

1990 - Whither Housing Quality?

Arthur F. Young and staff of the Housing Division

PAST EXPERIENCE

In the first Census of Housing in 1940, the Bureau used the concept "state of repairs" as an indicator of housing quality. State of repairs was collected through enumerator observation and provided two classifications: "Not needing major repairs," and "needing major repairs," when in the enumerator's judgement, parts of the structure such as floors, roof, walls, or foundation required major repairs or replacements. The concept included only the physical condition of the structure without indicating the level of quality. For example, a tarpaper shack or an inhabited cellar of an unfinished house may have been classified as not needing major repairs even though the construction on the original structure was inadequate.

Widespread dissatisfaction with the concept "state of repairs" led to the development of the concept "condition of structure." In the 1950 census, this item was collected through enumerator observation and used a two-way classification of condition-- "not dilapidated" and "dilapidated." The enumerators reported a unit as dilapidated when, in their judgement, it had one or more serious deficiencies or had such inadequate original construction that it provided inadequate shelter or endangered the safety of the occupants. The enumerator also classified a unit dilapidated if it had a combination of minor deficiencies to the extent that it did not provide protection against the elements or was physically unsafe.

By 1960 "condition of structure" evolved into a three-way classification, "sound," "deteriorating," and "dilapidated." The sound and deteriorating categories were defined so as to agree with the "not dilapidated" category used in 1950. A sound unit had no defects or only slight defects which normally would be corrected during the course of regular maintenance. A deteriorating unit needed more repair than would be provided during the course of regular maintenance. Although, through enumerator training, the Bureau tried to have the condition rating based on objective criteria, such ratings were subjective judgements by enumerators based on observations.

The data on structural condition were combined with the data on plumbing to create the classification "substandard" by the Housing and Home Finance Agency (HHFA) beginning with the 1950 census. HHFA defined a substandard unit as one which is dilapidated or which lacks either running water, flush toilet, or bathtub or shower for private use. The concept of substandard was established in

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recognition of the fact that even if a house were "not dilapidated", the presence of running water and basic plumbing facilities were essential to minimum housing standards.

The 1960 census data used in the "substandard" concept to measure the quality of housing had serious drawbacks. Extensive studies conducted after the 1960 census found the structural condition ratings of deteriorating and dilapidated units to be inaccurate and unreliable. The evaluation program for the 1960 census indicated a net undercount of about one million dilapidated occupied units. The reliability of the "dilapidated" category, as measured by the presence of units identically classified in the census and in the recheck, was unsatisfactory. Only about one-third of the units classified as dilapidated by the evaluation enumerators were similarly classified by the census enumerators.

In the 1970 census, the Bureau of the Census did not collect information on the structural condition of housing, but focused instead on the tabulation of objective characteristics that could be used as indicators of housing quality. In addition, the Bureau published an estimate of substandard housing that was the sum of two categories: (1) units counted in the 1970 census that lacked complete plumbing facilities for the exclusive use of the occupants, and (2) an estimate of the number of units with complete plumbing facilities that would have been rated dilapidated in 1970 based on the Bureau's Components of Inventory Change Survey. The Bureau presented the details of this procedure, together with the statement of the accuracy of the estimates, in the text of the 1970 Census of Housing, Volume VI, *Plumbing Facilities and Estimates of Dilapidated Housing*.

By 1980, some of the traditional indicators of housing quality, such as plumbing facilities and persons per room, had declined to relatively low levels. Tables 1 and 2 show how various indicators have changed over time. Therefore the Bureau asked federal, state and local governments what combinations of data items would be most useful for program analysis and review. Accordingly, for the 1980 census, the Bureau tabulated a wider range of objective characteristics. Some examples of such tabulations from Summary Tape File 4 (STF4) are shown in Table 3.

CENSUS CONSTRAINTS

The basic problem in providing data on the amount of "bad" housing is the lack of a national standard of housing adequacy or inadequacy. If a standard of housing adequacy can be established at reasonable cost and accuracy based on elements collectable in a decennial census, data can be produced on the "quality of housing." There are a number of issues to be considered in making this determination.

First, the census depends upon the cooperation of the American people. The questionnaire must not be too long. The questions must solicit information most household respondents are able to provide. Questions must be framed in such a way that respondents can give an objective answer and should not appear to be frivolous, investigative or regulatory in nature. Second, for the decennial

census, questions must be national in scope and cannot be tailored to differences of geography, climate, local zoning ordinances or other local or regional concerns because of logistical and collection problems in the census. Third, census interviewers have no authority to enter the housing unit or walk around the structure. Many interviews are conducted on the doorstep or on the street. Thus, questions based on "observation" cannot be applied uniformly. Experience has also shown such data to be of very poor quality.

Table 1. Percent of Housing Units With Selected Characteristics, United States: 1940 to 1980

Selected Characteristics	1940	1950	1960	1970	Total
Year round housing units					
Lacking complete plumbing facilities	43.3	35.4	16.8	6.9	2.7
Built 30 years ago or earlier	40.9	45.8	46.5	40.6	36.9
Occupied housing units					
With 1.01 or more persons per room	20.2	15.7	11.5	8.2	4.5
With unvented heat	NA	12.3	10.0*	5.6	3.4
Specified renter-occupied housing units					
Gross rent as a percent of income					
25 percent or more	NA	NA	35.3	39.6	50.0
35 percent or more	NA	NA	21.4	31.3	31.6

*1960 available for total HU only
NA - not available

FUTURE DIRECTIONS

The issue of how to measure housing quality in the decennial census may be viewed from a variety of viewpoints. Several of the most basic are; What is housing quality? More specifically, what is "bad" housing? How does housing quality relate to occupant health and safety, neighborhood conditions and housing costs and availability? Can a definition of standard/substandard housing be established that will be national in scope and satisfy most data users? Can the elements of such a definition be quantified or defined in a way that would allow collection in the decennial census? If the identification of "bad" housing is not feasible, are there other surrogate measures that would be useful?

Table 2. Percent of Housing Units With Selected Characteristics,
United States: 1980

Selected Characteristics	1980						
	Inside SMSAs						
	Total	Total	Central Cities	Central Cities	Outside SMSAs	Urban	Rural
Year round housing units							
Lacking complete plumbing facilities	2.7	1.8	2.1	0.9	5.4	1.6	5.9*
Built 30 years ago or earlier	36.9	35.6	NA	NA	40.9	37.3	35.8
Occupied housing units							
With 1.01 or more persons per room	4.5	4.5	5.8	3.4	4.7	4.5	4.7
With unvented heat	3.4	2.6	3.3	1.6	5.9	2.9	5.0
Specified renter-occupied housing units							
Gross rent as a percent of income							
25 percent or more	50.0	50.4	51.4	49.0	47.9	50.4	45.4
35 percent or more	31.6	31.6	33.1	29.5	29.8	31.6	28.2

NA - not available

*Of the 3137 counties in the United States, 334 had 10 percent or more of their households lacking complete plumbing facilities. These counties are predominantly rural.

Table 3. Example of tabulations for 1980

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HA48. Tenure (2) by poverty status in 1979 (3) by house heating fuel (8) 59/ [48]

Universe: Occupied Housing Units

Total:

Income in 1979 below poverty level:

Utility gas 49/

Bottled, tank, or LP gas

Electricity

Fuel oil, kerosene, etc.

Coal or coke

Wood

Other fuel

No fuel used

Income in 1979 between 100 and 124 percent of poverty level:

(Repeat House Heating Fuel)

Income in 1979 125 percent of poverty level and above:

(Repeat House Heating Fuel)

Renter occupied:

(Repeat Poverty Status in 1979 by House Heating Fuel)