

HOUSING IN AMERICA: 2007 AMERICAN HOUSING SURVEY RESULTS

Field representatives from the Census Bureau conduct the national American Housing Survey (AHS) in every odd-numbered year. They also independently survey selected metropolitan areas on a 6-year cycle. The AHS has been a joint effort of the U.S. Department of Housing and Urban Development (HUD) and the Census Bureau since 1973. The AHS is a representative sample of housing units in the United States and includes data on renters and homeowners, household composition and income, housing conditions and structural characteristics, neighborhoods, financing and housing costs, monthly housing expenses, and the overall availability of affordable housing. Although the American Community Survey (ACS) is conducted more frequently, the AHS contains much more detail on housing conditions than the ACS does. The Census Bureau conducts the national AHS survey through personal visits to or telephone interviews with approximately 55,000 housing units every 2 years, and each metropolitan survey generally involves interviews or visits with at least 3,000 housing units every 6 years. An unusual and important aspect of the AHS is that the survey revisits the same housing units each time, chronicling the history of America's housing. The survey adds newly constructed housing units each survey year so that the sample represents all housing in the United States.

In August 2008, HUD and the Census Bureau released the results of the 2007 national survey in microdata form. The tabular report for 2007 was released in the following month. These data are the basis for this article, which presents selected results from the 2007 survey describing the housing of American families. Because the AHS is a sample, the estimates are subject to sampling and nonsampling variability. This article also explains the many ways to access this rich data source.

Exhibit 1. Composition of the Housing Stock

Housing Type	Number of Units	Percentage
All	128,203,000	100.0
Year round	123,811,000	96.6
Total occupied	110,719,000	86.4
Owner occupied	75,665,000	59.0
Renter occupied	35,054,000	27.3
Vacant	13,092,000	10.2
Seasonal	4,392,000	3.4

Selected Housing and Family Information From the 2007 National AHS

The American housing stock consists of more than 128 million housing units, of which approximately 17 million are vacant or for seasonal use. According to AHS data, among American families, the ratio of homeowners to renters is 2 to 1. These homeowners generally live in single-family housing; occupy fairly new homes; live in suburbs of metropolitan areas; and live in homes that have between four and six rooms, three or more bedrooms, and one or more complete bathrooms. These housing units have few deficiencies. Households pay approximately 23 percent of their incomes toward housing costs.

Exhibit 1 shows the composition of America's housing stock. The survey estimates that America's housing stock included 128,203,000 units in 2007, up 3.1 percent from the 124,377,000 units estimated in the 2005 AHS. Of these units in 2007, nearly all (96.6 percent) were designated for year-round use and approximately 10 percent were vacant. Of the 110,719,000 occupied units, 68.3 percent were owner occupied. This homeownership rate is a decrease from the 68.8-percent rate recorded in the 2005 AHS.

Exhibit 2 shows that the predominant type of housing in the United States is the single-family unit, which accounts for 75.1 percent of the nation's housing stock. The most popular single-family units are detached units, which account for 80.4 million housing units (62.7 percent of the stock), followed by manufactured (mobile) homes (8.7 million housing units, or 6.8 percent of the stock) and attached units (7.1 million housing units, or 5.6 percent of the stock).

Approximately 32.0 million housing units, or 24.9 percent of the total housing stock, are in multifamily buildings. The most prevalent multifamily housing size category

Exhibit 2. Housing Stock by Type

Type of Housing Unit	Number of Units	Percentage
Single-family detached	80,416,000	62.7
Single-family attached	7,143,000	5.6
Multifamily	31,958,000	24.9
2-4 units	10,489,000	8.2
5-9 units	6,078,000	4.7
10-19 units	5,787,000	4.5
20-49 units	4,641,000	3.6
50 units or more	4,963,000	3.9
Manufactured (mobile)	8,685,000	6.8



is the 2- to 4-unit building, which accounts for approximately one-third of all multifamily units. Approximately 5 million housing units are in the largest (50 units or more) multifamily structures, representing about 16 percent of the multifamily housing stock.

As Exhibit 3 demonstrates, the American housing stock is fairly new. Approximately one-third of the units have been built since 1980, and the median construction date is 1970. This median means that half of the housing units are less than 37 years old. Houses are also durable: 9.4 million units (7.6 percent of all housing units) date from 1919 or earlier and are more than 88 years old.

Exhibit 4 shows that housing is generally located in metropolitan areas (91.4 million units, or 71.3 percent of the stock), where approximately three-fifths of these units are located in suburban areas outside central cities. Housing units located outside metropolitan areas account for more than one-fourth (28.7 percent) of American housing. Since 2005, the proportion of units in non-metropolitan areas has increased by 2.4 percentage points, although the relative shares of central city and suburban areas have remained stable.

Exhibit 3. Year Structure Built

Year Built	Number of Units	Percentage
2005–07	944,000	0.8
2000–04	9,195,000	7.4
1995–99	8,831,000	7.2
1990–94	7,162,000	5.8
1985–89	8,858,000	7.2
1980–84	7,518,000	6.1
1975–79	14,364,000	11.6
1970–74	10,738,000	8.7
1960–69	15,187,000	12.3
1950–59	13,003,000	10.5
1940–49	7,905,000	6.4
1930–39	6,001,000	4.9
1920–29	5,312,000	4.3
1919 or earlier	9,359,000	7.6

Exhibit 4. Housing Location

Location	Number of Units	Percentage
Metropolitan	91,440,000	71.3
Inside central cities	35,659,000	27.8
Suburban	55,781,000	43.5
Outside metropolitan areas	36,763,000	28.7
Northeast region	23,128,000	18.0
Midwest region	29,202,000	22.8
South region	48,324,000	37.7
West region	27,550,000	21.5

Among the regions of the United States, the South has the greatest number of housing units: 48.3 million, or 37.7 percent of the total stock. The Northeast has the fewest, with 23.1 million units, or 18.0 percent of all housing units. Although these percentages have changed little from the 2005 AHS, they show decreases in the Northeast and Midwest of about 0.3 percentage point each, an increase in the South of 0.4 percentage point, and an increase in the West of about 0.2 percentage point.

Exhibit 5 shows the distribution of housing units by number of rooms per housing unit. Housing units with between four and six rooms make up 62.1 percent of the housing stock. Since 2005, the proportion of units with seven or more rooms has increased by 1.5 percentage points, at the expense of the units in the two- to five-room range.

Nearly 78 million American homes (60.6 percent) have three or more bedrooms. Housing units containing three bedrooms are the most popular and account for 53.0 million (41.3 percent) of all housing units. (See Exhibit 6.) Approximately 1.3 million housing units (1.1 percent) do not have a separate bedroom. Since 2005, the proportion of units with one or two bedrooms has declined by about 1.0 percentage point in favor of units with three or more bedrooms. Virtually all housing units (98.7 percent) have one or more bathrooms; only 1.7 million households report having no bathroom. Nearly 48 million households have one complete bathroom and more than 61 million have two or more bathrooms; the latter figure represents an increase of nearly 4 million units, compared with the 2005 AHS. (See Exhibit 7.)

Exhibit 5. Number of Rooms per Housing Unit

Number of Rooms	Number of Units	Percentage
1	690,000	0.5
2	1,381,000	1.1
3	11,073,000	8.6
4	23,241,000	18.1
5	29,169,000	22.8
6	27,157,000	21.2
7	17,657,000	13.8
8	10,352,000	8.1
9	4,456,000	3.5
10 or more	3,027,000	2.4

Exhibit 6. Number of Bedrooms per Housing Unit

Number of Bedrooms	Number of Units	Percentage
0	1,348,000	1.1
1	14,676,000	11.5
2	34,454,000	26.9
3	52,998,000	41.3
4 or more	24,727,000	19.3

American housing units—especially owner-occupied units—have few deficiencies. Exhibit 8 shows the incidence of selected deficiencies for all occupied housing units and then distinguishes between owner- and renter-occupied housing units. Of the approximately 111 million occupied units in the United States, about 1.1 million have holes in the floors; the incidence is lower for owner-occupied units (0.6 percent) than for renter-occupied units (1.7 percent). Open cracks or holes in interior walls are more prevalent—5.3 million occupied units reported this deficiency—and the incidence for renters (7.2 percent) is almost twice that of owners (3.7 percent). Although only 54,000 households reported that they have no electrical wiring, nearly 1.1 million reported that their wiring is exposed. The lack of electrical outlets in one or more rooms occurs in 1.4 million homes.

Exhibit 9 shows the distribution of monthly housing costs by tenure. Housing costs for renters include contract rent, property insurance, and utilities; housing costs for owners include mortgage (or installment loan) payments, property insurance, real estate taxes, fees (association, condominium, or cooperative), park fees for manufactured (mobile) homes, land rents, routine maintenance, and utilities. For all housing units, the median monthly housing cost is \$847 per month, with owners having a median cost of \$971 and renters having a median cost of \$750. Exhibit 9 also shows that 2.1 million households pay no cash rent for their housing units. These households include those living in units owned by relatives or friends as well as those occupied by people who receive housing as part of their employment. Median housing costs vary significantly among regions. The South has the lowest medi-

an monthly housing cost (\$754), the Midwest has the second lowest (\$767), the Northeast has the second highest (\$948), and the West has the highest (\$1,050). A higher percentage of owners (29.8 percent) have housing costs of \$1,500 or more per month compared with renters (7.3 percent). We also find proportionally more owners than renters with low housing costs. If we examine households paying less than \$400 per month, the percentage of owners is larger than the percentage of renters in each cost class. Part of the reason for this finding is that nearly 4 out of 10 owners have no mortgage debt and thus pay no monthly mortgage expenses. Although the median dollar cost is lower for renters than owners, the situation reverses when we examine fractions of income spent on housing. Overall, the median housing cost burden (the proportion of income spent on housing) is 23.0 percent, but renters pay a median of 29.8 percent of their incomes while owners pay 20.3 percent. According to 2007 AHS data, median monthly housing costs increased by approximately 11 percent from costs reported in the 2005 AHS, and the median cost burden increased by 2.3 percentage points.

For the first time in the survey's history, the 2007 AHS asked households about the fire safety equipment in their homes. As Exhibit 10 shows, nearly all households (92.5 percent) report having a smoke detector. Fire extinguishers are present in 4 out of 10 homes, and carbon monoxide detectors in about one-third of homes. Sprinkler systems are quite rare, present in only about 4 percent of households. The proportion of owner-occupied households with fire safety equipment, with the exception of sprinkler systems, is, in general, higher than that of renter-occupied households. Although rare for both tenure types, sprinkler systems are about three times more common in renter-occupied units than in owner-occupied units. This difference probably occurs because renters are more likely than are owners to live in multiunit structures.

Smoke detectors can be powered by batteries, by a unit's electrical wiring, or by both power sources. Exhibit 10 shows that the power source for smoke

Exhibit 7. Number of Bathrooms per Housing Unit

Number of Bathrooms	Number of Units	Percentage
0	1,749,000	1.4
1	47,681,000	37.2
1.5	17,155,000	13.4
2 or more	61,618,000	48.1

Exhibit 8. Selected Housing Deficiencies (Occupied Units)

Deficiency	All		Owner Occupied		Renter Occupied	
	Number of Units	Percentage	Number of Units	Percentage	Number of Units	Percentage
Holes in floors	1,080,000	1.0	470,000	0.6	610,000	1.7
Open cracks or holes (interior)	5,308,000	4.8	2,770,000	3.7	2,538,000	7.2
Broken plaster or peeling paint (interior)	2,186,000	2.0	1,078,000	1.5	1,108,000	3.7
No electrical wiring	54,000	0.0	44,000	0.1	10,000	0.1
Exposed wiring	1,083,000	1.0	608,000	0.5	476,000	0.8
Rooms without electrical outlets	1,410,000	1.3	793,000	1.2	617,000	1.9



Exhibit 9. Monthly Housing Costs (Occupied Housing Units) by Tenure

Cost (\$)	All		Owner Occupied		Renter Occupied	
	Number of Units	Percentage	Number of Units	Percentage	Number of Units	Percentage
All	110,719,000	100.0	75,665,000	100.0	35,054,000	100.0
No cash rent	2,125,000	1.9	NA	NA	2,125,000	6.1
Less than 100	698,000	0.6	383,000	0.5	315,000	0.9
100–199	3,601,000	3.3	2,697,000	3.6	903,000	2.6
200–249	3,282,000	3.0	2,455,000	3.2	827,000	2.4
250–299	3,443,000	3.1	2,768,000	3.7	675,000	1.9
300–349	3,705,000	3.3	2,985,000	3.9	720,000	2.1
350–399	3,715,000	3.4	2,889,000	3.8	826,000	2.4
400–449	4,016,000	3.6	2,822,000	3.7	1,194,000	3.4
450–499	4,061,000	3.7	2,532,000	3.3	1,529,000	4.4
500–599	7,904,000	7.1	4,460,000	5.9	3,444,000	9.8
600–699	7,977,000	7.2	3,960,000	5.2	4,017,000	11.5
700–799	7,609,000	6.9	3,876,000	5.1	3,733,000	10.6
800–999	12,902,000	11.7	6,964,000	9.2	5,939,000	16.9
1,000–1,249	11,895,000	10.7	7,771,000	10.3	4,125,000	11.8
1,250–1,499	8,650,000	7.8	6,539,000	8.6	2,111,000	6.0
1,500 or more	25,136,000	22.7	22,565,000	29.8	2,571,000	7.3

NA = Not applicable.

Exhibit 10. Fire Safety Equipment

	All		Owner Occupied		Renter Occupied	
	Number of Households	Percentage	Number of Households	Percentage	Number of Households	Percentage
Unit has fire extinguisher	48,296,000	43.7	37,225,000	49.3	11,071,200	31.6
Unit has carbon monoxide detector	36,105,000	32.7	28,341,000	37.5	7,765,000	22.2
Unit has smoke detector	102,276,000	92.5	70,447,000	93.2	31,828,000	90.9
Unit has sprinkler system	4,297,000	3.9	1,765,000	2.3	2,532,000	7.2
Smoke detector power						
Unit wiring (only)	9,129,000	8.9	6,098,000	8.7	3,031,000	9.5
Battery (only)	67,493,000	66.0	44,427,064	63.1	23,066,000	72.5
Both unit wiring and battery	24,232,000	23.7	19,318,000	27.4	4,913,000	15.4
Battery changed in past 6 months*	68,337,000	74.5	48,310,000	75.8	20,027,000	71.6
	Either Unit Wiring or Battery Power		Battery Power (only)		Both Unit Wiring and Battery Power	
	Number of Households	Percentage	Number of Households	Percentage	Number of Households	Percentage
Battery changed in past 6 months**	68,337,000	74.5	50,548,000	74.9	17,790,000	73.4

* Percentage of households with smoke detector powered by "Battery (only)" or "Both."

** Percentage of households that changed batteries, among those that have smoke detectors that use the indicated power source.

detectors in most households is batteries only. Owner-occupied units have about double the incidence of smoke detectors using both power supplies, compared with the incidence in renter-occupied units. Smoke detectors that use only unit wiring are rare; less than 9 percent of the households report them. Of the units that have smoke detectors powered by batteries, about three-fourths have changed their power cells in the past 6 months; only a slightly larger proportion of owners than renters report changing the batteries. No real difference occurs in battery maintenance between households whose smoke detectors are powered only by batteries and those whose smoke detectors are powered by both batteries and unit wiring.

Accessing Housing Information

HUD and the Census Bureau give high priority to making the AHS accessible. Users may download AHS information in tabular and microdata formats. The tabulations are available in paper, CD-ROM, and downloadable Internet files. The microdata files (in ASCII or SAS formats) are available on CD-ROM and can be downloaded from the Internet. For copies of the printed versions, contact HUD USER at 1-800-245-2691 or P.O. Box 23268, Washington, DC 20026-3268. Users can purchase national AHS reports from the Government Printing Office by calling 202-512-1800, and they can obtain the metropolitan area reports from the Census Bureau by calling 301-763-4636 or writing to the Census Bureau, Washington, DC 20233-8500. Both the Census Bureau and HUD maintain Internet sites, and HUD operates an AHS electronic mailing list for the AHS user community. The URL for the HUD AHS website is www.huduser.org/datasets/ahs.html. The site provides the following items:

- The 2007 AHS microdata files in SAS and ASCII formats.
- Summary statistics for the 2007 AHS.
- Line-by-line comparisons of the 2005 estimates and the 2007 initial estimates for a wide array of housing and occupant characteristics.

- The code book for the survey, revised for the 2007 survey, in PDF format.
- Links to the Census Bureau website.
- Microdata in downloadable format for the 1995, 1997, 1999, 2001, 2003, 2005, and 2007 national surveys and the 1995, 1996, 1998, 2002, and 2004 metropolitan surveys.
- Information for ordering reports and documents from HUD USER.

The URL for the Census Bureau AHS website is www.census.gov/hhes/www/ahs.html. This site provides these items:

- The AHS national and metropolitan reports from 1975 through 2007 in PDF files.
- Other AHS and housing reports.
- Internet access to the microdata files for extracts and analyses using automated systems. The national surveys for 1997, 1999, 2001, and 2003 and the metropolitan surveys for 1998 and 2002 are available through the FERRETT system, which allows users to download SAS-format datasets and ASCII-format extracts. Users can also create their own specified tables by using FERRETT. The 1993 and 1995 national surveys are available for extracting and downloading through the Data Extraction System.
- A description of the surveys, historical changes in the surveys, definitions of concepts and variables, sample design and sizes, estimation weights, and survey results in brief formats.
- Information for ordering reports and documents from the Census Bureau's Customer Service Center.

HUD operates an electronic mailing list to provide information and create a forum for the exchange of information within the AHS user community. Subscription instructions are posted at www.huduser.org/emaillists/ahslist.html.