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HOUSING AFFORDABILITY: THE APARTMENT UNIVERSE

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- The U.S. is among the best-housed nations in the world. Even so, housing affordable to those whose incomes fall below the median tends to be in short supply in many, perhaps even most, housing markets around the country. Previous research devoted to this problem has generally treated owners and renters together. This research focuses, for the first time, specifically on apartment renters.
- This research shows that affordability is a serious problem for households at the lower end of the income distribution. More than half of apartment renters with incomes of less than half the area median—1.8 million in 1999—face severe housing cost burdens (pay more than 50 percent of their income for rent and utilities). Many more have moderate housing cost burdens (pay 30-50 percent of their income for housing costs), as do many apartment renters with incomes between 50 and 80 percent of the area median. While only a small share of all renter households, lower income housing-cost burdened renters are still fairly large in absolute number.
- Perhaps surprisingly, there has been rather little change in the incidence of such affordability problems from 1989-1999. During this period, the number of very low-income apartment renters with severe housing cost burdens has ranged from 1.6 million to 2.2 million. For most of that period (1991-1997) there was no statistically significant change at all in the total. There was some improvement from 1997-1999, likely the result of the nation's long economic expansion.
- The seeming intransigence of the affordable housing problem, even during prosperous economic times, raises an interesting public policy question of whether the affordability problem is caused by a lack of housing supply or a lack of income. The most severe rent burdens have been concentrated among very low-income households, with little change in the 10-year period studied. These households have such little income that there is essentially no way for the private sector to build housing they can afford without deep, new public subsidies.

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The Council was established in 1978 as a national association to advocate for rental housing and to provide a source of vital information for the leadership of the multifamily industry. Since then, NMHC has evolved into the industry's leading national voice. The association concentrates on public policies that are of strategic importance to participants in multifamily housing, including finance, tax, property management, environmental, building codes, and seniors issues. NMHC benefits from a focused agenda and a membership that comprises of the principal officers of the most distinguished real estate organizations in the United States. For those readers interested in joining the multifamily housing industry's leadership, NMHC welcomes inquiries to its Washington offices at 202/974-2300, or you can visit our Web site at www.nmhc.org.

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INTRODUCTION

Although the U.S. is among the best-housed nations in the world, households throughout the income distribution are not equally well-housed. In particular, housing that both adequately meets socially acceptable minimum standards for quality and also is affordable by those whose incomes fall below the median—what is often loosely referred to as “affordable” housing—tends to be in short supply in many, perhaps even most, housing markets. This was true even at the peak of the longest economic expansion in the nation’s history; it is likely to be even more true in a recession.¹

Over the last decade, a number of research studies and reports have helped give dimension to the problem of housing affordability. Following the Congressional directive that federal housing assistance programs should be directed toward those with the most acute needs, the U.S. Department of Housing and Urban Development (HUD) began issuing reports that assessed the extent of the affordability problem. Studies and analyses by other groups have added greatly to our knowledge of the extent of housing affordability problems, along with the demographic makeup of households facing such problems.²

One characteristic of these housing affordability studies is that they either examine affordability for all households combined, or else distinguish only between homeowner and renter households, treating affordability issues within each tenure type. There are good reasons for each of these approaches. The former proceeds from the view that affordability is an issue across tenure types and the full scope of the problem can only be understood by considering owner and renter households together. The latter approach accepts the key differences between the homeowner and rental housing markets, and therefore analyzes each separately.

There are important distinctions in the housing market that these general approaches do not capture, however. In addition to the owning-renting distinction, housing is distinguished by unit type: single-family (SF) units are quite different from multifamily ones, mobile homes differ from single-family detached housing, etc. To be sure, at some level all housing types compete with one another: ownership units with rental units, and SF rentals with apartments. But the choices aren’t perfect. In particular, in any given location only some types of housing may be available, thereby limiting the choice of housing types. Hence, there is value in examining these different tenure-and-unit choices separately.

This paper seeks to extend the analysis of housing affordability by focusing solely on the apartment market. The intent is not to isolate apartments from other housing types, but to provide information and insight into apartments as a prerequisite to a fuller understanding.

¹ At the time of this writing, there is insufficient data—owing to the standard lag in obtaining data—to make a determination about the recession that began in 2001.

² See, for example: Michael A. Stegman, Roberto G. Quercia, and George McCarthy, “Housing America’s Working Families,” *New Century Housing* (June 2000); National Low Income Housing Coalition, *Out of Reach 2001: America’s Growing Wage-Rent Disparity*; Cushing N. Dolbeare, “Housing Affordability” Challenge and Context,” *Cityscape*, Vol. 5, Nr. 2 (2001); and Joint Center for Housing Studies, *State of the Nation’s Housing*, various years.

THE APARTMENT MARKET

The rental market is conventionally segmented into three distinct parts: single-family houses, rentals in buildings with 2-4 units, and the “5+” market—rental units in buildings with at least 5 units in them. These three markets differ in many ways including: (i) renter demographics; (ii) ownership type; and (iii) characteristics of the stock.

Table 1. Rental Housing Stock

<i>Household type</i>	<u>Single-family</u>	<u>2 – 4 units</u>	<u>5 + units</u>
single-person	25%	35%	47%
Married	38%	27%	21%
Other	37%	38%	31%
<i>Age</i>			
under 30	25%	31%	32%
30 – 44	40%	35%	32%
45 – 64	24%	23%	21%
65 and over	10%	11%	15%
<i>Year built</i>			
Before 1950	38%	47%	20%
1950s	15%	10%	7%
1960s	13%	11%	15%
1970s	16%	16%	27%
1980s	10%	11%	21%
1990s	7%	5%	10%

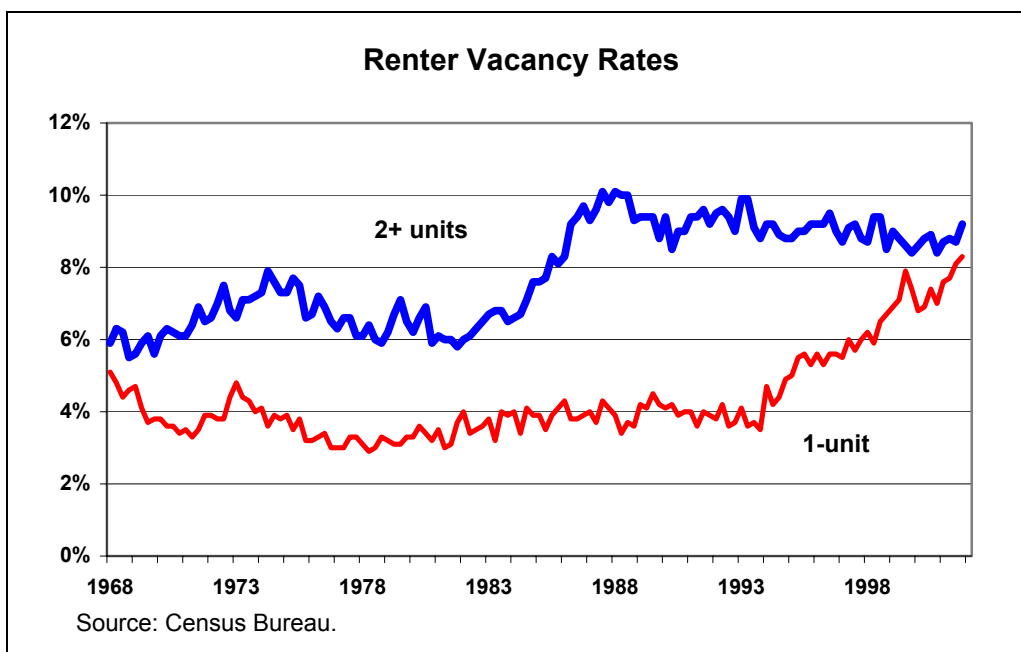
Source: NMHC tabulations of microdata from 1999 AHS and March 2001 CPS.

Table 1 provides some summary information on the different segments of the rental market. Buildings with at least 5 units in them have a substantially higher share of single-person households than do 2-4 unit buildings, while the latter have more single-person households than do single-family houses. Single-family houses have a lower share of households headed by someone under 30 years of age, but a higher share of households in the 30-44 age group. The 2-4 unit market has the oldest stock—almost half the units were built before 1950 and more than two-thirds were built before 1970—while 5+ unit buildings constitute the newest rental stock.

There are also differences in geography. The South is home to 42 percent of all single-family rentals, but only 25 percent of the 2-4 unit rentals. By contrast, the Northeast has only 13 percent of all single-family rental units, but almost one-third of 2-4 unit rentals. Finally, there are important ownership differences.

Individuals own 85 percent of 2-4 unit rental properties, but less than 60 percent of properties with 5-49 units and less than 20 percent of properties with 50 or more units.³

These differences can also be seen in vacancy rates—both the levels and the trends are different. For much of the post-1968 period, the single-family vacancy rate was largely flat, but it has climbed steadily since 1993.⁴ The multifamily (2+ unit) vacancy rate peaked first in 1974, then again in 1987, and has been trending down since then.⁵



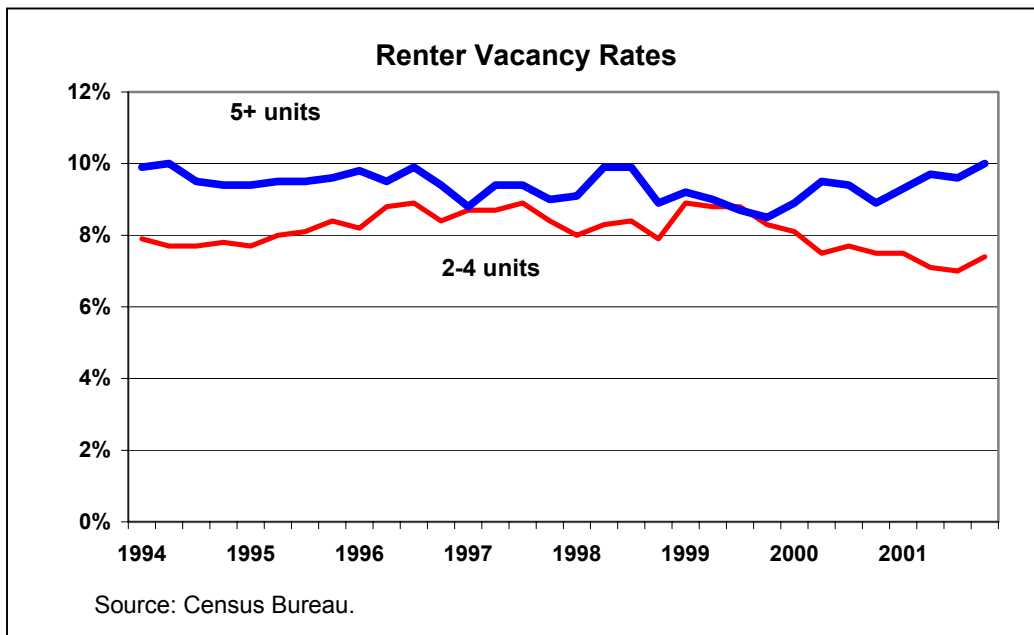
Differences between the 2-4 unit and 5+ renter vacancy rates are not as great. Even so, there are notable differences: the vacancy rate for 2-4 unit rentals peaked in early 1999 and had been generally declining until 2001q4. The vacancy rate for the 5+ market troughed at the end of 1999 and has been generally rising since then.

On balance, the differences in vacancy rates, and trends in vacancy rates, confirm that the stock of single-family rentals, 2-4 unit rentals, and 5+ unit rentals are not perfect substitutes for one another, but instead are distinct markets subject to differing market forces.

³ NMHC tabulations of unpublished data from the U.S. Census Bureau's *Property Owners and Managers Survey (POMS)*, 1995-96.

⁴ The Census Bureau began tracking renter vacancy rates in 1968 through the Housing Vacancy Survey (HVS). The published data on vacancy rates distinguishes between single-family, 2+ multifamily, and 5+ multifamily. Separate data for buildings with 2-4 units is only available beginning in 1994.

⁵ There is some reason to be suspicious of the difference between the single-family and multifamily vacancy rates. Prior to April 1999, some vacant single-family attached houses appear to have been mistakenly classified as multifamily. In addition, while the overall vacancy rate in the HVS is similar to the overall vacancy rate in the AHS, the vacancy rates by units in structure sometimes differ by statistically significant amounts. Source: internal Census Bureau document, "Rental Vacancy Rates by Structure Type."



It is worth pointing out that within the industry it is the number of units in a *property*, rather than in a *structure*, that is of greatest interest. Most publicly available data does not capture property information, however, so that definitions must be framed in terms of units per structure. As a result, a property consisting of 10 buildings, each with 4 units, would be a 40-unit property, but would not be included in most 5+ multifamily data, which includes only units in buildings with at least 5 units.⁶

For present purposes, then, apartments are defined as rental units in buildings with at least 5 units in them.

DETERMINING AFFORDABILITY

Housing affordability simply relates income to the costs of obtaining housing services. There are a variety of approaches to measuring affordability, which depend largely on the use to which such measures will be put. For homeowners (or prospective homeowners), some common affordability measures are based on the median price of homes sold compared to median household income, taking into account the current mortgage rate.⁷ While this type of measure has advantages—in particular, it is typically available on a frequent basis and helps identify overarching trends on a timely basis—the focus on the median household limits its usefulness in examining affordability across the full spectrum of incomes.⁸ Another approach is to consider the impact of housing costs on other consumption—that is, after paying for housing, does the household have enough income to meet some defined set of non-housing, but necessary, expenditures.⁹

⁶ For some purposes, “apartments” are divided into “investment properties” vs. others. While the term “investment properties” has no precise definition, it generally refers to larger properties of “A” or “B” quality.

⁷ This is the methodology used by the National Association of Realtors in producing its monthly Housing Affordability Index. A similar approach is taken by the National Association of Home Builders in its Housing Opportunity Index.

⁸ It is also possible to combine the median-based approach with some distribution measures. See Jack Goodman, “Housing Affordability in the United States: Trends, Interpretations, and Outlook,” a report prepared for the Millennial Housing Commission, November 2001.

⁹ See, for example, Nandinee K. Kutty, “The House Poor—Are High Housing Costs Keeping Non-poor Americans At Poverty Standards Of Living?” Paper presented at the International Research Conference of the European Network for Housing (Vienna, Austria; July 2002).

The key concept used here is that of a “housing cost burden” and is measured by the ratio of housing costs to income. For renters, housing costs are rent, utility payments, plus property insurance. Income includes most forms of money income received by all members of the household.¹⁰ While different thresholds have been used at different times (as well as for different purposes) in examining affordability, the most common today are 30 percent and 50 percent. Households paying more than half of their income for housing are generally said to be “severely burdened,” while those paying more than 30 percent but less than 50 percent of their income for housing are said to be “moderately burdened.” Households whose housing costs are no more than 30 percent of household income are said to have no housing costs burden.

There is an important theoretical issue here. Some households might choose to spend a large portion of their income on housing, even though other housing options are available at lower cost. Such households have made the determination that the mix of shelter and location characteristics they receive from their current housing is worth the expense. In such circumstances, when, if ever, is it reasonable to refer to such households as “burdened” by housing costs? This is more difficult to answer than might be supposed. But it is also far afield of the analysis undertaken here. In this paper, the terms “moderate burden” and “severe burden” are used simply as shorthand housing-cost-to-income ratios; no normative implications are intended.

The extent to which apartment renters have moderate or severe rent burdens will be examined in the context of both demographic and economic characteristics. Demographic characteristics include householder age and household type (including whether or not children are present), while the latter is restricted to household income due to data limitations, discussed below.

The primary source of data is the American Housing Survey (AHS), conducted biennially by the Census Bureau for the Department of Housing and Urban Development (HUD). The most recent survey is for 1999, though the surveys from 1989 to 1997 will also be analyzed for trends. In addition to providing the most detailed information on housing issues, the AHS has considerable income and demographic information about the persons living in each housing unit. Unfortunately, the size of the national sample is too small to permit analysis of individual metro areas; the only geographic breakdowns possible with the AHS are the four Census regions and the central city/suburb/non-metro distinction.¹¹

There are other data sources that provide substantial information on apartments and apartment residents. The Current Population Survey’s Annual Demographic Supplement contains considerable demographic information, along with tenure, income, and (since 1997) the number of units in a building.¹² The Property Owners and Managers Survey (POMS) contains much good information on apartment properties, as well as their owners and managers. But neither can be linked to area median income information, and neither contains information on rent levels, so they are not useful in analyzing affordability.

In determining household income, the AHS includes gross (pre-tax) income earned in the last year by all those currently living in the housing unit. Most forms of money income—wages and salaries; business income; social security and pensions; interest; dividends; rental income; alimony and child support; welfare and public assistance; workers’ compensation—are included. Among the items specifically excluded are capital gains, lump sum payments from inheritance or insurance, occasional gifts or other sporadic payments, non-money income (including housing subsidies and food stamps), and income from the sale of property.

¹⁰ See below for further detail.

¹¹ The AHS also provides information on an occasional basis for individual metropolitan areas. Unfortunately, sample limitations make it difficult to provide much analytical depth regarding the apartment market.

¹² The CPS data shows, for example, that upscale renters (defined as renters making at least \$50,000 in 2001 dollars) have been the fastest-growing part of the apartment market from 1997-2001.

OVERVIEW OF APARTMENT RENTERS AND SUBSIDIES

As might be expected, self-reporting of income results in an underestimate of income.¹³ In addition, the impact of the earned income tax credit (EITC) is lost by capturing pre-tax rather than after-tax income. Since the EITC is targeted by income, this is of particular concern in estimating affordability for those in the bottom half of the income distribution. There are no good solutions for these problems, so one must be cautious in interpreting some of the affordability statistics.

Many renter households receive some kind of rent reduction or rental assistance, typically either public housing, living in a rent-controlled unit, or Section 8 rent vouchers.¹⁴ In principle, this assistance could be treated as a form of income, and housing cost burdens could be constructed both including and excluding this assistance as income. Data limitations make it impossible to gauge accurately the amount of assistance, however, thus making it impossible to calculate either the true income or the true rent. As a result, households receiving assistance generally will be excluded from the analysis of rent burdens.

HUD makes available area median income files that can be attached to each record in the AHS microdata. In addition to the median income for a family of four, the HUD files also contain two other income levels used here, often referred to as “L50” and “L80.” These represent 50 percent of median income and 80 percent of median income, adjusted for both housing costs and family size.¹⁵ These files greatly facilitate the ability of researchers to identify “low-income” or “moderate-income” households across different geographic areas without getting sidetracked by geographic details.

There are many ways to define relative income classes. Indeed, various federal housing programs and regulations set income limits based on area median income, but not always in identical ways. For present purposes, we are interested in four income classes, which we define below, expressed relative to the HUD-adjusted area median family income (HAMFI).¹⁶

- Very low-income (VLI) - no more than 50 percent of HAMFI
- Low-income (LI) - more than 50 percent but no more than 80 percent of HAMFI
- Moderate income (MI) - more than 80 percent but no more than 120 percent of HAMFI
- Higher income (HI) - more than 120 percent of HAMFI

Households that report zero or negative income would automatically fall into the lowest HAMFI category. Since there is no way to distinguish households with substantial financial assets, highly uneven annual incomes, or large, unreported income from households with few, if any, financial resources, we have excluded such households from the analysis.¹⁷

¹³ This is a problem not just for the AHS, but for all surveys which ask respondents for income information. See Census Bureau, *American Housing Survey for the United States: 1999*, Current Housing Reports, Series H150/99 (October 2000), Appendix D.

¹⁴ The low-income housing tax credit (LIHTC) constitutes a kind of supply-side assistance that affects the availability of apartments available to low-income renters, and therefore the share of such households that are rent burdened. Unfortunately, there is no information on LIHTC units in the AHS, so these cannot be analyzed.

¹⁵ The housing cost adjustment is based on program considerations rather than research or analytical purposes. As a result, the “L50” for a family of four is not generally equal to one-half the area median income. See: “FY 2001 HUD Income Limits Briefing Material.”

¹⁶ HUD’s “L80” is generally equal to 1.6 (that is, 80% ÷ 50%) times “L50,” except that it cannot exceed the U.S. median family income other than when justified by high housing costs. See: “FY 2001 HUD Income Limits Briefing Material” for further explication.

¹⁷ For a comprehensive review and analysis of the many ways this issue (zero or negative income) and similar ambiguous items could be handled in measuring affordability, see: Zhu Xiao Di and Eric Belsky, “How Great Are the

It is helpful to begin with a brief picture of apartment residents and to what extent they differ—in the aggregate—from residents of other housing types.¹⁸

Table 2. Apartment renter overview

<i>Income</i>	<u>Apartment renters</u>	<u>All households</u>
Less than \$20,000	43%	27%
\$20,000 – 49,999	40%	36%
\$50,000 and over	17%	37%
<i>Age</i>		
Under 30	31%	14%
30-44	33%	33%
45-64	20%	32%
65 and over	16%	21%
<i>Household Type</i>		
Single-person	48%	26%
Married	22%	53%
Other	30%	21%

Source: NMHC tabulations of microdata from 1999 AHS.

It is clear that apartment residents tend to be younger, have lower incomes, and are more likely to live in single-person households. To some extent, the lower incomes are related to living in single-person households. The figures on income relative to HAMFI account for this, since the HAMFI attached to each AHS household is adjusted for household size. Comparing incomes relative to HAMFI also adjusts for any substantive differences in location between apartment renters and other households.

Table 3. Relative income distribution

<i>Percent of area median income</i>	<u>Apartment renters</u>	<u>All households</u>
Very low-income (under 50%)	41%	24%
Low-income (50 – 80%)	21%	17%
Moderate income (80 – 120%)	19%	19%
Higher income (120% and over)	19%	40%

Source: NMHC tabulations of microdata from 1999 AHS.

Nation's Housing Needs: A Plea for Cautious Interpretation," a Joint Center for Housing Studies working paper (forthcoming).

¹⁸ Jack Goodman rightly points out that looking only at aggregate (or average) characteristics ignores the diversity within the apartment market and can contribute to inaccurate stereotypes. See: "The Changing Demography of Multifamily Rental Housing," *Housing Policy Debate* 10(1): 31-57.

The general pattern of income differences is the same. More than two-fifths of apartment renters are very low-income, compared with about one-fourth of all households. More than 60 percent of apartment renters are low-income or very low-income, a substantially higher share than the 40 percent of all households in these categories.

The AHS data indicate that an estimated 3.8 million apartment renters—26 percent of the total—were receiving assistance in 1999. Of these, 2.6 million were receiving rent subsidies, while 1.2 million were in public housing units. The remaining 10.5 million renters (74 percent) were unsubsidized.¹⁹

	<u>Number (000s)</u>	<u>Share</u>
Unsubsidized	10,482	74%
Subsidized	2,551	18%
Public housing	1,203	8%
Total	14,236	100%

Source: NMHC tabulations of microdata from 1999 AHS.

The likelihood of receiving assistance varies by age, as can be seen in Table 5.

	<u>Unsubsidized</u>	<u>Subsidized</u>	<u>Public housing</u>	<u>Total</u>
Under 25	1,670 76%	419 19%	120 5%	2,209
25 – 44	5,467 79%	1,073 16%	361 5%	6,902
45 – 64	2,044 71%	533 19%	285 10%	2,861
65 and over	1,301 58%	526 23%	436 19%	2,264

Source: NMHC tabulations of microdata from 1999 AHS (numbers in thousands).

Older households appear much more likely to be in public housing than in market-rate or voucher-subsidized housing. Indeed, more than one-third of the apartment renters in public housing are 65 years old or older, whereas only 16 percent of all apartment households are in that age bracket. Those in the 45-64 age group

¹⁹ Responses to AHS questions regarding assistance must be used with care. Respondents may accurately indicate receiving a subsidy, but wrongly identify which type, or may provide inaccurate information about whether the household is receiving assistance at all. See Mark Shroder and Marge Martin, “New Results From Administrative Data: Housing the Poor, Or What They Don’t Know Might Hurt Somebody,” presented at the Midyear Meeting of the American Real Estate and Urban Economics Association, May 29, 1996. The aggregate total for public housing seems about right, though the aggregate figure for rent subsidies appears to be somewhat low.

may also be somewhat more likely to be in public housing. By contrast, there are only small differences among age groups in the likelihood of receiving other kinds of subsidies. The net effect is that younger apartment renter households are the most likely to be receiving no rental assistance.

Rental assistance also varies by household type. AHS responses indicate that single parents are most likely to live in public housing; although only 15 percent of all apartment renters, single parents constitute 29 percent of apartment renters in public housing. They are also a little more likely to receive other kinds of rent subsidies. Married couples, with or without children, are the least likely to receive any kind of rent subsidy.

Table 6. Apartment renters, by household type and assistance

	<u>Unsubsidized</u>	<u>Subsidized</u>	<u>Public housing</u>	<u>Total</u>
Single-person	4,973 73%	1,186 17%	663 10%	6,823
Married, no children	1,269 82%	225 15%	60 4%	1,553
Married with children	1,298 79%	272 17%	69 4%	1,639
Single parent	1,310 60%	533 24%	345 16%	2,189
Other	1,632 80%	335 16%	65 3%	2,032

Source: NMHC tabulations of microdata from 1999 AHS (numbers in thousands).

As expected, subsidies go predominantly to lower income households. Almost 90 percent of the apartment households who live in public housing—more than one million in total—have incomes no higher than 50 percent of the area median.

Table 7. Apartment renters, by relative income and assistance

	<u>Unsubsidized</u>	<u>Subsidized</u>	<u>Public housing</u>	<u>Total</u>
Very low-income	3,225 57%	1,430 25%	1,022 18%	5,678
Low-income	2,393 83%	422 15%	78 3%	2,893
Moderate-income	2,260 87%	324 12%	32 1%	2,616
Higher income	2,276 88%	293 11%	14 1%	2,583

Source: NMHC tabulations of microdata from 1999 AHS (numbers in thousands). Households with zero or negative income excluded.

Similarly, 58 percent of those receiving other subsidies are very low-income, while another 17 percent are low-income households.

As noted earlier, the amount of assistance some apartment renters receive cannot be determined due to limitations in the data. This makes it impossible to determine these households' true income. For this reason, those receiving rental assistance will be excluded from the analysis of affordability below.

APARTMENT RENTER AFFORDABILITY

Of the 10.2 million unassisted apartment renters, 5.9 million (58 percent) fall into the category of “not burdened;” that is, they pay no more than 30 percent of their income for rent and utilities. Almost 2.3 million (23 percent) are “moderately burdened” (pay 30-50 percent of their income for rent plus utilities); another 1.9 million (19 percent) are “severely burdened” (pay more than half their income for rent plus utilities).

Not burdened	5,941	58%
Moderately burdened	2,295	23%
Severely burdened	1,920	19%
Total	10,156	100%

Source: NMHC tabulations of microdata from 1999 AHS (numbers in thousands). Households with zero or negative income excluded.

To be sure, households with higher incomes may choose to spend more than 30 percent (or even more than 50 percent) of their income on housing costs, without regarding themselves as “burdened.” There may be some value in examining such households in greater detail. By and large, however, it seems reasonable to assume that these households have other, lower cost housing options, but have chosen to spend a relatively high fraction of their income on rent. For most policy purposes, therefore, attention is focused on those toward the lower end of the income scale. Hence, it is important to look at rent costs by income group.

Not surprisingly, most severely burdened apartment renters are very low-income households. Even moderately burdened apartment renters are disproportionately very low- or low-income households, though a significant share fall into the moderate income category as well.

Table 9. Affordability for unassisted apartment renters, by relative income

	<u>VLI</u>	<u>LI</u>	<u>MI</u>	<u>HI</u>	<u>Total</u>
No burden	403 12%	1,359 57%	1,968 87%	2,211 97%	5,941
Moderate burden	1,087 34%	901 38%	248 11%	58 3%	2,295
Severe burden	1,735 54%	133 6%	44 2%	7 0%	1,919
Total	3,225 100%	2,393 100%	2,260 100%	2,276 100%	10,154

Source: NMHC tabulations of microdata from 1999 AHS (numbers in thousands). Households with zero or negative income excluded.

More than 1.7 million very low-income renters had severe rent burdens in 1999. It is this group that has often been referred to as facing “worst case housing needs.”²⁰ This is more than half of all very low-income renters. It is also more than 90 percent of all renters who have severe rent burdens. Thus, it is clear, if not surprising, that: (i) severe rent burdens are a problem almost exclusively for very low-income households; and (ii) very low-income households are highly likely to have severe rent burdens.

Moderate housing cost burdens are more widespread. A total of 2.3 million apartment renters face moderate burdens. Over one million (47 percent) of those with moderate burdens are very low-income, but another 901,000 (39 percent) are low-income. More than one-quarter of a million moderate-income (11 percent) apartment renters have moderate burdens. Virtually all higher income apartment households—and almost 90 percent of moderate-income apartment renters—pay less than 30 percent of their income for rent and utilities. Thus, while severe housing cost burdens are found predominantly among very low-income renters, moderate burdens are common for low-income renters as well. Apartment renters whose income is at least 80 percent of the area median are much less likely to have housing cost burdens.

It may be useful to illustrate the level of incomes and rents these figures represent. The median income of all very low-income apartment renters is \$10,200. For a household with that income, monthly rent of \$425 or more would represent a severe burden. Monthly rent would have to be less than \$255 for such a household to face no rent burden at all.

²⁰ Actually, “worst case housing needs” generally refers to unsubsidized very low-income renters who have either severe housing cost burdens, severely inadequate housing, or both. The number of renters in this category who face severely inadequate housing, but not severe rent burdens, is relatively small, however. See HUD’s “A Report on Worst Case Housing Needs in 1999: New Opportunity Amid Continuing Challenges, Executive Summary, January 2001,” p. 2.

AFFORDABILITY TRENDS

This snapshot of apartment renter affordability invites many other questions, including these: How has affordability changed among apartment renters in recent years? In particular, how much did the nation's record economic expansion of the 1990s change the affordability picture?

One might expect that the lowest unemployment rate in 30 years would be a boon to households throughout the income distribution, thereby improving affordability. At the same time, however, many metro areas—particularly those with a limited supply of developable land or other constraints on new building activity—saw increased housing costs that actually reduced affordability, as has been well documented in the ownership sphere. So the net effect cannot be deduced from the overall economic trends.

We can turn, once again, to AHS data in order to compare affordability in different years. Until recently, the link between HAMFI and households' records in the AHS was available only for the 1995, 1997, and 1999 surveys. Now, HUD provides linked data back to 1989, permitting substantially more years for examining trends. This permits comparison of AHS data over almost one full economic cycle.

One problem in making comparisons over time is that the Census Bureau introduced an improvement in the tabulation of the number of renters receiving some type of subsidy in 1999. In order to assess the impact of the new procedure, the Census Bureau calculated the number of renters receiving subsidies in 1999 using both the old and new tabulations; the new tabulation finds 151,000 (approximately 2 percent) more renters receiving subsidies than the old tabulation did. While the new procedure provides more accurate estimates, it is not available for previous years. Thus, to compare 1999 results with earlier years, the 1999 estimates must be re-tabulated using the old procedure.

It should also be noted that the relatively small sample size for apartment renters necessitates using great care in making comparisons over time, particularly for discrete sub-groups. The confidence intervals are necessarily rather large, which means that some apparently large affordability differences may not pass tests of statistical significance.²¹

Even with these restrictions, some important trends can be discerned. For background purposes, it is helpful to look at all apartment renters. Although the total number of apartment renters grew somewhat from the earlier years to the later years, the size of the increase was relatively small—the 1999 figure is not even three percent higher than the 1989 figure. By contrast, all households grew by more than 8 percent. Trends in the distribution of apartment renters by relative income are difficult to discern. The share of renters in the very low-income category rose in 1991, as one might expect during a recession. The share rose further in 1993, showed little change by 1997, and finally dropped sharply in 1999.

Part of the reason for this pattern in the VLI share is probably the unusually slow job growth that characterized the early stages of the economic recovery and expansion that began in 1991. However, one must be careful not to “over-explain” the data—the small sample sizes in each year require cautious interpretation of changes from one survey year to the next.

²¹ See, for example, the published report for the 1999 AHS: American Housing Survey for the United States 1999, U.S. Department of Housing and Urban Development, Appendix D, esp. pp. D-3 and D-4.

Table 10. Apartment renters, by relative income

	<u>1989</u>	<u>1991</u>	<u>1993</u>	<u>1995</u>	<u>1997</u>	<u>1999</u>
Very low-income	5,266 39%	5,626 42%	6,210 46%	6,061 44%	6,239 45%	5,678 41%
Low-income	2,633 20%	2,726 20%	2,476 18%	2,807 20%	2,481 18%	2,893 21%
Moderate-income	3,032 23%	2,857 21%	2,793 21%	2,705 20%	2,729 20%	2,764 20%
Higher income	2,468 18%	2,098 16%	2,100 15%	2,000 16%	2,306 17%	2,435 18%
Total	13,399	13,308	13,579	13,773	13,755	13,771

Source: NMHC tabulations of microdata from AHS (numbers in thousands). Households with zero or negative income excluded.

This becomes clearer in looking at the other income categories: the shares of low-income, moderate-income, and higher income apartment households show little change. The biggest survey-to-survey changes occur from 1997 to 1999. The share of VLI apartment renters drops by four percentage points, the share of LI renters increases by three percentage points, the share of MI renters is unchanged, and the share of HI renters rises by one percentage point. This would seem to imply that apartment renters were gaining in relative income, hence “filtering up” relative to other households. As these changes occurred against the backdrop of a long economic expansion, there is some rationale for that trend.

The number of apartment renters with severe housing cost burdens has changed in several ways over the last ten years. The overall figure was at its lowest point in 1989, then rose sharply in 1991 on the heels of recession, kept rising in 1993, plateaued in 1995 and 1997, then decreased in 1999. The sluggish recovery from the 1990-1991 recession (once referred to as a “jobless recovery”) could reasonably explain the trend through at least 1995, perhaps even 1997. The length of the economic expansion (which reached a record in 2000) may well explain the improvement in 1999.

Table 11. Apartment renters with severe rent burdens

	<u>1989</u>	<u>1991</u>	<u>1993</u>	<u>1995</u>	<u>1997</u>	<u>1999</u>
Very low-income	1,626	1,859	2,148	2,100	2,154	1,796
Low-income	56	58	51	68	91	133
Moderate-income	0	5	4	9	10	45
Higher income	0	0	0	0	2	4
Total	1,682	1,922	2,202	2,177	2,257	1,978

Source: NMHC tabulations of microdata from AHS (numbers in thousands). Unassisted renters for 1999 calculated using “old” tabulation for comparability to previous years. Households with zero or negative income excluded.

Since the vast majority of all renters with severe burdens are very low-income, the ten-year trend for these apartment renters is essentially identical to the trend for all apartment renters. The trend among other income categories is somewhat different, however. The number of both low-income and moderate-income renters with severe burdens was higher in 1999 than at any previous year, even while the total number of apartment renters with severe burdens fell. This counter-intuitive finding is attributed by some to the fact that in some metropolitan areas, housing costs rose even faster than incomes.²² The apparent increase in severely burdened low- and moderate-income renters is not statistically significant at the 10 percent confidence level, however.²³ By contrast, the decline in the number of all apartment renters who are severely burdened (280,000, or 12 percent) is statistically significant, as is the decline in the number of severely burdened very low-income apartment renters (359,000, or 17 percent). In any case, the trends are rather small compared to the total number of apartment renters who pay more than 50 percent of their income for housing.

Table 12. Very low-income apartment renters

	<u>1989</u>	<u>1991</u>	<u>1993</u>	<u>1995</u>	<u>1997</u>	<u>1999</u>
No burden	434 14%	428 13%	478 12%	336 9%	548 14%	438 13%
Moderate burden	1,002 33%	1,123 33%	1,340 34%	1,192 33%	1,250 32%	1,145 34%
Severe burden	1,626 53%	1,859 55%	2,148 54%	2,100 58%	2,154 55%	1,796 53%
Total	3,063	3,410	3,965	3,628	3,952	3,378

Source: NMHC tabulations of microdata from AHS (numbers in thousands). Unassisted renters for 1999 calculated using "old" tabulation for comparability to previous years. Households with zero or negative income excluded.

Examining the status of all very low-income apartment renters over time shows just how intractable the problem has been. The share of VLI renters who have no housing cost burden remains in a tight range of only 9-14 percent, with no statistically significant change throughout the period. Similarly, VLI renters with a moderate burden range between 32-34 percent—effectively, no change at all. Finally, more than half of all VLI renters have always had severe housing cost burdens, with the share ranging from 53-58 percent. Thus, while the long economic expansion of the 1990s may have had an ameliorative effect, it appears to have been a relatively small one.

In comparison with very low-income households, there are many more low-income apartment renters with no rent burdens, and many fewer with severe rent burdens, in all years. The share with no housing cost burdens ranges from 57-60 percent, with no meaningful trend over the 10-year period. Low-income renters with severe burdens constitute 2-5 percent of all low-income renters, while those with moderate burdens make up 36-41 percent of the total. There are, however, no statistically significant trends in any rent burden category.

²² See HUD's "The State of the Cities 2000," (June 2000) p. 50ff.

²³ This, of course, doesn't mean that the number of low- and moderate-income apartment renters with severe burdens *didn't* increase, only that it can't be shown convincingly based on the AHS data.

Table 13. Unassisted Low-income apartment renters

	<u>1989</u>	<u>1991</u>	<u>1993</u>	<u>1995</u>	<u>1997</u>	<u>1999</u>
No burden	1,392 59%	1,415 58%	1,377 60%	1,421 57%	1,270 59%	1,394 57%
Moderate bur-	921 39%	961 39%	864 38%	1,025 41%	780 36%	918 38%
Severe burden	56 2%	58 2%	51 3%	68 3%	91 4%	133 5%
Total	2,368	2,434	2,291	2,514	2,141	2,445

Source: NMHC tabulations of microdata from AHS (numbers in thousands). Unassisted renters for 1999 calculated using "old" tabulation for comparability to previous years. Households with zero or negative income excluded.

Implicit in the analysis of affordability and housing cost burdens is the notion that households generally pay a

THE STOCK OF AFFORDABLE APARTMENTS

high proportion of their income for housing costs only because they are unable to find more affordable alternatives that still meet their housing needs. To gauge the accuracy of this assumption, it is necessary to estimate the number of apartments that are affordable to households at various income levels.

Table 14. Affordable apartment stock

<u>Affordable to:</u>	<u>1989</u>	<u>1991</u>	<u>1993</u>	<u>1995</u>	<u>1997</u>	<u>1999</u>
VLI households	5,158 34%	5,354 35%	5,425 35%	5,744 37%	5,930 38%	5,294 34%
LI households	11,244 74%	11,626 77%	11,782 77%	13,312 85%	12,502 79%	11,913 76%
LI but not VLI	6,086 40%	6,293 42%	6,356 42%	7,568 49%	6,572 42%	6,619 42%
Total apartments	15,239	15,125	15,315	15,581	15,750	15,658

Source: NMHC tabulations of microdata from AHS (numbers in thousands). Apartments where renters paid "no cash rent" are excluded.

The most convenient summary measure for such estimates is to gauge the number of units for which the housing costs (rent plus utilities) are "affordable" to (that is, make up no more than 30 percent of the income

of) households whose income is exactly 50 (or 80) percent of HAMFI.²⁴ Although this approach overstates the number of units affordable to, for example, very low-income households, since not all such households have incomes at the 80 percent of HAMFI level, that problem is inherent in summary statistics; the advantage is clarity of exposition.

Comparing Tables 10 and 14 shows that the stock of apartments affordable to VLI households generally ranges from 93-98 percent (except for the “outlier” of 87 percent in 1993) of the total number of VLI households. Correspondingly, the “gap” between the number of VLI households and the apartment stock affordable to VLI households ranges from a low of 108,000 in 1989 to a high of 785,000 in 1993. Excluding the latter outlier, the high is 384,000 in 1999. In all cases, the gap is substantially smaller than the number of severely burdened (let alone moderately burdened) VLI renters. This is partly due to the nature of this metric. For example, a household earning less than 30 percent of the area median income—by our definition, a very low-income household—could be living in an apartment which is affordable to a household earning 50 percent of the area median income—by definition, affordable to very low-income households. Such a household would be paying more than 50 percent of its income in rent, hence it would be severely burdened.

More importantly, many residents living in apartments affordable to VLI renters have more—sometimes much more—than 50 percent of area median income. (Note that to identify all residents of such apartments, both assisted and unassisted renters are included, as are renters who report zero or negative income.)

Table 15. Apartments affordable to VLI renters

<u>Occupied by:</u>	<u>1989</u>	<u>1991</u>	<u>1993</u>	<u>1995</u>	<u>1997</u>	<u>1999</u>
VLI households	3,216	3,482	3,666	3,912	3,558	3,173
LI households	765	791	693	673	753	757
MI households	457	414	455	404	561	427
HI households	303	233	184	196	269	292
Zero/neg. income	79	67	75	113	210	157
Vacant	337	376	353	447	578	488
Total	5,158	5,354	5,425	5,744	5,930	5,294

Source: NMHC tabulations of microdata from AHS (numbers in thousands). Apartments where renters paid “no cash rent” are excluded.

Over the years surveyed, the percentage of VLI households occupying apartments defined as affordable to VLI renters ranged from 60-68 percent. Low-income households occupied 12-15 percent of this apartment stock. Moderate-income and higher income households combined occupied 10-15 percent of the stock. Finally, 7-10 percent of the stock was vacant.

One might well ask why such a large proportion of the stock was vacant. After all, more than 1.7 million very low-income renters pay more than half their income for housing, yet there are almost 500,000 vacant units

²⁴ For vacant units, no utility cost information was available, so “housing cost” is simply rent. Apartments where renters paid “no cash rent” are excluded.

affordable to such renters. Some of the vacancies are surely just “frictional”—temporary vacancies resulting from the normal transition times between one renter and the next. It may also be that some of the vacant units have serious problems that make them inadequate and unattractive, even to those whose income constraints give them fewer choices. Unfortunately, the AHS collects no information on the quality of vacant housing, since vacant units, by definition, have no residents to interview. Hence, there is no way to estimate how large a proportion of the vacant stock might represent inadequate housing.

In addition, it is likely that at least some, and perhaps many, of the vacant units are not located in the same areas as VLI renters with severe burdens. As noted above, however, the relatively small sample size of the AHS means that only broad geographic regions have enough observations for statistical significance, so that it is not possible to get a close enough match between vacant units and severely burdened households.

There is another aspect of vacancies that deserves mention. For the entire apartment stock, the annual turnover rate is close to 50 percent.²⁵ Apartments with lower rents generally have somewhat lower turnover rates. Even if the turnover rates for the VLI-affordable stock were only 35 percent, that would still mean that almost 2 million units are vacant some time during the year. This would seem to offer substantial opportunities for VLI renters to obtain such housing. The fact that so many do not do so suggests that there must be other considerations (including geography) that need to be examined.

These data suggest, among other things, that the affordability benchmark—spending up to 30 percent of income on housing costs—may be too high. Many renter households who could afford, by the 30 percent standard, to pay more for housing (presumably better housing) choose to rent lower-cost housing instead. While there is not enough information in the American Housing Survey to determine the rationale for such decisions, it may well be that many families have other financial obligations (or financial goals) that lead them to spend less than 30 percent of their income for housing.

Overall, there was a statistically significant decline, from 1995-99, in the number of apartment units affordable to very low-income households. That decline was in contrast to the number of units affordable to low-income (but not very low-income) households, which seem to have risen slowly, but steadily, from 1989-1999 (with the exception of an outlier in 1995). After rising to 37-38 percent in 1995-1997, the share of the apartment stock affordable to VLI households slipped to 34 percent in 1999—the same as in 1989.

CONCLUSION

Two primary conclusions emerge from this analysis. First, affordability is a serious problem for households at the bottom of the income scale. More than half of apartment renters with incomes below 50 percent of the area median—1.8 million in 1999—face a severe housing cost burden. Many more have moderate housing cost burdens, as do many apartment renters with incomes between 50 and 80 percent of the area median. While only a small share of all renter households, lower income housing-cost burdened renters are still fairly large in absolute number.

Second, the incidence of housing cost burdens has changed only in small degree over time. From 1989-1999, the number of very low-income apartment renters with severe housing cost burdens has ranged from 1.6 million to 2.2 million. For most of that period (1991-1997) there was no statistically significant change in the total.

²⁵ See, for example, Yongheng Deng, Stuart Gabriel, and Frank Nothaft, “Duration of Residence in the Rental Housing Market,” Working Paper #2002-1005, Lusk Center for Real Estate, University of Southern California.

Even so, it would appear that the long expansion of the 1990s had some impact in improving affordability for apartment renters toward the lower end of the income scale. From 1995-1999, the median income for very low-income apartment renters grew by 17.1 percent, faster than the 12.6 percent increase in median housing costs. The same cannot be said for low-income renters—the median income increased by 4.3 percent while median housing costs rose by 7.4 percent. This may well be due to VLI renters moving up to LI status as a result of higher incomes, however—certainly the proportion of VLI renters fell over this time while the share of LI renters increased. This would be a positive development, even though it would skew the figures for LI apartment renters.

In addition, the expansion of the Earned Income Tax Credit (EITC) in the 1990s increased the after-tax income for many at the lower end of the income scale, thus reducing their effective housing cost burdens.

FURTHER WORK

Finding solutions to the problem of renter affordability lies outside the scope of this paper. Nonetheless, the difficulty of solving these problems through new apartment construction can be easily demonstrated. We noted earlier that the median very low-income apartment renter would face a moderate housing cost burden with monthly rent and utilities of more than \$255—annual housing costs of more than \$3,060. (The median VLI renter would face a severe burden with monthly housing costs of more than \$425—annual costs of more than \$5,100.) Market “cap rates” on new construction typically would be at least 10 percent—that is, the developer would need to earn annual rents equal to 10 percent of the all-in cost of construction. Therefore, total development and construction costs would have to come in at no more than \$30,600 per unit to avoid any rent burden on VLI renters—or \$51,000 per unit to avoid a severe rent burden. Unfortunately, there are few, if any, places in the country where new construction could be completed at costs like these.

This leads back to an old, but important question: Are the housing affordability problems of low- and very low-income income renters *housing* problems or *income* problems? It may not matter in gauging the extent of the problem, but it has important consequences for policy aimed at ameliorating the problem. A recent paper by Glaeser and Gyourko argues that affordability is, in most metropolitan areas, a problem of income rather than one of the supply of affordable housing. Furthermore, they conclude that in those areas where it is a housing problem, it is largely an artifact of zoning and other land use controls.²⁶ We hope, and expect, to see more work in this important area.

²⁶ See Edward Glaeser and Joseph Gyourko, “The Impact of Zoning On Housing Affordability,” National Bureau of Economic Research Working Paper 8835, March 2002.