COMPARISON OF DATA ON COMPUTER AND INTERNET USE IN THE AMERICAN COMMUNITY SURVEY AND THE CURRENT POPULATION SURVEY: 2013

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INTRODUCTION

This report compares national-level data about computer use, Internet access and types of Internet subscriptions from the 2013 American Community Survey (ACS) to the 2013 Current Population Survey (CPS). The Current Population Survey has collected data about computer use since 1984 and about Internet access since 1997. The American Community Survey began collecting data about computer and Internet access in 2013.[1] These two surveys sometimes provide differing estimates of the prevalence of computer ownership and Internet use in the U.S. We highlight differences in both the number and percentage of households and people with these characteristics. Second, we discuss possible problems in collecting accurate data on mobile broadband use. Because changes were made to the ACS questionnaire beginning in 2016, the analysis here only applies to ACS data collected in 2013 to 2015. Data about computer and Internet use are not collected for those living in group quarters such as prisons, dormitories, and nursing homes. Therefore, this analysis only includes those living in households.

METHODOLOGY

Overview

The tables in this report are based on two of the most commonly used data products from the yearly release of the ACS and one additional table highlighting mobile broadband specifically produced for this analysis. Comparisons consist of both frequency distributions and percentage point differences. Tables display the survey estimates, the margins of errors from which the 90-

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[1] For more information on the Current Population Survey, see http://www.census.gov/programs-surveys/cps.html. For more information on the American Community Survey, see http://www.census.gov/programs-surveys/acs/.

percent confidence intervals can be derived, and the difference between the estimates. An asterisk (*) denotes statistically significant differences at the 90-percent level.

Sample Frame and Mode of Data Collection

The 2013 ACS surveyed a national sample of housing units, both occupied and vacant, and group quarters. An initial sample of 3.5 million addresses resulted in 2.2 million completed interviews among housing units.[2] The sample is designed to provide estimates of housing and socio-economic characteristics for the nation, all states, and even small geographies such as census tracts or block groups. Data were collected continuously throughout the year using a combination of mail-out/mail-back questionnaires, Computer-Assisted Telephone Interviewing (CATI), Computer- Assisted Personal Interviewing (CAPI), and questionnaires completed on the Internet. This analysis only includes those living in households since data about computer and Internet use are not collected for those living in group quarters.

The 2013 CPS contained interviews from about 60,000 households per month. The computer and Internet use data were collected as part of the July Computer and Internet Use Supplement. All data were collected using CATI and CAPI.

Military personnel are included in the ACS, but are not part of the household population unless they are living off base. The universe for the CPS is the civilian non-institutionalized population,

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[2] For information on the ACS sample design and other topics, visit https://www.census.gov/programs-surveys/acs/technical-documentation/code-lists.html.

which means that armed forces personnel are not included, even if they are living off base. Students living in college dorms are not included in the ACS household population, since dorms are group quarters. By contrast, the CPS does include students living in dorms, because they are considered to still be part of their parents' households, and are enumerated as such.

Residence Rules

The ACS and the CPS Computer and Internet Use Supplement employ different residence rules to determine which household members are eligible for interview; the ACS uses the concept of current residence, while the CPS considers usual residence. This difference may contribute to variation in the universes on which social characteristics depend.

The ACS interviews everyone in the housing unit on the day of interview who is living or staying there for more than two months, regardless of whether or not they maintain a usual residence elsewhere. If a person who usually lives in the housing unit is away for more than two months at the time of the survey contact, he or she is not considered to be a current resident of that unit. This rule recognizes that people can have more than one place where they live or stay over the course of a year, and these people affect estimates of population characteristics for some areas.

The CPS interviews all those staying in the housing unit at the time of the interview who consider the housing unit as their usual residence or who have no usual residence elsewhere. In addition, the CPS includes temporarily absent individuals who consider the housing

unit as their usual residence.

Number of Households

The estimate of the total number of households in the United States is higher in the CPS than in the ACS. A recent paper (Cresce, Cheng, and Grieves, 2013) noted some factors that may contribute to the differences in estimates in the ACS and CPS Annual Social and Economic Supplement (ASEC). These differences would also be relevant to the CPS Computer and Internet Use Supplement. First, the estimates for the CPS are based on population control-based weights whereas the ACS is based on both housing unit and population estimates. Second, the sampling frames for the surveys differ. The CPS sampling frame prior to 2014 uses addresses based on Census 2000. The ACS, however, uses the master address file (MAF) based on the 2010 Census.

Comparison of Question Wording and Answer Categories

This report uses data from the 2013 CPS and 2013 ACS. Data about computer and Internet use are not collected every year in the CPS and the questions often change. The ACS has collected data annually since 2013. The questions have remained the same from 2013 to 2015 and changed in 2016.

Some of the questions used to collect computer and Internet use data are almost identical between the 2013 ACS and the 2013 CPS, while others are very different. (See Appendix A for the full list of questions for both surveys.) We will begin the discussion with the questions that are different. In the ACS, respondents are asked one question about computer use – if anyone in the household owns or uses any of the following types of computers: desktop/laptop,

smartphone/handheld, and some other computer. Respondents select "Yes" or "No" to each of the three answer categories.

The CPS question on computers lists desktop/laptop and tablet together in the body of the question with a single "Yes" or "No" response available. A separate CPS question asks about using a "cellular phone or smartphone." The CPS follows this with a series of questions about how the cell phone is used. In order to identify "smartphone" users in the CPS, this research selected respondents who had "cellular phone or smartphone" and used it in for at least Internet-related function. (See Appendix A for a full list of Internet-related functions as well as the specific question about cell phones.)

While the CPS does list "tablet" as a type of computer, the ACS does not. However, respondents in the ACS who selected the "some other computer" check box have often included tablets in this category by writing in "tablet" in the corresponding write-in field.

The questions concerning connecting to the Internet are also slightly different between the two surveys. The ACS asks respondents about "access" to the Internet and has three categories that include for access with a subscription, access without a subscription, or no access at all. The CPS asks about "use" of the Internet from home and is a Yes/No question that does not refer specifically to subscriptions. For this reason, the "access without a subscription" category in the ACS has no counterpart in the CPS data.

In terms of Internet subscriptions, the ACS asks what type of services (cable, DSL, fiber, etc.) any of the household members subscribe to while the CPS asks about the services used to access the Internet. However, the types of services listed as choices are identical.

Although some of the variables and categories in the 2013 CPS and ACS are directly comparable, other variables from the CPS needed to be recoded in order to create categories used in the tables for this report. Appendix B provides detailed information about how these variables were used to define categories in these tables.

COMPARISON OF ACS AND CPS DATA ON COMPUTER AND INTERNET USE

Household-Level Data: Presence and Types of Internet Subscriptions

Table 1 shows the proportion of households with or without an Internet subscription and subscription types. Although the number of households with an Internet subscription was greater in the CPS, the percentage of total households was not statistically different in the CPS (74.2 percent) compared to the ACS (74.4 percent).[3] By contrast, the percentage of households with no Internet access estimated from the CPS sample was higher than that estimated from the ACS. This could be due in part to the fact that the ACS includes a category for respondents to report Internet access without a subscription, which is not a choice in CPS. This category could capture cases where respondents have Wi-Fi offered through their apartment complex, or town, or free Internet service a university may include for its students. Some of the respondents in the ACS

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[3] Data on the number of households in each category are provided Appendix C.

who selected "Internet access without a subscription" may have chosen "No Internet access" in the CPS.

ACS and CPS differed in their estimate of mobile broadband. Adding up the various categories that include mobile broadband, 33 percent of ACS households and 19 percent of CPS households had a mobile broadband subscription.[4] In addition, the percentage of households that reported each type of subscription along with mobile broadband was statistically lower for CPS. The largest difference – about 9 percentage points – was for households with "cable modem with mobile broadband" in the CPS (5.8 percent) versus the ACS (14.6 percent). Other categories combined with mobile broadband such as DSL, fiber-optic, and satellite had smaller statistically significant differences ranging from 0.5 percentage points to 3.1 percentage points. By contrast, the CPS had a higher proportion in the category "mobile broadband alone or with dialup" than did the ACS.

Although we do not have conclusive evidence on this point, we hypothesize that two factors are at play in the difference in mobile broadband reporting in the two surveys. First, collection of the CPS relied more heavily on telephone interviews than the ACS. In the ACS, households interviewed by telephone were less likely than other households to report having mobile

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[4] The estimate of total mobile broadband use is the sum of "DSL with mobile broadband," cable modem with mobile broadband," "fiber-optic with mobile broadband," "satellite Internet service with mobile broadband," "two or more fixed broadband types, or other with mobile broadband," and "mobile broadband alone or with dialup."

broadband (see Table 3). This was true of households that possessed handheld devices and no other computer, in addition to all households.

Second, there may be confusion about the mobile broadband category in both surveys, evidenced by the fact that, of people who had smartphones or other handheld devices, only a small proportion reported having a mobile broadband connection. In the 2014 ACS, for example, less than half of households having a handheld device reported having a mobile broadband connection. Also, cognitive testing of the Internet questions for the 2016 Content Test showed that confusion among respondents was common. Some people confused "mobile broadband" with "wifi," and many were confused by the term "broadband" in all contexts, leading to many respondents reporting they did not have mobile broadband subscriptions, when, in fact, they did (Weststat Corporation 2014, 2015). With this degree of confusion, small differences in administration might make a large difference.

Another notable difference between the CPS and ACS estimates was in the percentage with two or more fixed broadband types. This also likely arises because of respondent confusion. A separate cognitive testing exercise involving possible future wording changes showed that some respondents chose more than one type of Internet subscription due to confusion as to which type they had (Westat Corporation 2016).

Person-Level Data: Age by Presence of a Computer and Presence and Types of Internet Subscriptions

Table 2 focuses on the person level, and factors in age and presence of a computer in addition to access to the Internet. Table 2a shows estimates for computers and Internet subscriptions. Similar to the household-level results, most categories were statistically different between the two surveys.

The table highlights the proportion with computers and Internet subscriptions by age group, as a percentage of the total population 18 years and over.   People between 18 and 64 with a computer made up 74 percent of the 18 and over population in ACS, and 71 percent in CPS. People 65 and over with a computer made up another 13 percent of the total 18 and over population in ACS and 12 percent in CPS. . For each age category, the estimate of percent with a computer is higher in the ACS, while the percent with no computer is higher in the CPS. This could be influenced by various factors. As previously discussed, differences in question construction between the ACS and the CPS may influence totals. In particular, "smartphone" ownership is determined from a single question in the ACS, but from multiple questions in the CPS. The lack of a prompt for "tablet" ownership in the ACS may affect the count in that survey. The availability of a "some other type of computer" category in the ACS might also have an effect. In addition, the CPS question on computers lists examples of types of tablets. It could be possible that a respondent could focus on the last part of the question listing the brands of tablets and select "No" for the entire question because they do not use these specific brands, even though they may use another type of computer.

Measuring Mobile Broadband Subscriptions

As previously discussed, the ACS data show higher levels of subscriptions to mobile broadband than CPS. Figure 1 illustrates this further by showing of mobile broadband among households in CPS and ACS from 2010 to 2015 (See also File 2016). While there is evidence of an upward trend in both surveys, there is a 14 percentage point difference in estimates for 2013. Furthermore, there are reasons to believe that even ACS estimates are below actual levels.

Table 3 shows Internet access and subscriptions by types of devices reported by households in ACS. Overall 33 percent of households had a mobile broadband subscription. Only 30 percent of households whose only computing device was a "handheld computer, smart mobile phone, or other handheld wireless computer" reported having a mobile broadband subscription. Those who had a handheld device along with another type of computer (such as a desktop or laptop computer) reported a higher level, with just under half reporting a mobile broadband subscription.

It is quite possible that some households with handheld devices lack subscriptions for their devices. Some use local wifi connections to access the Internet, and some people with smartphones may subscribe to regular cell phone service without a data plan. However, it is also possible that respondents are misreporting due to confusion about the questions being asked. In

fact, cognitive testing of these questions reveals that respondents are not familiar with the term "mobile broadband," and can get confused about how to answer (Westat Corporation 2015).

Answer patterns among people with a handheld computer and no other type of computer (first column of Table 3) suggest that respondents may be confused, simply because the proportion with broadband subscriptions is lower than might be expected. Despite their ownership of a handheld computer, many of these households reported they did not have any Internet subscription at all, with only 45 percent saying they did have a subscription. Even when they did have a subscription, they often said their subscription was other than a mobile broadband subscription (15 percent of the 45 percent). Even among handheld-only households who responded to the survey over the Internet (MODE=Internet), only 29 percent said they had a mobile broadband subscription. None of this is direct evidence that confusion over question wording is the primary problem. However, we believe that it is unwise to take these numbers at face value.

The Census Bureau has updated question wording in the 2016 version of the ACS questionnaire. It is also undertaking a formal test of the effects of this change in wording as part of the 2016 ACS Content Test. The results will be available in 2017.

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Table 1. Presence and Types of Internet Subscriptions in Households						
Universe: Households						
	ACS		CPS			
	Estimate[1]	Margin of Error	Estimate[1]	Margin of Error	CPS minus ACS	Statistical Significance
Total:	116,291,033	-	122,871,850	-	6,580,817	
With an Internet subscription:	74.4	+/-0.1	74.2	+/-0.3	-0.2	
Dial-up alone	1.0	+/-0.0	1.0	+/-0.1	-0.1	*
DSL:	15.5	+/-0.1	16.5	+/-0.2	1.0	*
With mobile broadband	5.4	+/-0.0	2.3	+/-0.1	-3.1	*
Without mobile broadband	10.1	+/-0.0	14.2	+/-0.2	4.2	*
Cable modem:	36.1	+/-0.1	37.3	+/-0.3	1.1	*
With mobile broadband	14.6	+/-0.1	5.8	+/-0.2	-8.8	*
Without mobile broadband	21.5	+/-0.1	31.4	+/-0.3	9.9	*
Fiber-optic:	5.1	+/-0.0	5.3	+/-0.1	0.1	
With mobile broadband	2.3	+/-0.0	0.9	+/-0.1	-1.4	*
Without mobile broadband	2.8	+/-0.0	4.3	+/-0.1	1.5	*
Satellite Internet service:	2.4	+/-0.0	2.0	+/-0.1	-0.5	*
With mobile broadband	0.8	+/-0.0	0.3	+/-0.0	-0.5	*
Without mobile broadband	1.6	+/-0.0	1.6	+/-0.1	0.0	
Two or more fixed broadband types, or other:	8.8	+/-0.0	4.7	+/-0.1	-4.1	*
With mobile broadband	4.5	+/-0.0	1.8	+/-0.1	-2.7	*
Without mobile broadband	4.3	+/-0.0	3.0	+/-0.1	-1.3	*
Mobile broadband alone or with dialup	5.4	+/-0.0	7.5	+/-0.2	2.1	*
Internet access without a subscription	4.2	+/-0.0	NA	NA	NA	NA
No Internet access	21.4	+/-0.1	25.8	+/-0.3	4.4	*

1. The first row (total row) shows the estimate for the total number of households. All subsequent lines show the percentage with the characteristic of that row using the total row as the denominator. For example, 74.4 percent of all ACS households have an Internet subscription, 1.0 percent of all ACS households have a dial-up alone, etc.

NA = Not applicable.

An asterisk (*) denotes statistically significant differences between ACS and CPS at the 90 percent confidence level.

The 90 percent confidence level is also used for the margin of error.

Source: U.S. Census Bureau, American Community Survey 1-year estimates and Current Population Survey, 2013

Table 2. Age by Presence of a Computer and Presence and Types of Internet Subscriptions in Household

Universe: Population 18 years and over in households

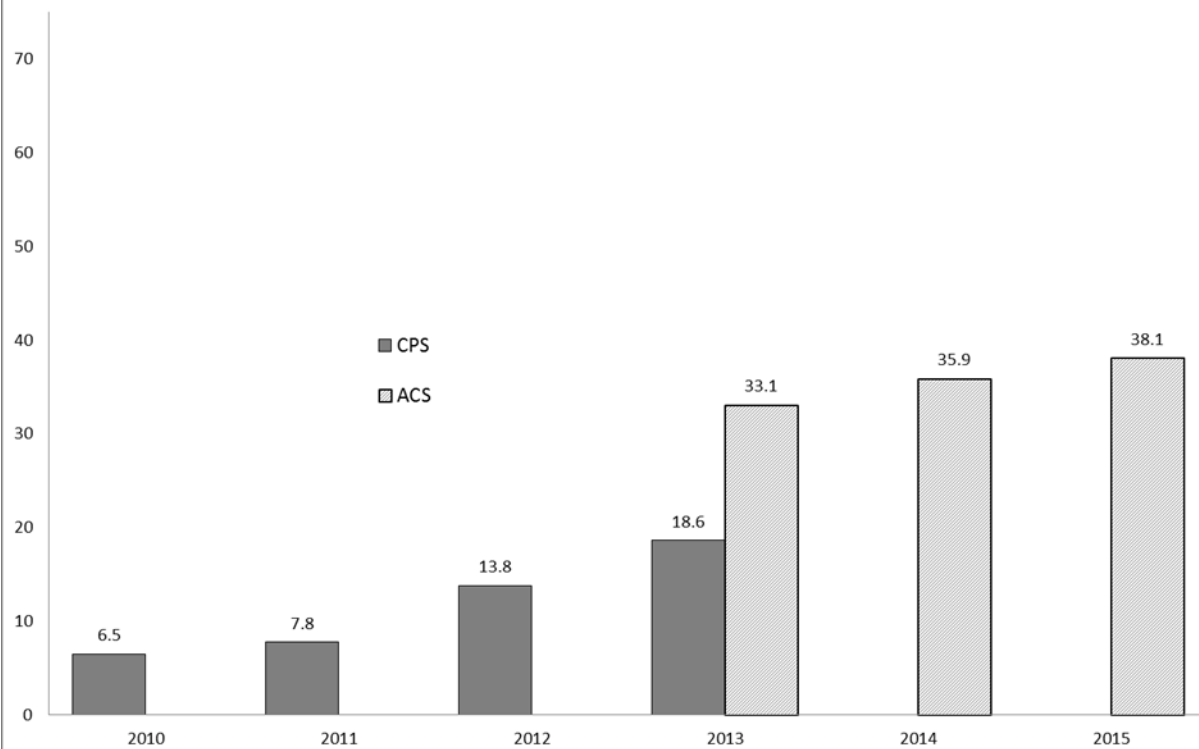|	ACS		CPS		CPS minus ACS	Statistical Significance
	Estimate[1]	Margin of Error	Estimate[1]	Margin of Error		
Total:	234,728,380	+/-31,733	236,963,122	+/- 329,592	2,234,742	
18 to 64 years:	81.6	+/-0.0	81.7	+/-0.2	0.1	
Has a computer:	74.1	+/-0.0	70.6	+/-0.2	-3.5	*
With dial-up Internet subscription alone	0.6	+/-0.0	0.6	+/-0.0	0.0	
With a broadband Internet subscription	65.5	+/-0.1	64.7	+/-0.2	-0.8	*
Without an Internet subscription	7.9	+/-0.0	5.2	+/-0.1	-2.7	*
No computer	7.5	+/-0.0	11.1	+/-0.1	3.6	*
65 years and over:	18.4	+/-0.0	18.3	+/-0.2	-0.1	
Has a computer:	13.1	+/-0.0	11.6	+/-0.1	-1.5	*
With dial-up Internet subscription alone	0.3	+/-0.0	0.2	+/-0.0	-0.1	*
With a broadband Internet subscription	11.3	+/-0.0	10.6	+/-0.1	-0.7	*
Without an Internet subscription	1.4	+/-0.0	0.8	+/-0.0	-0.6	*
No computer	5.3	+/-0.0	6.7	+/-0.1	1.4	*

1. The first row (total row) shows the estimate for the number of people 18 years and over. All subsequent lines show the percentage with the characteristic of that row using the total row as the denominator. For example, 81.6 percent of total ACS respondents 18 and over are 18 to 64 years old, 74.1 percent of ACS respondents 18 and over are 18 to 64 years old and have a computer, etc.

An asterisk (*) denotes statistically significant differences between ACS and CPS at the 90 percent confidence level.

The 90 percent confidence level is also used for the margin of error.

Source: U.S. Census Bureau, American Community Survey 1-year estimates and Current Population Survey, 2013

Figure 1. Percentage of Households with Mobile Broadband Subscriptions, 2010-2015

Source: U.S. Census Bureau, American Community Survey 1-year estimates, 2013-2015 and Current Population Survey, 2010-2013

Table 3. Households with Internet Access and Mobile Broadband by Handheld Device Ownership

Universe: Households

	All Households		Households with handheld computer only		Households with handheld computer and other computer		Households with other computer but no handheld computer		Households with no computer	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total	116,291		5,804		68,194		23,429		18,863	
Access type										
With subscription	74.40	0.09	44.79	0.37	92.99	0.05	85.10	0.12	3.02	0.06
Without sub	4.18	0.03	16.85	0.28	3.74	0.03	4.67	0.07	1.29	0.04
No access	21.42	0.07	38.36	0.34	3.27	0.03	10.23	0.10	95.69	0.06
Mobile broadband										
Has mobile broadband	33.08	0.08	30.21	0.08	49.63	0.10	11.68	0.10	0.69	0.03
Has mobile broadband by mode										
MODE=Mail	27.22	0.10	23.28	0.43	50.17	0.17	13.23	0.15	0.80	0.04
MODE=CATI	24.05	0.20	21.29	1.13	47.93	0.38	10.29	0.24	0.30	0.05
MODE=CAPI	27.82	0.14	33.54	0.48	43.52	0.23	9.05	0.21	0.59	0.04
MODE=Internet	45.54	0.10	28.82	0.91	54.18	0.12	13.32	0.14	1.64	0.19

APPENDIX A.

Question Wording and Answer Categories

The 2013 American Community Survey asked the computer and Internet use items as follows in the paper questionnaire. Variable names are in bold capital letters and brackets [**VARIABLE**], and response values are indicated in bold and parentheses:

Question 9. At this house, apartment, or mobile home – do you or any member of this household own or use any of the following computers?

> EXCLUDE GPS devices, digital music players, and devices with only limited computing capabilities, for example: household appliances.

		Yes (1)	No (2)
a.	Desktop, laptop, netbook, or notebook computer [**LAPTOP**]	☐	☐
b.	Handheld computer, smart mobile phone, or other handheld wireless computer [**HANDHELD**]	☐	☐
c.	Some other type of computer [**COMPOTHX**] Specify ----------->	☐	☐

Question 10. At this house, apartment or mobile home – do you or any member of this household access the Internet? [**ACCESS**]

☐ Yes, with a subscription to an Internet service (**1**)

☐ Yes, without a subscription to an Internet service (**2**)

☐ No Internet access at this house, apartment, or mobile home (**3**)

Question 11. At this house, apartment, or mobile home – do you or any member of this household subscribe to the Internet using

		Yes (1)	No (2)
a.	Dial-up service? [**DIALUP**]	☐	☐
b.	DSL service? [**DSL**]	☐	☐
c.	Cable modem service? [**MODEM**]	☐	☐
d.	Fiber-optic service [**FIBEROP**]	☐	☐
e.	Mobile broadband plan for a computer or a cell phone? [**BROADBND**]	☐	☐
f.	Satellite Internet service? [**SATELLITE**]	☐	☐

g. Some other service [**OTHSVCEX**]   ☐   ☐
Specify service ------->

Selected items from the 2013 CPS July Computer and Internet Use Supplement used specifically for this analysis are as follows. Variable names are listed first in bold and all capital letters. Like the ACS, an answer of "Yes" is indicated with a value of 1 and "No" has a value of 2.

HENET2 Does anyone in this household use a desktop, laptop, netbook or notebook computer, or a tablet computer such as an Apple iPad or Samsung Galaxy, at home?
(1)Yes
(2) No

The following questions are used to construct the concept of a smartphone. Respondents had to answer "Yes" to using a cell phone and "Yes" to using it for at least one of the following activities such as browsing the web, GPS navigation, etc. to be considered as using a smartphone.

HESCI1 Does anyone in this household use a cellular phone or smartphone?
(1)Yes
(2) No

HESC2A4 When members of this household use a cellular phone or smartphone, do they...Browse the web?
(1)Yes
(2) No

HESC2A5 When members of this household use a cellular phone or smartphone, do they…Email?
(1)Yes
(2) No

HESC2A6 When members of this household use a cellular phone or smartphone, do they...Use maps or use GPS navigation?
(1)Yes
(2) No

HESC2A7 When members of this household use a cellular phone or smartphone, do they...Play Games?
(1)Yes
(2) No

HESC2A8 When members of this household use a cellular phone or smartphone, do they...Access social network sites (such as Facebook or Twitter)?
(1)Yes
(2) No

HESC2A9 When members of this household use a cellular phone of smartphone, do they…Download "apps" or applications?
(1)Yes
(2) No

HESC2A10 When members of this household use a cellular phone or smartphone, do they...Listen to music or other audio?
(1)Yes
(2) No

HESC2A11 When members of this household use a cellular phone or smartphone, do they...Watch videos?
(1)Yes
(2) No

These questions were used to determine Internet access as well as the types of services used at home. They are similar to the questions used in ACS.

HENET3 People can connect to the Internet from home in multiple ways, including using mobile devices such as laptops or smartphones, as well as on desktop computers. Does anyone in this household use the Internet from home?
(1)Yes
(2) No

HENET41 At home, does anyone in this household access the Internet using...Dial-up service?
(1)Yes
(2) No

HENET42 At home does anyone in this household access the Internet using...DSL service?
(1)Yes
(2) No

HENET43 At home, does anyone in this household access the Internet using...Cable modem service?
(1)Yes
(2) No

HENET44 At home, does anyone in this household access the Internet using...Fiber-optic service?
(1)Yes

(2) No

HENET45 At home, does anyone in this household access the Internet using...Mobile broadband plan (for a computer, cell phone, smartphone, or tablet)?
(1)Yes
(2) No

HENET46 At home, does anyone in this household access the Internet using...Satellite service?
(1)Yes
(2) No

HENET47 At home, does anyone in this household access the Internet using...Some other service?
(1)Yes
(2) No

APPENDIX B.

Variables for Table 1a/1b

Definitions for key categories in Tables 1a. and 1b.

Category	ACS variables	CPS variables
With an Internet subscription	ACCESS=1	HENET3=1
Internet access without a subscription	ACCESS=2	N/A
No Internet access	ACCESS=3	HENET3=2

Variables for Table 2a/2b
Definitions for key categories used in Tables 2a. and 2b.

Category	ACS variables	CPS variables
Has a computer	LAPTOP=1 or HANDHELD=1 or COMPOTHX=1	HENET2=1 or (HESCI1=1 and (HESC2A4=1 or HESC2A5=1or HESC2A6=1 or HESC2A7=1 or HESC2A8=1 or HESC2A9=1 or HESC2A10=1 or HESC2A11=1))
With a broadband Internet subscription	DSL=1 or MODEM=1 or FIBEROP=1 or BROADBND=1 or SATELLITE=1 or OTHSVCEX=1	HENET42=1 or HENET43=1 or HENET44=1 or HENET45=1 or HENET46=1 or HENET47=1
Without an Internet subscription	ACCESS=2 or 3	HENET3=2
No computer	LAPTOP=2 and HANDHELD=2 and COMPOTHX=2	HENET2=2 and ((HESCI1=1 and HESC2A4=2 and HESC2A5=2 and HESC2A6=2 and HESC2A7=2 and HESC2A8=2 and HESC2A9=2 and HESC2A10=2 and HESC2A11=2) or HESCI1=2)

APPENDIX C.

Housing and population counts differ between ACS and CPS due to a number of factors, including weighting controls, sampling frame and data collection procedures. The following information on differences in counts is provided for information only.

Appendix C: Table 1. Presence and Types of Internet Subscriptions in Household						
Universe: Households						
	ACS		CPS			
	Estimate	Margin of Error	Estimate	Margin of Error	CPS minus ACS	Statistical Significance
Total:	116,291,033	+/-141,632	122,871,850	+/- 576, 594	6,580,817	*
With an Internet subscription:	86,520,721	+/-183,600	91,111,564	+/- 548,944	4,590,843	*
Dial-up alone	1,196,955	+/-15,540	1,175,501	+/- 76,765	-21,454	
DSL:	18,020,288	+/-83,074	20,273,304	+/- 307,007	2,253,016	*
With mobile broadband	6,312,291	+/-49,272	2,803,167	+/-118,149	-3,509,124	*
Without mobile broadband	11,707,997	+/-56,877	17,470,137	+/- 286,616	5,762,140	*
Cable modem:	41,995,391	+/-110,325	45,775,602	+/- 436,701	3,780,211	*
With mobile broadband	17,019,844	+/-75,612	7,183,009	+/- 187,553	-9,836,835	*
Without mobile broadband	24,975,547	+/-73,117	38,592,592	+/- 407,472	13,617,045	*
Fiber-optic:	5,941,624	+/-41,316	6,458,071	+/- 178,086	516,447	*
With mobile broadband	2,656,220	+/-25,616	1,120,230	+/- 74,923	-1,535,990	*
Without mobile broadband	3,285,404	+/-27,976	5,337,841	+/- 162,258	2,052,437	*
Satellite Internet service:	2,838,779	+/-26,959	2,425,934	+/- 109,996	-412,845	*
With mobile broadband	971,107	+/-14,282	400,195	+/- 44,836	-570,912	*
Without mobile broadband	1,867,672	+/-19,624	2,025,739	+/- 100,596	158,067	*
Two or more fixed broadband types, or other:	10,249,045	+/-51,293	5,823,100	+/- 169,311	-4,425,945	*
With mobile broadband	5,224,782	+/-37,972	2,150,420	+/- 103,604	-3,074,362	*
Without mobile broadband	5,024,263	+/-37,118	3,672,680	+/- 135,024	-1,351,583	*
Mobile broadband alone or with dialup	6,278,639	+/-42,900	9,180,052	+/- 211,207	2,901,413	*
Internet access without a subscription	4,865,523	+/-34,605	NA	NA	NA	NA
No Internet access	24,904,789	+/-69,794	31,760,286	+/-375,164	6,855,497	*
NA = Not applicable. The Current Population Survey does not have a category for "Internet access without a subscription".						
An asterisk (*) denotes statistically significant differences between ACS and CPS at the 90 percent confidence level.						
The 90 percent confidence level is also used for the margin of error.						
Source: U.S. Census Bureau, American Community Survey 1-year estimates and Current Population Survey, 2013						

Appendix C: Table 2. Age by Presence of a Computer and Presence and Types of Internet Subscriptions in Household

Universe: Population 18 years and over in households

	ACS		CPS			
	Estimate	Margin of Error	Estimate	Margin of Error	CPS minus ACS	Statistical Significance
Total:	234,728,380	+/-31,733	236,963,122	+/- 329,592	2,234,742	*
18 to 64 years:	191,570,975	+/-26,496	193,606,043	+/-514,241	2,035,068	*
Has a computer:	173,921,320	+/-125,356	167,248,657	+/-558,520	-6,672,663	*
With dial-up Internet subscription alone	1,479,487	+/-26,760	1,503,938	+/-86,757	24,451	
With a broadband Internet subscription	153,794,564	+/-193,774	153,401,861	+/-571,274	-392,703	
Without an Internet subscription	18,647,269	+/-114,527	12,342,858	+/-243,389	-6,304,411	*
No computer	17,649,655	+/-113,677	26,357,385	+/-345,692	8,707,730	*
65 years and over:	43,157,405	+/-21,155	43,357,079	+/-427,337	199,674	
Has a computer:	30,659,588	+/-52,382	27,510,041	+/-352,318	-3,149,547	*
With dial-up Internet subscription alone	791,160	+/-16,578	494,535	+/-49,844	-296,625	*
With a broadband Internet subscription	26,616,039	+/-62,862	25,159,697	+/-338,590	-1,456,342	*
Without an Internet subscription	3,252,389	+/-27,416	1,855,809	+/-96,309	-1,396,580	*
No computer	12,497,817	+/-46,033	15,847,038	+/-273,869	3,349,221	*

An asterisk (*) denotes statistically significant differences between ACS and CPS at the 90 percent confidence level.

The 90 percent confidence level is also used for the margin of error.

Source: U.S. Census Bureau, American Community Survey 1-year estimates and Current Population Survey, 2013