Final Report

Assessment of American Housing Survey Metropolitan Sample

U.S. Department of Housing and Urban Development

Contract Number C-OPC-21041 Task Order No. 1

October 31, 2000

BOOZ·ALLEN & HAMILTON
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October 31, 2000

Mr. David Vandenbroucke
U.S. Department of Housing and Urban Development
451 Seventh Street, S.W.
Washington, DC 20410

Re: Contract C-OPC-21041, Task Order No. 1

Subject: American Housing Survey, Metropolitan Sample,
Task 9, Deliverable #11 – Final Report

Dear Mr. Vandenbroucke:

We are pleased to submit the AHS-MS Final Report, which includes an executive summary, a discussion of AHS-MS background, objectives and scope, and methodology; findings and conclusions; and recommendations. These constitute the final deliverable for Task 9. We believe this document is effective in showing how the AHS-MS is perceived, who uses it, how it is used, and how it might be improved.

If you have any questions or would like to schedule a discussion, please call me at (703) 917-2175 or Gene Zapfel at (703) 917-2168.

Sincerely,

Larkin Jennings

BOOZ·ALLEN & HAMILTON INC.

Larkin Jennings
Associate

Enclosure

cc: Ron Sepanik

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EXECUTIVE SUMMARY

In order to assure itself that the expected rate of progress is being made to reach "the goal of a decent home and a suitable living environment for every American family," the Congress requires an annual report by the President. To help meet the reporting requirements, the American Housing Survey (AHS) gathers data on issues such as housing quality, housing amenities, vacant housing units, household characteristics, income, housing and neighborhood quality, housing costs, equipment and fuels, size of housing unit, and recent movers.

The American Housing Survey-Metropolitan Sample (AHS-MS) gathers data for each of 47 selected metropolitan areas generally every four to six years, with samples for each metropolitan area of about 4,800 housing units. The survey is conducted by the Census Bureau for the Department of Housing and Urban Development (HUD). The Census Bureau returns to the same housing units year after year to gather data.

Many types of users employ the AHS-MS for various purposes, making it a significant part of the nation's housing data infrastructure. Federal, state, and local governments, academic institutions, trade associations, public interest groups, and private businesses use the survey. Uses include academic research, policy analysis, community planning, business planning, and industry analysis.

Reduced research budgets over the last decade caused HUD to reduce the frequency of surveys and the number of metropolitan areas surveyed. The AHS competes with HUD's other research needs. In addition, the likely prospect of a new national survey (the American Community Survey) has given rise to questions about where the AHS-MS fits into the national housing data framework. In the face of these challenges, HUD is interested in discovering ways of making the AHS-MS more useful and cost effective.

In response to HUD's request for assistance in answering those challenges, Booz·Allen & Hamilton was tasked with collecting, consolidating, and analyzing information from a wide variety of AHS-MS users. This project was designed to assist HUD in answering the following questions:

- What is the overall usefulness of the AHS-MS?
- What are the uses of the AHS-MS?
- Who are the users of the AHS-MS?
- How does the proposed American Community Survey affect the AHS-MS?
- Would modifying, adding, or deleting specific features increase effectiveness of the AHS-MS?

- What are potentially productive ways to communicate with, and learn more about, potential AHS-MS users?

Major conclusions and recommendations are highlighted below, and the full results of this study are described throughout the sections of this report.

PRIMARY CONCLUSIONS REGARDING USERS OF THE AHS-MS

Conclusion: Users of the AHS-MS work for many different types of organizations, including those with different, and sometimes opposing interests. This indicates the AHS-MS is an important element in the national data set of housing data. For example, both trade associations and non-profit organizations use AHS-MS data.

PRIMARY CONCLUSIONS REGARDING USES OF THE AHS-MS

Conclusion: The AHS-MS is used for widely varying purposes, indicating that the AHS-MS is a highly flexible data source.

Conclusion: Detailed housing data on specific metropolitan areas is clearly a primary strength of the AHS-MS. The published literature, the opinions of many individuals contacted during the study, as well as our own analysis, show that no other data source provides all, or even a large proportion, of the information available in the AHS-MS.

Conclusion: Uses of the AHS-MS indicate data from each major section of the survey is frequently used in analysis. Further study would be helpful in determining the relative amount of research using each category of questions.

Conclusion: One way of assessing the breadth of the AHS-MS uses is to examine how it is used alone and in concert with other information. The AHS-MS is quite often used in conjunction with other data sets and also is used as the sole data set in significant numbers of research efforts.

Conclusion: The wide variety of uses of the AHS-MS data indicate that if awareness were greater, overall use might also increase. Publicizing examples of AHS-MS use is one way to increase awareness. Presentations by HUD staff are another method of increasing awareness and use.

Conclusion: A decrease in the number of areas surveyed would almost certainly result in decreased use of the AHS-MS, and an increase in areas would result in increased usage. Many users of AHS-MS are interested in just one or two metropolitan areas. If any metropolitan areas were dropped, the usage of AHS-MS would drop correspondingly with those users. For example, local non-profits/planners would certainly cease using data, should the metropolitan area in which they reside be dropped from the survey. Similarly, additional local non-profits/planners would use the AHS-MS should their metropolitan area be added.

Conclusion: Longitudinal studies, while not the majority of AHS-MS publications and research efforts, appear to be valuable.

PRIMARY CONCLUSIONS REGARDING INFLUENCE OF THE AHS-MS

Conclusion: The AHS-MS influences a wide array of policy and planning decisions on the local and national levels. If the AHS-MS were not available, the decision-makers would need to obtain the data some other way. For example, Fair Market Rents are fundamental for some HUD programs.

Conclusion: Since the AHS-MS is the only source of certain housing data, if the AHS-MS were not available, decisions using that data would not be as well informed. For example, Fannie Mae and Freddie Mac could set home-ownership goals without AHS-MS data, but those goals might not be as realistic, which could lead to improperly assigned resources and other inefficiencies.

PRIMARY CONCLUSIONS REGARDING USEFULNESS OF THE AHS-MS

Conclusion: The AHS-MS is, overall, considered to be a useful tool by its users. Much of the data in the AHS-MS is unique, making considerable portions of the data, rather than just a few questions, of great value to users in their research and policy making.

Conclusion: While users of the AHS-MS regard it as useful, they also regard AHS-MS as a product with several drawbacks affecting its usefulness. Most notably, users see the interval between surveys as a significant drawback to tracking trends and keeping abreast of current conditions. AHS-MS users cited frequency as the cause of being unable to conduct many types of useful analysis, such as timely identification of changes in dynamic housing markets.

Conclusion: HUD's practice of providing multiple ways to obtain data (e.g., CD-ROM, printed results, Web Site) is effective. AHS-MS users employ each method successfully. By providing multiple methods, HUD is making the AHS-MS attractive to first time users.

Conclusion: Significant customer desire (ten survey respondents) to obtain data in a more commonly used file format indicates HUD could improve AHS-MS usefulness by determining preferred format(s) and providing those format(s).

Conclusion: Upgrading the AHS-MS codebook would make the survey more useful to existing users and could encourage additional use through enhanced user-friendliness. The "accessories" of survey data are critical for proper and increased use. The codebook is particularly important for a survey that emphasizes longitudinality, as the AHS-MS does, because users must take into account changes in answer coding between surveys to conduct accurate analyses.

PRIMARY CONCLUSIONS REGARDING THE AHS-MS AND THE AMERICAN COMMUNITY SURVEY OF THE AHS-MS

Conclusion: The American Community Survey is likely to become a complement, rather than a competitor, to the AHS-MS. There is a modest amount of overlap in subject matter, but the American Community Survey is broader and has a greater sample size than the AHS-MS.

Conclusion: Monitoring the proposed content of the American Community Survey would allow HUD to make sure that the content of the ACS and AHS-MS do not unnecessarily overlap and cause resources to be wasted. The content of the ACS is not firmly established, therefore it is prudent to track the evolution of the ACS.

RECOMMENDATIONS

Based on the conclusions, four recommendations are offered.

Recommendation: *HUD should conduct a benefit-cost analysis to evaluate the costs and benefits of changing the basic characteristics of the AHS-MS which would affect usefulness—stable geography and content (longitudinality), frequency, sample size, and variety and number of metropolitan areas surveyed.*

Recommendation: *HUD should continue to seek a decrease in the lag between completion of the survey and release of data to the public.*

Recommendation: *HUD should revise the AHS-MS codebook to coincide with the next release of AHS-MS data.*

Recommendation: *HUD should determine awareness of the AHS-MS among potential users and take steps to improve awareness, and therefore usefulness/usage level of the AHS-MS. In addition, HUD should prepare descriptive materials emphasizing the usefulness of the AHS-MS—these materials should be based on decisions arising from the benefit cost analysis and target existing and potential customers.*

Additional detail concerning findings, conclusions, and recommendations are provided throughout this report.

1.0 INTRODUCTION

This section provides background on the AHS-MS, including its uses and users. In addition, the objectives and scope portion of this section provides a brief introduction to the issues that this study is intended to address. Also, this section describes the technical approach of this project.

1.1 BACKGROUND

In order to assure itself that the expected rate of progress is being made to reach "the goal of a decent home and a suitable living environment for every American family," the Congress requires an annual report by the President. The American Housing Survey (AHS) helps to meet the reporting requirements by gathering data on issues such as housing quality, housing amenities, vacant housing units, household characteristics, income, housing and neighborhood quality, housing costs, equipment and fuels, size of housing unit, and recent movers.

The American Housing Survey, Metropolitan Sample (AHS-MS) is a data source for research and policy analysis. The American Housing Survey (formerly the Annual Housing Survey) collects data on the nation's housing units, including apartments, single-family housing units, mobile homes, and vacant housing units. Data gathered include household characteristics, income, housing and neighborhood quality, housing costs, equipment and fuels, size of housing unit, and recent movers. The survey started in 1973, and has had the same sample since 1985. The survey is conducted in person and by telephone by the Census Bureau for the U.S. Department of Housing and Urban Development (HUD).

National data are collected every other year, and data for each of 47 selected metropolitan areas are collected every four to six years, with an average of 12 metropolitan areas included each year. The national sample covers about 67,000 housing units, from a fixed sample of about 50,000 homes, plus new construction each year. Each metropolitan area sample covers 4,800 or more housing units. The Census Bureau returns to the same housing units each survey to gather data. Complete survey results are available about seven months after each survey is conducted.

Many types of users employ the AHS-MS for various purposes, making it a part of the nation's housing data infrastructure. Federal, state, and local governments, academic institutions, trade associations, public interest groups, and private businesses use the survey. Uses include academic research, policy analysis, community planning, business planning, and industry analysis.

Budget considerations have caused the AHS-MS to reduce the number of metropolitan areas surveyed and the frequency of survey administration. Reduced research budgets over the last decade caused HUD to decrease the frequency of surveys and the number of metropolitan areas surveyed.

The AHS-MS possesses a wide breadth of uses and users. Exhibit 1 identifies the types of user organizations and the uses of the data.

EXHIBIT 1. SUMMARY TABLE OF USERS AND USES

Organizations of AHS-MS Users*	Uses of AHS-MS Data*
Academic/Educational	Academic Research
Local/State Government	Policy Analysis
Federal Government	Community Planning
Trade Association	Business Planning
Public Interest Group	Industry Analysis
Private Business (e.g., consulting firm)	

* *Source: survey, telephone conversations, focus groups, and literature search (see technical approach section for a discussion of each source)*

The American Community Survey (ACS), a proposed monthly survey, is mentioned as a possible source of information similar to the AHS-MS. The ACS would replace the long form of the decennial census. It would go to 250,000 households a month and begin providing annual reports in 2004. The Census Bureau is testing it in dozens of communities and hopes to implement the survey nationwide in 2003.

1.2 OBJECTIVES AND SCOPE

The objectives of this project were to collect, consolidate, and analyze both qualitative and quantitative information from a wide variety of AHS-MS users, in order to assess the uses of the AHS-MS and discover ways to make the survey more useful and effective. This project was designed to assist HUD in answering the following questions:

- What is the overall usefulness of the AHS-MS?
- What are the uses of the AHS-MS?
- Who are the users of the AHS-MS?
- How does the proposed American Community Survey affect the AHS-MS?
- Would modifying, adding, or deleting specific features increase effectiveness of the AHS-MS?
- What are potentially productive ways to communicate with, and learn more about, potential AHS-MS users?

We sought to gather information from representative users about why and how the AHS-MS is used, and to gather opinions about key characteristics and features. Specifically, the project included gathering and analyzing general observations and detailed insights about the following:

- Overall usefulness of the AHS-MS.
- The types of purposes for which AHS-MS data is used.
- The type of organizations that use AHS-MS data.
- The types of analysis performed with AHS-MS data (e.g., longitudinal studies).
- The type of AHS-MS data used in the analyses (e.g., microdata).
- Usefulness of specific characteristics of the AHS-MS (e.g., frequency, and topics covered).
- Accessibility and usability (e.g., Web access, lag time between survey and data availability).
- Reasons for non-use.
- Plans for, and content of, the proposed American Community Survey.

The objectives did *not* include a wide-scale and systematic assessment of users and uses, as might occur with a large random sample of users and non-users or a market survey. In addition, costs of adding additional features or making other changes to the survey were not included in the objectives.

The project did not specifically select people who were expected to be non-users. All non-users discussed in this report were persons who were selected as likely users but turned out not to use the survey. We asked non-users questions focusing on reasons for non-use.

1.3 TECHNICAL APPROACH

The Booz·Allen team used four primary data gathering methods to achieve the objectives:

- Literature review.
- Focus groups (HUD employees and non-HUD Washington area housing analysts).
- In-depth conversations with AHS-MS users.
- Survey of AHS-MS users and potential users using mail and Internet questionnaires.

1.3.1 Literature Review

The Booz·Allen team performed a customized database search for documents that referred to the AHS-MS. We conducted searches on a wide array of databases, including:

- Government Printing Office (US GPO monthly catalogue. A comprehensive listing of US government documents, including Congressional reports, hearings and records).
- Public Affairs Information Service (Materials on public affairs including conference proceedings, political issues, social issues, 3,600 sources).
- SIRS Researcher (Social Issues Resources Series, a general reference database with thousands of articles from more than 1,200 newspaper, magazine and journal sources)

- Dissertation Abstracts (Dissertations on all academic topics accepted at accredited universities in the US, and many worldwide).
- EconLit (the American Economic Association's electronic bibliography of economic literature).
- Environmental Science and Pollution Management Database (Bibliographic citations covering agriculture, pollution, environmental engineering).
- Social Science Abstracts Bus Management (Social Science Abstracts to articles in the Social Sciences, covers all social sciences; Business Management, covers real-estate and housing market information and publications, among other topics).
- Wilson Business (English language business magazines are covered (including insurance, real-estate and investment).
- Wilson Select (Articles in public administration and real estate among other social science topics).
- Sociological Abstracts (Abstracts of periodicals on anthropology, sociology, political science, economics, geography and law).
- ABI/INFORM (Abstracts and Business Index INFORM, contains more than 1.3 million citations for more than 1,000 business journals).
- IAC Business ARTS (Information Access Company Business A.R.T.S - Applied Research Theory and Scholarship, covers more than 1,550 scholarly and academic institutions in the areas of economics, government, political science).
- Web page of the Urban Institute (A source of housing publications).
- Harvard Joint Center for Housing Studies (A source of housing publications).
- HUD USER (A listing of all HUD publications).
- Insurance Periodicals Index (Covers the housing industry).
- NTIS (National Technical Information Service. A database of technical US Government reports).
- Dow Jones Interactive (A database covering business publications worldwide. Covers newspapers, magazines and trade journals by industry including real estate).

Our search covered literature published during the period 1990-1999.

1.3.2 Focus Groups

The team also organized two focus groups of AHS-MS users. One focus group was held for HUD employees and one for non-HUD housing analysts in the Washington, DC area. The discussion guide, however, was the same for each group. As a result, we were able to compare

opinions between the two groups. The guide consisted of open-ended discussion questions and polls. A summary of the focus group discussion is presented in Appendix A.

1.3.3 In-Depth Telephone Conversations

An expert in the AHS-MS held structured telephone conversations with 21 AHS-MS users. As with most telephone discussion guides, the questions were designed to encourage in-depth answers and to allow the interviewer and the participants considerable leeway to pursue topics they believe are most important to the issue. The conversations were conducted one-on-one with state and city planners, the faculty of university urban planning departments, consultants, employees of non-profit organizations, and other users and previous AHS-MS users. All participants worked in the metropolitan areas covered by the survey. While the topics of each conversation were similar, the participants were encouraged to discuss in detail areas where they believe the AHS-MS is strong and where it needs improvement. A summary of these conversations is presented in Appendix B.

1.3.4 Survey

The project team created and sent the survey by U.S. mail and e-mail. The survey questions covered the following topics:

- Reasons for using/not using the AHS-MS.
- Types of studies performed with the AHS-MS.
- Frequency of use of the AHS-MS.
- Changes to increase use of the AHS-MS.
- Number and type of projects which use(d) AHS-MS data.
- Use of longitudinal data analysis with AHS-MS.
- Rating of other strengths and weaknesses of the AHS-MS.
- Source of AHS-MS data.
- Type of organization where AHS-MS users work.

A non-random sample of 205 people were asked to participate. These potential *survey respondents* were chosen from the following five sources:

- Census Bureau list of purchasers.
- HUD USER list of purchasers.[1]
- Housing Statistics Users Group (HSUG) members.
- Authors from the literature search.
- HUD Doctoral Dissertation Research Grant (DDRG) grantees.

[1] In 1978 PD&R established HUD USER, an information source for housing and community development researchers and policymakers. HUD USER is the primary source for Federal Government reports and information on housing policy and programs, building technology, economic development, urban planning, and other housing-related topics. HUD USER also creates and distributes a wide variety of useful information products and services.

Exhibit 2 shows the broad-based representation of various types of individuals included in the survey selection process.

EXHIBIT 2. GROUP AND SELECTION SIZE FOR THE SURVEY

Group	Number
Universities	26
Local Governments	40
HUD USER list of purchasers	40
Census Bureau Purchasers	44
HSUG Members	20
Authors from the Bibliography	29
HUD DDRG Grantees	6
TOTAL	**205**

The method included choosing at least five unique individuals from each source (meaning that the individual does not appear on other source lists), carefully cross referencing source lists, eliminating all duplicates, and ensuring that several individuals from each locality contained in the metropolitan area sample were selected for contact. Additionally, all authors from the bibliography were included in the selection, as these individuals likely have in-depth knowledge of data contained in the AHS-MS and therefore were likely to provide detailed answers to questions regarding usefulness of the AHS-MS.

Only 25% of these did complete the survey, however. This response rate is typical of mail and Internet surveys. The implications for the validity of the data findings are unclear. As this was not a statistically selected survey sample, it is not possible to calculate the mathematical calculation of the impacts of this response rate. Detailed findings from the survey are presented in Appendix C.

2.0 FINDINGS AND CONCLUSIONS

This section provides general statements and analysis of information. For details, see Appendices A (Focus Groups), B (Telephone Conversations), and C (Survey).

2.1 USERS OF THE AHS-MS

While this study did not attempt to measure total number of actual users, we obtained a general idea of the numbers of likely current users from readily available data sources. The two largest sources, the Census Bureau purchase list and the HUD USER list, contained likely users from each major type of user organization (academic/educational, federal government, state/local government, public interest/non-profit organization, and private).

Lists of purchasers of AHS-MS data, authors of published data citing AHS-MS, and individuals in organizations known to have used AHS-MS data were termed "likely users." From this group, both users and non-users were identified when the individuals were contacted for a focus group or conversation, or responded to the survey. Exhibit 3 shows the data sources and the numbers of likely users we identified from each data source.

EXHIBIT 3. NUMBERS OF LIKELY AHS-MS USERS FROM EACH DATA SOURCE

Data Source	Numbers from Each Data Source*
HUD USER list	800
Census Bureau list of purchasers	400
Authors from literature search	43
HSUG membership list	44
HUD DDRG (dissertation) grantees	10
TOTAL	**1,297**

** The project did not eliminate the duplication occurring among user groups.*

The individuals we contacted who use the AHS-MS data represent many different organizations nationwide, providing a glimpse of the AHS-MS's usefulness and likely targets for expanding the use of the AHS-MS. The individuals we spoke with and received survey responses from represent academic, government, business, and a variety of non-profit organizations. Representative organizations include the Fannie Mae Foundation, New York City, Cleveland State University, and Shelter Partnership (a Los Angeles-based non-profit organization).

The contact with these individuals demonstrates that knowledge concerning, and use of, the AHS-MS occurs in a wide variety of organizational settings. Actual number of respondents by organization type is shown in Exhibit 4.

EXHIBIT 4. NUMBER OF CONTACTS FROM EACH ORGANIZATION TYPE

Organization Type	Number of Contacts, by Data Source			
	Survey	Conversations	Focus Groups	Total
Academic/Educational	9	7	2	**18**
Federal Government	1	0	6	**7**
State/Local	5	7	0	**12**
Public Interest/Non-Profit Organization	1	3	2	**6**
Private	7	4	2	**13**
Trade Association/Industry Group	1	0	3	**4**
Other	2	0	0	**2**
Not Reported	8	0	0	**8**

2.1.1 Conclusions Regarding Users of the AHS-MS

Conclusion: Users of the AHS-MS work for many different types of organizations, including those with different, and sometimes opposing interests. This indicates the AHS-MS is an important element in the national data set of housing data. For example, both trade associations and non-profit organizations use AHS-MS data.

2.2 USES OF THE AHS-MS

In this section, we discuss how the AHS-MS is used. Specifically we address types of uses, AHS-MS survey topics, single versus multiple area analysis, longitudinal studies, and multiple data source use. The final subsection presents conclusions about the uses of the AHS-MS.

2.2.1 Types of Uses

The AHS-MS is used for a wide variety of purposes, ranging from housing policy research to local business planning. *Focus group* members, those participating in *telephone conversations*, *survey respondents*, and publications provided numerous examples showing the utility of the AHS-MS. When a use was identified from a publication in our literature search, the reference is cited as a footnote.

Respondents to the *survey* indicated policy analysis and academic research were the two most frequent primary uses. Policy analysis and community planning were the two must frequently

cited secondary examples. Response results and an example from each type of use are provided in Exhibit 5. For a complete list of uses, see Appendix C.

EXHIBIT 5. PRIMARY AND SECONDARY USES OF AHS-MS, SURVEY RESPONDENTS

Type of Use	No. of Respondents		Example
	Primary	Secondary	
Policy Analysis	8	11	Energy efficiency research
Academic Research	9	4	Three interrelated studies using the data: Female headed household study, racial succession, and residential mobility using Dallas-Ft Worth, San Antonio, and Houston metro area data
Community Planning	4	5	Published profiles of MSA communities that highlight investment needs and opportunities, including housing market data (generally) and affordable housing market data (specifically)
Industry Analysis	5	2	Detroit Housing Market Analysis
Business Planning	0	2	Industrial development project in San Bernardino County, California
Some Other Use	1	1	No example provided by survey respondents

In the publications found in the *literature search*, policy analysis and academic research were the most common uses. For example, several policy and research studies analyzed race against other housing and neighborhood factors.[2] *Focus group participants* frequently used the AHS-MS for policy analysis and industry analysis, with academic research also represented. For example, uses of the AHS-MS by HUD *focus group participants* included the following:

- Developing research questions related to public housing (policy analysis)
- Examination of multifamily underwriting and trend analysis (policy analysis)
- Looking at characteristics of first time homebuyers (policy analysis).

Non-HUD *focus group participants* provided examples of industry analysis, policy analysis, and academic research, which included the following:

- House price analysis (academic study)
- Tax reform effects (policy analysis)
- House price analysis and other home-building related studies (industry analysis).

Conversation participants also use AHS-MS data for several purposes, with academic, policy, and planning the most common uses. One participant used the data for academic research on informal housing in the San Francisco Bay area, while a local government employee used the data to develop policies to increase low-moderate income housing unit ownership. In the

[2] Cook, Christine C., Bruin, Marilyn J. 1993. Housing and neighborhood assessment criteria among black urban households. *Urban Affairs Quarterly*. 29(2), December, p. 328-339, and Habis, Issam M. 1996. "Estimating the willingness to pay for neighborhood racial composition: A bid rent approach." Ph.D. Dissertation, State University of New York at Binghamton. DAI, 57, no. 12A, (1996): 5232.

planning arena, a non-profit organization employee used AHS-MS data to support decision-making on rebuilding neighborhoods. This last example shows that AHS-MS has had a direct impact on decision-making which affects housing unit residents because rebuilding neighborhoods often involves improving individual housing units.

Within a particular type of use, many variations were evident. For example, several academicians from the pool of *telephone conversation participants* conduct their own small area surveys using AHS-MS questions as a basis; they then compare the results against those of AHS-MS. Another individual performing academic research uses AHS-MS results for studies of a local rental housing market.

2.2.2 AHS-MS Survey Topics Used for Analysis

The AHS-MS collects data on various household and housing unit characteristics. Major topics of data collection include physical condition of housing units, housing costs, the people in the housing unit (e.g., income, recent movers).

Data from all AHS-MS survey topics are used often in analyses as demonstrated by our four user information sources (literature search, focus groups, survey, and telephone conversations). All the major survey topics were cited more than once in each source. Specifically, as Exhibit 6 shows, *survey respondents* rated the AHS-MS highly as a source for data on most survey topics found in the AHS-MS, indicating that these respondents both examined and found the data useful.

EXHIBIT 6. LEVEL OF AGREEMENT WITH STATEMENTS ABOUT AHS-MS AS A DATA SOURCE, SURVEY RESPONDENTS

Statement	Strongly Agree ↔ Strongly Disagree					Not Reported
	1	2	3	4	5	
AHS-MS data are a good source of information on the physical condition of the housing stock	8	11	2	2	1	10
AHS-MS data provide enough information on household composition	7	5	2	2	0	8
AHS-MS data provide useful information on housing costs	8	8	6	3	0	9
AHS-MS data on household equipment (plumbing, appliances, etc.) are useful	6	7	9	2	0	10
AHS/MS data are a good source of current demographic data	1	14	8	2	1	8

2.2.3 Single Versus Multiple Metropolitan Area Analysis

Most uses of the AHS-MS involve analysis of data for more than one metropolitan area. The *literature search* revealed that about two-thirds of the publications used data from more than one metropolitan area. Many of these studies used data for all metropolitan areas; others used data from more than two but not all the areas. For example, a 1992 study evaluated residential succession patterns for various racial and ethnic groups in Dallas-Fort Worth and San Antonio.[3] A 1996 paper used AHS-MS data to assess housing quality in Atlanta, Baltimore, New York, St. Louis, San Diego, Seattle, and Washington, DC.[4]

Members of both *focus group*s represented national organizations, which usually used data from more than one metropolitan area. For example, one of the non-HUD participants matches households by income and affordable housing stock to provide multiple local groups with information for their advocacy efforts. Of the seven participants using data for multiple areas, one used all metropolitan areas, one used 25 areas, three used about 10 areas, and one used two or three areas (one respondent did not specify the number of multiple areas). Over one-half of the *survey respondents* (15 of 25) reported using data from more than one metropolitan area, but only 3 of 25 respondents reported using data from all metropolitan areas.

Many studies also involved use of data from a single metropolitan area. The studies covered virtually all metropolitan areas in the AHS-MS, including larger areas (such as New York) and smaller areas (such as Baton Rouge). For example, several studies assessed access to affordable housing for low-income residents in a particular city (e.g., San Antonio, Milwaukee).[5] Over one-half of the participants in the *telephone conversations* generally used a single metropolitan area in a given study (11 out of 18 participants to whom the question is applicable). See Appendices B and C for additional examples of studies using data from a single metropolitan area.

The large number of studies using data from a single metropolitan area indicates that the greater the number of metropolitan areas covered by the AHS-MS, the more valuable it is. Many users clearly have a specific city of interest. This may be particularly true for state and local policy planners, and regional/local business interests. For example, a planner in Baton Rogue (a former AHS-MS site) would not find data from other cities particularly useful when attempting to assess the condition of local housing stock.

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3 Anjomani, Ardeshire, Erickson, Jon, and Malone, Walter. 1992. Racial succession and residential mobility in Dallas-Fort Worth and San Antonio. *Journal of Urban Affairs.* 14(1), p. 43-60.

4 Kutty, Nandinee K. 1996. "Housing quality across seven U.S. metropolitan areas." Prepared for the 43rd North American Meetings of the Regional Science Association International, Washington, D.C., November 1996.

5 Chambers, Daniel N. 1992. The racial housing price differential and racially transitional neighborhoods. *Journal of Urban Economics.* 32, September, p. 214-232, and Hou, John, Lazere, Edward B. 1991. *Place to call home: The crisis in housing for the poor, San Antonio, Texas.* Washington, D.C.: Center on Budget and Policy Priorities.

2.2.4 Longitudinal Studies

Longitudinality shows the flow, over time, of households through a specific housing unit. It records the changing characteristics and income of the households inhabiting the unit, and the changing characteristics and costs of the housing unit.

AHS-MS data is used in many longitudinal studies, although these studies are less than one-half of all AHS-MS studies identified by the respondents. Fifteen of the 27 respondents to the survey question indicated they do not conduct longitudinal studies with AHS-MS data.

Most *publications* we examined did not use longitudinal data, but several studies used data over several years, rather than a single point in time. For example, one study examined whether "welfare filtering" took place in any of seven metropolitan areas.[6] Welfare filtering involves measuring the price for housing units *over time*, thereby requiring longitudinal data.

2.2.5 Multiple Data Source Use

Many researchers use AHS-MS data in combination with data from other sources. Several of the formal papers and studies and many of the other uses of the AHS-MS, combine AHS-MS data with other data to meet a particular need. Several of the 31 published articles and studies in the *literature search* used multiple data sets. For example, one study used 1980 and 1990 U.S. Census data along with AHS-MS data from Chicago, Denver, and Philadelphia to examine evidence of housing market discrimination and prejudice.

Several *focus group participants* have used AHS-MS data with other data sets. For example, one HUD employee used AHS-MS data with local and consumer price index information. Results from the *survey* show that several respondents used other data sets. For example, one respondent used AHS-MS data with several other data sets (respondent did not specify) for input into the Hennepin County/Minneapolis Indicators of Community Stability Annual Report.

Telephone conversations with AHS-MS users showed that several of them also use more than one data set in a study. For example, one local government official combined the use of the AHS-MS data and decennial census data as a general tool to find missing populations and for assistance in producing the HUD-required Consolidated Plan for the community.

2.2.6 Conclusions Regarding Uses of the AHS-MS

Conclusion: The AHS-MS is used for widely varying purposes, indicating that the AHS-MS is a highly flexible data source.

Conclusion: Uses of the AHS-MS indicate data from each major topic area of the survey are frequently used in analysis. Further study would be helpful in determining the relative amount of research using each category of questions.

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6 Smith-Heimer, Michael A. 1992. "Price changes in metropolitan rental submarkets, 1974-1985." Ph.D. Dissertation, University of California, Berkeley. DAI, 53, no. 10A, (1992): 3696.

Conclusion: Detailed housing data on specific metropolitan areas is clearly a strength of the AHS-MS. The opinions of many individuals contacted during the study, as well as our own analysis, show that the AHS-MS data is used for studies requiring detailed housing characteristics of particular metropolitan areas.

Conclusion: Longitudinal studies represent a significant minority of AHS-MS publications and research efforts.

Conclusion: One way of assessing the breadth of the AHS-MS uses is to examine how it is used alone and with other information. The AHS-MS is quite often used in conjunction with other data sets and also is used as the sole data set in significant numbers of research efforts. This demonstrates that the AHS-MS data is powerful enough to be the basis for "solo" uses, and is versatile because it is often used in conjunction with other data sources.

Conclusion: The wide variety of uses of the AHS-MS data indicates that if awareness were greater, overall use might also increase. Publicizing examples of AHS-MS use is one way to increase awareness. Presentations by HUD staff are another method of increasing awareness and use.

Conclusion: A decrease in the number of areas surveyed would almost certainly result in decreased use of the AHS-MS. An increase in areas would result in increased use. Many users of AHS-MS are interested in just one or two metropolitan areas. If any metropolitan areas were dropped, the use of the AHS-MS would drop correspondingly with those users. For example, local non-profit organizations/planners would certainly cease using data, should the metropolitan area in which they reside be dropped from the survey. Similarly, additional local non-profit organizations and planners would use the AHS-MS, should their metropolitan areas be added.

2.3 INFLUENCE OF THE AHS-MS

Data from the AHS-MS are used to influence policy decisions, housing research designs, and how people think about housing quality and affordability. The literature review and comments from AHS-MS users show this influence is felt at the local, state, and national levels. It is clear that in many individual cases discussed during this study, the AHS-MS's influence is significant. However, the *total amount* of influence the AHS-MS exerts could not be extrapolated from the sources included in this study.

Local policy and planning is clearly influenced by data the AHS-MS produces. For example, direct influence at the local level occurred when:

- Community developers and groups used the AHS-MS to determine fair rents (according to two *telephone conversation participants*).
- A consulting firm concluded that rent control repeal in Washington, D.C. would have little effect on the majority of renters (a conversation participant).

- AHS-MS was used in budget decisions for a city agency (*a conversation participant*).
- AHS-MS data, as well as other sources of data, were used in developing consolidated plans for particular localities (*two conversation participants*).
- City of Chicago Departments of Housing and Planning used analysis from AHS-MS data to make decisions on single room occupancy housing (*a conversation participant*).

AHS-MS data are also used to influence state legislators on housing issues, according to one *telephone conversation participant* employed by a local government. Data cited by this participant included the number of households with excess housing cost burden and neighborhood conditions. This participant also noted that while AHS-MS data are used in conjunction with the Decennial Census and other data sources, the AHS-MS provided data not otherwise available but necessary to make the case. A survey participant noted that AHS-MS data was used to present analysis to the Michigan Affordable Housing Coalition, a statewide advocacy group that lobbies the state legislature and the governor.

Respondents indicated AHS-MS data are used in developing profiles of communities and those who live within them, as a resource for others to use for decision making. For example:

- AHS-MS data was important in developing published profiles of MSA communities that highlight investment needs and opportunities, including housing market data (generally) and affordable housing market data (specifically). These published profiles are available for both government agencies and private investors to use (according to a survey respondent).
- Two studies of the Hennepin County/Minneapolis area using AHS-MS data in order to provide indicators of community stability and key drivers of community change (a survey respondent).
- Program analysts in the New York City Housing Authority, the Seattle City Council, the Minneapolis-Saint Paul Metropolitan Council of Governments, and others, compare AHS-MS data for their area with AHS-MS data for other, comparable areas in the nation to assess their comparative progress in addressing issues of housing quality, availability, and affordability (*conversation participants*).
- The AHS-MS instrument also has an influence on the design of housing data collection efforts at the local level. Two *conversation participants* conduct their own small area surveys using AHS-MS questions. These uses, illustrated below, indicate that the AHS-MS is used as a standard for research design on housing topics:
- The results of surveys in Los Angeles are used by a homeless advocacy group to make conclusions about the quality of housing for people in danger of homelessness, and about the suitability of housing for people moving out of homelessness and back into the housed population.

- Academic researchers at the University of Illinois at Chicago use AHS-MS questions to gather small area data and then compare their results against AHS-MS data for the larger region to assess the goodness of their results in measuring housing quality and other housing indicators.

National policy debates and decision making at the federal level are also influenced by AHS-MS data. Three members of the *focus groups* (all HUD employees) stated that they actively use AHS-MS data in making programmatic decisions. Specifically:

- AHS-MS data are used in establishing Fair Market Rents. Fair Market Rents form the basis of many HUD programmatic decisions, such as Section 8 payments, and thus have a direct influence on the budget for the program.

- AHS-MS data assist HUD in underwriting the insurance for multifamily housing projects, thereby saving taxpayers money because HUD financial outlays may increase if it's insurance underwriting are not based on reliable information about the particular metropolitan area's housing environment. The AHS-MS provides some of the information required for HUD to decide whether or not to underwrite insurance for a particular multifamily project.

- AHS-MS data are used in setting the home-ownership goals for the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) by providing detailed home ownership data by metropolitan area, allowing these two organizations to properly plan and focus their efforts.

- A participant in the non-HUD *focus group* indicated that the National Low Income Housing Coalition uses AHS-MS data for advocacy [lobbying] at the national level and local level. Analysis is performed by matching detailed household demographics (such as income and race) with the detailed housing and housing cost variables available only in the AHS-MS. Metropolitan areas are then compared to one another to help determine relative needs.

The AHS-MS also has an indirect influence in informing the debate about housing. The fact that there are articles in well read journals (such as the *Journal of Housing Research, Journal of Urban Economics, Journal of Urban Affairs,* and the *American Real Estate and Urban Economics Association Journal*) that cite the AHS-MS, indicate that analyses of AHS-MS data are widely read in the housing community. What the readers of these journals do as a result of reading the articles has not been measured; however, the issues discussed are the subject of policy decisions, and the authors are informing and attempting to influence those decisions.

A final influence exerted by the AHS-MS is to increase the knowledge about the relationship between housing conditions and health issues. Our study found three such cases:

- AHS-MS data were used to research the effects of inadequate housing on child health, according to a *conversation participant* from an academic institution. This study compared AHS-MS data on housing quality for those with Section 8 vouchers to data from a separate survey of those about to enter the Section 8 program.

- A pediatrician at the Boston University School of Medicine used the AHS-MS data and conducted his own surveys of children and their families on waiting lists for housing vouchers to measure the health risks from living in poor quality housing (using such AHS-MS measures as presence of rats and peeling paint) versus their housing quality after receiving vouchers (*a conversation participant*).
- An article in a medical journal compared the housing and neighborhood conditions of persons with serious mental illness with those of the general population.[7]

2.3.1 Conclusions about the Influence of the AHS-MS

Conclusion: The AHS-MS influences a wide array of policy and planning decisions on the local and national levels. If the AHS-MS were not available, the decision-makers would need to obtain the data some other way. For example, Fair Market Rents are fundamental for some HUD programs.

Conclusion: Since the AHS-MS is the only source of certain housing data, if the AHS-MS were not available, decisions using that data would not be as well informed. For example, Fannie Mae and Freddie Mac could set home-ownership goals without AHS-MS data, but those goals might not be as realistic, which could lead to improperly assigned resources and other inefficiencies.

2.4 USEFULNESS OF THE AHS-MS

The usefulness of the AHS-MS depends on whether it captures useful data, presents that data in a user-friendly manner, and provides it when users need it. This study measured usefulness by asking respondents about overall usefulness and individual aspects of the AHS-MS which contribute to overall usefulness. The study also searched for published examples where the AHS-MS is commented on as a data source. Primary measures of usefulness for the AHS-MS include whether the content, numbers of metropolitan areas covered, longitudinality, frequency of surveys, and sample size meet user needs.

Other features affecting usefulness of the AHS-MS include timing and accessibility. The sooner data becomes available the more relevant it is to existing conditions, and therefore the more useful it can be. The AHS-MS is accessible through the Web, via E-mail list, on CD-ROM, in printed volumes and through the Census Bureau's FERRET (an Internet search system). User-friendly formatting of data (e.g., easy to comprehend tabulations and microdata) make it less time consuming for users to obtain the information they need. In addition, an accurate and up-to-date codebook is provided to help users properly analyze data.

7 Newman, S. J. 1994. *The Housing and neighborhood conditions of persons with severe mental illness.* Hospital and Community Psychiatry. 45(4), p. 338-343.

2.4.1 Overall Usefulness

Overall usefulness was a question directly asked of respondents in this study. Most individuals we contacted indicated that, overall, the AHS-MS is a valuable tool. In fact, two-thirds of *survey respondents* answering the question agreed that the AHS-MS is, overall, useful. Exhibit 7 shows the degree to which *survey respondents* thought that the AHS-MS is useful.

EXHIBIT 7. OVERALL USEFULNESS OF THE AHS-MS, SURVEY RESPONDENTS

Statement	Strongly Agree ↔ Strongly Disagree					Not Reported
	1	2	3	4	5	
Overall, for my needs, I find the AHS-MS to be useful	3	13	5	4	1	8

Most participants in the *telephone conversations* and the *focus groups* also rated the usefulness of the AHS-MS highly. Eleven of 15 *conversation participants* indicated the AHS-MS is highly useful when asked to state the value of the AHS-MS in the national data system. Comments on usefulness from *conversation* and *focus group participants* included:

- AHS-MS data is quite valuable, it is critical for homeownership and policy (according to *a telephone conversation participant*).
- Incredibly valuable information on housing units and those who dwell in them (*a telephone conversation participant*).
- AHS-MS data are invaluable and unique (a *telephone conversation participant*).
- We use the AHS-MS to provide an essential benchmark—it helps us to see if projections and estimates are on track (a HUD *focus group participant*).
- While it has some limitations, the AHS-MS is unique and provides useful data not available elsewhere (two HUD *focus group participants*).
- Highly useful and unique for most or all local housing information (four non-HUD HUD *focus group participants*).

Another measure of the usefulness of the AHS-MS is whether it is recommended as a research and/or analysis tool. The *literature search* showed that three published articles explicitly mention the usefulness of the AHS-MS. Two of these articles mentioned the AHS-MS in a positive manner, one in a neutral manner. Specifically, these articles described the AHS-MS as:

- Useful in "studies concerning urban housing patterns, real estate finance, appraisal, property management, and marketing."[8]

8 Nelson, Walt A. 1994. Demonstrating the Use of American Housing Survey data in cross-sectional studies. *Journal of Real Estate Literature*. 2(1), January, p. 69-77.

- Having the best and most detailed property characteristics available, and its uniformity facilitates comparisons among regions and metropolitan areas.[9]

- Featuring information regarding housing in the metropolitan Phoenix, AZ, area. These include areas such as Phoenix, Riverside-San Bernardino, Anaheim-Santa Ana, San Diego, Dallas, Forth Worth, Buffalo and Milwaukee. The survey included data on homeownership, mobile homes, and travel trailers. [10]

Comments from non-users regarding why they do not use the AHS-MS can be helpful in assessing usefulness. Five of the non-users who responded to the survey were unaware of the AHS-MS and its data, and therefore usefulness was not an area where they could comment. However, the other reasons for non-use can provide some insights on whether the AHS-MS could expand its customer bases. Exhibit 8 shows the reasons non-user *survey respondents* gave for not using the AHS-MS.

EXHIBIT 8. REASONS FOR NON-USE OF THE AHS-MS DATA, SURVEY RESPONDENTS

Statement	Number of Responses
No opportunity to use it	2
Only need data at the national or regional level	2
Not interested in housing or neighborhood data	1
The four to six year gap in the data collection for an individual metro area is too long	1
Need data at the county and municipal level	1
Don't know how to access	1
Limited central city data	1
Geography is too large	1

Most of these reasons indicate that the *survey respondents* who are non-users are seeking information on housing that has a different geographic focus than the AHS-MS.

2.4.2 Usefulness of AHS-MS Content

Most respondents rated content highly. *Survey respondents* indicated that the AHS-MS has useful content, with the physical condition of housing stock and household composition gaining the strongest endorsement. Exhibit 9 shows that respondents generally agreed that the AHS-MS provides useful content.

9 Pollakowski, Henry O. 1995. Data sources for measuring housing price changes. *Journal of Housing Research*. 6(3), p. 377-387.

10 Rex, Tom R. 1997. AHS provides housing data for Metro Phoenix. *Arizona Business*. 44(8), August, p.9 (1).

EXHIBIT 9. LEVEL OF AGREEMENT WITH STATEMENTS ABOUT THE AHS-MS DATA CONTENT, SURVEY RESPONDENTS

Statement	Strongly Agree ↔ Strongly Disagree					Not Reported
	1	2	3	4	5	
AHS-MS data are a good source of information on the physical condition of the housing stock	8	11	2	2	1	10
AHS-MS data provide enough information on household composition	7	5	2	2	0	8
AHS-MS data provide useful information on housing costs	8	8	6	3	0	9
AHS-MS data on household equipment (plumbing, appliances, etc.) are useful	6	7	9	2	0	10
AHS/MS data are a good source of current demographic data	1	14	8	2	1	8
AHS-MS data provide enough information on recent movers	3	6	8	7	0	10
AHS-MS data provide enough information on neighborhood characteristics	1	10	5	7	3	8

However, while few *survey respondents* (one) and *conversation participants* (zero) indicated that adding questions about current topics is a major concern, several *focus group participants* indicated keeping the AHS-MS flexible enough to capture data on new trends and topics of interest would be helpful. Specifically:

- Ask questions concerning crime which are modified to take advantage of trends
- Target questions concerning the elderly and their housing conditions because the elderly are becoming a greater percentage of our population and a major focus of public policy debates
- Add information on where people lived before their current housing unit
- Ask more questions about transportation because commuting and other transportation issues are of vital importance and are being studied with increasing frequency

2.4.3 Usefulness of Metropolitan Areas Covered

Generally, respondents from our study view the number of metropolitan areas covered as adequate. However, several respondents from each group indicated that research could be improved with the addition of more metropolitan areas. Exhibit 10 shows *survey respondents* are satisfied with the current variety of metropolitan areas surveyed by the AHS-MS.

EXHIBIT 10. LEVEL OF AGREEMENT WITH STATEMENT ABOUT THE VARIETY OF METROPOLITAN AREAS COVERED, SURVEY RESPONDENTS

Statement	Strongly Agree ↔ Strongly Disagree 1	2	3	4	5	Not Reported
AHS-MS provides good coverage of a variety of metropolitan areas	1	13	8	3	0	9

Several *focus group participants* and *conversation participants* also noted general satisfaction with the number of metropolitan areas. In fact, two *conversation participants* stated they preferred greater frequency at the expense of number of areas surveyed. However, at least 12 AHS-MS users expressed the desire for the AHS-MS to survey more metropolitan areas (mostly in the two *focus groups*). Representative comments included:

- In a sense each city is a data point [indicating more cities would provide more useful data] (a non-HUD *focus group participant*).
- [The participant] would like to see a greater number of cities surveyed, even at the expense of frequency (a HUD *focus group participant*).
- More cities would mean the ability to test more hypotheses [due to different phenomena and policies in each metropolitan area].

Several *conversation participants*, while not directly endorsing a greater number of metropolitan areas, made statements showing the usefulness of surveying more metropolitan areas. For example, two participants indicated that because housing markets are local, local data (not national data) are needed to properly address local issues. Applying this logic, the larger the number of metropolitan areas surveyed, the larger the number of metropolitan areas that will have AHS-MS data to assess their housing issues.

2.4.4 Usefulness of Longitudinal Information

Respondents generally indicated that the AHS-MS provides good longitudinal housing data. A longitudinal study is one that uses the same units (humans, buildings, and businesses) across time. The AHS-MS uses the same housing units over time. Exhibit 11 shows that most *survey respondents* believe the AHS-MS is a good source of longitudinal data.

EXHIBIT 11. LEVEL OF AGREEMENT WITH STATEMENT ABOUT THE AHS-MS LONGITUDINAL DATA, SURVEY RESPONDENTS

Statement	Strongly Agree ↔ Strongly Disagree 1	2	3	4	5	Not Reported
The AHS-MS is a good source of longitudinal housing data for my metropolitan area	3	11	10	1	1	8

Participants from *focus groups* and *conversations* endorsed the concept that longitudinality is important for the AHS-MS to maintain. In addition, over one-half (14 of 21) of the *conversation participants* stated that longitudinality is important to them. Specific examples of those opinions included:

- Data are more reliable if the same samples are maintained over time (*a conversation participant*).
- Longitudinality is very important; AHS has better housing cost and financial data than competing data sources (*a conversation participant*).
- Need to know trends in housing stock (*a conversation participant*).

Comments from several *survey respondents* and *conversation participants* also indicated that greater frequency of surveys would greatly improve the usefulness of the data for longitudinal studies:

- Need to shorten the period between surveys to get a more complete longitudinal picture.
- Need to shorten the time between surveys in order to accurately track maintenance costs, which add to the burden of homeowners.

However, *focus groups participants* generally did not view longitudinality as a strong attribute of the AHS-MS. Specifically:

- The same questions administered year after year to residents of the same dwelling give the survey inertia (a HUD *focus group participant*).
- New or revised questions would allow capture of new trends or interests (a non-HUD *focus group participant*).

2.4.5 Effect of Survey Frequency on Usefulness

Frequency of surveys is a concern for users of the AHS-MS. Many users mentioned that the recent lengthening of time between surveys of a given metropolitan area makes studying a given area more difficult. Only eight of 26 *survey respondents* agreed the interval between surveys is acceptable. Exhibit 12 shows the strong concern about frequency.

EXHIBIT 12. LEVEL OF AGREEMENT WITH STATEMENT ABOUT INTERVAL BETWEEN AHS-MS SURVEYS, SURVEY RESPONDENTS

Statement	Strongly Agree ↔ Strongly Disagree					Not Reported
	1	2	3	4	5	
The four to six year interval between surveys of metropolitan areas is acceptable	1	7	4	7	7	8

In addition, more frequent data collection cycles was the most common survey response, cited by 18 respondents, to the question "What improvements could be made to the AHS-MS to better suit your needs?"

- Several *focus group* and *conversation participants* also indicated that more frequent collection would benefit their research. Two *conversation participants* from the West Coast noted that housing markets in their areas are quite dynamic. They recommended more frequent surveys in such dynamic markets. Representative comments from *conversation* and *focus group participants* included:

- The time gap between surveys is a problem. Two years is an eternity in market analysis. If some of the basic counts were available every 12 months, it would greatly improve the usefulness of the AHS-MS (according to a HUD *focus group participant*).

- The present length of time between surveys is a problem because few, if any, data remain constant [When trying to narrow down cause and effect for observed phenomena, it is simpler and more certain to describe changes if some data remain constant, allowing concentration on the variable(s) which change(s)] (a Non-HUD *focus group participant*).

- A significant negative *about* the AHS-MS is the decreased frequency of surveys (a non-HUD *focus group participant*).

- Need to shorten time *between* surveys to get a more complete longitudinal picture (*a conversation participant*).

- More frequent data *collection* (year by year) needed (*a conversation participant*).

2.4.6 Effect of Sample Sizes on Usefulness

Respondents from all groups are generally satisfied with the sample sizes used in the AHS-MS. The current sample sizes (i.e., at least 4,800 respondents per metropolitan area), allow for metropolitan area analysis and allow limited analysis for smaller areas.

Only four of 26 *survey respondents* disagreed that the sample sizes are acceptable. In addition, only one survey respondent suggested larger sample sizes in response to the question "What improvements could be made to the AHS-MS?" Exhibit 13 shows the general satisfaction with the sample sizes among *survey respondents*.

EXHIBIT 13. LEVEL OF AGREEMENT WITH STATEMENT ABOUT THE AHS-MS SAMPLE SIZE, SURVEY RESPONDENTS

Statement	Strongly Agree ↔ Strongly Disagree					Not Reported
	1	2	3	4	5	
The sample sizes used in the AHS-MS are acceptable	1	13	8	2	2	8

Despite the general satisfaction level, several participants in the *focus groups* and the *conversations* cited the relative difficulty of using the data for valid small area estimates as a disadvantage of the AHS-MS. They indicated they would conduct additional studies or conduct more effective studies if the AHS-MS used larger sample sizes. Representative comments from those who cited benefits to increased sample sizes included:

- For recent movers, the sample size gets to be quite small and unstable (according to a HUD *focus group participant*).
- To get to neighborhood level data, the sample size gets to be very small (a HUD *focus group participant*).
- The small sample sizes with the AHS-MS may cause a problem when looking at data in a longitudinal manner due to attrition from the sample (a non-HUD *focus group participant*).
- Public housing is only 1% of the housing stock. I don't think that you can get meaningful data due to the sample sizes being so small at the metropolitan level (a non-HUD *focus group participant*).

2.4.7 Effect of Lag Time Between Data Collection and Publication of Survey Results on Usefulness

AHS-MS users would like faster release of data. *Survey respondents*, *conversation participants*, and *focus groups participants* indicated discontent with how quickly the data is released. The delay between collection of the survey data and publishing of the survey results diminished the usefulness of the AHS-MS, according to many AHS-MS users. The time lag for previous surveys was about 18 months, but for the most recent survey was seven months. Plans for the 2002 include further reduction in lag time.

Exhibit 14 shows that over one-half of the *survey respondents* find the delay in release of data unacceptable.

EXHIBIT 14. LEVEL OF AGREEMENT WITH STATEMENT ABOUT THE RELEASE OF AHS-MS DATA, SURVEY RESPONDENTS

Statement	Strongly Agree ↔ Strongly Disagree					Not Reported
	1	2	3	4	5	
The delay between collection and release of the data is acceptable	0	7	8	8	3	8

Several individuals (from the HUD *focus group* and the *conversations*), noted that the time lag reduces opportunities for productive research. Comments included the following:

- While the information is "fresh," I use AHS-MS data frequently, but when the data are no longer recent, I use it rarely, if at all (according to a participant from the HUD *focus group*).

- The time between data collection and release of data is a strong dislike (*a conversation participant*).
- Data release needs to be quicker (*a conversation participant*).
- Faster release of data is needed (*a conversation participant*).

2.4.8 Usefulness of Methods of Survey Data Distribution and Success in Accessing Data

Overall, individuals we contacted used a variety of methods to obtain AHS-MS data and found the various AHS-MS data sources to be reasonably easy to access, well organized, and the data in usable formats.

HUD USER is the most common way for *survey respondents* to obtain data, as Exhibit 15 shows.

EXHIBIT 15. WAYS OF OBTAINING AHS-MS DATA, SURVEY RESPONDENTS

Question	HUD User	Census Bureau	University Library	Other Sources	Don't Know	Not Reported
Where did you obtain AHS-MS data?	13	7	3	2	1	8

The 19 *conversation participants* reported five methods of accessing the data, and generally reported success in using these methods, as Exhibit 16 demonstrates.

EXHIBIT 16. WAYS OF OBTAINING AHS-MS DATA, TELEPHONE CONVERSATION PARTICIPANTS

Methods and success in accessing data	TOPIC				
	Web	E-mail list	CD-ROM	Printed volumes	Census FERRET
No. Respondents	**9**	**2**	**5**	**17**	**5**
Comments	three reports of problems (amount of data freezes/ crashes computer)	no problems reported (one response indicated e-mail geared for intensive data users)	one "not user-friendly" report	most reported ease of use, two indicated information is hard to find	four reporting various difficulties.

2.4.9 Usefulness of Data File Format and Data Type

Data file format is the layout of the AHS-MS data files; users must understand the data file format in order to efficiently conduct analysis of the data. Overall, respondents were satisfied with the data format of the AHS-MS, but some indicated an improvement was needed.

Specifically, ten *survey respondents* indicated that HUD should provide data in a more commonly used format.

The AHS-MS offers two data types: tabulations and microdata. The data used most frequently is the published reports (tabulations), though microdata also is frequently used. Twenty-one *survey respondents* reported using published reports and 17 indicated microdata use. *Conversation participants* used both heavily, as Exhibit 17 shows, with almost 90 percent using published reports and almost one-half using microdata.

EXHIBIT 17. DATA TYPES USED, SURVEY RESPONDENTS AND CONVERSATION PARTICIPANTS

Survey Question: What AHS-MS format(s) have you obtained and/or used?	Yes	No	Don't Know	Not Reported
Published Reports	21	1	2	22
Microdata	17	6	1	10
Conversation Topic Question: Which AHS-MS data do you use?	**Yes**	**No**	**Don't Know**	**Not Reported**
Published Reports	18	1	0	1
Microdata	9	11	0	0

Focus group participants frequently used both types of data, with the published reports receiving slightly higher use. *Focus group participants* who used the microdata often stated that it is the only source for the information they need. One *conversation participant* indicated the record length and layout did not match.

2.4.10 Usefulness of Codebook

Several *focus group* (4) and *conversation* (2) *participants* indicated the codebook could be improved. None of the *survey respondents* mentioned the codebook. Specific comments on the codebook included:

- The codebook is inadequate when the survey method changes (a non-HUD *focus group participant*).
- The codebook is impossible; there is no logic in the codebook (a non-HUD *focus group participant*).
- Have had trouble understanding the codebook (a HUD *focus group participant*).
- The codebook is frustrating, it is difficult to find anything and very hard to use to figure out how to use the data (a HUD *focus group participant*).
- Appendix of codebook is not clear (a HUD *focus group participant*).

2.4.11 Conclusions About Usefulness

Conclusion: The AHS-MS is, overall, considered to be a useful tool by its users. Much of the data in the AHS-MS is unique, making considerable portions of the data, rather than just a few questions, of great value to users in their research and policy making.

Conclusion: While users of the AHS-MS regard it as useful, they also regard it as a product with several drawbacks affecting its usefulness. Most notably, users see the interval between surveys as a significant drawback to tracking trends and keeping abreast of current conditions. AHS-MS users cited frequency as the cause of being unable to conduct many types of useful analysis, such as timely identification of changes in dynamic housing markets.

Conclusion: HUD's practice of providing multiple ways to obtain data (e.g., CD-ROM, printed results, Web Site) is effective. AHS-MS users employ each method successfully. By providing multiple methods, HUD is making the AHS-MS attractive to first time users.

Conclusion: Significant customer desire (ten *survey respondents*) to obtain data in a more commonly used file format indicates HUD could improve AHS-MS usefulness by determining preferred format(s) and providing those format(s).

Conclusion: Upgrading the AHS-MS codebook would make the survey more useful to existing users and could encourage additional use through enhanced user-friendliness. The "accessories" of survey data are critical for proper and increased use. The codebook is particularly important for a survey that emphasizes longitudinality, as the AHS-MS does, because users must take into account changes in answer coding between surveys to conduct accurate analyses.

2.5 THE AHS-MS AND THE AMERICAN COMMUNITY SURVEY

The American Community Survey (ACS), a proposed monthly survey to be conducted by the Census Bureau, has been identified as a possible competitor for the AHS-MS. The ACS would replace the long form of the decennial census. It would go to 250,000 households a month, and begin providing annual reports in 2004. The Census Bureau hopes to implement the survey nationwide in 2003. The ACS is a general survey which gathers some information on the same topics as the AHS-MS.

A comparison of the two survey instruments shows that the AHS-MS provides much greater detail than the proposed ACS on most housing related issues. The relatively large sample for a metropolitan area that the AHS-MS uses makes it possible, under certain circumstances, to analyze quite small areas. The ACS has this capability as well—by combining multiple monthly surveys.

Most importantly, the AHS-MS provides more detail in most areas and covers several areas not addressed by the proposed ACS. Areas addressed by the AHS-MS and not by the ACS include:

- Detailed mortgage information

- Characteristics of previous housing for recent movers
- Neighborhood characteristics
- Household utilities.

Exhibit 18 provides more detail on the differences in the area of household utilities.

EXHIBIT 18. EXAMPLES OF ACS AND AHS-MS DATA RELATING TO TYPE AND RELIABILITY OF UTILITIES

AHS-MS Housing Related Information	ACS Housing Related Information
Type of Utilities	**Type of Utilities**
Type of heating fuel	Type of heating fuel ("used most")
Central heating (Y/N)	Central heating (Y/N)
Type of other heating fuel	Water and public sewer service (Y/N)
Type of cooking fuel	Complete kitchen facilities (Y/N)
Type of water heating fuel	
Central AC (Y/N)	Central AC (Y/N)
Number of AC room units	
Type of central AC fuel	
Type of other central air fuel	
Type of clothes dryer fuel	
Type of sewage system (public vs. septic tank/cesspool)	
Complete plumbing facilities (Y/N)	Complete plumbing facilities (Y/N)
Plumbing facilities lacking	
Source & safety of drinking water	
	Telephone (Y/N)
Reliability of Utilities (yearly)	**Reliability of Utilities**
Number of water supply stoppages	
Number of flush toilet breakdowns	
Number of sewage disposal breakdowns	
Number of number of heating problems	
Number of electric fuses and circuit breakers problems	
Cost of Utilities (monthly)	**Cost of Utilities** (monthly unless noted)
Electricity	Electricity
Piped gas	Gas
Bottled gas	
Fuel oil	Fuel oil, kerosene, coal, etc. (yearly)
Water	Water & sewer (yearly)
Trash	
Other fuel	

Several studies in the literature search used the detailed data from the AHS-MS for the topics covered in Exhibit 18. Two examples were: a study about the poor in San Antonio and another on the effects of energy efficiency on home prices.[11] Both of these studies used data on the cost of utilities.

11 Hou, John, Lazere, Edward B. 1991. *Place to call home: The crisis in housing for the poor, San Antonio, Texas.* Washington, D.C.: Center on Budget and Policy Priorities, and Nevin, Rick, Watson, Gregory. 1998. Evidence of rational market valuations for home energy efficiency. *Appraisal Journal*. 66(4), October, p. 401-409.

2.5.1 Conclusions Regarding the American Community Survey

Conclusion: The American Community Survey is likely to become a complement, rather than a competitor, to the AHS-MS. There is a modest amount of overlap in subject matter, but the American Community Survey is broader and has a greater sample size than the AHS-MS.

Conclusion: Monitoring the proposed content of the American Community Survey would allow HUD to make sure that the content of the ACS and AHS-MS do not unnecessarily overlap and cause resources to be wasted. The content of the ACS is not firmly established, therefore it is prudent to track the evolution of the ACS.

3.0 RECOMMENDATIONS

This section provides four recommendations based on the conclusions and findings in this report. There is one recommendation each for basic characteristics of survey usefulness, release of survey data, and revising the codebook. There are two recommendations included in the section on awareness of the AHS-MS.

3.1 BASIC CHARACTERISTICS OF SURVEY USEFULNESS

Recommendation: *HUD should conduct a benefit-cost analysis to evaluate the costs and benefits of changing the basic characteristics of the AHS-MS which would affect usefulness—stable geography and content (longitudinality), frequency, sample size, and number of metropolitan areas surveyed.*

AHS-MS usefulness would clearly rise if HUD increased the frequency, sample size, number of metropolitan areas surveyed, and the number of questions without eliminating any questions. HUD needs to systematically determine which changes would provide the most benefit and what trade-offs might be involved in making those changes. The outcome of the study would be a descriptive benefit-cost model. The model would be used to determine the most useful mix of characteristics, depending on various resource levels. The data gathered from this project provides some of the basics needed for the benefit-cost study. For example, increased frequency was viewed by many users as an extremely useful benefit, enhancing the longitudinal value of the AHS-MS and allowing more up to date, and therefore more useful, analysis of often dynamic housing markets.

Using this model, HUD could assess complex questions, such as whether to continue the longitudinal characteristics of the survey. Changing the longitudinal characteristics of the AHS-MS is one potential course of action noted by HUD. Several AHS-MS users we contacted, and several publications we documented in the literature search, use longitudinal data to good effect. In addition, several survey respondents and conversation participants cited longitudinality (same geographical area and very similar questions) as a key strength of the AHS-MS. Therefore, HUD should carefully estimate the benefits of eliminating longitudinality, so that AHS-MS resources can be most prudently used. To assess the worth of continuing with the longitudinal nature of the AHS-MS, HUD needs to weigh the resulting decreased usefulness against the gains of unfreezing the survey geography and obtaining information on new topics.

3.2 RELEASE OF SURVEY DATA

Recommendation: *HUD should continue to seek a decrease in the lag between completion of the survey and release of data to the public.*

Customers and common sense indicate that "fresh" data is more useful than "stale" data. HUD should strive to continue its progress in preparing data for release. AHS-MS users made clear that, as data become older, it is less useful for many types of analysis. The current plans call for seeking to further lag time from the current seven-month period. If HUD can further decrease the data release lag, it should raise both the overall perception of the AHS-MS and the amount of use it receives.

Therefore, HUD should carefully examine how to lessen the lag associated with the release of data. Currently, the Census Bureau is responsible for data preparation and HUD then makes the information available on its Website. HUD should ensure the Census Bureau is adequately prepared for the data preparation exercise, and discuss with the Bureau the possibility of shortening the time for data preparation. For example, Census may have "down time" which HUD could take advantage of by timing the survey period to allow for data preparation during that slack period. In addition, HUD should examine the process of taking the data files and getting them posted on the Web, and, if practical, work to reduce the time.

3.3 REVISING THE CODEBOOK

Recommendation: *HUD should revise the AHS-MS codebook to coincide with the next release of AHS-MS data.*

Customers stated that the codebook needs improvement, particularly in clarity of language. Improving the codebook significantly will enhance understanding and usability of the survey, thereby encouraging additional uses and users, as well as improving overall perceptions about the AHS-MS. Specific improvements indicated by users include:

- Clarifying language in the body of the codebook and appendix.
- Ensuring the codebook allows the user to understand changes in AHS-MS methods.
- Ensuring the table of contents and index are clear and concise.
- Simple and straightforward discussions and illustrations to illuminate basic and advanced applications of the data.

3.4 AWARENESS OF THE AHS-MS

Recommendation: *HUD should determine awareness of the AHS-MS among potential users and take steps to improve awareness, and therefore usefulness/usage level of the AHS-MS.*

HUD could increase the usefulness of the AHS-MS by identifying likely potential users and communicating with them. This document contains enough information about some non-users to provide HUD with a starting point for an awareness campaign. However, after beginning increased awareness efforts, HUD could also conduct a formal marketing survey which would further assist in answering questions about likely potential users. For example, are students in

urban studies programs a potential underutilized customer group? HUD could then contact the likely potential users, to obtain more information about why they do not use the AHS-MS, and what they need to begin using it. Regular use of surveys and other information gathering devices will allow HUD to measure the success of awareness efforts and identify additional opportunities.

One useful method to determine impediments to AHS-MS use is to show potential users the data and obtain their reactions to the data. The reasons given by non-users in this study can form the basis for this task. Surveys and focus groups are two useful methods of obtaining data from likely potential users. Other potential users may come from untapped sources, such as undergraduate and high school students, and other heavy Internet users.

Recommendation: *HUD should prepare descriptive materials emphasizing the usefulness of the AHS-MS—these materials should be based on decisions arising from the benefit-cost analysis and target existing and potential customers.*

After conducting the benefit-cost analysis and making decisions about the characteristics of the AHS-MS, HUD would be in position to prepare materials which communicate the purposes and advantages of the AHS-MS to the established customer base and potential users. For experienced users, the changes HUD makes to the AHS-MS could be described and potential uses arising from the changes could be illustrated. In addition, the descriptive materials would serve potential users well by:

- Describing the AHS and AHS-MS.
- Showing examples of AHS-MS uses.
- Providing contact information and other information resources.

The descriptive materials should be integrated with current materials and Web pages.

APPENDIX A:
FOCUS GROUP COMMENTS

APPENDIX A: FOCUS GROUP COMMENTS

I. HUD FOCUS GROUP

Due to the nature of focus groups, not all participants responded to each question/topic. Therefore, different questions/topics have a different number of responses.

1. How many of you are current AHS-MS users…how many are previous AHS-MS users? [Note: current = used in the past 6 years]

- 4 have used the AHS-MS
- 3 have not used it, but 1 thought about using it once.

2. What do you <u>like</u> most about AHS-MS datasets? What are they particularly good for?

- Attempts to get more detailed information on housing quality than any other source
- Homeowners insurance questions are good
- Does give a broad- based look at renters.
- Compare public housing responses concerning crime in the neighborhood.
- It is a one of a kind thing
- A lot of value in the basic demographics and geography. The basic numbers-it fills a space between the decennial census data.

3. Is the <u>longitudinality</u> of the data important to you?

- Not important, have not needed it. (All respondents agreed)
- It hasn't hurt that it has been longitudinal.
- I saw a study that had used the longitudinal aspect which was interesting
- Longitudinality would be more important if the AHS-MS was conducted every year.
- Longitudinality aspect may hurt, new or revised questions would be good to get at new trend or new interests.
- The same questions every year has a sense of inertia

4. What do you dislike most about the AHS-MS datasets? (Previous users: Why don't you use them now?)

- Need a smaller unit of detail than it covers. Could get a better sense of neighborhood with a finer level of detail.
- Questions concerning crime could be modified. Could take advantage of trends.
- Never get the number of people in public housing right. There is always an over count-consistently over the years with precision. It is a double count. I think it is a royal screw up. It casts suspicion on how useful the data is. This needs to be fixed.
- The time gap is a problem. 2 years is an eternity in market analysis. If some of the basic counts were available every 12 months it would go a long way to improving it and we would use it more.
- Those (outside of HUD) doing local housing need research would also benefit from more frequent collection.

5. What AHS-MS data do you use?

- Publications and tables –yes (The three users)
- Microdata - yes (The three users)

6. How do you access the data? What's worked well or poorly about that mode of access?

Downloading from the Web	• Yes this is used
E-mail list	• Group did not know the list was available to assist users
CD ROM	• No comments
Printed volumes	• All the users had accessed these
Census FERRET	• Not aware this was available
Datafile format	• No comment
Understanding the code book	• Have had trouble understanding the codebook. • Found codebook frustrating, difficult to find anything, very hard to figure out how to use the data
Other	• One mention of extracting data using SPSS from mainframe tape version.

7. How do you use AHS-MS data?

- Look at owner and rental markets to see number of low-income persons. Used to help set goals for Fannie Mae and Freddie Mac. Often combine AHS-MS data with Home Mortgage disclosure data and Chicago Title Homebuyer Survey.
- Use AHS-MS together with decennial census and local random digit dialing survey to get Fair Market Rents.
- Use it with local and regional CPI data
- Use it with uniform crime report data
- We use the AHS-MS to provide an essential benchmark. It helps us to see if our projections and estimates are on track.
- Use it with county population numbers and vital statistics data

8. What kinds of decisions are made based on AHS-MS data you use?

- Establishing Fair Market Rents which has budgetary and policy impacts
- Use to help with underwriting multifamily insurance projects. Proper underwriting saves HUD and taxpayers money.

9. Do any of you use other data sources similar to AHS-MS? (*What do they provide that AHS-MS does not?)*

- Perhaps the decennial census because with some issues I need a larger sample to get to a smaller piece of geography to do a neighborhood analysis not MSA analysis.
- Victimization survey data
- There is no comparable survey data
- At least the AHS-MS data for some areas is not as old as the decennial census data. For some areas I am still having to use 1990 Census data.

10. How many of you use AHS-MS data for more than one metro area? (*How many metro areas? Do you compare metro areas?)*

- 1 looked at 22 MSAs for one project
- 1 looked at all MSAs for one project
- None of the respondents compared data across different MSAs
- One performed comparisons of two different points in time of the same MSA.

11. What do you think about the sample size used in AHS-MS (about 4,700-5,000 housing units per metro area)? [Does this sample size provide enough precision for the types of analysis you conduct? What would be a better sample size?]

- For recent movers the sample size gets to be quite small and unstable.
- Not an issue
- To get to neighborhood level data the sample size gets to be very small
- A better sample size would be like the ACS and get information for 10 basic elements every other year.

12. Which data items do you feel are the most important?

- Demographics- basic counts, household counts
- Components of change
- Distribution by rent levels
- Quality of life and livability questions
- Data on first time homebuyers

13. Which data items do you feel are the least important?

- None

14. What kinds of changes/improvements would make you more likely to use, or increase your usage of, the AHS-MS datasets? (*Greater frequency of survey data from given cities [fewer cities]; Greater number of cities [less frequency])*

- More questions targeted to elderly and their housing conditions
- Top 10 basic demographic questions on a frequent basis
- Get it out faster
- Easier access and a friendlier data set
- Improve questions and sampling methodology
- Add more crime questions.

Reduce?

- It would be hard to get agreement on where and how to cut out either MSAs or questions on the survey.
- Sometimes I wish more cities were here, but if I had to wait longer for the data-forget it.

15. What is the value of the AHS-MS in the national data system?

- It is useful for what it is and we have to deal with the limitations of the data.
- There is nothing else like it
- It is in a space where no one else is

II. NON-HUD FOCUS GROUP

Due to the nature of focus groups, not all participants responded to each question/topic. Therefore, different questions/topics have different number of responses

1. How many of you are current AHS-MS users…how many are previous AHS-MS users? [Note: current = used in the past 6 years]

- 100% of group are current users

2. What do you <u>like</u> most about AHS-MS datasets? What are they particularly good for?

- There is no other source of this data.
- If you want data at the metropolitan level (the parts that are surveyed) it is the source to go to. It is nice to be able to show the city vs. the county.
- The depth of the questions is good.
- Census is a disaster, which leaves you to the AHS-MS for any information on housing.
- If you want data on housing at a sub-national level, you are driven to the AHS-MS. There is nothing else on housing quality.
- In non-CDBG areas the AHS-MS may be more helpful since the CDBG cities have to create 5 year housing strategy plans that are updated annually, so perhaps the AHS-MS is less beneficial to the CDBG communities.
- If you want to get down to neighborhood levels.
- Households on welfare, what are their needs
- Metro file can get at personal behavior issues (type of household and where they live). Can see what it is about a metro area that would make certain groups move in or out of a city center. Can get supply/demand type models out of looking at AHS-MS data.
- If you are looking at local phenomena you can go to other sources, but if you want local housing information you have to use the AHS-MS.
- You use the AHS-MS whenever you need local housing information.

- Harvard Report-*State of the Nations Housing*- has been showing increasing variations in local housing markets. Without the AHS-MS you can't get the specific answers to why this is occurring.
- Others that have used the AHS-MS include the Center For Budget and Policy Priorities. They do a series called *A Place to Call Home*.
- Information on local diversity in the market is very important. Prioritizing and preferences for those under 30% of median income. Have to look at a lower level of data to get to this information.
- Local housing officials would be focused on the locality, but it is hard to say anything major with small samples. You can only say broad brush kinds of things.

3. Is the longitudinality of the data important to you?

- Being able to make comparison before and after, and then with or without is very attractive. You can observe the change in the condition of the units.
- The ability to track units as they drop out of the inventory is still a quite valuable feature.
- Can look at change in housing markets in terms of quality of housing, changing occupants and why moving.
- Length of time that lapses between survey is of concern because with a shorter interval you would have some constants rather than a longer term such as the current 4 to 6 year interval.
- The small sample sizes with the AHS-MS may cause a problem when looking at data in a longitudinal manner due to attrition dropping out too much of your sample.
- One person felt that the longitudinal factor was more important with the national survey which is every other year. With the longer time period, longitudinality loses some value in terms of the research this person conducts on housing prices.
- The definition of a housing unit and the metropolitan area boundaries have changed over time. The AHS national and metro area samples are old and perhaps outdated because of these changes.

4. What do you dislike most about the AHS-MS datasets? (Previous users: Why don't you use them now?)

- There are not enough cities in the AHS-MS and the sample sizes are smaller.
- It has become a database for doing case studies of a metro area. Since you don't have a lot of metro areas in the same year you can't do a cross section of metro areas very well. You can't do intra-metro area analysis very well. I think it would be most useful for a council of governments or those interested in the center city issues.

- It is less frequent than it used to be.
- Cost is a negative (taxpayer, HUD official disadvantage)
- Do national one year with all the metro areas without visiting units. However, AHS-MS budgetary issues may not allow needed changes to take place.

5. What AHS-MS data do you use?

- Most participants used both publications and microdata. Three said they exclusively use the micro data.
- The publications and tables are useful if you need quick numbers.
- Before micro data were was available, always needed three data items and usually would find two in the publications.
- Local officials probably use the publications more than the micro data.
- Not a major financial issue to produce the publications.
- Zones should be in the published reports.
- A project was done using just the reports to show people what they could do with the published reports.

6. How do you access the data? What's worked well or poorly about that mode of access?

Downloading from the Web	• Most download data from HUD's website • Download and then recode a lot of stuff • Put on internal net for students use.
E-mail list	• Useful • One person felt too much traffic
CD ROM	• One person still uses the CD ROM
Census FERRET	• One person had used FERRET for other things, but not AHS-MS • One person had not been successful trying to use FERRET for AHS-MS
Understanding the code book	• A big problem when the method changes. • Codebook is impossible; there is no logic in the codebook. • Only need the codebook if using microdata.

7. How do you use AHS-MS data?

- City and suburb population moves. Based on personal characteristics and metro area characteristics. Not purely descriptive, but short of a full blown econometric model. Used some other data and added it in.
- Have done simple descriptive numbers to look at affordability and homeownership.
- Have used it to build descriptive variables of the characteristics of the metropolitan housing stock and have used in modeling analysis.
- Trying to look at welfare reform effects. Would like to use metro data as a baseline.
- Match households by income and affordable housing stock to provide local advocacy groups with information they wouldn't be able to get. This is a key use for the AHS-MS to match the detailed demographic variables with the detailed housing and housing cost variables and look at the situation and how it differs from metro area to metro area.
- Use the printed volumes to get data for presentations in different metro areas – basic characteristics.
- House price analysis.
- Following how rental prices have changed over time. How are they affordable to different groups?
- Work on tenure choice (ownership vs. renting) Used to study filtering. Research has been on the financial side. There are cycles in the research. More interest is starting to come back to the real side. It would be nice if HUD were more concerned with the real side and less worried with mortgage markets. "Spending money on the AHS and on the housing finance side is a disconnect."
- Have both needs-finance and real.
- AHS useful to assist with fundamental tax reform data analysis.
- Taking out the lead question is a bad thing. Looking at environmental conditions is important.
- Housing problems of Hispanics and female-headed households. Without using the raw data you can't do analysis like this.
- Public housing is only 1% of the housing stock. I don't think that you can get meaningful data due to the sample sizes being so small at the metro level. Also people misreport living in public housing – those who receive subsidies often say they live in public housing when actually they do not live in housing owned by a public housing authority.
- Idea – perhaps HUD should over sample public housing units, since it is one of HUD's areas of oversight.

8. What kinds of decisions are made based on AHS-MS data you use?

- Use it only for basic research
- National Low Income Housing Coalition use some of it for advocacy
- Housing affordability needs, advocacy of certain program proposals
- Used in the policy context for description and basic research, and to figure out where you need to go.

9. Do any of you use other data sources similar to AHS-MS?

- Decennial Census
- Private data isn't comparable just transaction data. Not a substitute.
- CPS for volume of home sales
- Building permit data for new construction-trends in new construction for a metro area only units and structure. Not much information on each unit. Not a substitute for AHS-MS
- Claritas weak on housing – virtually nothing useable for housing research

10. How many of you use AHS-MS data for more than one metro area? How many metro areas? Do you compare metro areas?

- 100% multiple
- From all to 2 or 3 at a time
- Time sequencing is a problem
- Basically want bigger samples and more cities done more often
- Do you need all of the questions? But it is hard to find questions to drop, because all get used in some context.

11. What do you think about the sample size used in AHS-MS (about 4,700-5,000 housing units per metro area)? Does this sample size provide enough precision for the types of analysis you conduct? What would be a better sample size?

- Sample size is too small (a frequent comment)
- Sample size is too small for transaction analysis, recent movers and multifamily. (We understand there are budget constraints and we can't have everything)

- Bigger samples would be useful. The narrower the question you are getting at the more the current sample size becomes a problem.
- Number of cities limits the number of experiments you can test. In a sense each city is a data point.

12. Which data items do you feel are the most important? Likes-Dislikes

- You need most of the data items. Just when you don't think you need a data item – then you need it.
- Journey to work information in not available on recent metros. Should be included
- Abbreviated remodeling questions a good idea
- Many questions about each individual in the household –perhaps there could be less here.
- A couple people said they use the individual information
- AHS-MS needs to be marketed more aggressively
- Biggest problem with this data is that it is funded by one agency. It would be nice if other agencies put some $$ into paying for it, since there are many questions on the study that are not just HUD items of interest.

13. What kinds of changes/improvements would make you more likely to use, or increase your usage of, the AHS-MS datasets? (Greater frequency of survey data from given cities [fewer cities]; Greater number of cities [less frequency])

- More data, more cities, more sample, more frequently
- More cities
- Transportation issues –no housing question is independent of journey to work issues.
- Other agencies should pay for permanent questions
- Housing is crucial for price indices and transportation
- Really want to know where people moved from-those that have moved
- Expense on coding this question may be why it was dropped.
- What about using zip code info for this.

14. What is the value of the AHS-MS in the national data system?

- We spent the last 2 hours talking about this
- Redesign the metro survey to integrate with the national survey. Current form doesn't get used as much as the national. Perhaps funding should be used to run national.
- When you rank AHS-MS against all the other surveys that it competes for funding with, I don't put the AHS-MS in the same league in terms of importance in value.
- Have to be careful not to lose the half the metro areas in the integration process.
- I would not be willing to give up sample size in the national AHS to provide better coverage for the metro samples.
- What are we willing to give up in a world of scarce resources - National core every three years? Smaller national sample for more metro sample? Other alternatives
- It is always a question of alternatives. I would like larger samples and more metro areas.
- I would give higher priority to metro and maybe go every three years with the national in order to get a better read on local conditions. It is an important database, because there is no other database like it.
- National changes often are due to methodology changes, which suggests that the real changes are small relative to the reported changes.
- National is more useful to more users.
- What is the number of cities, sample size and frequency you would have to increase to make it more useful?
- Metro is very important for rapid local changes
- We go to each the national and the metro data for different purposes. They each have their own value.
- A good argument for the AHS is the limited nature of the data collected in the decennial census.

APPENDIX B:
TELEPHONE CONVERSATIONS

APPENDIX B: TELEPHONE CONVERSATIONS

Note: due to the general and conversational nature of this data gathering technique, not all respondents provided a response to each possible conversation topic. When the respondent/ interviewer did not address/ask a particular question, it is noted by "DNA."

Interviewee # / Organization*	**Conversation Topic #1:** ***How housing data is used by Interviewee***
1 (A)	Academic research
2 (G)	Researching whether they can move people into home ownership.
3 (A)	Research on effects of inadequate housing on child health
4 (NPO)	Work with community groups to rebuild neighborhoods. Main focus is low-income housing in cities. Added safety and workforce issues. Use AHS-MS data for demographic information, housing, income, etc. to create profiles of different cities.
5 (A)	Researching housing industry from big buildings to individual housing.
6 (G)	Promote urban planning, affordable housing opportunities with research.
7 (G)	Use housing data for whole state of Oregon, not just MSAs.
8 (NPO)	Research, analyses, lobbying to improve government policies for poor in New York City, including housing. Use data from metro survey rarely.
9 (NPO)	Evaluating overcrowding, substandard housing, and people at risk of homelessness.
10 (A)	Research on affordable housing issues. Conducts survey using AHS questions, so can check results with AHS-MS.
11 (CF)	Skimmed AHS 1995 national data for limited information to advise clients. Not interested in MS data.
12 (CF)	A study for apartment buildings - How many people could live in each apartment unit based on number of bedrooms, baths, square feet. No controlling codes, only suggestions on occupancy. Studied limited inventory using AHS data.
13 (A)	Research on informal housing in San Francisco Bay area. Unregulated housing and illegal housing.
14 (G)	Property condition in areas of inner city of Milwaukee - housing problems analysis.
15 (A)	Research on housing, including HUD and other funded studies of local rental market.
16 (CF)	Assist business in analyzing programs and legislation. Predicted the effect on District of Columbia if DC ended rent control.
17 (G)	Housing policy for city low-moderate income households on rental apartments and carry out home ownership market. Develop policies to increase low-moderate income homeownership.
18 (A)	Projection of affordable housing for the Council of Governments.
19 (G)	Used data for the consolidated plan required by HUD
20 (CF)	Data used for client purposes. Demographic support and analyses.
21 (G)	Make comparisons of owner-occupied housing units: purchase price, estimated value, income of occupants, financing.

** A = Academic G = Government NPO = Non-Profit Organization CF = Consulting Firm*

Interviewee # / Organization*	**Conversation Topic #2:** ***Overall experience with AHS-MS datasets***
1 (A)	Use in empirical analysis of housing market questions and match up with market level data. Use to construct a quality controlled price index.
2 (G)	Used more in graduate school and prior experience as consultant in models of tenure. Currently, research is national in scopes, compare other MAs.
3 (A)	Pretty easy to use by a non-statistician.
4 (NPO)	Problems: Need to find not just metro areas, but the cities - AHS-MS good for that.
5 (A)	Not terribly much. Need state data and pragmatic data sense to builders and developers.
6 (G)	Data fills a niche needed to be filled - not available anywhere else.
7 (G)	AHS-MS too broadly based. Need data at state level or for particular counties. Portland's housing characteristic differ from rest of state.
8 (NPO)	No great experience. Use NYC housing survey conducted by Census Bureau.
9 (NPO)	Didn't use results of AHS-MS; instead, used questions to develop local survey.
10 (A)	Very useful. Had trouble looking up things in appendices. Want better explanations on how things are defined.
11 (CF)	Purchased Dallas data for a client. Used '95 national data to some extent.
12 (CF)	To do study and for planning
13 (A)	Wasn't useful for research project
14 (G)	Very small part of overall data used, but has useful information not otherwise available
15 (A)	Positive. It has limitations, but best source of needed data.
16 (CF)	'98 cleaner than '93 AHS rent control question.
17 (G)	Year to year comparisons with other jurisdictions
18 (A)	Use as reference point, check against local data set. Not primary source
19 (G)	Use once a year at most. Not tremendously useful.
20 (CF)	Don't use it much.
21 (G)	Very well comprised data sets

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Interviewee # / Organization*	**Conversation Topic #3: *Like most about datasets***
1 (A)	Have both house characteristics and household characteristics data.
2 (G)	Level of detail on quality characteristics.
3 (A)	Good for housing quality – demographics. Easy to use.
4 (NPO)	Likes level of detail. AHS-MS gives good breakdown of things like housing costs, condition, age of structure.
5 (A)	Use USGS NAHB massaged data from AHS, which is in usable form for them.
6 (G)	Gives some hard data on housing cost burden. Income and housing cost particularly important.
7 (G)	Has fair amount of detail on financial and demographic characteristics broken out by housing characteristics.
8 (NPO)	Good for comparing across metro areas, but don't do it often.
9 (NPO)	Like questions on overcrowding and substandard housing. Used questions 'because they were validated.'
10 (A)	Very detailed - e.g. can look at city of Chicago vs. metro area.
11 (CF)	Doesn't know.
12 (CF)	Well organized. Easy to use publications.
13 (A)	Best thing is that metro based has much more information than Census and is more recent.
14 (G)	Good for measuring housing conditions in Milwaukee inner city.
15 (A)	Like ability to track trends. Likes information on supply and demand coming from same source, same units.
16 (CF)	New format, downloading from Internet, Good packing, living up, overall demographics, general trend.
17 (G)	Historical perspective - time trends. Comparative data with other places.
18 (A)	Consistent data over time, HUD support in using data is very helpful; great database including utility data.
19 (G)	More current than Census.
20 (CF)	DNA
21 (G)	Good for developing new programs.

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Interviewee # / Organization*	**Conversation Topic #4: *Uses of AHS-MS datasets***
1 (A)	To look at individual housing unit and know something about the characteristics of that unit. Looking at changes in low-income housing stock.
2 (G)	As background for in-house consulting and basic research. Costs of home ownership. Recent mover data and reasons for moves. Use their own survey for basic data.
3 (A)	Studied health of people moving into section 8 housing. Compared own survey of people with vouchers before move-in with AHS-MS data on housing quality for people identified with vouchers.
4 (NPO)	Don't do a lot of analysis; instead, direct others to data, and provide basic information.
5 (A)	DNA
6 (G)	Used in affordability studies. Have group doing Section 8 vouchers and certificates grants and loan programs for local governments.
7 (G)	Tried to use data for a housing needs model that communities in Oregon could use to estimate needs. Found AHS-MS difficult to use outside of Portland.
8 (NPO)	Comparing across metro areas.
9 (NPO)	Used AHS-MS questions to develop a local survey of their own, but did not use results of AHS-MS.
10 (A)	Used AHS income data to analyze impact of welfare reform on housing costs.
11 (CF)	DNA
12 (CF)	Looked at housing inventory and housing demographics. Looked at what is needed for people to live comfortably, e.g., number of cars, number of parking spaces, number of family members.
13 (A)	Contextual information on housing market and how households relate to area.
14 (G)	Housing problem analysis.
15 (A)	Looking at single person households and their demands for housing.
16 (CF)	Detail useful for hedonic index, AHS-MS had sufficient variables to perform complex analyses
17 (G)	Comparing data with other places.
18 (A)	Low-income energy assistance studies – how energy cost impacted low income families and rent paying abilities; rental vs. home ownership comparisons.
19 (G)	Use to answer questions from public, businesses, realtors, and schools on number of homes, age of stock, and demographics.
20 (CF)	Demographic analyses; housing market analyses.
21 (G)	Assessing whether existing programs meet consumers' needs and concerns. Identifying those not served and their needs to be reached or satisfied.

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Interviewee # / Organization*	Conversation Topic #5: *Is longitudinality of data important to you?*	Conversation Topic #6: *What do you dislike most about AHS-MS datasets?*	Conversation Topic #7: *Which AHS-MS data do you use?*	
			Publications	Microdata
1 (A)	Yes	Need to shorten the period between surveys to get a more complete longitudinal picture with more surveys.	No	Yes
2 (G)	Yes, very important. AHS has better cost and financial data overtime.	Need to shorten the period between surveys. Need maintenance cost information and costs that make it difficult to stay a homeowner.	Yes	Yes
3 (A)	No, not for current project	Doesn't really dislike anything. Some health related questions would be good.	Yes	Yes
4 (NPO)	Yes, but not of prime importance currently	Can't use on-line data (microdata), it is too massive.	Yes	No, tried had problems.
5 (A)	DNA	Not much use for sociological and economic data. Wants engineering data on building materials and housing production.	DNA	Very little. Use NAHB.
6 (G)	Yes, but only comparison with previous survey important.	Time between data collection and release of data. Would like tables available in spreadsheet on-line. Race detail not important due to small sample. Would like a summary product comparing metro areas.	Yes	Yes
7 (G)	Yes. Want to see trends.	Don't have enough local market surveys within the state. Define house type: mobile homes, leased vs. owned lot.	Yes	No
8 (NPO)	No	Not a problem, but don't rely on AHS-MS that much.	Yes	No
9 (NPO)	No	DNA	Used questions	No
10 (A)	Yes, data more reliable if same sample maintained	Need more frequent data collection and faster release on data. Does not have small area data.	Yes	No
11 (CF)	No	DNA	NA	NA
12 (CF)	No. Market changes every four years.	Shorter time between surveys. Immediate release because demographics change rapidly.	Yes	No
13 (A)	Not for current research.	Smaller area data. Faster release on data, but not a big issue.	Yes	No

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Interviewee # / Organization*	Conversation Topic #5: *Is longitudinality of data important to you?*	Conversation Topic #6: *What do you dislike most about AHS-MS datasets?*	Conversation Topic #7: *Which AHS-MS data do you use?*	
			Publications	Microdata
14 (G)	Yes	Very little to dislike. Release data a little quicker.	Yes	Yes
15 (A)	Yes	Not comfortable with the microdata. Trouble grouping Chicago area by county.	Yes	Yes
16 (CF)	Yes, but need data to be released sooner	Manuals hard to follow. Current format harder than old manuals.	Yes	Yes
17 (G)	Yes	More frequent data collection (year by year). Geographic groupings too large. Need smaller areas in publications. Faster release on data.	Yes	No
18 (A)	Yes	More frequent data collection, but prefer more cities covered. Faster release on data.	Yes	No
19 (G)	Yes	More frequent data collection. CDs not user friendly, but books OK.	Yes	Yes
20 (CF)	Yes, need to know trends in housing stock.	City-wide and metro-wide not useful. Need data for specific blocks.	Yes	No
21 (G)	No, need recent cross-sectional data	Table of contents less than desirable. Needs to better specify contents of each subsection.	Yes	No

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Interviewee #/ Organization*	Conversation Topic #8: *How easy is it for you to access and use the data? Do you use …*						
	Downloading from web	E-mail list	CD-ROM	Printed volumes	Census FERRET	Datafile format	Understanding code book
1 (A)	Very easy	DNA	Have some	DNA	DNA	Times when record length & layout not same, but with ASCII file can solve	OK, pretty straightforward Some questions
2 (G)	DNA	DNA	Yes	Yes	DNA	DNA	DNA
3 (A)	Very easy	DNA	DNA	Yes	Some programming problems	SAS, no problems	Didn't have
4 (NPO)	Frustrated, data too massive	Found some interesting things, but geared to intensive data users	DNA	Very easy	DNA	DNA	DNA
5 (A)	DNA	DNA	DNA	DNA	DNA	DNA	DNA
6 (G)	Not easy	DNA	Easy	OK	DNA	DNA	Don't use
7 (G)	DNA	DNA	DNA	Yes	Difficulties	DNA	DNA
8 (NPO)	DNA	DNA	DNA	Limited use	DNA	DNA	DNA
9 (NPO)	Yes	DNA	DNA	Yes, need better definitions	DNA	DNA	DNA
10 (A)	DNA	DNA	DNA	Easy	DNA	DNA	DNA
11 (CF)	DNA	DNA	DNA	DNA	DNA	DNA	DNA
12 (CF)	DNA	Firm doesn't allow email	DNA	Yes	DNA	DNA	DNA
13 (A)	DNA	DNA	DNA	Yes	DNA	DNA	DNA
14 (G)	Yes	DNA	DNA	DNA	DNA	DNA	DNA
15 (A)	Froze up the system in '95 better in '97	DNA	Not easy	Easy	Not easy	DNA	No problem, but appendix not clear
16 (CF)	Very easy	DNA	DNA	Easy, for checks	Yes, not big enough samples	SAS - fine	Could be improved
17 (G)	DNA	DNA	DNA	Yes	DNA	DNA	DNA
18 (A)	Crashes computer	Yes	DNA	Yes	Trouble using	DNA	DNA
19 (G)	DNA	DNA	Not user friendly	OK	DNA	DNA	DNA
20 (CF)	DNA	DNA	DNA	Not easy, hard to find information	DNA	DNA	DNA
21 (G)	DNA	DNA	DNA	Difficult to find but easy to digest	DNA	DNA	DNA

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Interviewee #/ Organization*	Conversation Topic #9: *How do you use AHS-MS data?*	*Used Tables?*
1 (A)	To construct a quality controlled price index. Modeling. Use with other data.	DNA
2 (G)	Internal reports, some modeling. Use with other data. Use AHS for help in designing own surveys.	DNA
3 (A)	No modeling, just statistical comparisons. Use with their own survey of households with vouchers before move-in and with Boston Housing Authority data.	DNA
4 (NPO)	Use it for mapping and assign data to Census tracts within broad areas of cities.	Yes
5 (A)	Doesn't use	DNA
6 (G)	Use as a source of general information. Use statistical tables only on income distribution, number of households with excess housing cost burden, neighborhood conditions, tenure, and household characteristics. Use with Decenial Census data, current home price data, realtors, and tax assessor data.	Yes
7 (G)	Don't use much. Work with tenure characteristics in the data set and monthly housing costs.	DNA
8 (NPO)	Use for comparing across metro areas. Another data source, HVS, used for longitudinally.	DNA
9 (NPO)	Doesn't use data, only the questions.	DNA
10 (A)	Use data in teaching and workshops. Use own survey data at local level and compare neighborhood results to city data from AHS.	Yes
11 (CF)	Doesn't use	DNA
12 (CF)	Use other data from real estate books, demographic publications, market analyses, Statistical Abstract of U.S. Anything on local apartment and housing situation.	Yes
13 (A)	Looked at crowding, subfamilies, etc. Use some local data. Qualitative report only, not systematic.	DNA
14 (G)	Comparative analysis of metro area. Able to increase homeownership from analysis of data. Didn't use AHS data with own model, instead had data from state department.	Yes
15 (A)	Used it to make projections in rental demand study. Used tables. Used with local data.	Yes
16 (CF)	Policy analysis. Use modeling. Used with permit data.	Yes
17 (G)	Get sense about whether a policy where money in HO gives improved rate, better rate than other jurisdiction. Use to check local sources of data, but felt AHS-MS more reliable.	Yes
18 (A)	Use data for family income distribution in county to determine percent below selected income cut-off. Compare with affordable housing available based on cost/income ratio.	Yes
19 (G)	Consolidated Plan - determine condition of existing stock, demographics, trends. Use other data.	Yes
20 (CF)	Use to verify other data.	DNA
21 (G)	Used as directional finder; a general tool to find populations that are missing. Use with consolidated plan HUD data, Community 20/20 software, Decennial Census data.	Yes

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Interviewee # / Organization*	Conversation Topic #10: *What kinds of decisions are made based on AHS-MS data you use?*
1 (A)	Don't know.
2 (G)	Extent and scope of home owner programs and on rent setting policies. Looking for energy conservation decisions, improvements in energy costs.
3 (A)	None
4 (NPO)	Decisions made by a funder or a local agency.
5 (A)	None
6 (G)	Use as evidence to raise issues with state legislature. Use as public awareness tool. Use in internal budget decisions.
7 (G)	None
8 (NPO)	None
9 (NPO)	None
10 (A)	Welfare taskforce use it to influence city and county decisions on the allocation of resources. Local/community developers and groups use it to determine fairer rents.
11 (CF)	None
12 (CF)	Use to set upper and lower limits for people living in apartment building. Design and remodel apartments. Studies done for apartment owners for occupancy standards.
13 (A)	None
14 (G)	DNA
15 (A)	Policy decision on impact of Section 8 voucher. Used for demand for single room occupancy housing in Chicago, with City Department of Housing making decisions on SRO housing in conjunction with Department of Planning.
16 (CF)	Concluded rent control repeal would have little if no effect on majority of renters.
17 (G)	Types of policies to select dollars to allocate to programs developed from policies.
18 (A)	Decisions primarily based on other data. Using data to create baseline for comparison over time.
19 (G)	None
20 (CF)	None
21 (G)	Use to shape consolidated plan, as a fact finder.

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Interviewee # / Organization*	Conversation Topic #11: *Do you use other data sources similar to AHS-MS? What do they provide that AHS-MS does not?*
1 (A)	Nothing explicitly similar. Canada has household micro sample, but no detail or longitudinality. BLS, Freddy, Fanny provide other detail. Don't use decennial census data.
2 (G)	The Bureau of Census Housing and Vacancy Survey (HVS) every three years, but no longitudinality in sample, since new sample every time. Health and Human Service Department Panel Survey of Income Dynamics - Household characteristics over time. Current Population Survey (CPS)- labor market work. HVS - more detail on rental market contracts and different types of rental contracts. Do own survey to get small area detail on one bedroom apartments.
3 (A)	Small survey of people waiting for housing vouchers to determine–their health conditions prior to vouchers and health conditions after getting good housing.
4 (NPO)	Census CD from Geolitics. Use Census tract information, Community 20/20, and HMDA data. All give small area data that AHS-MS does not provide.
5 (A)	No
6 (G)	Use with Decenial Census data, current home price data, realtors, and tax assessor data. Small area detail. Up to date.
7 (G)	Used Consumer Expenditure Survey data which has characteristics of householder at state level, actually regional. It is done every year and a larger sample than AHS-MS. Also, State of Oregon has its own annual population survey with housing tenure and cost as well 4000 households across state.
8 (NPO)	Census Bureau HVS for New York City. HVS has more data and detail than AHS-MS.
9 (NPO)	Data from own local survey provides small area data on identifiable housing units and households. Also, provides data on health problems of households.
10 (A)	Have own small area data, not available from AHS-MS. Use AHS questions for comparison/checking developing database of all assisted housing in the State of Illinois. The state of Illinois not available from AHS.
11 (CF)	No, just that provided by the Joint Center.
12 (CF)	Anything could get hands on. Had local surveys to get loads of laundry, etc. done per resident per week.
13 (A)	Some local data - old San Francisco Planning Department data and local non-profit housing groups records on household interviews.
14 (G)	Use CACI annual estimates of income.
15 (A)	Local data for six coregions with 13 subareas. Needed 1999 rental rates and vacancy rates. Needed fresh data, especially on small properties, localized to smaller geographic areas.
16 (CF)	No, usually have to collect data themselves.
17 (G)	Somewhat. Mostly use AHS to check on their reliability. Tax assessors data - don't know how reliable this is. Realtors home sales data.
18 (A)	County auditor file - assessed value of all properties, sq. ft, number of bedrooms, conditions, units in building. Data from county welfare office on number of households by income. County auditor file has rating of condition. Get specific address, which is key part of study, this is not available from AHS-MS.
19 (G)	Locality specific data. Decennial Census, Colorado State data, local city statistics, Chamber of Commerce data. Get housing activity and indicators of demographic change and economic activity.
20 (CF)	City of Chicago - tax assessors, other data. Clients' data. Multiple listing service of realtors. Claritas: local service of realtors. Updated Decennial Census data. Need specific to areas studied.

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Interviewee # / Organization*	Conversation Topic #11: *Do you use other data sources similar to AHS-MS? What do they provide that AHS-MS does not?*
21 (G)	Yes. Other demographic data on CD ROM. Data specific to Independence, unlike AHS-MS.

Interviewee # / Organization*	Conversation Topic #12: *Do you use AHS-MS data for more than one metro area? How many?*	Conversation Topic #13: *Do you compare metro areas?*
1 (A)	Yes – All metro areas from beginning of the surveys.	No - Aggregate metro areas rather than conduct comparisons.
2 (G)	Yes - About 10 usually.	Yes - Compare and contrast expanding supply market.
3 (A)	No	No
4 (NPO)	Yes - About 10 metro areas.	No
5 (A)	Not applicable.	DNA
6 (G)	Yes - Typically 25 largest metro areas.	Yes - Compare general income distributions, tenure, affordability, characteristics by tenure.
7 (G)	No	No
8 (NPO)	Rarely - 2-3 other areas	Yes - But very rarely.
9 (NPO)	Not applicable.	DNA
10 (A)	No	No
11 (CF)	Not applicable	DNA
12 (CF)	No	No
13 (A)	No	No
14 (G)	No	No
15 (A)	No	No
16 (CF)	No	No
17 (G)	Yes - 9 - 10 areas	Yes - Comparison of similar areas nationwide.
18 (A)	No	No
19 (G)	Yes	Yes - For background comparisons, not for official use.
20 (CF)	No	No
21 (G)	No	No

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Interviewee # / Organization*	Conversation Topic #14: *What do you think about the sample size used in AHS-MS?*	Conversation Topic #15: *Does this sample size provide enough precision for the types of analysis you conduct?*	Conversation Topic #16: *What would be a better sample size?*
1 (A)	Not a big concern. Missing pieces like too few condo units. Prefer more frequency to larger sample.	Not always.	Double? Hard question, because more is always better.
2 (G)	Should be larger to avoid repression of recent mover responses.	No.	Don't know. Wanted own survey of 75,000 households. Want meaningful subareas.
3 (A)	Bigger sample needed. Only around 50 in the voucher sample. Should oversample subsidized units or public housing units.	Not bad after weighting data - good "N" resulted for broad picture.	Voucher housing sample really poor.
4 (NPO)	Very small. Want more geographic detail.	No.	Don't know.
5 (A)	No opinion.	DNA	No opinion.
6 (G)	Taken as given, but larger would be fabulous. Twin Cities is an economically strong area, but there are racial disparities economically - need better sample.	Not always.	Double.
7 (G)	A good-sized sample for statistical reliability.	Yes, but depends on how many variables you're looking at.	Need about 400 cases per variable category.
8 (NPO)	DNA	DNA	DNA
9 (NPO)	Not pertinent.	Not pertinent.	DNA
10 (A)	Not sure - not qualified to say. Bigger sample would make subareas more reliable.	No. Want to focus on smaller areas.	Don't know.
11 (CF)	DNA	DNA	Not applicable.
12 (CF)	Adequate.	Yes.	DNA
13 (A)	DNA	DNA	DNA
14 (G)	Hadn't thought of this.	Yes, for current purpose.	Might need larger sample for other uses.
15 (A)	Would like bigger sample for smaller geographic area coverage. Would prefer frequency to geography.	Yes.	DNA
16 (CF)	Disappointingly small. '98 smaller than '93 but cleaner so didn't throw out as much. Barely adequate - 1,000 more needed.	Barely adequate.	Need at least 1000 more.
17 (G)	Would like more.	OK for current purposes.	DNA
18 (A)	More than adequate for their purposes.	Yes. Able to separate 2 nearby cities with confidence.	DNA
19 (G)	Small, would prefer more but reasonable for funding and staff available.	Get along, use it, can't change it.	DNA
20 (CF)	DNA	DNA	DNA
21 (G)	Seems OK.	DNA	DNA

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Interviewee # / Organization*	Conversation Topic #17: *Which data items do you feel are the most important?*	Conversation Topic #18: *Which data items do you feel are the least important?*
1 (A)	Depends on project. All could be important.	Probably more data on housing costs than needed.
2 (G)	Homeowner information, structural information for both owners and renters.	Beef up financial cost information.
3 (A)	Housing quality and subsidy received. Should add health questions - importance of housing quality on health outcomes.	Simpler income questions might be better than AHS questions on income verbatim.
4 (NPO)	Depends on purpose. Demographic information - race, age, income level, tenure, housing cost for both rental and homeownership.	Failures in equipment not as useful, though could be quality indicator. Don't use fuel, either.
5 (A)	DNA	DNA
6 (G)	Income, housing costs, tenure, neighborhood ratings of problems.	Structural information, like plumbing.
7 (G)	Tenure and housing cost. Information on demographics related to tenure.	Probably the indicators of housing quality or equipment failure.
8 (NPO)	Housing cost as percent of income, data on households below poverty level, household size vs. unit size.	Housing condition because have another far better source in HVS.
9 (NPO)	Questions on crowding and housing quality	All others.
10 (A)	Percent of income toward housing is key. Recent mover data interesting.	DNA
11 (CF)	Not applicable	DNA
12 (CF)	Demographics most important. Next physical characteristics of housing units.	Cost, income, neighborhood data
13 (A)	None of data was exactly what was needed. Research on affordability issues.	Paid no attention to things not needed.
14 (G)	Homeownership rates by demographics variables.	Don't remember.
15 (A)	Affordable housing issues: income, household composition, rent burden, traditional demographic variables, why people move.	None
16 (CF)	Need more housing quality responses - questions OK but people didn't respond.	Owner and mobile home data not used.
17 (G)	Homeownership rates.	Have not looked at other data.
18 (A)	Rent, number of bedrooms, rental vs. owner, mobility, utility costs	None
19 (G)	Demographic information most important. Housing quality is medium high on list.	Don't pay attention to other data.
20 (CF)	Not familiar enough with data to judge.	Don’t know.
21 (G)	Those pertaining to owner-occupied units.	Rental unit information used least.

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Interviewee # /	Conversation Topic #19: *What kinds of changes/ improvements would make you more likely to use, or increase your usage of AHS-MS datasets?*
1 (A)	Hard to say, do research on a variety of things. Want greater frequency from fewer cities or do two tiers, 20 every two years and do rest less frequently. Need more questions on maintenance area.
2 (G)	More frequent surveys. Some submarket analysis.
3 (A)	Add around five health questions. Improve income questions.
4 (NPO)	Would like to go on-line to create dynamic reports - was frustrated in attempts. More frequent is better with fewer cities, but want that with smaller cities, not the six largest.
5 (A)	DNA
6 (G)	Easier electronic data formats. More than one year of data on same CD. More frequent, provided Minneapolis - St. Paul among those with more frequent surveys.
7 (G)	Better definition of housing types, particularly manufactured/mobile. Greater frequency.
8 (NPO)	Don't need AHS-MS. HVS data available promptly.
9 (NPO)	DNA
10 (A)	Subareas, bigger samples. Neighborhood level work. Every 2 years better, but every 4 years OK. Richer data on smaller areas of Chicago.
11 (CF)	DNA
12 (CF)	Need data easy to use and pull up. Availability. Need better indication of contents, because easy to overlook important information.
13 (A)	Web downloading not user friendly (Mac user). Prefer fewer cities with more frequency.
14 (G)	Hard question. Use it regardless.
15 (A)	Lower level of geography, subareas.
16 (CF)	Manuals hard to follow and change from year to year.
17 (G)	More frequent. Year by year is needed.
18 (A)	Need specific location of affordable housing
19 (G)	Like to see it less statistically oriented. Items hard to pull out or find.
20 (CF)	Simplify. Make it easier to use. The publication is very cumbersome, dense, hard to find information. Some cross-tabs useless.
21 (G)	Make it specific to the city of Independence; instead of Kansas City, Mo.

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Interviewee # / Organization*	Conversation Topic #20: *What is the value of the AHS-MS in the national data system?*
1 (A)	Housing markets are local markets. Need local data not national data to properly address local issues.
2 (G)	MS data is critical. Have this valuable resource going back over 20 years. Standard of universal homeownership important to all political parties - data a measure of this and measuring welfare reform.
3 (A)	DNA
4 (NPO)	Incredibly valuable - helps to know status of population and housing status. Needed by any social or commercial organization.
5 (A)	DNA
6 (G)	DNA
7 (G)	Would be interesting comparing various metro data sets across country and comparing with non-metro housing data to distinguish urban areas from rural areas.
8 (NPO)	No comment. New York market is too special, unique, to worry about comparisons to national situation.
9 (NPO)	DNA
10 (A)	Have compared Chicago to the nation. That is important to compare Chicago situation and trends to national situation and trends.
11 (CF)	DNA
12 (CF)	Invaluable. Have to have the data. Can't get it from the private sector.
13 (A)	Don’t know.
14 (G)	Census only every 10 years. Need more current data and more depth and more detail on more items.
15 (A)	Rate AHS-MS very highly. Housing researchers appreciate richness of detail and fact that it is more frequent than decennial census. Also it is very reliable.
16 (CF)	Did not use nation context except as DC compared with nation and DC compared with suburbs.
17 (G)	Overall national data means nothing. Need specificity at local level because housing market varies widely.
18 (A)	Really valuable.
19 (G)	Greatest value is updated local data. Very minimal use of national data.
20 (CF)	DNA
21 (G)	6 on a scale of 1 to 10.

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APPENDIX C:
QUESTIONNAIRE RESULTS SUMMARY

APPENDIX C: FINDINGS FROM USER QUESTIONNAIRE

1. INTRODUCTION

In August 2000, Westat mailed the questionnaires to the selected contacts. Individuals had the option of responding via regular mail or electronically via the Internet. Due to the limited funds available under this task, only contacts for whom Westat had an electronic mail address were sent reminders. The field period ended in September 2000. At that time, Westat had received 48 completed questionnaires with 13 postal returns. The result was a 25 percent response rate. The remainder of this appendix documents findings from the survey.

2. RESULTS

This section presents findings from the AHS-MS questionnaire. Of the 48 individuals who responded to the questionnaire, 34 indicated that they had used the AHS-MS data; 14 had not (Question 1). The remainder of this section presents a user profile followed by a non-user profile (Questions 2 and 3). Each question is presented, followed by the responses.

User Profile

#4. What is your primary use of the data?

Primary Use	No. of Responses
Academic research	9
Policy analysis	8
Industry analysis	5
Community planning	4
Business planning	0
Some other use	1
Not reported	7

#4 (continued). What is your secondary use of the data?

Secondary Use	No. of Responses
Policy analysis	11
Community planning	5
Academic research	4
Business planning	2
Industry analysis	2
Some other use	1
Not reported	9

#5. Please describe the number and type of projects you are currently working on or have worked on that used AHS-MS data. If your work was published, please include the bibliographic citation. HUD and Census will use this information to decide what to include in future surveys.

- Michigan Affordable Housing Coalition
- Detroit Housing Market Analysis
- Energy efficiency research
- Lead based paint research
- House price appreciation research
- CHAS 1993 and CHAS 1994 (Comprehensive Housing Affordability Strategy)
- Three interrelated studies using the data: Female headed household study, racial succession, and residential mobility using Dallas-Ft Worth, San Antonio, and Houston metro area data.
- Current projects: Department of Defense Basic Allowance for Housing; Various housing studies for U.S. Armed Forces; Various corporate products and databases.
- Industrial development project in San Bernardino County, California
- Development of an employer-assisted housing program
- Published profiles of MSA communities that highlight investment needs and opportunities, including housing market data (generally) and affordable housing market data (specifically).
- Multi-family gas usage; single family appliance usage; residential demographics
- Examine the filtering of affordable rental housing
- Hennepin County/Minneapolis Indicators of Community Stability Annual report. 2. Hennepin County Key Change Drivers Report 3. Affordable Housing Incentive Fund program along with various other housing initiatives. 4. New Economy Project (in process)
- Hendershott P., LaFayette W., Haim D. 1997. Debt Usage and Mortgage Choice: The FHA-Conventional Decision. *Journal of Urban Economics*, 41, p. 202-217.
- Stone, Michael E. 1989. Shelter-Poverty in Boston: Problem and Program. In Sara Rosenberry & Chester Hartman, eds. *Housing Issues of the 1990s*. New York: Praeger. p. 337-378.
- Taylor, B., Ong P. 1995. Spatial mismatch or automobile mismatch? An examination of race, residence, and community in U.S. metropolitan areas. *Urban Studies*. 32(8), p. 1453-1473.

#6a. Do you conduct any longitudinal data analysis with AHS-MS data?

Longitudinal Analysis?	No. of Responses
Yes	9
No	15
Don't know	3
Not reported	7

#6b. Please describe the types of longitudinal data analysis you are conducting or have conducted using AHS-MS data.

- Detroit Housing Market Analysis
- Analysis of (imputed) longitudinal data on commuting
- Changes in stock of housing in the Kansas City area
- How housing quality changes over time through new constructions, conversions and mergers, and removal of older stock.
- Change in housing units/variety/quality over time. Change in housing demographics (total # in household/age/income/value/employment opportunities within a given distance of certain housing types/age of housing units)
- Large/small; Low Income/ High Income; Demographics
- From comparing units that tenant had changed in two consecutive data we were able to look at characteristics of tenants in comparison to previous tenants

#7. The AHS-MS has been conducted since 1974 on a rotating list of metropolitan areas. Have you used AHS-MS data from…

No. of Survey Years	No. of Responses
Only one survey year	5
More than one survey year but not all survey years	19
All survey years	1
Not Reported	9

#8. Of the 47 current metropolitan areas (MAs) covered by the AHS-MS, have you used the data from…

No. of MAs	No. of Responses
Only one MA	7
More than one MA but not all MAs	15
All MAs	3
Not Reported	9

#9. Please rate the following statements on a scale of 1 to 5, with 1 being "strongly agree" and 5 being "strongly disagree."

While a 5-point scale represents ordinal scale data which means that the intervals hold no meaningful interpretation, variables measuring attitudinal data are frequently treated as interval data to allow for greater statistical analyses. For the purposes of this analysis, we have treated the data as interval. Tables C-1 and C-2 provide the frequency of ratings for each item as well as the mean, median, and mode of those ratings.

Table C-1. Level of Agreement with Statements about the AHS-MS Data

Statement	Strongly Agree ←→ Strongly Disagree					Not Reported
	1	2	3	4	5	
AHS-MS data are a good source of information on the physical condition of the housing stock.	8	11	2	2	1	10
AHS-MS data provide enough information on household composition	7	5	2	2	0	8
AHS-MS data provide useful information on housing costs.	8	8	6	3	0	9
AHS-MS data on household equipment (plumbing, appliances, etc.) are useful.	6	7	9	2	0	10
AHS/MS data are a good source of current demographic data.	1	14	8	2	1	8
The AHS-MS is a good source of longitudinal housing data for my metropolitan area.	3	11	10	1	1	8
AHS-MS provides good coverage of a variety of metropolitan areas.	1	13	8	3	0	9
Overall, for my needs, I find that AHS-MS to be useful.	3	13	5	4	1	8
The sample sizes used in the AHS-MS are acceptable.	1	13	8	2	2	8
AHS-MS data provide enough information on recent movers.	3	6	8	7	0	10
AHS-MS data provide enough information on neighborhood characteristics.	1	10	5	7	3	8
The delay between collection and release of the data is acceptable.	0	7	8	8	3	8
The four to six year interval between surveys of metropolitan areas is acceptable.	1	7	4	7	7	8

Table C-2. Mean, Median, and Modal Responses for Statements about the AHS-MS Data

Statement	Mean	Median	Mode
AHS-MS data are a good source of information on the physical condition of the housing stock.	2.0	2	2
AHS-MS data provide enough information on household composition	2.0	2	2
AHS-MS data provide useful information on housing costs.	2.2	2	2
AHS-MS data on household equipment (plumbing, appliances, etc.) are useful.	2.3	2	3
AHS/MS data are a good source of current demographic data.	2.5	2	2
The AHS-MS is a good source of longitudinal housing data for my metropolitan area.	2.5	2	2
AHS-MS provides good coverage of a variety of metropolitan areas.	2.5	2	2
Overall, for my needs, I find that AHS-MS to be useful.	2.5	2	2
The sample sizes used in the AHS-MS are acceptable.	2.7	2	2
AHS-MS data provide enough information on recent movers.	2.8	3	3
AHS-MS data provide enough information on neighborhood characteristics.	3.0	3	2
The delay between collection and release of the data is acceptable.	3.3	3	3
The four to six year interval between surveys of metropolitan areas is acceptable.	3.5	4	2

#10. Please rate the following housing data topics on a scale of 1 to 5, with 1 being "most important" and 6 being "not important."

Respondents were also asked to rate a series of statements about household data topics on a 1-5 scale with “1” being “most important” and “5” being “not important.”

Tables C-3 and C-4 provide the frequency of ratings for each item as well as the mean, median, and mode of these ratings.

Table C-3. Level of Agreement with Statements about Household Data Topics

	Most Important ←→ Not Important					Not Reported
	1	2	3	4	5	
Housing costs	18	7	1	0	0	8
Household income	16	7	1	1	1	8
Value and purchase price of housing	11	11	4	0	0	8
Size of unit and lot, rooms, and square footage	12	8	4	1	0	9
General housing stock	12	9	4	0	1	8
Physical characteristics of housing stock	13	5	4	3	1	8
Housing quality	9	11	4	1	1	8
Neighborhood quality	11	8	3	3	1	8
Demographics	10	11	2	2	1	8
Household composition	11	10	1	3	1	8
Mortgage data	10	9	3	4	0	8
Recent movers	8	9	5	2	2	8
Housing repair, improvement, and alterations	7	10	5	0	4	8
Vacancy data	7	7	8	1	3	8
Housing equipment (plumbing, appliances, etc.)	3	3	11	6	3	8

Table C-4. Mean, Median, and Modal Responses for Statements about Household Data Topics

Item	Mean	Median	Mode
Housing costs	1.3	1	1
Household income	1.6	1	1
Value and purchase price of housing	1.7	2	1
Size of unit and lot, rooms, and square footage	1.8	2	1
General housing stock	1.8	2	1
Physical characteristics of housing stock	2.0	1	1
Housing quality	2.0	2	2
Neighborhood quality	2.0	2	1
Demographics	2.0	2	2
Household composition	2.0	2	1
Mortgage data	2.0	2	1
Recent movers	2.3	2	2
Housing repair, improvement, and alterations	2.4	2	2
Vacancy data	2.5	2	3
Housing equipment (plumbing, appliances, etc.)	3.1	3	3

#11a. Are there any other data sources that you use that provide the same type of information for a metropolitan area as the AHS-MS?

Use Other Data Sources?	No. of Responses
Yes	14
No	10
Don't know	1
Not reported	9

#11b. Please name and describe the other data sources (that you use to get the same type of information for a metropolitan area).

- Low Income Housing Information Service
- National Association of Realtors
- Joint Center for Housing Studies
- National Personal Transportation Survey (NPTS)
- Public Use Microsample (PUMS)
- Local tax assessors' office
- Private data sources - Claritas
- CPS, SIPP, CES
- Government - Census, HUD, Dept of Justice
- Public use microdata sample from 1990 Census has some useful housing measures, but much less detailed than AHS
- 1990 Census, some Claritas data
- State housing finance agencies; American Fact Finder - Census; National and State Association of Realtors; County assessors; State data centers; HUD; FannieMae; FreddieMac; Joint Center for housing studies at Harvard; National Mortgage Bankers Association
- ACS, HMDA
- RECS and other EIA data
- CPS provides data on demographics, hh composition, hh income on annual basis, though with smaller samples
- Discussion with other locality staff through Council of Governments, MRLS sales data.

#12. Where did you obtain AHS-MS data?

Source of AHS-MS Data	No. of Respondents
HUD USER	13
Census Bureau	7
University library	3
Public library	0
Some other source	2
Don't know	1
Not reported	8

#13. What AHS-MS format(s) have you obtained and/or used?

Format	No. of Respondents			
	Yes	No	Don't Know	Not Reported
Published reports (tabulations)	21	1	2	22
Micro data	17	6	1	10

#14. As an AHS-MS data user, what improvements could be made to the AHS-MS to better suit your needs. (Check all that apply)

- Large sample sizes (n = 14)
- Broaden coverage of different metropolitan areas (n = 13)
- Broaden coverage in currently provided metropolitan areas (n = 12)
- Provide data in a more universally used format (n = 10)
- Publicize the survey more widely (8)
- Other improvements (n = 4). Respondents wrote in:
  - Larger sample size so sub-area can be measured over time (n=1);
  - Make it simple to extract data (n=1);
  - I would like a county orientation(n=1); and
  - Go back to collecting travel behavior and transportation resources data (n=1).

#15. What category best represents the organization for which you work? (Check all that apply).

Category	No. of Respondents
Educational institution	9
Private business firm	7
Local or state government agency	5
Trade association	1
Federal government agency	1
Public interest group	1
Full-time student	0
Other	2

Non-User Profile

#2. Why have you not used the AHS-MS data? (Check all that apply)

- Not aware of the data (n = 5)
- Not interested in housing or neighborhood data (n = 1)
- The four to six year gap in the data collection for an individual metro area is too long (n = 1)
- The metropolitan area I am interested in is not covered by the AHS-MS (n = 0)
- The sample size is too small (n = 0)
- Do not like the format of the data (n = 0)
- The delay between the data collection and the release of data is too long (n = 0)
- Other reasons (n = 8). Respondents wrote in:
  - No opportunity to use it (n=2);
  - Only need data at the national or regional level (n=2);
  - Need data at the county and municipal level (n=1);
  - Don't know how to access (n=1);
  - Limited central city data (n=1); and
  - Geography is too large (n=1).

#3. What changes or improvements to the AHS-MS data would make you more likely to use it the next time you need housing data?

- This is a county government department. For planning and analysis, we need local housing data.
- Collect remodeling data at the metro-level.
- Better documentation.
- Provide more statistical information.

APPENDIX D:
LITERATURE SEARCH BIBLIOGRAPHY

APPENDIX D: LITERATURE SEARCH BIBLIOGRAPHY

Note: the Literature Search Bibliography includes abstracts (when available) and was conducted for citations made in 1990 through 1999.

American Housing Survey – Metropolitan Sample
Literature Search Bibliography including abstracts when available (1990 – 1999)

Anjomani, Ardeshire, Erickson, Jon, and Malone, Walter. 1992. Racial succession and residential mobility in Dallas-Fort Worth and San Antonio. *Journal of Urban Affairs.* 14(1), p. 43-60.

> Uses data from the 1974-1978 Annual Housing Survey Standard Metropolitan Area files to examine differences in residential succession patterns for black, Hispanic, and Anglo-American households in the Dallas-Fort Worth and San Antonio metropolitan areas. Multivariate logistic regression analysis reveals that of the demographic variables that play roles in determining interracial residential succession, race is of overwhelming importance. This implies that there is a lack of interaction between housing markets for the different racial groups in these areas. In San Antonio, however, the Anglo housing market appears to interact more with the other two groups. 8 Tables, 1 Figure, 37 References.

Baer, William C. 1995. When old buildings ripen for historic preservation: A predictive approach to planning. *Journal of the American Planning Association*. 61, Winter, p.82-94

Chambers, Daniel N. 1992. The racial housing price differential and racially transitional neighborhoods. *Journal of Urban Economics.* 32, September, p. 214-232.

> This article examines the issue of why blacks pay less for housing in most metropolitan areas than whites. The author uses the American Housing Survey for Chicago to review neighborhood quality, neighborhood amenities, and the racial composition of 24 residential zones. The author concludes that (1) the previously measured housing price discount to blacks is seriously overstated; (2) household price differentials vary across different racial submarkets; and (3) racially changing neighborhoods near black areas receive price discounts in comparison to racially stable neighborhoods.

Cook, Christine C., Bruin, Marilyn J. 1993. Housing and neighborhood assessment criteria among black urban households. *Urban Affairs Quarterly*. 29(2), December, p. 328-339.

> In as much of the previous research on residential evaluation criteria, scholars have neglected to examine possible variations by household type, particularly among black households. This research report analyzes the residential experiences of these households using the data from the metropolitan New Orleans sample of the 1986 American Housing Survey. This study presents variables that contribute to the satisfaction and dissatisfaction rates of 186 black households. The six household types include: families headed by couples; households composed of females; and males; households headed by a person 65 years of age or over; nonelderly women; and men living alone. The specified model predicts neighborhood somewhat better than housing satisfaction and is more predictive for some household types than for others. The results highlight the limited housing and neighborhood options of blacks, particularly female-headed families and the elderly, and suggest public policy intervention in urban settings on their behalf.

Note: Excludes matches to HUD provided bibliography. Citations marked with an asterisk (*) match a bibliography created by the U.S. Bureau of Census.

Galbraith, Christopher Z. 1996. "Old houses never die: Assessing the effectiveness of filtering as a low-income housing policy." Ph.D. Dissertation, The University of Texas at Austin. DAI, 58, no. 01A (1996): 0231.

> Despite years of governmental expenditure on housing subsidies and the construction of thousands of public housing units, the primary source of low-income housing in the United States in older deteriorated housing. New construction is biased toward middle- and high-income housing. As these houses deteriorate with age, the original residents move out and are replaced by residents of lower socioeconomic standing. Houses "filter" down to the poor. Filtering has long been the de facto housing policy in the United States, but is it an effective policy? Does filtering satisfy the demand for low cost housing? My dissertation consists of three related chapters. Together they can be used to assess the effectiveness of filtering as a housing policy. Data are drawn from the 1974-1991 American Housing Survey Metropolitan Files which provided detailed information on a panel of housing units in 33 large metropolitan areas.

Habis, Issam M. 1996. "Estimating the willingness to pay for neighborhood racial composition: A bid rent approach." Ph.D. Dissertation, State University of New York at Binghamton. DAI, 57, no. 12A, (1996): 5232.

> Most large U.S. metropolitan areas continue to exhibit high degrees of racial residential segregation, where most blacks live in predominantly black neighborhoods that tend to be clustered inside central cities. Whites, on the other hand, largely occupy suburban, predominantly white neighborhoods. In their attempts to explain this residential pattern some researchers point to personal preferences of whites to avoid living in residentially mixed neighborhoods. The evidence used to support this view is found in public opinion surveys that are conducted from time to time to monitor trends in racial attitudes. Results of surveys that were conducted during the 70's suggest that while whites prefer segregation blacks favor integration. Since recent surveys suggest that white attitudes towards blacks have improved, one would expect an accompanying decline in residential segregation. However, this has not been the case. To what extent are the attitudes reported in these surveys consistent with the actual location decisions of white and black households? Is there any consistent pattern of change in preferences for neighborhood racial composition? Can these preferences explain the existing residential pattern? The purpose of this research is to address these questions using the tools of urban economic theory. Specifically, bid rent functions that relate housing prices to housing attributes and neighborhood attributes, including racial composition, are estimated for black and white households. A property of bid rent functions is that if a group of households with common preferences and similar income levels are in residential equilibrium, then variations in the housing package they consume should exactly compensate them for the differences in the attributes of these housing packages. This implies that the estimated coefficients associated with any attribute can be interpreted as a measure of the willingness to pay for that attribute. Thus, the estimate of whites' or blacks' willingness to pay for neighborhood racial composition can reveal the extent to which members of one racial group are averse to or prefer living among members of the opposite race. The regressions are estimated using the American Housing Survey data for nine standard metropolitan statistical areas over several years. The findings of the research indicate that, in general, whites are averse to living among blacks, whereas blacks, especially as their income increases, display a taste for living among whites. The results of the study, also, suggest that while there has been no significant change in whites' attitudes towards blacks, blacks' preference for living among whites has intensified in recent years. Comparison of the two racial groups' bids shows that there is no significant difference in their respective willingness to pay for neighborhood racial composition, implying that racial preferences per se are not sufficient to explain the persistence of segregation.

Note: Excludes matches to HUD provided bibliography. Citations marked with an asterisk (*) match a bibliography created by the U.S. Bureau of Census.

Hendershott, Patric H., and Thibodeau, Thomas G. 1990. The relationship between median and constant quality house prices: Implications for setting FHA loan limits. *AREUEA Journal*. 18(3), p.323-334.

This paper examines the relationship between the asset price of housing and median sales price. We demonstrate: (1) median house prices (as reported by the National Association of Realtors) overstate the increase in constant-quality house prices by about 2% per year over 1976-1985 period; and (2) regional differences in median house prices and their rates of increase, respectively, are systematically related to regional differences in real incomes and their rates of increase. We use these results to evaluate the recent proposal to raise the FHA maximum loan limit ceiling from the current ceiling of $124,750 to 95% of the area median house price.

Hendershott, Patric H., Lafayette, William C., and Haurin, Donald R. 1997. Debt usage and mortgage choice: The FHA-conventional decision. *Journal of Urban Economics*. 41(2), March, p. 202(16).

An individual buying a house has to decide whether to select a FHA or a conventional loan. There is a dearth of study focusing on the FHA/conventional mortgage choice and the interrelation among the mortgage debt and instrument decisions. To fill this shortage in literature, a study was conducted estimating a nested logit mortgage choice model. Data were gathered from the 1984 Metropolitan American Housing Survey, which netted a total sample of 819 young home purchasers. Findings revealed that debt and mortgage choice is influenced by the need to balance the downpayment and monthly payment constraint ratios and to minimize mortgage insurance expenses. Implications and recommendations for further studies are discussed.

Hou, John, Lazere, Edward B. 1991. *Place to call home: The crisis in housing for the poor, San Antonio, Texas*. Washington, D.C.: Center on Budget and Policy Priorities.

This study, one of a series by the Center on Budget and Policy Priorities on low-income housing conditions in metropolitan areas across the Nation, concludes that housing costs in the San Antonio area are out of the affordable range for most poor households. Based on data from the 1986 American Housing Survey, this report finds that more than three of every four poor renter households in the San Antonio area paid at least 30 percent of income for housing, and more than one in three spent at least 70 percent of income on housing expenses. Affordability problems worsened sharply between the mid-1970s and the mid-1980s, contributing to the growing problem of homelessness and the incidence of hunger. The large numbers of low-income households living in substandard and overcrowded housing conditions is also a problem. The study urges major action by all levels of government as well as the private sector. Nine figures and four tables are included.

Ihlanfeldt, Keith R. 1991. Comments on some results from the American Housing Survey: National and metro. *ASA Proceedings of the Social Statistics Section*. p. 383-384.

Johnson, Michael P., Hurter, Arthur P. 1996. "Benefits and costs of location of subsidized housing in metropolitan areas." Working paper, Northwestern University, Evanston, IL. Department of Industrial Engineering and Management Sciences.

Johnson, Michael P., Hurter, Arthur P. 1997. "Location of objectionable facilities: Subsidized housing." Prepared for the Sixth Industrial Engineering Research Conference, Miami Beach, FL, May 1997.

This research develops a methodology for measuring the costs and benefits of using rental vouchers and certificates to move low-income families from public housing to more affluent, racially integrated communities in a central city and surrounding suburbs. This methodology is then used to generate data for an optimization model that can determine where, in a metropolitan area, such families should be encouraged to move. Focus is placed on three groups affected by the location of

Note: Excludes matches to HUD provided bibliography. Citations marked with an asterisk (*) match a bibliography created by the U.S. Bureau of Census.

subsidized housing: the residents of subsidized housing, occupants of owner-occupied housing located close to units of new subsidized housing, and society (represented by taxpayers). Using American Housing Survey data for the Chicago metropolitan area, the authors demonstrate their methodology. They estimate that then net benefit value for a hypothesized move from public housing to rent-subsidized housing is negative, although this is attributed to the unreliability of the data set.

Kiel, Katherine A., Zabel, Jeffery E. 1999. The accuracy of owner-provided house values: The 1978-1991 American Housing Survey. *Real Estate Economics*. 27(2), p. 263-298.

The American Housing Survey (AHS) includes the owner's valuation of the house as a measure of the house's value. If owner-stated values are accurate, researchers studying a variety of topics can use the AHS (as well as other survey instruments). In this study the authors use the metropolitan version of the AHS for three cities over fourteen years to compare owners' valuations with sales prices of houses that sold in the twelve months prior to an interview. The authors find that, on average, recent buyers report house values that are 8.4% higher than the stated sales prices. Further analysis indicates that these recent buyers, when compared with owners with longer tenure, overvalue their houses by 5.1%. Also, differences between sales prices and owners' valuations are not related to particular characteristics of the house, occupants (other than length of tenure), or neighborhood. Thus, the use of owners' valuations will result in accurate estimates of house price indexes and will provide reliable estimates of the prices of house and neighborhood characteristics.

Kiel, Katherine A., Zabel, Jeffery E. 1997. Evaluating the usefulness of the American Housing Survey for creating house price indices. *Journal of Real Estate Finance and Economics.* 14(N1-2), p. 189-202.

The American Housing Survey (AHS) is a valuable source of information on houses and occupants over time. The AHS has several advantages of sales data for use in the creation of price indices: it is readily available, has frequent observations over time and space, has data from the late 1970's through the mid-1990's, includes houses that do not sell, as well as those that do, and has information on the occupants. The drawbacks include: a time lag between the interview and the release of data, data suppression issues, owner-stated house values, and a lack of neighborhood information. In this study, we use the metropolitan version of the AHS, which has been supplemented with the original survey data as well as Census tract data for three cities over 14 years to examine whether the AHS can be used to create indices. Indices are estimated using hedonic, repeat valuation, and hybrid techniques, overcoming some of the problems inherent in the estimation of indices. We find that the data-suppression issues and the owner-stated house values are not problematic. The biggest drawback of the AHS is its lack of objective information on neighborhood quality.

Kiel, Katherine A., Zabel, Jeffery E. 1996. House price differentials in U.S. cities – household and neighborhood racial effects. *Journal of Housing Economics*. 5(2), p. 143-165.

Three cities are examined for evidence of housing market discrimination and prejudice using the American Housing Survey for 1978-1991, supplemented with information on neighborhood quality from the 1980 and 1990 Censuses. We show that incorrect inferences about the magnitude of racial price differentials are possible when neighborhood characteristics are excluded. When this information is included and the racial indicators are allowed to vary over time and submarkets, there is evidence of increasing prejudice in Denver and Philadelphia and decreasing prejudice in Chicago. There also appears to be a trend toward lower levels of price discrimination against nonwhites in ghetto areas in all three cities, though exclusionary practices have increased in suburban areas in Philadelphia.

Note: Excludes matches to HUD provided bibliography. Citations marked with an asterisk (*) match a bibliography created by the U.S. Bureau of Census.

Knight, John R. 1990. "Biased estimation in the context of the hedonic pricing model for housing." Ph.D. Dissertation, The Louisiana State University and Agricultural and Mechanical College. DAI, 51, no. 12A, (1990):4227.

This dissertation compares eight biased estimators as alternatives to Ordinary Least Squares estimation in the context of predicting residential real estate prices. It considers ridge rule estimation and principal components regressions, techniques that have previously been proposed for this application. It also introduces the use of Stein-like rules for predicting housing prices. The study examines relative performance of these estimators in three data settings and under four separate assumptions regarding loss criteria. The first test of the estimators uses Multiple Listing Service (MLS) data for Baton Rouge, Louisiana between 1984 and 1989 to examine relative predictive effectiveness in a time series framework with highly descriptive data. Next, American Housing Survey (AHS) data for six metropolitan areas is employed to compare the estimators in a cross-sectional context with the type of data typically used to create housing price indexes. Finally, the AHS data is used as the basis for a Monte Carlo experiment that compares estimator performance in numerically simulated repeated samples. The partitioned Stein-like estimators do well in all three data environments. Two of them provide especially impressive performance. Under quadratic loss, in the Monte Carlo experiment, these estimators outperform all compared alternatives across the entire range of generated samples.

Knight, J.R., Hill, R. Carter, Sirmans, C.F. 1993. Estimation of hedonic housing price models using nonsample information: A monte carlo study. *Journal of Urban Economics*. 34(3), November, p. 319-346.

Using Monte Carlo simulations, this paper evaluates the predictive performance of ordinary least-squares estimation, ridge regression, two empirical Bayes formulations of Stein-like rules that are based on different nonsample information, and a pretest estimator. The context of the experiment is a standard hedonic model for housing values using American Housing Survey data for six geographically diverse metropolitan statistical areas. The simulations reveal that the Stein-like rules empirically dominate least squares under each of three estimation and prediction loss criteria. (c) 1993 Academic Press, Inc.

Kutty, Nandinee K. 1996. "Housing quality across seven U.S. metropolitan areas." Prepared for the 43rd North American Meetings of the Regional Science Association International, Washington, D.C., November 1996.

This paper studies housing quality across seven metropolitan areas in the United States: Atlanta, Baltimore, New York, St. Louis, San Diego, Seattle, and Washington, D.C. In the context of the national goal of decent housing for every American, it is important to assess the level of housing quality in the United States, and to analyze some of the determinants of housing quality. The paper contains a description of the prevalence of two housing quality indicators, structural adequacy and room density, across the metropolitan areas and population groups. Based on data from the American Housing Survey of Metropolitan Areas, we find that there exist significant disparities in housing quality across metropolitan areas and population groups by race, household type, tenure and central city or suburban location. Corresponding to the indicators of structural adequacy and room density, we consider two standards of housing quality: adequacy (a multidimensional standard described in the paper) and crowding (defined as more than one person per room). We specify and estimate two multinomial logit models in which the probability of good quality depends on a number of factors on the demand and supply sides of the housing market. We also estimate a linear regression model of the determinants of room density. Our results indicate that even after statistically adjusting for many factors, race, tenure, location, household type, age of the structure, and income are significant in determining housing quality.

Note: Excludes matches to HUD provided bibliography. Citations marked with an asterisk (*) match a bibliography created by the U.S. Bureau of Census.

Linneman, Peter, Voith, Richard. 1991. Housing price functions and ownership capitalization rates. *Journal of Urban Economics.* 30(1), July, p. 100-111.

> In this paper we examine the problem of consistently estimating capitalization rates and hedonic housing prices. We specify a hedonic pricing model for housing that combines owner-occupied and rental unit samples in a manner yielding hedonic prices not subject of selections bias and capitalization rates which vary with the age and family income of the residents. We use the 1982 Annual Housing Survey (AHS) for metropolitan Philadelphia to obtain parameter estimates for this model. Our findings indicate that selectivity bias is present in price functions utilizing only owner-occupied or rental unit samples. Our results further indicate that the mean annual capitalization rate for owner-occupied units is approximately 10 percent. However, the capitalization rate is non-monotonically related to both age of the head and family income.

Nelson, Walt A. 1994. Demonstrating the Use of American Housing Survey data in cross-sectional studies. *Journal of Real Estate Literature.* 2(1), January, p. 69-77.

> The purpose of this paper is to illustrate the use of the American Housing Survey so that more researchers will be inclined to use AHS data in studies concerning urban housing patterns, real estate finance, appraisal, property management, and marketing. The AHS—conducted by the Census Bureau as agent for the U.S. Department of Housing and Urban Development—is designed to provide a current series of information on the size and composition of the housing inventory, including information about household demographics and neighborhood quality. The AHS consists of a national survey of about 60,000 households taken every other year and a metropolitan survey conducted on a rotating basis every year among 11 out of 44 urban areas. Sample sized range from 2,000 to 4,000 per metro area. The AHS contains a wealth of information available at low cost to all who wish to make use of it.

Nevin, Rick, Watson, Gregory. 1998. Evidence of rational market valuations for home energy efficiency. *Appraisal Journal*. 66(4), October, p. 401-409.

> Presented is a study examining the value of home energy efficiencies and its impact on the property's market value. Prior to the establishment of energy-efficient mortgage guidelines, energy-saving initiatives did not enjoy any allowances for their initiatives. By 1972, the Federal National Mortgage Association and the Federal home Loan Mortgage Corp, has allowed a "2% stretch" over normal income ratio criteria for energy-efficient home mortgages. Consequently, the lenders were given more flexibility with income ratios for energy-efficient homes. However, they were not given flexibility with the loan-to-value ratio. The study focused on the data from the 1991, 1993 and 1995 American Housing Survey national data and 1992-1996 metropolitan statistical area. The study noted that the smaller single-year MSA samples for detached homes demonstrated more variations. It was found that there is no or negligible difference in the fuel expenditures due to the discounted value associated with dollar reductions in annual utility bill Article includes a table showing the published research on market value of energy-efficient homes.

Newman, S. J. 1994. The housing and neighborhood conditions of persons with severe mental illness. *Hospital and Community Psychiatry*. 45(4), p. 338-343.

> This study compared the housing and neighborhood conditions of persons with serious mental illness with those of the general population. Methods: Data were derived from two surveys: the Community Care Survey administered in 1988-1989 in Baltimore, Maryland, and in Cincinnati and Columbus, Ohio, as part of the national evaluation of the Robert Wood Johnson Foundation Program on Chronic Mental Illness and the American Housing Survey conducted by the U.S. Census Bureau for the Department of Housing and Urban Development. Results: Persons with serious mental illness generally have worse housing and neighborhood circumstances than the overall population. Persons with serious mental illness typically had housing cost burdens that were significantly higher than the general population; their dwellings and neighborhoods often had higher rates of physical deficiencies and other problems, especially crime. Conclusions: Although the relationship between the well-being of seriously mentally ill persons and the condition of their

Note: Excludes matches to HUD provided bibliography. Citations marked with an asterisk (*) match a bibliography created by the U.S. Bureau of Census.

housing and neighborhood has not been established definitively, the results of this study suggest that many persons with serious mental illness are not now achieving adequate housing and its associated benefits.

Onder, Zeynep. 1995. "Public policy issues related to FHA financing: FHA borrowers, FHA loan limit and home ownership". Ph.D. Dissertation, Cornell University. DAI, 56, no. 8A (1995): 3243.

Since 1934, the Federal Housing Administration (FHA) has helped many Americans become homeowners by providing mortgage insurance for lenders in case of the default of the borrowers. This study examined three public policy questions related to the FHA's mortgage insurance programs. First, it described the individual and neighborhood characteristics of the markets that the FHA serves. Second, the FHA limits the maximum loan amount depending on housing cost in the area. This study analyzed the effect of these limits on the mortgage activity of low- and moderate-income loan applicants. Third, it examined the effect of FHA mortgage activity on home ownership rates. The analysis covers FHA and other federal mortgage insurance programs. Only home purchase loans for owner-occupied properties were investigated. The analysis was done with a multi-stage process in order to control for other factors that might affect an individual's mortgage choice. Two different data sets were used: 1990 and 1991 Home Mortgage Disclosure Act (HMDA) data and the Metropolitan American Housing Survey (AHS) for the years 1984 through 1991.

*****Pollakowski, Henry O. 1995. Data sources for measuring housing price changes. *Journal of Housing Research*. 6(3), p. 377-387.

The effectiveness of house price index methods depends on the quality and appropriateness of the data employed. This article describes and compares the types of data available. The comparison criteria include ability to adjust for quality; availability of buyer and seller characteristics, financing information, length of time on the market, and locational detail; representativeness; sample size; availability lag; length of time covered; and cost. The results highlight the importance of the match between data type and the proposed use of the house price index. While no data type is ideal, transactions and assessment data are highly rated because of their completeness and increasingly widespread availability. Mortgage transaction data are valuable for evaluating pools of mortgages and modeling defaults. Multiple listing service data are often well suited to local studies. The American Housing Survey (AHS), which surveys dwellings at both the national and metropolitan levels, has been used to construct house price indices. The AHS has the best and most detailed property characteristics available, and its uniformity facilitates comparisons among regions and metropolitan areas.

*****Rex, Tom R. 1997. AHS provides housing data for Metro Phoenix. *Arizona Business*. 44(8), August, p.9 (1).

The American Housing Survey conducted by the US Dept of Housing and Urban Development and the Dept of Commerce features information regarding housing in the metropolitan Phoenix, AZ, area. These include areas such as Phoenix, Riverside-San Bernardino, Anaheim-Santa Ana, San Diego, Dallas, Fort Worth, Buffalo and Milwaukee. The survey included data on homeownership, mobile homes, travel trailers.

Sawicki, David S., Flynn, Patrice. 1996. Neighborhood indicators: a review of the literature and an assessment of conceptual and methodological issues. *Journal of the American Planning Association*. 62, Spring, p. 165-183.

Note: Excludes matches to HUD provided bibliography. Citations marked with an asterisk (*) match a bibliography created by the U.S. Bureau of Census.

Shelton, Gladys G., Sillah, Marion R. 1996. Profiles and perspectives of housing quality of Blacks in selected southern metropolitan cities. *Housing and Society*. 23(84), p 84-110.

Examines indicators of quality such as location, race, household composition, income, tenure, and affordability, using American Housing Survey Data from 1985-1991; US, Atlanta, Baltimore, Dallas, Fort Worth, Houston, Miami, New Orleans, San Antonio, Tampa, and Washington, D.C.

Smith-Heimer, Michael A. 1992. "Price changes in metropolitan rental submarkets, 1974-1985." Ph.D. Dissertation, University of California, Berkeley. DAI, 53, no. 10A, (1992): 3696.

This research examines rental housing markets and lower and higher income submarkets in several metropolitan areas over the 1974-1985 period, evaluating the presence of filtering. The general concept of filtering is outlined, and the theoretical impediments to the housing unit filtering are reviewed. The research contrasts "welfare" filtering with the generalized concept of filtering and evaluates the concept as a criterion for assessing housing market operations from a public policy perspective. This "welfare" filtering conceptualization requires that the constant quality price for a mean unit declines over time, reflecting welfare improvements to renters. Seven metropolitan areas are selected based on variations in supply and demand characteristics, with theoretical literature positing that high supply/low demand areas would experience declining constant quality prices. Supply and demand characteristics for these metropolitan rental housing markets are assessed, and the general market conditions are summarized using several measures of rental market supply and demand stresses. Then, recent movers from a series of housing unit panels drawn from the Annual Housing Survey Metropolitan Series Files are segmented into submarkets using income and rent differences, and hedonic regression parameter estimates developed from recent mover price information are used to construct constant quality housing prices for rental units in each metropolitan submarket in several time periods. Research results indicate that none of the metropolitan submarkets experienced welfare filtering, despite a wide range of supply and demand conditions. The research suggests that high levels of housing construction are not a sufficient condition to generate welfare filtering, and probes the public policy implications of the research findings.

St. John, Craig, Edwards, Mark, and Weak, Deeann. 1995. Racial differences intraurban residential mobility. *Urban Affairs Review*. 30, May, p. 709-729.

A study was conducted to examine racial differences in intraurban residential mobility. Data on the intraurban residential mobility of African-Americans and whites from the 1992 Oklahoma City Survey were used. The findings indicated that African-Americans had lower rates of intraurban residential mobility than did whites. African-Americans made fewer intraurban moves and had fewer opportunities to improve their residential environments. When African-Americans did move, they experienced less improvement in neighborhood quality than did whites.

Taylor, Brian D., Ong, Paul M. 1995. Spatial mismatch or automobile mismatch? An examination of race, residence and commuting in U.S. metropolitan areas. *Urban Studies.* 32, November, p. 1435-1473.

This paper uses data from the metropolitan samples of the American Housing Survey in 1977-78 and 1985 to examine the commute patterns of whites, blacks, and Hispanics in U.S. metropolitan areas, with a particular focus on the commutes of workers living in predominantly minority residential areas. Overall, the commute patterns of white and minority workers appear to be converging rather than diverging over time, even among low-skilled workers. Contrary to the spatial mismatch hypothesis, black and Hispanic workers living in minority areas had both shorter commutes and commutes that increased more slowly between 1977-78 and 1985 compared to workers in other areas. Further, a longitudinal analysis shows that the average commute times of non-moving minority workers in predominantly minority areas decreased during the study period. We find no evidence in these commuting data to support the spatial mismatch hypothesis.

Note: Excludes matches to HUD provided bibliography. Citations marked with an asterisk (*) match a bibliography created by the U.S. Bureau of Census.

*****Thibodeau, Thomas G. 1995. Housing price indices from the 1984-1992 MSA American Housing Surveys. *Journal of Housing Research*. 6(3), p. 439-481.

This article reports residential real estate price indices computed from the Metropolitan Statistical Area (MSA) American Housing Survey for 1984 through 1992. It extends the hedonic price indices report earlier to metropolitan areas surveyed during those years. Price indices for owner-occupied housing and for rental housing services are computer using 1985 national average housing characteristics. Housing inflation rates are measured using Laspeyres, Paasche, and Fisher indices. The article provides (1) house price indices base on random samples of the entire housing stock rather than (nonrandom) samples of properties that sell one or more times; (2) indices that price a constant bundle of housing characteristics across the 44 metropolitan areas and over time; (3) indices for both house prices and housing inflation rates; (4) tenure-specific price indices for new housing, existing standard-quality housing, and substandard housing; and (5) an estimate of the gradual improvements in the nation's housing stock. The author found that constant-quality housing price indices are representative of the entire stock of housing within each housing market. California metropolitan areas typically had the most expensive housing, with MSAs in the South had the least expensive. Shelter rents in California MSAs were 2.5 times those in other metropolitan areas and California's owner-occupies house prices were three times the national average.

Note: Excludes matches to HUD provided bibliography. Citations marked with an asterisk (*) match a bibliography created by the U.S. Bureau of Census.