

Appendix C. Historical Changes

INTRODUCTION

The American Housing Survey National (AHS-N) was first conducted in 1973. Between 1973 and 1981 it was conducted every year and was called the Annual Housing Survey. The last even-numbered year for the AHS-N was 1980. Since 1981, the survey has been conducted every other year. In 1985, the name was changed to the American Housing Survey. Other historical changes in the survey are listed below by subject area. The year refers to the year the change was made. In some cases multiple years are mentioned together. In these cases either corrections were made to the data in more than one year or there are specific years for which data are not comparable.

Only changes are noted in this appendix. For example, "Book Titles" has no entries for 1975 through 1977, since the same titles were published for those years as in 1974.

Book Titles

1973. Annual Housing Survey: 1973

Part A. *General Housing Characteristics* (compared central city, suburban, and nonmetropolitan areas).

Part B. *Indicators of Housing and Neighborhood Quality*.

Part C. *Financial Characteristics of the Housing Inventory*.

Part D. *Housing Characteristics of Recent Movers*.

Supplement report number 1, *Financial Characteristics by Indicators of Housing and Neighborhood Quality*.

1974. Parts A, B, C, and D stayed the same.

Part E was added, *Urban and Rural Housing Characteristics*.

Supplement report number 1 was changed to part F, *Financial Characteristics by Indicators of Housing and Neighborhood Quality*.

1978. Parts A, C, D, and E stayed the same.

Parts B and F from earlier years were combined into a new Part B, *Indicators of Housing and Neighborhood Quality by Financial Characteristics*.

A new part F, *Energy-Related Housing Characteristics* was added.

1985. Parts A, B, C, D, E, and F, were combined in one report, *American Housing Survey for the United States*.

A new report was added, *Supplement to the American Housing Survey for the United States* with data on family types, neighborhood quality, commuting, and ownership of additional residential units.

Computer Assisted Telephone Interviewing (CATI)

1987. Large-scale CATI experiments were conducted as part of both the 1987, 1989, and 1991 AHS-N. Preliminary analysis of the CATI experiments indicated that CATI has a significant effect on the data. The experiments revealed that characteristics' data for owner housing, urban housing, and housing with moderate physical problems exhibited high numbers of significant differences between CATI and non-CATI estimates. The moderate physical problems subgroup had the highest incidence of significant differences. The analysis also showed significant differences for total occupied, suburban housing units, and moved in past year.

Little is known at this time about whether CATI or non-CATI produces better data. It is felt, however, the estimates of change in AHS-N between 1985 and 1987, 1985 and 1989, and 1985 and 1991 will be biased for many characteristics as a result of the introduction of CATI. Also see the discussion under the topics "Buildings and Neighborhood" and "Telephone Interviewing."

Head of Household/Householder

1980. Beginning in 1980, the concept head of household was dropped and replaced by householder. The head of household was the person regarded as the head by the respondent. However, if a married woman living with her husband was reported as the head, her husband was considered the head. The householder is the first household member listed by the respondent who is 18 years old or over and is an owner or renter of the sample unit.

Housing Costs and Value

1985. Beginning in the 1985 AHS-N; value, mortgage data, and taxes are shown for all owners; rent for all renters; and utilities for all of both groups. From 1973

1985. The characteristics of new construction units are based on units constructed during the last 4 years in the 1985 AHS-N and later. Prior to 1985, characteristics of new construction were based on units built since the last survey year, which was a 1-year period except for the 1983 survey, which was a 2-year period.

Plumbing Facilities

1993. In 1993, there were 1,152,000 occupied housing units that reported a complete lack of plumbing facilities. The total number of units that reported such a lack decreased by about half between 1991 and 1993. Also, there was a decrease in these units between 1989 and 1991. Total occupied housing units with no plumbing facilities for exclusive use went from 2,253,000 in 1989 to 2,045,000 in 1991. In 1993, questionnaire item 29c on bathrooms for exclusive use was modified to provide more accurate estimates. The wording of the “answer options” to this question was changed to specify whether or not there was exclusive use of the facilities. Although the decrease between 1991 and 1993 seems unrealistic, we feel that the change in the 1993 questionnaire resulted in a better estimate. Caution should be used when making comparisons with the 1991 AHS-N survey and the 1993 and later surveys. The drop in the number of occupied units with no plumbing facilities also caused a drop in the number of units with severe physical problems from 2,874,000 in 1991 to 1,901,000 in 1993.

Poverty

1985. Beginning in 1985 the AHS-N provides housing characteristics for households with income below the poverty level. The AHS-N poverty data are not comparable to poverty data published from the Current Population Survey (CPS). Table B presents the differences.

Table B. Households in Poverty in AHS and CPS: 1985, 1987, and 1989

Year	AHS	CPS
1985	13,266,000	11,996,000
1987	11,969,000	11,807,000
1989	12,403,000	11,369,000
1985-1987 change	-1,297,000	-189,000
1987-1989 change	434,000	-438,000

Compared with the CPS, the AHS-N drop in poverty between 1985 and 1987 seems too large. The 1987 to 1989 AHS-N increase in poverty may be, in part, a compensation for the unrealistic 1985 to 1987 drop.

In general, AHS estimates of poverty are higher than the CPS estimates. Research indicates that the AHS-N slightly underreports income when compared with the CPS, thus overreporting poverty. Furthermore, the problem seems to be concentrated among elderly households. A detailed

discussion of AHS-N poverty data is presented in the Census Bureau memorandum for the record, “AHS Poverty Data, 1985 to 1989.” A detailed discussion of AHS-N income data is presented in the Census Bureau memorandum for the record, “Comparison of the 1989 AHS and CPS Income Reporting.” Copies of these memoranda can be obtained by writing to the Housing and Household Economic Statistics Division, Bureau of the Census, Washington, DC 20233.

We wish to remind analysts that poverty data are published in the AHS-N not as an official count of households in poverty, but to show the housing characteristics of low-income households.

Questionnaire

1985. A new questionnaire was introduced in the 1985 AHS-N. Most of the changes on the questionnaire were made to improve the quality of the data. As a result of these changes, however, several items in the 1985 and later AHS-N supplement reports, H151, are not comparable to similar data for 1973 through 1983. A list of these items follows. A discussion of each item can be found under the topic of the same name.

Items changed on 1985 questionnaire:

- Units in structure
- Rooms in unit

A number of new items were introduced in the 1985 AHS-N including units with severe or moderate problems, elderly householder, and detailed information on mortgages, etc. For detailed definitions of these and other items, please see appendix A.

Rooms in Unit

1985. The number of households living in units with one or two rooms dropped from 3,215,000 in 1983 to 1,937,000 in 1985. As a result, the median number of rooms per unit increased from 5.2 to 5.3. This does not necessarily indicate an increase in the average size of housing units. In the 1983 AHS-N, respondents answered a single question asking for a total count of rooms in the unit. The potential to miss specific rooms is high in a question of this type. In the 1985 AHS-N, respondents were asked for a count of each specific type of room. The answers to these questions are then added together in the tabulations to provide a total count of rooms. Far fewer rooms are missed in this series of questions which has apparently resulted in lower counts of one- and two-room units. It is also possible, however, that a few rooms may be double counted. For example, a living room may also have been counted as a family room for a count of two rooms when only one room actually exists.

Sample

1985. A new sample was chosen for the AHS-N in 1985. In 1973 through 1983, a sample of housing units was selected from the 1970 census and updated to include units constructed since 1970. In 1985, a new sample was chosen from the 1980 census and updated to include units constructed since 1980. To the degree that the coverage of housing units is different between the 1970 and the 1980 censuses, comparisons of the results of the 1973 through 1983 surveys with the results of the 1985 and later surveys may be affected.

Severe and Moderate Problems

1985, 1987, and 1989. The data concerning units with severe and moderate problems in 1989 and later are not entirely comparable with similar data published in 1985 and 1987. Units lacking complete plumbing facilities are included in the count of units with severe physical problems. (Data on plumbing facilities in 1985 and 1987 were deficient because of the design of the questionnaire. As a result, the number of units with severe problems was underestimated in 1985 and 1987, and the number of units with moderate problems was overestimated. These deficiencies were corrected in the 1989 questionnaire. For additional discussion, see the topic "Plumbing Facilities" in the appendix C of the *American Housing Survey for the United States in 1993*, series H150/93.

1993. See the discussion under the topic "Plumbing Facilities."

Telephone Interviewing

1981. Beginning in 1981, decentralized telephone interviewing was conducted for a sample of units that were in sample during the previous enumeration. As a result of analysis conducted in both 1981 and 1983, it was concluded that data collected, using the decentralized telephone interviewing procedures, were not sufficiently different from data collected by regular personal interviews to preclude basing published data on both telephone and personal interview data. Also see the discussion under the topics "Computer Assisted Telephone Interviewing."

Units in Structure

1985. In 1973 through 1983, data on units in structure were based on the respondent's answer to one question, "How many living quarters, both occupied and vacant, are there in this house (building)?" In 1985 and later, data on units in structure are based on the respondent's answers to a series of questions (see item 20 through 23 on page 3 of the questionnaire in appendix A). The method of collecting

units-in-structure data was revised in 1985 as previous AHS experience has shown the concept to be difficult for respondents. Respondents particularly had difficulty distinguishing between single-family attached and units in multiunit structures. Table C shows the change in the occupied inventory by units in structure between the 1983 and 1985 AHS using the published data.

Table C. Change in the Occupied Housing Inventory by Units in Structure: 1983 to 1985

Units in structure	1983	1985	1983-85 change
Single-family detached	53,544,000	55,076,000	1,532,000
Single-family attached	4,109,000	4,102,000	-7,000
2-or-more units in structure	22,985,000	24,492,000	1,507,000

It is estimated that the 1983 AHS-N overestimated single-family detached by 118,000 and single-family attached by 641,000 units. The 1983 AHS-N underestimated units in multiunit structures by approximately 788,000. Table D provides more reasonable (revised) levels of 1983 to 1985 growth by adding (1983 overestimates) and subtracting (1983 underestimates) to the 1983-85 change shown in table C.

Table D. Revised Change in the Occupied Housing Inventory by Units in Structure: 1983 to 1985

Units in structure	1983-85 change	Add 1983 over-estimate	Subtract 1983 under-estimate	1983-85 revised change
Single-family detached	1,532,000	118,000	-	1,650,000
Single-family attached	-7,000	641,000	-	634,000
2-or-more units in structure	1,507,000	-	788,000	719,000

Weighting

1981. The independent household estimates (control totals) used in the weighting of data in the 1981 and 1983 AHS-N are Current Population Survey (CPS) estimates derived from the 1980 census. The CPS independent household estimates used in the weighting of data in the 1973 through 1980 Annual Housing Surveys were derived from the 1970 census. The 1980-based estimates are about 2 percent larger than the 1970-based estimates. This 2 percent effect was equally distributed among all types of units. Therefore, percentages and medians calculated during the 1973 through 1980 time period should be comparable to similar data calculated in 1981 and 1983.

1985. In 1985, the 1980 census count of occupied units was adjusted for undercount and projected to 1985 using the 1980 to 1985 Current Population Survey's (CPS) rate of change. The 1985 AHS-N was then ratio-estimated to this number. In 1983 and earlier years the AHS-N was

ratio-estimated directly into CPS estimates. The procedure used in 1985 resulted in 200,000 additional occupied units that would not have been estimated if the 1983 procedures had been employed in 1985.

Beginning with 1985, estimates of mobile homes with a model year of 1980 or later were ratio-estimated into independent counts of mobile home placements from the Survey of Mobile Home Placements. The 1983 and earlier years counts of mobile homes may be deficient leading to unrealistically high estimates of change between 1985 and earlier years. For example, occupied mobile homes grew from 3,999,000 in 1983 to 4,754,000 in 1985, an increase of 755,000. This level of growth seems excessive as data from the Survey of Mobile Home Placements shows approximately 570,000 new mobile homes placed for residential use during the same time period.

1991. Beginning with 1991, the independent estimates (control totals) used in weighting the data are based on the 1990 census, plus change since then. The 1990-based weighting produces, on average, numbers that are about 2.5 percent lower than 1980-based weighting. This effect is not equally distributed among all types of units. Table E shows the effects of the weighting change by region for the year 1991.

Table F presents counts of occupied homes using 1990-based weighting. This weighting is consistent with the weighting used to produce the 1991 and later detailed tables in chapters 1 through 10 of the series H150 books. These data should be used when measuring the change in

the size of the occupied inventory over time. These data provide the most accurate count of the total number of occupied homes for the years 1985, 1987, and 1989.

Table E. **Difference Between 1980- and 1990-Based Weighting as a Percent of 1980-Based: 1991**

Type of unit	United States	North-east	Mid-west	South	West
1991					
Occupied housing units	2.4	3.5	2.7	2.0	1.7
Built 1980 or later	0.1	0.0	0.1	0.1	0.1
Built before 1980	2.9	3.9	3.1	2.6	2.2

Table F. **Occupied Housing Units Using 1990-Based Weighting: 1985, 1987, and 1989**

(Numbers in thousands)

Characteristic	1985		1987		1989	
	Owner	Renter	Owner	Renter	Owner	Renter
United States	54,394	31,279	56,649	31,885	58,193	32,809
Northeast	10,922	7,106	11,418	7,089	11,660	7,011
Midwest	14,226	7,242	14,696	7,133	15,122	7,234
South	19,217	9,876	19,985	10,190	20,627	10,694
West	10,030	7,056	10,550	7,472	10,784	7,870
Race						
White and other	50,222	25,866	52,323	26,253	53,772	26,924
Black	4,172	5,413	4,326	5,632	4,420	5,885