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MEMORANDUM FOR ACS Research and Evaluation Workgroup

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Subject: Preliminary Research for Replacing or Supplementing the Sale of Agricultural Products Question on the American Community Survey with Administrative Records

Attached is the Center for Administrative Records Research and Applications (CARRA) Research and Evaluation report, "Preliminary Research for Replacing or Supplementing the Sale of Agricultural Products Question on the American Community Survey with Administrative Records". We conducted this evaluation to assess the potential for using Internal Revenue Service (IRS) data to replace or supplement the sale of agricultural products question on the American Community Survey (ACS). If you have any questions about this report, please contact Dave Sheppard at 301-763-9291 or Jessica Majercik at 301-763-5430.

Attachment

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Preliminary Research for Replacing or Supplementing the Sale of Agricultural Products Question on the American Community Survey with Administrative Records

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Table of Contents

Executive Summary	iii
I. Background.....	1
II. Literature Review.....	2
III. ACS Sale of Agricultural Products Question Background.....	3
Figure 1: ACS Housing Question 5 – 2014 Paper Questionnaire.....	3
IV. Research Questions	4
V. Data and Methods	4
VI. Match Results	7
Table 1: ACS PIK and MAFID Assignment.....	8
Table 2: ACS Unique or Duplicate PIK and MAFID Assignment	8
Table 3: ACS <i>Unedited</i> Sale of Agricultural Products Checkbox.....	9
Table 4: ACS <i>Edited</i> Sale of Agricultural Products Checkbox	10
Table 5: IRS MAFID Assignment	11
Table 6: IRS PIK and MAFID Assignment	11
Table 7: IRS Unique or Duplicate PIK and MAFID Assignment	12
Table 8: IRS Schedule F Indicator	12
Table 9: Presence of ACS <i>Unedited</i> Household Sale of Agricultural Products and IRS Household Schedule F Indicator, Counts	14
Table 10: Presence of ACS <i>Unedited</i> Household Sale of Agricultural Products and IRS Household Schedule F Indicator, Percentages	14
Table 11: Agreement between ACS <i>Unedited</i> Household Sale of Agricultural Products and IRS Household Schedule F Indicator, Counts	15
Table 12: Agreement between ACS <i>Unedited</i> Household Sale of Agricultural Products and IRS Household Schedule F Indicator, Percentages	15
Table 13: Agreement between ACS <i>Unedited</i> Household Sale of Agricultural Products and IRS Household Schedule F Indicator, Column Percentages	16
Table 14: Agreement between ACS <i>Unedited</i> Household Sale of Agricultural Products Category and IRS Household Schedule F Indicator, Counts	17
Table 15: Agreement between ACS <i>Unedited</i> Household Sale of Agricultural Products Category and IRS Household Schedule F Indicator, Column Percentages.....	17
Figure 2: Linkage, Presence, and Agreement of ACS <i>Unedited</i> Household Sale of Agricultural Products with IRS Household Schedule F Indicator	18
Figure 3: Linkage, Presence, and Agreement of ACS <i>Edited</i> Household Sale of Agricultural Products with IRS Household Schedule F Indicator	19
VII. Limitations	19
VIII. Conclusions	21
IX. Future Research	22
X. References	22

Appendix A

Figure A.1:	IRS – 2014 Form 1040, Page 1	25
Figure A.2:	IRS – 2014 Schedule F (Form 1040), Page 1	26
Figure A.3:	IRS – 2014 Schedule F (Form 1040), Page 2	27
Figure A.4:	IRS – 2014 Instructions for Schedule F (Form 1040), Page 1	28
Figure A.5:	Overlap of ACS Response and IRS Tax Year, Example 1	29
Figure A.6:	Overlap of ACS Response and IRS Tax Year, Example 2	30

Appendix B

Table B.1:	ACS PIK and MAFID Assignment by <i>Edited</i> Characteristics	31
Table B.2:	ACS <i>Unedited</i> Sale of Agricultural Products Checkbox by <i>Edited</i> Characteristics	33
Table B.3:	ACS <i>Edited</i> Sale of Agricultural Products Checkbox by <i>Edited</i> Characteristics	39
Table B.3:	ACS <i>Edited</i> Sale of Agricultural Products Checkbox by <i>Edited</i> Characteristics, Continued	41
Table B.4:	IRS PIK and MAFID Assignment for the Primary Filer, Secondary Filer, and all Dependents	43
Table B.5:	IRS Unique or Duplicate PIK and MAFID Assignment for the Primary Filer, Secondary Filer, and all Dependents	43
Table B.6:	IRS Schedule F Indicator for the Primary Filer, Secondary Filer, and all Dependents	44
Table B.7:	ACS to IRS PIK and MAFID Linkage at Person-Level by <i>Edited</i> Characteristics	45
Table B.8:	ACS to IRS PIK and MAFID Linkage at Person-Level by <i>Edited</i> Characteristics (Column Percentages)	47
Table B.9:	ACS to IRS PIK and MAFID Linkage at Household-Level by <i>Edited</i> Characteristics	49
Table B.10:	ACS to IRS PIK and MAFID Linkage at Household-Level by <i>Edited</i> Characteristics (Column Percentages)	51
Table B.11:	Presence of ACS <i>Unedited</i> Household Sale of Agricultural Products and IRS Household Schedule F Indicator by <i>Edited</i> Characteristics	53
Table B.12:	Agreement between ACS <i>Unedited</i> Household Sale of Agricultural Products and IRS Household Schedule F Indicator by <i>Edited</i> Characteristics	55
Table B.13:	Presence of ACS <i>Edited</i> Household Sale of Agricultural Products and IRS Household Schedule F Indicator by <i>Edited</i> Characteristics	57
Table B.14:	Agreement between ACS <i>Edited</i> Household Sale of Agricultural Products and IRS Household Schedule F Indicator by <i>Edited</i> Characteristics	59

Executive Summary

As detailed in the report, “Agility in Action: A Snapshot of Enhancements to the American Community Survey” (U.S. Census Bureau, 2015), the U.S. Census Bureau is investigating ways of using administrative records to reduce the difficulty and length of the American Community Survey (ACS) and address the burden survey participation places on respondents. One of the questions we are investigating is the sale of agricultural products question. This research begins the evaluation of whether an identified administrative records source has data of sufficient coverage and quality to allow the removal of the question on the ACS. Alternatively, the Census Bureau may find the administrative records source sufficient only to serve as a supplement to data provided by respondents to fill in missing responses or enhance editing routines. A Census Bureau team will use this report and conduct additional research to make recommendations on whether each question is a good candidate for removal by using the external data source in its place.

This report explores the linkage of Internal Revenue Service (IRS) 1040 individual income tax returns from tax year 2014 to the ACS sample collected in the 2014 sample year, the presence of comparable IRS data for the ACS sale of agricultural products question, and the agreement of these IRS data with ACS self-reported and imputed responses. Among the 5.3 million ACS person-level records in sample, 94.4 percent of persons have sufficient identifying information to allow linkage to administrative records. Of the approximately 427 thousand ACS households that were eligible for the ACS sale of agricultural products question, 70.0 percent had at least one person in that ACS household linked to an IRS 1040 individual income tax return and also had a response to the ACS sale of agricultural products question. There is agreement between the unedited ACS sale of agricultural products and the Schedule F indicator 91.6 percent of the time, the majority of which is confirmation of the absence of the sale of agricultural products. The remaining respondents were nearly evenly split in the two categories indicating disagreement, either having agricultural sales in the ACS data but no associated Schedule F for members of that household or having no agricultural sales in the ACS data and a Schedule F associated with at least one member of that household. This split likely can be attributed, at least in part, to both the IRS definition of farmers typically being self-employed persons and the IRS self-employment income filing requirement of \$400 or more. The relationships between the edited ACS sale of agricultural products and the Schedule F indicator are similar to those relationships shown in the unedited data.

There are several limiting factors concerning the tax year 2014 IRS 1040 individual income tax return data utilized for this research. These data only include a recode indicating that a Schedule F was associated with the individual income tax return, and do not include either the physical addresses or the actual values corresponding to the amount of the sale of the agricultural products. IRS instructions indicate that individuals who farm are typically considered self-employed, and only those self-employed individuals that earned \$400 or more in the tax year are required to file individual income tax returns, which limits available data from demographic groups typically associated with lower income. The temporal differences between the IRS tax year and the ACS reference period could cause differences in the ACS response and the presence or absence of a Schedule F. Finally, the timeliness of the IRS data is concerning, with regard to ACS implementation of its use.

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I. Background

Stemming from concerns about the burden that American Community Survey (ACS) participation places on respondents, the Census Bureau is looking for ways to reduce the difficulty and length of the survey by leveraging administrative records. Sources of both federal and third-party data that may potentially alleviate the need to ask certain questions altogether or for a subset of the ACS sample have been identified. Work is underway to acquire new sources and assess their linkage to the ACS sample, the presence of comparable data to ACS questions, and their agreement with ACS self-reported and imputed responses by subpopulation and housing characteristics. Data from other Federal agencies are under review to potentially replace ACS content, including the Internal Revenue Service (IRS) to provide income information and the Social Security Administration for pension and disability information. The American Community Survey Office (ACSO) is consulting with stakeholders, including Congress, regarding the appropriateness of direct substitution.

Recently, the ACSO contracted with the National Opinion Research Center to report on the availability of data sources, as well as the potential issues with those sources, as candidates for replacing or supplementing data currently collected by the ACS. Using this report (Ruggles, 2015) as well as their experience, the Center for Administrative Records Research and Applications (CARRA) identified several topics for further study based on the availability of data and likelihood of successful matching and analysis. These topics include:

- Year built
- Part of condominium
- Tenure
- Property value
- Real estate taxes
- Have mortgage/mortgage amount
- Second mortgage/HELOC and payment
- Income in the past 12 months
- Residence one year ago
- Number of rooms/bedrooms
- Facilities
- Fuel type
- Acreage
- Self-employment income in the past 12 months
- Sale of agricultural products
- Social security income and Supplemental security income in the past 12 months

For each topic, CARRA will acquire and link the administrative records to survey data and provide a report describing the linkage, presence, and agreement of the data source with the ACS self-reported and imputed responses by subpopulation and housing characteristics as applicable. CARRA will document the linked file and put the research extract in the Data Management System for future research.

This research is intended to be a first look at the various topics to document the linkage of federal and third-party data sources to the ACS sample, presence of comparable data to ACS questions, and their agreement with ACS self-reported and imputed responses for potential ACS integration. This research will enable ACS to evaluate the potential of the replacement data sources, identify challenges, and provide direction for further research. It is an exploratory investigation of the feasibility of replacing ACS data with administrative records.

Next, the ACSO will create teams for each ACS topic identified as a potential candidate for records usage based on the results from the first phase of research. Each team will include statistical researchers, subject matter experts, and data processors who together can identify and research issues related to records usage.

The teams will make recommendations on whether each question is a good candidate for removal from the survey questionnaire with the use of federal or third-party data sources in its place. This recommendation will be based on an assessment of the implications of implementing such a change, considering overall data quality, break in series, and the limitations of the data source affecting the suitability for use. The team will document and evaluate various options for integrating the records. For instance, for some topics, records may be better suited in assisting with imputation whereas for other topics the records may be used for direct substitution of a survey question (for all or a subset of the ACS respondent pool).

Moreover, the ACSO will gauge reactions to our intention to use federal and third-party data sources from data users, stakeholders, and the public. The ACSO will review current ACS mail materials to ensure proper transparency, as well as publicly share the vision in forums such as the ACS Data Users Conference, meetings of the Association of Public Data Users, the Population Association of America, the Joint Statistical Meetings, the American Association for Public Opinion Research, and other public venues.

II. Literature Review

The report, “Review of Administrative Data Sources Relevant to the American Community Survey” (Ruggles, 2015), provided a review of data sources that could be used to replace or improve specific questions on the ACS. Its purpose was to support the work of the ACS Content Review (Chappell and Obenski, 2014) 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 2010 American Community Survey Match Study (Luque and Bhaskar, 2014) assessed the coverage of person and address administrative records data from twenty federal and third party data sources. The study found that records provide substantial coverage for addresses and persons in the 2010 ACS (92.7 and 92.1 percent respectively), and less extensive though substantial coverage for person-address pairs (74.3 percent). Other research focused on linkage methods to associate administrative records data to persons in the ACS, noting that some groups are less likely to be matched (Bond et al., 2014). These groups include young children, minorities, residents of group quarters, recent movers, low-income individuals, and people not employed.

Historically, essential agricultural data answer questions about the following topics: the volume of product produced by the farm, the volume of product sold off the farm, the volume of product consumed by the farm, the volume of product held in inventory at both the beginning and end of the accounting period, and the net price at which the product was sold (Rutherford, 1938). Rutherford’s research indicates that estimates of net agricultural income are necessary for the completeness and accuracy of national income data. Measurements of the individual industries enable comparisons between those industries and the national income data, as well as amongst

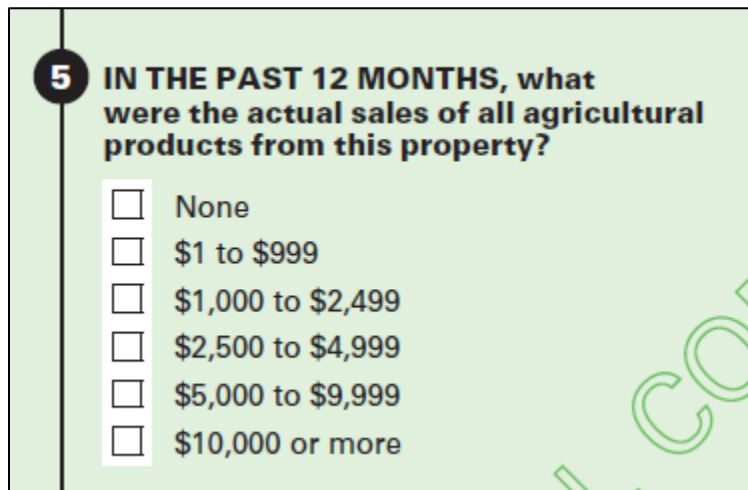
each other. Thus, measurements of the individual industries are crucial to understanding the overall trends in income data.

However, a 1983 paper by Charles H. Riemenschneider illustrated that there are many issues with measurement of agricultural data, specifically revolving around the obsolescence of the statistical concepts being measured, when compared with the actual circumstances of the farming sector. Riemenschneider defines the concept of the “family farm,” which was fundamental to many agricultural statistics initially developed in the 1920s, but is no longer an accurate representation of the entire farming sector. He explains that this evolving structure of agriculture and changes in policy contribute to a lack of awareness by policy makers of growing problems in society, as the concepts measured by agricultural statistics no longer cover issues related to energy, inflation, the environment, consumers, and international trade.

Literature concerning the statistical measurement of the sale of agricultural products is sparse, so we turn to other disciplines to overview the changes in the farming industry. Lobao and Meyer (2001) illustrate the major impacts to the farm industry over the past century, from the movement of historical farming as a livelihood strategy to contemporary farming as a specialty. They elucidate three distinct research topics: the structural transformation of farming, the community impact of farm change, and the effects of farm change on households. These distinct topics capture the major changes experienced by the farm population, which is still rapidly evolving.

III. ACS Sale of Agricultural Products Question Background

Figure 1: ACS Housing Question 5 – 2014 Paper Questionnaire



5 IN THE PAST 12 MONTHS, what were the actual sales of all agricultural products from this property?

- ☐ None
- ☐ \$1 to \$999
- ☐ \$1,000 to \$2,499
- ☐ \$2,500 to \$4,999
- ☐ \$5,000 to \$9,999
- ☐ \$10,000 or more

Source: U.S. Census Bureau, 2014 American Community Survey

The ACS seeks responses for housing question 5 for all occupied single-family or mobile homes that are on more than one acre. The 2014 paper questionnaire for housing question 5, as shown in Figure 1 reads, “IN THE PAST 12 MONTHS, what were the actual sales of all agricultural products from this property?” There are six checkboxes: “None,” “\$1 to \$999,” “\$1,000 to \$2,499,” “\$2,500 to \$4,999,” “\$5,000 to \$9,999,” and “\$10,000 or more.” The header of the housing section of the ACS specifies: “Please answer the following questions about the house, apartment, or mobile home at the address on the mailing label.” Specifically, for section A of the

housing section of the ACS, the questionnaire indicates: “Answer questions 4 – 6 if this is a HOUSE OR A MOBILE HOME; otherwise, SKIP to question 7a.” The internet mode of response for this question appears in a similar fashion. Neither the ACS instruction guide nor the internet mode help options contain additional information for this question.

The other modes of response to the ACS, Computer-Assisted Telephone Interview (CATI) and Computer-Assisted Personal Interview (CAPI), separate the sale of agricultural products question into two distinct parts: the screener portion and the checkbox portion. Respondents are asked a “Yes” or “No” question to identify the following: “IN THE PAST 12 MONTHS, were there any sales of agricultural products from this property?” CATI and CAPI interviewers are given the following additional instructions for this question: “Ask this question of all occupied single-family or mobile homes that are on more than 1 acre. Agricultural products refer to crops, vegetables, fruits, nuts, livestock and livestock products, and nursery and forest products produced on **this property** for sale. **This property** is the acreage on which the house or mobile home is located. Include adjoining land rented for use.” If the respondent indicates “Yes,” the checkbox portion prompts with five checkboxes for the amount of sales: “\$1 to \$999,” “\$1,000 to \$2,499,” “\$2,500 to \$4,999,” “\$5,000 to \$9,999,” and “\$10,000 or more.” CATI and CAPI interviewers are directed to allow the respondent to interpret the phrase “in the past 12 months,” but are provided examples of this timeframe. While there are very slight differences between these response modes, the underlying meaning and intent of the question and the response options in the different modes is assumed consistent (Martin et al., 2007). Additionally, there may be inherent mode effects in any multimodal survey that cannot be completely eliminated, in part due to population subgroups that may behave differently between modes (Groves, 1989).

IV. Research Questions

This research attempted to address the following research questions:

1. To what extent is the construct measured by the federal data source identical or close enough to the construct as measured by the ACS question?
2. How often does this federal data source contain data that could potentially be used to replace the respondent provided response?
3. How often do the data from the federal data source agree with the reported response from ACS respondents by major subpopulation and housing characteristics?
4. How often do the data from the federal data source agree with the final edited and imputed result by major subpopulation and housing characteristics?
5. How current is the federal data source, that is, is it available for the ACS processing cycle?

V. Data and Methods

This report analyzes the ACS sale of agricultural products question using available data from the IRS, specifically, 1040 individual income tax returns. The 2014 IRS Form 1040, the first page of which is shown in Figure A.1 in Appendix A, was the primary form by which “all U.S. citizens, regardless of where they live, and resident aliens” prepared their income taxes for tax year 2014, which was the period running from January 1, 2014 through December 31, 2014 (IRS, 2016b). Form 1040 provides boxes for the primary filer’s and the spouse or secondary filer’s full name and social security number, as well as the full names and social security numbers for up to four

dependents. In the IRS Form 1040 Instructions, if the filer has more than four dependents, they are to include a statement providing this information with their individual income tax return (IRS, 2016b). However, the file the Census Bureau receives only has the names and social security numbers for the primary filer, the secondary filer, and the first four dependents. Form 1040 also provides boxes for the filer to provide their home address. The file the Census Bureau receives has fields for the filer's home address and an updated address. Filers can provide an updated address to the IRS via their individual income tax return, IRS form 8822, a written statement mailed to the IRS, an oral notification to an IRS representative, or by electronic notification on the IRS website. (IRS, 2016a)

Charts A, B, and C from the Form 1040 Instructions provide the various situations in which a person must file an individual income tax return. These instructions utilize the term gross income to indicate the income threshold by which a person must file. Gross income includes "all income you received in the form of money, goods, property, and services that is not exempt from tax, including any income from sources outside the United States or from the sale of your main home (even if you can exclude part or all of it)" (IRS, 2016b). Among other sources, gross income should include income from business means, as figured on a Schedule C (profit or loss from business) or Schedule F (profit or loss from farming). The lowest gross income threshold for filing is for those who are self-employed; these individuals must file an individual income tax return if their net earnings are \$400 or more, or their wages of \$108.28 or more are from a church or qualified church-controlled organization. The highest threshold of gross income for filing are for those who are married, filing jointly, and both spouses are age 65 or older; these individuals must only file an individual income tax return if their gross income is at least \$20,300 (IRS, 2016b). Publication 225, the Farmer's Tax Guide for Use in Preparing 2014 Returns, defines the business of farming as "cultivating, operating, or managing a farm for profit, either as an owner or a tenant. A farm includes livestock, dairy, poultry, fish, fruit, and truck farms. It also includes plantations, ranches, ranges, orchards, and groves" (IRS, 2016e). This publication also specifies that individuals are usually considered self-employed if operating their own farm on land they either own or rent (IRS, 2016d). This indicates that those who farm are usually considered self-employed and must pay self-employment tax by filing a Schedule SE along with their Form 1040. (IRS, 2016f)

Schedule F (Form, 1040c), of which the entirety is shown in Figure A.2 and Figure A.3 in Appendix A, is the IRS form used to report profit or loss from farming. Part IV of the form contains a list of the principal agricultural activity codes used to "classify farms by their primary activity to facilitate the administration of the Internal Revenue Code" (IRS, 2016c). This list includes crop production, animal production, forestry, and logging. This list specifically excludes the following from profit or loss from farming:

- *Income from providing agricultural services such as soil preparation, veterinary, farm labor, horticultural, or management for a fee or on a contract basis. Instead file Schedule C (Form 1040) or Schedule C-EZ (Form 1040).*
- *Income from breeding, raising, or caring for dogs, cats, or other pet animals. Instead file Schedule C (Form 1040) or Schedule C-EZ (Form 1040).*
- *Sales of livestock held for draft, breeding, sport, or dairy purposes. Instead file form 4797.*

The 2014 Instructions for Schedule F (Form 1040), the first page of which is shown in Figure A.4 in Appendix A, state that this form is used to report farm income and expenses. This form is filed with the forms 1040, 1040NR (nonresident alien income tax return), 1041 (income tax return for estates and trusts), 1065 (partnership income), or 1065-B (income for electing large partnerships). The instructions also indicate other schedules and forms that may need to be filed. Those filing using form 1041, 1065, and 1065B are to fill out this form using their employer identification number (EIN) instead of their social security number. The file the Census Bureau receives only has a recode indicating that a Schedule F was associated with a return. Therefore, the analysis will cover this return-level recode, as applied to all filers and dependents present on a return.

CARRA uses the Person Identification Validation System (PVS) to assign Protected Identification Keys (PIKs) and Master Address File Identifiers (MAFIDs) to records, which are then used for linking between data sources. PIKs are unique, anonymous person identifiers assigned to facilitate linking across files while protecting individuals' privacy. MAFIDs are identification numbers used to uniquely identify an address on the Census Bureau's Master Address File (MAF). Personally identifiable information is then removed from the records to anonymize the data and preserve confidentiality so it can be used for statistical purposes and research (Wagner and Layne, 2014).

There have been very few studies to determine the error rates of PIK assignment in the PVS. One study used probit models to explore the biases in linking data to the 2009 and 2010 ACS using the PVS (Bond et al, 2014). The results suggest that certain types of respondents are less likely to be assigned a PIK. Recent movers and immigrants, as well as young children, minorities, residents of group quarters, low-income individuals, and non-employed individuals are less likely to receive a PIK. In another study, PVS false match rates were developed by analyzing the observed false matches in truth data, and then using the Belin and Rubin methodology to model the false match rate using the truth data (Layne et al., 2014). Truth data was generated by extracting verified records from the PVS verification module, which provides a direct match to the Census Bureau's Numerical Identification file (Numident) file to confirm agreement of the name and date of birth data on a record. The Census Numident file contains all transactions recorded against one social security number, and is derived from the SSA's Numident file. These truth data were then compared to data produced without the use of the PVS verification module. The results showed that, due to the non-normality of the distributions of the Box-Cox power transformed weights for both the true and false match rates, this method is not a good approach for PVS error research. The authors indicate that future research using alternative methods of measuring false match rates is needed.

The 2014 IRS 1040 individual income tax returns were linked to ACS data at the person- and housing unit-level using PIKs and MAFIDs. As mentioned above, the Census Bureau receives up to six filers or dependents for each individual income tax return, so there are up to six PIKs available on each return. Also mentioned above, there are up to two addresses, a home address and an updated address, provided on an individual income tax return. However, only one address is sent through the PVS process to potentially receive a MAFID. If an updated address is available, and it is not the same as the home address, then the updated address goes through MAFID assignment. If an updated address is not available, or it is the same as the home address, then the home address goes through MAFID assignment.

Within each group of filers or dependents, duplicates were removed.¹ Each distinct ACS person-level record from a household was assigned a PIK separately by the PVS process. All ACS records already possess MAFIDs, as the ACS sample is selected from an extract of the MAF (U.S. Census Bureau, 2014). Duplicates on PIK and MAFID in the ACS sample are ineligible for linkage. Duplicates within filers or dependents on PIK and MAFID in the 1040 individual income tax returns are also ineligible for linkage. Then, linking was attempted between each ACS person- and housing-level record and the filers and dependents on each return, beginning with the primary filer, then the secondary filer, and then each of the four dependents sequentially. When a match was found, the ACS person and housing-level record was considered linked to that individual income tax return, and removed from further linkage operations. The individual income tax return was still eligible to be linked to subsequent ACS person-level records, if filers or dependents remained on the return.

After attempted linkage of all ACS person-level records, linked records were summarized to the ACS household level. Only person-level records linked to an occupied single-family or mobile home on more than one acre were included, as these are the only households eligible for the ACS sale of agricultural products question. Households were categorized using the demographic characteristics of the ACS householder, regardless of whether that householder was linked to an IRS 1040 individual income tax return or not.

The specific ACS data utilized in this report are all ACS responses collected during calendar year 2014. This covers all sampled housing units (HUs) and group quarters facilities (GQs) that responded during the 2014 calendar year. Note that GQ facilities are not eligible for the sale of agricultural products question, and thus persons in these facilities are excluded from summarization after linkage. Tabulations prior to summarizing after linkage will include GQ persons, for completeness. As follow-up interviewing for a specific panel occurs for two subsequent months following the initial month of sample, late and follow-up responses from the November and December panels of the 2013 sample year are included in our analysis. Furthermore, late or follow-up responses from the November and December panels of the 2014 sample year are not present, as they would be collected during calendar year 2015.

VI. Match Results

All 5.3 million ACS person-level records in sample in the 2014 calendar year already possessed MAFIDs, as previously mentioned in Section V. Of these, 94.4 percent were also assigned a PIK, as shown in Table 1.

¹ There are several potential sources of duplication in data records. There are situations in which the same person or physical address is present in the data multiple times. There are also situations where the identifying variables could not be definitively assigned correctly or were accidentally assigned incorrectly. Correct identification variable assignment depends upon many different factors, including complete data elements, the individual data elements available, the assignment algorithms, and more. For more information about PIK and MAFID assignment, please see Wagner and Layne.

Table 1: ACS PIK and MAFID Assignment

PIK and MAFID Assignment	Count	Percent
Assigned	5,024,976	94.4
Not Assigned	300,068	5.6
TOTAL	5,325,044	100.0

Notes: This table contains an unweighted count of person records.

Source: U.S. Census Bureau, 2014 American Community Survey

The highest PIK and MAFID rates were present in the following demographic groups:

- Age is 65 and older (96.2 percent),
- Sex is female (94.6 percent),
- Race is White alone (95.3 percent),
- Ethnicity is not Hispanic or Latino (95.4 percent),
- Educational attainment is a graduate or professional degree (96.9 percent),
- Citizenship is a U.S. citizen (95.4 percent),
- Marital status is married or previously married (95.6 percent),
- Employment status is employed (95.2 percent),
- Unit is located in a Micropolitan area (95.3 percent),
- Region is in the Midwest (96.2 percent), and
- The mode of response is internet (98.0 percent).

No significance testing was performed. Table B.1 in Appendix B contains additional demographic characteristics for PIK and MAFID assignment. Of the 5.0 million ACS person-level records assigned both a PIK and a MAFID, only 0.2 percent of the ACS PIK and MAFID combinations supplied were duplicates, which leaves 5.0 million ACS person-level records eligible to be linked to IRS data. Table 2 shows the count and percent of unique and duplicate PIK and MAFID combinations.

Table 2: ACS Unique or Duplicate PIK and MAFID Assignment

Uniqueness of PIK and MAFID	Count	Percent
Unique PIK and MAFID Combination	5,014,576	99.8
Duplicate PIK and MAFID Combination	10,400	0.2
TOTAL	5,024,976	100.0

Notes: This table contains an unweighted count of person records. It only includes records assigned both a PIK and a MAFID.

Source: U.S. Census Bureau, 2014 American Community Survey

The majority (90.6 percent) of the unedited ACS responses for the sale of agricultural products question were in the category “None”. Table 3 shows the unedited distribution of the unweighted ACS responses for the sale of agricultural products question. Note that the ACS sale of agricultural products question is reported for the entire ACS household and not at the person level. For the purpose of displaying demographic characteristics, the total agricultural sales for the ACS household will be displayed using the demographic characteristics of the householder.

Table 3: ACS *Unedited* Sale of Agricultural Products Checkbox

ACS Response	Count	Percent
\$1 to \$999	9,094	2.2
\$1,000 to \$2,499	4,962	1.2
\$2,500 to \$4,999	3,682	0.9
\$5,000 to \$9,999	3,514	0.9
\$10,000 or More	15,681	3.8
Yes, Unspecified Amount	1,724	0.4
None	372,807	90.6
TOTAL RESPONSE	411,464	100.0

Notes: This table contains an unweighted count of households by unedited housing question 5 response. It only includes records assigned both a PIK and a MAFID, only includes householders in in-scope housing units for housing question 5, and only includes ACS item and complete responses.

Source: U.S. Census Bureau, 2014 American Community Survey

The highest rates in the category of “None” were present in the following demographic groups:

- Age is 15 to 64 (91.1 percent),
- Sex is female (92.5 percent),
- Race is Black or African American alone (95.8 percent),
- Ethnicity is Hispanic or Latino (93.4 percent),
- Educational attainment is a graduate or professional degree (91.9 percent),
- Citizenship is not a U.S. citizen (94.2 percent),
- Marital status is never married (91.6 percent),
- Employment status is unemployed (94.1 percent),
- Unit is located in a Metropolitan area (93.0 percent),
- Region is in the Northeast (95.0 percent), and
- The mode of response is CAPI (93.1 percent).

No significance testing was performed. Table B.2 in Appendix B contains additional edited demographic characteristic distributions of the unweighted ACS responses for the unedited sale of agricultural products for householders in in-scope housing units.

The majority (90.5 percent) of the edited ACS responses for the sale of agricultural products question were also in the category “None”. Table 4 shows the edited distribution of the unweighted ACS responses for the sale of agricultural products question. This table, in conjunction with Table 3, shows how there are similar distributions for the sale of agricultural products response in both the unedited and edited sale of agricultural products.

Table 4: ACS Edited Sale of Agricultural Products Checkbox

ACS Edited Response	Count	Percent
\$1 to \$999	9,861	2.3
\$1,000 to \$2,499	5,418	1.3
\$2,500 to \$4,999	4,026	0.9
\$5,000 to \$9,999	3,883	0.9
\$10,000 or More	17,464	4.1
None	386,222	90.5
TOTAL	426,874	100.0

Notes: This table contains an unweighted count of households by edited housing question 5 response. It only includes records assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

Source: U.S. Census Bureau, 2014 American Community Survey

Table B.3 in Appendix B contains edited characteristic distributions of the unweighted ACS responses for the edited sale of agricultural products (AGS). This table, in conjunction with Table B.2 in Appendix B, also shows how similar trends of the sale of agricultural products response exist in both the unedited and edited sale of agricultural products variables. Specifically, the highest rates in the category of “None” were present in the following demographic groups:

- Age is 15 to 64 (91.0 percent),
- Sex is female (92.3 percent),
- Race is Black or African American alone (95.7 percent),
- Ethnicity is Hispanic or Latino (93.2 percent),
- Educational attainment is a graduate or professional degree (91.8 percent),
- Citizenship is not a U.S. citizen (93.8 percent),
- Marital status is never married (91.5 percent),
- Employment status is unemployed (94.0 percent),
- Unit is located in a Metropolitan area (92.9 percent),
- Region is in the Northeast (94.9 percent), and
- The mode of response is CAPI (93.0 percent).

No significance testing was performed. Note how the highest rates were present in the same demographic characteristics in both unedited and edited data.

Switching over to the IRS data, of the 144.4 million IRS 1040 individual income tax returns filed for tax year 2014, 90.8 percent were assigned a MAFID. Table 5 contains the IRS MAFID assignment rate.

Table 5: IRS MAFID Assignment

MAFID Assignment	Count	Percent
Assigned	131,149,935	90.8
Not Assigned	13,267,638	9.2
TOTAL	144,417,573	100.0

Notes: This table contains an unweighted count of filed returns.

Source: Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Of the 292.0 million filers or dependents present on the IRS individual income tax returns, 90.8 percent were assigned both a PIK and a MAFID. Total PIK and MAFID assignment rates are available in Table 6. Table B.4 in Appendix B contains the detailed IRS PIK and MAFID assignment rates by filer or dependent. The highest PIK and MAFID assignment rates were for dependent 2 and the secondary filer, at 91.1 and 91.0 percent, respectively, with assignment rates for all filers and dependents being above 90 percent. The PIK and MAFID assignment rates are largely driven by the MAFID assignment, as only 0.1 percent of the filers or dependents were assigned neither a PIK nor a MAFID, and only 0.4 percent of the filers or dependents were assigned a MAFID but not a PIK. As IRS individual income tax returns require full name and social security number for all filers and dependents, individual income tax returns typically have extremely high PIK rates.

Table 6: IRS PIK and MAFID Assignment

PIK and MAFID Assignment	Count	Percent
Both PIK and MAFID Assigned	265,220,460	90.8
PIK Assigned, No MAFID Assigned	25,271,910	8.7
No PIK Assigned, MAFID Assigned	1,311,317	0.4
Neither PIK nor MAFID Assigned	192,181	0.1
TOTAL	291,995,868	100.0

Notes: This table contains an unweighted count of filers or dependents present on individual income tax returns.

Source: Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Only 0.1 percent of the IRS PIK and MAFID combinations supplied were duplicates, which leaves 265.2 million person-level records eligible to be linked to ACS data. This is shown in Table 7 below. Table B.5 in Appendix B contains the detailed unique IRS PIK and MAFID assignment rates by filer or dependent.

Table 7: IRS Unique or Duplicate PIK and MAFID Assignment

Uniqueness of PIK and MAFID	Count	Percent
Unique PIK and MAFID Combination	265,180,844	100.0
Duplicate PIK and MAFID Combination	39,616	0.0
TOTAL	265,220,460	100.0

Notes: This table contains an unweighted count of filers or dependents present on individual income tax returns. It only includes filers or dependents assigned both a PIK and a MAFID.

Source: Internal Revenue Service, 2014 tax year 1040 individual income tax returns

The majority (98.6 percent) of the filers or dependents did not file a Schedule F with their income tax return, potentially indicating that having some sale of agricultural products is a rare occurrence in the population. Note that all IRS 1040 individual income tax returns have a Schedule F flag indicating either presence or absence of the form, i.e., there is no missing IRS data. This means that all 265.2 million person-level records that were assigned both a MAFID and a PIK are eligible to be linked to ACS data and will have a Schedule F indicator to compare to the ACS data. Table 8 shows the distribution of the unweighted IRS 1040 individual income tax return Schedule F indicator. Table B.6 in Appendix B contains the distribution of the presence or absence of the Schedule F indicator on the IRS individual income tax returns by filer or dependent.

Table 8: IRS Schedule F Indicator

Presence of Schedule F	Count	Percent
Present	3,710,502	1.4
NOT present	261,509,958	98.6
TOTAL	265,220,460	100.0

Notes: This table contains an unweighted count of filers or dependents present on individual income tax returns. It only includes filers or dependents assigned both a PIK and a MAFID.

Source: Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Of the 5.0 million ACS person-level records eligible to be linked to IRS data, 65.4 percent were linked to an IRS individual income tax return. The highest linkage rates were present in the following demographic groups:

- Age is less than 15 years (68.1 percent),
- Sex is female (65.6 percent),
- Race is Asian alone (70.1 percent),
- Ethnicity is not Hispanic or Latino (65.9 percent),
- Educational attainment is a graduate or professional degree (76.5 percent),
- Citizenship is a U.S. citizen (65.6 percent),
- Marital status is married or previously married (68.2 percent),
- Employment status is employed (72.8 percent),
- Unit is located in a Metropolitan area (67.6 percent),

- Region is Midwest (68.6 percent), and
- The mode of response is internet (75.7 percent).

No significance testing was performed. Table B.7 in Appendix B contains additional detailed unweighted linkage rates by edited characteristics. Table B.8 in Appendix B contains the same additional detailed unweighted linkage rates, but with column percentages grouped by edited characteristics. This table shows how the distributions of edited characteristics differ by the status of the linkage at the person-level.

After attempted linkage of all ACS person-level records, linked records were summarized to the ACS household level. Only person-level records linked to an occupied single-family or mobile home on more than one acre were included, as these are the only households eligible for the sale of agricultural products question. From here on, households were categorized using the demographic characteristics of the ACS householder, regardless of whether that householder was linked to an IRS 1040 individual income tax return or not.

Of the approximately 427 thousand ACS households in-scope for the sale of agricultural products question, 72.3 percent had at least one person who was linked to IRS data. The highest linkage rates were present in the following demographic groups:

- Age is 15 to 64 (76.4 percent),
- Sex is male (73.3 percent),
- Race is Asian alone (78.7 percent),
- Ethnicity is not Hispanic or Latino (72.4 percent),
- Educational attainment is a graduate or professional degree (79.2 percent),
- Citizenship is a U.S. citizen (72.3 percent),
- Marital status is married or previously married (72.9 percent),
- Employment status is employed (79.7 percent),
- Unit is located in a Metropolitan area (76.7 percent),
- Region is Midwest (78.1 percent), and
- The mode of response is internet (81.8 percent).

No significance testing was performed. Table B.9 in Appendix B contains the detailed unweighted linkage rates by edited characteristics for only ACS households where at least one person was linked to an IRS 1040 individual income tax return in in-scope housing units for housing question 5. Table B.10 in Appendix B contains the same additional detailed unweighted linkage rates, but with column percentages grouped by edited characteristics. This table shows how the distributions of edited characteristics differ by the status of the linkage at the household-level.

Table 9 shows the counts for the overall presence of the unweighted and unedited ACS sale of agricultural products and the IRS 1040 individual income tax returns Schedule F indicator, and Table 10 shows the percentages. Of the approximately 427 thousand ACS households in-scope for the sale of agricultural products question that were eligible to be linked to IRS data, 70.0 percent had both an ACS response and were linked to the IRS data. Over one-quarter (26.4 percent) of the households had an ACS response, but could not be linked to the IRS data. The above two percentages combined (96.4 percent) gives an approximate unedited and unweighted

ACS response rate for the ACS sale of agricultural products question. The remaining records were ACS item nonrespondents to the sale of agricultural products question that were linked to the IRS data (2.3 percent) or were not linked to the IRS data (1.3 percent). Table B.11 in Appendix B shows the detailed presence of the unweighted and unedited ACS sale of agricultural products and the IRS 1040 individual income tax returns Schedule F indicator by edited characteristics.

Table 9: Presence of ACS *Unedited* Household Sale of Agricultural Products and IRS Household Schedule F Indicator, Counts

Linkage to IRS Data	ACS Response	No ACS Response	TOTAL
Linked	298,496	9,712	308,208
Not Linked	112,677	5,634	118,311
TOTAL	411,173	15,346	426,519

Notes: This table contains ACS and IRS data that was unduplicated and then PIK- and MAFID-linked at the person level. The linked data were then summarized to the ACS household level. It only includes records, filers, and dependents assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table 10: Presence of ACS *Unedited* Household Sale of Agricultural Products and IRS Household Schedule F Indicator, Percentages

Linkage to IRS Data	ACS Response	No ACS Response	TOTAL
Linked	70.0	2.3	72.3
Not Linked	26.4	1.3	27.7
TOTAL	96.4	3.6	100.0

Notes: This table contains ACS and IRS data that was unduplicated and then PIK- and MAFID-linked at the person level. The linked data were then summarized to the ACS household level. It only includes records, filers, and dependents assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table 11 shows the overall agreement between the unweighted and unedited ACS household sale of agricultural products and the IRS 1040 individual income tax returns household Schedule F indicator, where both data sources were present. Table 12 and Table 13 show the overall and column percentages, respectively. Combining the two categories where the unweighted and unedited ACS household sale of agricultural products and IRS 1040 individual income tax returns Schedule F indicator agree yields high overall data agreement (91.6 percent). Note that the majority of the agreement occurs where the sale of agricultural products is absent (85.8 percent). This seems to indicate that the actual frequency of the sale of agricultural products in the population is rare; however, no statistical testing or weighting was performed. Table B.12 in Appendix B shows the detailed agreement between the unweighted and unedited ACS sale of

agricultural products and the IRS 1040 individual income tax returns Schedule F indicator by edited characteristics.

Where ACS respondents indicated they did not have any sale of agricultural products, then they did not file a Schedule F a majority of the time (95.2 percent). However, when ACS respondents indicated they did have sale of agricultural products, then the Schedule F indicator was close to evenly split between presence of filing (59.0 percent) and absence of filing (41.0 percent). This seems to show the opposite of the overall agreement rate. When an ACS respondent indicates they did have sale of agricultural products, the Schedule F indicator is barely better than random assignment. A potential explanation for this split is shown by moving forward to review the ACS sale of agricultural response categories.

Table 11: Agreement between ACS *Unedited* Household Sale of Agricultural Products and IRS Household Schedule F Indicator, Counts

Presence of Schedule F	ACS Response "Yes"	ACS Response "None"	TOTAL
Present	17,440	12,780	30,220
NOT present	12,101	256,175	268,276
TOTAL	29,541	268,955	298,496

Notes: This table contains ACS and IRS data that was unduplicated and then PIK- and MAFID-linked at the person level. The linked data were then summarized to the ACS household level. It only includes records, filers, and dependents assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table 12: Agreement between ACS *Unedited* Household Sale of Agricultural Products and IRS Household Schedule F Indicator, Percentages

Presence of Schedule F	ACS Response "Yes"	ACS Response "None"	TOTAL
Present	5.8	4.3	10.1
NOT present	4.1	85.8	89.9
TOTAL	9.9	90.1	100.0

Notes: This table contains ACS and IRS data that was unduplicated and then PIK- and MAFID-linked at the person level. The linked data were then summarized to the ACS household level. It only includes records, filers, and dependents assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table 13: Agreement between ACS *Unedited* Household Sale of Agricultural Products and IRS Household Schedule F Indicator, Column Percentages

Presence of Schedule F	ACS Response “Yes”	ACS Response “None”
Present	59.0	4.8
NOT present	41.0	95.2
TOTAL	100.0	100.0

Notes: This table contains ACS and IRS data that was unduplicated and then PIK- and MAFID-linked at the person level. The linked data were then summarized to the ACS household level. It only includes records, filers, and dependents assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table 14 shows the overall agreement between the unweighted and unedited ACS household sale of agricultural products by category and the IRS 1040 individual income tax returns household Schedule F indicator, where both data sources were present. Table 15 shows the column percentages. As with the breakdown shown in Table 13, where ACS respondents indicated they did not have sale of agricultural products, then the Schedule F indicator showed that they did not file a Schedule F a majority of the time (95.2 percent). However, where ACS respondents indicated they only had a small amount of agricultural sales, shown in the “\$1 to \$999” category, then the Schedule F indicator showed that they did not file a Schedule F 65.7 percent of the time. As the amount of the sales of agricultural products provided by the ACS respondents increased, then the Schedule F indicator shifted to show that they did file a Schedule F a majority of the time, from 51.9 percent filing in the “\$1,000 to \$2,499” category to 72.6 percent filing in the “\$10,000 or more” category. These shifts in agreement can likely be attributed to the IRS requirements for filing, as farmers are typically considered self-employed by the IRS and may only choose to file if they meet the \$400 income threshold, as discussed in sections V and VIII. Note also that the responses in the “Yes, Unspecified” category return to being nearly evenly split, which reflects the overall trend for this question.

Table 14: Agreement between ACS *Unedited* Household Sale of Agricultural Products Category and IRS Household Schedule F Indicator, Counts

Presence of Schedule F	ACS Response "\$1 to \$999"	ACS Response "\$1,000 to \$2,499"	ACS Response "\$2,500 to \$4,999"	ACS Response "\$5,000 to \$9,999"	ACS Response "\$10,000 or more"	ACS Response "Yes, Unspecified"	ACS Response "None"	TOTAL
Present	2,340	1,976	1,764	1,787	8,971	602	12,780	30,220
NOT present	4,486	1,828	1,038	889	3,379	481	256,175	268,276
TOTAL	6,826	3,804	2,802	2,676	12,350	1,083	268,955	298,496

Notes: This table contains ACS and IRS data that was unduplicated and then PIK- and MAFID-linked at the person level. The linked data were then summarized to the ACS household level. It only includes records, filers, and dependents assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table 15: Agreement between ACS *Unedited* Household Sale of Agricultural Products Category and IRS Household Schedule F Indicator, Column Percentages

Presence of Schedule F	ACS Response "\$1 to \$999"	ACS Response "\$1,000 to \$2,499"	ACS Response "\$2,500 to \$4,999"	ACS Response "\$5,000 to \$9,999"	ACS Response "\$10,000 or more"	ACS Response "Yes, Unspecified"	ACS Response "None"
Present	34.3	51.9	63.0	66.8	72.6	55.6	4.8
NOT Present	65.7	48.1	37.0	33.2	27.4	44.4	95.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Notes: This table contains ACS and IRS data that was unduplicated and then PIK- and MAFID-linked at the person level. The linked data were then summarized to the ACS household level. It only includes records, filers, and dependents assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

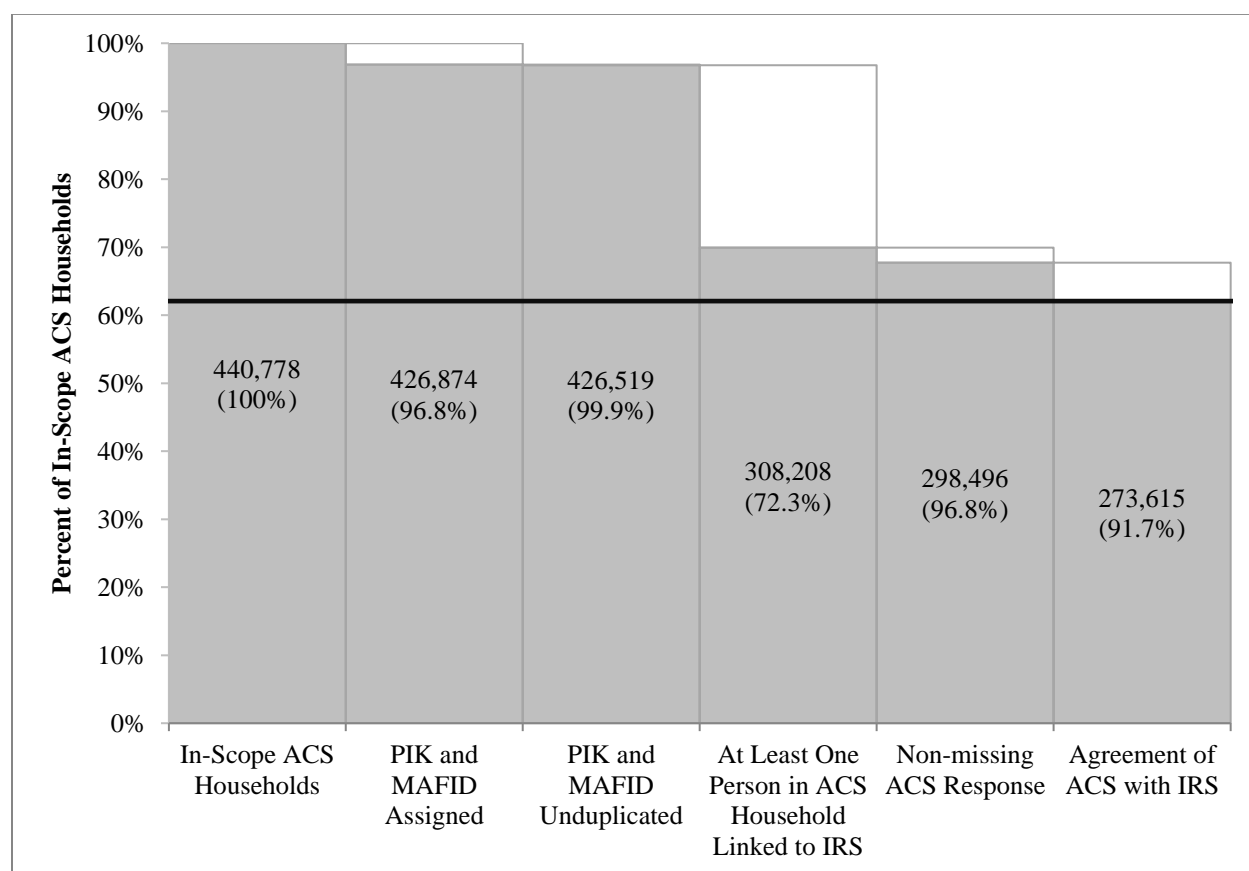
Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

The relationships between the unweighted and edited ACS household agricultural sales and the IRS 1040 individual income tax return household Schedule F indicator are similar to those relationships shown in the unweighted and unedited data. Tables 9 through 15 were recreated using the edited ACS sale of agricultural products data; however, for the sake of brevity, those tables are excluded here. Note that edited ACS sale of agricultural products data has gone through editing and imputation routines, and thus has no missing responses. Expanded tables containing the demographic characteristics for the edited ACS sale of agricultural products are in Table B.13 and Table B.14 in Appendix B.

Figure 2 shows at a glance the overall agreement percentage between the unweighted and unedited ACS household agricultural sales and the IRS 1040 individual income tax returns household Schedule F indicator. This graph illustrates the percentages of ACS data that were

removed during each step of processing the ACS data, as well as an overall agreement percentage at approximately 62 percent. This overall agreement rate takes into account only in-scope ACS households, includes only assigned and unique MAFID and PIK combinations, includes only linked ACS households, removes missing ACS responses, and then finally shows only those linkages that agree between the two data sources.

Figure 2: Linkage, Presence, and Agreement of ACS *Unedited* Household Sale of Agricultural Products with IRS Household Schedule F Indicator

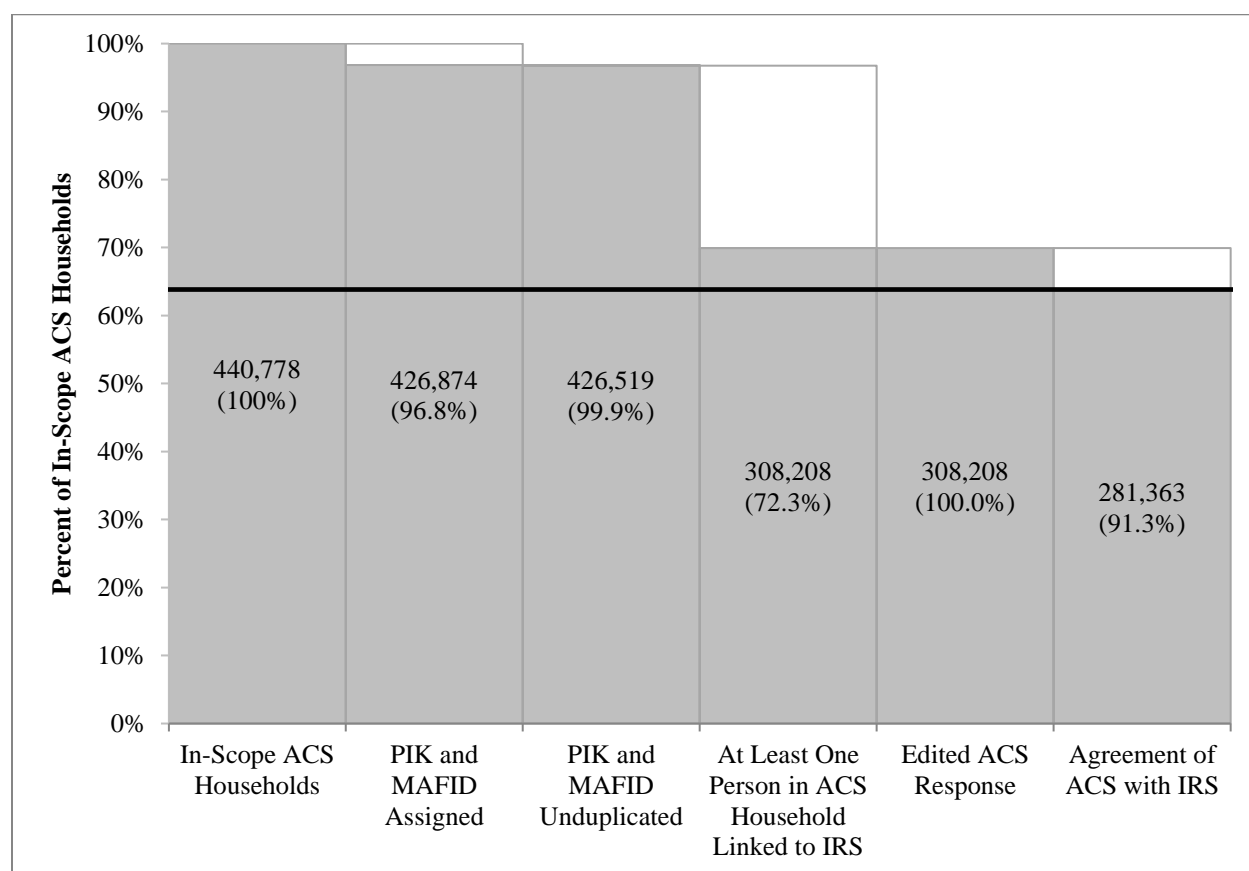


Notes: This figure contains ACS and IRS data that was PIK- and MAFID-linked at the person level. The linked data were then summarized to the ACS household level. It only includes records, filers, and dependents assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Figure 3 shows at a glance the overall agreement percentage between the unweighted and edited ACS household agricultural sales and the IRS 1040 individual income tax returns household Schedule F indicator. This graph illustrates the percentages of ACS data that were removed during each step of processing the ACS data, as well as an overall agreement percentage at approximately 64 percent. This graph presents the same step down as Figure 2 above; except it includes all ACS edited data before showing the final agreement rate between the two linked data sources.

Figure 3: Linkage, Presence, and Agreement of ACS *Edited* Household Sale of Agricultural Products with IRS Household Schedule F Indicator



Notes: This figure contains ACS and IRS data that was PIK- and MAFID-linked at the person level. The linked data were then summarized to the ACS household level. It only includes records, filers, and dependents assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

VII. Limitations

The IRS data on individual income tax returns that the Census Bureau receives only includes a recode indicating that a Schedule F was associated with the return. Therefore, detailed amount agreement matching of ACS response data with the IRS data is not possible. The Census Bureau is negotiating with the IRS for receipt of the actual income tax values, and it is expected that the Census Bureau will begin receiving the actual income tax values beginning with tax year 2016. However, the format of the IRS data is at the return level. Pinpointing the individual filer or dependent on an income tax return who indicated their sale of agricultural products is not always possible with this administrative records source. Also noted was that the address a filer provides on their tax return may not match the address (or addresses) at which the sale of agricultural products occurred. An individual's tax return may also include agricultural sales from multiple filers or dependents, each at their own addresses. However, by linking on both PIK and MAFID and summarizing to the ACS household-level, we hoped to increase the chances of accurately

representing only individuals located at the address to which an IRS 1040 individual income tax return refers.

The IRS instructions for the Form 2010 provide several thresholds by which individuals must file their individual income tax returns. While the IRS indicates that individuals might still wish to file their income taxes even if they do not meet these thresholds, it is not a requirement. Furthermore, individuals are usually considered self-employed by the IRS if they operate their own farm on land they either own or rent, and must file a Schedule SE along with their Form 1040. As the required threshold for filing for self-employment income is \$400, reviewing agreement by ACS sale of agricultural products reporting categories showed that respondents in the smallest category of \$1 to \$999 did not file a Schedule F a majority of the time (65.7 percent). However, as the dollar amount of the reporting category increased, respondents in these categories did file a Schedule F a majority of the time, maxing out at 72.6 percent agreement in the largest category of \$10,000 or more of agricultural sales. This indicates that the data collected by the IRS from the Schedule F form may not be sufficient to replace ACS response for respondents with smaller amounts of agricultural sales. This report suggests more research into this topic by subject matter experts.

Additionally, there is potentially misalignment in the construct measured by the ACS sale of agricultural products question, compared with the construct measured by the IRS Schedule F. The text of the ACS sale of agricultural products question, as shown in Figure 1, is the entirety of the instruction given to ACS respondents. There are no definitions for the phrases “actual sales” or “agricultural products.” While the mail and internet response modes have no further information, the CATI and CAPI interviewer manuals do provide interviewers with limited explanation of these concepts, for assistance in collecting respondent data. Conversely, the IRS instructions for filing individual income tax returns and the Schedule F are precise. As discussed in section V, in addition to the information provided on the actual IRS forms, detailed resources for proper filing of farm income are provided in the Instructions for Form 1040, the Instructions for Schedule F (Form 1040), Publication 225, and Tax Topic 416. This lack of information may cause ACS respondents to misreport, underreport, or overreport when responding to the ACS. It is also worth noting that the ACS does not include a negative or loss response category in sale of agricultural products question, while the Schedule F can be used to report either a profit or a loss from farming. For those ACS respondents that had no actual sale of agricultural products but filed a Schedule F to claim a loss from farming, there would be misalignment. This could include situations such as fallow fields, natural disasters, or other inclement conditions that cause a farm to produce no agricultural products to be sold.

The ACS sale of agricultural products question asks specifically for the respondent to identify agricultural sales “IN THE PAST 12 MONTHS,” which includes the period of the response date through the same date one year ago. This is different from the period covered by the 2014 IRS tax year, which includes only the dates January 1, 2014 through December 31, 2014. Figure A.5 and Figure A.6 in Appendix A show examples of minimal overlap and major overlap, respectively, of the timeframe the ACS respondent considers when formulating their response and the 2014 IRS tax year. These temporal differences could account, in part, for differences in the ACS response and the presence or absence of a Schedule F. cursory review of the agreement rates does not appear to show large differences by sample panel, however, this report suggests that subject matter experts research this topic more in depth.

The timeliness of the receipt and processing of the IRS data is also another concern. Individual income tax returns are due to the IRS by April 15 of the following tax year, and taxpayers can request extensions of this date. The Census Bureau continues to receive and process the IRS 1040 files for the 2014 tax year as late as September 2016. However, approximately 90 percent of the individual income tax returns were available and processed by June 2015. This is three months after data collection has closed for the final panel of the 2014 sample year. It may only be feasible to use the IRS data to supplement response or for imputation, rather than removing the question from the survey, and further research on this topic is necessary before any implementation can be considered.

Finally, any study that links data records by assigning identification keys rests on the reliability of the identification keys. As detailed in section VI, there is a severe lack of estimates on the error rates of the PIK assignment in the PVS. Bond et al. (2014) showed that certain types of respondents, namely recent movers and immigrants, as well as young children, minorities, residents of group quarters, low-income individuals, and non-employed individuals, are less likely to receive a PIK in the PVS. Layne et al. (2014) indicated that further research using alternative methods of measuring false match rates is needed, as their study was inconclusive. This is the entirety of the literature currently available about error rates in the PVS, and is insufficient to provide any sort of bounds on the linkage errors in this study.

VIII. Conclusions

Use of these IRS data could potentially be used as a replacement for 70.0 percent of the 2014 ACS sample response data and to supplement 2.3 percent of the ACS nonresponse data, but there are many caveats involving the use of these IRS data. Removal of the sale of agricultural products question from the ACS would reduce the available data by at least 26.4 percent, as no suitable replacements for these respondents were found in the IRS data. There is agreement between the unedited ACS sale of agricultural products response and the IRS Schedule F indicator 91.6 percent of the time, potentially indicating a high level of quality of the IRS data. However, ACS respondents linked to the IRS data that indicated they have some sale of agricultural products only filed a Schedule F 59.0 percent of the time. A major limitation of these IRS data is that currently only presence or absence of filing a Schedule F is available, but beginning with tax year 2016, the Census Bureau will also receive filing amounts. Additionally, this Schedule F indicator is only available on a return-level basis, so determining which individual filers or dependents the indicator corresponds to is not always possible. Those filing their individual income tax returns also file only one return for all income received in a tax year, so determining the exact physical address at which the sale of agricultural products corresponds is not always possible. Another major limitation is the timeliness of the IRS data, which could relegate the IRS data to supplementing response only. Further research is necessary in several areas, including the above mentioned agreement of IRS sale of agricultural products amount to the individual categories of ACS sale of agricultural products, timeliness of the IRS data as replacement or supplementation to ACS response or nonresponse, temporal differences between ACS data and IRS data, and IRS data coverage of those with small amounts of agricultural sales.

IX. Future Research

As previously mentioned, this research is an exploratory investigation of the feasibility of replacing ACS data with administrative records. This is a preliminary study. Subject matter teams formed by the ACSO should pursue several research topics before implementing IRS data to replace or supplement the self-employment income question. These topics include:

- Exploration of the timeliness of the IRS data as replacement or supplement to the ACS,
- Analysis of the IRS data coverage of those with self-employment income loss or only small amounts of self-employment income,
- Comparisons between IRS and ACS self-employment income amounts,
- Study into the temporal differences between the ACS reference period and IRS data,
- Potential impacts of replacement of the ACS question by the IRS data on various demographic groups,
- Transformation of the ACS data to the return-level or the household-level to more closely conform to the IRS data,
- Application of ACS sample weights,
- Statistical testing on PIK and MAFID assignment by various demographic and housing characteristics,
- Study of non-linkage bias,
- Analysis of potential correlates of linked data agreement,
- Separate the analysis of group quarters facilities from housing units,
- Analysis of the overall impact of the replacement of the ACS question by administrative records on various demographic groups, and
- Research into other sources of agricultural sales data.

Subject matter teams should carefully address each of these research topics before a decision is made about implementation.

X. References

- Belin, T. R. and Rubin, D. B. 1995. "A Method for Calibrating False-Match Rates in Record Linkage," *Journal of the American Statistical Association*, 430, pp. 694-708.
- Bond, B., Brown, J., Luque, A., and O'Hara, A. 2014. "The Nature of the Bias When Studying Only Linkable Person Records: Evidence from the American Community Survey," *CARRA Working Paper Series, Working Paper #2014-08*. Issued April 22, 2014. Available at https://www.census.gov/srd/carra/The_Nature_of_the_Bias_When_Studying_Only_Linkable_Person_Records.pdf.
- Chappell, G., and Obenski, S. 2014. "Fiscal Year 2014 Content Review Results," *American Community Survey Fiscal Year 2014 Content Review*.
- Davies, P. S. and Fisher, T. L. 2009. "Measurement Issues Associated with Using Survey Data Matched with Administrative Data from the Social Security Administration." *Social Security Bulletin*, 69(2): 1-12. Available at <http://www.ssa.gov/policy/docs/ssb/v69n2/v69n2p1.pdf>.

- Erard, B., Payne, M., and Plumley, A. 2012. "Advances in Nonfiling Measures." Paper presented at the 2012 IRS-TPC Research Conference, June 21. Available at <http://www.irs.gov/pub/irs-soi/12resconadvnonfile.pdf>.
- Groves, R. M. 1989. "Survey Errors and Survey Costs," New York: John Wiley and Sons.
- Internal Revenue Service. 2016a. Information about Address Changes. Available at <https://www.irs.gov/help-resources/tools-faqs/faqs-for-individuals/frequently-asked-tax-questions-answers/irs-procedures/address-changes/address-changes>.
- Internal Revenue Service. 2016b. Form and instructions for the "Form 1040, U.S. Individual Income Tax Return." Available at <https://www.irs.gov/uac/about-form-1040>.
- Internal Revenue Service. 2016c. Form and instructions for the "Schedule F (Form 1040), Profit or Loss from Farming." Available at <https://www.irs.gov/uac/schedule-f-form-1040-profit-or-loss-from-farming>.
- Internal Revenue Service. 2016d. "Publication 225, Farmer's Tax Guide." Available at <https://www.irs.gov/uac/about-publication-225>.
- Internal Revenue Service. 2016e. "Tax Topic 416 – Farming and Fishing Income." Available at <https://www.irs.gov/taxtopics/tc416.html>.
- Internal Revenue Service. 2016f. "Tax Topic 554 – Self-Employment Tax." Available at <https://www.irs.gov/taxtopics/tc554.html>.
- Layne, M., Wagner, D., and Rothhaas, C. 2014. "Estimating Record Linkage False Match Rate for the Person Identification Validation System," CARRA Working Paper Series, Working Paper #2014-02. Issued July 1, 2014.
- Lobao, L. and Meyer, K. 2001. "The Great Agricultural Transition: Crisis, Change, and Social Consequences of Twentieth Century US Farming." Annual Review of Sociology, Vol. 27 (2001), pp. 103-124. Published by Annual Reviews.
- Luque, A., and Bhaskar, R. 2014. "2010 American Community Survey Match Study," CARRA Working Paper Series, Working Paper #2014-03. Issued July 31, 2014.
- Riemenschneider, C. H. 1983. "Proceedings of the Seminar on Revisions to Farm Income and Financial Statistics for Canada." Occasional Series # 14. June, 1983.
- Ruggles, P. 2015. "Review of Administrative Data Sources Relevant to the American Community Survey," Prepared for the U.S. Census Bureau, January 31, 2015.
- Rutherford, J. B. 1938. "Agricultural Income," The Canadian Journal of Economics and Political Science, Vol. 4, No. 3. August, 1938.
- U.S. Census Bureau. 2016. "Your Guide for the American Community Survey." ACS-30. Available at <http://www.census.gov/programs-surveys/acs/about/forms-and-instructions/2016-form.html>.

U.S. Census Bureau. 2014. American Community Survey Design and Methodology (January 2014). Available at <http://www.census.gov/programs-surveys/acs/methodology/design-and-methodology.html>.

Wagner, D. and Layne, M. 2014. "The Person Identification Validation System (PVS): Applying the Center for Administrative Records Research and Applications' (CARRA) Record Linkage Software." Center for Administrative Records Research and Applications Working Paper No. 2014-01.

Figure A.1: IRS – 2014 Form 1040, Page 1

Form	1040	Department of the Treasury—Internal Revenue Service (99) U.S. Individual Income Tax Return	2014	OMB No. 1545-0074	IRS Use Only—Do not write or staple in this space.
For the year Jan. 1-Dec. 31, 2014, or other tax year beginning		, 2014, ending		, 20	
Your first name and initial		Last name		See separate instructions.	
If a joint return, spouse's first name and initial		Last name		Your social security number	
				Spouse's social security number	
Home address (number and street). If you have a P.O. box, see instructions.				Apt. no.	
City, town or post office, state, and ZIP code. If you have a foreign address, also complete spaces below (see instructions).				▲ Make sure the SSN(s) above and on line 6c are correct.	
Foreign country name		Foreign province/state/county		Foreign postal code	
				Presidential Election Campaign Check here if you, or your spouse if filing jointly, want \$3 to go to this fund. Checking a box below will not change your tax or refund. <input type="checkbox"/> You <input type="checkbox"/> Spouse	
Filing Status					
1 <input type="checkbox"/> Single 2 <input type="checkbox"/> Married filing jointly (even if only one had income) 3 <input type="checkbox"/> Married filing separately. Enter spouse's SSN above and full name here. ▶ 4 <input type="checkbox"/> Head of household (with qualifying person). (See instructions.) If the qualifying person is a child but not your dependent, enter this child's name here. ▶ 5 <input type="checkbox"/> Qualifying widow(er) with dependent child					
Check only one box.					
Exemptions					
6a <input type="checkbox"/> Yourself. If someone can claim you as a dependent, do not check box 6a. b <input type="checkbox"/> Spouse					
c Dependents:		(2) Dependent's social security number		(4) <input checked="" type="checkbox"/> If child under age 17 qualifying for child tax credit (see instructions)	
(f) First name	Last name				
If more than four dependents, see instructions and check here <input type="checkbox"/>					
d Total number of exemptions claimed					
Income					
7 Wages, salaries, tips, etc. Attach Form(s) W-2				7	
8a Taxable interest. Attach Schedule B if required				8a	
b Tax-exempt interest. Do not include on line 8a				8b	
9a Ordinary dividends. Attach Schedule B if required				9a	
b Qualified dividends				9b	
10 Taxable refunds, credits, or offsets of state and local income taxes				10	
11 Alimony received				11	
12 Business income or (loss). Attach Schedule C or C-EZ				12	
13 Capital gain or (loss). Attach Schedule D if required. If not required, check here <input type="checkbox"/>				13	
14 Other gains or (losses). Attach Form 4797				14	
15a IRA distributions		15a		b Taxable amount	
16a Pensions and annuities		16a		b Taxable amount	
17 Rental real estate, royalties, partnerships, S corporations, trusts, etc. Attach Schedule E				17	
18 Farm income or (loss). Attach Schedule F				18	
19 Unemployment compensation				19	
20a Social security benefits		20a		b Taxable amount	
21 Other income. List type and amount				21	
22 Combine the amounts in the far right column for lines 7 through 21. This is your total income ▶				22	
Adjusted Gross Income					
23 Educator expenses				23	
24 Certain business expenses of reservists, performing artists, and fee-basis government officials. Attach Form 2106 or 2106-EZ				24	
25 Health savings account deduction. Attach Form 8889				25	
26 Moving expenses. Attach Form 3903				26	
27 Deductible part of self-employment tax. Attach Schedule SE				27	
28 Self-employed SEP, SIMPLE, and qualified plans				28	
29 Self-employed health insurance deduction				29	
30 Penalty on early withdrawal of savings				30	
31a Alimony paid		b Recipient's SSN ▶		31a	
32 IRA deduction				32	
33 Student loan interest deduction				33	
34 Tuition and fees. Attach Form 8917				34	
35 Domestic production activities deduction. Attach Form 8903				35	
36 Add lines 23 through 35				36	
37 Subtract line 36 from line 22. This is your adjusted gross income ▶				37	
For Disclosure, Privacy Act, and Paperwork Reduction Act Notice, see separate instructions.					
				Cat. No. 11320B	
				Form 1040 (2014)	

Source: Internal Revenue Service, 2014 tax year

Figure A.2: IRS – 2014 Schedule F (Form 1040), Page 1

SCHEDULE F (Form 1040) <small>Department of the Treasury Internal Revenue Service (99)</small>		Profit or Loss From Farming ▶ Attach to Form 1040, Form 1040NR, Form 1041, Form 1065, or Form 1065-B. ▶ Information about Schedule F and its separate instructions is at www.irs.gov/schedulef .		OMB No. 1545-0074 <div style="font-size: 2em; font-weight: bold;">2014</div> Attachment Sequence No. 14	
Name of proprietor				Social security number (SSN)	
A Principal crop or activity		B Enter code from Part IV		C Accounting method: <input type="checkbox"/> Cash <input type="checkbox"/> Accrual	
				D Employer ID number (EIN), (see instr)	
E Did you "materially participate" in the operation of this business during 2014? If "No," see instructions for limit on passive losses <input type="checkbox"/> Yes <input type="checkbox"/> No					
F Did you make any payments in 2014 that would require you to file Form(s) 1099 (see instructions)? <input type="checkbox"/> Yes <input type="checkbox"/> No					
G If "Yes," did you or will you file required Forms 1099? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Part I Farm Income—Cash Method. Complete Parts I and II (Accrual method. Complete Parts II and III, and Part I, line 9.)					
1a Sales of livestock and other resale items (see instructions)		1b			
2 Sales of livestock, produce, grains, and other products you raised		2			
3a Cooperative distributions (Form(s) 1099-PATR)		3b Taxable amount			
4a Agricultural program payments (see instructions)		4b Taxable amount			
5a Commodity Credit Corporation (CCC) loans reported under election		5b Taxable amount			
6 Crop insurance proceeds and federal crop disaster payments (see instructions)		6a		6b Taxable amount	
7 Custom hire (machine work) income		7			
8 Other income, including federal and state gasoline or fuel tax credit or refund (see instructions)		8			
9 Gross income. Add amounts in the right column (lines 1c, 2, 3b, 4b, 5a, 5c, 6b, 6d, 7, and 8). If you use the accrual method, enter the amount from Part III, line 50 (see instructions)		9			
Part II Farm Expenses—Cash and Accrual Method. Do not include personal or living expenses (see instructions).					
10 Car and truck expenses (see instructions). Also attach Form 4562		10		23 Pension and profit-sharing plans	
11 Chemicals		11		24 Rent or lease (see instructions):	
12 Conservation expenses (see instructions)		12		a Vehicles, machinery, equipment	
13 Custom hire (machine work)		13		b Other (land, animals, etc.)	
14 Depreciation and section 179 expense (see instructions)		14		25 Repairs and maintenance	
15 Employee benefit programs other than on line 23		15		26 Seeds and plants	
16 Feed		16		27 Storage and warehousing	
17 Fertilizers and lime		17		28 Supplies	
18 Freight and trucking		18		29 Taxes	
19 Gasoline, fuel, and oil		19		30 Utilities	
20 Insurance (other than health)		20		31 Veterinary, breeding, and medicine	
21 Interest:		21		32 Other expenses (specify):	
a Mortgage (paid to banks, etc.)		21a		a	
b Other		21b		b	
22 Labor hired (less employment credits)		22		c	
				d	
				e	
				f	
33 Total expenses. Add lines 10 through 32f. If line 32f is negative, see instructions		33		33	
34 Net farm profit or (loss). Subtract line 33 from line 9		34		34	
If a profit, stop here and see instructions for where to report. If a loss, complete lines 35 and 36.					
35 Did you receive an applicable subsidy in 2014? (see instructions) <input type="checkbox"/> Yes <input type="checkbox"/> No					
36 Check the box that describes your investment in this activity and see instructions for where to report your loss.					
a <input type="checkbox"/> All investment is at risk. b <input type="checkbox"/> Some investment is not at risk.					
For Paperwork Reduction Act Notice, see the separate instructions.				Cat. No. 11346H Schedule F (Form 1040) 2014	

Source: Internal Revenue Service, 2014 tax year


Figure A.3: IRS – 2014 Schedule F (Form 1040), Page 2

Schedule F (Form 1040) 2014		Page 2
Part III Farm Income—Accrual Method (see instructions).		
37 Sales of livestock, produce, grains, and other products (see instructions)	37	
38a Cooperative distributions (Form(s) 1099-PATR)	38a	38b Taxable amount
39a Agricultural program payments	39a	39b Taxable amount
40 Commodity Credit Corporation (CCC) loans:		
a CCC loans reported under election	40a	
b CCC loans forfeited	40b	40c Taxable amount
41 Crop insurance proceeds	41	
42 Custom hire (machine work) income	42	
43 Other income (see instructions)	43	
44 Add amounts in the right column for lines 37 through 43 (lines 37, 38b, 39b, 40a, 40c, 41, 42, and 43)	44	
45 Inventory of livestock, produce, grains, and other products at beginning of the year. Do not include sales reported on Form 4797	45	
46 Cost of livestock, produce, grains, and other products purchased during the year	46	
47 Add lines 45 and 46	47	
48 Inventory of livestock, produce, grains, and other products at end of year	48	
49 Cost of livestock, produce, grains, and other products sold. Subtract line 48 from line 47*	49	
50 Gross income. Subtract line 49 from line 44. Enter the result here and on Part I, line 9	50	
*If you use the unit-livestock-price method or the farm-price method of valuing inventory and the amount on line 48 is larger than the amount on line 47, subtract line 47 from line 48. Enter the result on line 49. Add lines 44 and 49. Enter the total on line 50 and on Part I, line 9.		
Part IV Principal Agricultural Activity Codes		
<div style="display: flex; align-items: flex-start;"> <div style="width: 30%;"> <p>CAUTION Do not file Schedule F (Form 1040) to report the following.</p> <ul style="list-style-type: none"> • Income from providing agricultural services such as soil preparation, veterinary, farm labor, horticultural, or management for a fee or on a contract basis. Instead file Schedule C (Form 1040) or Schedule C-EZ (Form 1040). • Income from breeding, raising, or caring for dogs, cats, or other pet animals. Instead file Schedule C (Form 1040) or Schedule C-EZ (Form 1040). • Sales of livestock held for draft, breeding, sport, or dairy purposes. Instead file Form 4797. </div> <div style="width: 70%;"> <p>These codes for the Principal Agricultural Activity classify farms by their primary activity to facilitate the administration of the Internal Revenue Code. These six-digit codes are based on the North American Industry Classification System (NAICS). Select the code that best identifies your primary farming activity and enter the six-digit number on line B.</p> <div style="display: flex;"> <div style="width: 45%;"> <p>Crop Production</p> <p>111100 Oilseed and grain farming</p> <p>111210 Vegetable and melon farming</p> </div> <div style="width: 55%;"> <p>111300 Fruit and tree nut farming</p> <p>111400 Greenhouse, nursery, and floriculture production</p> <p>111900 Other crop farming</p> <p>Animal Production</p> <p>112111 Beef cattle ranching and farming</p> <p>112112 Cattle feedlots</p> <p>112120 Dairy cattle and milk production</p> <p>112210 Hog and pig farming</p> <p>112300 Poultry and egg production</p> <p>112400 Sheep and goat farming</p> <p>112510 Aquaculture</p> <p>112900 Other animal production</p> <p>Forestry and Logging</p> <p>113000 Forestry and logging (including forest nurseries and timber tracts)</p> </div> </div> </div> </div>		

Schedule F (Form 1040) 2014

Source: Internal Revenue Service, 2014 tax year

Figure A.4: IRS – 2014 Instructions for Schedule F (Form 1040), Page 1



Department of the Treasury
Internal Revenue Service

2014 Instructions for Schedule F

Profit or Loss From Farming

Use Schedule F (Form 1040) to report farm income and expenses. File it with Form 1040, 1040NR, 1041, 1065, or 1065-B.

Your farming activity may subject you to state and local taxes and other requirements such as business licenses and fees. Check with your state and local governments for more information.

Additional information. Pub. 225 has more information and examples to help you complete your farm tax return. It also lists important dates that apply to farmers.

Section references are to the Internal Revenue Code unless otherwise noted.

Future Developments

For the latest information about developments related to Schedule F (Form 1040) and its instructions, such as legislation enacted after they were published, go to www.irs.gov/schedulef.

What's New

Standard mileage rate. The standard mileage rate for business use of your vehicle for 2014 is 56 cents per mile.

General Instructions

Other Schedules and Forms You May Have To File

- Schedule E (Form 1040), Part I, to report rental income from pastureland based on a flat charge. However, report on Schedule F (Form 1040), line 8, pasture income received from taking care of someone else's livestock. Also use Schedule E (Form 1040), Part I, to report farm rental income and expenses of a trust or estate based on crops or livestock produced by a tenant.
- Schedule J (Form 1040) to figure your tax by averaging your farm income over the previous 3 years. Doing so may reduce your tax.
- Schedule SE (Form 1040) to pay self-employment tax on income from your farming business.
- Form 3800 to claim any general business credits.
- Form 4562 to claim depreciation (including the special allowance) on assets placed in service in 2014, to claim amortization that began in 2014, to make an election under section 179 to expense certain property, or to report information on vehicles and other listed property.
- Form 4684 to report a casualty or theft gain or loss involving farm business property, including purchased livestock held for draft, breeding, sport, or dairy purposes. See Pub. 225 for more information on how to report various farm losses, such as losses due to death of livestock or damage to crops or other farm property.

- Form 4797 to report sales, exchanges, or involuntary conversions (other than from a casualty or theft) of certain farm property. Also use this form to report sales of livestock held for draft, breeding, sport, or dairy purposes.
- Form 4835 to report rental income based on crop or livestock shares produced by a tenant if you did not materially participate in the management or operation of a farm. This income is not subject to self-employment tax. See Pub. 225.
- Form 6198 to figure your allowable loss if you have a business loss and you have amounts invested in the business for which you are not at risk.
- Form 8582 to figure your allowable loss from passive activities.
- Form 8824 to report like-kind exchanges.
- Form 8903 to take a deduction for income from domestic production activities.

Single-member limited liability company (LLC). Generally, a single-member domestic LLC is not treated as a separate entity for federal income tax purposes. If you are the sole member of a domestic LLC engaged in the business of farming, file Schedule F (Form 1040). However, you can elect to treat a domestic LLC as a corporation. See Form 8832 for details on the election.

Heavy highway vehicle use tax. If you use certain highway trucks, truck-trailers, tractor trailers, or buses in your farming business, you may have to pay a federal highway motor vehicle use tax. See the Instructions for Form 2290 to find out if you owe this tax and go to www.irs.gov/trucker for the latest developments.

Information returns. You may have to file information returns for wages paid to employees, certain payments of fees and other nonemployee compensation, interest, rents, royalties, real estate transactions, annuities, and pensions. For details, see [Line F](#), later, and the 2014 General Instructions for Certain Information Returns.

If you received cash of more than \$10,000 in one or more related transactions in your farming business, you may have to file Form 8300. For details, see Pub. 1544.

Reportable transaction disclosure statement. If you entered into a reportable transaction in 2014, you must file Form 8886 to disclose information if your federal income tax liability is affected by your participation in the transaction. You may have to pay a penalty if you are required to file Form 8886 but do

Source: Internal Revenue Service, 2014 tax year

Figure A.5: Overlap of ACS Response and IRS Tax Year, Example 1

This figure shows an example of a response to the 2014 ACS sample where the respondent's reference date has minimal overlap with the 2014 IRS tax year. This example shows a respondent who responded via mail and filled out their form on January 23, 2014. Note that this is not necessarily the date their response was received. The dates highlighted in blue cover the dates the respondent should have included in their calculation of sale of agricultural products for the last 12 months.

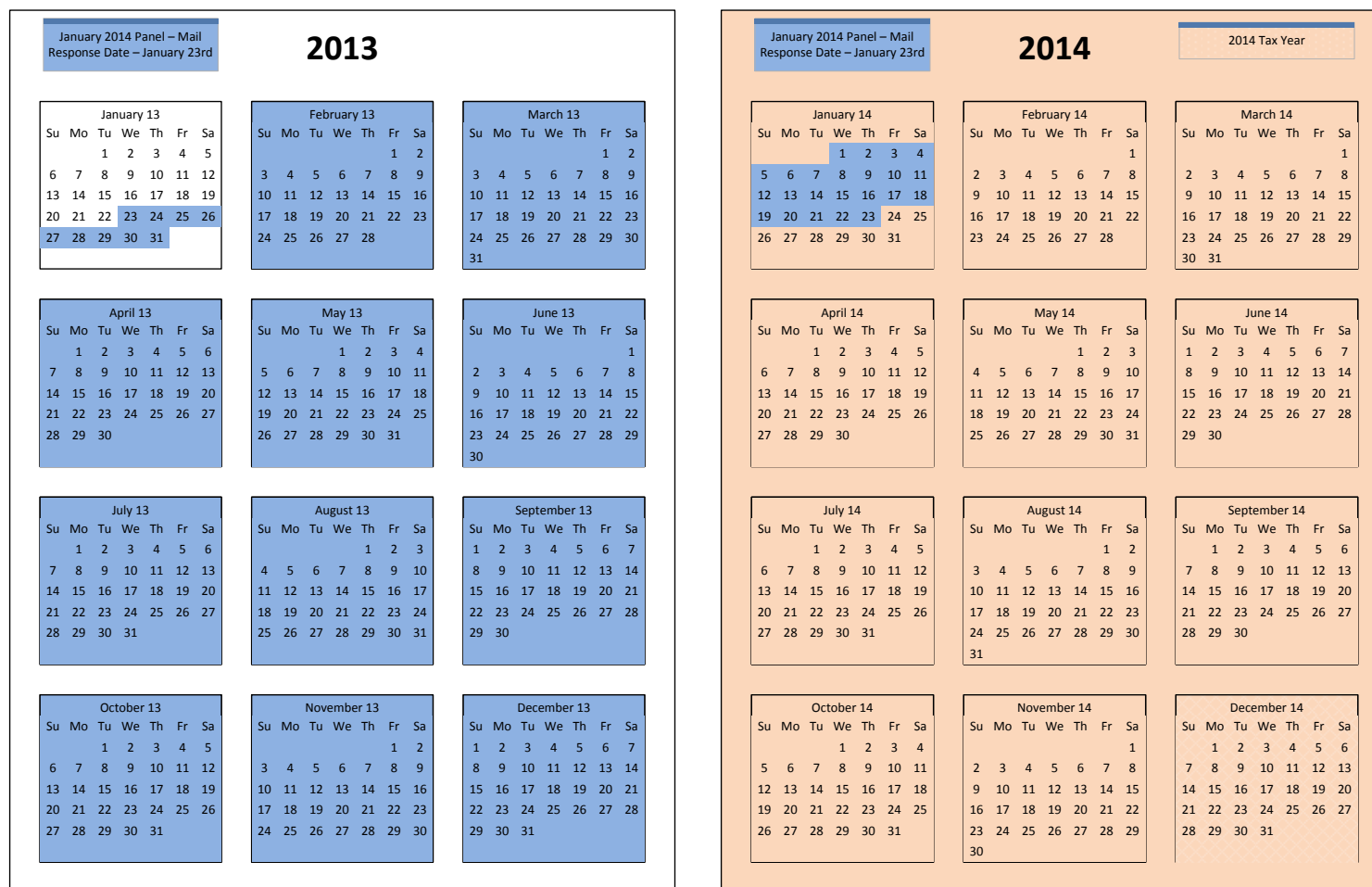
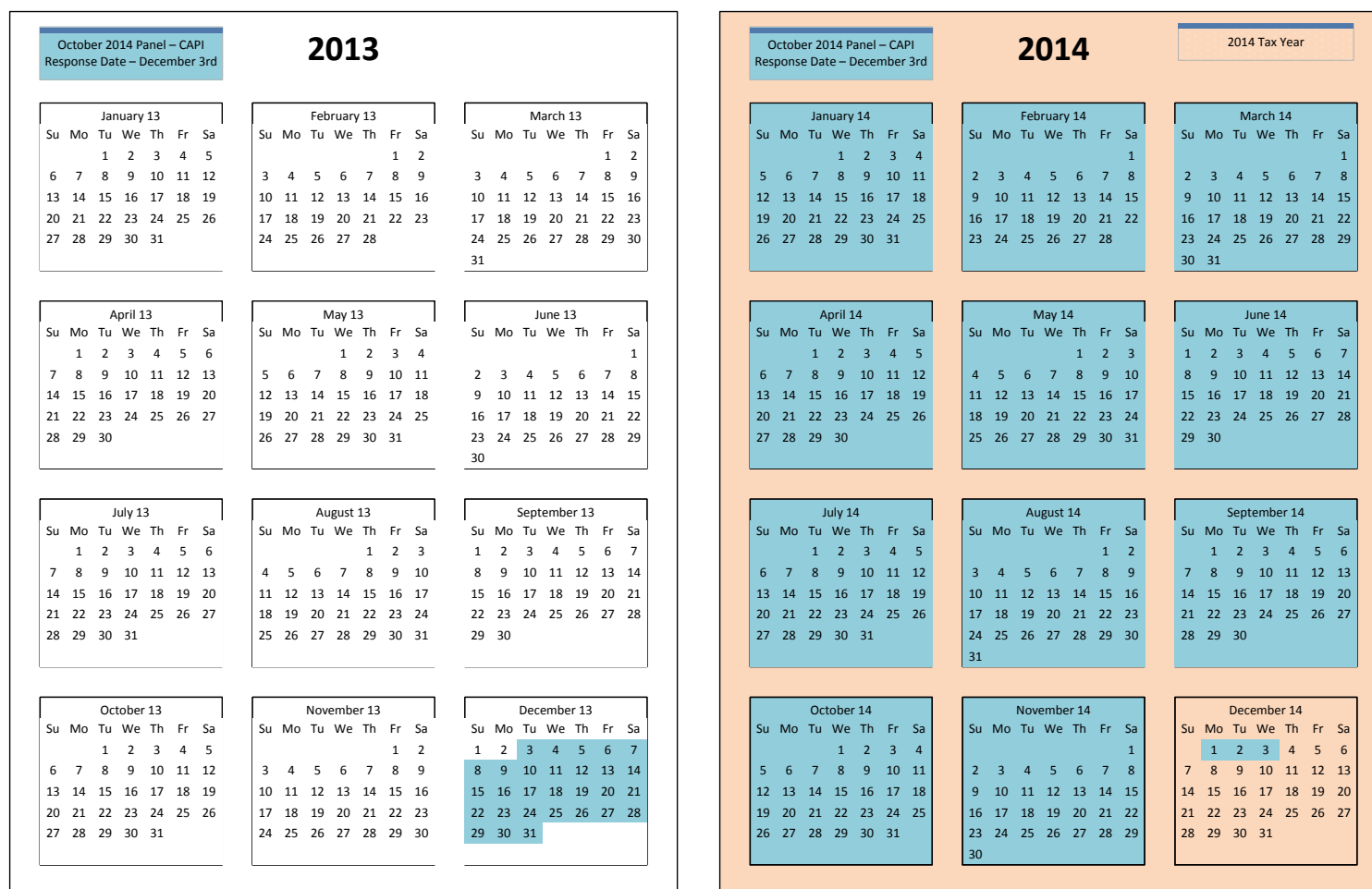


Figure A.6: Overlap of ACS Response and IRS Tax Year, Example 2

This figure shows an example of a response to the 2014 ACS sample where the respondent's reference date has major overlap with the 2014 IRS tax year. This example shows a respondent who responded using via CAPI on December 3, 2014. The dates highlighted in blue cover the dates the respondent should have included in their calculation of sale of agricultural products for the last 12 months.



Appendix B

Table B.1: ACS PIK and MAFID Assignment by *Edited* Characteristics

Characteristics	Assigned a PIK and a MAFID Count	Assigned a PIK and a MAFID Percent	Not Assigned a PIK and a MAFID Count	Not Assigned a PIK and a MAFID Percent	TOTAL Count
TOTAL	5,024,976	94.4	300,068	5.6	5,325,044
Age					
Less than 15 years	874,430	93.5	60,525	6.5	934,955
15 to 64	3,227,359	94.1	203,564	5.9	3,430,923
65 and older	923,187	96.2	35,979	3.8	959,166
Sex					
Male	2,444,696	94.1	152,000	5.9	2,596,696
Female	2,580,280	94.6	148,068	5.4	2,728,348
Race					
White alone	3,943,877	95.3	195,448	4.7	4,139,325
Black or African American alone	487,527	92.8	38,043	7.2	525,570
American Indian and Alaska Native alone	60,030	87.8	8,347	12.2	68,377
Asian alone	231,098	91.6	21,263	8.4	252,361
Native Hawaiian and Other Pacific Islander alone	7,301	88.5	947	11.5	8,248
Some other race alone	153,188	84.6	27,935	15.4	181,123
Two or more races	141,955	94.6	8,085	5.4	150,040
Ethnicity					
Hispanic or Latino	630,048	87.8	87,291	12.2	717,339
Not Hispanic or Latino	4,394,928	95.4	212,777	4.6	4,607,705
Educational Attainment (Population 25 and Older)					
Not a high school graduate	399,904	89.6	46,659	10.4	446,563
High school graduate (includes equivalency)	1,002,663	94.4	59,550	5.6	1,062,213
Some college	743,035	95.8	32,221	4.2	775,256
Associate's degree	301,531	96.3	11,631	3.7	313,162
Bachelor's degree	664,402	96.2	26,300	3.8	690,702
Graduate or professional degree	429,011	96.9	13,663	3.1	442,674

Table B.1: ACS PIK and MAFID Assignment by *Edited* Characteristics, Continued

Characteristics	Assigned a PIK and a MAFID Count	Assigned a PIK and a MAFID Percent	Not Assigned a PIK and a MAFID Count	Not Assigned a PIK and a MAFID Percent	TOTAL Count
Citizenship					
U.S. citizen	4,818,246	95.4	230,517	4.6	5,048,763
Not a U.S. citizen	206,730	74.8	69,551	25.2	276,281
Marital Status					
Married or previously married	2,998,175	95.6	139,204	4.4	3,137,379
Never married	2,026,801	92.6	160,864	7.4	2,187,665
Employment Status (Population 16 and Older)					
Employed	2,332,759	95.2	118,115	4.8	2,450,874
Unemployed	159,637	93.6	11,006	6.4	170,643
Not in labor force	1,594,185	93.8	106,104	6.2	1,700,289
Metropolitan/Micropolitan Area					
Metropolitan area	3,959,949	94.2	242,654	5.8	4,202,603
Micropolitan area	557,158	95.3	27,736	4.7	584,894
Not in a metropolitan/Micropolitan area	507,869	94.5	29,678	5.5	537,547
Region					
Northeast	926,491	94.5	53,434	5.5	979,925
Midwest	1,368,681	96.2	53,365	3.8	1,422,046
South	1,655,272	94.2	101,025	5.8	1,756,297
West	1,074,532	92.1	92,244	7.9	1,166,776
Mode					
Mail	1,466,285	97.6	36,659	2.4	1,502,944
CATI	343,236	90.4	36,267	9.6	379,503
CAPI	907,829	85.1	159,208	14.9	1,067,037
GQ personal visit	142,397	86.2	22,719	13.8	165,116
Internet	2,165,229	98.0	45,215	2.0	2,210,444

Notes: This table contains an unweighted count of person records.

Source: U.S. Census Bureau, 2014 American Community Survey

Table B.2: ACS *Unedited* Sale of Agricultural Products Checkbox by *Edited* Characteristics

Characteristics	Response “None” Count	Response “None” Percent	Response “\$1 to \$999” Count	Response “\$1 to \$999” Percent	Response “\$1,000 to \$2,499” Count	Response “\$1,000 to \$2,499” Percent
TOTAL	372,807	90.6	9,094	2.2	4,962	1.2
Age						
Less than 15 years or 15 to 64**	258,216	88.6	6,481	2.2	3,257	1.1
65 and older	114,591	89.5	2,613	2.0	1,705	1.3
Sex						
Male	195,565	89.0	5,462	2.5	3,070	1.4
Female	177,242	92.5	3,632	1.9	1,892	1.0
Race						
White alone	340,952	90.3	8,607	2.3	4,688	1.2
Black or African American alone	16877	95.8	181	1.0	107	0.6
American Indian and Alaska Native alone	4783	94.5	74	1.5	35	0.7
Asian alone, Native Hawaiian and Other Pacific Islander alone, or Some other race alone**	5,768	88.4	103	1.6	76	1.2
Two or more races	4427	91.6	129	2.7	56	1.2
Ethnicity						
Hispanic or Latino	11760	93.4	263	2.1	124	1.0
Not Hispanic or Latino	361,047	90.5	8,831	2.2	4,838	1.2
Educational Attainment (Population 25 and Older)						
Not a high school graduate	32423	91.6	588	1.7	376	1.1
High school graduate (includes equivalency)	111,227	90.1	2,348	1.9	1,508	1.2
Some college	81,192	90.6	2,122	2.4	1,086	1.2
Associate’s degree	36,299	90.5	960	2.4	466	1.2
Bachelor’s degree	63,094	89.9	1,792	2.6	921	1.3
Graduate or professional degree	43,007	91.9	1,175	2.5	554	1.2

Table B.2: ACS *Unedited* Sale of Agricultural Products Checkbox by *Edited* Characteristics, Continued

Characteristics	Response “\$2,500 to \$4,999” Count	Response “\$2,500 to \$4,999” Percent	Response “\$5,000 to \$9,999” Count	Response “\$5,000 to \$9,999” Percent	Response “\$10,000 or More” Count	Response “\$10,000 or More” Percent
TOTAL	3,682	0.9	3,514	0.9	15,681	3.8
Age						
Less than 15 years or 15 to 64**	2,302	0.8	2,122	0.7	9,898	3.4%
65 and older	1,380	1.1	1,392	1.1	5,783	4.5
Sex						
Male	2,239	1.0	2,258	1.0	10,395	4.7
Female	1,443	0.8	1,256	0.7	5,286	2.8
Race						
White alone	3,465	0.9	3,319	0.9	15,074	4.0
Black or African American alone	83	0.5	78	0.4	287	1.6
American Indian and Alaska Native alone	33	0.7	27	0.5	92	1.8
Asian alone, Native Hawaiian and Other Pacific Islander alone, or Some other race alone**	49	0.8	44	0.7	126	1.9
Two or more races	52	1.1	46	1.0	102	2.1
Ethnicity						
Hispanic or Latino	94	0.7	68	0.5	225	1.8
Not Hispanic or Latino	3,588	0.9	3,446	0.9	15,456	3.9
Educational Attainment (Population 25 and Older)						
Not a high school graduate	290	0.8	300	0.8	1,244	3.5
High school graduate (includes equivalency)	1,134	0.9	1,168	0.9	5,375	4.4
Some college	767	0.9	747	0.8	3,296	3.7
Associate’s degree	352	0.9	306	0.8	1,575	3.9
Bachelor’s degree	687	1.0	588	0.8	2,850	4.1
Graduate or professional degree	420	0.9	377	0.8	1,178	2.5

Table B.2: ACS *Unedited* Sale of Agricultural Products Checkbox by *Edited* Characteristics, Continued

Characteristics	Response “Yes, Unspecified Amount” Count	Response “Yes, Unspecified Amount” Percent	Total Response Count	Total Response Percent	No Response Count	No Response Percent	TOTAL Count
TOTAL	1,724	0.4	411,464	96.4	15,410	3.6	426,874
Age							
Less than 15 years or 15 to 64**	1,089	0.4	283,365	97.2	8,055	2.8	291,420
65 and older	635	0.5	128,099	94.6	7,355	5.4	135,454
Sex							
Male	799	0.4	219,788	96.4	8,186	3.6	227,974
Female	925	0.5	191,676	96.4	7,224	3.6	198,900
Race							
White alone	1,656	0.4	377,761	96.6	13,176	3.4	390,937
Black or African American alone	11	0.1	17,624	92.3	1,466	7.7	19,090
American Indian and Alaska Native alone	16	0.3	5,060	95.6	234	4.4	5,294
Asian alone, Native Hawaiian and Other Pacific Islander alone, or Some other race alone**	19	0.3	6,185	94.8	340	5.2	6,525
Two or more races	22	0.5	4,834	96.1	194	3.9	5,028
Ethnicity							
Hispanic or Latino	54	0.4	12,588	93.5	868	6.5	13,456
Not Hispanic or Latino	1,670	0.4	398,876	96.5	14,542	3.5	413,418
Educational Attainment (Population 25 and Older)							
Not a high school graduate	176	0.5	35,397	92.8	2,759	7.2	38,156
High school graduate (includes equivalency)	629	0.5	123,389	95.3	6,133	4.7	129,522
Some college	369	0.4	89,579	96.8	2,963	3.2	92,542
Associate’s degree	171	0.4	40,129	97.7	940	2.3	41,069
Bachelor’s degree	230	0.3	70,162	98.0	1,413	2.0	71,575
Graduate or professional degree	93	0.2	46,804	98.2	881	1.8	47,685

Table B.2: ACS *Unedited* Sale of Agricultural Products Checkbox by *Edited* Characteristics, Continued

Characteristics	Response “None” Count	Response “None” Percent	Response “\$1 to \$999” Count	Response “\$1 to \$999” Percent	Response “\$1,000 to \$2,499” Count	Response “\$1,000 to \$2,499” Percent
Citizenship						
U.S. citizen	369,050	90.6	9,042	2.2	4,914	1.2
Not a U.S. citizen	3757	94.2	52	1.3	48	1.2
Marital Status						
Married or previously married	341,714	90.5	8,442	2.2	4,635	1.2
Never married	31,093	91.6	652	1.9	327	1.0
Employment Status (Population 16 and Older)						
Employed	214,525	90.1	5,619	2.4	2,916	1.2
Unemployed	8692	94.1	223	2.4	84	0.9
Not in labor force	149,492	91.1	3,249	2.0	1,962	1.2
Metropolitan/Micropolitan Area						
Metropolitan area	214,620	93.0	4,586	2.0	2,366	1.0
Micropolitan area	75,584	89.2	2,037	2.4	1,165	1.4
Not in a metropolitan/Micropolitan area	82,603	86.0	2,471	2.6	1,431	1.5
Region						
Northeast	74,660	95.0	1,311	1.7	630	0.8
Midwest	120,069	85.6	3,724	2.7	2,123	1.5
South	136,427	93.4	2,865	2.0	1,560	1.1
West	41,651	89.4	1,194	2.6	649	1.4
Mode						
Mail	134,084	88.5	3,897	2.6	2,253	1.5
CATI	37076	91.5	426	1.1	322	0.8
CAPI	49390	93.1	528	1.0	346	0.7
Internet	152,257	91.5	4,243	2.5	2,041	1.2

Table B.2: ACS *Unedited* Sale of Agricultural Products Checkbox by *Edited* Characteristics, Continued

Characteristics	Response “\$2,500 to \$4,999” Count	Response “\$2,500 to \$4,999” Percent	Response “\$5,000 to \$9,999” Count	Response “\$5,000 to \$9,999” Percent	Response “\$10,000 or More” Count	Response “\$10,000 or More” Percent
Citizenship						
U.S. citizen	3,653	0.9	3,494	0.9	15,619	3.8
Not a U.S. citizen	29	0.7	20	0.5	62	1.6
Marital Status						
Married or previously married	3,463	0.9	3,255	0.9	14,472	3.8
Never married	219	0.6	259	0.8	1,209	3.6
Employment Status (Population 16 and Older)						
Employed	2,096	0.9	1,924	0.8	10,091	4.2
Unemployed	53	0.6	52	0.6	108	1.2
Not in labor force	1,533	0.9	1,538	0.9	5,478	3.3
Metropolitan/Micropolitan Area						
Metropolitan area	1,668	0.7	1,455	0.6	5,450	2.4
Micropolitan area	881	1.0	862	1.0	3,718	4.4
Not in a metropolitan/Micropolitan area	1,133	1.2	1,197	1.2	6,513	6.8
Region						
Northeast	348	0.4	311	0.4	1,217	1.5
Midwest	1,767	1.3	1,731	1.2	9,932	7.1
South	1,123	0.8	1,052	0.7	2,581	1.8
West	444	1.0	420	0.9	1,951	4.2
Mode						
Mail	1,745	1.2	1,719	1.1	7,783	5.1
CATI	243	0.6	269	0.7	1,344	3.3
CAPI	281	0.5	299	0.6	1,287	2.4
Internet	1,413	0.8	1,227	0.7	5,267	3.2

Table B.2: ACS Unedited Sale of Agricultural Products Checkbox by Edited Characteristics, Continued

Characteristics	Response “Yes, Unspecified Amount” Count	Response “Yes, Unspecified Amount” Percent	Total Response Count	Total Response Percent	No Response Count	No Response Percent	TOTAL Count
Citizenship							
U.S. citizen	1,704	0.4	407,476	96.4	15,175	3.6	422,651
Not a U.S. citizen	20	0.5	3,988	94.4	235	5.6	4,223
Marital Status							
Married or previously married	1,544	0.4	377,525	96.5	13,704	3.5	391,229
Never married	180	0.5	33,939	95.2	1,706	4.8	35,645
Employment Status (Population 16 and Older)							
Employed	925	0.4	238,096	97.3	6,659	2.7	244,755
Unemployed	22	0.2	9,234	96.7	317	3.3	9,551
Not in labor force	773	0.5	164,025	95.1	8,425	4.9	172,450
Metropolitan/Micropolitan Area							
Metropolitan area	618	0.3	230,763	96.6	8,095	3.4	238,858
Micropolitan area	447	0.5	84,694	96.2	3,300	3.8	87,994
Not in a metropolitan/Micropolitan area	659	0.7	96,007	96.0	4,015	4.0	100,022
Region							
Northeast	135	0.2	78,612	97.1	2,363	2.9	80,975
Midwest	899	0.6	140,245	96.1	5,680	3.9	145,925
South	433	0.3	146,041	96.2	5,786	3.8	151,827
West	257	0.6	46,566	96.7	1,581	3.3	48,147
Mode							
Mail	0	0.0	151,481	92.5	12,260	7.5	163,741
CATI	823	2.0	40,503	98.8	512	1.2	41,015
CAPI	901	1.7	53,032	97.4	1,392	2.6	54,424
Internet	0	0.0	166,448	99.3	1,246	0.7	167,694

Notes: This table contains an unweighted count of households by unedited housing question 5 response. It only includes records assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

** These cells were combined according to U.S. Census Bureau suppression requirements.

Source: U.S. Census Bureau, 2014 American Community Survey

Table B.3: ACS *Edited* Sale of Agricultural Products Checkbox by *Edited* Characteristics

Characteristics	“None” Count	“None” Percent	“\$1 to \$999” Count	“\$1 to \$999” Percent	“\$1,000 to \$2,499” Count	“\$1,000 to \$2,499” Percent	“\$2,500 to \$4,999” Count	“\$2,500 to \$4,999” Percent
TOTAL	386,222	90.5	9,861	2.3	5,418	1.3	4,026	0.9
Age								
Less than 15 years or 15 to 64**	265,242	91.0	6,921	2.4	3,518	1.2	2,504	0.9
65 and older	120,980	89.3	2,940	2.2	1,900	1.4	1,522	1.1
Sex								
Male	202,627	88.9	5,854	2.6	3,309	1.5	2,416	1.1
Female	183,595	92.3	4,007	2.0	2,109	1.1	1,610	0.8
Race								
White alone	352,296	90.1	9,331	2.4	5,117	1.3	3,783	1.0
Black or African American alone	18,260	95.7	203	1.1	118	0.6	97	0.5
American Indian and Alaska Native alone	5,000	94.4	80	1.5	40	0.8	37	0.7
Asian alone	3,545	93.0	52	1.4	47	1.2	28	0.7
Native Hawaiian and Other Pacific Islander alone or Some other race alone**	2,526	93.0	58	2.1	36	1.3	24	0.9
Two or more races	4,595	91.4	137	2.7	60	1.2	57	1.1
Ethnicity								
Hispanic or Latino	12546	93.2	298	2.2	146	1.1	106	0.8
Not Hispanic or Latino	373,676	90.4	9,563	2.3	5,272	1.3	3,920	0.9
Educational Attainment (Population 25 and Older)								
Not a high school graduate	34,877	91.4	685	1.8	439	1.2	341	0.9
High school graduate (includes equivalency)	116,515	90.0	2,636	2.0	1,685	1.3	1,260	1.0
Some college	83,760	90.5	2,282	2.5	1,184	1.3	838	0.9
Associate’s degree	37,100	90.3	1,024	2.5	495	1.2	387	0.9
Bachelor’s degree	64,350	89.9	1,886	2.6	970	1.4	716	1.0
Graduate or professional degree	43,779	91.8	1,219	2.6	583	1.2	437	0.9

Table B.3: ACS *Edited* Sale of Agricultural Products Checkbox by *Edited* Characteristics, Continued

Characteristics	“5,000 to \$9,999” Count	“5,000 to \$9,999” Percent	“\$10,000 or More” Count	“\$10,000 or More” Percent	TOTAL Count
TOTAL	3,883	0.9	17,464	4.1	426,874
Age					
Less than 15 years or 15 to 64**	2,321	0.8	10,914	3.7	291,420
65 and older	1,562	1.2	6,550	4.8	135,454
Sex					
Male	2,455	1.1	11,313	5.0	227,974
Female	1,428	0.7	6,151	3.1	198,900
Race					
White alone	3,657	0.9	16,753	4.3	390,937
Black or African American alone	92	0.5	320	1.7	19,090
American Indian and Alaska Native alone	32	0.6	105	2.0	5,294
Asian alone	31	0.8	107	2.8	3,810
Native Hawaiian and Other Pacific Islander alone or Some other race alone**	20	0.7	51	1.9	2,715
Two or more races	51	1.0	128	2.5	5,028
Ethnicity					
Hispanic or Latino	80	0.6	280	2.1	13,456
Not Hispanic or Latino	3,803	0.9	17,184	4.2	413,418
Educational Attainment (Population 25 and Older)					
Not a high school graduate	344	0.9	1,470	3.9	38,156
High school graduate (includes equivalency)	1,327	1.0	6,099	4.7	129,522
Some college	816	0.9	3,662	4.0	92,542
Associate’s degree	333	0.8	1,730	4.2	41,069
Bachelor’s degree	622	0.9	3,031	4.2	71,575
Graduate or professional degree	403	0.8	1,264	2.7	47,685

Table B.3: ACS *Edited* Sale of Agricultural Products Checkbox by *Edited* Characteristics, Continued

Characteristics	“None” Count	“None” Percent	“\$1 to \$999” Count	“\$1 to \$999” Percent	“\$1,000 to \$2,499” Count	“\$1,000 to \$2,499” Percent	“\$2,500 to \$4,999” Count	“\$2,500 to \$4,999” Percent
Citizenship								
U.S. citizen	382,260	90.4	9,795	2.3	5,362	1.3	3,989	0.9
Not a U.S. citizen	3,962	93.8	66	1.6	56	1.3	37	0.9
Marital Status								
Married or previously married	353,616	90.4	9,128	2.3	5,038	1.3	3,777	1.0
Never married	32,606	91.5	733	2.1	380	1.1	249	0.7
Employment Status (Population 16 and Older)								
Employed	220,271	90.0	5,979	2.4	3,124	1.3	2,266	0.9
Unemployed	8,975	94.0	232	2.4	92	1.0	61	0.6
Not in labor force	156,870	91.0	3,644	2.1	2,202	1.3	1,699	1.0
Metropolitan/Micropolitan Area								
Metropolitan area	221,896	92.9	4,930	2.1	2,565	1.1	1,810	0.8
Micropolitan area	78,432	89.1	2,236	2.5	1,268	1.4	956	1.1
Not in a metropolitan/Micropolitan area	85,894	85.9	2,695	2.7	1,585	1.6	1,260	1.3
Region								
Northeast	76,866	94.9	1,400	1.7	667	0.8	381	0.5
Midwest	124,605	85.4	4,065	2.8	2,344	1.6	1,930	1.3
South	141,726	93.3	3,129	2.1	1,706	1.1	1,228	0.8
West	43,025	89.4	1,267	2.6	701	1.5	487	1.0
Mode								
Mail	144,801	88.4	4,219	2.6	2,442	1.5	1,884	1.2
CATI	37,527	91.5	610	1.5	421	1.0	326	0.8
CAPI	50,605	93.0	752	1.4	494	0.9	381	0.7
Internet	153,289	91.4	4,280	2.6	2,061	1.2	1,435	0.9

Table B.3: ACS Edited Sale of Agricultural Products Checkbox by Edited Characteristics, Continued

Characteristics	“5,000 to \$9,999” Count	“5,000 to \$9,999” Percent	“\$10,000 or More” Count	“\$10,000 or More” Percent	TOTAL Count
Citizenship					
U.S. citizen	3,857	0.9	17,388	4.1	422,651
Not a U.S. citizen	26	0.6	76	1.8	4,223
Marital Status					
Married or previously married	3,587	0.9	16,083	4.1	391,229
Never married	296	0.8	1,381	3.9	35,645
Employment Status (Population 16 and Older)					
Employed	2,113	0.9	11,002	4.5	244,755
Unemployed	60	0.6	131	1.4	9,551
Not in labor force	1,710	1.0	6,325	3.7	172,450
Metropolitan/Micropolitan Area					
Metropolitan area	1,605	0.7	6,052	2.5	238,858
Micropolitan area	948	1.1	4,154	4.7	87,994
Not in a metropolitan/Micropolitan area	1,330	1.3	7,258	7.3	100,022
Region					
Northeast	331	0.4	1,330	1.6	80,975
Midwest	1,928	1.3	11,053	7.6	145,925
South	1,160	0.8	2,878	1.9	151,827
West	464	1.0	2,203	4.6	48,147
Mode					
Mail	1,892	1.2	8,503	5.2	163,741
CATI	354	0.9	1,777	4.3	41,015
CAPI	392	0.7	1,800	3.3	54,424
Internet	1,245	0.7	5,384	3.2	167,694

Notes: This table contains an unweighted count of households by edited housing question 5 response. It only includes records assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

** These cells were combined according to U.S. Census Bureau suppression requirements.

Source: U.S. Census Bureau, 2014 American Community Survey

Table B.4: IRS PIK and MAFID Assignment for the Primary Filer, Secondary Filer, and all Dependents

Filer or Dependent	Neither PIK nor MAFID Assigned Count	Neither PIK nor MAFID Assigned Percent	PIK Assigned, No MAFID Assigned Count	PIK Assigned, No MAFID Assigned Percent	No PIK Assigned, MAFID Assigned Count	No PIK Assigned, MAFID Assigned Percent	Both PIK and MAFID Assigned Count	Both PIK and MAFID Assigned Percent	TOTAL Count
TOTAL	192,181	0.1	25,271,910	8.7	1,311,317	0.4	265,220,460	90.8	291,995,868
Primary Filer	34,148	0.0	13,208,233	9.2	108,312	0.1	130,912,087	90.7	144,262,780
Secondary Filer	96,888	0.2	4,172,796	7.6	673,596	1.2	50,098,544	91.0	55,041,824
Dependent 1	33,334	0.1	4,397,256	8.6	289,435	0.6	46,690,030	90.8	51,410,055
Dependent 2	18,024	0.1	2,333,136	8.3	158,513	0.6	25,598,061	91.1	28,107,734
Dependent 3	7,525	0.1	899,376	8.8	61,275	0.6	9,256,451	90.5	10,224,627
Dependent 4	2,262	0.1	261,113	8.9	20,186	0.7	2,665,287	90.4	2,948,848

Notes: This table contains an unweighted count of filers or dependents present on individual income tax returns.

Source: Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table B.5: IRS Unique or Duplicate PIK and MAFID Assignment for the Primary Filer, Secondary Filer, and all Dependents

Filer or Dependent	Unique PIK and MAFID Combination Count	Unique PIK and MAFID Combination Percent	Duplicate PIK and MAFID Combination Count	Duplicate PIK and MAFID Combination Percent	TOTAL Count
TOTAL	265,180,844	100.0	39,616	0.0	265,220,460
Primary Filer	130,904,996	100.0	7,091	0.0	130,912,087
Secondary Filer	50,096,964	100.0	1,580	0.0	50,098,544
Dependent 1	46,669,428	100.0	20,602	0.0	46,690,030
Dependent 2	25,590,424	100.0	7,637	0.0	25,598,061
Dependent 3	9,254,264	100.0	2,187	0.0	9,256,451
Dependent 4	2,664,768	100.0	519	0.0	2,665,287

Notes: This table contains an unweighted count of filers or dependents present on individual income tax returns. It only includes filers or dependents assigned both a PIK and a MAFID.

Source: Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table B.6: IRS Schedule F Indicator for the Primary Filer, Secondary Filer, and all Dependents

Filer or Dependent	Schedule F is NOT Present Count	Schedule F is NOT Present Percent	Schedule F is Present Count	Schedule F is Present Percent	TOTAL Count
TOTAL	261,509,958	98.6	3,710,502	1.4	265,220,460
Primary Filer	129,355,320	98.8	1,556,767	1.2	130,912,087
Secondary Filer	48,910,429	97.6	1,188,115	2.4	50,098,544
Dependent 1	46,191,507	98.9	498,523	1.1	46,690,030
Dependent 2	25,299,396	98.8	298,665	1.2	25,598,061
Dependent 3	9,133,272	98.7	123,179	1.3	9,256,451
Dependent 4	2,620,034	98.3	45,253	1.7	2,665,287

Notes: This table contains an unweighted count of filers or dependents present on individual income tax returns. It only includes filers or dependents assigned both a PIK and a MAFID.

Source: Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table B.7: ACS to IRS PIK and MAFID Linkage at Person-Level by *Edited* Characteristics

Characteristics	Linked ACS Sample Count	Linked ACS Sample Percent	Unlinked ACS Sample Count	Unlinked ACS Sample Percent	TOTAL Count
TOTAL	3,279,501	65.4	1,735,075	34.6	5,014,576
Age					
Less than 15 years	593,558	68.1	277,809	31.9	871,367
15 to 64	2,144,169	66.5	1,077,977	33.5	3,222,146
65 and older	541,774	58.8	379,289	41.2	921,063
Sex					
Male	1,589,463	65.2	849,902	34.8	2,439,365
Female	1,690,038	65.6	885,173	34.4	2,575,211
Race					
White alone	2,665,829	67.7	1,271,427	32.3	3,937,256
Black or African American alone	249,942	51.5	235,326	48.5	485,268
American Indian and Alaska Native alone	22,262	37.2	37,637	62.8	59,899
Asian alone	161,767	70.1	68,844	29.9	230,611
Native Hawaiian and Other Pacific Islander alone	3,513	48.3	3760	51.7	7,273
Some other race alone	91,678	60.0	60,995	40.0	152,673
Two or more races	84,510	59.7	57,086	40.3	141,596
Ethnicity					
Hispanic or Latino	386,167	61.5	241,577	38.5	627,744
Not Hispanic or Latino	2,893,334	66.0	1,493,498	34.0	4,386,832
Educational Attainment (Population 25 and Older)					
Not a high school graduate	183,000	45.9	215,325	54.1	398,325
High school graduate (includes equivalency)	614,678	61.4	385,927	38.6	1,000,605
Some college	493,552	66.5	248,527	33.5	742,079
Associate's degree	216,579	71.9	84,662	28.1	301,241
Bachelor's degree	497,685	75.0	166,159	25.0	663,844
Graduate or professional degree	328,487	76.6	100,211	23.4	428,698

Table B.7: ACS to IRS PIK and MAFID Linkage at Person-Level by *Edited* Characteristics, Continued

Characteristics	Linked ACS Sample Count	Linked ACS Sample Percent	Unlinked ACS Sample Count	Unlinked ACS Sample Percent	TOTAL Count
Citizenship					
U.S. citizen	3,154,697	65.6	1,654,092	34.4	4,808,789
Not a U.S. citizen	124,804	60.6	80,983	39.4	205,787
Marital Status					
Married or previously married	2,044,869	68.3	948,918	31.7	2,993,787
Never married	1,234,632	61.1	786,157	38.9	2,020,789
Employment Status (Population 16 and Older)					
Employed	1,697,496	72.9	632,303	27.1	2,329,799
Unemployed	87,193	54.7	72,070	45.3	159,263
Not in labor force	856,490	53.9	733,938	46.1	1,590,428
Metropolitan/Micropolitan Area					
Metropolitan area	2,673,751	67.7	1,277,889	32.3	3,951,640
Micropolitan area	331,813	59.7	224,220	40.3	556,033
Not in a metropolitan/Micropolitan area	273,937	54.0	232,966	46.0	506,903
Region					
Northeast	615,211	66.5	309,542	33.5	924,753
Midwest	937,446	68.6	428,745	31.4	1,366,191
South	1,038,982	62.9	612,392	37.1	1,651,374
West	687,862	64.2	384,396	35.8	1,072,258
Mode					
Mail	983,103	67.3	477,730	32.7	1,460,833
CATI	207,271	60.4	135,660	39.6	342,931
CAPI	449,575	49.6	456,506	50.4	906,081
GQ personal visit	1,087	0.8	141,120	99.2	142,207
Internet	1,638,465	75.8	524,059	24.2	2,162,524

Notes: This table contains ACS and IRS data that was unduplicated and then PIK- and MAFID-linked at the person level. It only includes records, filers, and dependents assigned both a PIK and a MAFID.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table B.8: ACS to IRS PIK and MAFID Linkage at Person-Level by *Edited* Characteristics (Column Percentages)

Characteristics	Linked ACS Sample Count	Linked ACS Sample Column Percent	Unlinked ACS Sample Count	Unlinked ACS Sample Column Percent	TOTAL Count
TOTAL	3,279,501	N/A	1,735,075	N/A	5,014,576
Age					
Less than 15 years	593,558	18.1	277,809	16.0	871,367
15 to 64	2,144,169	65.4	1,077,977	62.1	3,222,146
65 and older	541,774	16.5	379,289	21.9	921,063
Sex					
Male	1,589,463	48.5	849,902	49.0	2,439,365
Female	1,690,038	51.5	885,173	51.0	2,575,211
Race					
White alone	2,665,829	81.3	1,271,427	73.3	3,937,256
Black or African American alone	249,942	7.6	235,326	13.6	485,268
American Indian and Alaska Native alone	22,262	0.7	37,637	2.2	59,899
Asian alone	161,767	4.9	68,844	4.0	230,611
Native Hawaiian and Other Pacific Islander alone	3,513	0.1	3760	0.2	7,273
Some other race alone	91,678	2.8	60,995	3.5	152,673
Two or more races	84,510	2.6	57,086	3.3	141,596
Ethnicity					
Hispanic or Latino	386,167	11.8	241,577	13.9	627,744
Not Hispanic or Latino	2,893,334	88.2	1,493,498	86.1	4,386,832
Educational Attainment (Population 25 and Older)					
Not a high school graduate	183,000	7.8	215,325	17.9	398,325
High school graduate (includes equivalency)	614,678	26.3	385,927	32.1	1,000,605
Some college	493,552	21.1	248,527	20.7	742,079
Associate's degree	216,579	9.3	84,662	7.1	301,241
Bachelor's degree	497,685	21.3	166,159	13.8	663,844
Graduate or professional degree	328,487	14.1	100,211	8.3	428,698

Table B.8: ACS to IRS PIK and MAFID Linkage at Person-Level by *Edited* Characteristics (Column Percentages), Continued

Characteristics	Linked ACS Sample Count	Linked ACS Sample Column Percent	Unlinked ACS Sample Count	Unlinked ACS Sample Column Percent	TOTAL Count
Citizenship					
U.S. citizen	3,154,697	96.2	1,654,092	95.3	4,808,789
Not a U.S. citizen	124,804	3.8	80,983	4.7	205,787
Marital Status					
Married or previously married	2,044,869	62.4	948,918	54.7	2,993,787
Never married	1,234,632	37.6	786,157	45.3	2,020,789
Employment Status (Population 16 and Older)					
Employed	1,697,496	64.3	632,303	44.0	2,329,799
Unemployed	87,193	3.3	72,070	5.0	159,263
Not in labor force	856,490	32.4	733,938	51.0	1,590,428
Metropolitan/Micropolitan Area					
Metropolitan area	2,673,751	81.5	1,277,889	73.7	3,951,640
Micropolitan area	331,813	10.1	224,220	12.9	556,033
Not in a metropolitan/Micropolitan area	273,937	8.4	232,966	13.4	506,903
Region					
Northeast	615,211	18.8	309,542	17.8	924,753
Midwest	937,446	28.6	428,745	24.7	1,366,191
South	1,038,982	31.7	612,392	35.3	1,651,374
West	687,862	21.0	384,396	22.2	1,072,258
Mode					
Mail	983,103	30.0	477,730	27.5	1,460,833
CATI	207,271	6.3	135,660	7.8	342,931
CAPI	449,575	13.7	456,506	26.3	906,081
GQ personal visit	1,087	0.0	141,120	8.1	142,207
Internet	1,638,465	50.0	524,059	30.2	2,162,524

Notes: This table contains ACS and IRS data that was unduplicated and then PIK- and MAFID-linked at the person level. It only includes records, filers, and dependents assigned both a PIK and a MAFID.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table B.9: ACS to IRS PIK and MAFID Linkage at Household-Level by *Edited* Characteristics

Characteristics	At Least One Person in ACS Household Linked Count	At Least One Person in ACS Household Linked Percent	No Persons in ACS Household Linked Count	No Persons in ACS Household Linked Percent	TOTAL Count
TOTAL	308,208	72.3	118,311	27.7	426,519
Age					
Less than 15 years	26	56.5	20	43.5	46
15 to 64	222,441	76.4	68,767	23.6	291,208
65 and older	85,741	63.4	49,524	36.6	135,265
Sex					
Male	167,029	73.3	60,770	26.7	227,799
Female	141,179	71.0	57,541	29.0	198,720
Race					
White alone	286,000	73.2	104,661	26.8	390,661
Black or African American alone	12,133	63.7	6,901	36.3	19,034
American Indian and Alaska Native alone	2,181	41.2	3,109	58.8	5,290
Asian alone	2,998	78.8	808	21.2	3,806
Native Hawaiian and Other Pacific Islander alone	79	48.8	83	51.2	162
Some other race alone	1,745	68.5	802	31.5	2,547
Two or more races	3,072	61.2	1,947	38.8	5,019
Ethnicity					
Hispanic or Latino	9,066	67.5	4,357	32.5	13,423
Not Hispanic or Latino	299,142	72.4	113,954	27.6	413,096
Educational Attainment (Population 25 and Older)					
Not a high school graduate	20,180	53.0	17,888	47.0	38,068
High school graduate (includes equivalency)	90,781	70.2	38,607	29.8	129,388
Some college	67,240	72.7	25,240	27.3	92,480
Associate's degree	31,886	77.7	9,165	22.3	41,051
Bachelor's degree	56,306	78.7	15,242	21.3	71,548
Graduate or professional degree	37,771	79.2	9,894	20.8	47,665

Table B.9: ACS to IRS PIK and MAFID Linkage at Household-Level by *Edited* Characteristics, Continued

Characteristics	At Least One Person in ACS Household Linked Count	At Least One Person in ACS Household Linked Percent	No Persons in ACS Household Linked Count	No Persons in ACS Household Linked Percent	TOTAL Count
Citizenship					
U.S. citizen	305,246	72.3	117,062	27.7	422,308
Not a U.S. citizen	2,962	70.3	1,249	29.7	4,211
Marital Status					
Married or previously married	285,116	72.9	105,793	27.1	390,909
Never married	23,092	64.8	12,518	35.2	35,610
Employment Status (Population 16 and Older)					
Employed	194,972	79.7	49,652	20.3	244,624
Unemployed	6,315	66.2	3,227	33.8	9,542
Not in labor force	106,846	62.0	65,389	38.0	172,235
Metropolitan/Micropolitan Area					
Metropolitan area	183,102	76.7	55,559	23.3	238,661
Micropolitan area	61,249	69.7	26,664	30.3	87,913
Not in a metropolitan/Micropolitan area	63,857	63.9	36,088	36.1	99,945
Region					
Northeast	62,423	77.1	18,489	22.9	80,912
Midwest	113,936	78.1	31,897	21.9	145,833
South	102,046	67.3	49,614	32.7	151,660
West	29,803	61.9	18,311	38.1	48,114
Mode					
Mail	118,805	72.7	44,663	27.3	163,468
CATI	25,106	61.2	15,904	38.8	41,010
CAPI	27,095	49.8	27,313	50.2	54,408
Internet	137,202	81.8	30,431	18.2	167,633

Notes: This table contains ACS and IRS data that was unduplicated and then PIK- and MAFID-linked at the person level. The linked data were then summarized to the ACS household level. It only includes records, filers, and dependents assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table B.10: ACS to IRS PIK and MAFID Linkage at Household-Level by *Edited* Characteristics (Column Percentages)

Characteristics	At Least One Person in ACS Household Linked Count	At Least One Person in ACS Household Linked Column Percent	No Persons in ACS Household Linked Count	No Persons in ACS Household Linked Column Percent	TOTAL Count
TOTAL	308,208	N/A	118,311	N/A	426,519
Age					
Less than 15 years	26	0.0	20	0.0	46
15 to 64	222,441	72.2	68,767	58.1	291,208
65 and older	85,741	27.8	49,524	41.9	135,265
Sex					
Male	167,029	54.2	60,770	51.4	227,799
Female	141,179	45.8	57,541	48.6	198,720
Race					
White alone	286,000	92.8	104,661	88.5	390,661
Black or African American alone	12,133	3.9	6,901	5.8	19,034
American Indian and Alaska Native alone	2,181	0.7	3,109	2.6	5,290
Asian alone	2,998	1.0	808	0.7	3,806
Native Hawaiian and Other Pacific Islander alone	79	0.0	83	0.1	162
Some other race alone	1,745	0.6	802	0.7	2,547
Two or more races	3,072	1.0	1,947	1.6	5,019
Ethnicity					
Hispanic or Latino	9,066	2.9	4,357	3.7	13,423
Not Hispanic or Latino	299,142	97.1	113,954	96.3	413,096
Educational Attainment (Population 25 and Older)					
Not a high school graduate	20,180	6.6	17,888	15.4	38,068
High school graduate (includes equivalency)	90,781	29.8	38,607	33.3	129,388
Some college	67,240	22.1	25,240	21.8	92,480
Associate's degree	31,886	10.5	9,165	7.9	41,051
Bachelor's degree	56,306	18.5	15,242	13.1	71,548
Graduate or professional degree	37,771	12.4	9,894	8.5	47,665

Table B.10: ACS to IRS PIK and MAFID Linkage at Household-Level by *Edited* Characteristics (Column Percentages), Continued

Characteristics	At Least One Person in ACS Household Linked Count	At Least One Person in ACS Household Linked Column Percent	No Persons in ACS Household Linked Count	No Persons in ACS Household Linked Column Percent	TOTAL Count
Citizenship					
U.S. citizen	305,246	99.0	117,062	98.9	422,308
Not a U.S. citizen	2,962	1.0	1,249	1.1	4,211
Marital Status					
Married or previously married	285,116	92.5	105,793	89.4	390,909
Never married	23,092	7.5	12,518	10.6	35,610
Employment Status (Population 16 and Older)					
Employed	194,972	63.3	49,652	42.0	244,624
Unemployed	6,315	2.0	3,227	2.7	9,542
Not in labor force	106,846	34.7	65,389	55.3	172,235
Metropolitan/Micropolitan Area					
Metropolitan area	183,102	59.4	55,559	47.0	238,661
Micropolitan area	61,249	19.9	26,664	22.5	87,913
Not in a metropolitan/Micropolitan area	63,857	20.7	36,088	30.5	99,945
Region					
Northeast	62,423	20.3	18,489	15.6	80,912
Midwest	113,936	37.0	31,897	27.0	145,833
South	102,046	33.1	49,614	41.9	151,660
West	29,803	9.7	18,311	15.5	48,114
Mode					
Mail	118,805	38.5	44,663	37.8	163,468
CATI	25,106	8.1	15,904	13.4	41,010
CAPI	27,095	8.8	27,313	23.1	54,408
Internet	137,202	44.5	30,431	25.7	167,633

Notes: This table contains ACS and IRS data that was unduplicated and then PIK- and MAFID-linked at the person level. The linked data were then summarized to the ACS household level. It only includes records, filers, and dependents assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table B.11: Presence of ACS *Unedited* Household Sale of Agricultural Products and IRS Household Schedule F Indicator by *Edited* Characteristics

Characteristics	Response and Linked Count	Response and Linked Percent	Response and Not Linked Count	Response and Not Linked Percent	No Response and Linked Count	No Response and Linked Percent	No Response and Not Linked Count	No Response and Not Linked Percent	TOTAL Count
TOTAL	298,496	70.0	112,677	26.4	9,712	2.3	5,634	1.3	426,519
Age									
Less than 15 years or 15 to 64**	216,985	74.5	66,235	22.7	5,482	1.9	2,552	0.9	291,254
65 and older	81,511	60.3	46,442	34.3	4,230	3.1	3,082	2.3	135,265
Sex									
Male	161,582	70.9	58,059	25.5	5,447	2.4	2,711	1.2	227,799
Female	136,914	68.9	54,618	27.5	4,265	2.1	2,923	1.5	198,720
Race									
White alone	277,477	71.0	100,052	25.6	8,523	2.2	4,609	1.2	390,661
Black or African American alone	11,350	59.6	6,231	32.7	783	4.1	670	3.5	19,034
American Indian and Alaska Native alone	2,108	39.8	2,949	55.7	73	1.4	160	3.0	5,290
Asian alone	2,880	75.7	752	19.8	118	3.1	56	1.5	3,806
Native Hawaiian and Other Pacific Islander alone or Some other race alone**	1,715	63.3	829	30.6	109	4.0	56	2.1	2,709
Two or more races	2,966	59.1	1,864	37.1	106	2.1	83	1.7	5,019
Ethnicity									
Hispanic or Latino	8,567	63.8	3,995	29.8	499	3.7	362	2.7	13,423
Not Hispanic or Latino	289,929	70.2	108,682	26.3	9,213	2.2	5,272	1.3	413,096
Educational Attainment (Population 25 and Older)									
Not a high school graduate	18,816	49.4	16,514	43.4	1,364	3.6	1,374	3.6	38,068
High school graduate (includes equivalency)	86,892	67.2	36,391	28.1	3,889	3.0	2,216	1.7	129,388
Some college	65,301	70.6	24,224	26.2	1,939	2.1	1,016	1.1	92,480
Associate's degree	31,234	76.1	8,879	21.6	652	1.6	286	0.7	41,051
Bachelor's degree	55,268	77.2	14,868	20.8	1,038	1.5	374	0.5	71,548
Graduate or professional degree	37,115	77.9	9,672	20.3	656	1.4	222	0.5	47,665

Table B.11: Presence of ACS *Unedited* Household Sale of Agricultural Products and IRS Household Schedule F Indicator by *Edited* Characteristics, Continued

Characteristics	Response and Linked Count	Response and Linked Percent	Response and Not Linked Count	Response and Not Linked Percent	No Response and Linked Count	No Response and Linked Percent	No Response and Not Linked Count	No Response and Not Linked Percent	TOTAL Count
Citizenship									
U.S. citizen	295,681	70.0	111,513	26.4	9,565	2.3	5,549	1.3	422,308
Not a U.S. citizen	2,815	66.8	1,164	27.6	147	3.5	85	2.0	4,211
Marital Status									
Married or previously married	276,369	70.7	100,895	25.8	8,747	2.2	4,898	1.3	390,909
Never married	22,127	62.1	11,782	33.1	965	2.7	736	2.1	35,610
Employment Status (Population 16 and Older)									
Employed	190,041	77.7	47,945	19.6	4,931	2.0	1,707	0.7	244,624
Unemployed	6,124	64.2	3,102	32.5	191	2.0	125	1.3	9,542
Not in labor force	102,262	59.4	61,590	35.8	4,584	2.7	3,799	2.2	172,235
Metropolitan/Micropolitan Area									
Metropolitan area	177,652	74.4	52,949	22.2	5,450	2.3	2,610	1.1	238,661
Micropolitan area	59,246	67.4	25,381	28.9	2,003	2.3	1,283	1.5	87,913
Not in a metropolitan/Micropolitan area	61,598	61.6	34,347	34.4	2,259	2.3	1,741	1.7	99,945
Region									
Northeast	60,849	75.2	17,711	21.9	1,574	1.9	778	1.0	80,912
Midwest	109,888	75.4	30,280	20.8	4,048	2.8	1,617	1.1	145,833
South	98,862	65.2	47,046	31.0	3,184	2.1	2,568	1.7	151,660
West	28,897	60.1	17,640	36.7	906	1.9	671	1.4	48,114
Mode									
Mail	110,944	67.9	40,323	24.7	7,861	4.8	4,340	2.7	163,468
CATI	24,840	60.6	15,658	38.2	266	0.6	246	0.6	41,010
CAPI	26,439	48.6	26,578	48.8	656	1.2	735	1.4	54,408
Internet	136,273	81.3	30,118	18.0	929	0.6	313	0.2	167,633

Notes: This table contains ACS and IRS data that was unduplicated and then PIK- and MAFID-linked at the person level. The linked data were then summarized to the ACS household level. It only includes records, filers, and dependents assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

** These cells were combined according to U.S. Census Bureau suppression requirements.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table B.12: Agreement between ACS *Unedited* Household Sale of Agricultural Products and IRS Household Schedule F Indicator by *Edited* Characteristics

Characteristics	ACS Yes, IRS No Count	ACS Yes, IRS No Percent	ACS No, IRS No Count	ACS No, IRS No Percent	ACS Yes, IRS Yes Count	ACS Yes, IRS Yes Percent	ACS No, IRS Yes Count	ACS No, IRS Yes Percent	TOTAL Count
TOTAL	12,101	4.1	256,175	85.8	17,440	5.8	12,780	4.3	298,496
Age									
Less than 15 years or 15 to 64**	7,720	3.6	188,222	86.7	11,952	5.5	9,091	4.2	216,985
65 and older	4,381	5.4	67,953	83.4	5,488	6.7	3,689	4.5	81,511
Sex									
Male	7,060	4.4	135,613	83.9	11,558	7.2	7,351	4.5	161,582
Female	5,041	3.7	120,562	88.1	5,882	4.3	5,429	4.0	136,914
Race									
White alone	11,230	4.0	236,736	85.3	17,107	6.2	12,404	4.5	277,477
Black or African American alone	458	4.0	10,722	94.5	44	0.4	126	1.1	11,350
American Indian and Alaska Native alone	49	2.3	1,862	88.3	97	4.6	100	4.7	2,108
Asian alone	143	5.0	2,671	92.7	41	1.4	25	0.9	2,880
Native Hawaiian and Other Pacific Islander alone or Some other race alone**	95	5.5	1568	91.4	20	1.2	32	1.9	1,715
Two or more races	126	4.2	2,616	88.2	131	4.4	93	3.1	2,966
Ethnicity									
Hispanic or Latino	394	4.6	7,827	91.4	169	2.0	177	2.1	8,567
Not Hispanic or Latino	11,707	4.0	248,348	85.7	17,271	6.0	12,603	4.3	289,929
Educational Attainment (Population 25 and Older)									
Not a high school graduate	944	5.0	15,857	84.3	1,174	6.2	841	4.5	18,816
High school graduate (includes equivalency)	3,618	4.2	73,205	84.2	5,781	6.7	4,288	4.9	86,892
Some college	2,639	4.0	56,183	86.0	3,750	5.7	2,729	4.2	65,301
Associate's degree	1,174	3.8	26,777	85.7	1,907	6.1	1,376	4.4	31,234
Bachelor's degree	2,195	4.0	47,650	86.2	3,184	5.8	2,239	4.1	55,268
Graduate or professional degree	1,358	3.7	33,099	89.2	1,526	4.1	1,132	3.0	37,115

Table B.12: Agreement between ACS *Unedited* Household Sale of Agricultural Products and IRS Household Schedule F Indicator by *Edited* Characteristics, Continued

Characteristics	ACS Yes, IRS No Count	ACS Yes, IRS No Percent	ACS No, IRS No Count	ACS No, IRS No Percent	ACS Yes, IRS Yes Count	ACS Yes, IRS Yes Percent	ACS No, IRS Yes Count	ACS No, IRS Yes Percent	TOTAL Count
Citizenship									
U.S. citizen	11,979	4.1	253,554	85.8	17,407	5.9	12,741	4.3	295,681
Not a U.S. citizen	122	4.3	2,621	93.1	33	1.2	39	1.4	2,815
Marital Status									
Married or previously married	11,067	4.0	236,663	85.6	16,451	6.0	12,188	4.4	276,369
Never married	1,034	4.7	19,512	88.2	989	4.5	592	2.7	22,127
Employment Status (Population 16 and Older)									
Employed	7,076	3.7	163,274	85.9	11,564	6.1	8,127	4.3	190,041
Unemployed	209	3.4	5,584	91.2	168	2.7	163	2.7	6,124
Not in labor force	4,810	4.7	87,259	85.3	5,706	5.6	4,487	4.4	102,262
Metropolitan/Micropolitan Area									
Metropolitan area	6,131	3.5	160,190	90.2	6,478	3.6	4,853	2.7	177,652
Micropolitan area	2,755	4.7	49,103	82.9	4,266	7.2	3,122	5.3	59,246
Not in a metropolitan/Micropolitan area	3,215	5.2	46,882	76.1	6,696	10.9	4,805	7.8	61,598
Region									
Northeast	1,609	2.6	56,882	93.5	1,501	2.5	857	1.4	60,849
Midwest	6,254	5.7	87,127	79.3	10,357	9.4	6,150	5.6	109,888
South	2,770	2.8	87,387	88.4	3,917	4.0	4,788	4.8	98,862
West	1,468	5.1	24,779	85.7	1,665	5.8	985	3.4	28,897
Mode									
Mail	5,461	4.9	92,379	83.3	8,147	7.3	4,957	4.5	110,944
CATI	767	3.1	20,873	84.0	1,705	6.9	1,495	6.0	24,840
CAPI	665	2.5	22,740	86.0	1,280	4.8	1,754	6.6	26,439
Internet	5,208	3.8	120,183	88.2	6,308	4.6	4,574	3.4	136,273

Notes: This table contains ACS and IRS data that was unduplicated and then PIK- and MAFID-linked at the person level. The linked data were then summarized to the ACS household level. It only includes records, filers, and dependents assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

** These cells were combined according to U.S. Census Bureau suppression requirements.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table B.13: Presence of ACS *Edited* Household Sale of Agricultural Products and IRS Household Schedule F Indicator by *Edited* Characteristics

Characteristics	Response and Linked Count	Response and Linked Percent	Response and Not Linked Count	Response and Not Linked Percent	TOTAL Count
TOTAL	308,208	72.3	118,311	27.7	426,519
Age					
Less than 15 years	26	56.5	20	43.5	46
15 to 64	222,441	76.4	68,767	23.6	291,208
65 and older	85,741	63.4	49,524	36.6	135,265
Sex					
Male	167,029	73.3	60,770	26.7	227,799
Female	141,179	71.0	57,541	29.0	198,720
Race					
White alone	286,000	73.2	104,661	26.8	390,661
Black or African American alone	12,133	63.7	6,901	36.3	19,034
American Indian and Alaska Native alone	2,181	41.2	3,109	58.8	5,290
Asian alone	2,998	78.8	808	21.2	3,806
Native Hawaiian and Other Pacific Islander alone	79	48.8	83	51.2	162
Some other race alone	1,745	68.5	802	31.5	2,547
Two or more races	3,072	61.2	1,947	38.8	5,019
Ethnicity					
Hispanic or Latino	9,066	67.5	4,357	32.5	13,423
Not Hispanic or Latino	299,142	72.4	113,954	27.6	413,096
Educational Attainment (Population 25 and Older)					
Not a high school graduate	20,180	53.0	17,888	47.0	38,068
High school graduate (includes equivalency)	90,781	70.2	38,607	29.8	129,388
Some college	67,240	72.7	25,240	27.3	92,480
Associate's degree	31,886	77.7	9,165	22.3	41,051
Bachelor's degree	56,306	78.7	15,242	21.3	71,548
Graduate or professional degree	37,771	79.2	9,894	20.8	47,665

Table B.13: Presence of ACS *Edited* Household Sale of Agricultural Products and IRS Household Schedule F Indicator by *Edited* Characteristics, Continued

Characteristics	Response and Linked Count	Response and Linked Percent	Response and Not Linked Count	Response and Not Linked Percent	TOTAL Count
Citizenship					
U.S. citizen	305,246	72.3	117,062	27.7	422,308
Not a U.S. citizen	2,962	70.3	1,249	29.7	4,211
Marital Status					
Married or previously married	285,116	72.9	105,793	27.1	390,909
Never married	23,092	64.8	12,518	35.2	35,610
Employment Status (Population 16 and Older)					
Employed	194,972	79.7	49,652	20.3	244,624
Unemployed	6,315	66.2	3,227	33.8	9,542
Not in labor force	106,846	62.0	65,389	38.0	172,235
Metropolitan/Micropolitan Area					
Metropolitan area	183,102	76.7	55,559	23.3	238,661
Micropolitan area	61,249	69.7	26,664	30.3	87,913
Not in a metropolitan/Micropolitan area	63,857	63.9	36,088	36.1	99,945
Region					
Northeast	62,423	77.1	18,489	22.9	80,912
Midwest	113,936	78.1	31,897	21.9	145,833
South	102,046	67.3	49,614	32.7	151,660
West	29,803	61.9	18,311	38.1	48,114
Mode					
Mail	118,805	72.7	44,663	27.3	163,468
CATI	25,106	61.2	15,904	38.8	41,010
CAPI	27,095	49.8	27,313	50.2	54,408
Internet	137,202	81.8	30,431	18.2	167,633

Notes: This table contains ACS and IRS data that was unduplicated and then PIK- and MAFID-linked at the person level. The linked data were then summarized to the ACS household level. It only includes records, filers, and dependents assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns

Table B.14: Agreement between ACS *Edited* Household Sale of Agricultural Products and IRS Household Schedule F Indicator by *Edited* Characteristics

Characteristics	ACS Yes, IRS No Count	ACS Yes, IRS No Percent	ACS No, IRS No Count	ACS No, IRS No Percent	ACS Yes, IRS Yes Count	ACS Yes, IRS Yes Percent	ACS No, IRS Yes Count	ACS No, IRS Yes Percent	TOTAL Count
TOTAL	13,033	4.2	263,481	85.5	17,882	5.8	13,812	4.5	308,208
Age									
Less than 15 years or 15 to 64**	8,210	3.7	192,393	86.5	12,206	5.5	9,658	4.3	222,467
65 and older	4,823	5.6	71,088	82.9	5,676	6.6	4,154	4.8	85,741
Sex									
Male	7,580	4.5	139,515	83.5	11,848	7.1	8,086	4.8	167,029
Female	5,453	3.9	123,966	87.8	6,034	4.3	5,726	4.1	141,179
Race									
White alone	12,077	4.2	242,966	85.0	17,540	6.1	13,417	4.7	286,000
Black or African American alone	505	4.2	11,450	94.4	45	0.4	133	1.1	12,133
American Indian and Alaska Native alone	56	2.6	1,925	88.3	97	4.4	103	4.7	2,181
Asian alone	154	5.1	2,776	92.6	42	1.4	26	0.9	2,998
Native Hawaiian and Other Pacific Islander alone or Some other race alone**	106	5.8	1,660	91.0	22	1.2	36	2.0	1,824
Two or more races	135	4.4	2,704	88.0	136	4.4	97	3.2	3,072
Ethnicity									
Hispanic or Latino	441	4.9	8,261	91.1	173	1.9	191	2.1	9,066
Not Hispanic or Latino	12,592	4.2	255,220	85.3	17,709	5.9	13,621	4.6	299,142
Educational Attainment (Population 25 and Older)									
Not a high school graduate	1,078	5.3	16,909	83.8	1,220	6.0	973	4.8	20,180
High school graduate (includes equivalency)	3,993	4.4	76,058	83.8	5,979	6.6	4,751	5.2	90,781
Some college	2,845	4.2	57,645	85.7	3,841	5.7	2,909	4.3	67,240
Associate's degree	1,245	3.9	27,240	85.4	1,945	6.1	1,456	4.6	31,886
Bachelor's degree	2,257	4.0	48,471	86.1	3,230	5.7	2,348	4.2	56,306
Graduate or professional degree	1,417	3.8	33,616	89.0	1,546	4.1	1,192	3.2	37,771

Table B.14: Agreement between ACS *Edited* Household Sale of Agricultural Products and IRS Household Schedule F Indicator by *Edited* Characteristics, Continued

Characteristics	ACS Yes, IRS No Count	ACS Yes, IRS No Percent	ACS No, IRS No Count	ACS No, IRS No Percent	ACS Yes, IRS Yes Count	ACS Yes, IRS Yes Percent	ACS No, IRS Yes Count	ACS No, IRS Yes Percent	TOTAL Count
Citizenship									
U.S. citizen	12,892	4.2	260,732	85.4	17,849	5.8	13,773	4.5	305,246
Not a U.S. citizen	141	4.8	2,749	92.8	33	1.1	39	1.3	2,962
Marital Status									
Married or previously married	11,911	4.2	243,176	85.3	16,860	5.9	13,169	4.6	285,116
Never married	1,122	4.9	20,305	87.9	1,022	4.4	643	2.8	23,092
Employment Status (Population 16 and Older)									
Employed	7,520	3.9	166,959	85.6	11,814	6.1	8,679	4.5	194,972
Unemployed	232	3.7	5,737	90.8	172	2.7	174	2.8	6,315
Not in labor force	5,274	4.9	90,722	84.9	5,894	5.5	4,956	4.6	106,846
Metropolitan/Micropolitan Area									
Metropolitan area	6,576	3.6	164,652	89.9	6,605	3.6	5,269	2.9	183,102
Micropolitan area	2,960	4.8	50,547	82.5	4,373	7.1	3,369	5.5	61,249
Not in a metropolitan/Micropolitan area	3,497	5.5	48,282	75.6	6,904	10.8	5,174	8.1	63,857
Region									
Northeast	1,705	2.7	58,282	93.4	1,511	2.4	925	1.5	62,423
Midwest	6,803	6.0	89,687	78.7	10,680	9.4	6,766	5.9	113,936
South	2,962	2.9	90,014	88.2	3,999	3.9	5,071	5.0	102,046
West	1,563	5.2	25,498	85.6	1,692	5.7	1,050	3.5	29,803
Mode									
Mail	6,193	5.2	98,314	82.8	8,487	7.1	5,811	4.9	118,805
CATI	800	3.2	21,072	83.9	1,714	6.8	1,520	6.1	25,106
CAPI	737	2.7	23,253	85.8	1,307	4.8	1,798	6.6	27,095
Internet	5,303	3.9	120,842	88.1	6,374	4.6	4,683	3.4	137,202

Notes: This table contains ACS and IRS data that was unduplicated and then PIK- and MAFID-linked at the person level. The linked data were then summarized to the ACS household level. It only includes records, filers, and dependents assigned both a PIK and a MAFID, and only includes householders in in-scope housing units for housing question 5.

** These cells were combined according to U.S. Census Bureau suppression requirements.

Source: U.S. Census Bureau, 2014 American Community Survey and Internal Revenue Service, 2014 tax year 1040 individual income tax returns