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To: The Record

From: James B. Treat
                                     Chief, American Community Survey Office

Subject: Release of the Review of Administrative Data Sources Relevant to
                                     the American Community Survey

This memo announces the release of the document, "Review of Administrative Data Sources Relevant to the American Community Survey." This report provides a review of administrative data sources that could be used to replace or improve specific questions in the American Community Survey. Its purpose is to support the work of the ACS Content Review by providing additional input on potential data sources that might be used to strengthen the survey, improve its content, or reduce the burden associated with its collection.

The report is public-facing and is being posted to the American Community Survey library web page at: http://www.census.gov/acs/www/library/

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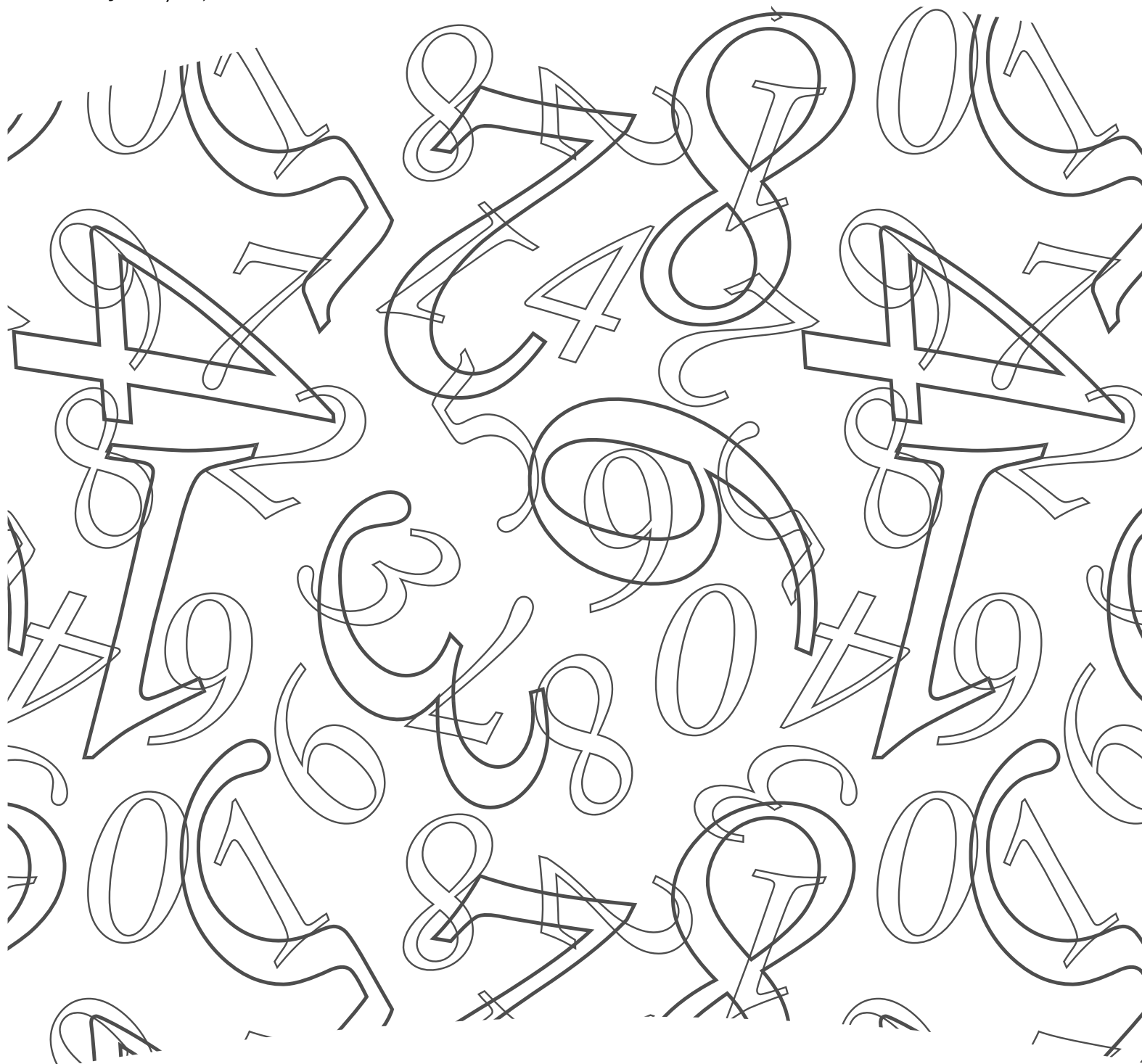# Review of Administrative Data Sources

Relevant to the American Community Survey

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Executive Summary

This study provides a review of administrative data sources that could be used to replace or improve specific questions in the American Community Survey. Its purpose is to support the work of the ACS Content Review by providing additional input on potential data sources that might be used to strengthen the survey, improve its content, or reduce the burden associated with its collection. The conclusions reached here discuss only the existence and suitability of specific alternative data sources, and do not imply any judgment on the value or costs associated with any specific survey purpose or use.

The review was carried out in three steps. First, the purposes for which each question in the survey was used were examined, based both on reports from federal agencies and input from other data users. Second, available administrative data sources were reviewed to determine their potential for serving the purposes identified for each question. An attempt was made to be as inclusive as possible in considering potential data sources, and those reviewed included federal, state, and local administrative records for both taxes and benefit programs. Private sector records and third party data aggregators were also assessed. Finally, in cases where it was determined that administrative data sources could potentially meet at least some of the purposes of a specific ACS question, the work that would be needed to develop the alternative data source for use was assessed.

Broadly, the review found that administrative data do hold some promise for improving the ACS, and that several questions could potentially be replaced with matched or imputed data. In the short run, the most likely candidates for replacement include housing-related questions that collect information that overlaps with data found in local property tax records. Aggregations of these records across most jurisdictions can be purchased from several vendors, and it appears likely that they could be used to impute responses to several questions, including year the unit was built, number of acres, value of the unit, and property taxes paid. Additional, somewhat more complex imputations could be developed in the slightly longer run for several additional questions.

Longer term opportunities for the use of administrative data are potentially even greater, but they would require substantial work on data development. Questions on income, work and labor force status, and health insurance coverage could all be improved in terms of data quality through the use of administrative data such as IRS records and employer-reported data, and some of the more problematic questions on specific income sources and activities could potentially be replaced with matched data. However, a number of issues pertaining to data access, confidentiality, methodology, and verification would need to be addressed before such improvements could be implemented.

The study includes an appendix that gives question by question details on the potential for using administrative data to replace or enhance each existing ACS question. The text of the study also highlights some of the most promising opportunities to improve or replace specific ACS questions.

Many of the issues relating to the use of administrative data identified in this study are relevant to a variety of Census Bureau surveys, and not just to the ACS. In addition to the recommendations concerning specific ACS questions, therefore, the study also recommends a broader review of the policies and infrastructure pertaining to the acquisition and use of administrative data across the Census Bureau as a whole. At present administrative data appear to be acquired for the most part when they are required for a specific purpose, with limited consideration of other potential uses for any given dataset. As a result, the data collected are somewhat haphazard, with some elements collected in some years and not others, some data sets available only in specific years even though they may exist in others, and so forth. There does not appear to be any systematic appraisal of administrative data needs and potential uses across different divisions of the Bureau, and as a result there may be some underinvestment and/or duplication of effort in acquiring and using data from administrative sources.

Similarly, it would be easier for potential users within the Bureau to identify and make use of the data already available if the metadata pertaining to each source were collected, sorted, and stored in an accessible and informative manner. Some work is already underway on these issues, but as administrative data availability and usage continue to grow a more systematic and comprehensive approach to these issues may be needed to make it possible for the Bureau to leverage data acquisitions and uses across areas. Such opportunities may require a greater institutional investment in building and maintaining a knowledge base about the existing data.

Finally, the subject matter experts who know the most about specific administrative data sources and their uses are typically found in agencies that focus on the programs that generate those data, and not at the Census Bureau. It would potentially be useful for the Bureau to develop stronger ties to administrative data producers and users in the relevant agencies. Some such ties clearly already exist, but perhaps a more formalized structure of contacts could enhance knowledge and build additional opportunities for collaboration between the Bureau and outside administrative data experts.

Review of Administrative Data Sources Relevant to the American Community Survey

I. Introduction: Purpose of the Study

This study conducted a review of existing administrative data sources that might be used to supplement or replace information that is now collected in the American Community Survey (ACS). This review supports two potential purposes: to reduce data collection burdens associated with the ACS, and to improve the quality of ACS data.

Because the major function of the ACS is to provide demographic, housing and income-related data at the sub-national level, the survey must necessarily contact a large number of respondents in order to have a statistically useful sample. This wide-scale data collection effort imposes some burden on respondents, both in terms of the time and effort needed to participate in the survey and in terms of potential privacy concerns. The Census Bureau has an interest in minimizing this burden as much as possible, both to ensure public cooperation with the survey and to improve data quality and reduce item-nonresponse. Additionally, there have been concerns that some of this burden may be unnecessary, if the same information is already being collected in other formats.

The major purpose of this study is to address these concerns by assessing the degree to which other sources of data may be available to meet some of the needs of ACS users. Burdens and duplication could potentially be reduced either by using administrative records to substitute for some ACS questions altogether, or to impute or match additional information into the ACS, allowing the number of questions asked of respondents to be reduced. Additionally, use of administrative data may allow the development of better imputation procedures and data quality checks, potentially reducing question redundancy and improving data quality. Particularly for ACS questions that have low response rates, or that produce estimates that appear to be significantly under-reported, using administrative data either to improve imputations or to replace some items with matched or modeled values could result in both more accurate data and lower respondent burdens.

Administrative data collected by states and other levels of government, as well as by private sector data aggregators, provide a potential source of information on several of the issues covered in the ACS. For example, programs such as Unemployment Insurance (UI), the Supplemental Nutrition Assistance Program (SNAP), and housing assistance programs such as the Section 8 housing voucher program are administered by states and localities, and their records contain a substantial amount of information on benefit receipt and use, as well as on family composition, employment and other income, and housing standards. Federal administrative records from agencies such as the Internal Revenue Service (IRS) and the Social Security Administration (SSA) also contain substantial amounts of information on individual respondents, and may provide more reliable sources of information on specific types of income

received by survey respondents than can be collected in a general-purpose survey. Finally, private sector data on mortgages, credit ratings, and other income and consumption-related records are increasingly being collected for a variety of purposes, and are also generally available at the respondent level. Some of these data may also be usable to address issues covered in the ACS.

This study examines these possibilities on a question by question basis for each question in the ACS, beyond the core questions used to identify basic respondent characteristics such as name, address, age, gender, and race, as described below. Major findings are highlighted in the text; findings on each specific question are detailed in Appendix A.

Two caveats should be noted before proceeding to the study's findings. First, the study was conducted over a short period of time, and therefore cannot claim to be completely exhaustive regarding potential administrative data sources. It does include all administrative records held by the Census Bureau, as well as those identified by major federal agencies that collect or use data relevant to the ACS. These include several different agencies under the Department of Health and Human Services (HHS), the Food and Nutrition Service (FNS) and the Economic Research Service (ERS) of the Department of Agriculture (USDA), the Bureau of Labor Statistics (BLS), and the Department of Housing and Urban Development (HUD). Administrative data collected by the IRS and SSA were also examined. Details on agencies consulted and sources of information examined are included in Appendix B.

Second, while this effort was undertaken to support the ACS Content Review, the purpose of this study has been much more limited than that of the Content Review as a whole. This study focuses on whether alternative sources of information on the topics addressed by each ACS question could be identified, and if such sources were identified, how they could be used to address the known current uses of the ACS data. The study does not attempt to assess the costs or respondent burdens associated with any specific ACS question, and makes no judgments about the value of any information collected.

In collecting information on current uses of ACS data, the specific goal has been to identify any purposes that require data at the level of detail provided by the ACS. Most of the questions on the ACS are addressed in at least some form in other surveys and data sources; what makes the ACS unique is that its very large sample size allows responses to be disaggregated for small population groups, allowing comparisons across specific localities or across relatively rare demographic groups, for example. After assessing the need for detailed data to meet any specific identified purpose, existing administrative data sources on similar topics have then been examined to see if they could be used, singly or in combination with other data, to meet those needs. The study does not consider the relative importance of specific current uses of the data, therefore, but only whether those purposes can be met through other means.

Finally, while this study was commissioned to support the ACS review, its findings about administrative data sources in many cases apply beyond the ACS. As these data sources become

easier to access and to use, they potentially become relevant for a number of uses across the Census Bureau as a whole. However, costs of acquiring and developing these data typically do not appear to be shared across all of the internal Census divisions that could benefit from their use, and the Bureau may be underinvesting in developing these sources because the ancillary uses of the data have not been clearly identified and taken into account. Most of these sources are not yet in a form that would allow them simply to be plugged in to replace existing survey questions; rather, some amount of developmental work will generally be required. The Bureau as a whole could potentially benefit from a more coordinated and broader-based approach to planning and sharing both the costs and the benefits of such developmental work.

II. Process of the Review: Assessing Data Needs and Alternative Data Sources

Under this review, the current uses of the data from each ACS question were first assessed, and then alternative sources that might meet those needs were sought. The review process for each question consisted of three steps:

- Step 1: Review the purposes for which each question is currently used.

- Step 2: Assess whether there are administrative data that could meet those purposes instead, or that could significantly improve the quality of the ACS data.

- Step 3: Where such data are found, assess their suitability for use and the scope of any data development work that might be required to use them.

Two major sources of information were used to determine the specific purposes for which each question was used. First, the responses given by federal agencies to the Bureau's enquiries on data uses were carefully reviewed. Second, comments received from the public following the preliminary ACS content review were also examined in detail. These two sources were supplemented with some follow-up interviews with relevant federal agencies, particularly those such as the Congressional Budget Office that did not respond in detail to the original Census enquiry, and with specific data users who have broad experience in using the ACS.

In assessing the uses for data collected from each ACS question, the following factors were considered:

- Is there a legal mandate for the collection of this information in the ACS?

- Are there funding formulas or other mandated purposes using information from this question that require data at fine levels of geographic detail?

- Are there mandated policy uses of the data from this question that require information on special populations (demographic, social, economic, and/or geographic) that are too small to be represented in other surveys?

- Is the information provided by this question required to design and implement other major federal surveys and data collection efforts?

- Is the information from this question necessary for any other identified policy or research purpose, such as maintaining historical continuity in data collection and/or allowing the analysis of social and economic trends over time?

It should be noted that the fact that a specific use was identified does not automatically imply that that specific need must be satisfied through the ACS, or that a substitute data source must be found in all cases. The goal of this review was to consider what current uses of the data could not be met if the relevant ACS question were not available, and to assess the extent to which other sources of data could substitute for the data collected in the ACS in meeting those uses. This review does not evaluate the relative importance of specific uses of the data. The specific uses that were identified for each question are summarized in Table 1 in Appendix A.

When the specific uses for each question had been identified, the next step was to look for appropriate administrative data that might also address those uses. This search started by considering the administrative data sources already held by Census. These were reviewed to assess the extent to which their content might be relevant to each of the specific data uses identified. The first step in the assessment was to attempt to identify any existing data source that could meet all of the uses found for a specific question, effectively substituting for the question. Where no single source of alternative data was found, the review went on to consider whether data from more than one source could potentially be combined to meet the needs identified, or if at least some of the uses of that question could be satisfied using alternative data sources.

After reviewing data already obtained by Census, the study went on to consider additional data sources. These included administrative records produced by federal agencies that were not already in the Census collection; state and local administrative data sources such as assistance program case records and property tax data; and data collected by third parties such as commercial data aggregators. As noted above, this list of possible sources is almost certainly not complete, but does contain the most readily available sources. The list of specific data sources reviewed can be found in Table 2 in Appendix A. Table 2 also presents information on how Census could potentially acquire the data from each source, and on the major compatibility and data quality issues that might arise in using the data.

Finally, in cases where one or more potential substitutes for at least some data uses were found, the review assessed the amount and type of data development work that would be needed in order to use the alternative data source for the purposes met by each ACS question. In many cases the alternative source does not exactly match the information provided by the ACS question, and some editing, imputation, or modeling effort would be needed to refine the data. Table 1 in Appendix A briefly describes the data development work that might be needed for each relevant question, and notes ways in which the resulting estimates might differ from those obtained from the ACS.

While the data development effort required for some uses might be fairly extensive in the short term, in many cases some investment now would have potentially large returns in the slightly longer run. One of the most promising uses of administrative data sources is to match specific data elements for given respondents from the administrative data into the survey. For example, types of income that are often under-reported, such as interest and dividends, could potentially be taken from IRS returns and matched to the appropriate respondent. This could improve the quality of the data while also reducing respondent burden, because detailed income information is among the most sensitive data elements collected in the ACS.

Unfortunately, however, a significant amount of preparatory work would be needed to make such matches possible. For example, it would be necessary to obtain permission from the IRS, and to develop some strategy to deal with confidentiality concerns in any public use version of the survey. Developing and verifying appropriate matching algorithms would also require some investment of resources. Not all respondents file tax returns, so some analysis would be needed to understand potential biases if tax return data were used. It would probably take five to ten years before the matched data elements could be integrated into the ACS on a routine basis. Because there are several data elements that could potentially be matched simultaneously, however, and most of them are among those that are both resisted by respondents and under-reported in the survey, investing in a replacement methodology could have substantial benefits in both reducing respondent burden and improving data quality. Further, investment in developing this methodology could also have benefits for other household surveys that collect similar information.

III. Findings

Overall, the review did find several instances where administrative data could potentially be used to replace or improve ACS questions and data. In a few cases such changes could be implemented in the fairly short term. In most cases, however, some data development work would be needed. Some of this work is already planned or even underway at Census already, and in some cases other federal agencies also have development efforts in progress. In general, however, these efforts would benefit from better coordination among both Census divisions and between Census and other agencies. This is not a criticism of specific Census staff or divisions, who are typically doing excellent work with limited resources. Rather, it points up the need for a broader initiative to rethink the collection and use of administrative data in the broader context of survey development, across the spectrum of Census surveys. This report focuses on administrative data pertaining to households, because those are the data relevant to the ACS, but a similar review could be undertaken to identify opportunities to integrate administrative records with economic surveys.

Although most ACS questions cannot be replaced using any identified administrative data source, several approaches and data sources were identified that have the potential to provide replacement data, reduce redundancy within questions, and/ or substantially improve the quality of ACS responses. Among the most promising sources and approaches:

- Using commercial/third party data to substitute for specific data elements;

- Using imputations based on administrative data to reduce redundancy within question groups; and

- Using administrative data to improve accuracy of estimates and reduce respondent burden, particularly for complex or difficult questions.

Examples of each of these with regard to specific questions are discussed below.

1. Using Third Party Data to Develop Substitutes for Specific Questions

The commercial collection and use of personal and household data has exploded over the past decade. Most adult Americans have credit records, utility company records, banking records, insurance records, and other records held by commercial entities, both those with whom they have done business and those who have collected information on them through some third party, such as the sale of subscriber and client lists. Much of this information is not particularly accurate—private administrative records do not typically meet the standards of the IRS or the Social Security Administration, and credit bureaus, for example, do not go to great pains to verify their information. Nonetheless, these sources can be more accurate for some purposes, such as specific amounts paid for particular goods or services, than data collected through surveys. Utility companies, for example, may provide a more accurate estimate of a household's typical utility payments than the respondent for that household can. Persuading such entities to share their information may be a challenge, but it is likely to be possible in at least some jurisdictions. The availability of such data, even if only for a partial sample, may allow the development and verification of imputation methods to replace some ACS questions.

In addition to private market data on individuals, commercial data aggregators also collect individual and household level data from some state and local sources, and in many cases these aggregators provide the most cost-effective way to get access to these records. State and local property tax data, for example, are readily available on a commercial basis, because banks and other housing lenders provide a market for such information. These tax records may provide a useful source of information that could replace or supplement some of the specific housing-related questions in the ACS.

This section highlights some of the specific questions that can potentially be eliminated through the use of imputations based on third party data. Other potential uses for such data are noted in the appendix tables.

- Question H2: year housing unit was built.

    o This information is generally available from property tax records.

    o Property tax record data can be bought from commercial aggregators such as Corelogic and RealtyTrac. Census has these data for some years, and could readily acquire more.

    o Property tax data are generally more accurate on this question than respondent answers.

    o Could be imputed based on address.

- Question H4 (number of acres) and Question H5 (agricultural production).

    o Uses identified for these questions all relate to the identification of farms.

    o Property tax data would include number of acres. In most jurisdictions, farms are also readily identified, although the definition may vary.

    o For H4, at least, tax data are likely to be more accurate than respondent estimates.

- Question H6 (business on property)

    o This was the only question for which no specific use that required data at the level of detail provided by the ACS was found.

    o If there is such a use, however, it is likely that property tax data could be used as a substitute.

- Question H19 (value of unit)

    o Some unit value will be included in property tax record.

    o May need adjustment based on local assessment rules, but these are also available from aggregators.

    o Could also potentially be imputed using neighborhood housing sales data in combination with tax record data to update estimates.

    o Also likely to be more accurate than respondent estimate.

- Question H20 (annual property taxes)

    o Should probably be imputed based on property tax record.

    o Tax data are almost certainly more accurate than reports.

- Questions H22a-b (presence and amount of mortgage) and H23a-b (presence and amount of second mortgage):

    o H22a-b and H23a-b could also potentially be imputed using bank data and tax records relating to home values and mortgages.

    o Such data are also collected through aggregators. This and other imputations outlined above are being explored by HUD for implementation in the AHA.

    o Such imputations have the potential to improve the accuracy of the data.

2. More Complex Imputations

The questions outlined above can for the most part be imputed to the ACS using very little information other than unit address. Year built, number of acres, and property taxes paid can simply be taken from the administrative record directly. Value of unit and mortgage data may need some adjustment and/or verification, but are still relatively straightforward.

Some questions would require a bit more work with the data to allow replacement of the question through imputation. One example would potentially be Question H14a-d, cost of fuel used for heating, by type. It is possible that in the slightly longer run utility companies may be persuaded to share these data directly, but utility bills by address are not typically available at this time. HUD is developing an imputation process for this information for use in the AHA, however, and it should be transferrable to the ACS as well. This imputation uses information on the number of days in which heating is needed by locality, along with fuel price index data, also by locality, to develop fuel costs by type of fuel for each specific area. The type of fuel the household uses is collected in H13, allowing fuel costs to be imputed for the correct fuel types. Analysts at HUD believe that such imputations are likely to be more accurate than homeowner or renter recollections.

3. Reducing Within-Question Group Redundancy through Imputation

Several questions, particularly in the housing area, have multiple parts that are potentially confusing to respondents and that may be redundant, in the sense that answers to some of the sub-questions can potentially be inferred from other parts of the question. These questions include:

- Questions H7a and b (number of rooms and number of bedrooms):

    o H7a and H7b provide highly correlated pieces of information. In general, H7b, number of bedrooms, is the more reliable indicator of usable space, because respondents have differing ideas about what constitutes a room, but bedrooms are somewhat more consistently defined. HUD uses H7b rather than H7a as an input into the calculation of Fair Market Rents for that reason.

- o It is likely that administrative data such as property tax information or even data from the American Housing Survey could be used to develop a reliable imputation procedure for H7a. Alternatively, H7a may be a good candidate for elimination, because it is not clear that it provides any useful information beyond what can be inferred from H7b.

- Question H8a-g (housing amenities such as plumbing fixtures):

  - o H8 includes several redundant sub-questions. In particular, any dwelling that does not have hot and cold running water (H8a) is very unlikely to have flush toilets, bathtubs, or other plumbing fixtures.

  - o It is likely that H8b-d could be reliably imputed using H8a data in conjunction with broader housing data (for example, AHS data) on correlations among types of plumbing fixtures.

4. Using Administrative Data to Improve Accuracy and Reduce Respondent Burden in Complex Questions

According to interviewer reports, the most difficult questions for respondents, and the ones that produce the most negative reactions, are those that relate to income (Question P47a-h). As discussed earlier, there is some potential for imputing information for at least some sources of income using IRS data on tax returns. The quality of the reporting on some of the ACS income questions such as interest and dividend income, capital gains, and rents and royalties does not compare favorably with administrative totals from the Statistics of Income. Even restricted imputations based on IRS data are likely to provide improved estimates for these income elements. On the other hand, working with IRS to obtain permission to use these data on an ongoing basis is likely to take some time. Additionally, many lower-income households do not file income tax returns, so direct collection of information is likely to continue to be the best way to obtain information on the types of income received by these households, such as earnings. Finally, there are some substantial unexplained discrepancies between the administrative data and other sources of information for some income elements, such as the EITC. Some of these discrepancies may relate to issues in identifying appropriate tax filing units, but substantial administrative work remains to resolve these issues before these items can be imputed from administrative sources.

Other person-level questions that it may eventually be possible to address using administrative data include P16a-h, type of health insurance. As better data on insurance coverage become available through the implementation of the Affordable Care Act, it may be possible to develop replacements for at least some of these sub-questions. Existing administrative data on specific insurance types such as Medicare, military health care plans, and Indian Health Service coverage could potentially be used as well, but in practice separate imputation procedures would have to be developed for each type of coverage, and the data involved are typically complex and difficult

to work with. This question has some potential for longer-term replacement of at least some elements, however.

Finally, the set of work-related issues addressed in questions P29a-b, P30, P35, and P38 could potentially be addressed using data from employer wage and unemployment insurance reports. Much of this information is already collected by Census for use in the Longitudinal Employer-Household Dynamics (LEHD) database. At this time its use is restricted to the purposes of the LEHD, however, under the existing memorandum of understanding. Census should investigate the possibility of expanding the usage of these data. In the first instance the employer data could be used to verify the accuracy of the ACS data and to investigate the quality of the matches that are possible for specific data elements. In the longer run these data could probably be used to impute at least some of the data elements under these questions.

IV. Conclusion

In summary, there are a number of areas where the use of administrative data could potentially both shorten and simplify the ACS questionnaire and could improve the quality of the data that were obtained. In the short run the most promising options pertain to housing questions that collect data that could potentially be obtained from local property tax records instead. Property tax information on almost all jurisdictions can be readily obtained from private sector data aggregators such as Corelogic and RealtyTrac. Census already has some of these data, and could obtain more complete data sets for additional years at a relatively reasonable cost. Consultation with subject-matter experts at HUD and other agencies handling housing-related issues would be needed to identify potential pitfalls in developing these imputations, but there is a strong possibility that the quality of the data could be substantially improved over the reported amounts for several questions.

Options for the medium term include reducing sub-question redundancy through the use of slightly more complex modeling and imputation procedures. Again, the most promising targets of such procedures would be housing-related questions. HUD is currently experimenting with the development of such imputations for use in the American Housing Survey, and Census could build on that work to incorporate these data into the ACS framework.

Finally, several sources of administrative data hold out hope for reduced complexity and improved item responses and data quality for major income, health insurance, and employment-related data elements over the longer run. Matching income data with tax return information could potentially eliminate the need to collect information on some income items, particularly those that generally pertain to higher-income households. Public assistance receipt may potentially be imputable from state data in the future, although not all states currently make such records available. Employer wage reports and unemployment insurance data could provide information on type of job, place of work, hours of work, and other labor force-related data elements. And eventually the ACA may provide a better set of administrative data relating to

health insurance coverage. All of these data sources would require more complex arrangements for access and use, however, as well as a substantial amount of work on the development of matching algorithms and verification procedures. All would also require careful consideration of appropriate confidentiality adjustments for the creation of a public use data file.

Appendix A: Tables

Table 1. Question by Question Review of Potential Administrative Data Substitutes for ACS Questions

H1. Type of building	Multiple HUD uses related to funding allocations; also funding allocation by USDA; Community Reinvestment Act and Home Mortgage Disclosure Act enforcement	Used by HUD for analyses of housing stock and housing need and affordability issues; used to create control totals for energy-related and housing surveys and for estimates related to LIHEAP	Several data sources at right can be used for some purposes. No single replacement.	Corelogic; RealtyTrac; Experian; American Housing Survey; Rental Housing Finance Survey	More private data would need to be acquired (see table 2). Substantial work on matching and editing of administrative data would also be required, as well as extensive analysis and modeling using existing survey data.	Might lack demographic and income-related detail on occupants by building type; this question is used to check address-based imputations as well as in social and demographic analyses
H2. When built	Used to allocate block grant funds and define development zones	State and local risk and affordability analyses; disaster planning; energy and environmental planning	Strong potential for replacement using state and local property tax data from sources such as Corelogic or RealtyTrac	State and local property tax data from sources such as Corelogic or RealtyTrac; Multiple Listing Service records	Need to acquire and analyze additional data from private sources and perform and verify address matches	Needs additional analysis, but it is possible that use of administrative data could lead to higher data quality

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 1: Housing Questions						
H3. When did this person move in?	Use as an ancillary indicator for occupancy rate calculations for HUD programs; contributes to calculation of Fair Market Rents (FMR)	There appear to be few policy uses that could not be satisfied with national-level data	No single source for comparable data	Possibly address change information available from commercial data aggregators listed in Table 2 could be used for most purposes. An address-based match to the AHS would also meet most policy needs.	More private data would need to be acquired (see table 2). Substantial work on matching and editing of administrative data would also be required, as well as extensive analysis and modeling using existing survey data.	Might lack demographic and income-related detail on characteristics of movers
H4. Number of acres	Mandatory uses all relate to identification of farms (defined as more than 10 acres) in a specific geographic area	Most policy uses could probably be met with data from the USDA Census of Agriculture	Possible that USDA Census of Agriculture could satisfy most needs. A review would be needed to ensure that sufficient geographic detail is available so that all mandatory uses could be satisfied.	State and local property tax data from sources such as Corelogic or RealtyTrac	A review would be needed to ensure that sufficient geographic detail is available so that all mandatory uses could be satisfied. It does not appear that any of the mandatory uses require the specific use of the ACS, but this needs verification.	Alternative sources need to be reviewed for suitability

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Section 1: Housing Questions						
H5. Agricultural product sales	Mandatory uses all relate to the identification of farms	Most policy uses could probably be met with data from the USDA Census of Agriculture	Possible that USDA Census of Agriculture could satisfy most needs. A review would be needed to ensure that sufficient geographic detail is available so that all mandatory uses could be satisfied.	None identified	A review would be needed to ensure that sufficient geographic detail is available so that all mandatory uses could be satisfied.	Alternative sources need to be reviewed for suitability
H6. Business on property	No mandatory use identified	Question as written is confusing; unclear it is used for policy analysis	Not clear how question is used; business zoning and property tax records available from private data aggregators would probably meet most needs	State and local property tax data from sources such as Corelogic or RealtyTrac	This question appears to be a good candidate for elimination given apparent lack of use	This question appears to be a good candidate for elimination given apparent lack of use

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Section 1: Housing Questions						
H7a. Number of separate rooms	Used in funding formulas for CDGB and other state and local grants	Used for analyses of energy needs and in designing some health and energy-related surveys; also used by NCHS for sample design and weighting purposes	Privately-collected housing market data; tax records	State and local property tax data from sources such as Corelogic or RealtyTrac; Multiple Listing Service records, Zillow, etc.	Analyses would need to be performed to assess quality of private market data and to develop methods to match them to the ACS	Could lose some demographic and income-related detail, depending on the quality of the match, but strong potential for use of admin. data in longer run
H7b. Number of bedrooms	Used to calculate HUD Fair Market Rents; some use in funding formulas	Used in analysis of the impacts of crowding on health status; other uses overlap with H7a,	Privately-collected housing market data; tax records	State and local property tax data from sources such as Corelogic or RealtyTrac; Multiple Listing Service records, Zillow, etc.	Question overlaps with 7a. Could substitute for most uses of 7a.	Not clear that both 7a and 7b need to be part of ACS; could use admin data to estimate 7a if 7b continued to be collected

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Section 1: Housing Questions						
H8. Housing amenities--general	Used in determining allocation of funds at the state and local level for CDGB and other grants, and for fund allocation under various USDA programs. Generally not an explicit part of funding formula, however.	Contribute to county-level estimates of rent and value of owner-occupied housing; used in developing Small Area Poverty estimates. Also some use for program development and regulatory impact analyses.	No single source for all seven questions, but redundancy among questions	Possible imputation of some responses; state and local property tax data may be useful input.	Further analysis needed to determine if there is any significant difference across responses to H8a through H8d; possible use of commercial data on telephone availability should be explored.	Redundancy across H8a-d may allow elimination of b-d without loss of useful data.
H8a. Hot and cold running water	The four plumbing-related sub-questions are used for the same purposes. Consolidation may be possible.	Given high correlation among plumbing responses, it is unclear that H8b-d are needed if H8a is collected.	No single source	H8a could potentially be used to impute H8b - H8d	Further analysis needed to determine if there is any significant difference across responses to H8a through H8d	Redundancy across H8a-d may allow elimination of b-d without loss of useful data.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 1: Housing Questions						
H8a. Hot and cold running water	The four plumbing-related sub-questions are used for the same purposes. Consolidation may be possible.	Given high correlation among plumbing responses, it is unclear that H8b-d are needed if H8a is collected.	No single source	H8a could potentially be used to impute H8b - H8d	Further analysis needed to determine if there is any significant difference across responses to H8a through H8d	Redundancy across H8a-d may allow elimination of b-d without loss of useful data.
H8b. Flush toilet	See H8a	See H8a	See H8a	See H8a	See H8a	See H8a
H8c. Bathtub or shower	See H8a	See H8a	See H8a	See H8a	See H8a	See H8a
H8d. Sink with faucet	See H8a	See H8a	See H8a	See H8a	See H8a	See H8a
H8e. Stove or range	Used in determining allocation of funds at the state and local level for CDGB and other grants, and for fund allocation under various USDA programs. Generally not an explicit part of funding formula, however.	Used to project energy needs, create imputations for rent and owner-occupied housing. Also some use for program development and regulatory impact analyses.	No single source	Longer-run potential for imputation from property tax records and/or MLS records	Further explore availability of data that could form basis for imputation	Further analysis needed.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 1: Housing Questions						
H8f. Refrigerator	Used in determining allocation of funds at the state and local level for CDGB and other grants, and for fund allocation under various USDA programs. Generally not an explicit part of funding formula, however.	Used to project energy needs, create imputations for rent and owner-occupied housing. Also some use for program development and regulatory impact analyses.	No single source	Longer-run potential for imputation from property tax records and/or MLS records	Longer-run potential for imputation from property tax records and/or MLS records	Further analysis needed.
H8g. Telephone	Required under Telecommunications Act. Ancillary use in some funding formulas.	Used to create sampling designs and sample weights for many federal surveys. Some regulatory enforcement uses.	No single source currently exists.	In longer run, may be possible to impute using commercially collected data from telephone companies	Further exploration of quality of commercial data	Further analysis needed.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 1: Housing Questions						
H9. Computer usage: a. Desktop, laptop, netbook, or notebook computer	Required under Broadband Data Improvement Act	Some use in regulatory impact analyses and policy development, particularly for infrastructure and transportation planning	No single source, but could probably combine questions H9a, H9b and H9c without loss of useful information.	Current options limited by terms of Broadband Data Improvement Act, but possibility for longer-run changes in legal requirements should be explored. See text.	Current options limited by terms of Broadband Data Improvement Act, but possibility for longer-run changes in legal requirements should be explored. See text.	Explore extent to which distinctions among types of computer are meaningful to respondents
H9b. Handheld computer, smart phone, or other handheld wireless computer	Required under Broadband Data Improvement Act	Similar to H9a; not clear that the distinction among computer types provides meaningful information	No single source, but could probably combine questions H9a, H9b and H9c without loss of useful information.	Current options limited by terms of Broadband Data Improvement Act, but possibility for longer-run changes in legal requirements should be explored. See text.	Current options limited by terms of Broadband Data Improvement Act, but possibility for longer-run changes in legal requirements should be explored. See text.	Explore extent to which distinctions among types of computer are meaningful to respondents

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 1: Housing Questions						
H9c. Other type of computer	Required under Broadband Data Improvement Act	Similar to H9a; not clear that the distinction among computer types provides meaningful information	No single source, but could probably combine questions H9a, H9b and H9c without loss of useful information.	Current options limited by terms of Broadband Data Improvement Act, but possibility for longer-run changes in legal requirements should be explored. See text.	Current options limited by terms of Broadband Data Improvement Act, but possibility for longer-run changes in legal requirements should be explored. See text.	Explore extent to which distinctions among types of computer are meaningful to respondents
H10. Internet access	Required under Broadband Data Improvement Act	Many uses for policy analysis relating to access to information, including possible design of internet data collection procedures.	Currently no alternative source.	In longer run, it may be possible to collect this information from internet service providers, either directly or through commercial data aggregators.	Current options limited by terms of Broadband Data Improvement Act, but possibility for longer-run changes in legal requirements should be explored. See text.	Analysis would be needed to assess quality of data if administrative data from providers becomes available.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 1: Housing Questions						
H11. Type of Internet access-- seven specific options (H11a. Through H11g.)	Required under Broadband Data Improvement Act	It is unclear that the seven specific options for type of internet access add any additional information beyond what is collected under H10. The terms used in the questions are obsolete and/or unfamiliar to users, and create considerable user resistance.	Data from internet service providers may be of higher quality than information collected in ACS. Efforts are needed to collect and assess these data.	In longer run, it may be possible to collect this information from internet service providers, either directly or through commercial data aggregators.	Current options limited by terms of Broadband Data Improvement Act, but possibility for longer-run changes in legal requirements should be explored. See text.	Analysis would be needed to assess quality of data if administrative data from providers becomes available.
H12. Number of motor vehicles	Used to assess mobility and access issues for a number of purposes such as access to voting places, and for transportation and disaster planning	Additional uses include development of asset data for SNAP, and the examination of mobility issues, including access to stores, public amenities, etc., for the low-income population	No other source of comparable data at level of geographic detail required.	No other source of comparable data at level of geographic detail required.	No other source of comparable data at level of geographic detail required.	No other source of comparable data at level of geographic detail required.

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Section 1: Housing Questions						
H13. Type of heating fuel used	Local area estimates are needed for mandatory environmental quality and impact studies.	Used to estimate Low-Income Home Energy Assistance Program (LIHEAP) eligibility and to project energy demand.	No other single source of comparable data at level of geographic detail required.	LIHEAP data are available from state administrative records, but not in an assembled form, and with various time-lags. RECS and LIHEAP data for selected states could be used to check quality of ACS data and to see if imputation efforts could improve quality.	Analysis of other data sources needed to assess possibility of future imputation strategies.	No other source available at this time.

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Section 1: Housing Questions						
H14a-14d. Cost of fuel used, by type	Needed to compute total housing cost information for a variety of purposes, including development of Fair Market Rents. Also used to allocate LIHEAP subsidies.	Used to estimate fuel costs for LIHEAP and other purposes, including estimates of housing costs and the housing component of the Supplemental Poverty Measure (SPM).	No single source of alternate information currently available, but HUD research indicates that modeling fuel costs using information on degree days by locality and overall costs by type of fuel by region from the RECS may provide an adequate substitute for these data, particularly given data quality concerns in direct collection.	Good potential for data improvement through the development of appropriate models based on local fuel prices and local weather conditions	Further analysis of potential alternative sources and modeling possibilities needed.	No other source available at this time. However, imputation of information using data from alternative sources has the potential to improve the quality of estimates in the longer run.

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Section 1: Housing Questions						
H15. SNAP benefits	Used in administration of school lunch (NSLP) and school breakfast (SBP) programs. Also used to assess state performance in SNAP.	Used as an input in the Census Small Area poverty estimation model; used to compare program eligibility and participation in specific areas to estimate under-served populations; used to estimate eligibility for other programs such as TANF and SSI	SNAP program quality control (QC) data reported for benefit verification purposes provide an alternate data source, but the quality and representativeness of the data are low. Additionally, estimates are not generally available for areas smaller than states.	Quality control (QC) data collected from states by the Food and Nutrition Service (FNS) and administrative totals for benefits paid and participation levels compiled by states could be used to improve the coverage and quality of these data. Existing imputations could be improved.	Further analysis of potential alternative sources and modeling possibilities needed.	No other source of comparable data is currently available at level of geographic detail required.

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Section 1: Housing Questions						
H16. Condo status and condo fees	Mandatory uses generally relate to condo fees as a component of total housing costs. No mandatory uses were found that relate specifically to condos, as opposed to housing costs in general, with the possible exception of mortgage compliance monitoring.	Additional policy uses might include analysis of longer-term housing market changes, mortgage discrimination and cost issues, and projection of future housing costs and choices available to population groups such as the elderly.	No single source of alternate information currently available.	It appears that all mandatory uses of this question could be met by including condo costs under H22. If the primary use of the data is to compute housing costs, it would be useful to clarify that HOA fees, co-op payments etc. should also be included.	Consolidation of question with H22 could be considered.	Not clear that this level of specificity is needed. Could possibly be dropped if instructions for H22 are revised accordingly.
H17. Ownership status	Many mandatory uses, including housing cost calculations for various subsidy programs, mortgage and rental regulations, etc.	Input into housing cost and housing need calculations for local areas, which are used in many types of policy analysis.	No other source of comparable data at the local level.	No other source of comparable data at the local level.	No other source of comparable data at the local level.	No other source of comparable data at the local level.

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Section 1: Housing Questions						
H18a. Monthly rent payment	Mandatory issues include calculation of fair market rents and broader housing cost calculations. Input into many local level indicators, such as housing component of SPM poverty thresholds.	Input into housing cost and housing need calculations for local areas, which are used in many types of policy analysis.	No other source of comparable data at fine levels of geographic detail, which is required for mandatory uses.	No other source of comparable data for small geographic areas.	No other source of comparable data for small geographic areas.	No other source of comparable data for small geographic areas.
H18b. Meals included in rent?	Not clear that there is a mandatory use for this question, except to the extent that it affects total housing costs. Very small number of cases involved.	Not clear there is a distinct policy use for this information.	Could potentially be replaced with imputations based on H18a and national rental data.	This is such a small factor in computing total housing costs that imputation based on national-level data would probably perform equally well. Not clear that inclusion in ACS is providing useful additional information.	Elimination of this question should be considered, given the statistically insignificant number of yes responses.	Not clear this question is needed.

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Section 1: Housing Questions						
H19. Value of unit	Major mandatory uses relate to calculation of housing costs and assessment of differences in costs of living across geographic areas.	In addition to policy uses of housing cost calculations, also used as input in survey stratification and weighting designs.	It is possible that these data could be modeled more accurately using local tax records and privately collected data on mortgages and sales.	State and local tax records and other housing data from private data aggregators such as Corelogic.	On-going and planned HUD analyses will assess the use of modeling and its impacts on data quality for both mandatory and policy uses.	Modeled data might lack demographic and income-related detail
H20. Annual real estate taxes	Component of mandatory housing cost calculations. Also used for various other analyses relating to local tax burdens and their relationship to services.	In addition to policy uses of housing cost calculations and information on tax burdens, also used as input in survey stratification and weighting designs.	It is possible that these data could be modeled more accurately using local tax records and privately collected data on mortgages and sales.	State and local tax records and other housing data from private data aggregators such as Corelogic.	On-going and planned HUD analyses will assess the use of modeling and its impacts on data quality for both mandatory and policy uses.	Modeled data might lack demographic and income-related detail

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Section 1: Housing Questions						
H21. Annual insurance payment	Component of mandatory housing cost calculations	None identified	It may be possible to model these costs using national-level housing data.	AHS and other national housing data.	Analysis needed of local variations in insurance costs as a component of total housing costs.	Modeled data might lack demographic and income-related detail. However, if variations in costs across groups are small these details may not be possible to calculate in a statistically representative manner.
H22a. Is there a mortgage?	Used to screen for specific housing cost amounts.	In addition to screening function, may be useful in analyzing issues such as the prevalence of housing without mortgages among population subgroups such as the elderly, for input into projections of housing costs & needs.	Information on prevalence of un-mortgaged owner-occupied housing also available from AHS, although not at local level.	It may be possible to use state and local tax information to analyze differences across geographic areas and population subgroups.	Further analysis of potential alternative sources and modeling possibilities needed.	Unknown.

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Section 1: Housing Questions						
H22b. Monthly payment on mortgage	Component of mandatory housing cost calculations	May be other policy uses in analysis of financial industry issues.	No existing single source of data at local level and for specific demographic and economic groups.	Potential for modeling using housing value amount and private sector data--analysis underway at HUD.	Further analysis of potential alternative sources and modeling possibilities needed.	Unknown.
H22c. Does payment include RE taxes?	Component of mandatory housing cost calculations	No identified policy uses except as a component of housing cost calculation.	No existing single source of data at local level and for specific demographic and economic groups.	Potential for modeling using AHS and other national housing data.	Further analysis of potential alternative sources and modeling possibilities needed.	Unknown.
H22d. Does payment include insurance?	Component of mandatory housing cost calculations	No identified policy uses except as a component of housing cost calculation.	No existing single source of data at local level and for specific demographic and economic groups.	Potential for modeling using AHS and other national housing data.	Further analysis of potential alternative sources and modeling possibilities needed.	Unknown.
H23a. Is there a second mortgage?	Used to screen for specific housing cost amounts.	No identified policy uses except as a component of housing cost calculation.	No existing single source of data at local level and for specific demographic and economic groups.	Potential for modeling using AHS and other national housing data.	Further analysis of potential alternative sources and modeling possibilities needed.	Unknown.

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Section 1: Housing Questions						
H23b. Monthly payment on second and subsequent mortgages	Component of mandatory housing cost calculations	No identified policy uses except as a component of housing cost calculation.	No existing single source of data at local level and for specific demographic and economic groups.	No alternative data sources identified.	No alternative data sources identified.	No alternative data sources identified.
H24. Mobile home-annual costs	Component of mandatory housing cost calculations	No identified policy uses except as a component of housing cost calculation.	No existing single source of data at local level and for specific demographic and economic groups.	No alternative data sources identified.	No alternative data sources identified.	No alternative data sources identified.

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Section 2: Person-Level Questions						
P7. Where was person born?	Needed to produce population estimates, migration estimates, and demographic indicators, among other uses. Many mandatory uses.	Fundamental to many survey design and sample frame purposes, as well as to multiple policy and program planning and assessment efforts.	Decennial Census is the only other source of this information. ACS provides the only data available between Censuses.	None.	No other sources available.	Decennial Census is the only other source of this information. ACS provides the only data available between Censuses.
P8. Is person a citizen?	Needed to produce population estimates, migration estimates, and demographic indicators, among other uses. Many mandatory uses.	Fundamental to many survey design and sample frame purposes, as well as to multiple policy and program planning and assessment efforts.	Decennial Census is the only other source of this information. ACS provides the only data available between Censuses.	None.	No other sources available.	Decennial Census is the only other source of this information. ACS provides the only data available between Censuses.
P9. When came to U.S.	Needed to produce population estimates, migration estimates, and demographic indicators, among other uses. Many mandatory uses.	Fundamental to many survey design and sample frame purposes, as well as to multiple policy and program planning and assessment efforts.	Decennial Census is the only other source of this information. ACS provides the only data available between Censuses.	None.	No other sources available.	Decennial Census is the only other source of this information. ACS provides the only data available between Censuses.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P10a. Attended school in last 3 mos?	Required for funding allocation by Dept. of Education, other block grant programs	Many policy uses, including survey design and sample weights, analysis of population and labor force data, and assessment of education and health care needs.	ACS is the only source of data at required levels of geographic detail.	In longer run, it may be possible to develop estimates based on state and local education data, but these data are not currently available in an accessible form.	Explore possibility of acquiring detailed education records from states.	Unknown.
P10b. Grade	Required for funding allocation by Dept. of Education, other block grant programs	Many policy uses, including survey design and sample weights, analysis of population and labor force data, and assessment of education and health care needs.	ACS is the only source of data at required levels of geographic detail.	In longer run, it may be possible to develop estimates based on state and local education data, but these data are not currently available in an accessible form.	Explore possibility of acquiring detailed education records from states.	Unknown.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P11. Highest schooling level completed	Used to develop program targets by geographic area for many assistance and workforce programs. Also used for regulatory enforcement purposes.	Many policy uses, including survey design and sample weights, analysis of population and labor force data, and assessment of education and health care needs.	ACS is the only source of data at required levels of geographic detail. Data are also required for analyses relating to populations too small to be studied using data from other surveys.	No other sources available for analyses of smaller demographic, income-related and geographic populations.	ACS is the only source of such data at required levels of geographic and demographic detail.	ACS is the only source of such data at required levels of geographic and demographic detail.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P12. Major area of study for Bachelor's Degree.	Required by NSF to implement other federally-mandated surveys and statistics. These results are used to develop mandatory data for immigration programs and other purposes.	Policy uses include analysis of data on science and technology education and workforce and the projection of future needs and availability of science and technology workers. These data are used as inputs for analyses related to education, investment in science and technology by multiple government departments, and for assessment of needs for STEM workers under various immigration policies.	ACS is the only source of such data at required levels of geographic and demographic detail.	No other sources available.	No other sources available.	No other sources available.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P13. Ancestry/Ethnic origin	Required to enforce anti-discrimination laws, identify target areas for programs serving vulnerable populations	Used for a large number of policy purposes, including program planning and design and the assessment of outcomes across many departments. Also used in the development of sample frames and weights for mandatory surveys.	Decennial Census is the only other source of this information. ACS provides the only data available at necessary levels of geographic and demographic detail between Census years.	None.	ACS is the only source of such data at required levels of geographic and demographic detail.	ACS is the only source of such data at required levels of geographic and demographic detail.
P14a. Language other than English spoken at home?	Required to enforce anti-discrimination laws, identify target areas for programs serving vulnerable populations. Also required for enforcement of Voting Rights Act.	Used for policy analyses related to the need for bilingual or multilingual services in specific geographic areas.	ACS is the only source of such data at required levels of geographic and demographic detail.	None.	ACS is the only source of such data at required levels of geographic and demographic detail.	ACS is the only source of such data at required levels of geographic and demographic detail.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P14b. What language?	Required to enforce anti-discrimination laws, identify target areas for programs serving vulnerable populations. Also required for enforcement of Voting Rights Act.	Used for policy analyses related to the need for bilingual or multilingual services in specific geographic areas.	ACS is the only source of such data at required levels of geographic and demographic detail.	None.	ACS is the only source of such data at required levels of geographic and demographic detail.	ACS is the only source of such data at required levels of geographic and demographic detail.
P14c. Ability to speak English	Required to enforce anti-discrimination laws, identify target areas for programs serving vulnerable populations. Also required for enforcement of Voting Rights Act.	Used for policy analyses related to the need for bilingual or multilingual services in specific geographic areas.	ACS is the only source of such data at required levels of geographic and demographic detail.	None.	ACS is the only source of such data at required levels of geographic and demographic detail.	ACS is the only source of such data at required levels of geographic and demographic detail.
P15a. Did person live at this address one year ago?	Required to produce mandated immigration statistics. Used to allocate funds for refugee assistance and other targeted programs.	Used to estimate population turnover for program planning and assessment purposes.	ACS is the only source of such data at required levels of geographic and demographic detail.	None.	ACS is the only source of such data at required levels of geographic and demographic detail.	ACS is the only source of such data at required levels of geographic and demographic detail.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P15b. Former address if was not here last year	Required to produce mandated immigration statistics. Used to allocate funds for refugee assistance and other targeted programs.	Used to estimate population turnover for program planning and assessment purposes.	ACS is the only source of such data at required levels of geographic and demographic detail.	None.	ACS is the only source of such data at required levels of geographic and demographic detail.	ACS is the only source of such data at required levels of geographic and demographic detail.
P16. Health Insurance (general).	Required to assess implementation of the ACA.	Used to estimate size and location of vulnerable populations and to assess program needs and outcomes.	ACS is the only source of data on health coverage for smaller geographic areas and for smaller demographic and income-related categories.	Compare to results of other health care-related surveys. CPS and other general surveys may meet some analysis needs, particularly those with premium on timely outcome data. Unlikely that ACS can be replaced as a source of small group data, however.	More analysis of gaps in existing health care insurance data may be needed to identify potential data collection needs.	Unknown. Acceptable replacement data are unlikely in the near future.

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Section 2: Person-Level Questions						
P16a. Job-related health insurance?	Required to assess implementation of the ACA.	Used to assess the impacts of health care policies on employers and employees.	In addition to purposes discussed in P16 (general) above, ACS data may be needed to assess impacts of health care law changes on employers and employees of different types.	See P16 above. Also look for commercial data on employer health care coverage. (None currently identified.)	See P16 above.	Unknown. Acceptable replacement data are unlikely in the near future.
P16b. Privately purchased health insurance?	Required to assess implementation of the ACA.	Used to estimate size and location of vulnerable populations and to assess program needs and outcomes.	See P16 and P16a above.	See P16 above.	See P16 above.	No other source of data identified.
P16c. Medicare	Required to assess implementation of the ACA.	Used to assess Medicare program data concerning dual coverage and other policy and planning issues.	See P16 and P16a above. Medicare program administrative records could be used to provide coverage estimates as well.	See P16 above. Use of Medicare records to verify or replace this question would require matching of records to ACS data.	Potential for using Medicare administrative records data should be explored.	Unknown. Acceptable replacement data are unlikely in the near future.

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Section 2: Person-Level Questions						
P16d. Medicaid or other means-tested health care coverage	Required to assess implementation of the ACA. Also required to target funding for enrollment efforts for vulnerable populations.	Used to estimate size and location of vulnerable populations and to assess program needs and outcomes.	See P16 above. At this time useful administrative data on these programs are not generally available from states and localities.	See P16 above. At this time useful administrative data on these programs are not generally available from states and localities.	Potential for using state administrative records data on these programs should be explored. As a preliminary step, Data Use Agreements should be developed with as many states and localities as possible.	Unknown. Acceptable replacement data are unlikely in the near future.
P16e. TRICARE or other military health coverage	Required to assess implementation of the ACA.	Used for policy and planning purposes in designing and assessing military health care programs.	See P16 above. In longer run, some program administrative records may also be useful.	See P16 above. At this time useful administrative data on these programs are not generally available.	Potential for using existing administrative records data should be explored.	Unknown. Acceptable replacement data are unlikely in the near future.
P16f. VA coverage	Required to assess implementation of the ACA.	Used to analyze unmet and projected health care needs of veterans of different types.	See P16 above. In longer run, some program administrative records may also be useful.	See P16 above. At this time useful administrative data on these programs are not generally available.	Potential for existing administrative records data should be explored.	Unknown. Acceptable replacement data are unlikely in the near future.

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Section 2: Person-Level Questions						
P16g. Indian Health Service coverage	Required to assess implementation of the ACA.	Used for program assessment across geographic areas.	See P16 above. In longer run, some program administrative records may also be useful.	See P16 above. At this time useful administrative data on these programs are not generally available.	Potential for existing administrative records data should be explored.	Unknown. Acceptable replacement data are unlikely in the near future.
P16h. Any other type of health coverage	Required to assess implementation of the ACA.	Used to analyze unmet and projected health care needs.	See P16 above.	No other data sources identified.	No other data sources identified.	No other data sources identified.
P17a. Is person deaf?	Required for allocation of program funding in areas including health care, housing, energy assistance and transportation for disabled. Used for enforcement of anti-discrimination regulations.	Used to identify vulnerable populations and to assess needs for services and program outcomes. Also used for local planning purposes, including disaster planning.	No other data available at required levels of geographic, demographic and economic detail.	No other data sources identified.	No other data sources identified.	No other data sources identified.

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Section 2: Person-Level Questions						
P17b. Is person blind?	Required for allocation of program funding in areas including health care, housing, energy assistance and transportation for disabled. Used for enforcement of anti-discrimination regulations.	Used to identify vulnerable populations and to assess needs for services and program outcomes. Also used for local planning purposes, including disaster planning.	No other data available at required levels of geographic, demographic and economic detail.	No other data sources identified.	No other data sources identified.	No other data sources identified.
P18a. Difficulty in concentration, memory, or decision-making?	Required for allocation of program funding in areas including health care, housing, energy assistance and transportation for disabled. Used for enforcement of anti-discrimination regulations.	Used to identify vulnerable populations and to assess needs for services and program outcomes. Also used for local planning purposes, including disaster planning.	No other data available at required levels of geographic, demographic and economic detail.	No other data sources identified.	No other data sources identified.	No other data sources identified.

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Section 2: Person-Level Questions						
P18b. Difficulty walking?	Required for allocation of program funding in areas including health care, housing, energy assistance and transportation for disabled. Used for enforcement of anti-discrimination regulations.	Used to identify vulnerable populations and to assess needs for services and program outcomes. Also used for local planning purposes, including disaster planning.	No other data available at required levels of geographic, demographic and economic detail.	No other data sources identified.	No other data sources identified.	No other data sources identified.
P18c. Difficulty dressing or bathing?	Required for allocation of program funding in areas including health care, housing, energy assistance and transportation for disabled. Used for enforcement of anti-discrimination regulations.	Used to identify vulnerable populations and to assess needs for services and program outcomes. Also used for local planning purposes, including disaster planning.	No other data available at required levels of geographic, demographic and economic detail.	No other data sources identified.	No other data sources identified.	No other data sources identified.

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Section 2: Person-Level Questions						
P19. Difficulty in doing errands alone because of disability?	Required for allocation of program funding in areas including health care, housing, energy assistance and transportation for disabled. Used for enforcement of anti-discrimination regulations.	Used to identify vulnerable populations and to assess needs for services and program outcomes. Also used for local planning purposes, including disaster planning.	No other data available at required levels of geographic, demographic and economic detail.	No other data sources identified.	No other data sources identified.	No other data sources identified.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P20. Current marital status	Required to understand person's legal marital status, a program parameter for many programs such as child support enforcement, many federal and state pension plans, and enforcement of spousal property rights.	Used to estimate size and characteristics of populations eligible for many federal, state and local programs, and the outcomes of these programs, which include TANF, Welfare to Work programs, and abstinence education programs. Also used to study family formation and dissolution and their relationship to family needs and resources.	No other data available at required levels of geographic, demographic and economic detail. It is possible that marital status information on a substantial segment of the population could be developed through matches with IRS and Social Security files, but many low-income families and families with teen-aged heads would not be included in such data sets.	Current marital status information is collected on many surveys, but ACS and Decennial Census benchmarks are used by these surveys to design and weight their samples, limiting their usefulness as potential replacements for the ACS. Decennial data could potentially be substituted for annual collection of this item in the ACS, but timely data are needed for many program purposes.	Could explore the possible usage of state and local administrative records on marriage and divorce. Unlikely that high quality replacement data can be found in the near future, however. Could also explore population coverage issues in IRS and Social Security data.	No other data sources identified that would provide data of comparable quality and timeliness.
P21a. Married in past 12 mos?	Required for calculating family formation and stability measures	Used to estimate size and characteristics of populations eligible for many federal,	No other data currently available at required levels of geographic,	NCHS discontinued the collection of data on changes in marital status from	Could explore the possible usage of state and local administrative	No alternative data sources currently available.

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Section 2: Person-Level Questions						
	needed to assess state eligibility for various types of funding under the Temporary Assistance to Needy Families program, Welfare to Work programs, and marriage promotion and abstinence education programs.	state and local programs such as TANF, Welfare to Work, and abstinence education programs. Used to study family formation and dissolution and their relationship to family needs and resources for program design and evaluation purposes. Also used to estimate sample weights and calculate small area and small population estimates in surveys such as the National Survey on Drug Use and Health and the Adolescent Health Survey.	demographic and economic detail.	state and local administrative records in 1996 because of concerns about data quality. These data could be reassessed, but available information suggests that they are still of low quality. Federal administrative records such as IRS and Social Security could potentially be substituted for direct collection if these data files were matched to the ACS, but these data sources do not cover many populations of interest, such as low income families and	records on marriage and divorce. Unlikely that high quality replacement data can be found in the near future, however. Could also explore population coverage issues in IRS and Social Security records and the feasibility of obtaining timely information on changes in marital status from these sources.	

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Section 2: Person-Level Questions						
				teens.		
P21b. Widowed in past 12 mos?	See P21a. above.	See P21a. above.	See P21a. above.	See P21a. above.	See P21a. above.	See P21a. above.
P21c. Divorced in past 12 mos?	See P21a. above.	See P21a. above.	See P21a. above.	See P21a. above.	See P21a. above.	See P21a. above.
P22. How many times has person been married?	Serves as an input into projections of future entitlements to Social Security retirement and disability benefits. Correlation of marriage histories with other variables such as hours worked, fertility, etc. is needed to estimate projections of future benefits for both OASDI and Medicare.	Used to analyze intergenerational differences in marriage patterns. These differences feed into policy decisions for many programs that provide benefits based on marital status or marital history, and are also of interest for program planning and assessment purposes in programs that attempt to influence marriage and fertility behavior, such as abstinence education	It is possible that Social Security program earnings records could provide marital history data for those with existing work histories through an exact match between the ACS and the SSA data. However, the quality of the match would have to be carefully assessed to avoid biases across racial and ethnic groups, because data on these categories are no	No other sources currently available for analyses of smaller demographic, income-related and geographic populations.	The possibility of imputation of marital histories onto the ACS using matched data from Social Security Earnings records should be explored.	Some marriages may not be reflected in the SSA earnings histories, since marriages do not always overlap with spells of employment. It would also be difficult to calculate trends over time in marriage patterns using earnings histories, particularly for small population groups. How-ever, the alignment of SSA data with the ACS on this issue should be further explored. Additionally, SSA no

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Section 2: Person-Level Questions						
		programs.	longer provided by SSA.			longer provides data by race because of quality concerns.
P23. Year last got married	Serves as an input into projections of future entitlements to Social Security retirement and disability benefits. Information on trends in marriage rates by age, demographic group and geographic area is also used in the development of performance measures for TANF, Welfare to Work, and marriage promotion and abstinence education programs.	See P21 and P22. above.	See P21 and P22. above.	No other sources currently available for analyses of smaller demographic, income-related and geographic populations.	The possibility using matched data from Social Security Earnings records to impute this information should be explored.	Unknown.

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Section 2: Person-Level Questions						
P24. Has person given birth in last 12 mos?	Required for projections of program revenues, costs and benefits in a variety of programs including federal, state and local taxes, OASDI, Medicare, Medicaid, and other tax and entitlement programs.	Used to estimate birth rates and future cohort sizes for a variety of program and statistical uses, including cost and revenue estimates, program coverage estimates, and evaluation of program outcomes.	No other current source.	Could explore usage of state and local administrative records on births and deaths. These data are known to have quality concerns, however, and it is unlikely that they can provide high quality replacement data in the near future. Additionally, they lack detailed information on the personal and family characteristics of mothers and children.	No clear path to developing replacement data at this time.	No other data sources identified that would provide data of comparable quality and timeliness.

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Section 2: Person-Level Questions						
P25a. Any of person's grandchildren under 18 in dwelling?	Required for calculating family formation and stability measures needed to assess state eligibility for various types of funding under the Temporary Assistance to Needy Families program.	Used by some states and localities to assess need for services for older caregivers and to plan programs to support such caregivers.	No other current source.	No other data sources identified.	No other data sources identified.	No other data sources identified.
P25b. Is person responsible for care of such grandchildren?	Required for calculating family formation and stability measures needed to assess state eligibility for various types of funding under the Temporary Assistance to Needy Families program.	Used by some states and localities to assess need for services for older caregivers and to plan programs to support such caregivers.	No other current source.	No other data sources identified.	No other data sources identified.	No other data sources identified.

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Section 2: Person-Level Questions						
P25c. How long has person been responsible for such grandchildren?	Required for calculating family formation and stability measures needed to assess state eligibility for various types of funding under the Temporary Assistance to Needy Families program.	Used by some states and localities to assess need for services for older caregivers and to plan programs to support such caregivers.	No other current source.	No other data sources identified.	No other data sources identified.	No other data sources identified.
P26. Ever served in Armed Forces?	Required to project the size and characteristics of current and future cohorts of veterans. Also required for enforcement of hiring standards for federal contractors.	Information on the size and needs of the veteran population is used for planning and evaluation in a wide variety of programs, including but not limited to those of the department of Veterans' Affairs. Such information is also used to for sample design and development of weights in required surveys that involve	No other single source captures information on the entire population of veterans.	In theory administrative records from the Armed Services and from the Dept. of Veterans' Affairs could be used to provide at least some of the data required. However, such records are not currently available in any form that would allow them to be used for matching or imputation into the	Further investigation of the availability status and characteristics of administrative data on service members could be undertaken.	No other currently available data sources identified.

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Section 2: Person-Level Questions						
		veterans.		ACS.		
P27. When did person serve in Armed Forces?	Required to project the size and characteristics of current and future cohorts of veterans. Also required for enforcement of hiring standards for federal contractors, which are authorized under statutes that apply to specific cohorts of veterans.	Information on the size and needs of the veteran population is used for planning and evaluation in a wide variety of programs, including but not limited to those of the department of Veterans' Affairs. Such information is also used to for sample design and development of weights in required surveys that involve veterans.	No other single source captures information on the entire population of veterans.	In theory administrative records from the Armed Services and from the Dept. of Veterans' Affairs could be used to provide at least some of the data required. However, such records are not currently available in any form that would allow them to be used for matching or imputation into the ACS.	Further investigation of the availability status and characteristics of administrative data on service members could be undertaken.	No other currently available data sources identified.

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Section 2: Person-Level Questions						
P28a. Does person have a service-connected disability rating?	Required to estimate the population eligible for Veterans' Benefits	Used to examine program eligibility and outcome measures for a variety of disability-related programs. Also used for design of required disability surveys and surveys involving veterans.	No other single source captures information on the entire population of veterans.	In theory administrative records from the Armed Services and from the Dept. of Veterans' Affairs could be used to provide at least some of the data required. However, such records are not currently available in any form that would allow them to be used for matching or imputation into the ACS.	Further investigation of the availability status and characteristics of administrative data on disabled service members could be undertaken.	No other currently available data sources identified.

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Section 2: Person-Level Questions						
P28b. What is that rating?	Required to estimate the population eligible for Veterans' Benefits and to project future payment levels	Used to examine program eligibility and outcome measures for a variety of disability-related programs. Also used for design of required disability surveys and surveys involving veterans.	No other single source captures information on the entire population of veterans.	In theory administrative records from the Armed Services and from the Dept. of Veterans' Affairs could be used to provide at least some of the data required. However, such records are not currently available in any form that would allow them to be used for matching or imputation into the ACS.	Further investigation of the availability status and characteristics of administrative data on disabled service members could be undertaken.	No other currently available data sources identified.

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Section 2: Person-Level Questions						
P29. Labor Force Participation. **a. Did person work for pay at a job or business last week?** **b. Did person do any work for pay last week?**	Required by BLS to calculate employment and unemployment rates for small geographic areas and for smaller population groups as mandated under the Workforce Investment Act and other legislation. Also required for nondiscrimination enforcement efforts, allocation of block grant funds, and many other purposes.	Area-specific and population-specific employment measures are used to calculate needs and assess outcomes for a variety of assistance programs, including federal, state and local income assistance and employment programs and disability assistance programs. These measures are also inputs into small area poverty estimates. They are also used for sample stratification and weighting procedures for many other surveys, including the CPS and SIPP.	No other source for these data.	No other data sources identified.	No other data sources identified.	No other data sources identified.

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Section 2: Person-Level Questions						
P30. Where did person work last?	Required for many purposes, including computation of required small area labor force and unemployment statistics and for required transportation-related statistics and analyses.	Also used for environmental analyses, analyses of anti-discrimination programs, and many other purposes.	This information could conceivably be calculated from Social Security wage reports, but it would be very difficult and costly to do so. Additionally, the use of survey data is mandated in some of the relevant legislation.	No other data sources identified.	Calculation of this variable from wage reports would require the development of an analysis file from those data that could be used for such a purpose. Place of employment would then have to be matched back into the ACS record. Negotiating access to these data would be required. Changing to an administrative data source for this question would disrupt the production of mandated statistical measures at many agencies.	It would be difficult to find last place of employment for persons who did not work in the last quarter using the administrative data.

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Section 2: Person-Level Questions						
P31. How did person get to work last week?	Required by the Dept. of Transportation for transportation planning purposes and for the calculation of required transportation statistics. Also required by the Dept. of Energy and EPA for several pollution-related measures.	Also used by HUD to calculate local affordability indicators, and by several agencies for purposes related to civil rights and anti-discrimination enforcement.	No other source of data identified.	No other source of data identified.	No other source of data identified.	No other source of data identified.
P32. How many persons usually rode in vehicle used by this person to get to work last week?	Required by the Dept. of Transportation for transportation planning purposes and for the calculation of required transportation statistics. Also required by the Dept. of Energy and EPA for several pollution-related measures.	Also used by HUD to calculate local affordability indicators, and by several agencies for purposes related to civil rights and anti-discrimination enforcement.	No other source of data identified.	No other source of data identified.	No other source of data identified.	No other source of data identified.

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P33. What time did person usually leave home for work last week?	Required by the Dept. of Transportation for transportation planning purposes and for the calculation of required transportation statistics. Also required by the Dept. of Energy and EPA for several pollution-related measures.	Also used by HUD to calculate local affordability indicators, and by several agencies for purposes related to civil rights and anti-discrimination enforcement.	No other source of data identified at necessary level of geographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.
P34. How many minutes did it usually take to get from home to work last week?	Required by the Dept. of Transportation for transportation planning purposes and for the calculation of required transportation statistics. Also required by the Dept. of Energy and EPA for several pollution-related measures.	Also used by HUD to calculate local affordability indicators, and by several agencies for purposes related to civil rights and anti-discrimination enforcement.	No other source of data identified at necessary level of geographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.

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Section 2: Person-Level Questions						
P35a. Was person on lay-off from a job last week?	Used by BLS in calculating state and local labor market statistics such as unemployment rates, as required under the Workforce Investment Act and other legislation.	Also used by many agencies for analyses related to workforce status, both by detailed population subgroup and at detailed geographic levels.	No other source of data identified at necessary level of geographic, economic and demographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.
P35b. Was person temporarily absent from a job last week?	Used by BLS in calculating state and local labor market statistics such as unemployment rates, as required under the Workforce Investment Act and other legislation.	Also used by many agencies for analyses related to workforce status, both by detailed population subgroup and at detailed geographic levels.	No other source of data identified at necessary level of geographic, economic and demographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.

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Section 2: Person-Level Questions						
P35c. Will person be recalled to work within the next six months?	Used by BLS in calculating state and local labor market statistics such as unemployment rates, as required under the Workforce Investment Act and other legislation.	Also used by many agencies for analyses related to workforce status, both by detailed population subgroup and at detailed geographic levels.	No other source of data identified at necessary level of geographic, economic and demographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.
P36. Has person been actively looking for work in the last 6 mos?	Used by BLS in calculating state and local labor market statistics such as unemployment rates, as required under the Workforce Investment Act and other legislation.	Also used by many agencies for analyses related to workforce status, both by detailed population subgroup and at detailed geographic levels.	No other source of data identified at necessary level of geographic, economic and demographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.

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Section 2: Person-Level Questions						
P37. Could person have started a job last week if offered one?	Used by BLS in calculating state and local labor market statistics such as unemployment rates, as required under the Workforce Investment Act and other legislation.	Also used by many agencies for analyses related to workforce status, both by detailed population subgroup and at detailed geographic levels.	No other source of data identified at necessary level of geographic, economic and demographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.
P38. When did this person last work?	Used by the Dept. of Labor to allocate Workforce Investment Act Title 1 funding.	Used by several agencies for purposes related to non-discrimination enforcement. Used by several agencies for analyses relating to the Native American population. Also used by the Veterans' Administration to analyze needs of disabled and homeless veterans.	No other source of data identified at necessary level of geographic, economic and demographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P39a. Did person work 50 or more weeks in last year?	Used to screen respondents to identify those who must respond to work status and earnings questions. Also contributes to compilation of state and local labor market statistics such as unemployment rates, as required under the Workforce Investment Act and other legislation.	Also used by many agencies for analyses related to workforce status, both by detailed population subgroup and at detailed geographic levels.	No other source of data identified at necessary level of geographic, economic and demographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P39b. How many weeks did person work some hours?	Used to screen respondents to identify those who must respond to work status and earnings questions. Also contributes to compilation of state and local labor market statistics such as unemployment rates, as required under the Workforce Investment Act and other legislation.	Also used by many agencies for analyses related to workforce status, both by detailed population subgroup and at detailed geographic levels.	No other source of data identified at necessary level of geographic, economic and demographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P40. During weeks worked, usual hours	Used to screen respondents to identify those who must respond to work status and earnings questions. Also contributes to compilation of state and local labor market statistics such as unemployment rates, as required under the Workforce Investment Act and other legislation.	Also used by many agencies for analyses related to workforce status, both by detailed population subgroup and at detailed geographic levels.	No other source of data identified at necessary level of geographic, economic and demographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P41. Current or most recent job activity	Used by the Dept. of Labor to produce labor market analyses to support legislation, regulations, and policy and program analyses, including the production of state and local labor market statistics. Used by the USDA for analyses supporting the allocation of agricultural extension funding.	Used to link employment records between the ACS and the LEHD. Also used for sample stratification in the CPS.	No other source of data identified at necessary level of geographic, economic and demographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.
P42. Employer	No identified mandatory purpose, but used for alignment and calibration between household and business survey employment data.	Used to link LEHD and ACS data. Results of this linkage used for a number of analytic purposes.	No other source of data identified.	No other source of data identified.	No other source of data identified.	No other source of data identified.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P43. Business or industry	Used by BEA to calibrate personal income and sector-specific statistics for the NIPA. Data required at the county level. Used as a stratification variable in the CPS, in order to support the computation of required local labor market statistics. Also used in the allocation of Workforce Investment Title 1 funds.	Used for analysis of labor market information relating to policy, legislation, regulations, and program evaluation. Used in enforcement of non-discrimination and affirmative action obligations of federal contractors.	No other source of data identified at necessary level of geographic, economic and demographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P44. Economic sector	Used by BEA to calibrate personal income and sector-specific statistics for the NIPA. Data required at the county level. Used as a stratification variable in the CPS, in order to support the computation of required local labor market statistics. Also used in the allocation of Workforce Investment Title 1 funds.	Used for analysis of labor market information relating to policy, legislation, regulations, and program evaluation. Used in enforcement of non-discrimination and affirmative action obligations of federal contractors.	No other source of data identified at necessary level of geographic, economic and demographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P45. Type of job	Used by BLS in its methodology for producing state and local labor market estimates, including unemployment rates. Also used in the allocation of Workforce Investment Title 1 funds.	Used for analysis of labor market information relating to policy, legislation, regulations, and program evaluation. Used in enforcement of non-discrimination and affirmative action obligations of federal contractors.	No other source of data identified at necessary level of geographic, economic and demographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.
P46. Most important activities	Used to support classification of job types in the CPS and other sources of labor market data.	Used in enforcement of non-discrimination and affirmative action obligations of federal contractors.	No other source of data identified at necessary level of geographic, economic and demographic detail.	No other source of data identified.	No other source of data identified.	No other source of data identified.
P47. Income in last 12 mos: a.Wages/salary from all jobs	Required for mandated estimates of state and local earnings, income, and poverty rates.	Used to analyze earnings and income for a wide variety of demographic and social groups. Only source of data on income and poverty for many populations.	Earnings information is reported to the IRS, and use of a linked IRS-ACS file could potentially improve the estimates for this variable.	No other source of data identified.	A substantial amount of work would be needed to develop and verify matching or imputation procedures. Obtaining required	Some sources of earnings are not reported to the IRS. Some earners have incomes below the threshold for filing taxes. IRS income definitions may not

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
					permissions from the IRS could be difficult. Confidentiality issues could arise. For key variables such as earnings careful analyses of alignment issues would be needed to explain any discrepancies between reported and administrative values.	always align in either scope or timing with survey reports.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P47b. Self-employment income	Required for mandated estimates of state and local earnings, income, and poverty rates.	Used to analyze earnings and income for a wide variety of demographic and social groups. Only source of data on income and poverty for many populations.	Earnings information is reported to the IRS, and use of a linked IRS-ACS file could potentially improve the estimates for this variable.	No other source of data identified.	A substantial amount of work would be needed to develop and verify matching or imputation procedures. Obtaining required permissions from the IRS could be difficult. Confidentiality issues could arise.	Some sources of earnings are not reported to the IRS. Some earners have incomes below the threshold for filing taxes. IRS income definitions may not always align in either scope or timing with survey reports.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P47c. Interest, dividends, rental income, royalties	Required for mandated estimates of state and local earnings, income, and poverty rates.	Also used in analyses of sources of income by household type and other demographic and social characteristics of respondents.	This information is reported to the IRS, and could be imputed to the ACS using a linked file.	No other source of data identified.	A substantial amount of work would be needed to develop and verify matching or imputation procedures. Obtaining required permissions from the IRS could be difficult. Confidentiality issues could arise.	It is likely that IRS data would provide a more accurate estimate of income from this source, which is significantly underreported in the ACS. Alignment issues might arise, however.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P47d. Social Security or Railroad Retirement Income	Required for mandated estimates of state and local earnings, income, and poverty rates.	Also used in analyses of sources of income by household type and other demographic and social characteristics of respondents.	Data from Social Security benefit records could provide this information if linked to the ACS for imputation purposes.	No other source of data identified. IRS records would not be helpful because the majority of Social Security recipients are not required to file federal tax returns, and Social Security benefits are not taxable for most recipients.	A substantial amount of work would be needed to develop and verify matching or imputation procedures. Obtaining required permissions could be difficult. Confidentiality issues could arise.	ACS reports of Social Security benefits are reasonably close to estimates from administrative data, so imputations based on SSA records might not substantially improve the quality of the data.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P47e. Supplemental Security Income	Required for mandated estimates of state and local earnings, income, and poverty rates.	Also used in analyses of sources of income by household type and other demographic and social characteristics of respondents.	Federal SSI Benefits could conceivably be imputed from SSA data. However, many states supplement those benefits, and supplements would not be available in the SSA files.	No other source of data identified. IRS records would not be helpful because the majority of SSI recipients are not required to file federal tax returns, and in any case SSI income is not taxable. At this time few states have the ability to provide analysis files containing information on SSI benefits.	A substantial amount of work would be needed to develop and verify matching or imputation procedures. Obtaining required permissions could be difficult. Confidentiality issues could arise.	SSI recipiency is significantly under-reported in the ACS, but it is not clear that better estimates could be obtained using currently available administrative data.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P47f. Public assistance	Required for mandated estimates of state and local earnings, income, and poverty rates.	Also used in analyses of sources of income by household type and other demographic and social characteristics of respondents.	The only detailed sources of administrative data on public assistance recipiency are state public assistance files. Few states currently have the ability to share these data, but most are working on developing sharable analysis files. HHS also obtains some state data. See discussion in Table 2 for more information.	Few data currently available, but more likely to come on line in the relatively near future.	States will generally require some assistance in organizing their data for analysis. There are likely to be issues in aligning variable definitions and other parameters across states. Separate data use agreements will be required for each state.	Reported public assistance on the ACS falls far below administrative totals, but administrative data sources that could be used to impute these data are still under development. As more state-level data become available, it will become easier to assess whether imputation from those files has the potential to improve the quality of the data.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P47g. Pension income	Required for mandated estimates of state and local earnings, income, and poverty rates.	Also used in analyses of sources of income by household type and other demographic and social characteristics of respondents.	To the extent that pensions are taxable, some information may be available from IRS. Many pension recipients are not required to file tax returns, however.	No other data at required levels of geographic and demographic detail are currently available.	No useful data development activities have been identified at this time.	No other data at required levels of geographic and demographic detail are currently available.
P47h. Regular income from any other source	Required for mandated estimates of state and local earnings, income, and poverty rates.	Also used in analyses of sources of income by household type and other demographic and social characteristics of respondents.	Again, IRS data might give some insight here, but many of the income types included (child support, transfers from family members, etc.) are not taxable.	No other data at required levels of geographic and demographic detail are currently available, either for specific components of other income or for totals as a whole.	No other data sources identified.	No other data sources identified.

Question	Mandatory uses of data from this question?	Are there major policy issues for which this question is used?	Is there a single source of data that might be used to replace this question? If so, name:	Other data sources that might be used to develop replacement information	Additional work needed to develop replacement for question	Ways in which substitute would differ from ACS question
Section 2: Person-Level Questions						
P48. Total income in last 12 months.	Required for mandated estimates of state and local earnings, income, and poverty rates.	Used to analyze earnings and income for a wide variety of demographic and social groups. Only source of data on income and poverty for many populations.	AGI totals from IRS records could provide some comparative data on reported total income, but there are many differences in data definitions and universes that would preclude direct imputation.	No other data on household income as a whole are available at needed levels of geographic, demographic and economic detail. Imputation of data from other sources to improve estimates of specific income components could also improve estimates of total income.	Appropriate data development approaches discussed for specific components of income above.	If administrative data from IRS, SSA or other sources are used to improve estimates for specific income components, total income estimate could also be adjusted for greater accuracy by adding in the appropriate amounts.

Table 2. Characteristics of Specific Administrative Data Sources that Could Supplement the ACS

Name of Source	Relevant ACS Questions	Timeliness	Frequency of Collection	Compatibility and Data Quality Issues	Acquisition and Legal Issues	Potential Access Arrangements
A. Federal Administrative Records						
IRS Data						
1040 forms	P47	current ACS year available	annual (but returns reported in April, July and October)	match to ACS data would be needed, but tools for such a match are available	Census currently has access to identification information including SSN, wages, interest income, business income, capital gains, social security benefits, rental and royalty income, and AGI. Access to additional fields such as itemized deductions and tax credits would need to be negotiated.	Acquisition of any additional information and match to ACS would need to be negotiated with IRS.
1098/1099 forms	P47	current ACS year available	annual (but returns reported in April, July and October)	match to ACS data would be needed, but tools for such a match are available	Census does not currently receive these data. Would need to negotiate data-sharing agreement with IRS.	Acquisition of these data and match to ACS would need to be negotiated with IRS.
W-2/W-4 forms	P47	current ACS year available	annual	match to ACS data would be needed, but tools for such a match are available	Census does not currently receive these data. Would need to negotiate data-sharing agreement with IRS.	Acquisition of these data and match to ACS would need to be negotiated with IRS.

Name of Source	Relevant ACS Questions	Timeliness	Frequency of Collection	Compatibility and Data Quality Issues	Acquisition and Legal Issues	Potential Access Arrangements
Schedule A information	P47	current ACS year available	annual	match to ACS data would be needed, but tools for such a match are available	Census does not currently receive these data. Would need to negotiate data-sharing agreement with IRS.	Acquisition of these data and match to ACS would need to be negotiated with IRS.
Social Security Data						
Earnings Record data	P20, P22,P23, P47	Data up to current ACS year probably available	Updated on an on-going basis	match to ACS data would be needed, but tools for such a match are available	Census has some SSA data and has already produced matched research files for CPS and SIPP; not all earnings-record information included	Acquisition of any additional information and match to ACS would need to be negotiated with IRS and/or SSA.
HUD Program Data						
PICS/TRAC data	H18	Data up to current ACS year probably available	Updated on an on-going basis	match to ACS data would be needed, but tools for such a match are available	Census currently has these data for some years	Some data currently at Census
CMS Program Data						
Medicare claims	P16	Some time lag in data collection and processing; data quality issues	annual	Would need to develop tools and procedures to prepare these data for use with ACS. Some incompatibilities in coverage categories and other overlapping variables.	Census has some claims data available, but they are not up to date.	Data sharing agreement for specific elements of files needed.

Name of Source	Relevant ACS Questions	Timeliness	Frequency of Collection	Compatibility and Data Quality Issues	Acquisition and Legal Issues	Potential Access Arrangements
Medicaid claims	P16	Some time lag in data collection and processing; data quality issues	annual	Would need to develop tools and procedures to prepare these data for use with ACS. Some incompatibilities in coverage categories and other overlapping variables.	Census has some claims data available, but they are not up to date.	Data sharing agreement for specific elements of files needed.
Medicaid program eligibility data	P16	May be substantially out of date	annual	Not clear how these estimates would align with ACS; likely incompatibility in unit definitions and possibly other variables	CMS has some eligibility estimates, but quality, availability, and suitability for use with ACS are unknown.	More information needed from CMS
ACA enrollment data	P16	Current ACS year should be available in future, but data protocols not yet established	On-going updates	Would need to develop tools and procedures to prepare these data for use with ACS. Some incompatibilities in coverage categories, for example.	Census does not currently receive these data. Would need to negotiate data-sharing agreement and procedures with CMS.	Data sharing agreement needed.
Other Federally-Held Program Data						
TANF administrative data	P47	Federally-held administrative data are provided by states, and vary in timeliness and coverage	Updated annually	Files would need extensive work to be useful for ACS. Issues include inconsistent universes within data, variable data quality, etc.	Census does not currently receive these data.	Data sharing agreement would be needed.

Name of Source	Relevant ACS Questions	Timeliness	Frequency of Collection	Compatibility and Data Quality Issues	Acquisition and Legal Issues	Potential Access Arrangements
Indian Health Service data	P10, p38	Federally-held administrative data may be out of date, contain inconsistencies in reporting	unknown.	unknown	Census does not currently receive these data.	Data sharing agreement would be needed.
Veterans' Affairs data	P26, P27, P28	Information unavailable	Unknown.	Files likely to need extensive work before useful data could be obtained.	Census does not currently receive these data.	Types of data to be provided and approved uses would need to be negotiated with DVA
B. State Administrative Records						
Unemployment Insurance data: coverage and benefits	P30, P39 ,P41, P42, P43, P47	Reasonably current data available from most states that are willing/able to supply data	Ongoing updates; typically annual data files	Data are already prepared for use with LEHD and are therefore likely to be reasonably compatible with ACS	Collected for use in constructing LEHD, but currently restricted to that use	Would need to negotiate data sharing agreements with individual states, or find a way to expand existing LEHD agreements.
SNAP program data	H15	Varies substantially across states	Depends on state data entry and data management systems	For most states, existing data need substantial editing and verification before they would be usable for ACS.	Data currently available from a few states. Most states are likely to need technical assistance to produce usable data.	Additional data use agreements would have to be negotiated with each state. Some states charge for their data.

Name of Source	Relevant ACS Questions	Timeliness	Frequency of Collection	Compatibility and Data Quality Issues	Acquisition and Legal Issues	Potential Access Arrangements
TANF program data	P47	Varies substantially across states	Depends on state data entry and data management systems	For most states, existing data need substantial editing and verification before they would be usable for ACS.	A few states currently produce files that they are potentially willing and able to share. Most states are likely to need technical assistance to provide usable data.	Additional data use agreements would have to be negotiated with each state. Some states charge for their data.
Childcare/Headstart/ education data	P10	Varies substantially across states	Depends on state data entry and data management systems	For most states, existing data need substantial editing and verification before they would be usable for ACS.	Several states have administrative data on Headstart and licensed child care programs available. Most states maintain longitudinal records for public school students in grades K-12. Most states would need technical assistance to produce analysis files that could be used to supplement ACS data.	Additional data use agreements would have to be negotiated with each state. Some states charge for their data.

Name of Source	Relevant ACS Questions	Timeliness	Frequency of Collection	Compatibility and Data Quality Issues	Acquisition and Legal Issues	Potential Access Arrangements
State-level Medicaid data	P16	Varies substantially across states	Depends on state data entry and data management systems	For most states, existing data need substantial editing and verification before they would be usable for ACS.	A few states currently produce files that they are potentially willing and able to share. In some cases, these files are integrated with data on other public assistance programs. Most states are likely to need technical assistance to provide usable data.	Additional data use agreements would have to be negotiated with each state. Some states charge for their data.
C. Third Party Data						
Experian	H4	Based on credit record reports. May be some time lag, but reasonably timely.	Ongoing; annual files available.	Address, name, race, Hispanic origin, age and sex information from credit bureau records. Can be used for verification and sample frame development, but little additional information in currently held files.	Census currently purchases data from file headers for use in developing address files. Other credit-related variables could potentially be purchased.	Data available for purchase. Price depends on specific elements included.

Name of Source	Relevant ACS Questions	Timeliness	Frequency of Collection	Compatibility and Data Quality Issues	Acquisition and Legal Issues	Potential Access Arrangements
VSGI Name and Address Resource Consumer (NAR) file	H4, P15	Some time lag in incorporating new data, but reasonably timely.	Ongoing; annual files available.	Contains current address, name, date of birth, race, Hispanic origin, and sex information from magazine/periodical change of address information, utility records, and other sources. May need some editing to be compatible with ACS.	Census currently purchases for use in developing address files. Other information on consumer characteristics could potentially be purchased.	Data available for purchase. Price depends on specific elements included.
Targus	H4	Unknown. Presumed to be reasonably timely.	Ongoing; annual files available.	Contains address, name, race, Hispanic origin, age, and sex data. Additional variables potentially available for purchase.	Census currently purchases for use in developing address files. Other information on consumer characteristics could potentially be purchased.	Data available for purchase. Price depends on specific elements included.
Corelogic	H1, H2, H4, H7, H8, H19, H20, H22	Unknown. Presumed to be reasonably timely.	Ongoing; annual files available.	Contains housing data such as property tax, deeds, foreclosures, and real estate listings. Would need some editing for use in ACS imputations.	Census currently purchases data for use in use in evaluating and improving survey and census data.	Data available for purchase.

Name of Source	Relevant ACS Questions	Timeliness	Frequency of Collection	Compatibility and Data Quality Issues	Acquisition and Legal Issues	Potential Access Arrangements
RealtyTrac	H1, H2, H4, H7, H8, H19, H20, H22	Unknown. Presumed to be reasonably timely.	Ongoing; annual files available.	Contains housing data such as property tax, deeds, foreclosures, and real estate listings. Would need some editing for use in ACS imputations.	Census currently purchases data for use in use in evaluating and improving survey and census data.	Data available for purchase.
InfoUSA	H4, P15	Unknown. Presumed to be reasonably timely.	Ongoing; annual files available.	Contains current and historical address, name, race, Hispanic origin, age, and sex data from sources such as property taxes, voter registration rolls, and telephone book white pages.	Census currently purchases for use in developing address files. Additional data elements may be available for purchase.	Data available for purchase.
Melissa Database	H4, H19, P15	Unknown. Presumed to be reasonably timely.	Ongoing; annual files available.	Contains address, name, and age information from credit header records, utility bills, cellular phone records, and the U.S. Postal Service.	Census currently purchases for use in developing address files. Additional data elements may be available for purchase.	Data available for purchase.

Appendix B: Agencies and Contacts for Information on Administrative Data Sources

Agency	Name of Contact
HHS: Office of the Assistant Secretary for Planning and Evaluation (ASPE)	Don Oellerich, Deputy Chief Economist Susan Hauan, Acting Director, Division of Data and Technical Analysis, Office of Human Services Policy
HHS: Administration for Children and Families (ACF), Office of Planning, Research and Evaluation (OPRE)	Mark Fucello, Director, Division of Economic Independence Brendan Kelly, DEI, OPRE—TANF data and analysis
HHS: Centers for Medicare and Medicaid Services (CMS), Office of Information Products and Data Analytics (OIPDA)	Andy Shatto, Director, Division of Data Development and Services
HUD: Office of Policy Development and Research (PD&R)	Shawn Bucholtz, Director, Housing and Demographic Analysis Division
USDA: Food and Nutrition Service (FNS), Office of Research and Analysis (ORA)	Jenny Genser
USDA: Economic Research Service (ERS), Food Assistance and Nutrition Assistance Program Research (FANRP)	John Kirlin, Assistant Deputy Director for SNAP Research
DOL: Bureau of Labor Statistics (BLS), Division of Employment Research and Program Development	Mark Loewenstein, Senior Research Economist
Social Security Administration, Office of Research, Evaluation and Statistics	Angela Harper, Retirement/OASDI Statistics Cherice Jefferies, Geographic Statistics (OASDI and SSI) Howard Iams, General Retirement Research and Data