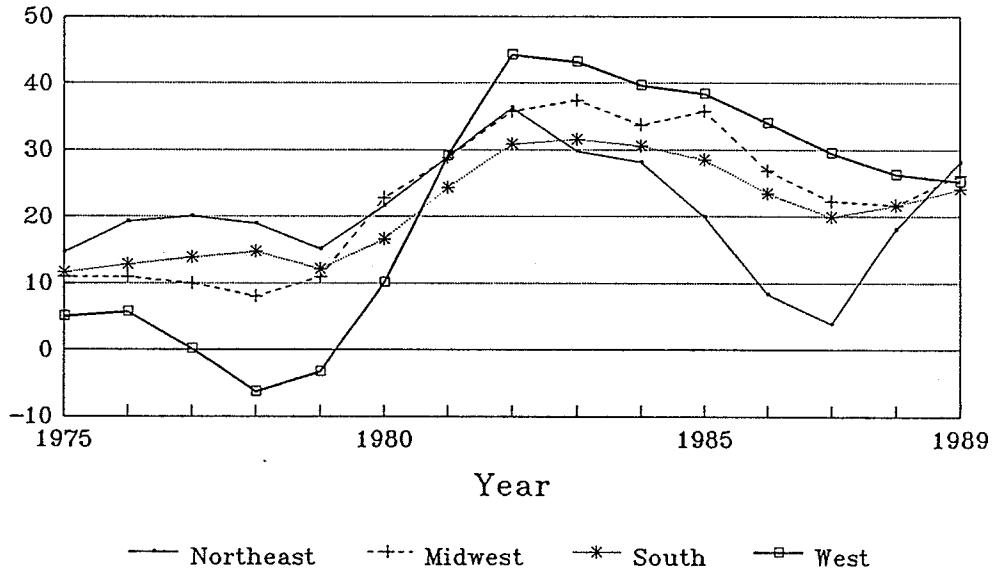
Cash Cost, After-tax Cost, & Total User Cost of Homeownership: 1975-89



Source: Harvard Joint Center for Housing

Figure 4A

First-time Homeownership Burden by Region: 1975-1989



Source: Harvard Joint Center for Housing
Note: * based on Total User Cost

Figure 4B

differences in the curves shown in Figure 4A can be attributed to slowing rates of home price appreciation during the 1980-1983 and 1987-1989 periods.

Just as the price of housing varies sharply by area of the country and market, so too do the cash-costs, after-tax costs, and total user costs of homeownership. Measures of average *housing burden* (housing cost divided by income) based on total user costs also show sharp variations across regions and markets (Harvard Joint Center for Housing: Figure 4B). Note, for example, that housing burdens (for homeowners, only) in the West were actually negative during the late 1970s (due to high rates of appreciation), then skyrocketed to the 40%+ level in the early 1980s as home prices leveled off. By 1989, average homeownership burdens in the West had declined to about 25%. Homeownership burdens in the Northeast followed a different pattern, due primarily to slower rates of home price appreciation during the 1970s. Burdens in re the Northeast (as well as the South and Midwest) were level during the 1970s in the 10-20% range, rose sharply during the early 1980s (to the 30-40% range), and then began declining during the mid-1980s. Homeownership burdens in the Northeast bottomed in 1987, but then began rose sharply during 1988 and 1989, as prices plunged. Homeownership burdens in the South and West also declined during the mid-1980s, and have since leveled out. Interestingly, 1989 was the first year since 1981 in which homeowners throughout the country were paying the same average rent burden.

Homebuyers make housing consumption and location decisions as much (if not more) on the basis of homeownership costs as on the basis of housing prices. Thus, a particular household may voluntarily choose to live in a city in which housing prices are high and rising because they perceive that their total costs of homeownership are declining. Unfortunately, estimating after-tax

and total cost of homeownership measures from *metropolitan area* AHS data is extremely difficult.[9] Thus, rather than compare average homeownership costs across metropolitan areas, we have chosen to compare housing prices.

Research to Date

Econometric estimates of the demand for housing suggest that it is very inelastic in the short-run, and moderately inelastic in the long run (Hanushek and Quigley, 1989; Ellwood and Polinsky, 1989). This suggests that households will not, in the short-run substantially reduce their housing consumption in response to price increases. Over a period of several years ,however, households will significantly reduce their housing consumption in response to price increases. Unfortunately, the elasticity estimates produced from most econometric studies are either for composite (but unobserved housing units) at one or two points in time. That is, they do not reflect long-term shifts.

To date, there has been little empirical research into how households respond to high or rising housing prices over longer time periods. The research that has been done has focused either on the effects of housing prices on tenure mix, or on work trip lengths. With respect to tenure choice, Apgar and diPasquale (Harvard Joint Center, 1989) have suggested that some of the national decline in homeownership rates can be attributed to rising housing prices and increasing affordability problems. As Table 1 shows, homeownership rates in the West declined by 2.8 percent between 1973 and 1988. Over the same period, the total user cost of homeownership in the West increased by 134%. By contrast, over the same period, homeownership rates in the Northeast increased by 4.6%, while total user costs rose by only 26%.

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[9] Although each respondent's mortgage and property tax payments is reported, their tax position is not. Nor is the increase or decrease in the market value of their home.

Table 1: Homeownership Rates, and Housing Price and Cost Changes; by Region: 1973-88

Region	Homeownership Rate			Percent Change in Price and Cost: 1973-88			
	1973	1988	%Change	Price	Cash Cost	After-Tax Cost	Total User-Cost
Northeast	59.2	61.9	4.6%	36.2%	29.5%	31.8%	26.0%
Midwest	69.1	67.0	-3.0%	7.3%	12.8%	16.3%	41.8%
South	66.5	65.9	-0.9%	7.7%	14.1%	17.5%	56.8%
West	60.6	58.9	-2.8%	37.9%	32.2%	33.7%	133.9%

Source: Harvard Joint Center for Housing: The Nation's Housing, 1988

Table 2: Change in Homeownership Rates by Region and Age of Head of Household: 1973-88

	Age of Household Head	Homeownership Rate		
		1973	1988	%Change
NORTHEAST	All	59.20	61.90	4.6%
	Less than 25	17.40	13.00	-25.3%
	25-29	36.20	35.90	-0.8%
	30-34	51.30	50.80	-1.0%
	35-39	62.20	63.70	2.4%
	40-44	69.20	70.10	1.3%
	45-54	72.20	72.50	0.4%
MIDWEST	All	69.10	67.00	-3.0%
	Less than 25	25.30	14.90	-41.1%
	25-29	47.90	41.40	-13.6%
	30-34	66.50	57.30	-13.8%
	35-39	76.00	68.30	-10.1%
	40-44	79.20	77.70	-1.9%
	45-54	80.90	79.70	-1.5%
SOUTH	All	66.50	66.40	-0.2%
	Less than 25	29.90	24.20	-19.1%
	25-29	47.60	46.80	-1.7%
	30-34	62.10	63.20	1.8%
	35-39	68.70	69.20	0.7%
	40-44	71.50	74.10	3.6%
	45-54	76.10	77.20	1.4%
WEST	All	60.60	58.90	-2.8%
	Less than 25	15.30	11.20	-26.8%
	25-29	39.70	27.80	-30.0%
	30-34	59.50	47.20	-20.7%
	35-39	65.20	57.80	-11.3%
	40-44	71.10	64.70	-9.0%
	45-54	74.60	73.20	-1.9%

Source: Harvard Joint Center for Housing

Falling homeownership rates are especially apparent for younger households (Table 2). Regardless of region, homeownership rates declined sharply for the youngest households (those with heads less than 25 years old). For older households, the rate of decline varied by region, with the largest declines occurring in the West, and the smallest declines occurring in the Northeast. This pattern of decline seems to reflect differences in housing prices and costs across regions. The fall-off in homeownership rates declines as households age. This suggests that the effects of high housing prices are to delay homeownership, not necessarily to stifle it entirely.

Some transportation planners have suggested that rising work trip lengths are due in part to an increasing mismatch between job locations and housing locations, and that these mismatches are most severe in high-priced, fast-growth markets (Cervero, 1989) Other transportation planners have argued that jobs have followed household to the metropolitan periphery, leading to reductions in commuting trip lengths (Gordon, Kumar, and Richardson, 1989).

C. Changing Tenure Patterns

Housing prices strongly affect tenure decisions. For renters, high, or rising housing prices make it more difficult to become homeowners. For current homeowners, high and or rising housing prices shape the range of move-up options.

Nationwide, the tenure mix of recent movers has shifted very slightly away from first-time homebuyers (previous renters-current owners) and toward renters and "move-up" homebuyers (previous owner-current owner).[10] In 1975, for example, 71% of recent movers had moved into

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[10]. Throughout this discussion we will treat households whose previous tenure was renter and whose current tenure is homeowner as "first-time" homebuyers. Similarly, we will often refer to households whose previous tenure was homeowner and whose current tenure is homeowner as "move-up" homebuyers. Neither of these characterizations is absolutely accurate: some previous renters-current owners or previous renters-current renters could once have been owners. Similarly, not all previous-owners current-owners have moved up to a nicer home or to a more preferrable location.

a rental unit. By 1985, the percentage of recent movers who were renters had increased to 72%. Similarly, the share of recent movers who were move-up homebuyers (that is, had moved from an owner-occupied unit **to** an owner-occupied unit) increased from 13% in 1975 to 15% in 1985. Over the same period, the share of recent movers who were first-time homebuyers (had previously rented their units) increased from 12% to 13%.

A mix of demographic and economic factors underlay these trends at the national level. By the mid-1980s, many in the Baby Boom generation had already become homeowners, and were looking to move up to their second or third home[11]. The 1970s and 1980s were also a period of proliferation among household types, as traditional married-couple households gave way to single-person households, single-parent households, and multi-person, non-married households. Many of the so-called "non-traditional" households were and are renters. On the economic front, mortgage interest rates rose from an average of 8.97% 1975 to an average of 11.18% in 1985, making homeownership less affordable. Finally, as we note below, in many markets, high housing prices (relative to incomes) have made it more difficult for many households to become owners.

Table 3 presents a breakdown of recent movers by current and previous tenure for the eleven case study markets[12]. Even in 1975--a period of more uniform housing prices around the country--there were significant tenure differences between the high-priced markets and the low and mid-priced markets. Generally speaking, the share of recent movers who were first-time homebuyers in 1975 was somewhat smaller in the high-priced markets than in the low and mid-priced markets. For example, in the San Francisco, Orange County, and Boston markets during

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[11] The Baby Boom generation consists of those individuals born between 1946 and 1964.

[12] Many respondents to the 1975 and 1977 AHS did not specify their previous tenure. Thus, there are a large number of unknown cases for those years. For the purposes of this analysis, we assume that the unknown cases are roughly distributed actross the four tenure classifications in the same proportions as the known cases.

1975 and 1977, first-time homebuyers accounted for 15%, 12%, and 11% (respectively) of recent mover households. By contrast, first-time homebuyers accounted for 18% or more of recent movers in 1975 (or 1977) in Rochester, Phoenix, Minneapolis, and San Bernadino (Figure 5A). Curiously, first-time homeowners comprised a smaller share of recent movers in the three low-priced markets (Portland, Pittsburgh, and Rochester) than in the three mid-priced markets, or two mid-priced California markets (Sacramento, San Bernadino).

As noted above, nationwide, first-time homebuyers increased slightly as a share of recent movers between 1975 and 1985. By contrast, the share of recent movers who were first-time homebuyers declined significantly in all eleven case study housing markets. This decline was *no more significant* in the high-priced markets than in the low or mid-priced markets. Consider a four-way comparison between Orange County (a high-priced market), San Bernadino (a mid-priced California market), Minneapolis a mid-priced market) and Pittsburgh (a low-priced market). In Orange County, the share of recent movers who were first-time homebuyers actually increased between 1977 and 1986, from 11.8% to 12.6%. In San Bernadino, the share of recent movers who were first-time homebuyers declined from 20.7% in 1975 to 14.1% in 1986. In Minneapolis, first-time homebuyers as a share of recent movers declined from 20.3% to 12.4%. Even in Pittsburgh, one of the lowest-priced housing markets in the nation, first-time homebuyers as a share of recent movers declined, from 15.5% in 1977 to 11.9% in 1986.

The share of recent movers who were "move-up" buyers also increased during the 1970s and 1980s. Nationwide, move-ups (previous owners-current owners) accounted for 15% of recent movers in 1985, up slightly from 1975, when move-ups accounted for 13% of recent movers. As Table 3 indicates, over the same period, move-ups as a share of recent movers declined in nine of the eleven case study markets. The exceptions--places where the share of move-up homebuyers increased--were San Francisco/Oakland and Boston, two high-priced markets.

TABLE 3

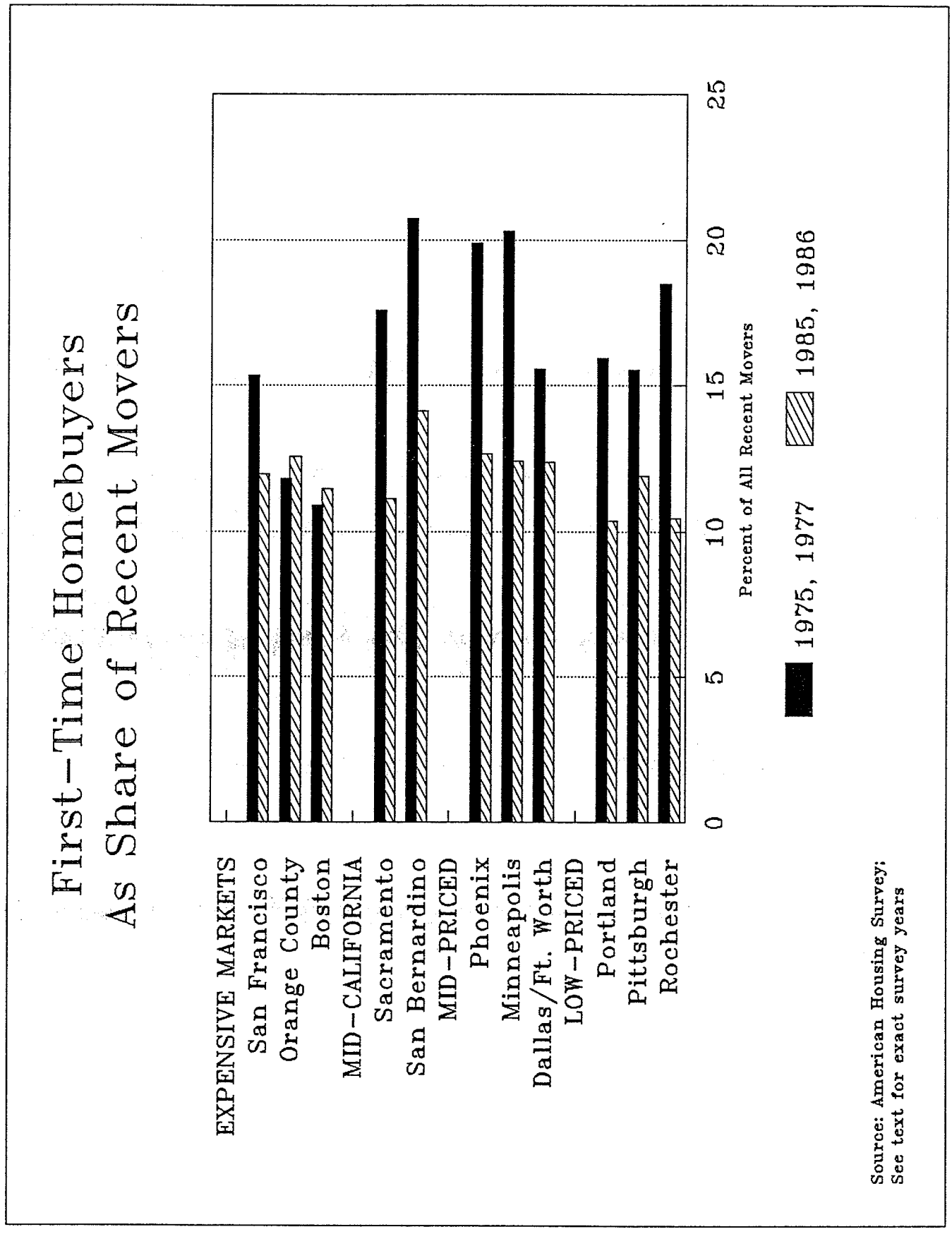
TENURE MIXES IN THE ELEVEN CASE STUDY MARKETS

Percent Distribution

		Previous Renter Current Owner	Previous Owner Current Owner	Previous Renter Current Renter	Previous Owner Current Renter	All Recent Movers (known Tenure)		Unknown Tenure
Low Priced		%	%	%	%	%	# Cases	# Cases
Portland	1975	16	17	55	12	100	747	308
	1986	10	7	59	24	100	656	0
Pittsburgh	1977	16	22	45	18	100	296	154
	1986	12	13	56	19	100	336	0
Rochester	1975	18	16	55	11	100	465	254
	1986	10	15	53	22	100	516	0
Mid Priced								
Phoenix	1977	20	27	42	11	100	910	375
	1985	13	11	55	22	100	893	0
Minneapolis	1977	20	24	45	11	100	650	312
	1985	12	13	50	24	100	774	0
Dallas/ Fort Worth	1977	16	26	48	11	100	1677	537
	1985	12	10	59	19	100	1454	0
Mid-Priced California								
Sacramento	1976	18	19	55	9	100	722	365
	1983	11	9	66	14	100	682	213
San Bernadino	1975	21	18	51	10	100	675	255
	1986	14	17	52	17	100	630	0
High Priced								
San Francisco	1975	15	12	64	9	100	1819	966
	1985	12	12	62	15	100	961	12
Orange County	1977	12	27	51	11	100	974	389
	1986	13	15	51	22	100	660	0
Boston	1977	11	9	68	12	100	1328	831
	1985	11	17	52	19	100	532	0

Source: American Housing Survey

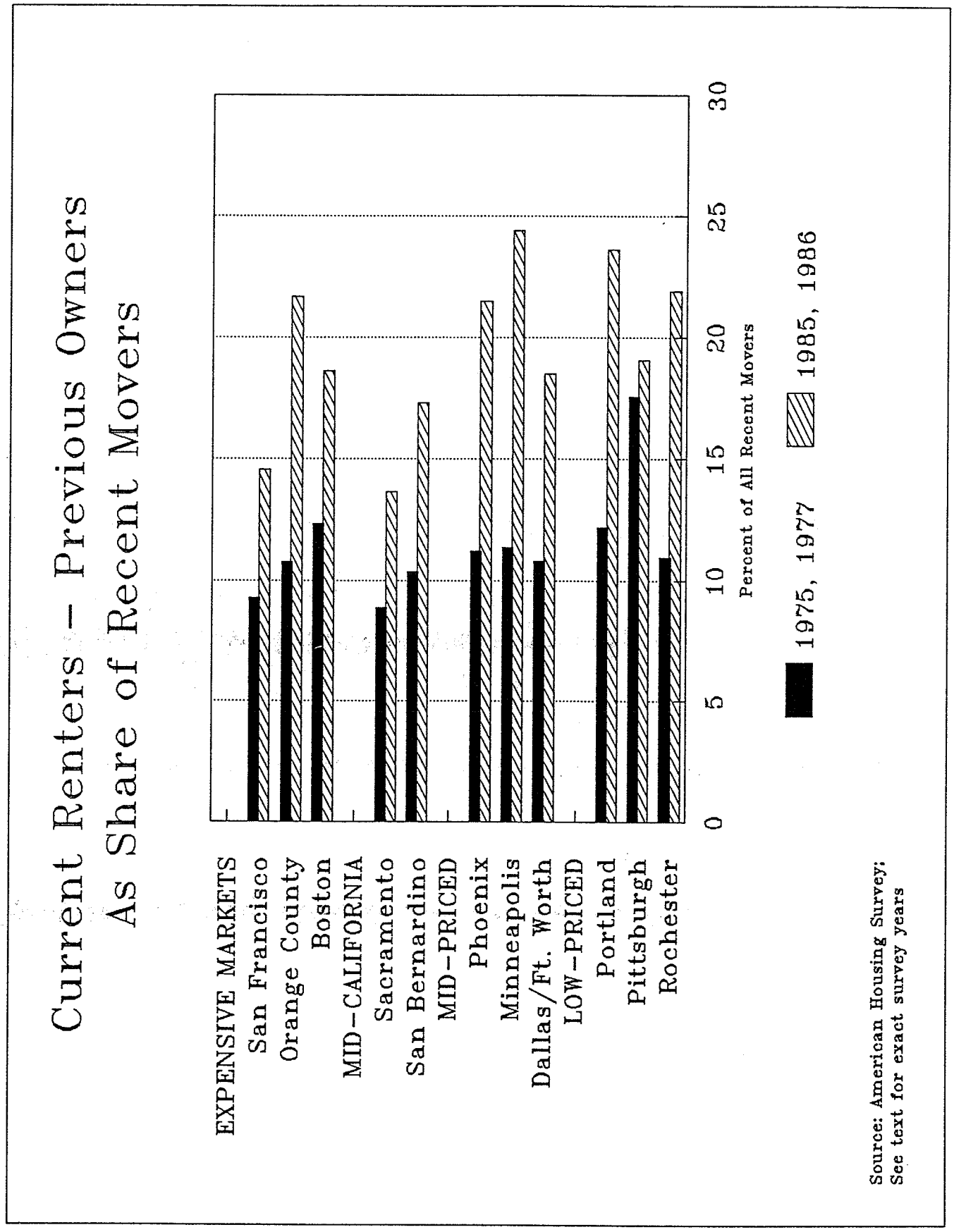
FIGURE 5A


First-Time Homebuyers
As Share of Recent Movers
EXPENSIVE MARKETS
San Francisco
Orange County
Boston
MID-CALIFORNIA
Sacramento
San Bernardino
MID-PRICED
Phoenix
Minneapolis
Dallas/Ft. Worth
LOW-PRICED
Portland
Pittsburgh
Rochester
0
5
10
15
20
25
Percent of All Recent Movers
1975, 1977
1985, 1986
Source: American Housing Survey;
See text for exact survey years

The reason why homebuyers--both first-time and move-up--declined as a share of recent movers, is that the share of renters was increasing. This was so for two reasons. The first is that renters (previous renters-current renters) moved more frequently in the 1980s than in 1970s. The second reason is that many previous homeowners became renters (Figure 5B). Nationwide, only 9% of recent movers who rented in 1975 had previously been homeowners. By 1985, the share of recent movers who were current renters-previous homeowners had grown to 18%. A similar trend occurred in each of the eleven case study markets, regardless of housing price levels. Although it is not clear from the data what is behind this trend, we hypothesize that it is the result of two separate factors. The first is high divorce rates. As traditional married-couple households dissolve (either through divorce or separation), financial considerations may lead one or both adults in the household to change tenure--from owner to renter. The second factor is high housing prices. Many households moving from low-priced markets to high-priced markets, find themselves unable to sell their old home in their prior (low-priced) location or/and immediately afford another home in a new (high-priced) location. Until they sell their previous home, or until they build sufficient equity or buy a new, more expensive home, many such households may become renters.

In summary, at the national level, the tenure mix of recent movers did not change much between 1975 and 1985. However, at the local level, as represented by the eleven markets listed in Table 3, the tenure mix of recent movers has shifted further toward renters. In all eleven markets, renters are increasing as a share of recent movers while homebuyers--both first-time and move-up--are declining. In the 1970s, the share of recent movers who were first-time homebuyers was slightly greater in low and mid-priced markets than in high-priced markets. That is, homeownership was somewhat more affordable to renters in low and mid-priced markets than high-priced markets. By the mid-1980s, however, this distinction had disappeared. Whether for

FIGURE 5B


Current Renters - Previous Owners
As Share of Recent Movers
EXPENSIVE MARKETS
San Francisco
Orange County
Boston
MID-CALIFORNIA
Sacramento
San Bernardino
MID-PRICED
Phoenix
Minneapolis
Dallas/Ft. Worth
LOW-PRICED
Portland
Pittsburgh
Rochester
0
5
10
15
20
25
30
Percent of All Recent Movers
1975, 1977
1985, 1986
Source: American Housing Survey;
See text for exact survey years

demographic or economic reasons, the share of recent movers, who were first-time homebuyers was about the same, regardless of market. As measured using recent mover data, first-time homeownership rates do not appear to have fallen disproportionately in more expensive housing markets.

D. Comparisons Among First-time Homebuyers

High housing prices are typically more constraining to first-time homebuyers than to move-up buyers. First-time homebuyers face both a downpayment hurdle and a monthly payments hurdle. An not surprisingly, these hurdles are correspondingly higher in high-priced markets than in low-priced or mid-priced markets. Move-up buyers, by contrast, are usually able to leverage the equity realized from the sale of a previous home.

The experiences of first-time homebuyers *have* changed over the past decade, but not always as expected. As we note below, the effects of high housing prices on the type, quality and location of housing purchased by first-time homebuyers, on worker commute lengths, and on labor force participation, have been minimal. Where high housing prices have made a difference has been in the age structure of first-time homebuyers, and in how much of the household's disposable income remains for other goods and services.

First-time Homes: Price Trends

The range of housing prices paid by first-time homebuyers has widened considerably during the past 15 years (Table 4). Except for a few very expensive areas such as Orange County, most first-time homebuyers, regardless of area, paid similar amounts for housing. In 1975, for example, the median purchase price paid by first-time homebuyers in the San Francisco-Oakland metropolitan area (a high-priced market) was $45,000. This was roughly the same price level as in

Boston (also a high-priced market), as in Minneapolis (a medium-priced market) and as in Pittsburgh (a low-priced market).

Ten years later, this picture had changed considerably. The median sales price of homes purchased by first-time homebuyers in the San Francisco-Oakland had risen to $111,000, an increase of 147% as compared with 1975. In Boston, median price levels for first-time homebuyers had increased to $82,500. But in Minneapolis, a mid-priced market, the median price for first-time homebuyers had increased to only $65,000. And in Pittsburgh, prices had actually declined: the median price paid by first-time homebuyers in Pittsburgh in 1986--$43,000--was actually $2,000 less than the median price paid by first-time homebuyers a decade earlier.

Homeownership Affordability

One way households can cope with higher housing prices is to pay more for housing--that is, to devote a larger share of their incomes to housing, and a smaller share to other goods and services. There are, of course, limits to such an approach. Mortgage lenders usually impose very strict limits on homebuyers, particularly, first-time homebuyer, as to how much of their gross and net incomes can be used for monthly mortgage and interest payments. But these limits can and do vary by market, by lender, by mortgage type, and according to current interest rates.

First-time homebuyers in expensive markets *do* spend a greater proportion of their incomes on housing. The share of household income used for housing has increased more in high-priced markets than in low-priced markets *primarily as a result of increased affordability in less expensive markets*, not as a result of decreased affordability in high-priced markets.

Among first-time homebuyers across the nation, the ratio of median home price to median household income declined slightly between 1975 and 1986, indicating, all else being equal, a slight increase in affordability (Table 4). But as Figure 6 indicates, this is primarily because first-

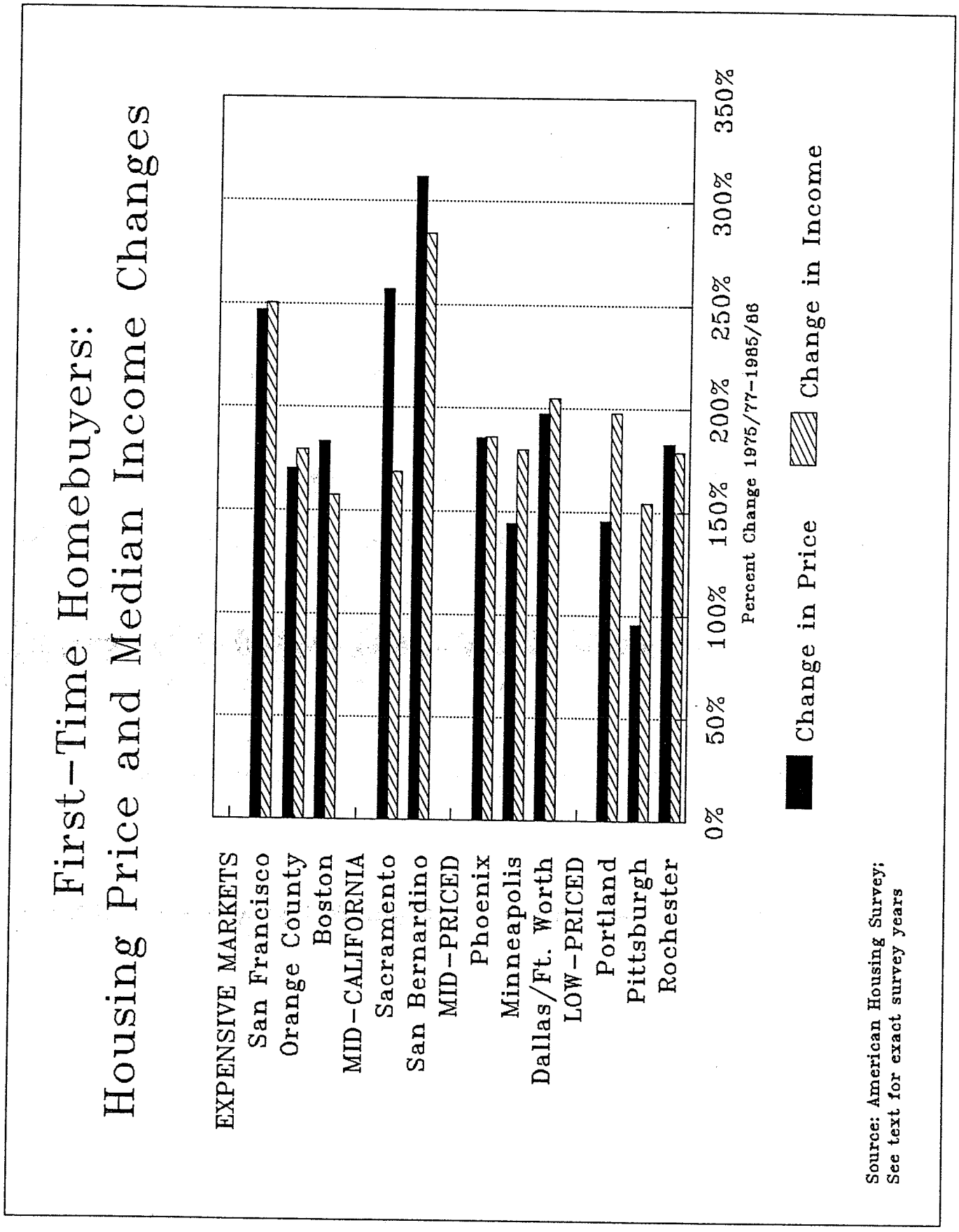
TABLE 4

FIRST-TIME HOMEBUYERS: Housing Prices and Affordability

		Median Price or Value	Median Income	Price/Income
Low Priced				
Portland	1975	$35,000	$15,372	2.28
	1986	$51,000	$30,400	1.68
Pittsburgh	1977	$45,000	$17,150	2.62
	1986	$43,000	$26,500	1.62
Rochester	1975	$35,000	$18,078	1.94
	1986	$64,000	$32,330	1.98
Mid Priced				
Phoenix	1977	$35,000	$16,010	2.19
	1985	$65,000	$29,799	2.18
Minneapolis	1977	$45,000	$18,607	2.42
	1985	$65,000	$33,500	1.94
Dallas/ Fort Worth	1977	$35,000	$17,832	1.96
	1985	$69,500	$36,500	1.90
Mid Priced- California				
Sacramento	1976	$35,000	$16,000	2.19
	1983	$90,000	$27,000	3.33
San Bernadino	1975	$25,000	$12,001	2.08
	1986	$78,000	$34,096	2.29
High Priced				
San Francisco	1975	$45,000	$18,075	2.49
	1985	$111,000	$45,200	2.46
Orange County	1977	$67,500	$22,000	3.07
	1986	$115,000	$39,500	2.91
Boston	1977	$45,000	$21,900	2.05
	1985	$82,500	$34,500	2.39

Source: American Housing Survey

FIGURE 6


First-Time Homebuyers:
Housing Price and Median Income Changes
EXPENSIVE MARKETS
San Francisco
Orange County
Boston
MID-CALIFORNIA
Sacramento
San Bernardino
MID-PRICED
Phoenix
Minneapolis
Dallas/Ft. Worth
LOW-PRICED
Portland
Pittsburgh
Rochester
0%
50%
100%
150%
200%
250%
300%
350%
Percent Change 1975/77-1985/86
Change in Price
Change in Income
Source: American Housing Survey;
See text for exact survey years

time homebuyer incomes rose at a faster rate between 1975 and 1985 than did housing prices. Thus, while most first-time homebuyers paid more for housing in 1985 than in 1975, because of rising incomes, housing affordability levels had hardly changed.

Of the three high-priced markets, first-time homeownership affordability actually improved slightly in the two California markets, while worsening in Boston. In the San Francisco-Oakland market, the ratio of median home price to median household income declined very slightly from 2.49 in 1975 to 2.46 in 1985. Similarly,among first-time homebuyers in Orange County, the ratio of median purchase price to median income fell from what had been a very high 3.07 in 1977 to a somewhat lower (but still high relative to the nation) 2.91 in 1986.

By contrast, first-time homeownership affordability declined slightly during the late 1970s and early 1980s in the two mid-priced California markets. In San Bernardino County, despite a tripling of household incomes, the ratio of median home price to median household income inched up from 2.08 in 1975, to 2.29 in 1985. The decline in homeownership affordability in Sacramento between 1976 and 1983 was much greater. Still, despite rising prices, homeownership continues to remain much more affordable in the mid-priced California markets than in the San Francisco-Oakland market or the Los Angeles market.

Among the three mid-priced markets, first-time homeownership affordability remained roughly constant in Phoenix between 1977 and 1985, and improved slightly in Dallas-Fort Worth. In the Minneapolis market, the ratio of median sales price to household income fell from a relatively unaffordable 2.42 in 1977, to a very affordable 1.94 in 1985.

Among the low-priced markets, household income growth outpaced housing price inflation, to yield substantial gains in homeownership affordability. In Portland, for example, the ratio of median sales price to median household income declined from 2.28 in 1975, to 1.68 in 1986. In Pittsburgh, where housing prices actually declined, the improvement in homeownership

affordability was even more dramatic. Whereas Pittsburgh had been one of the least affordable first-time homebuyer markets in the mid 1970s, by the mid 1980s, it had become one of the most affordable.

While homebuyers in high-priced markets devote a larger share of their income to housing, the *amount* of income available for other purchases is not necessarily less than the amount of income devoted to non-housing items in other, less-expensive markets. This result is shown graphically in Figure 7. Fore each of the eleven case study housing markets, we computed the average annual payments required to purchase the median-priced home purchased by first-time homebuyers in 1985 or 1986.[13] We then subtracted this amount from the median income of first-time homebuyers. The difference--the amount of annual gross income available for non-housing goods and services after making mortgage, property tax, and insurance payments--is shown in Figure 7, together with estimated housing payment.

By virtue of their much higher incomes, first-time homebuying households in expensive housing markets have as much or more to spend on other items, *even after paying substantially higher housing costs*, than do homebuying households in less expensive markets. This is particularly evident for the San Francisco-Oakland market. This means that if the costs of non-housing goods and services are roughly comparable between expensive and inexpensive housing markets, then the budgetary impacts of high housing prices (measured in actual dollars, not income shares) on homebuying households may not be that different between high-priced and low-priced markets.

In summary, homeownership remains relatively less affordable in high-priced markets such as San Francisco and Orange County, than in more moderate priced markets such as San

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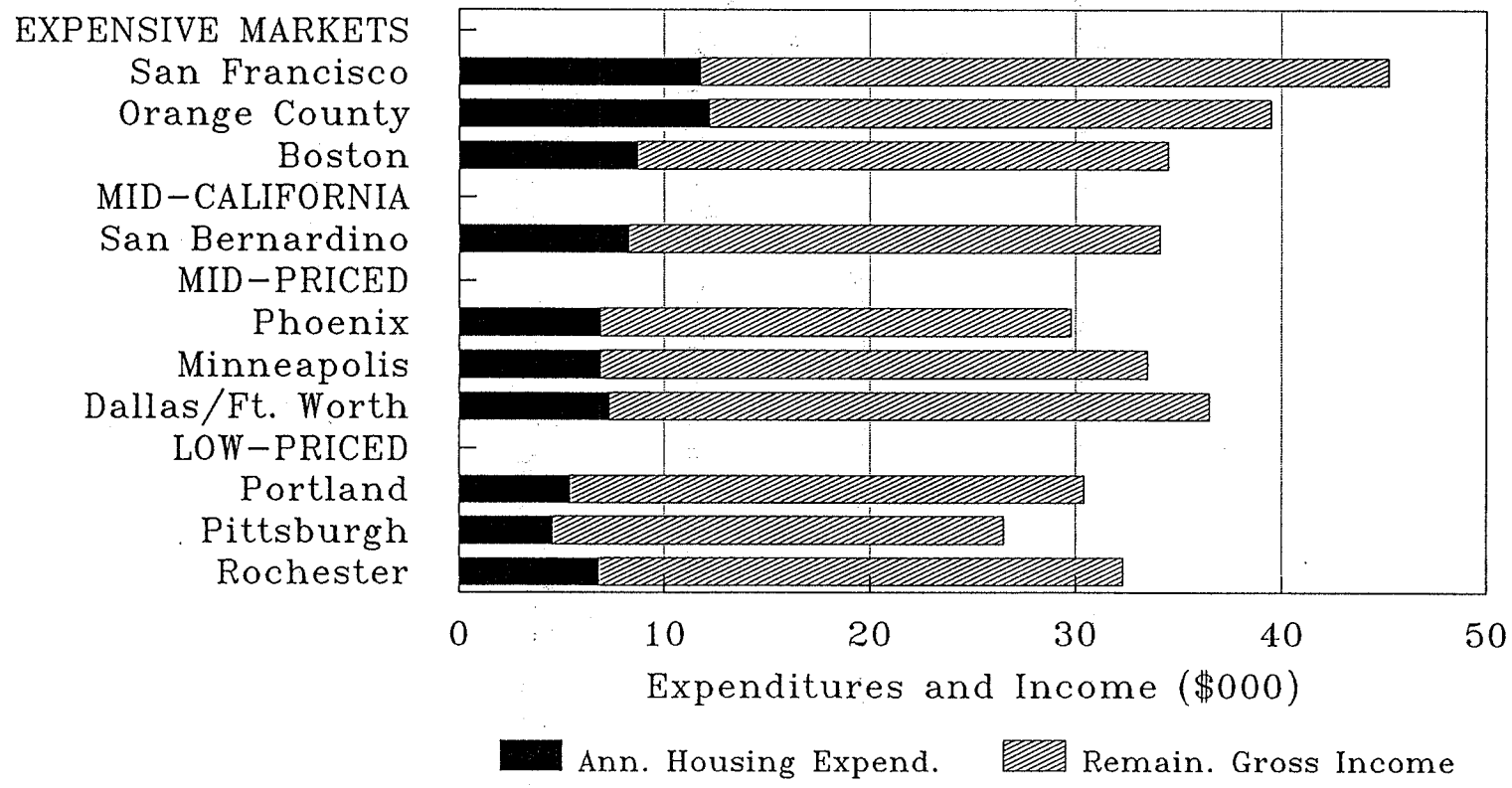
[13] We assumed a 20% downpayment, a 10.5% fixed-rate mortgage, and that local taxes and insurance were 20% of monthly mortgage payments.

FIGURE 7

First-time Homebuyers: Estimated Annual Housing Expenditures and Remaining Gross Income for Selected AHS Markets: 1985,86



Source: CREUE, from the American Housing Survey

Bernardino, Portland, or Minneapolis. All else being equal, first-time homebuyers in expensive markets such as San Francisco or Boston spend more on housing--both in absolute terms, and relative to their household incomes--than do first-time homebuyers elsewhere in the nation. Put another way, because they spend more of their income on housing, first-time homebuyers in markets such as San Francisco and Boston have less to spend on other goods and services.

At the same time, however, the affordability situation did not significantly worsen among the high-priced markets between 1975 and 1986. In fact, in both the San Francisco and Orange County markets, the ratio of median homebuyer price to median homebuyer income actually declined slightly during the period between 1975 and 1986--indicating a slight improvement in homeownership affordability. Finally, it should be noted that all else is *not equal* in these comparisons. As we show below, the affordability picture has not worsened more in the high-priced markets because first-time homebuyers were older in 1985 than in 1975, and thus earned significantly higher incomes.

Housing Consumption

Faced with rising housing prices, a second thing homebuyers can do is to scale back on their housing consumption; that is to buy a smaller home than they would otherwise prefer. Have first-time homebuyers in the more expensive markets reduced their housing consumption as prices have risen?

Houses and housing types vary widely. This makes it difficult to put together a single indicator of housing quality. the data that is available--profiling the mean and median number of rooms, bedrooms, and bathrooms per home, show that first-time homebuyers have scaled-back their level of housing consumption in the most expensive markets, but only very slightly.

The average number of bedrooms and bathrooms in homes purchased by first-time

homebuyers stayed the same between 1975 and 1986 (Table 5). Among the most expensive markets, however, the number of bedrooms declined slightly, as did the number of bathrooms. For example, in the San Francisco-Oakland market, the average home purchased by a first-time homebuyer in 1975 had 2.73 bedrooms and 1.61 bathrooms. Ten years later, the average first home in the San Francisco-Oakland market had 2.65 bedrooms and 1.54 bathrooms. Over the same period, average housing consumption dropped by similar amounts in both Orange County in and Boston.

These are not large declines to be sure. Nor would we expect large declines, as the stock of available homes is doesn't change very much in ten years. Nonetheless, they do indicate that some cutback in consumption has occurred in response to higher prices. Housing consumption also declined in the three mid-priced markets, and by about the same amount as in the high-priced markets. In Minneapolis, for example, the average home purchased by a first-time homebuyer in 1977 had 2.64 bedrooms and 1.35 bathrooms. Eight years later, in 1985, the average first home in the Minneapolis market had 2.52 bedrooms and 1.22 bathrooms. Similar declines are apparent for the Phoenix and Dallas-Ft. Worth markets.

By contrast, housing consumption by first-time homebuyers, as measured by the number of bedrooms, remained fairly constant in Portland, Pittsburgh, and Rochester--the three low-priced markets--as well as in Sacramento and San Bernardino, the two mid-priced California markets. As measured by the number of bathrooms, housing consumption declined somewhat in the three low-priced markets, but increased significantly in the two mid-priced markets.

In summary, first-time homebuyers in more expensive markets get somewhat less home (as measure by the number of bedrooms) for their money than do first-time homebuyers in less expensive markets. Moreover, in places where housing prices have risen at the same rate as

TABLE 5

FIRST-TIME HOMEBUYERS: Housing Consumption

		Number of Bedrooms		Number of Bathrooms	
		Median	Mean	Median	Mean
Low Priced					
Portland	1975	3.00	2.92	1.50	1.56
	1986	3.00	2.93	1.00	1.53
Pittsburgh	1977	3.00	2.74	1.50	1.49
	1986	3.00	2.78	1.00	1.33
Rochester	1975	3.00	3.08	1.50	1.40
	1986	3.00	3.02	1.00	1.13
Mid Priced					
Phoenix	1977	3.00	2.83	2.00	1.70
	1985	3.00	2.78	2.00	1.71
Minneapolis	1977	3.00	2.64	1.00	1.35
	1985	2.00	2.52	1.00	1.22
Dallas/ Fort Worth	1977	3.00	2.85	2.00	1.76
	1985	3.00	2.74	2.00	1.69
Mid Priced- California					
Sacramento	1976	3.00	2.91	2.00	1.68
	1983	3.00	2.96	2.00	1.77
San Bernadino	1975	3.00	2.78	1.50	1.53
	1986	3.00	2.79	2.00	1.75
High Priced					
San Francisco	1975	3.00	2.73	1.50	1.61
	1985	3.00	2.65	1.00	1.54
Orange County	1977	3.00	2.85	2.00	1.93
	1986	3.00	2.77	2.00	1.72
Boston	1977	3.00	2.72	1.00	1.39
	1985	2.00	2.35	1.00	1.12

Source: American Housing Survey

incomes, housing consumption (again, as measured according to the number of bedrooms) has declined very slightly.

Neighborhood Satisfaction

Resident satisfaction with neighborhood is another metric of housing quality. All else being equal, one would expect homebuyers in the more expensive markets to cope with high housing prices by settling for lower-quality, but more affordable neighborhoods. Unfortunately, the way in which this question has been asked on the Annual Housing Survey and American Housing Survey has changed over the years, making long-term comparisons somewhat suspect.

Overall, and somewhat contrary to what one might expect, first-time homebuyer satisfaction rose slightly in the more expensive markets, and declined slightly in the less expensive ones. Consider the cases of two high-priced markets, San Francisco-Oakland, and Orange County, and the cases of two low-priced markets, Portland and Rochester (Table 6). In San Francisco, the percentage of first-time homebuyers rating their neighborhood to be of good or excellent quality rose from 86% in 1975, to 91% in 1985. Over the 1977-85 period, the percentage of Orange County first-time homebuyers rating their neighborhood good or excellent rose from 90% to 96%. In Rochester, a low-priced market, the share of first-time homebuying households rating their neighborhood to be of good or excellent quality fell slightly from 96.5%, to 91%. And in Portland, over the same period, the share of first-time homebuyers rating their neighborhood to be of good or excellent quality fell from 97% to 89%.

It is important not to make too much of these differences. First of all, they are not very large. Second, as noted above, the ways in which questions about neighborhood quality have been posed have changed over the years of the survey, making exact comparisons difficult. Finally, in the rush to make comparisons, it is easy to overlook the primary finding of Table 6:

TABLE 6

FIRST TIME HOMEBUYERS: Neighborhood Satisfaction
Percent Distribution

		Resident Satisfaction with Neighborhood				Place moved To	
		Excellent	Good	Fair	Poor	City	Suburb
Low Priced		(%)	(%)	(%)	(%)	(%)	(%)
Portland	1975	1	40	1	2	21	79
	1986	41	49	9	2	21	79
Pittsburgh	1977	35	52	13	0	22	78
	1986	55	29	16	0	15	85
Rochester	1975	47	49	4	0	28	72
	1986	35	56	7	2	26	74
Mid Priced							
Phoenix	1977	45	48	7	0	49	51
	1985	40	45	13	2	43	57
Minneapolis	1977	45	49	6	1	30	70
	1985	48	43	7	2	25	75
Dallas/ Fort Worth	1977	48	43	9	0	35	65
	1985	48	39	11	2	37	63
Mid Priced- California							
Sacramento	1976	35	53	11	2	22	78
	1983	53	40	4	4	29	71
San Bernadino	1975	35	55	9	2	21	79
	1986	58	30	9	2	25	75
High Priced							
San Francisco	1975	41	45	13	1	34	66
	1985	39	52	8	1	20	80
Orange County	1977	49	41	9	1	24	76
	1986	56	40	2	1	15	86
Boston	1977	52	41	6	1	28	72
	1985	48	43	10	0	23	77

Source: American Housing Survey

overall, first-time homebuyers are very satisfied with their neighborhoods, regardless of home price.

The Age Structure of First-time Homebuyers

High housing prices confront first-time buyers with two types of financing obstacles. The first, a high monthly payment, can only be overcome through rising incomes or falling interest rates. The second type of obstacle, a high downpayment, can be overcome either by tapping into alternative sources of cash for the downpayment (usually relatives), or by deferring the homebuying decision until enough cash for a sufficient downpayment has been accumulated. All else being equal, we would expect first-time homebuyers in more expensive markets to be older than first-time buyers in less expensive markets.

This is generally the case, as Table 7 shows. At the national level, changing demographics are contributing to a general postponing of homeownership; nation-wide the share of first-time homebuyers who are less than 25 years old declined between 1975 and 1986. At the other end of the age spectrum, over the same period, the share of first-time buyers who are 35 years or older has increased.

The extent to which households are postponing homeownership, although somewhat related to housing prices, also varies strongly between markets. In the San Francisco-Oakland market, for example, one of the most expensive in the nation, the share of first-time homebuyers who are 35 years of age or older increased from 34% in 1977, to 45% in 1985. And in Orange County, more than 50% of first-time homebuyers in 1986 were over 35 years of age, up from only 34% a decade earlier.

As housing prices in California's coastal markets have escalated, many younger first-time homebuyers have relocated to inland areas. As a result, first-time homebuyers in the two mid-

TABLE 7

FIRST TIME HOMEBUYERS: Demographic Characteristics

Percent Distribution

		Age of Head of HseHld			Household Type				No. of Workers per HH			Race		% Hisp
		LT 25	25-34	GT 34	Single	Married W/O Kids	Married W Kids	Single Head of HH	0	1	GT 1	White	Other	
Low Priced														
Portland	1975	11	60	29	7	35	54	4	8	37	48	95	5	0
	1986	9	47	44	19	27	44	10	3	34	53	97	3	2
Pittsburgh	1977	9	76	15	9	37	54	0	0	50	50	98	2	0
	1986	15	53	33	14	26	51	9	10	40	50	88	13	3
Rochester	1975	15	61	25	5	31	62	2	0	40	52	90	11	1
	1986	15	59	26	13	25	54	8	0	33	59	93	7	4
Mid Priced														
Phoenix	1977	18	45	37	9	38	48	4	7	43	48	95	6	9
	1985	18	49	34	18	24	53	5	4	28	61	93	8	5
Minneapolis	1977	15	58	27	15	41	39	6	2	38	57	99	1	1
	1985	14	62	25	21	35	34	10	1	33	58	97	3	0
Dallas/ Fort Worth	1977	19	42	39	13	30	51	7	7	40	47	91	9	6
	1985	12	54	34	15	30	45	10	4	35	56	89	11	9
Mid Priced- Cal														
Sacramento	1976	17	39	43	13	33	45	9	6	51	39	95	5	5
	1983	12	55	33	12	29	51	8	4	49	45	83	17	5
San Bernadino	1975	17	37	46	7	36	51	6	14	41	43	94	6	8
	1986	9	53	38	15	26	49	9	9	36	52	90	10	15
High Priced														
San Francisco	1975	8	58	34	15	29	51	5	5	44	51	71	29	5
	1985	2	53	45	18	18	61	4	6	30	63	75	25	8
Orange County	1977	10	56	34	13	41	41	5	10	40	50	95	5	7
	1986	5	43	52	17	23	45	16	6	39	55	90	10	12
Boston	1977	7	54	39	12	37	45	5	3	39	55	90	10	3
	1985	8	51	40	26	20	48	6	2	36	62	90	1	0

Source: American Housing Survey

priced California markets--Sacramento and San Bernardino--have grown younger. In San Bernardino, for example, 46% of first-time homebuyers in 1986 were older than 35. By 1986, the share of first-time buyer older than 35 had fallen to 38%.

As California housing prices have increased, homeownership rates among very young households--those less than 25 years of age-- have plummeted. In the San Francisco-Oakland market, for example, only 2% of first-time homebuyers in 1985 were younger than 25; in 1975, by contrast, 8% of first-time buyers in the San Francisco market had been less than 25 years old. And although homeownership remains somewhat more affordable in California's inland areas, rising prices there have also reduced first-time homeownership rates among very young households. In San Bernardino, for example, the share of first-time buyers who were 25 years old or less fell from 17% in 1975, to only 9% in 1986.

By contrast, the age structure of first-time homebuyers in the three mid-priced markets--Phoenix, Minneapolis, and Dallas-Fort-Worth--did not change very much during the 1970s and 1980s. In the Dallas-Forth Worth market, for example, the share of first-time homebuyers aged 35 or older actually decreased between 1975 and 1986, falling from 39% to 34%. At the same time, the share of first-time homebuyers between the ages of 25 and 34 years of age increased, rising form 42% in 1977, to 54% in 1985.

Finally, the age structure of first-time homebuyers in the low-priced markets--Portland, Pittsburgh, and Rochester--seems to vary market by market. In Portland, for example, the typical first-time homebuyer was significantly older in 1986 than in 1975. In Rochester, however, the age structure of first-time homebuyers in 1986 was virtually identical to what it was in 1975. Finally, first-time homebuyers in Pittsburgh have gotten both older and younger: while the share of Pittsburgh homebuyers over 35 increased between 1977 and 1986 (rising from 15% to 33%), so too did the share of first-time homebuyers less than 25 years of age (rising from 9% to 15%).

First-time Homebuyers and Labor Force Participation

One way to increase household income--in order to afford homeownership--is to increase the number of hours worked. To do this, households members can either increase the number of hours they work at existing jobs, take additional jobs, or, as is most frequently the case, an additional household member can enter the workforce. Generally speaking, labor force participation rates have been rising, particularly among single and married women. Are labor force participation rates systematically higher in more expensive markets, or, have they risen faster in more expensive markets?

The share of first-time homebuying households with two or more workers varies widely by market. The share of households with two wage-earners has always been higher in markets such as San Francisco, Boston, and Minneapolis, and always been lower in markets such as Sacramento or Dallas-Ft. Worth. Thus, labor force trends must be appraised on an individual market basis.

We first consider a more expensive market: San Francisco-Oakland. Among first-time homebuyers in the San Francisco-Oakland market, labor force participation rose considerably between 1975 and 1986. In 1975, for example, there were two or more wage-earners in 51 percent of first-time homebuying households. By 1985, the share of first-time homebuyer households in which two or more adults worked had risen to 63% (Table 7). This was a substantial increase over a ten year period, and one which was probably due, in some part, to rising housing prices.

It was not however, the largest such increase. Among first-time homebuying households, the incidence of two or more wage-earners increased by somewhat more in Phoenix, a mid-priced market: in 1977, there were two or more wage-earners in fewer than half of the first-time homebuyer households in Phoenix. By 1985, the share of first-time buyer households in Phoenix with two or more wage-earners had risen to 61%, almost as high as in San Francisco.

Other markets in which labor force participation among first-time homebuyers increased were Rochester (in which the share of first-time homebuyers in which two or more adults worked rose from 52% in 1975, to 59% in 1986), and Dallas-Fort-Worth (in which the share of first-time homebuyers with two or more wage-earners rose from 47% in 1975 to 56% in 1985.) Rochester is a low-priced market and Dallas is a mid-priced market.

Labor force participation rates also rose in the two mid-priced California markets. In San Bernardino, for example, the share of first-time homebuying households in which two or more adults worked, rose from 43% in 1975 to 52% in 1986. A similar increase occurred in Portland, a low-priced market, over the same period.

To summarize, labor force participation rates among first-time homebuyers (measured according to the share of households with two or more workers) are somewhat higher in high-priced housing markets than in low-priced markets, *but not much higher.* Moreover, among the eleven markets profiled in Table 7 there do not appear to be any systematic relationships between rising labor force participation rates and housing prices. Increases in the number of workers per household, across all types of households, are due to a wide variety of factors (including growth in the local economy, the social and demographic mix of the labor force, and prevailing wage rates), including, but by no means limited to, the price of housing.

Housing Prices and Commuting Behavior

Housing prices vary markedly within metropolitan areas, as well as between them. And within almost all metropolitan areas, the less expensive housing (as well as the less expensive land) tends to be at the urban periphery. Thus homebuyers can usually find more affordable new housing, as well as better housing values, in growing suburban areas at the fringe of a metropolitan area. The downside, of course, is that households who purchase housing at the

TABLE 8

FIRST TIME HOMEBUYERS: Commuting Characteristics

		Time to Work (minutes; cumulative frequency)					Distance to Work (miles; cumulative frequency)						
		LT 15	15-29	30-44	45-59	>60	LT 1	1 - 4	5 - 9	10 - 19	20 - 29	30 - 39	GT 39
Low Priced													
Portland	1975	28	75	92	97	100	6	26	63	90	98	99	100
	1986	*	*	*	*	*	*	*	*	*	*	*	*
Pittsburgh	1977	20	65	83	98	100	0	33	55	88	95	100	100
	1986	*	*	*	*	*	*	*	*	*	*	*	*
Rochester	1975	29	73	90	97	100	4	32	57	85	93	97	100
	1986	*	*	*	*	*	*	*	*	*	*	*	*
Mid Priced													
Phoenix	1977	28	75	91	99	100	7	28	52	91	95	99	100
	1985	25	74	91	94	100	3	17	46	83	95	96	100
Minneapolis	1977	26	77	95	98	100	1	27	55	85	97	100	100
	1985	33	82	96	99	100	3	22	43	87	97	99	100
Dallas/ Fort Worth	1977	26	79	96	100	100	2	24	51	83	97	99	100
	1985	22	66	93	96	100	1	15	36	75	95	99	100
Mid Priced- California													
Sacramento	1976	43	77	93	97	100	3	37	59	87	94	95	100
	1983	*	*	*	*	*	*	*	*	*	*	*	*
San Bernadino	1975	39	75	87	95	100	3	34	52	76	87	94	100
	1986	*	*	*	*	*	*	*	*	*	*	*	*
High Priced													
San Francisco	1975	19	54	84	92	100	3	21	456	74	91	97	100
	1985	22	59	77	90	100	3	20	37	71	87	95	100
Orange County	1977	22	59	84	90	100	2	17	33	66	81	96	100
	1986	*	*	*	*	*	*	*	*	*	*	*	*
Boston	1977	24	55	78	90	100	7	31	52	81	94	97	100
	1985	14	52	79	92	100	4	17	46	78	93	96	100

Source: American Housing Survey

urban fringe may have to travel longer distances to existing urban centers to work or shop. Thus, the conventional wisdom goes, households have to trade off commute distance (and time) for housing affordability.

Or do they? Nationwide, commute distances have been increasing, while commute times have been falling (Pisarski, 1986). This has been a natural outgrowth of the rapid decentralization of jobs in metropolitan areas. Many households now find that their job, by moving to the suburbs, has shortened their work trip.

Comparing the changing pattern of commute times and distances across different housing markets is hampered by the fact that the data is not published or collected for all survey years. In particular, commute time and distance data is not available by market for 1986. It is, however, possible to make comparison between the high-priced San Francisco-Oakland market, the three mid-priced Phoenix, Minneapolis, and Dallas-Fort Worth markets.

Generally speaking, commutes are longer and take a longer time in the San Francisco-Oakland market, than in the less expensive Phoenix, Minneapolis, and Dallas markets (Table 8). This was true in 1975, 1977, and 1985. For example, whereas three quarters of Phoenix, Minneapolis, and Dallas first-time homebuyers commuted to work in less than 30 minutes in 1977, in the San Francisco-Oakland market in 1975, only 54% of first-time homebuyers commuted to work in less than 30 minutes. Ten years later, these difference still held, more or less. The distribution of commuting time among first-time homebuyers in Phoenix in 1985 was almost exactly the same as what it had been in 1977. In Minneapolis, the distribution of commute time had improved somewhat during this period. In the Dallas Fort-Worth market it had worsened considerably, with the percentage of first-time homebuyer who commuted 30 minutes or less falling from 79% in 1977, to 66% in 1985.

By contrast, in the San Francisco-Oakland market, commute time among first-time

homebuyers had become more bi-modal. Whereas 54% of first-time homebuyers commuted 30 minutes or less in 1975, by 1985, that percentage had risen to 59%--a considerable improvement. At the same time, the share of first-time homebuyers in the San Francisco-Oakland market who commuted more than 45 minutes had risen from 16% to 23%.

Turning from commute times to commute distances, we note that the pattern of commute distances among first-time homebuyers has lengthened considerably in Phoenix and Dallas, but shortened slightly in Minneapolis. In the San Francisco-Oakland area, the pattern of commute distances has lengthened, but in an uneven fashion; commute distance for those who travel less than 20 miles to work have shortened, while distances for those who travel more than 20 miles to work have lengthened (Table 8).

Because of the lack of more recent data, additional time-series comparisons between markets can not be made. On the basis of 1975 and 1977 data, however, it appears that commute times are longer in more expensive markets (such as Boston and Orange County) than in less expensive markets. But among first-time homebuyers, it does not appear that commuting and congestion have worsened as housing price differentials have widened.

E. Comparisons among Move-up Homebuyers

Move-up homebuyers face a different set of opportunities than do first-time homebuyers. Because they are already in the ownership market, they receive equity benefits from price increase which provide them with more mobility int he housing market. As a result, they may be cushioned from some of the effects observed for first-time homebuyers.

Price Trends and Affordability

The period between 1975 and 1986 saw a growing distinction between "starter homes"--those homes bought by first-time homebuyers, and "move-up homes", those homes

purchased by households who had already owned a home. In 1975, the price difference between a starter home and a move-up home in most markets was about $10,000 (Figure 8). By the mid 1980s, this gap had widened, particularly in the more-expensive California markets. In the San Francisco-Oakland market, for example, the median price of a home purchased by a move-up buyer in 1985 was $155,000, as compared with a median price of $111,000 for a home purchased by a first-time buyer (Table 9). And as Figure 8 indicates, the gap between starter home prices and move-up home prices was even wider in Orange County.

Outside of the most expensive markets, the gap between starter home prices and move-up home prices seems to vary by market. In Phoenix, Minneapolis, and Dallas-Fort Worth, for example the difference between starter and move-up home prices in the mid-1980s was roughly the same as in the mid 1970s. By contrast, in Portland (a low-priced market), the difference between starter and move-up home prices increased from nothing in 1975, to $15,000 in 1986. In Pittsburgh, homes occupied by previous homeowners were typically less expensive in 1986 than were homes occupied by first-time homebuyers.

Because move-up households usually rely on the equity from the sale of a previous home to help pay for their next home, the link between home prices and household incomes is much looser for move-up households than for first-time homebuyers. This is evident from Table 9. In the San Francisco-Oakland market, for example, the ratio of median purchase price to median income among move-up buyers increased from 2.39 in 1975 to 2.99 in 1985. By contrast, the price/income ratio for first-time homebuyers during the same period, in the same San Francisco-Oakland market, fell from 2.49 to 2.46.

As a result, price/income ratios among move-up homebuyers often trend in different directions, depending on the market. Price/income ratios increased substantially in two of three low-priced markets (Portland and Rochester) between 1975 and 1986, but fell in all three of the

FIGURE 8

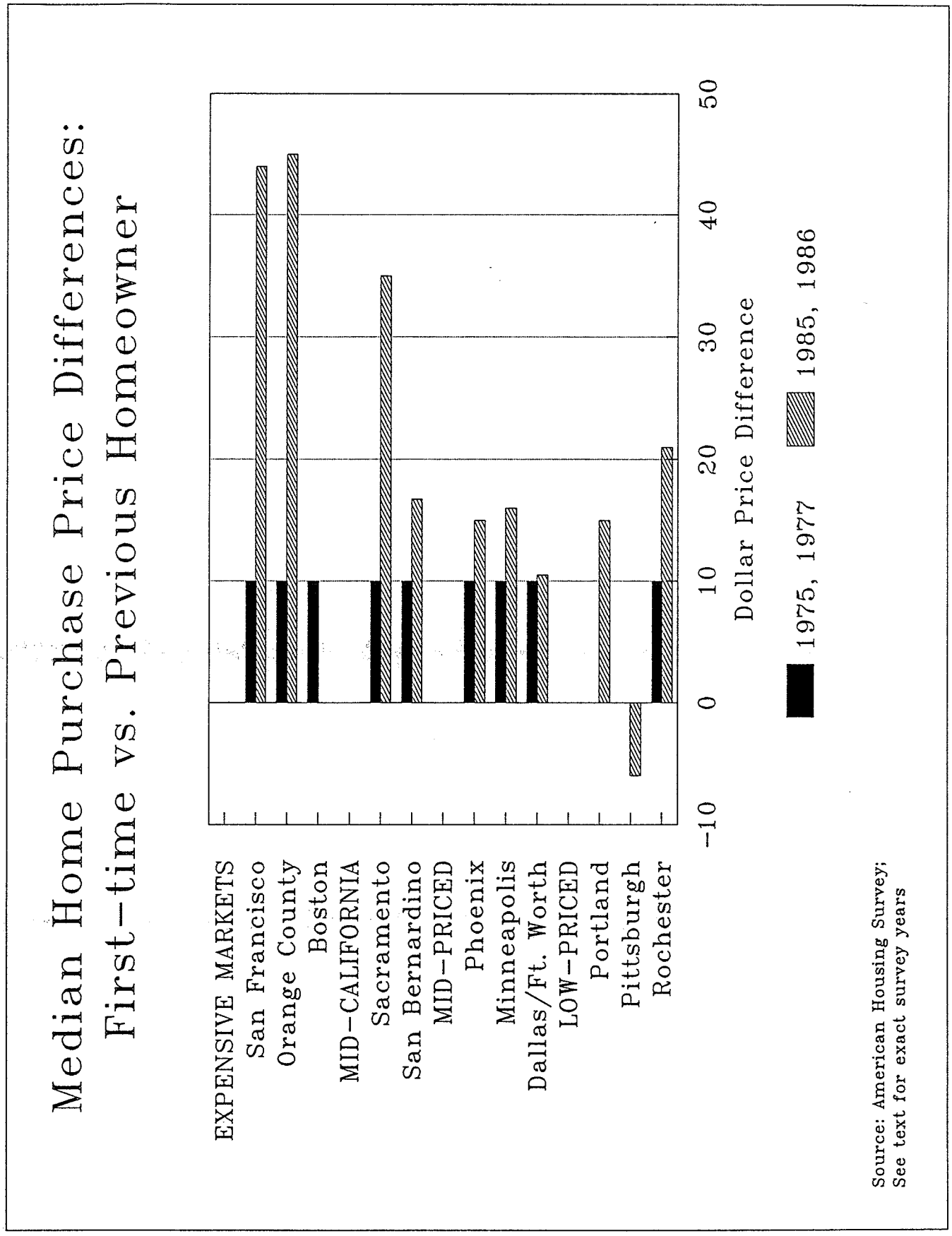

Median Home Purchase Price Differences:
First-time vs. Previous Homeowner
EXPENSIVE MARKETS
San Francisco
Orange County
Boston
MID-CALIFORNIA
Sacramento
San Bernardino
MID-PRICED
Phoenix
Minneapolis
Dallas/Ft. Worth
LOW-PRICED
Portland
Pittsburgh
Rochester
-10
0
10
20
30
40
50
Dollar Price Difference
1975, 1977
1985, 1986
Source: American Housing Survey;
See text for exact survey years

TABLE 9

MOVE-UP HOMEBUYERS: Housing Prices and Affordability

		Median Price or Value	Median Income	Price/Income
Low Priced				
Portland	1975	$35,000	$19,339	1.81
	1986	$66,225	$29,000	2.28
Pittsburgh	1977	$45,000	$20,400	2.21
	1986	$37,000	$31,000	1.19
Rochester	1975	$45,000	$21,050	2.14
	1986	$85,000	$34,800	2.44
Mid Priced				
Phoenix	1977	$45,000	$17,200	2.62
	1985	$80,000	$36,000	2.22
Minneapolis	1977	$55,000	$23,340	2.36
	1985	$81,000	$36,450	2.22
Dallas/ Fort Worth	1977	$45,000	$22,244	2.02
	1985	$80,000	$43,550	1.84
Mid Priced- California				
Sacramento	1976	$45,000	$20,916	2.15
	1983	$125,000	$37,950	3.29
San Bernadino	1975	$35,000	$14,813	2.36
	1986	$94,750	$39,200	2.42
High Priced				
San Francisco	1975	$55,000	$23,000	2.39
	1985	$155,000	$51,900	2.99
Orange County	1977	> $75,000	$26,000	
	1986	$150,000	$57,000	2.63
Boston	1977	$55,000	$23,500	2.34
	1985	$98,750	$38,100	2.59

Source: American Housing Survey

mid-priced markets (Phoenix, Minneapolis, and Dallas-Ft.Worth). Among the two mid-priced California markets, price/income ratios among move-up homebuyers were up sharply in Sacramento between 1976 and 1983, but remained roughly level in San Bernardino between 1975 and 1986.

Housing Consumption and Neighborhood Satisfaction

The size and quality of move-up housing varies market by market, just like the size and quality of starter housing. According to Table 10, the average size of homes purchased by move-up buyers in California increased slightly during the period between 1975 and 1986. In the San Francisco-Oakland market, for example, the average size of homes purchased by move-up buyers rose from 2.97 bedrooms in 1975, to 3.16 bedrooms in 1985. And in San Bernardino, the average size of homes purchased by households who had already owned a home increased from 2.78 bedrooms in 1975 to 2.96 bedrooms in 1986. This was a familiar pattern throughout California during the late 1970s and 1980s. As a way of maximize their equity gains from price appreciation, many move-up homebuyers would buy as large a home as they could afford.

By contrast, outside of California, the average size of homes purchased by move-up buyers declined very slightly during the latter 1970s and early 1980s. The most extreme example of a decline in home size was the Boston market, where the average size of homes purchased by move-up buyers fell from 3.4 in 1977, to 2.4 bedrooms in 1985.

Except in Pittsburgh, it appears that equity does buy happiness, or at least a nicer neighborhood. As shown in Figure 9, the share of move-up homebuyers who rated their neighborhood quality excellent was consistently higher than the share of first-time buyers who rated their neighborhood quality excellent. As with first-time homebuyers, a slightly smaller proportion of move-up buyers rated their neighborhood as being of excellent quality in 1985 than

TABLE 10

MOVE-UP HOMEBUYERS: Housing Consumption

		Number of Bedrooms		Number of Bathrooms	
		Median	Mean	Median	Mean
Low Priced					
Portland	1975	3.00	3.05	2.00	1.77
	1986	3.00	2.86	2.00	1.63
Pittsburgh	1977	3.00	3.10	1.50	1.84
	1986	3.00	2.98	1.00	1.61
Rochester	1975	3.00	3.38	1.50	1.89
	1986	3.00	3.23	1.00	1.37
Mid Priced					
Phoenix	1977	3.00	2.97	2.00	1.92
	1985	3.00	3.00	2.00	1.94
Minneapolis	1977	3.00	3.01	1.50	1.78
	1985	3.00	2.89	1.00	1.52
Dallas/ Fort Worth	1977	3.00	3.12	2.00	2.03
	1985	3.00	3.02	2.00	1.92
Mid Priced- California					
Sacramento	1976	3.00	3.15	2.00	2.10
	1983	3.00	2.88	2.00	2.09
San Bernadino	1975	3.00	2.78	2.00	1.69
	1986	3.00	2.96	2.00	1.90
High Priced					
San Francisco	1975	3.00	2.97	2.00	1.96
	1985	3.00	3.16	2.00	1.95
Orange County	1977	3.00	3.19	2.00	2.32
	1986	3.00	3.11	2.00	2.07
Boston	1977	3.00	3.40	1.50	1.87
	1985	3.00	2.39	1.00	1.12

Source: American Housing Survey

in 1975 (Table 11). However, ratings of neighborhood quality by move-up buyers do not appear to vary systematically with housing prices.

The Age Structure of Move-up Buyers

Not surprisingly, move-up homebuyers are generally older than first-time homebuyers, regardless of market. But whereas first-time homebuyers tended to be older in 1985 (or 1986) than in 1975 (or 1977), move-up homebuyers tended to be younger in the mid-1980s than in the mid 1970s. Consider the cases of Rochester and Orange County. In 1975, the median age of first-time homebuyers in Rochester was 27, while the median age of move-up homebuyers was 32. Over the next eleven year, the median age of first-time homebuyers in Rochester increased to 28, while the median age of move-up homebuyers fell to 31. Thus the median age gap between first-time and move-up homebuyers in Rochester fell from five years in 1975 to three years in 1986. The median age gap between first-time and move-up homebuyers also fell in Orange County, from five years in 1977 to three years in 1986 (Figure 10).

What happened was that while *rising housing prices were making it more difficult for many households to afford homeownership to begin with, once homeownership was achieved, rising equity made it easier to afford to move-up to a larger, nicer home.* The extent to which the age gap between first-time homebuyers and move-up buyers has narrowed since the mid 1970s varies market.

The age distribution of move-up buyers reflects the fact that it is easier to afford a move-up home in a less expensive markets such as Rochester or Minneapolis than in a more expensive one such as Boston or San Francisco-Oakland (Table 12). For example, whereas 50 percent of move-up buyers in Rochester and Minneapolis were less than 35 years old in 1985 (or 1986), in San Francisco and Boston, only 29% and 39%, respectively, of move-up buyers in 1985 were less than 35 years old.

MOVE-UP HOMEBUYERS: Neighborhood Satisfaction

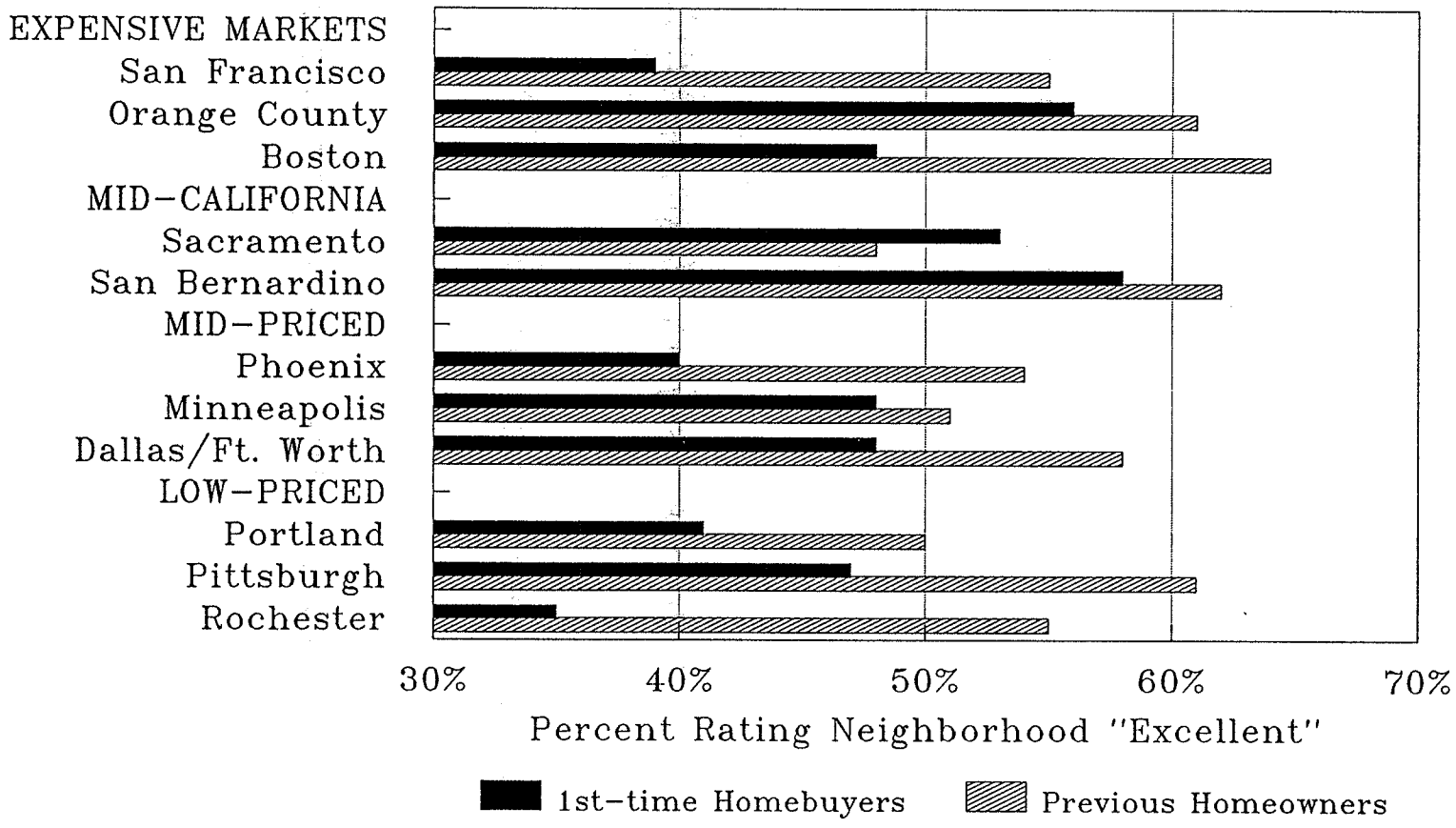
Percent Distribution

		Resident Satisfaction with Neighborhood				Place moved To	
		Excellent	Good	Fair	Poor	City	Suburb
Low Priced		(%)	(%)	(%)	(%)	(%)	(%)
Portland	1975	59	35	7	0	15	85
	1986	50	46	2	2	16	84
Pittsburgh	1977	49	46	5	0	9	91
	1986	61	32	7	0	9	91
Rochester	1975	74	22	4	0	4	96
	1986	55	36	9	0	15	85
Mid Priced							
Phoenix	1977	58	36	4	2	29	71
	1985	54	38	8	0	43	57
Minneapolis	1977	66	31	3	1	14	86
	1985	51	35	14	11	18	82
Dallas/ Fort Worth	1977	59	33	7	0	29	71
	1985	58	36	5	1	24	76
Mid Priced- California							
Sacramento	1976	55	40	5	1	16	84
	1983	48	40	10	2	17	83
San Bernadino	1975	48	36	14	3	17	83
	1986	62	29	8	1	17	83
High Priced							
San Francisco	1975	60	33	6	1	16	85
	1985	55	38	7	1	15	85
Orange County	1977	64	27	8	0	16	84
	1986	61	32	7	0	10	90
Boston	1977	61	29	6	4	13	87
	1985	64	25	10	1	5	95

Source: American Housing Survey

FIGURE 9

Neighborhood Satisfaction: 1985, 1986
First-time vs. Previous Homeowner



Source: American Housing Survey;
See text for exact survey years

In summary, move-up homebuyers--just like first-time homebuyers--tend to be older in more expensive housing markets than in less expensive markets. However, this is less a reflection of the difficulty of moving-up than it is a reflection of the difficulty of becoming a homeowner in the first place. Simply put, move-up households are older in expensive markets because they had to postpone becoming homeowners.

Labor Force Participation among Move-up Buyers

The share of move-up households with two or more wage earners, although sizeable, is considerably smaller than the share of first-time homebuying households with two or more wage earners. Whereas many first-time buying households need two or more incomes to become homeowners, once homeownership has been achieved, rising home values and equity can often be converted into leisure.

As Table 12 and Figure 11 indicate, the share of move-up households with two or more wage earners tends to be greater in more expensive markets than in less expensive ones. For example, whereas two-wage earner households comprised 46 percent of move-up households in Minneapolis in 1985, in Boston, in the same year, two-wage earners households comprised 58 percent of move-up households. Moreover, the share of two-wage-earner households among move-up buyers has been rising just about everywhere. What has not happened is that the growth in two wage-earner households among move-up buyers has been any greater in more expensive markets than in less expensive ones. For move-up buyers, as well as for first-time buyers, the decision to work is a complicated one--determined as much by demographic and lifestyle factors as by local housing market conditions.

TABLE 12

MOVE-UP HOMEBUYERS: Demographic Characteristics

Percent Distribution

		Age of Head of HseHld			Household Type				No. of Workers per HH			Race		% Hisp
		LT 25	25-34	GT 34	Single	Married W/O Kids	Married W Kids	Single Head of HH	0	1	GT 1	White	Other	
Low Priced														
Portland	1975	1	35	65	5	28	64	3	8	48	34	99	1	1
	1986	4	31	65	15	23	51	11	14	51	29	96	4	0
Pittsburgh	1977	5	35	60	5	19	73	3	9	49	39	97	3	0
	1986	14	34	52	14	26	50	10	16	41	41	98	2	0
Rochester	1975	3	48	50	0	14	83	3	10	52	36	97	3	3
	1986	5	45	49	16	21	55	8	7	41	48	96	4	0
Mid Priced														
Phoenix	1977	3	22	75	13	32	51	3	25	42	27	98	2	5
	1985	3	34	63	19	32	43	6	18	32	40	99	1	4
Minneapolis	1977	3	46	51	9	18	69	3	4	44	46	97	3	0
	1985	10	40	51	20	19	57	3	11	37	46	97	3	2
Dallas/ Fort Worth	1977	2	36	63	6	22	67	4	11	44	36	96	4	3
	1985	7	34	59	12	23	59	6	8	30	57	96	4	4
Mid Priced- Calif.														
Sacramento	1976	4	26	70	8	29	63	2	18	38	40	96	5	4
	1983	0	33	67	17	31	49	3	30	32	33	87	13	2
San Bernadino	1975	5	21	74	16	29	54	1	30	39	25	99	1	5
	1986	3	22	75	9	24	57	10	22	24	39	94	7	7
High Priced														
San Francisco	1975	1	33	66	13	30	53	4	14	47	40	88	12	4
	1985	4	25	72	15	16	58	11	13	38	49	81	19	6
Orange County	1977	2	30	68	11	33	52	5	14	43	43	96	4	4
	1986	3	28	69	13	23	55	9	9	35	56	93	7	5
Boston	1977	0	30	70	4	15	74	8	8	46	37	94	6	1
	1985	3	36	61	16	29	46	9	8	34	58	97	3	0

Source: American Housing Survey

FIGURE 10

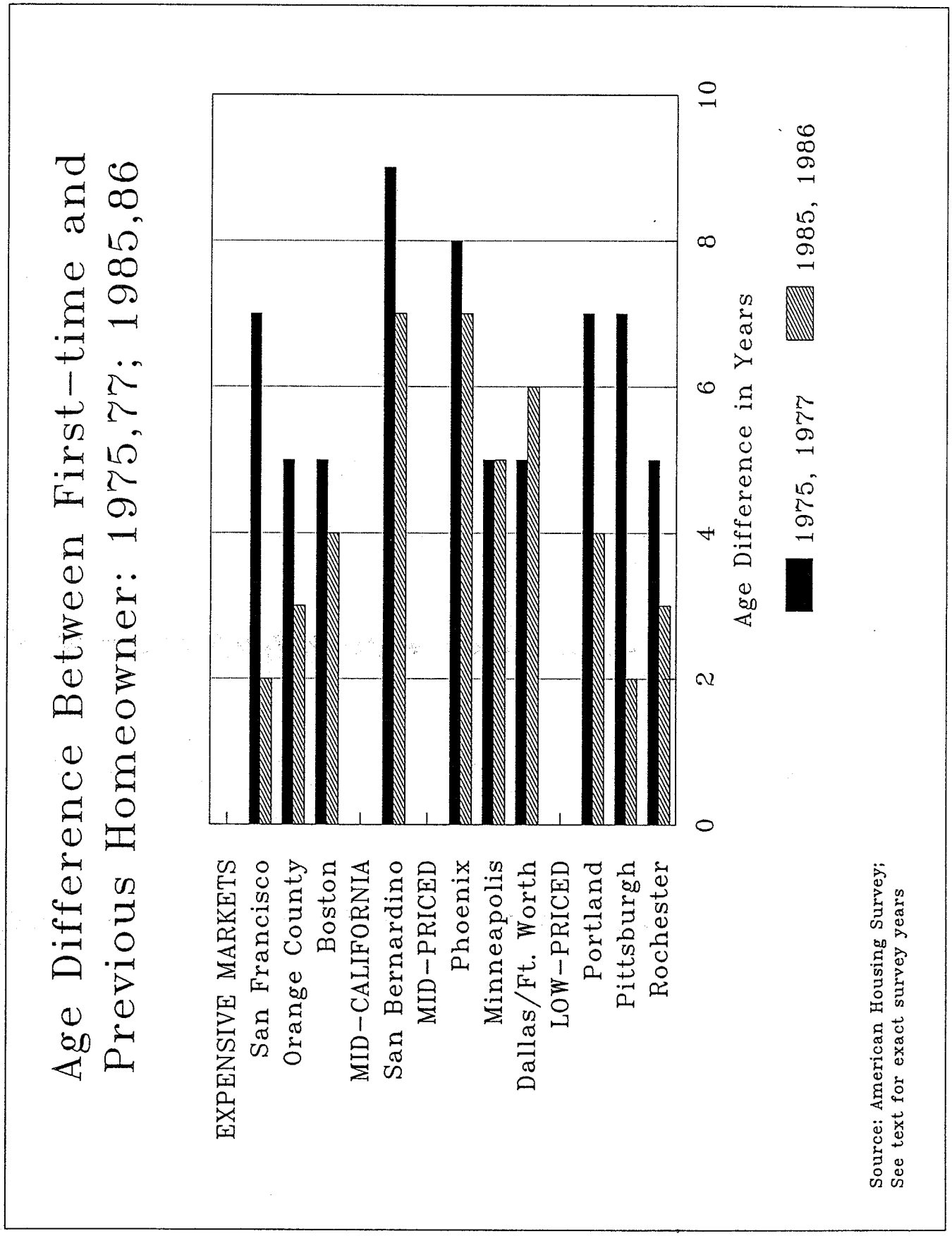
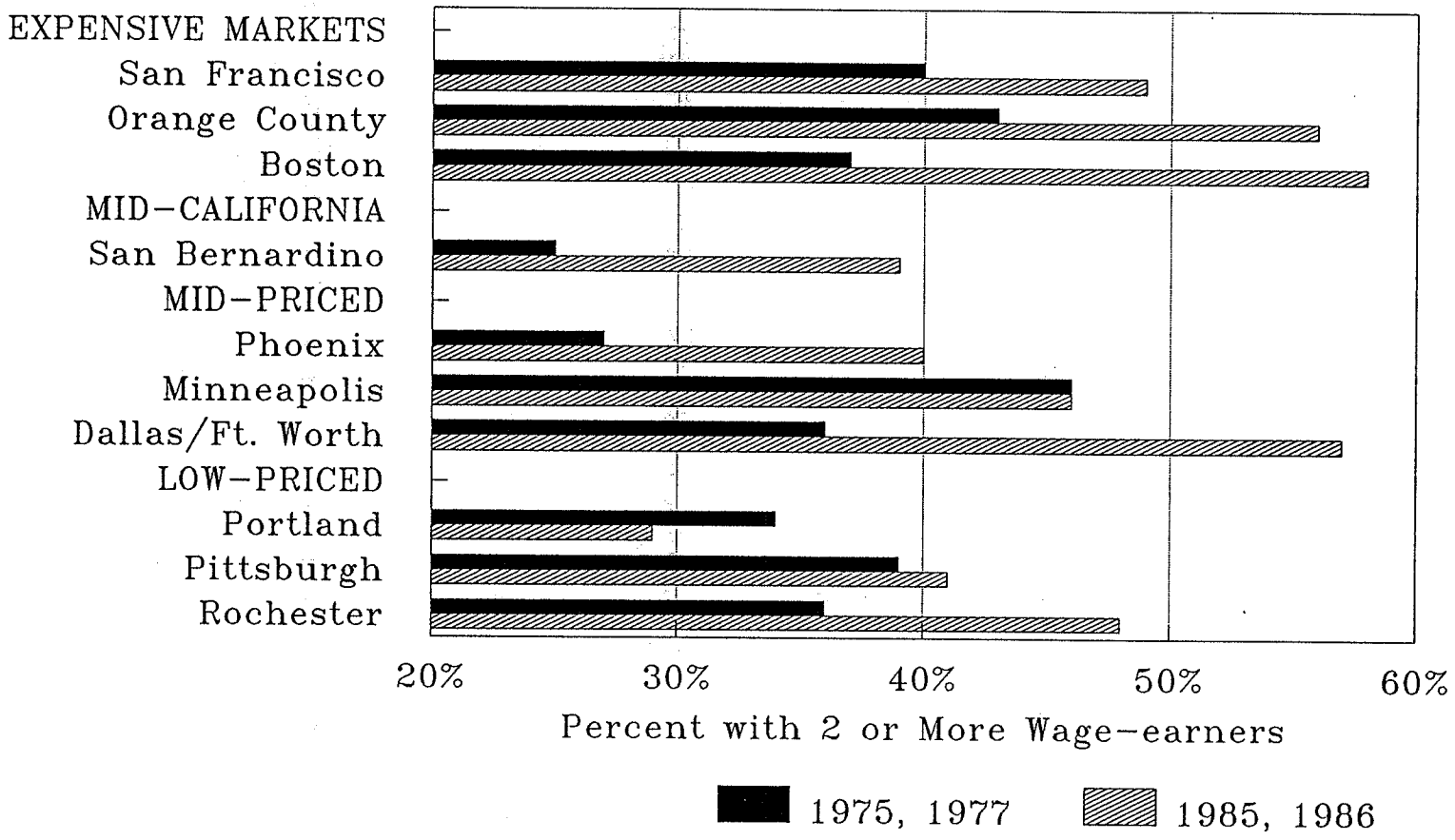

Age Difference Between First-time and Previous Homeowner: 1975,77; 1985,86
EXPENSIVE MARKETS
San Francisco
Orange County
Boston
MID-CALIFORNIA
San Bernardino
MID-PRICED
Phoenix
Minneapolis
Dallas/Ft. Worth
LOW-PRICED
Portland
Pittsburgh
Rochester
0
2
4
6
8
10
Age Difference in Years
1975, 1977
1985, 1986
Source: American Housing Survey;
See text for exact survey years

FIGURE 11

Share of Move-up Homebuyers with Two or More Wage-earners: 1975,77; 1985,86



Source: American Housing Survey;
See text for exact survey years

Commuting Characteristics of Move-up Buyers

One of the purposes of "moving-up" is to find a more desirable location, and for many households, finding a more desirable location means being closer to work. Closer to work, however, is not necessarily the same thing as being close to work. Comparing the distribution of commute time between first-time homebuyers (Table 8) with the commute time distribution of move-up homebuyers (Table 13) yields an interesting duality. On the one hand, about the same percentages of first-time homebuyers and move-up buyers commute to work in less than 30 minutes (The percentages vary between markets, of course) on the other hand, a greater percentage of move-up buyers than first-time homebuyers commute to work in less than 45 minutes. What this indicates is that there are many more first-time homebuyers than move-up buyers who have very long commutes. Thus, for many households, one of the benefits of moving up is to reduce very long commutes, but not necessarily to attain a very short commute.

For move-up buyers, as for first-time homebuyers, the distribution of commute times has grown more peaked during the 1980s. By this we mean that an increasing share of move-up buyers are clustered in the 15-45 minute commute time category, while the shares of households with very short commutes (less than 15 minutes) and very long commutes (greater than 45 minutes) have been decreasing.

In contrast to the distribution of commute times (which has been growing more peaked), the distribution of commute distances has been lengthening. Move-up buyers, like their first time counterparts, were driving longer distances to work in the 1980s than in the 1970s. However, because work locations had shifted, generally to the suburbs, many commuters--both first-time homebuyers and move-up buyers--were able to accomplish their commutes in shorter periods.

TABLE 13

MOVE-UP HOMEBUYERS: Commuting Characteristics

		Time to Work (minutes; cumulative frequency)					Distance to Work (miles; cumulative frequency)						
		LT 15	15-29	30-44	45-59	>60	LT 1	1 - 4	5 - 9	10 - 19	20 - 29	30 - 39	GT 39
Low Priced													
Portland	1975	30	71	94	99	100	5	28	54	95	97	98	100
	1986	*	*	*	*	*	*	*	*	*	*	*	*
Pittsburgh	1977	31	71	92	96	100	6	40	54	88	98	100	100
	1986	*	*	*	*	*	*	*	*	*	*	*	*
Rochester	1975	24	71	94	97	100	2	18	40	82	92	100	100
	1986	*	*	*	*	*	*	*	*	*	*	*	*
Mid Priced													
Phoenix	1977	21	71	95	99	100	3	22	48	88	99	99	100
	1985	23	68	89	99	100	2	17	43	80	99	99	100
Minneapolis	1977	22	70	97	99	100	1	17	45	79	95	98	100
	1985	25	66	92	97	100	1	9	33	75	87	96	100
Dallas/ Fort Worth	1977	22	59	85	96	100	3	17	36	72	90	98	100
	1985	20	60	81	94	100	2	11	30	60	83	93	100
Mid Priced- Calif													
Sacramento	1976	35	76	98	98	100	6	28	47	779	94	97	100
	1983	*	*	*	*	*	*	*	*	*	*	*	*
San Bernadino	1975	36	71	83	92	100	6	36	55	71	83	88	100
	1986	*	*	*	*	*	*	*	*	*	*	*	*
High Priced													
San Francisco	1975	28	55	78	90	100	3	22	40	65	83	97	100
	1985	25	52	81	92	100	4	25	43	67	89	97	100
Orange County	1977	22	56	80	91	100	1	17	32	65	81	92	100
	1986	*	*	*	*	*	*	*	*	*	*	*	*
Boston	1977	19	53	83	92	100	6	21	40	82	94	96	100
	1985	24	53	75	92	100	1	14	33	63	76	90	100

Source: American Housing Survey

F. Summary and Conclusions

Summary

To read the newspapers, one might conclude that rising home prices (especially in areas like San Francisco, Los Angeles, Washington D.C., and Boston) have had a tremendous impact on the tenure, availability and choice of housing. Rising home prices, we are told, are pushing middle-income households ever further outward in search of affordable housing, thereby lengthening commutes. The one-worker household has been replaced by the two worker household--a necessity in order to meet high monthly home payments. For many households, homeownership has become permanently unaffordable. This in turn puts upward pressure on rents. And those first-time homebuyers who can afford to buy must content themselves with a smaller, less accessible homes in older, less desirable neighborhoods. The American dream of affordable homeownership, we are told, is a becoming an ever-receding mirage.

As with many things, reality is much more complicated--and much more interesting--than popular accounts. Data from the American Housing Survey for eleven large metropolitan areas, spanning the years 1975-86, suggest that households are adjusting to higher home prices in a wide variety of ways:

1. They are *not* purchasing less home. First-time homebuyers in more expensive markets are purchasing similarly-sized (if not larger) homes than first-time homebuyers in mid-priced and less-expensive markets.

2. They are *not* purchasing homes in less desirable locations. Among first-time homebuyers, neighborhood satisfaction increased slightly during the 1970s and 1980s in expensive markets, while falling slightly in less-expensive markets.

3. Homebuyers in more-expensive markets are *not* working "harder" than homebuyers in less expensive markets. Rates of labor force participation among homeowners have always been somewhat higher in more expensive housing markets than in less expensive markets. However, this gap appears to be narrowing not widening but to be narrowing. That is, based on our limited sample of eleven metropolitan areas, the share of first-time homebuyer households with two or more workers increased more in the less expensive markets between 1975 and 1986, than in the more expensive housing markets. Where rates of labor force participation have risen in expensive housing markets is among "move-

up" buyers--those who had previously owned a home.

4. First-time homebuyers *are* moving to fringe areas in search of less-expensive housing. Simultaneously, jobs have also been suburbanizing. Commute times, as a result **have not** lengthened. Commute times, like labor force participation rates, have traditionally been longer in more expensive markets than in less expensive one. Between 1975 and 1986, however, commute times did not lengthen (or shorten) disproportionately in expensive housing markets. In some markets, commute times actually declined. In other markets, they increased *and* declined. But whereas the further suburbanization of jobs and housing has not adversely affected commute times, it has increased commute distances.

5. First-time homebuyers *are* older in more expensive housing markets than in less-expensive ones, and the age gap has been widening. That is, first-time homebuyers are coping with high-home prices by delaying homeownership until they are able to afford the downpayment and monthly payments.

6. At the same time, the age difference between first-time homebuyers and "move-up" homebuyers has been declining, and by a greater amount in the more expensive housing markets. Put simply, homebuyers must wait longer in expensive markets to afford their first home, however, once in the market, can take advantage of rising home values to "move-up" faster.

7. Homebuyers in more expensive markets *are* devoting a larger percentage share of their incomes to housing than are homebuyers in less expensive markets. Moreover, this is true both for first-time homebuyers and for "move-up" buyers. This does not necessarily mean that homebuyers in more expensive markets have less income available for non-housing goods and services. Homeowner incomes in more expensive markets tend to be correspondingly higher than in less expensive markets. Thus, the amount of money available for non-housing items can actually be greater in some more expensive housing markets. Balancing this "income" effect, however, is an age effect. First-time homebuyers in more expensive markets have higher income because they are older, having postponed their purchases longer than buyers in other markets.

Caveats

These findings are subject to three sets of caveats. The first is that they are drawn from analysis of eleven distinct housing markets. While we believe that the housing markets profiled in this chapter are in fact representative of the broader array of housing markets throughout the U.S., every housing market is different and unique in some aspect. Depending on the local geography, history, and economy, and on the demographic characteristics of the population, the effects of rising housing prices may be different in each metropolitan area.

The second caveat is that the data is drawn from the American Housing Survey. While this data source includes the best available information on the characteristics of the housing stock over time, its broader applicability to analyzing population cohorts (such as first-time homebuyers and recent movers) has never been fully evaluated. Put another way, the AHS is extremely good at tracking housing units; it may not be as good at tracking households and movers. Moreover, because the survey instrument (and precise questions) used in the AHS have evolved over the years, some types of inter-temporal comparisons (for example, those involving neighborhood quality) must be carefully considered.

Finally, there is the fact that this analysis ends with 1986--the last year for which AHS data is available. This is a serious shortcoming as the 1986-1989 period was one of hyper home-price inflation in many market throughout the country. In California in particular, the rapid run-up in housing prices in the San Francisco Bay Area, the Los Angeles region, and the San Diego Area between 1986 and 1989, completely priced many middle-income households out of the ownership market. Thus, this analysis may understate some types of responses to high home prices, and very high (if unsustainable) rates of home price appreciation.

Conclusions

How have households coped with rising home prices? As it turns out, apparently quite well. As noted above, the major responses to high housing prices have been to delay (but not to indefinitely defer) the homeownership decision, and to spend a greater proportion of income on housing. The impacts of these shifts will tend to be felt differently in each market, as well as differently in each household.

The significance of these responses to housing and development policy is not clear. Should we be concerned about the fact that by national standards households in more expensive

markets are overpaying for housing? Not if the households doing the overpaying are doing so voluntarily, and primarily for investment purposes. Provided that the return from housing is actually greater over the long run than the return from other investments, then "overpaying" for housing in an appreciating market is entirely logical. Thus, the goal of housing and development policy in expensive markets should not necessarily be to lower housing prices, but to encourage continued, albeit moderate housing price growth.

The problem with this laissez faire approach is that it tends to let widen the gap between those who are already homeowners and those who will never be. Put another way, whereas first-time homebuyers do in fact feel some effects of rising home prices (as discussed above), they have generally been able to cope quite well. The larger impacts, however, are felt by those who are not already homeowners, and who, as housing prices increase further, must face ever greater barriers.

What these findings indicate about housing markets is that they, are large, flexible, and not particularly quick to change. And that housing prices provide only a partial glimpse of the myriad forces and opportunities at work in a housing market. They also indicate that economic forces do not work alone, and that it is the interaction between economic forces and socio-demographic forces (such as changing household structure, the aging of the population, and changing work preferences) that explain how households respond to high housing prices.

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APPENDIX A

Median Sales Price (in Thousands) of Existing Single-Family Homes for Selected Metropolitan Areas: 1982-89

Metropolitan Area (sorted by 1982-89 price change)	Median Home Prices: 1982-89 (000) 1982	1986	1989	Median Home Price Changes (000) 1982-86	1986-89	1982-89
San Francisco Bay Area	124.9	161.2	260.2	36.3	99.0	135.3
New York City Area	70.5	160.6	183.8	90.1	23.2	113.3
Boston	80.2	159.2	181.9	79.0	22.7	101.7
Los Angeles Area	113.4	128.8	214.1	15.4	85.3	100.7
San Diego	98.6	118.2	181.8	19.6	63.6	83.2
Providence	49.7	87.6	130.2	37.9	42.6	80.5
Albany/Sch'dy/Troy	47.1	72.7	104.9	25.6	32.2	57.8
Washington D.C.	87.2	101.6	144.4	14.4	42.8	57.2
Philadelphia	58.1	82.6	103.9	24.5	21.3	45.8
Baltimore	62.0	74.0	96.3	12.0	22.3	34.3
Chicago	73.0	86.1	107.0	13.1	20.9	34.0
Rochester	49.5	68.3	78.5	18.8	10.2	29.0
Detroit	47.5	58.1	73.7	10.6	15.6	26.2
Indianapolis	50.6	59.0	71.2	8.4	12.2	20.6
Columbus	57.8	65.5	77.9	7.7	12.4	20.1
St. Louis	57.0	70.9	76.9	13.9	6.0	19.9
Memphis	59.3	70.6	78.1	11.3	7.5	18.8
Dallas	74.0	92.8	92.4	18.8	-0.4	18.4
Tampa/St. Petersburg	53.9	61.1	71.9	7.2	10.8	18.0
Birmingham	60.6	68.3	78.5	7.7	10.2	17.9
Minneapolis/St. Paul	72.4	77.9	87.2	5.5	9.3	14.8
Milwaukee	65.8	69.9	79.6	4.1	9.7	13.8
Kansas City	58.1	65.4	71.6	7.3	6.2	13.5
Louisville	46.0	51.7	58.4	5.7	6.7	12.4
Ft. Lauderdale/Holly'd	74.2	77.7	83.9	3.5	6.2	9.7
Denver	76.2	86.4	85.5	10.2	-0.9	9.3
San Antonio	58.3	69.2	64.2	10.9	-5.0	5.9
Salt Lake City	64.6	68.5	69.4	3.9	0.9	4.8
Oklahoma City	58.4	63.0	56.2	4.6	-6.8	-2.2
Houston	77.2	69.9	66.7	-7.3	-3.2	-10.5

Source: National Association of Realtors