Meeting 21st Century Demographic Data Needs—Implementing the American Community Survey

Report 8: Comparison of the American Community Survey Three-Year Averages and the Census Sample for a Sample of Counties and Tracts

AMERICAN COMMUNITY SURVEY

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ACKNOWLEDGEMENTS

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Executive Summary

The American Community Survey was developed to supply data users with yearly distributions of demographic, housing, and socio-economic characteristics that have historically been available only once a decade from the decennial census sample. This project compares the aggregated American Community Survey estimates collected for 1999, 2000, and 2001 to the Census 2000 sample data so that data users can evaluate the similarities and differences in the distributions. The American Community Survey data in this study are based on 36 counties. Comparisons are made for the 36 counties and at the tract level for 34 of the 36 counties.

The counties were chosen to present a cross-sectional look of the country. They were selected purposively, not randomly, to represent the diverse nature of this country. There are large counties such as Bronx, NY and small counties such as Reynolds, MO with a population of less than 10,000. The counties are racially and ethnically diverse, and are from all regions of the country.

The comparisons were made using the estimates from census profile tables. These tables give a fairly complete summary of the data collected in the American Community Survey and by the Census 2000 long form without involving the multi-dimensional distributions produced in some of the detail tables released by Census 2000 and the American Community Survey. The comparisons were made using graphical techniques and by applying statistical tests to determine statistically significant differences between the American Community Survey three-year averages and the Census 2000 estimates.

The American Community Survey data were collected monthly over a three year period. The sample sizes for the three years are roughly equivalent to the five year aggregate sample size expected from the American Community Survey when the survey is fully implemented.

There are many potential reasons for the differences observed between the American Community Survey three-year averages and the Census 2000 estimates. Although it is not always possible to quantify or attribute differences to a specific reason, possible reasons are given below.

- Minor differences exist between the American Community Survey and the Census 2000 questionnaires in wording and form layouts.
- Census 2000 uses April 1, 2000 as the reference date for all responses while the American Community Survey uses previous month.
- Census 2000 uses usual resident while the American Community Survey uses current resident for at least two months.
- Census 2000 collected data over a six month period while the American Community Survey is over a 36 month period.
- Census 2000 used a paper questionnaire for the essentially all data collected while the American Community Survey used a paper questionnaire for mail responses and computer-assisted interviewing for telephone and personal visit responses.
- Census 2000 edits started with the data from the hundred percent census items, while the American Community Survey could edit items jointly.

- The American Community Survey used permanent field staff while Census 2000 used temporary field staff.

It is not always possible to quantify the above differences. Some large differences in the American Community Survey three-year averages and the Census 2000 estimates were traced to these differences.

There are a series of national level reports (Griffin, Love, and Obenski 2003, Raglin, Leslie, and Griffin 2004 and Leslie, Raglin and Griffin 2004) which explore more fully some of the differences due to some of the items above. Two differences between the national level reports and this report are the multi-year aspect to these data and that these data are for a set of counties and their tracts. Differences in disability are traced to computer interviewing in the American Community Survey (a clear improvement over the Census 2000 and American Community Survey mail questionnaire (Stern 2003)); differences in race responses are partly traced to the use of permanent field staff where the response 'Some Other Race' is not a response category in most other surveys and a much smaller number of these responses are observed in the American Community Survey than in Census 2000.

Some differences in the estimates may be due to real change in the county over the three year period. For example, some counties may have significant population increases or declines, which would explain some of the differences observed.

The results of the 330 county level estimates that were tested show general agreement between the American Community Survey and the Census 2000 estimates. Table 1 below summarizes the county profile tables by the amount of differences between the American Community Survey and Census 2000. In order to summarize these findings we identified questions/items for which a small number (fewer than 4 of the 36 counties) ,moderate number (between 4 and 8 of the 36 counties), or large number (9 or more of the 36 counties) of counties in our comparisons were found to have statistically significant differences.

Major Findings

At the county level, the majority of American Community Survey estimates are in agreement with the Census 2000 estimates. The differences between the two sets of estimates are not statistically significantly different. For these variables, the American Community Survey data is clearly a reasonable replacement for the census sample data at the county level.

Some county level differences were found to be small, less than 1 percentage point. Many of the small differences are not meaningful differences and would not impact the use of the data. Many of these differences occur for the largest counties and are a reflection of the larger sample sizes allowing the detection of small differences. Some examples of small but statistically significant differences are the age, relationship, and household income variables.

Some county level differences have been traced to specific differences between the questionnaire, edits or other differences in carrying out the American Community Survey and Census 2000. Some of the variables that showed the largest differences with at least a partial understanding of why the differences occurred were race, disability status and school enrollment. The national level reports give a fuller accounting of these differences.

Differences at the tract level are difficult to detect because of the small sample sizes and larger variances. Although the general pattern of differences observed at the county level follow through to the tract level, the additional variability at the tract level tends to minimize the number of statistically significant differences.

Some variables have a large number of counties with statistically significant differences between the American Community Survey and Census 2000. There were 16 variables that had 9 or more counties with statistically significant differences. This includes disability status, race and number of rooms. A summary of the variables is shown in Table 1.

This document gives a complete summary of the differences between the American Community Survey three-year averages and Census 2000 estimates for the 36 counties and a selected group of variables at the tract level. This report presents these results so the interested reader can examine differences at small geographic areas and help explore the impact of the change from census sample data to the data collected from the American Community Survey.

Table 1. Summary of the Number of Counties with Statistically Significant Differences between the American Community Survey and Census 2000

Category	ACS - Census 2000 Difference	Category	ACS - Census 2000 Difference
Sex	Small	Industry	Small
Age	Moderate	Class of Worker	Moderate
Race	Large	Household Income	Moderate
Hispanic	Large	Income by Type	Large
Relationship	Large	Family Income	Small
Household By Type	Large	Poverty	Small
Housing Occupancy	Large	Units in Structure	Large
Tenure	Moderate	Year Structure Built	Large
School Enrollment	Moderate	Number of Rooms	Large
Educational Attainment	Moderate	Year Householder Moved Into Unit	Small
Marital Status	Moderate	Number of Vehicles	Moderate
Grandparents as Caregivers and Veteran Status	Small	House Heating Fuel	Moderate
Disability	Large	Selected Housing Characteristics	Large
Nativity and Place of Birth	Moderate	Occupants per Room	Large
Region of Birth of Foreign Born	Small	Housing Value	Moderate

Category	ACS - Census 2000 Difference	Category	ACS - Census 2000 Difference
Language Spoken at Home	Large	Mortgage Status and Selected Owner Costs	Small
Ancestry	Large	Selected Monthly Costs as a Percentage of Household Income	Moderate
Employment Status	Large	Gross Rent	Moderate
Commuting to Work	Moderate	Gross Rent as a Percentage of Household Income	Large
Occupation	Small		

1. Overview and Purpose

This project was developed to assist data users to better understand the American Community Survey's (ACS) estimates and to demonstrate comparability with the Census 2000 sample estimates. Here we examine the Census 2000 sample and the ACS three-year average estimates for a group of 36 counties and their census tracts except for the tracts in two counties in Texas-- Harris and Fort Bend. Harris and Fort Bend had sample sizes that are too small to produce reliable tract estimates. The ACS data were collected between 1999 and 2001 while the Census 2000 data were collected over a 6-month period in 2000.

The ACS, as carried out so far, is a sample of housing units and uses a questionnaire similar to the census long form. It is planned that the ACS will replace the census long form for 2010, freeing up census resources to work on counting the population without the need to collect the census sample data. The ACS sample for most counties in this three-year study is from a systematic sample of about 15 percent of all housing units over the three-year period. The sample for San Francisco, CA; Bronx, NY; Lake, IL; Broward, FL; and Franklin, OH was 9 percent of the housing units, and the Harris and Fort Bend, TX sample was 3 percent. The sample mimics the census long form sample with a higher sampling rate for less populous places and a lower sampling rate for large tracts not in small places.

The census long form was used to enumerate a sample of housing units and people living in group quarters. The data are available every ten years, released about two years after the data are collected. Because of the large quantity of estimates for Census 2000, the census long form estimates were released over a 2-year span beginning in the summer of 2002. Estimates are available for all states, counties, places, tracts, and block groups. Specialized data products are available for user-defined geographies. For example, the Census Bureau supplies estimates by traffic analysis zones that are used in a variety of traffic models and in other ways.

2. Introduction

The ACS three-year average distributions are compared to the census sample data for 36 counties and their tracts in all but two counties. Here we examine the closeness of the two sets of estimates to allow data users to evaluate the differences between the two data sources.

There is a series of planned or completed national level reports that address a similar set of comparisons at the national level and which will be helpful in understanding many of the differences noted here. The counties chosen for this study are a diverse mix of counties from around the country. They range from large counties such as Harris, TX; Bronx, NY; and Broward, FL to small, rural counties with fewer than 20,000 persons such as Fulton, PA; Iron, MO; and Reynolds, MO. A number of counties have very large black populations such as Petersburg, VA; Desoto, LA; and Bronx, NY; and a number of counties have large Hispanic populations such as Tulare, CA; Starr, TX; and Zapata, TX. Table 2 provides a comparison of some statistics describing the 36 ACS counties.

Table 2. Census Summary Statistics for the American Community Survey's 36 Counties

| COUNTY / STATE | Percent of County that is: | | | | | | | | Median Household Income |
	Black	Hispanic	Vacant HUs	Renter	Foreign Born	Unem ployed	Multi- unit	High School Graduate or Higher	
Reynolds County, MO	0	1	28	23	0	5	25	65	26,000
Iron County, MO	2	0	14	24	0	4	27	67	26,000
Zapata County, TX	0	85	36	18	24	5	45	53	25,000
Fulton County, PA	1	0	17	21	1	2	28	74	35,000
Vilas County, WI	0	1	60	18	2	3	10	86	34,000
Washington County, MO	0	1	15	20	1	4	42	62	27,000
De Soto Parish, LA	41	2	14	23	1	5	35	71	29,000
Lake County, MT	0	2	25	29	2	5	24	85	29,000
Upson County, GA	27	2	8	30	2	4	29	67	31,000
Petersburg City, VA	79	2	14	49	2	4	32	69	29,000
Miami County, IN	1	2	10	24	1	2	24	83	39,000
Oneida County, WI	0	1	42	20	1	3	17	86	38,000
Ohio County, WV	4	1	11	31	1	4	32	84	31,000
Starr County, TX	0	98	18	20	37	10	16	35	17,000
Otero County, NM	3	32	21	33	11	4	38	81	31,000
Sevier County, TN	1	1	24	27	2	4	33	75	35,000
Madison County, MS	38	1	5	29	2	3	28	84	47,000
Calvert County, MD	13	2	15	27	2	4	29	88	34,000
Flathead County, MT	0	1	8	15	2	2	7	87	66,000
Jefferson County, AR	49	1	11	34	1	5	27	76	31,000
Black Hawk County, IA	8	2	4	31	4	3	26	87	37,000
Schuylkill County, PA	1	1	11	22	1	3	18	79	33,000
Yakima County, WA	1	36	7	36	17	7	33	69	35,000
Rockland County, NY	10	10	2	28	19	2	31	86	68,000
Fort Bend County, TX	5	21	4	19	19	3	15	85	64,000
Tulare County, CA	2	51	8	38	23	7	23	62	34,000
Hampden County, MA	8	15	6	38	7	3	41	80	40,000
Douglas County, NE	11	7	5	37	6	3	32	88	43,000
Lake County, IL	6	15	4	22	15	3	22	87	67,000
Multnomah County, OR	5	8	6	43	12	4	37	86	41,000
San Francisco County, CA	7	14	5	65	37	3	67	82	55,000
Pima County, AZ	3	30	9	36	12	3	38	84	37,000
Franklin County, OH	18	2	7	43	6	3	39	86	43,000
Bronx Borough, NY	35	49	6	80	30	7	89	63	28,000
Broward County, FL	20	17	17	31	25	3	51	83	42,000
Harris County, TX	18	33	7	45	22	4	40	75	43,000

The report begins with a discussion of the methodology used in this report to calculate the ACS and Census 2000 estimates. This includes percent estimates, calculation of the standard errors, differences in the percent estimates and determination whether the differences may be due to sampling error alone. Then we discuss the analysis of the data for the comparison profiles and changes to the data to make them comparable, such as dropping the group quarters population from the census. We follow this with graphical displays of the differences between the ACS three-year average and the Census 2000 estimates for a small number of tables. The appendixes provide all of the other variables from the profile tables. We finish with a discussion of the results.

3. Methodology

There are hundreds of tables that were produced for the Census 2000 and the ACS. To keep this work manageable, we limited ourselves to the profile tables. The profile tables represent a basic, core set of data tables covering the major topics covered in the ACS and in Census 2000.

3.1 Data

There are four profile tables: demographic, social, economic, and housing.

The demographic profile table includes:
- Age,
- Race,
- Sex
- Hispanic Origin,
- Relationship,
- Tenure, and
- Housing Occupancy.

The social profile table includes:
- School Enrollment,
- Educational Attainment,
- Marital Status,
- Disability Status
- Grandparents as Caregivers,
- Veteran Status,
- Nativity and Place of Birth,
- Region of Birth of Foreign Born,
- Language Spoken at Home, and
- Ancestry.

The economic profile table includes:
- Employment Status,
- Commuting to Work,
- Occupation,
- Industry,
- Class of Worker,
- Income, and
- Poverty Status.

The housing profile table includes:
- Units in Structure,
- Year Structure Built,
- Rooms,
- Year Householder Moved into Unit,
- Vehicles Available,
- House Heating Fuel,
- Occupants per Room,
- Value,
- Mortgage Status and Selected Monthly Owner Costs,

- Selected Monthly Owner Costs as a Percentage of Household Income
- Gross Rent, and
- Gross Rent as a Percentage of Household Income.

In the following sections, only three items for each profile table listed above are included in the body of the paper. The other items are discussed in the appendices.

3.2 Changes to the Data

To make the ACS and census data comparable, a number of changes were made. They are:

- The group quarters population was removed from the census profile tables since the ACS did not include samples of the group quarters population during this entire three-year period. The ACS does plan to include the group quarters population in sample when fully implemented.

- The Census 2000 numbers are rounded to prevent disclosure of individual responses. The population items are rounded to the nearest 10. The housing, households, and family items are rounded to the nearest 5, except for values between 1 and 7 which are rounded to the value 4.

- Census 2000 used the hundred percent census counts to produce the demographic tables. For this study, we wished to compare the ACS estimates with the Census 2000 sample estimates and therefore used the Census 2000 sample data for the demographic tables and all other data as well. Thus, these Census 2000 tables may differ from published tables.

- The question where you lived five years ago in Census 2000 is not comparable to the ACS which asked where you lived last year and was dropped from this analysis.

- A number of profile table estimates are not directly comparable or were not tabulated consistently between the ACS and the Census 2000. Some are dropped and others are merged together. Appendix A contains a list of the items that are dropped or merged.

- Dollar amounts for the ACS are adjusted to represent the dollars represented by Census 2000. In the future, multi-year estimates will be adjusted to the latest year's dollars.

The focus of this report is to examine the differences and similarities between the ACS and Census 2000. We are not interested in the count data itself since the total population and total number of housing units are used to control the population estimates for the ACS and the hundred percent Census 2000 counts are used to control the Census 2000 sample estimates. Instead we focus on the percent differences. In addition, we compare some derived statistics that are included in the profile data tables. These are mostly means and medians such as median age, mean travel time to work, and median household income.

The profile data presentation follows the ACS change profiles (see the Census web site and click on the American Community Survey for examples). The base for some percent estimates will differ from those produced as part of the census profiles. For example the age group 65 and over has a male and female subcategory. For the census profile, the base for the population 65 and over males is the total population. For the profiles produced here, we use the population 65 and over as the base. This occurs for a number of percent estimates such as the different Asian and Hispanic subgroups.

3.3 Weighting

The ACS weighting is done separately for each of the three years of sample. The population controls used the data from the population estimates program for 1999 and 2001. For 2000 we used the Census 2000 (without group quarters population) as the population control. For 1999 we used the Census 2000 counts projected back to 1999. These numbers differ from the official 1999 population estimates. For 2001, we used the Census 2000 counts projected forward. They are the official 2001 population estimates for the household population. The ACS uses population controls at the county level only. No controls are used at the tract level. Even at the county level, the ACS does some collapsing of control categories because of small sample sizes.

The Census 2000 long form estimates are controlled to the hundred percent Census 2000 counts at a weighting group level. The weighting group level is roughly equivalent to a census tract. The weighting controls are at a much smaller geographic level than for the ACS estimates. Census 2000 uses race, Hispanic origin, age, sex, family type, and group quarter residents to control the Census 2000 population sample estimates. For the housing items, Census 2000 uses occupied and vacant housing units as controls. Because of small sample sizes, there is often the need to collapse some categories or variables. This is done separately for each weighting group level. If too small a sample was realized before collapsing, a procedure called augmentation was used. Augmentation takes a census form from the hundred percent counts and imputes all of the long form items and adds this form to the long form universe. This was not used often, but could happen in individual tracts.

3.4 Variance Estimation

The ACS uses replication methods to compute the standard errors for all estimates. The standard errors are calculated for each year of data and then combined. The ACS population and housing counts that were control variables may have zero or very small standard errors. If a control variable was collapsed in some years and not in others, then the ACS three-year standard error is smaller than the Census 2000 standard error. The standard errors at the county level are set to zero for the total population and total number of housing units. In addition, some other variables that are used in the population controls that are not collapsed have a zero standard error. See the technical documentation (Navarro and Starsinic 2003) for standard error calculations for some special cases (for example small sample sizes and when there is no sample in one or two years).

For Census 2000, we used the generalized variance formula for all percent estimates. This method uses a simple random sample formula multiplied by a design effect. For some means, we used the ratio method to calculate the variances. For other means and all medians, we used the ACS standard error and ratio adjusted it to account for the larger sample sizes for Census 2000. This is probably an over-estimate of the true standard error. The standard errors for the total population and total number of housing units at the county and tract levels are automatically set to zero.

Of special note are the standard errors for some control variables at the county level. The ACS standard errors may be much lower than the corresponding standard errors for Census 2000 estimates. This is due to the controls used in the ACS estimation. For the control variables, age, race, sex, and Hispanic origin, the ACS standard errors are very small while the Census 2000 standard errors are considerably larger. With the larger sample sizes in Census 2000, this would not usually be the case. The Census 2000 standard errors using the generalized variance formula are probably over estimating the true standard errors for some of these variables. But since the standard error formula needs to use the same generalized variance formula for some variables that are not controlled because of collapsing or using different categories than used in the weighting, then the formula should be reasonably accurate. Since the ACS is using direct standard error estimates, the ACS is using the controls in calculating the standard error estimates. As an example, the standard error for age 0-4 in Pima county, Arizona, has a Census 2000 standard error of 659 while the ACS estimate of the standard error is 46. This is caused by the population controls for the age group 0-4 in the ACS. For the age group 5-9 for the same county, the Census 2000 standard error is 690 while the ACS standard error is 726. The ACS is not controlling this age group or it has been collapsed with other age groups and now has a standard error estimate more in line with what is expected given the larger sample sizes for Census 2000.

3.5 Testing for Differences Between the ACS and the Census

Because the ACS and the Census 2000 sample data are both estimates derived from a sample, we expect the estimates to differ. We use the standard error estimates to evaluate whether the differences we see may be due to sampling variability or due to some other reason. We use the Z-score to determine whether the differences are due to sampling variability or with a 90 percent certainty are due to issues other than sampling variability. The Z-score is the difference between the ACS estimate and the Census 2000 estimate divided by the standard error of this difference. It is evaluated against the normal distribution to state whether the difference is statistically significant or not. At the county level we use a Bonferroni adjustment to state whether the whole group of counties are statistically significantly different or whether one or more are statistically significantly different at the 90 percent confidence level (the Census Bureau standard for testing). The Bonferroni adjustment accounts for the fact that we are testing 36 estimates, one for each county, and that we will be 90 percent confident that all of them are not statistically significantly different. This involves adjusting the normal value that we compare the Z-score against. At the tract level, we use the 90 percent confidence level to test for differences without a Bonferroni Adjustment.

Because larger sample sizes will, in general, detect more differences than smaller sample sizes, we expect to see more statistically significant differences for the larger counties than for the smaller counties. We do see many more statistically significant differences for counties such as Harris, TX; Bronx, NY; and Broward, FL – all with populations over 1,000,000 -- versus counties such as Fulton, PA with a population under 15,000. We often see counties with smaller sample sizes that have differences of 4 or 5 percentage points that are not statistically significant while differences under 1 percentage point are statistically significant for one of the largest counties. Table 3 contains the Census 2000 population (minus the group quarter population and rounded) of the 36 counties. In addition, it includes a count of the number of statistically significant items identified in this report. There were 330 items tested at the county level. Bronx, NY had the greatest percent of items identified as being statistically significant - 38.5%. Most of the counties had fewer than 10%. Clearly the larger counties have more statistically significant differences than the smaller counties.

Table 3. List of the American Community Survey's 36 Counties with Census 2000 Population and Number of Statistically Significant Differences for the Census and ACS (from the smallest household population to largest)

COUNTY / STATE	FIPS ST / CO CODE	Census 2000 Population (rounded)	ACS Significantly Higher (Percent)	Census 2000 Significantly Higher (Percent)
Reynolds County, MO	29179	6,530	5 (1.5)	2 (0.6)
Iron County, MO	29093	10,310	6 (1.8)	2 (0.6)
Zapata County, TX	48505	12,160	4 (1.2)	5 (1.5)
Fulton County, PA	42057	14,160	3 (0.9)	2 (0.6)
Vilas County, WI	55125	20,750	10 (3.0)	12 (3.6)
Washington County, MO	29221	22,180	9 (2.7)	4 (1.2)
De Soto Parish, LA	22031	25,170	1 (0.3)	3 (0.9)
Lake County, MT	30047	25,880	1 (0.3)	5 (1.5)
Upson County, GA	13293	27,140	5 (1.5)	10 (3.0)
Petersburg City, VA	51730	32,840	8 (2.4)	9 (2.7)
Miami County, IN	18103	34,590	4 (1.2)	3 (0.9)
Oneida County, WI	55085	35,870	4 (1.2)	6 (1.8)
Ohio County, WV	54069	44,730	1 (0.3)	2 (0.6)
Starr County, TX	48427	53,200	19 (5.8)	18 (5.5)
Otero County, NM	35035	61,060	6 (1.8)	11 (3.3)
Sevier County, TN	47155	70,530	9 (2.7)	5 (1.5)
Madison County, MS	28089	72,610	8 (2.4)	9 (2.7)
Flathead County, MT	30029	73,320	3 (0.9)	6 (1.8)

COUNTY / STATE	FIPS ST / CO CODE	Census 2000 Population (rounded)	ACS Significantly Higher (Percent)	Census 2000 Significantly Higher (Percent)
Calvert County, MD	24009	73,980	6 (1.8)	4 (1.2)
Jefferson County, AR	05069	78,960	12 (3.6)	16 (4.8)
Black Hawk County, IA	19013	121,550	11 (3.3)	15 (4.5)
Schuylkill County, PA	42107	143,160	8 (2.4)	9 (2.7)
Yakima County, WA	53077	218,840	21 (6.4)	19 (5.8)
Rockland County, NY	36087	279,100	15 (4.5)	20 (6.1)
Fort Bend County, TX	48157	348,160	9 (2.7)	16 (4.8)
Tulare County, CA	06107	361,970	31 (9.4)	44 (13.3)
Hampden County, MA	25013	441,750	27 (8.2)	29 (8.8)
Douglas County, NE	31055	451,750	19 (5.8)	19 (5.8)
Lake County, IL	17097	623,370	18 (5.5)	18 (5.5)
Multnomah County, OR	41051	643,770	25 (7.6)	24 (7.3)
San Francisco County, CA	06075	756,990	30 (9.1)	29 (8.8)
Pima County, AZ	04019	821,710	38 (11.5)	46 (13.9)
Franklin County, OH	39049	1,046,780	25 (7.6)	31 (9.4)
Bronx Borough, NY	36005	1,285,510	52 (15.8)	75 (22.7)
Broward County, FL	12011	1,603,060	47 (14.2)	58 (17.6)
Harris County, TX	48201	3,358,430	48 (14.5)	55 (16.7)
TOTAL	NA	13,301,990	548 (4.6)	641 (5.4)

3.6 Analysis

Our major means of analysis of the differences between the ACS and the Census 2000 estimates is through graphical techniques. We use a dot plot showing the difference in the percent estimates for all counties for a specified characteristic, with a darkened dot for all counties that tested to be statistically significant. We also include a table with each plot showing the ACS and Census 2000 average percent for each category shown on the plot and the number of ACS and Census 2000 counties with differences that are statistically significant. The ACS and Census 2000 averages are the unweighted average of the percent estimates, so all counties are equally weighted. The plot points are ordered from smallest to largest in population size. For some graphs a shortened name is used for space considerations in the label. The full name is used in the table that follows.

For derived summary measures (i.e. median, means), we used a plot of the ACS estimate versus the Census 2000 estimate. Following these plots, ACS and Census 2000 averages are given with the number of ACS and Census 2000 counties with differences that are statistically significant.

Although this report focuses on statistically significant differences, some of these differences are fairly small, especially some differences for the largest counties, and may not be meaningful.

4. Demographic Profile Tables

The demographic profile tables included in this section are age, race and average household size. These variables were chosen to represent variables used in the tract level analysis, variables with small or large differences, and a derived measure variable that uses a scatter plot to represent differences. The remaining tables that are included in the demographic profiles are shown in Appendix B.

4.1 Age

Description of Item

The age data are tabulated for the entire household population. Table 4 shows the average percent for each of the 19 categories for the 36 counties. All categories use the total population as the denominator except for the male age 65 and over and female age 65 and over. These two categories use the population age 65 and over as the denominator.

Figure 1a. Difference (ACS—CENSUS) in Age for the 36 ACS Counties
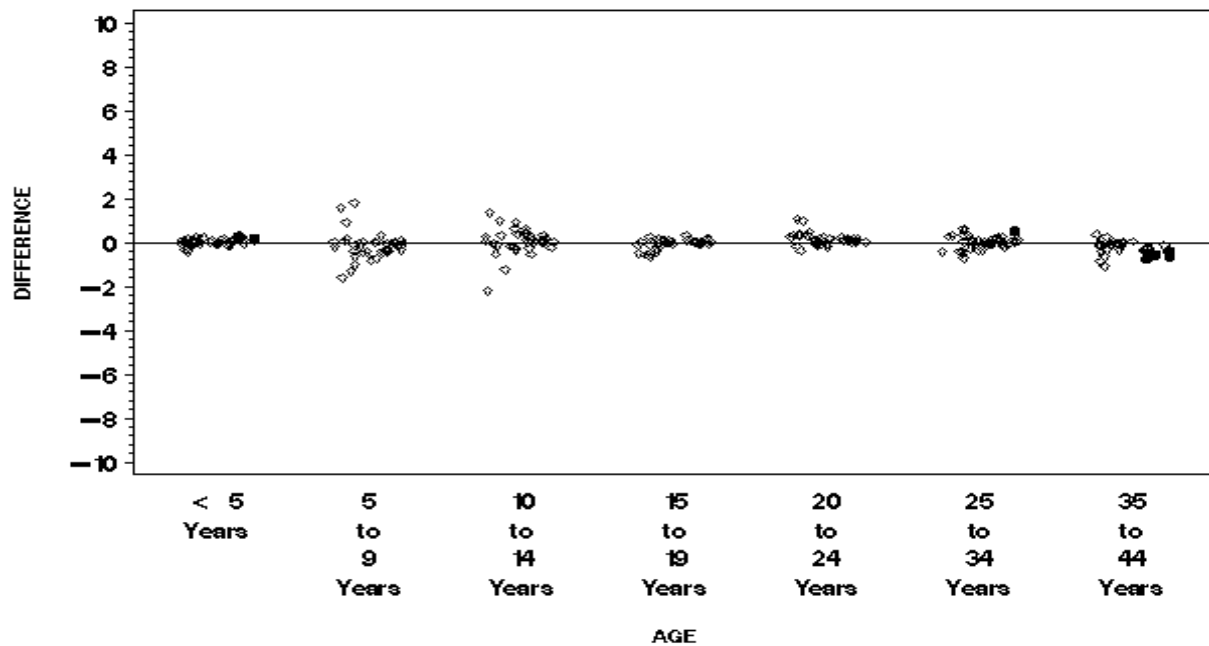
Figure 1b. Difference (ACS—CENSUS) in Age for the 36 ACS Counties
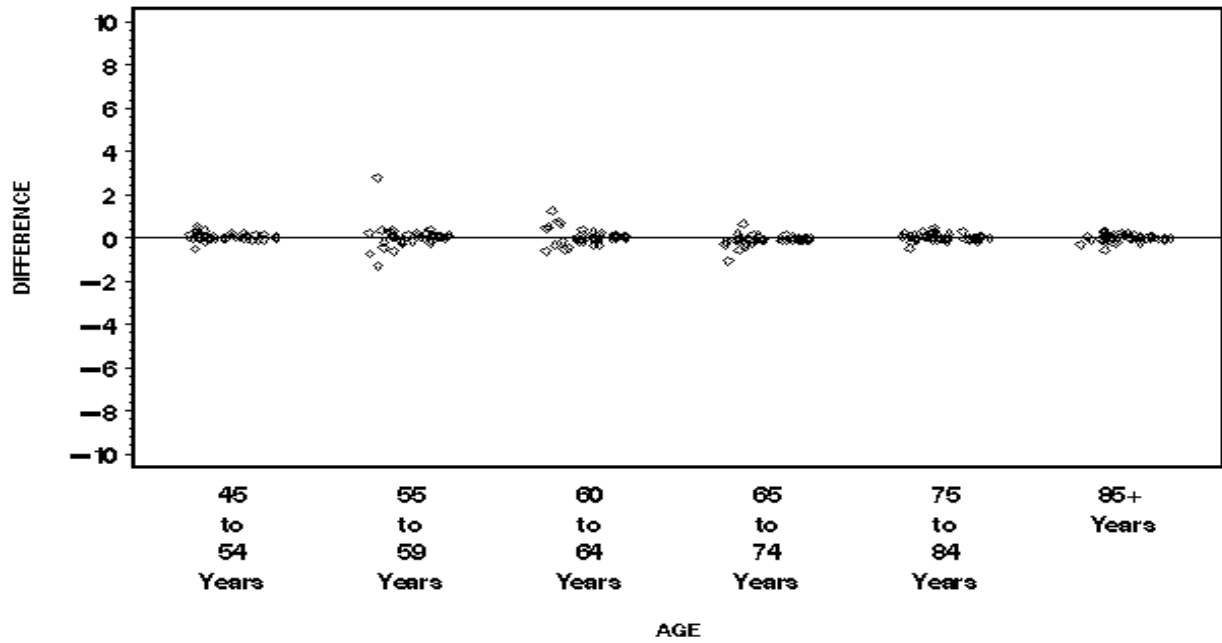
Figure 1c. Difference (ACS—CENSUS) in Age for the 36 ACS Counties
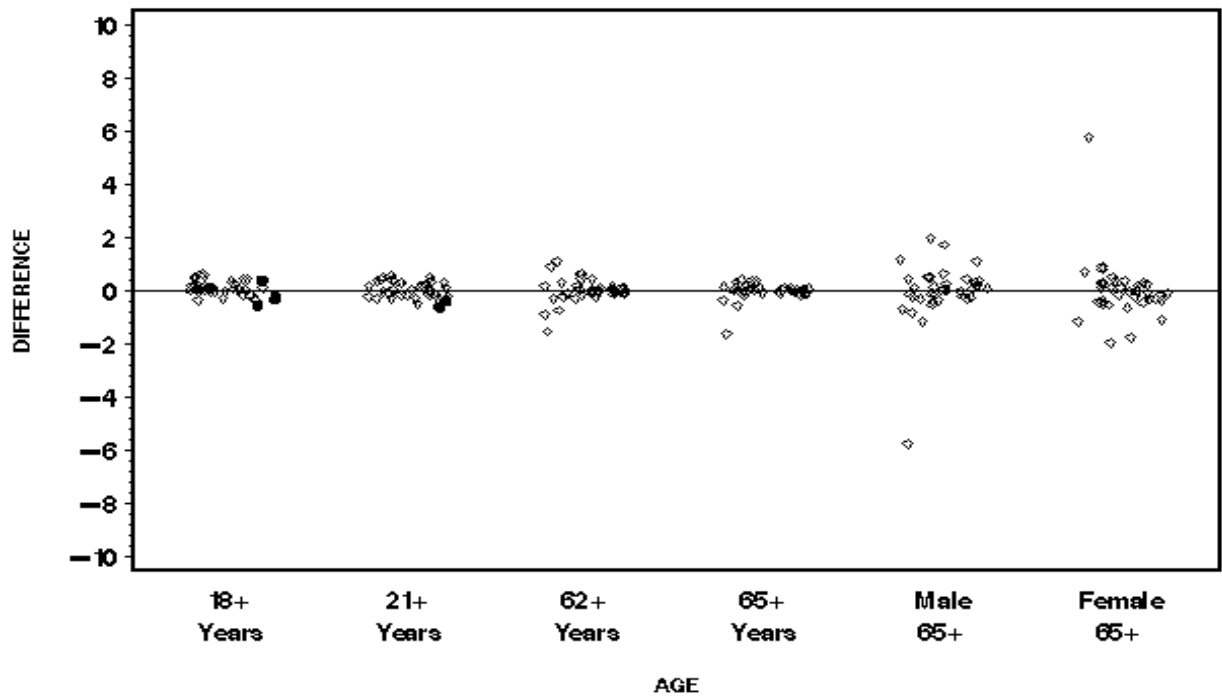
Table 4. ACS and Census 2000 Summary Statistics for the Age Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Under 5 Years	6.9	6.9	2	0
5 to 9 Years	7.5	7.6	0	0
10 to 14 Years	7.8	7.8	0	0
15 to 19 Years	7.0	7.1	0	0
20 to 24 Years	6.2	6.0	0	0
25 to 34 Years	13.3	13.2	1	0
35 to 44 Years	15.6	15.8	0	7
45 to 54 Years	13.7	13.6	0	0
55 to 65 Years	5.1	5.1	0	0
60 to 64 Years	4.3	4.2	0	0
65 to 74 Years	7.1	7.2	0	0
75 to 84 Years	4.3	4.3	0	0
85 Years and Over	1.2	1.2	0	0
18 Years and Over	73.2	73.1	1	3
21 Years and Over	69.5	69.4	0	2
62 Years and Over	15.2	15.2	0	0
65 Years and Over	12.7	12.7	0	0
Male 65 Years and Over	42.7	42.7	0	0
Female 65 Years and Over	57.3	57.3	0	0

Comparisons

Figures 1a, 1b and 1c depict the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. One or more county estimates are statistically significantly

different between the ACS and the census for under 5 years, 25 to 34 years, 35 to 44 years, 18 years and over, and 21 years and over. As part of the weighting for the ACS, age is one of the control variables. This means that the ACS estimates are forced to agree with the number of persons in specific age groups (except for collapsing) in each of the three years. Some of the age groups used in weighting do not agree with the age groups used here. Therefore the differences we observe are mostly due to the different population controls used each year and due to collapsing of age groups because of small yearly samples.

For the age group under 5 years, the ACS estimates are statistically significantly higher for Pima, AZ and Harris, TX. For the age group 25 to 34 years, the ACS estimates are statistically significantly higher for Bronx, NY. For the age group 35-44, the Census 2000 estimates are statistically significantly higher for Pima, AZ; San Francisco, CA; Tulare, CA; Broward, FL; Bronx, NY; Fort Bend, TX; and Harris, TX. These are most of the largest counties and the differences that are statistically significant are all small, less than 1.0 percent difference. For the age group 18+, the ACS estimates are statistically significantly higher for Franklin, OH and the Census 2000 estimates are statistically significantly higher for Pima, AZ; Broward, Fl; and Harris, TX. For the age group 21+, the Census 2000 estimates are statistically significantly higher for Pima, AZ and Broward, FL.

The results for the comparisons for age are that the ACS and Census 2000 are in general agreement for the age variables. Even for the categories with statistically significant differences, the differences are typically less than 1 percent and would not be very meaningful for most analyses.

4.2 Race

Description of Item

The race data are tabulated for the total household population of the county. Table 5 shows the average percent for each of the eight categories for the 36 counties and a count of the number of counties with statistically significant higher ACS and Census 2000 estimates. The one race category and two or more races equal the total universe. The individual race categories are tabulated only for those who responded using a single race. Separate tables also address the specified Asian subcategories and the Native Hawaiian and Other Pacific Islanders subcategories in Appendix B.

Figure 2. Difference (ACS—CENSUS) in Race for the 36 ACS Counties
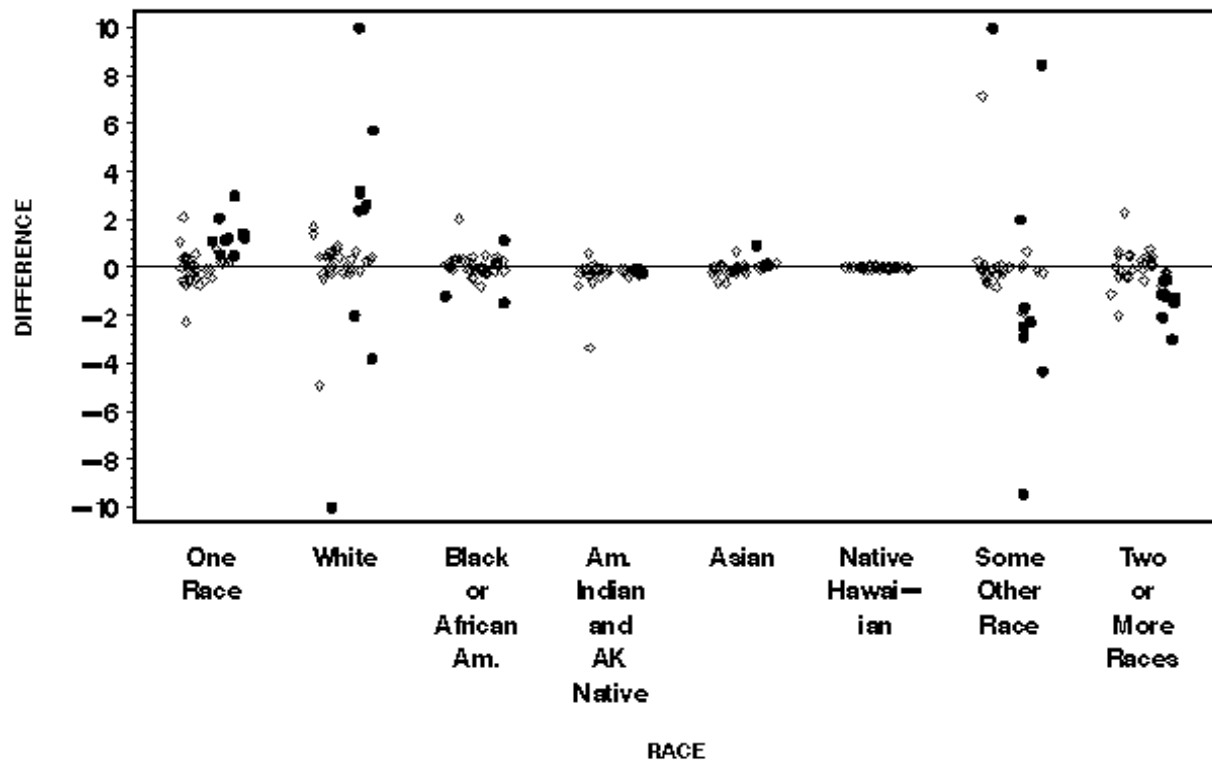
Table 5. ACS and Census 2000 Summary Statistics for the Race Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
One Race	98.1	97.8	9	0
White	76.0	76.0	7	3
Black or African American	12.0	12.0	1	2
American Indian and Alaska Native	1.4	1.7	0	2
Asian	2.6	2.6	1	0
Native Hawaiian and Other Pacific Islander	0.06	0.05	0	0
Some Other Race	6.0	5.5	3	6
Two or More Races	1.9	2.2	0	9

Comparisons

Figure 2 depicts the differences between the ACS and the Census 2000 race categories for the 36 ACS counties. One or more county estimates are statistically significantly different between the ACS and the Census 2000 estimates for all categories except for Native Hawaiian and other Pacific Islander. There are large numbers of differences for the One race category, Two-or-more races category, White, and Some other race. Similar results have been documented at the national level by Bennett and Griffin (2002). Their analysis indicates that the Hispanic population were much more likely to respond as Some other race in Census 2000 than in the Census 2000 Supplementary Survey (42 percent vs. 29 percent respectively). Also the Hispanic population were more likely to report Two-or-more races in Census 2000 than in the C2SS (6.3 percent vs. 4.8 percent).

Race is used as a population control variable, but does not correspond to the categories used here because of collapsing of multiple race responses into a single race category for weighting purposes. Also, a lot of collapsing occurs because of small numbers of sample cases in some race categories in some areas.

For the One race category, the ACS estimates are statistically significantly higher for nine

counties. The counties with statistically significant differences are Tulare, CA; San Francisco, CA; Broward, FL; Hamden, MA; Bronx, NY; Rockland, NY; Franklin, OH; Multnomah, OR; and Harris, TX. For the Two-or-more race category, the Census 2000 estimates are statistically significantly higher for the same set of nine counties.

For the White race category, the ACS estimates are statistically significantly higher for seven counties. They are Pima, AZ; Tulare, CA; Lake, IL; Hampden, MA; Multnomah, OR; Fort Bend, TX; and Harris, TX. The Census 2000 estimates are statistically significantly higher for three counties. They are Bronx, NY; Starr, TX; and Yakima, WA. Essentially the reverse situation occurred for the Some other race category with the Census 2000 estimates statistically significantly higher for six counties, the same as the seven with the ACS higher except for Fort Bend, TX which is not statistically significantly different and the ACS statistically significantly higher for the same three counties with the Census 2000 estimates higher. There was an extreme outlier in Starr, TX with over a 29 percentage point difference (all values over 10 percent difference are shown in the figures as having a 10 percent difference value) for the White and Some other race categories.

The results for the White and Some other race categories generally follow the results from the Bennett and Griffin (2002) paper where counties with large Hispanic populations show statistically significant differences. However the results for Bronx, NY; Starr, TX; and Yakima, WA are of the opposite direction from the national level differences shown in Bennett and Griffin (2002).

For the Black or African American race category, the ACS estimates are statistically significantly higher for Broward, FL and the Census 2000 estimates are statistically significantly higher for Iron, MO and Bronx, NY. For the American Indian and Alaska Native race category, the Census 2000 estimates are statistically significantly higher for Bronx, NY and Harris, TX. For the Asian race category, the ACS estimates are statistically significantly higher for Fort Bend, TX.

In summary, many of the differences between the ACS and Census 2000 estimates for race are traced to the differences observed for the different responses for the Hispanic population.

4.3 Average Household Size

Description of Item

The average household size is tabulated for the total household population of the county. The estimate is a derived statistic reflecting the household size of the county.

Figure 3. Scatter Plot of Average Household Size for the 36 ACS Counties
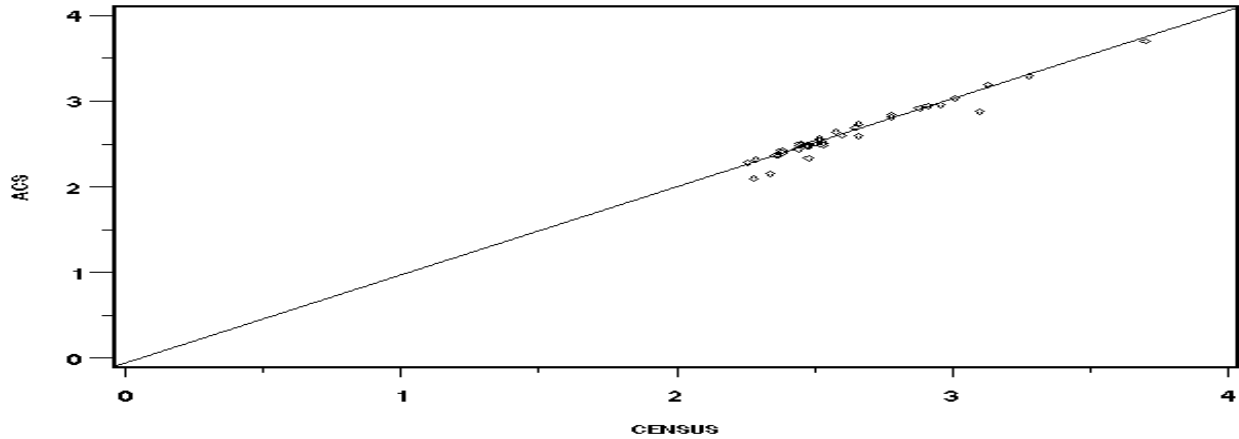
Table 6. ACS and Census 2000 Summary Statistics for Average Household Size

Item	Average Household Size
ACS Average	2.63 persons
Census 2000 Average	2.63 persons
Number of Counties in which the ACS Estimate is Significantly Higher	0
Number of Counties in which Census 2000 Estimate is Significantly Higher	0

Comparisons

Figure 3 depicts the ACS value and the Census 2000 value for each county. The values range from about 2.2 to 3.7 persons per household. There are no statistically significant differences for the average household size. The total household population and the total number of housing units are control variables in the ACS weighting. Consequently this variable is partly controlled in the ACS weighting and therefore it was generally expected that there would be no statistically significant differences for any county.

5. Social Profile Tables

The social profile tables included in this section are school enrollment, disability status and percent high school graduates. These variables were chosen to represent the analysis at the county level which is also shown at the tract level, a variable with large differences between the ACS and Census 2000, and a derived measure variable using a scatter plot describing the differences. The remaining tables that are included in the social profiles are shown in Appendix C.

5.1 School Enrollment

Description of Item

The school enrollment data are tabulated for the population over three years of age and attending school. Table 7 shows the average percent for each of the five categories for the 36 counties.

Figure 4 Difference (ACS–CENSUS) in School Enrollment for the 36 ACS Counties

Table 7. ACS and Census 2000 Summary Statistics for the School Enrollment Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Nursery School, Preschool	5.9	6.4	0	5
Kindergarten	5.5	5.7	0	0
Elementary (Grades 1-8)	47.3	47.5	1	0
High School (Grades 9-12)	22.7	22.9	0	0
College or Graduate School	18.6	17.5	1	0

Comparisons

Figure 4 depicts the differences between the ACS school enrollment and the Census 2000 school enrollment for the 36 ACS counties. Differences for one or more counties are statistically significant between the ACS and the Census 2000 for preschool, elementary, and college attendance. No differences are significant for kindergarten and high school attendance estimates. The Census 2000 preschool estimates seem to be consistently higher than the responses from the ACS with Pima, AZ; Tulare, CA; Broward, FL; Lake, IL; and Douglas, NE all being statistically significant. The elementary estimates average about the same with only Harris, TX being statistically significantly higher for the ACS. The college estimates are slightly higher for the ACS than for the Census 2000 estimates with only Douglas, NE being statistically significant. The differences for kindergarten and high school are clustered around zero.

An error occurred in the ACS processing of large households (over 5 persons) that mailed their forms back (Raglin et al 2004). These cases went to a telephone follow-up operation to try to complete the information for persons who were not recorded on the ACS questionnaire. The error occurred when no contact was made (a telephone noninterview). For these cases, the ACS processing in correctly converted the housing unit to only five persons, instead of the number recorded on the questionnaire. We would expect many of these persons removed would be the youngest children and at least some of them would have been nursery or preschool children artificially lowering the ACS estimate. This ACS processing error has since been fixed.

The larger ACS estimate for the percent estimate attending college may be due to removal of the group quarter population from the estimates. Census 2000 counts all college students at their college address and not at their parents address. For those living in dormitories, Census 2000 would classify them as living in a group quarter facility. In the ACS, college students living in a

dormitory while attending college would not be counted since the ACS did not interview in group quarter facilities. However if they were living at home in the summer months, they would be included in the ACS, following the ACS residency rule including all persons living at the housing unit for at least two months.

Given the above explanations, there is good general agreement between the ACS and Census 2000 for school enrollment.

5.2 Percent High School Graduate or Higher

Description of Item

The percent high school graduate or higher is tabulated for the household population 25 years and over. The estimate is a derived statistic reflecting the education level of the county.

Figure 5. Scatter Plot of Percent High School Graduate Or Higher for the 36 ACS Counties
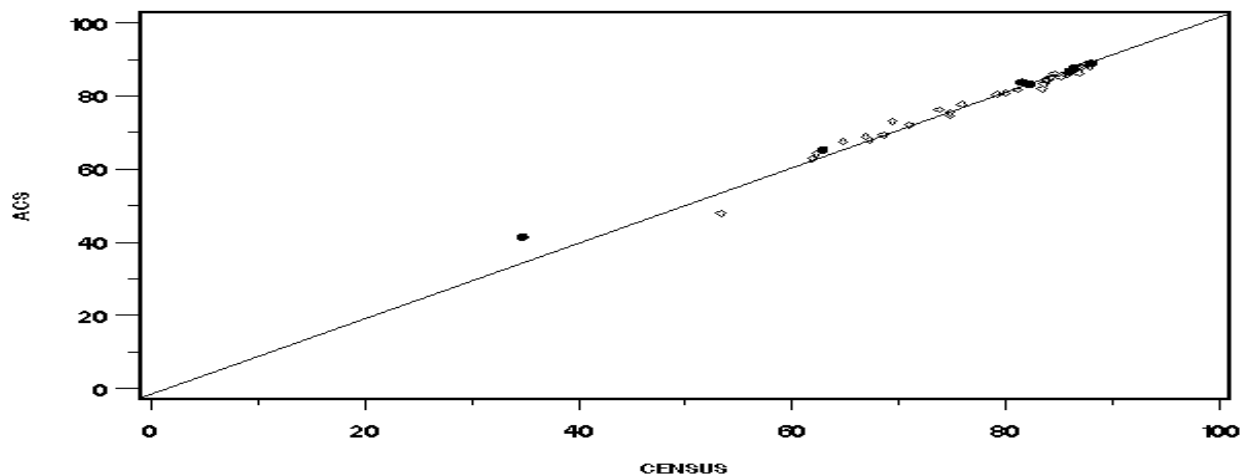
Table 8. ACS and Census 2000 Summary Statistics for Percent High School Graduate or Higher

Item	Percent High School Graduate or Higher
ACS Average	77.7
Census 2000 Average	76.6
Number of Counties in which the ACS Estimate is Significantly Higher	7
Number of Counties in which the Census 2000 Estimate is Significantly Higher	0

Comparisons

Figure 5 depicts the ACS value and the Census 2000 value for each county. The values range from under 40 percent to almost 90 percent. All seven statistically significant differences have higher ACS estimates than the Census 2000 estimates. The ACS estimates are statistically significantly higher for San Francisco, CA; Broward, FL; Douglas, NE; Bronx, NY; Rockland, NY; Franklin, OH; and Starr, TX. Figure 5 shows that the ACS estimates are generally higher than the Census 2000 estimates.

5.3 Disability Status

Description of Item

The Disability Status data are tabulated for the household population 5 years of age and older. Table 9 shows the average percent for each of the four categories for the 36 ACS counties. We limited the scale on figure 6 to be consistent with our other graphs, only showing differences up to 10 percent even though many are higher than this amount. They are all shown as having values of 10 percent.

Figure 6. Difference (ACS—CENSUS) in Disability Status for the 36 ACS Counties
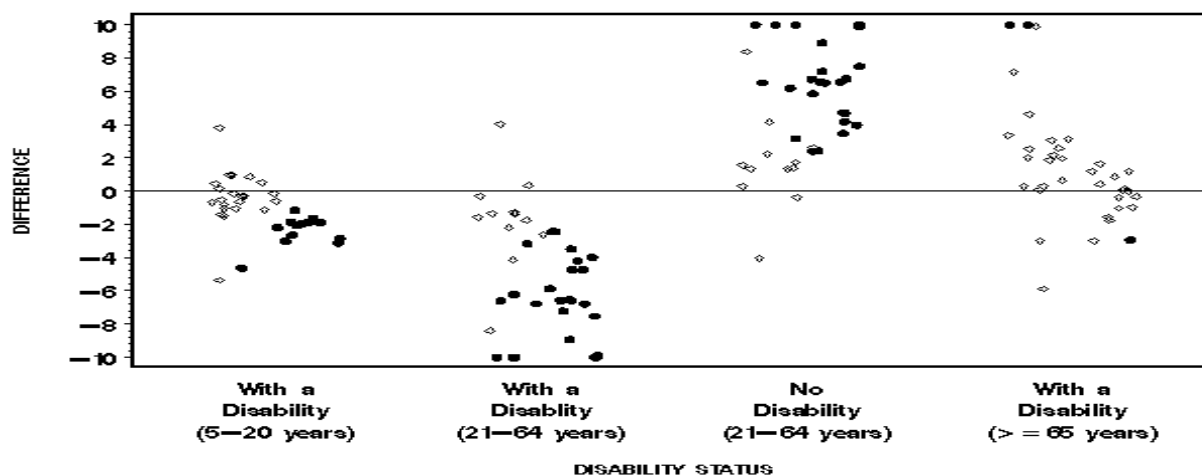
Table 9. ACS and Census 2000 Summary Statistics for the Disability Status Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
With a Disability 5-20 Years	7.1	8.2	0	14
With a Disability 21-64 Years	16.4	21.5	0	24
No Disability 21-64 Years	83.6	78.5	24	0
With a Disability 65+ Years	45.6	43.9	2	1

Comparisons

Figure 6 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. There is a clear difference between the ACS and Census 2000 for these estimates. For the percent with a disability age 21-64, the ACS estimates are 5 percent smaller than the census and two-thirds of the counties' differences are statistically significant. The percent without a disability age 21-64 is the opposite of the percent with a disability age 21-64 with the ACS higher than the census for two-thirds of the counties. There are also a large number of statistically significant differences for the disability estimates for the persons age 5-20 with the ACS being generally smaller than the census. Interesting is the fact that for persons 65+, the ACS has a higher estimate of persons with a disability than the census.

Stern (2003) examined the differences between the census and the Census 2000 Supplementary Survey (C2SS) using the ACS instrument for the disability data. She examined the six disability questions that go into the disability data item reported here, by mail, followup, and allocation (imputing for missing values) of the item. There were no significant differences due to the allocation of disability between the census and the ACS. The data show consistent responses for four of the six disability questions. For the other two items, the census mail, census followup, and ACS mail were all reasonably consistent. However the ACS telephone and personal visit data showed a very large difference versus the other data. The census mail, census followup, and ACS mail all use a qualifier for the two disability questions by only asking persons 16 years of age or over to answer this question. The ACS telephone and personal visit data are collected using a computer instrument which already knows whether the person is 16 years of age or older from their earlier response to the age question. Stern interprets these differences as the respondent incorrectly interpreting the age qualifier to the two disability question and responding to being just over 16 years of age. This would explain the differences we see for disability between the census and the ACS for the ages 21-64 and the smaller differences for disability for ages 5-21, since the effect noted would only apply to persons 16 to 21 years of age in this group.

Clearly, there are large and statistically significant differences between the ACS and Census 2000 for the disability status tabulations. These differences are attributed to the improvement from using computer-assisted interviewing, but large error is still expected in both the ACS mail responses and any Census 2000 responses. Stern's analysis tells us that with fixes to the ACS mail questionnaire, the ACS should be able to obtain accurate disability data.

6. Economic Profile Tables

The economic profile tables included in this section are employment, household income and travel time to work. These variables were chosen to represent the analysis at the county level which is also shown at the tract level, a variable with large differences between the ACS and Census 2000, and a derived measure variable using a scatter plot describing the differences. The remaining tables that are included in the economic profiles are shown in Appendix D.

6.1 Employment Status

Description

Employment status data are tabulated for the household population 16 years and over. Table 10 shows the average percent for each of the six categories for the 36 counties. The in labor force category plus the not in labor force together equal the universe. The civilian labor force plus the Armed Forces equal the in labor force category. The employed and unemployed together equal the civilian labor force.

Figure 7. Difference (ACS—CENSUS) in Employment Status for the 36 ACS Counties (population 16 years and over)
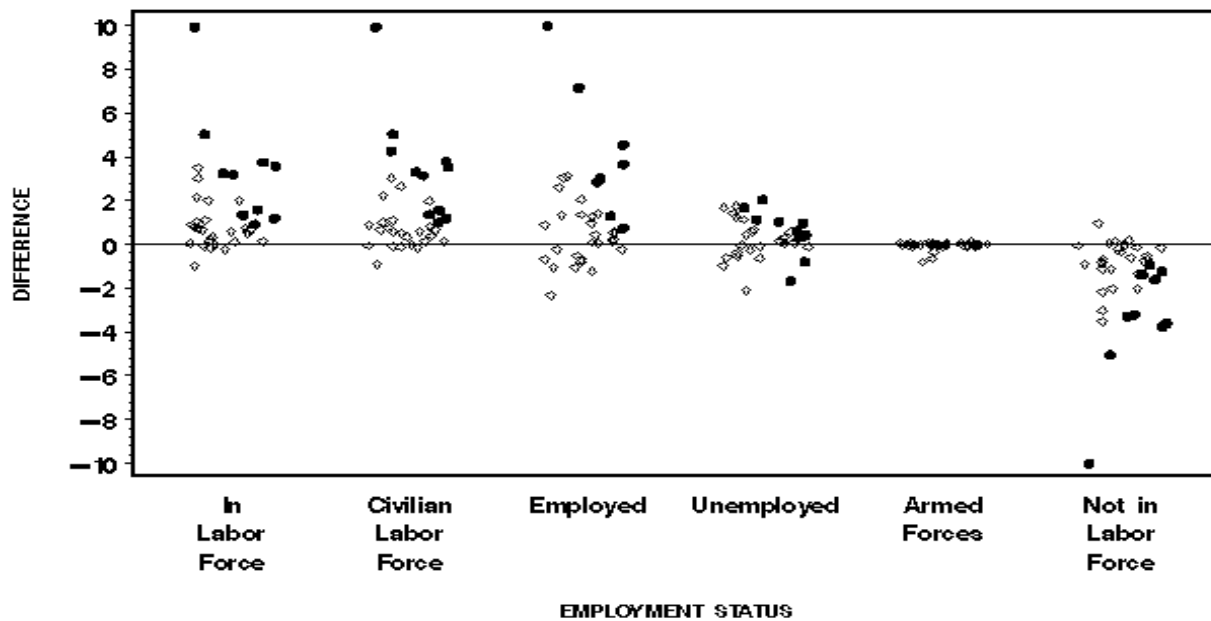
Table 10. ACS and Census 2000 Summary Statistics for the Employment Status Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
In Labor Force	63.7	62.2	11	0
Civilian Labor Force	63.4	61.9	12	0
Employed	59.1	57.8	8	0
Unemployed	4.4	4.0	10	2
Armed Forces	0.3	0.3	0	0
Not In Labor Force	36.3	37.8	0	10

Comparisons

Figure 7 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. The ACS estimates are fairly consistently higher than the Census 2000 estimates for in the labor force, civilian labor force, employed, and unemployed (Posey et al 2003). The Census 2000 estimates are generally higher than the ACS estimates for the not in labor force category. The ACS results are not consistent with the labor force participation rates and employment rates which generally declined in 2001. Individual year ACS estimates do show that some counties have small decreases in the labor force for 2001, but it is not consistent with some counties having an increase in the labor force.

Large differences are even observed for the large counties. Bronx, NY and Harris, TX have over a 3 percentage point difference for in the labor force. Even though both of these counties have many statistically significant differences for many items, usually the differences are fairly small (less than 1.0 percent) which is not the case here.

The following counties are statistically significantly higher for the ACS estimates for in labor force, civilian labor force, and employed: Tulare, CA; Broward, FL; Hampden, MA; Bronx, NY; Harris, TX; Starr, TX; Zapata, TX; and Yakima, WA. The following counties are statistically significantly higher for the ACS estimates for in labor force and civilian labor force: Pima, AZ; Jefferson, AR; and San Francisco, CA. Petersburg, VA is statistically significantly higher for civilian labor force only.

For the unemployed, the ACS estimates are statistically significantly higher for Pima, AZ; Jefferson, AR; San Francisco, CA; Broward, FL; Miami, IN; Black Hawk, IA; Calvert, MD; Douglas, NE; Franklin, OH; and Multnomah, OR and the Census 2000 estimates are statistically

significantly higher for Tulare, CA and Bronx, NY. For the not in labor force, the Census 2000 estimates are statistically significantly higher for Pima, AZ; Jefferson, AR; San Francisco, CA; Broward, FL; Hampden, MA; Bronx, NY; Harris, TX; Starr, TX; Zapata, TX; and Yakima, WA.

In general there is not general agreement between the ACS and Census 2000 for the labor force status categories. Most of the differences can be attributed to the ACS estimates being higher for the in labor force category which also impacts the civilian labor force and employed categories.

6.2 Mean Travel Time to Work

Description of Item

The mean travel time to work is tabulated for workers 16 years and over. The estimate is a derived statistic reflecting the travel time to work at the county level.

Figure 8. Scatter Plot of Mean Travel Time To Work (minutes) for the 36 ACS Counties
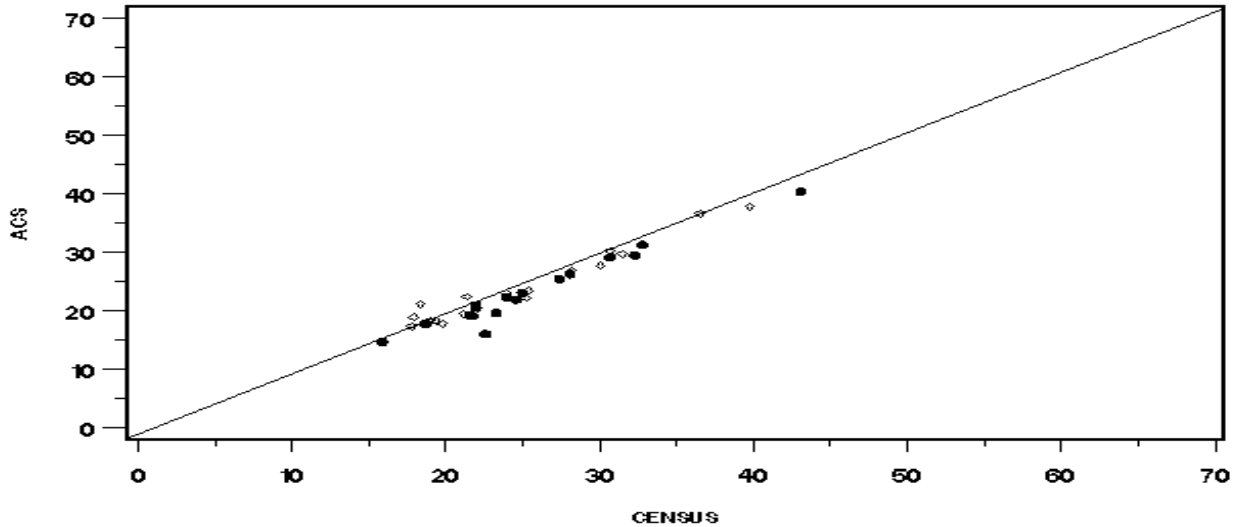
Table 11. ACS and Census 2000 Summary Statistics for Mean Travel Time to Work

Item	Mean Travel Time to Work
ACS Average	23.8 minutes
Census 2000 Average	25.3 minutes
Number of Counties in which the ACS Estimate is Significantly Higher	0
Number of Counties in which the Census 2000 Estimate is Significantly Higher	17

Comparisons

Figure 8 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from about 16 minutes to over 43 minutes. There are 17 counties with statistically significant differences. The Census 2000 estimates are higher than the ACS estimates for most counties and so are all statistically significant differences.

6.3 Household Income

Description of Item

Household income data are tabulated using the household population over 14 and tabulated for all persons in a household. Table 12 shows the average percent for each of the ten categories for the 36 ACS counties. The labels of the categories are abbreviated for display purposes.

Figure 9. Difference (ACS—CENSUS) in Household Income for the 36 ACS Counties
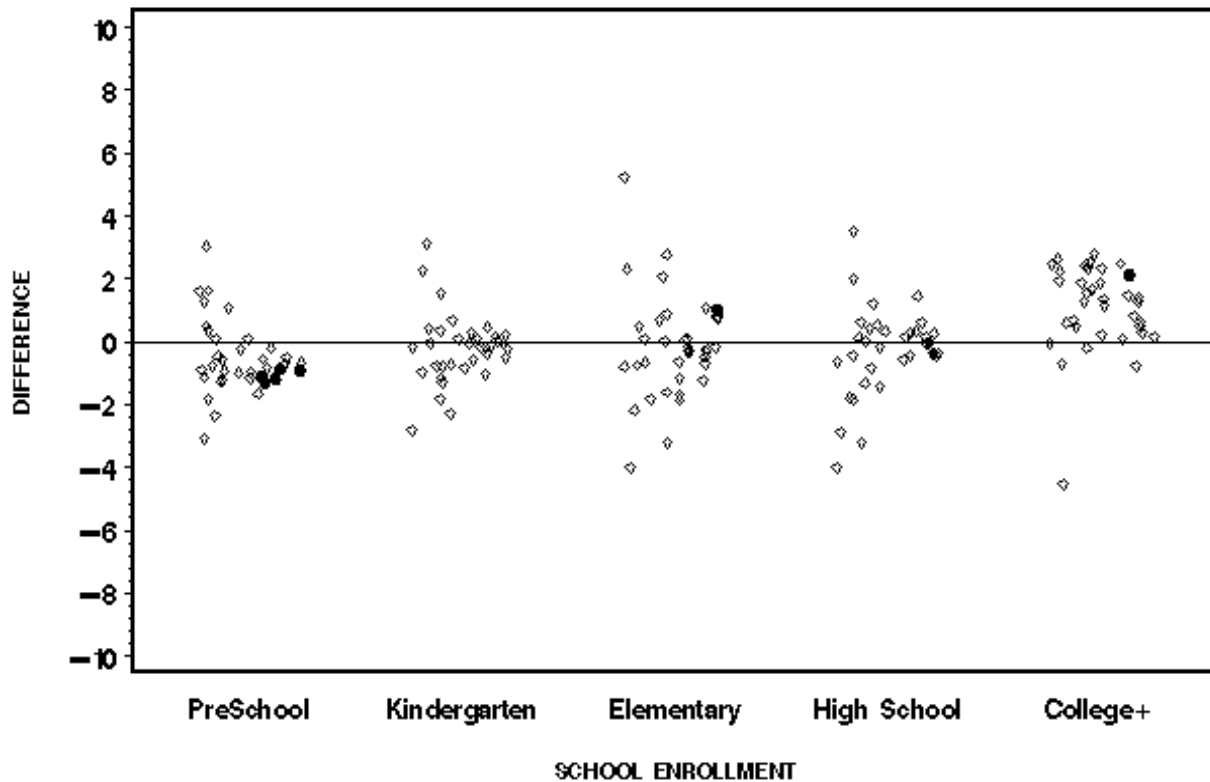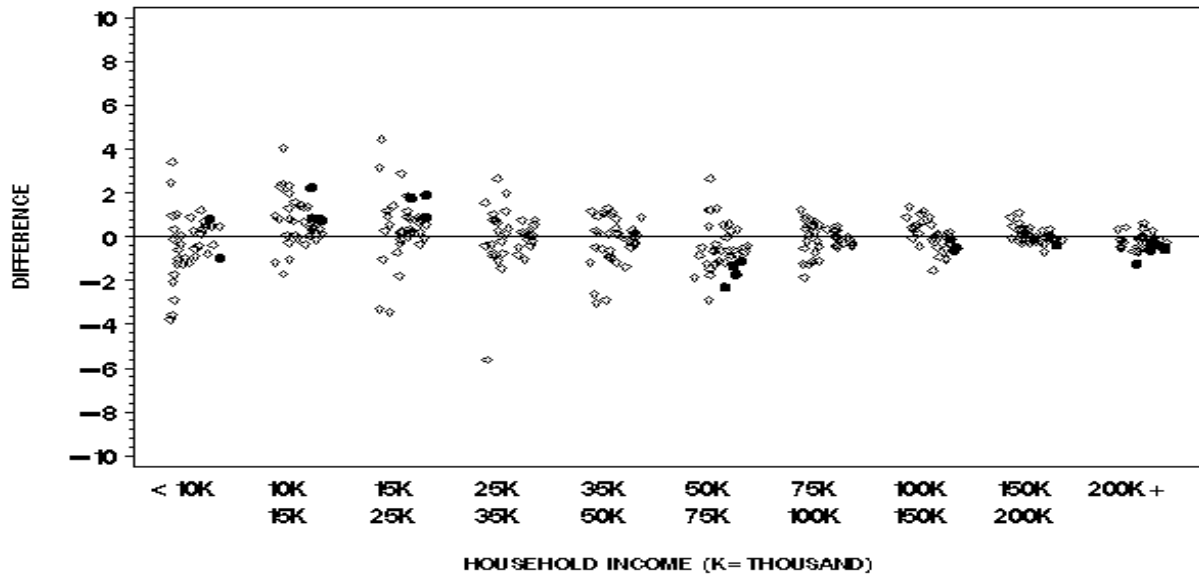
Table 12. ACS and Census 2000 Summary Statistics for the Household Income Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Less than $10,000	11.9	12.2	1	1
$10,000 - $14,999	8.5	7.8	5	0
$15,000 - $24,999	15.3	14.8	3	0
$25,000 - $34,999	13.8	13.8	0	0
$35,000 - $49,999	16.3	16.5	0	0

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$50,000 - $74,999	16.9	17.4	0	4
$75,000 - $99,999	8.2	8.3	0	0
$100,000 - $149,999	5.9	5.9	0	2
$150,000 - $199,999	1.7	1.7	0	1
$200,000 or More	1.6	1.8	0	5

Comparisons

Figure 9 depicts the differences between the ACS household income and the census household income for the 36 ACS counties. Differences for one or more counties are statistically significant between the ACS and the census for seven categories and no differences are statistically significant for three categories. The ACS estimates are generally higher for the $10,000-$14,999 and $15,000-$24,999 categories while the Census 2000 estimates are generally higher for the $50,000-$74,999 category. Except for the minor differences noted, the ACS estimates seem to be in general agreement with the Census 2000 estimates.

For the less than $10,000 category, the ACS estimates are statistically significantly higher for Pima, AZ and the Census 2000 estimates are statistically significantly higher for Harris, TX. For the $10,000 to $14,999 category, the ACS estimates are statistically significantly higher for Pima, AZ; Tulare, CA; Broward, FL; Douglas, NE; and Bronx, NY. For the $15,000 to $24,999 category, the ACS estimates are statistically significantly higher for Tulare, CA; Bronx, NY; and Harris, TX. For the $50,000 to $74,999 category, the Census 2000 estimates are statistically significantly higher for Pima, AZ; Lake, IL; Black Hawk, IA; and Hampden, MA. For the $100,000 to $149,999 category, the Census 2000 estimates are statistically significantly higher for Broward, FL and Bronx, NY. For the $150,000 to $199,999 category, the Census 2000 estimates are statistically significantly higher for Broward, FL. For the $200,000 or more category, the Census 2000 estimates are statistically significantly higher for Pima, AZ; Broward, FL; Upson, GA; Bronx, NY; and Yakima, WA.

Even though there are a number of statistically significant differences between the ACS and Census 2000, almost all of these differences are fairly small (less than 2 percent) and there does appear to be general agreement between the ACS and Census 2000 for the household income categories.

7. Housing Profile Tables

The housing profile tables included in this section are number of rooms, value of owner-occupied units and median gross rent. These variables were chosen to represent the analysis at the county level which is also shown at the tract level, a variable with large differences between the ACS and Census 2000, and a derived measure variable using a scatter plot describing the differences. The remaining tables that are included in the housing profiles are shown in Appendix E.

7.1 Number of Rooms

Description of Item

Number of rooms data are tabulated for all housing units. Table 13 shows the average percent for each of the nine categories for the 36 ACS counties.

Figure 10. Difference (ACS—CENSUS) in Number of Rooms for the 36 ACS Counties
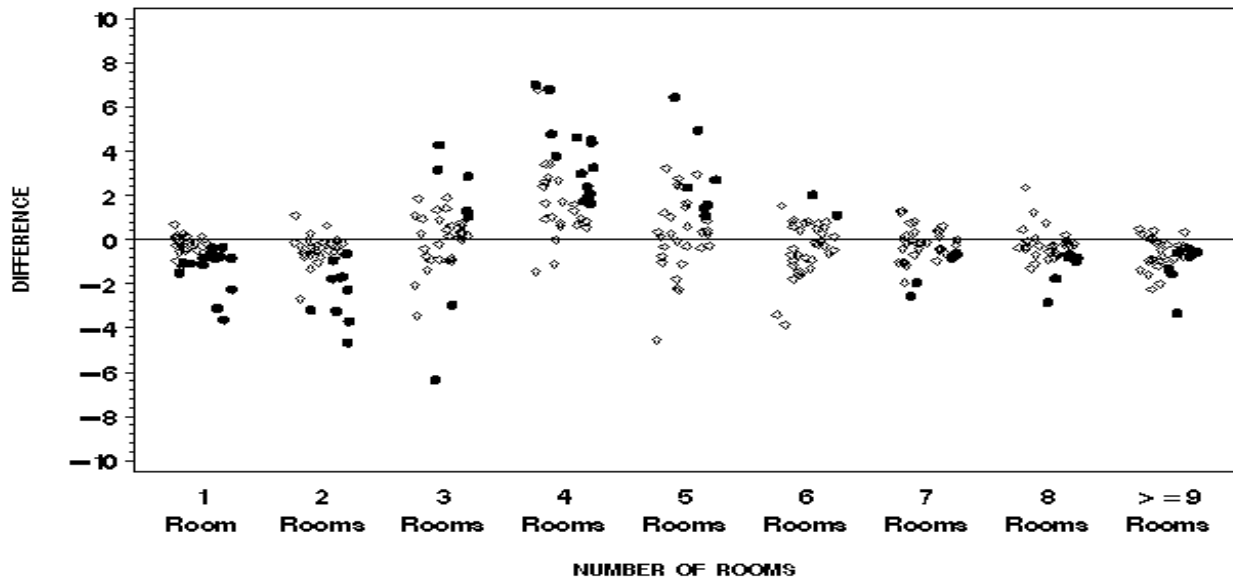
Table 13. ACS and Census 2000 Summary Statistics for the Number of Rooms Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
1 Room	1.5	2.1	0	14
2 Rooms	4.0	4.9	0	10
3 Rooms	10.0	9.9	5	2

4 Rooms	19.9	17.5	14	0
5 Rooms	22.8	22.0	7	0
6 Rooms	18.0	18.2	2	0
7 Rooms	10.7	11.1	0	4
8 Rooms	6.8	7.2	0	6
9+ Rooms	6.2	7.0	0	8

Comparisons

Figure 10 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. There are one or more statistically significant differences for all of the room categories with especially large number of counties with statistically significant differences for one room, two rooms, four rooms, and nine plus rooms, each having over 8. The one, two, and nine plus categories generally having higher estimates for the census while the four rooms generally having higher estimates for the ACS.

Love (2004) examines the differences between the C2SS and Census 2000 for the number of rooms and observes the same differences at the national level. However there is not a specific difference between the ACS and Census 2000 that supplies a clear explanation of the differences observed. There were many factors that may explain some of the differences observed such as a minor difference in questionnaire wording, different sequence of questions, double banking in Census 2000, optical character recognition (which may misread 4 for 9, 1 for 7 and 3 for 8) and multiple marked boxes which are blanked and imputed in Census 2000 while the ACS keys the first response. Together they may supply some reasons for the large differences observed between the ACS and Census 2000 estimates.

7.2 Value of Owner-Occupied Units

Description of Item

Value data are tabulated for all specified owner-occupied housing units. Table 14 shows the average percent for each of the eight categories for the 36 ACS counties.

Figure 11. Difference (ACS—CENSUS) in Value of Owner-Occupied Housing Units for the 36 ACS Counties
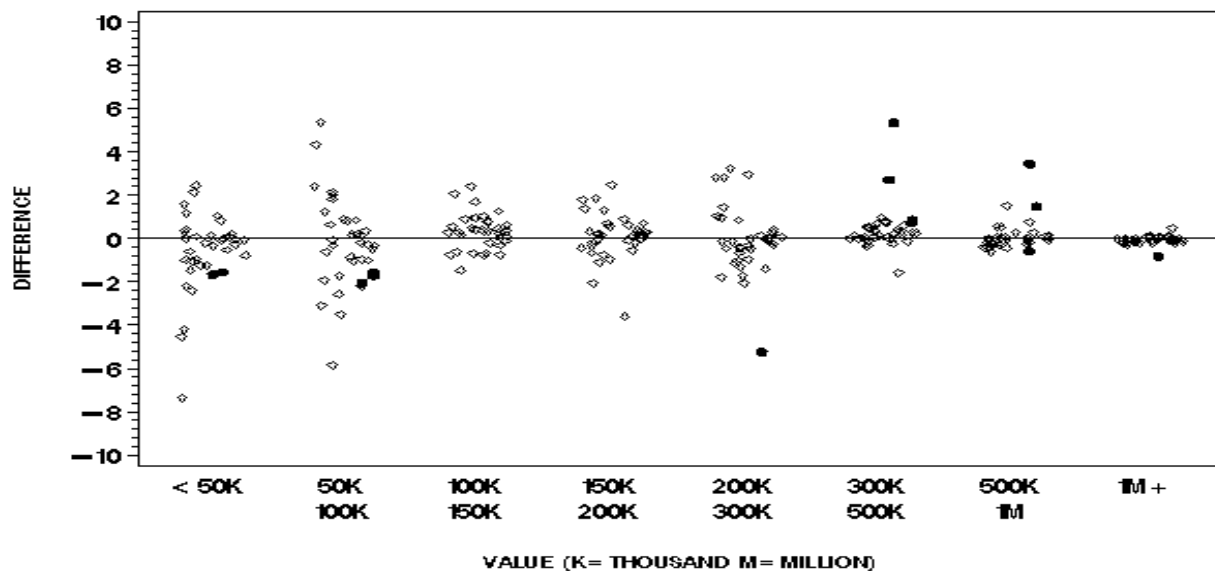
Table 14. ACS and Census 2000 Summary Statistics for the Value of Owner-Occupied Housing Unit Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Less than $50,000	17.4	18.0	0	2
$50,000 to $99,999	34.6	34.8	0	3
$100,000 to $149,999	20.2	19.9	0	0
$150,000 to $199,999	11.3	11.2	0	0
$200,000 to $299,999	9.2	9.2	0	1
$300,000 to $499,999	5.2	4.7	4	0
$500,000 to $999,999	1.8	1.7	2	1
$1,000,000 or More	0.4	0.5	0	1

Comparisons

Figure 11 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. There are one or more statistically significant differences for six categories and no differences are statistically significant for two categories. There appears to be general agreement between the ACS and the Census 2000 estimates with a few outliers in the $200,000 to $299,999, $300,000 to $499,999, and $500,000 to $999,999 categories.

For the less than $50,000 home values, the Census 2000 estimate is statistically significantly higher for San Francisco, CA and Yakima, WA. For the $50,000 to $99,999 home values, the Census 2000 estimate is statistically significantly higher for Broward, FL; Hampden, MA; and Franklin, OH. For the $200,000 to $299,999 home values, the Census 2000 estimate is statistically significantly higher for Rockland, NY. For the $300,000 to $499,999 home values, the ACS estimate is statistically significantly higher for Pima, AZ; Broward, FL; Bronx, NY; and Rockland, NY. For the $500,000 to $999,999 home values, the ACS estimate is statistically significantly higher for San Francisco, CA and Lake, IL and the Census 2000 estimate is statistically significantly higher for Fort Bend, TX. For the $1,000,000 or more home values, the Census 2000 estimate is statistically significantly higher for Bronx, NY.

There is general agreement between the ACS and Census 2000 with only a few outliers for a couple of categories.

7.3 Median Gross Rent

Description of Item

The median gross rent is derived for all renter-occupied housing units with a mortgage, reflecting the median rent at the county level.

Figure 12. Scatter Plot of Median (dollars) Gross Rent for the 36 ACS Counties
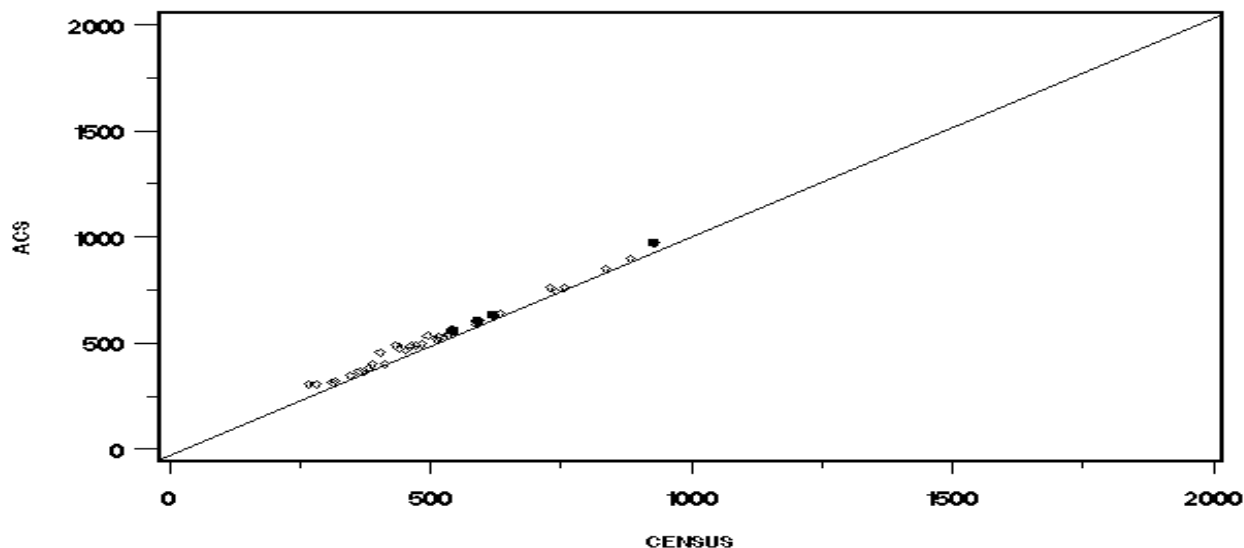
Table 15. ACS and Census 2000 Summary Statistics for Median Gross Rent

Item	Median Gross Rent
ACS Average	534
Census 2000 Average	518
Number of Counties in which the ACS Estimate is Significantly Higher	5
Number of Counties in which Census 2000 Estimate is Significantly Higher	0

Comparison

Figure 12 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from about $250 to over $900. There are five counties with the ACS estimate statistically significantly higher than the Census 2000 estimate: Pima, AZ; San Francisco, CA; Douglas, NE; Bronx, NY; and Harris, TX. In general, the ACS estimates are higher than the Census 2000 estimates for most of the counties.

8. Tract Level Profile Tables

Rather than go through the full profile data for the more than 2000 tracts in the 36 ACS counties, we will only choose a small number of items to examine. The same graphs used in the county presentation will be used for the tract data using the same scales as the county graphs. The variables chosen are race, school enrollment, median travel time to work, household income, and number of rooms.

Because there are so many tracts, the graphs start to look like a solid bar. Therefore, we split the tracts into five groups. Group 1 includes 207 tracts in 20 counties with less than 100,000 persons. Group 2 includes 592 tracts in 11 counties with 100,000 to 1,000,000 persons and the tract population is 4,000 or less. Group 3 includes 580 tracts in 11 counties with 100,000 to 1,000,000 populations and the tract population is over 4,000. Group 4 includes 401 tracts in 3 counties with over 1,000,000 persons and the tract population is 4,000 or less. Group 5 includes 470 tracts in 3 counties with over 1,000,000 persons and the tract population is over 4,000. This results in 5 equal groups of tracts. The tracts of Fort Bend, TX and Harris, TX are not included because the reduced tract sample size is not representative of the expected sample sizes for a fully implemented ACS sample over five years. The variances for these tracts are very large and extremely large differences would be needed to be significant.

An important difference in weighting occurs for the tract data. The census performs its sample weighting at the tract level or for a group of tracts. The ACS's weighting is done at the county level. As a result, we may expect some higher differences, especially for the variables that are used in the weighting. Due to the much smaller population (and sample sizes) at the tract level, greater differences are needed in order for differences to be statistically significant. All differences have been tested at the 90 percent confidence level with no adjustment to the significance level because of the large number of tracts tested. Therefore, we would expect to see up to 10 percent of the tracts to show statistically significant differences even if no real differences exist.

The graphs show the five different tract groups together for each category for the variable. This is repeated for each category. The graphs show the percent difference as is shown in the county graphs. The graph limits the scales to plus or minus 10 percent as is used in the county graphs. There are usually many tracts with difference values larger than 10 percent or less than -10 percent. These are shown in the graphs as having values at the limits in the graph.

The discussion of the tracts will focus on the variables for which over 10 percent of the tracts show statistically significantly higher estimates for the ACS or the Census 2000.

8.1 Race

The race variable examined here includes the single race categories and one category of those reporting more than one race. Each graph shows the 5 different tract groups for a single race category. The 8 race categories are shown on separate graphs for the tracts in 34 of the 36 counties.

Figure 13a. Difference (ACS−CENSUS) in Race for One Race for Tracts in 34 ACS Counties
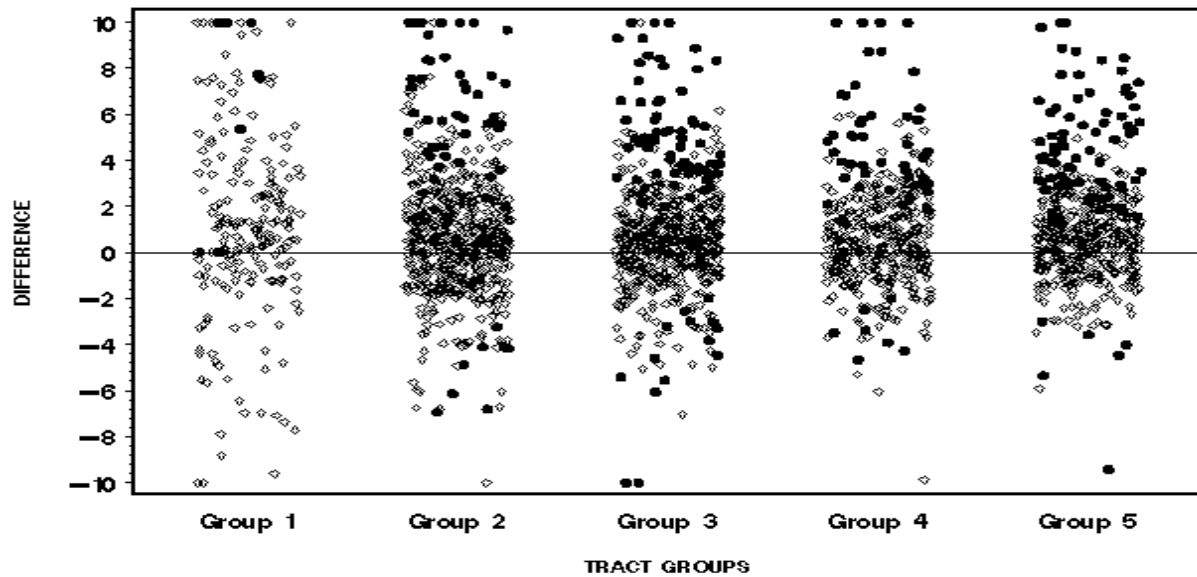
Figure 13b. Difference (ACS−CENSUS) in Race for White for Tracts in 34 ACS Counties

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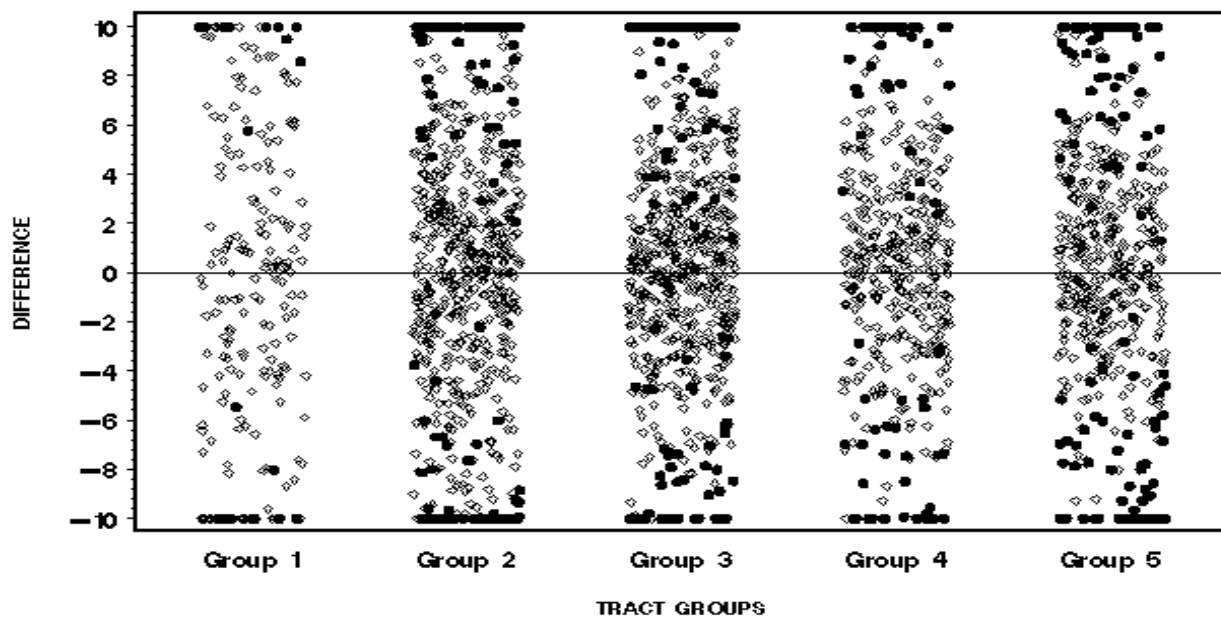
Figure 13c. Difference (ACS–CENSUS) in Race for Black or African American for Tracts in 34 ACS Counties
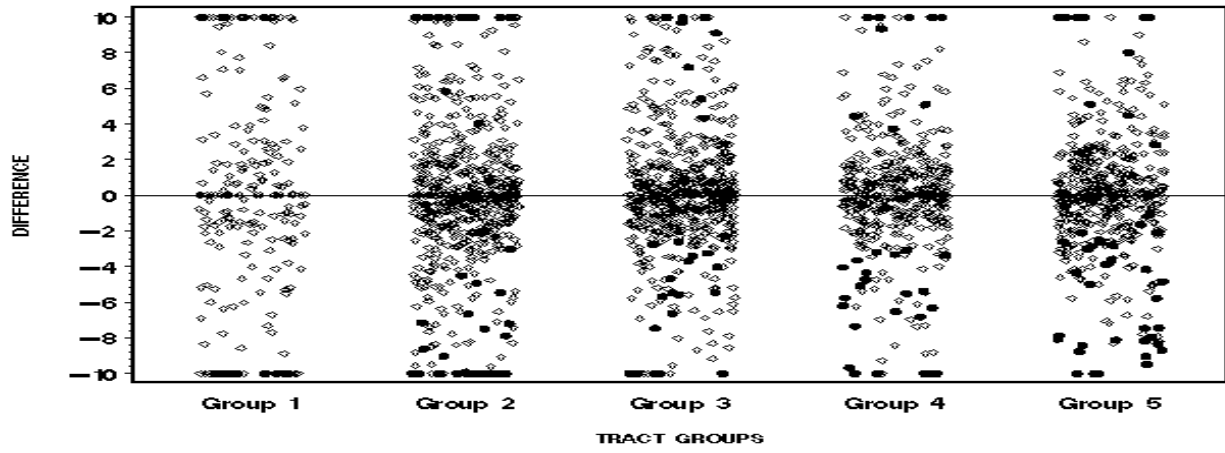
Figure 13d. Difference (ACS–CENSUS) in Race for American Indian and Alaska Native for Tracts in 34 ACS Counties
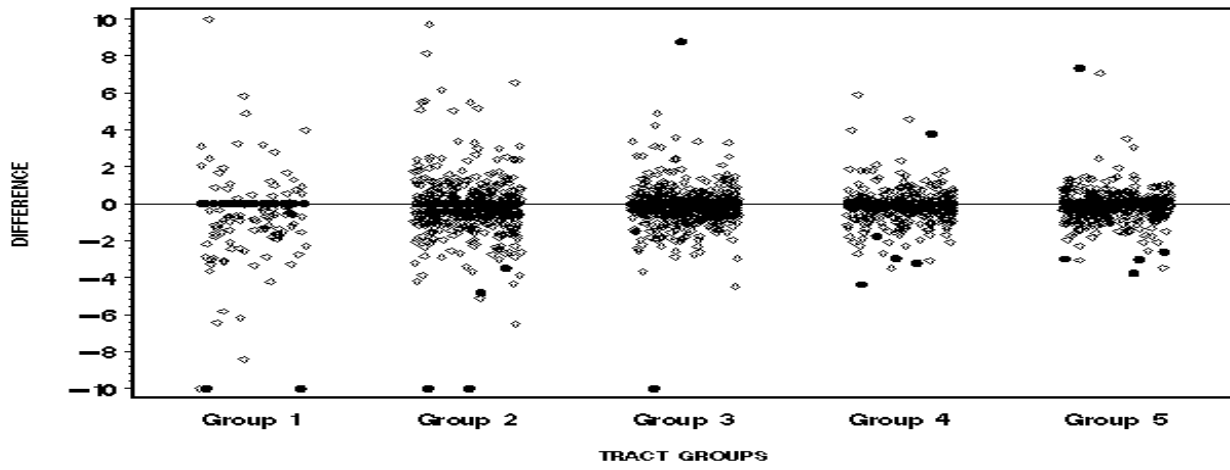
Figure 13e. Difference (ACS–CENSUS) in Race for Asian for Tracts in 34 ACS Counties

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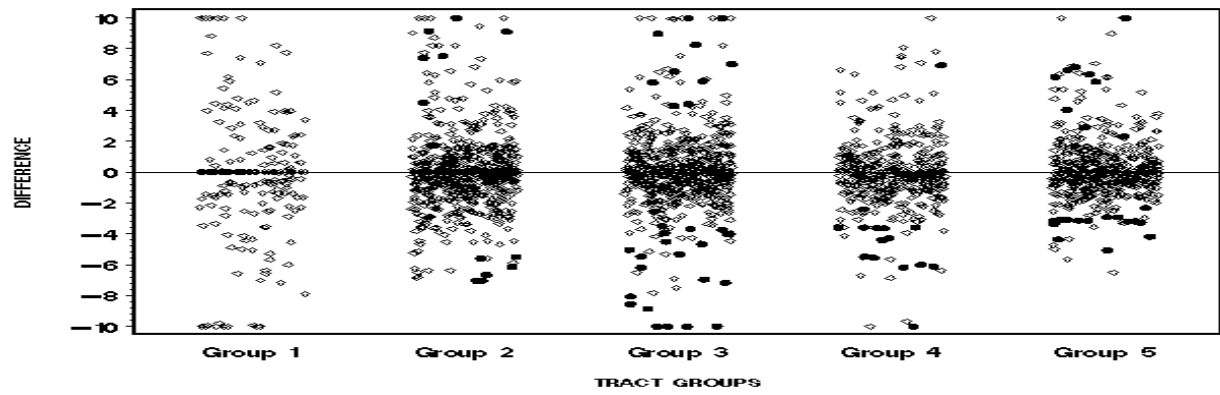
Figure 13f. Difference (ACS—CENSUS) in Race for Native Hawaiian
and Other Pacific Islander for Tracts in 34 ACS Counties
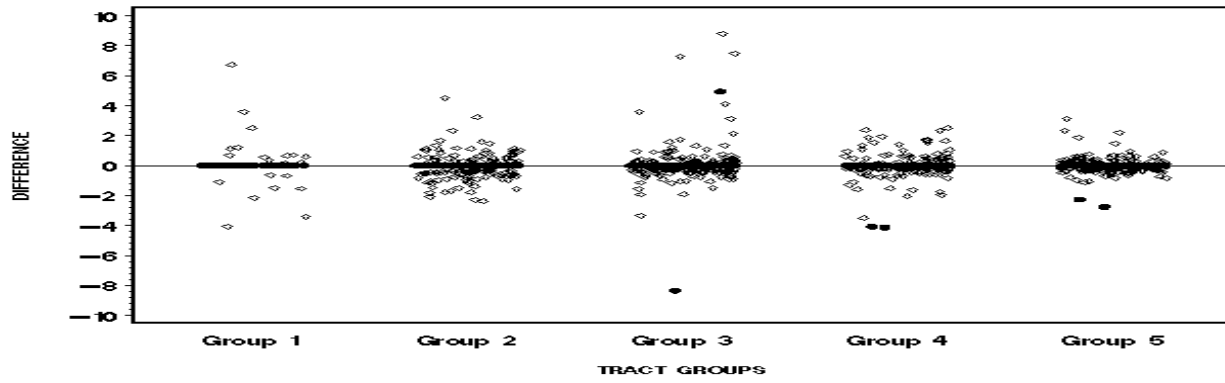
Figure 13g. Difference (ACS—CENSUS) in Race for
Some Other Race for Tracts in 34 ACS Counties
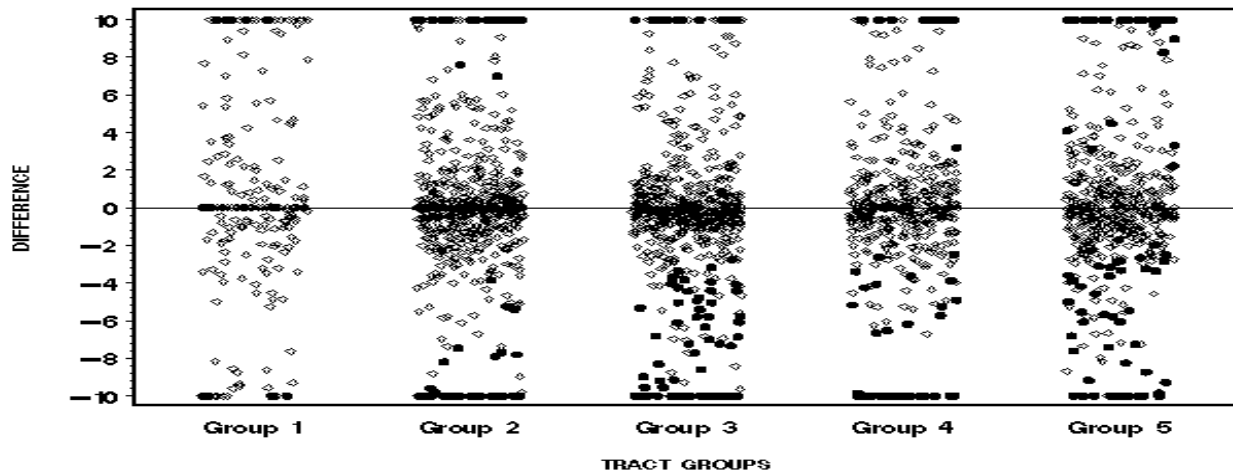
Figure 13h. Difference (ACS—CENSUS) in Race for Two
or More Races for Tracts in 34 ACS Counties

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Table 16. ACS and Census 2000 Summary Statistics for the Race Categories by the Five Tract Groups

Tract group1 (n=207) Tract group2 (n=592) Tract group3 (n=580) Tract group4 (n=401) Tract group5 (n=470)	ACS Average Percent	Census 2000 Average Percent	Number of Tracts in which the ACS Percent is Significantly Higher (Percent)	Number of Tracts in which the Census 2000 Percent is Significantly Higher (Percent)
One Race	98.4 97.6 97.3 97.5 97.7	98.5 96.9 96.6 95.6 96.0	7 (3.4) 37 (6.3) 54 (9.3) 46 (11.5) 92 (19.6)	7 (3.4) 9 (1.5) 11 (1.9) 2 (0.5) 6 (1.3)
White	74.1 76.3 74.3 50.8 59.9	75.3 74.3 71.9 51.7 60.9	22 (10.6) 68 (11.5) 97 (16.7) 23 (5.7) 22 (4.7)	23 (11.1) 30 (5.1) 35 (6.0) 36 (9.0) 48 (10.2)
Black or African American	19.0 8.1 5.3 30.1 22.2	18.9 7.9 5.1 30.1 22.2	3 (1.5) 5 (0.8) 11 (1.9) 12 (3.0) 16 (3.4)	6 (2.9) 19 (3.2) 23 (4.0) 27 (6.7) 39 (8.3)
American Indian and Alaska Native	1.7 1.2 1.0 0.4 0.3	2.0 1.5 1.2 0.5 0.5	0 (0.0) 1 (0.2) 2 (0.3) 0 (0.0) 0 (0.0)	4 (1.9) 5 (0.9) 3 (0.5) 0 (0.0) 3 (0.6)
Asian	0.5 5.7 8.2 2.9 2.8	0.7 5.6 8.2 2.7 2.7	1 (0.5) 7 (1.2) 10 (1.7) 3 (0.8) 5 (1.1)	0 (0.0) 13 (2.2) 24 (4.1) 5 (1.3) 15 (3.2)
Native Hawaiian and Other Pacific Islander	0.05 0.17 0.18 0.04 0.06	0.03 0.17 0.17 0.07 0.05	0 (0.0) 0 (0.0) 1 (0.2) 0 (0.0) 0 (0.0)	0 (0.0) 2 (0.3) 3 (0.5) 0 (0.0) 0 (0.0)
Some Other Race	3.0 6.2 8.2 13.3 12.4	1.7 7.5 10.0 10.6 9.7	11(5.3) 6 (1.0) 6 (1.0) 23 (5.0) 46 (10.4)	1 (0.5) 58 (9.8) 98 (16.9) 8 (2.0) 17 (3.6)

Two or more Races	1.6	1.5	9 (4.4)	8 (3.9)
	2.4	3.1	4 (0.7)	37 (6.3)
	2.7	3.4	7 (1.2)	73 (12.6)
	2.5	4.5	1 (0.3)	36 (9.0)
	2.3	4.0	2 (0.4)	108 (23.0)

Comparisons

The results for race somewhat mirror the results for the counties, but it does show differences between the different tract groupings. There are no instances where all tract groups have at least 10 percent of the tracts being statistically significant. There is general agreement between the ACS estimates and the Census 2000 estimates at the tract level for the Black, American Indian and Alaska Native, Asian, and Native Hawaiian and Other Pacific Islanders race categories. There is only one instance in these categories where 10 percent of the tracts are statistically significant differences. The Black or African American estimates for tract group 5 have over 10 percent of the tracts statistically significantly different, but they are somewhat balanced between the Census 2000 and the ACS.

For the One race category, the ACS estimates are statistically significantly higher for over 10 percent of the tracts for tract groups 4 and 5. For the tract groups 3 and 4, the ACS estimates have more tracts that are statistically significantly higher. For the tract group 1, there are no differences between the ACS and the Census 2000 estimates.

For the White race category, four of the five tract groups have at least 10 percent of the tracts being statistically significantly different, but there is not a consistent picture. The ACS estimates are statistically significantly higher for over 10 percent of the tracts for tract groups 1, 2, and 3. The Census 2000 estimates are statistically significantly higher for over 10 percent of the tracts for tract group 5 and just under 10 percent of the tracts for tract group 4.

For the Some other race category, the ACS estimates are statistically significantly higher for over 10 percent of the tracts for tract group 5 while the Census 2000 estimates are statistically significantly higher for over 10 percent of the tracts for tract group 3. The differences for Some other race category therefore is inconsistent across the five tract groups.

For the Two or more race categories, the Census 2000 estimates are statistically significantly higher for over 10 percent of the tracts for tract groups 3 and 5. There is very little effect observed for the tract group 1 while the Census 2000 estimates are generally higher for tract groups 2 and 4.

In conclusion the One and Two or more race categories are consistent across most of the five tract groups. The ACS is generally larger for the one race category and Census 2000 is generally larger for the two or more race category. The individual race categories generally have either no statistically significant number of differences or the differences change across the different tract groups.

8.2 School Enrollment

Description

The school enrollment variable is asked of all currently enrolled students. Each graph shows the 5 tract groups for a single school enrollment category. The 5 school enrollment categories are shown on separate graphs for the tracts in 34 of the 36 counties.

Figure 14a. Difference (ACS—CENSUS) in School Enrollment for Preschool for Tracts in 34 ACS Counties
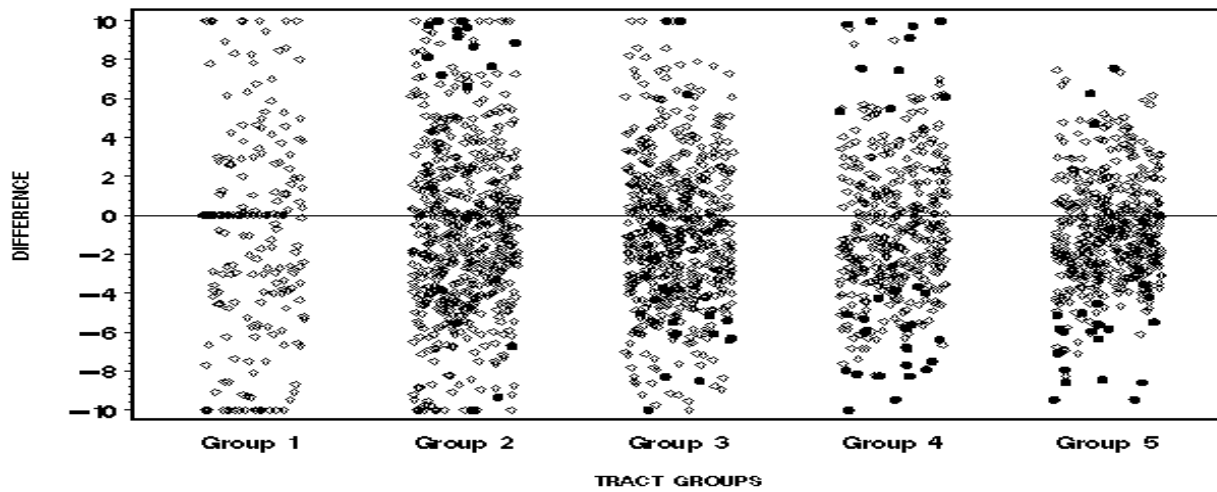
Figure 14b. Difference (ACS—CENSUS) in School Enrollment for Kindergarten for Tracts in 34 ACS Counties

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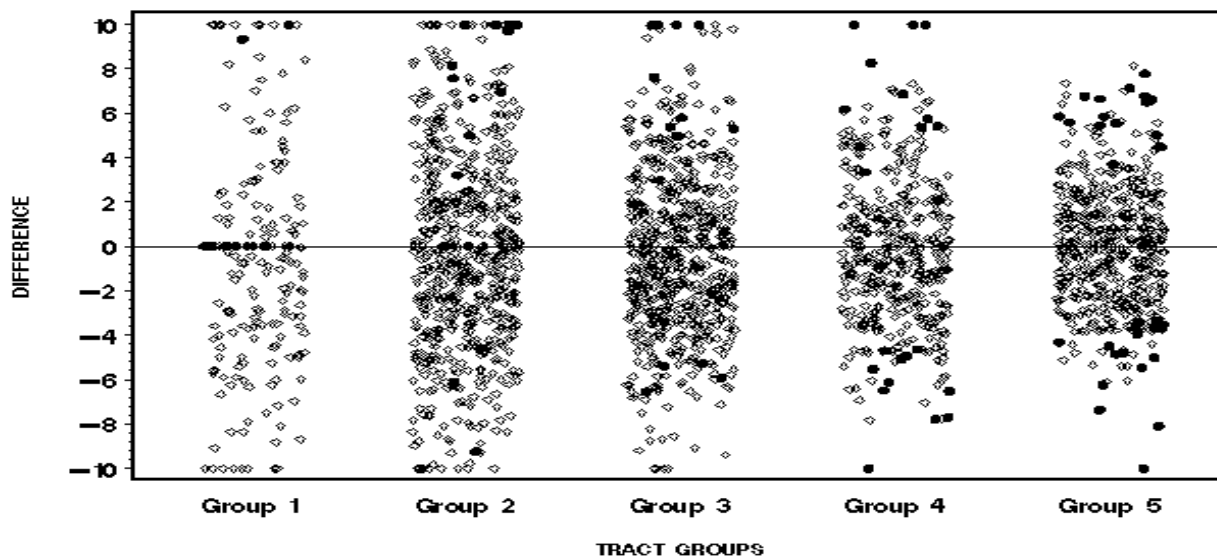
Figure 14c. Difference (ACS—CENSUS) in School Enrollment
for Elementary for Tracts in 34 ACS Counties
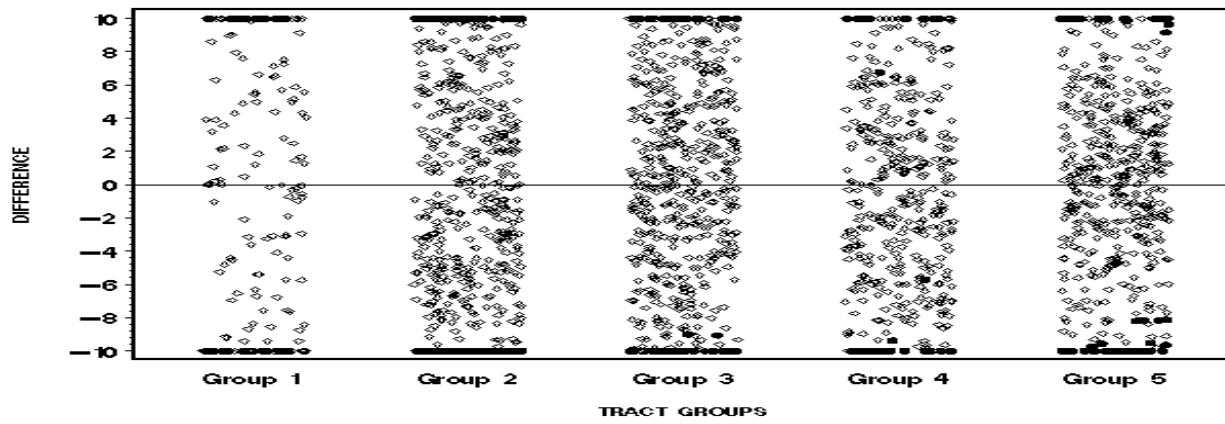
Figure 14d. Difference (ACS—CENSUS) in School Enrollment
for High School for Tracts in 34 ACS Counties
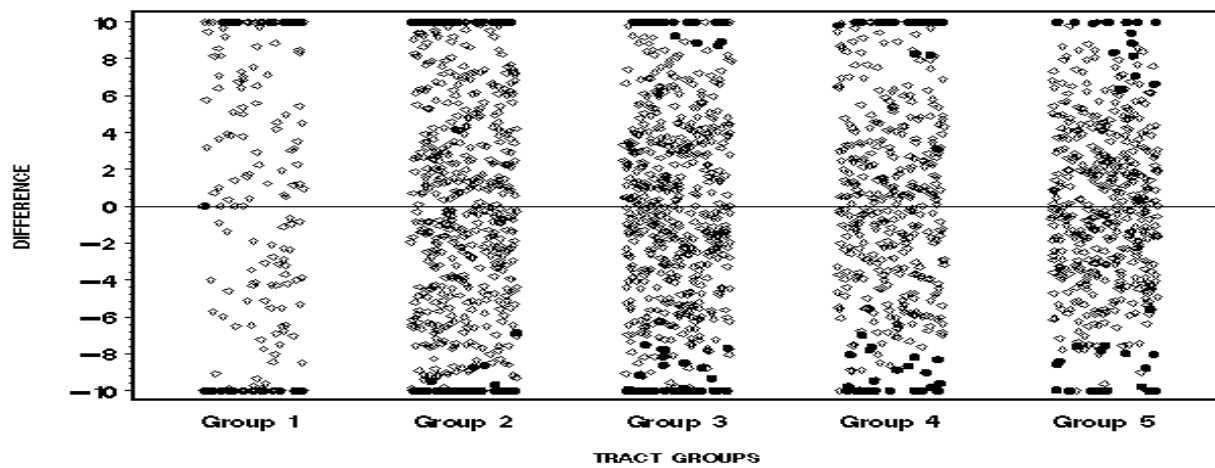
Figure 14e Difference (ACS—CENSUS) in School Enrollment for College
or Graduate School for Tracts in 34 ACS Counties

42
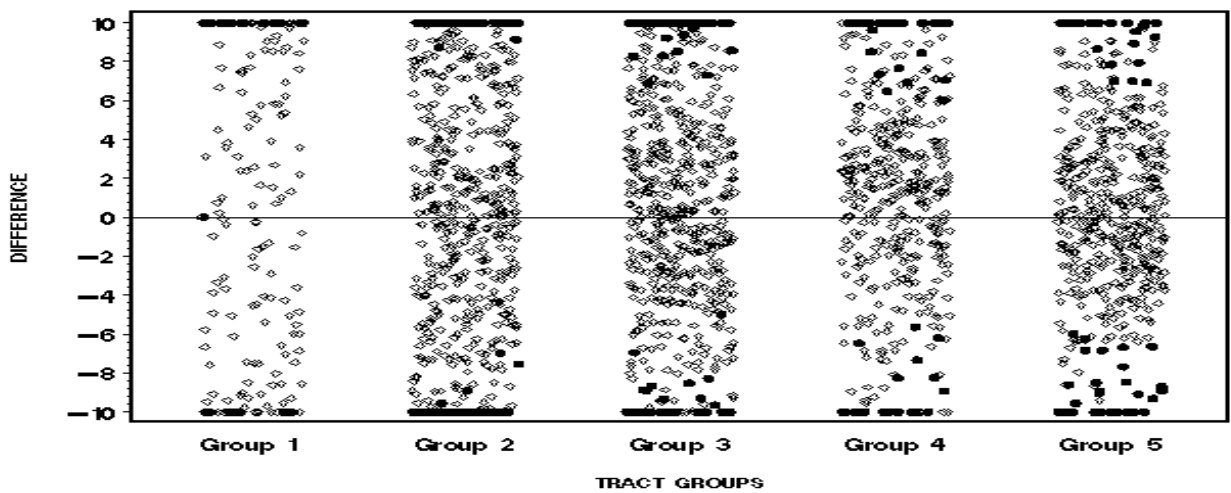
Table 17. ACS and Census 2000 Summary Statistics for the School Enrollment Categories by the Five Tract Groups

Tract group1 (n=207) Tract group2 (n=592) Tract group3 (n=580) Tract group4 (n=401) Tract group5 (n=470)	ACS Average Percent	Census 2000 Average Percent	Number of Tracts in which the ACS Percent is Significantly Higher (Percent)	Number of Tracts in which the Census 2000 Percent is Significantly Higher (Percent)
Nursery School, Preschool	6.0	6.4	6 (2.9)	5 (2.4)
	5.5	6.5	6 (1.0)	12 (2.0)
	5.7	6.6	7 (1.2)	30 (5.2)
	5.7	6.2	4 (1.0)	0 (0.0)
	6.2	7.0	5 (1.1)	13 (2.8)
Kindergarten	5.4	5.7	4 (1.9)	8 (3.9)
	4.9	5.2	15 (2.6)	2 (0.3)
	5.3	5.3	15 (2.6)	11 (1.9)
	4.9	5.6	2 (0.5)	2 (0.5)
	5.7	5.8	12 (2.6)	12 (2.6)
Elementary (Grades 1-8)	48.3	48.9	9 (4.4)	10 (4.8)
	41.0	41.0	13 (2.2)	28 (4.8)
	42.0	42.5	12 (2.1)	35 (6.0)
	42.6	42.7	16 (4.0)	19 (4.7)
	44.3	43.8	11 (2.3)	23 (4.9)
High School (Grades 9-12)	23.4	24.1	10 (4.8)	11 (5.3)
	20.2	20.2	18 (3.1)	35 (6.0)
	20.2	20.1	26 (4.5)	22 (3.8)
	21.2	21.1	15 (3.7)	24 (6.0)
	20.2	21.0	14 (3.0)	31 (6.6)
College or Graduate School	16.8	15.5	21 (10.1)	11 (5.3)
	28.3	27.9	43 (7.3)	35 (6.0)
	26.7	25.6	46 (7.9)	35 (6.0)
	25.6	24.9	17 (4.2)	18 (4.5)
	23.6	22.6	24 (5.1)	31 (6.6)

Comparisons

Figures 14a-e and table 17 show general agreement between the ACS and the census for all of the school enrollment categories except for college or graduate school. The higher Census 2000 estimates for the nursery school, preschool category generally is seen in the graphs, but is not seen in the number of statistically significant differences. The higher ACS estimates for the college or graduate school category is seen in a large number of statistically significant differences for most of the tract groups. However there are a sizeable number of Census 2000 estimates that are statistically significantly different for the college or graduate school category for all tract groups. The kindergarten, elementary, and high school categories show good agreement between the ACS and the Census 2000 across all 5 tract groups.

8.3 Mean Travel Time to Work

Description

The mean travel time to work is a derived statistic for all currently working persons. Figures 15a-e are for the 5 tract groups for 34 of the 36 counties.

Figure 15a. Scatter Plot of Mean Travel Time To Work (minutes) for Tracts in Small Counties (pop< 100,000)
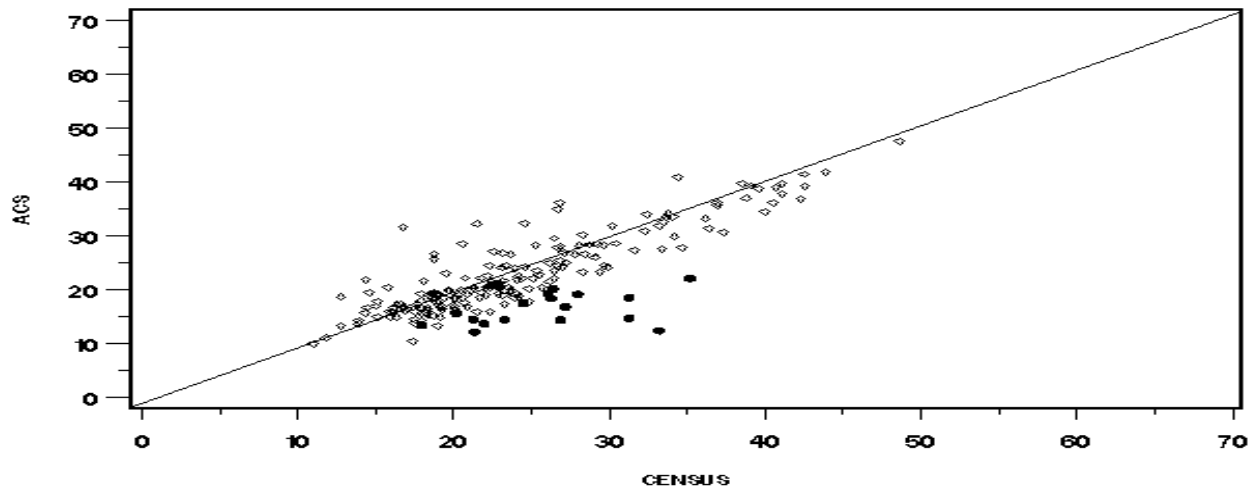
Figure 15b. Scatter Plot of Mean Travel Time To Work (minutes) for Tracts in Medium Counties (100,000< pop< 1,000,000) and Tract Population less than 4,000

45
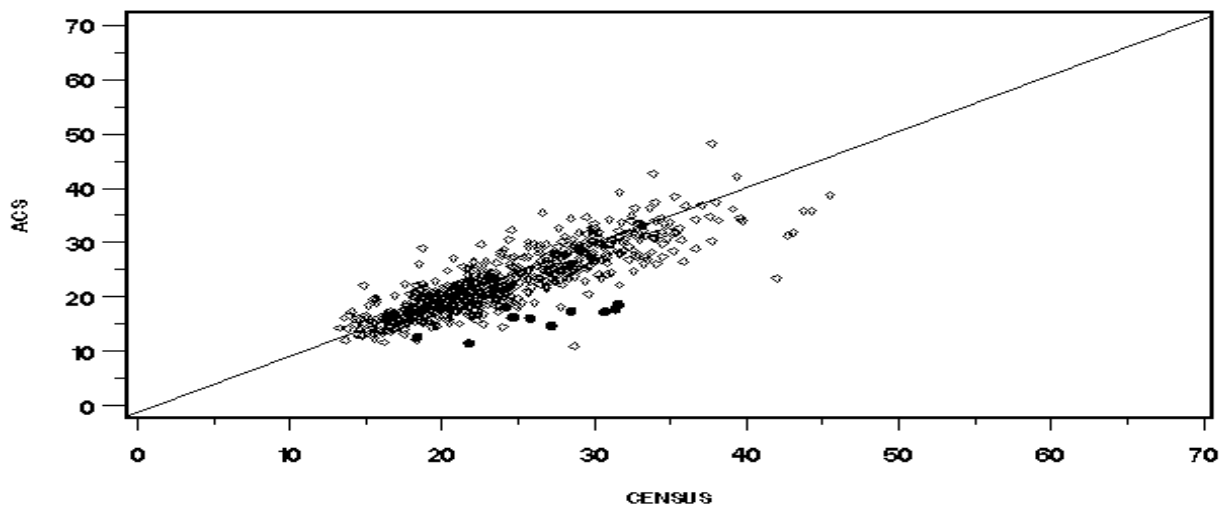
**Figure 15c. Scatter Plot of Mean Travel Time To Work (minutes)
for Tracts in Medium Counties (100,000< pop< 1,000,000)
and Tract Population greater than 4,000**
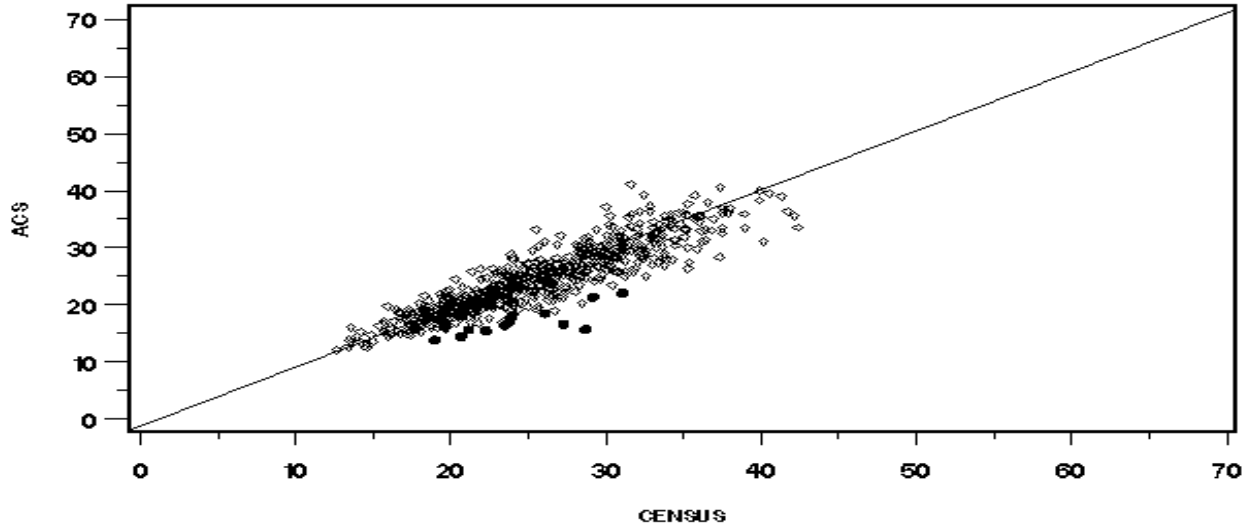
**Figure 15d. Scatter Plot of Mean Travel Time To Work (minutes)
for Tracts in Large Counties (pop> 1,000,000)
and Tract Population less than 4,000**

46
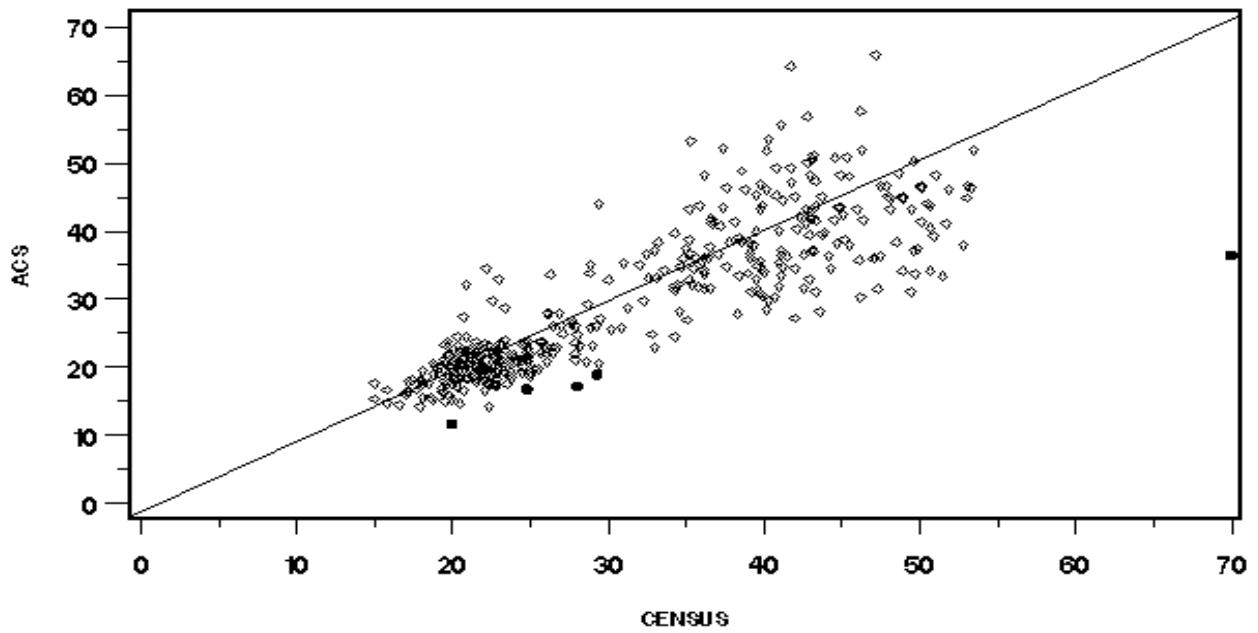
Figure 15e. Scatter Plot of Mean Travel Time To Work (minutes) for Tracts in Large Counties (pop > 1,000,000) and Tract Population greater than 4,000
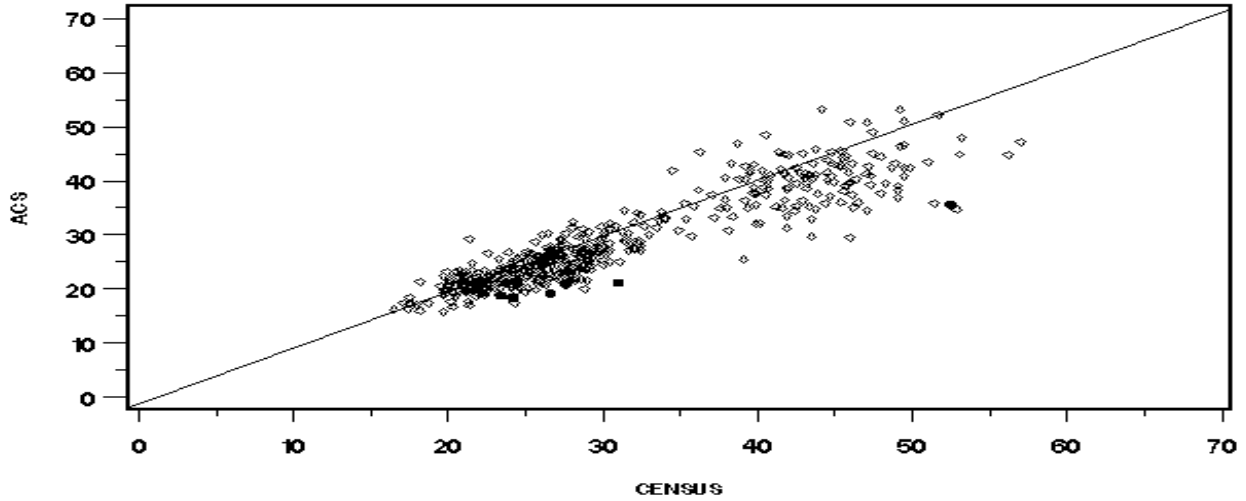
Table 18. ACS and Census 2000 Summary Statistics for Mean Travel Time to Work by the Five Tract Groups

Tract group1 (n=207) Tract group2 (n=592) Tract group3 (n=580) Tract group4 (n=401) Tract group5 (n=470)	ACS Average	Census 2000 Average	Number of Tracts in which the ACS Estimate is Significantly Higher (Percent)	Number of Tracts in which the Census 2000 Estimate is Significantly Higher (Percent)
Mean Travel Time to Work	22.5 22.7 24.5 30.3 28.7	24.2 24.1 25.7 32.1 30.8	0 (0.0) 0 (0.0) 0 (0.0) 0 (0.0) 0 (0.0)	17 (8.2) 10 (1.7) 12 (2.1) 5 (1.3) 6 (1.3)

Comparisons

Figures 15a-e show the mean travel time to work for the tracts in 34 of the 36 ACS counties. There does appear to be a general pattern of the Census 2000 estimates being higher than the ACS estimates across the 5 tract groups. However there are not more than 10 percent of the tracts with a statistically significant difference. All tracts that are statistically significantly different have the Census 2000 estimate higher than the ACS estimate.

Although the general trend is for the Census 2000 estimates to be higher than the ACS estimates at the tract level, these differences are only seldom statistically significantly different.

8.4 Household Income

Description

Household income is tabulated for households at the tract level. Each graph shows the 5 different tract groups for a single household income category. The 10 household income categories are shown on separate graphs for the tracts in 34 of the 36 counties.

Figure 16a. Difference (ACS—CENSUS) in Household Income for Income Less Than $10,000 for Tracts in 34 ACS Counties
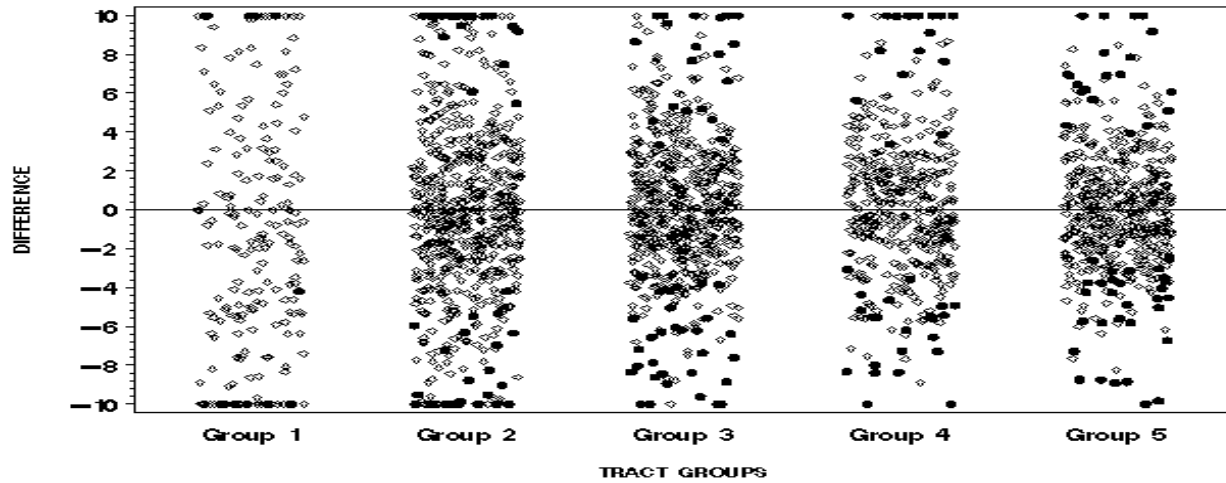
Figure 16b. Difference (ACS—CENSUS) in Household Income for Income $10,000 to $14,999 for Tracts in 34 ACS Counties

48
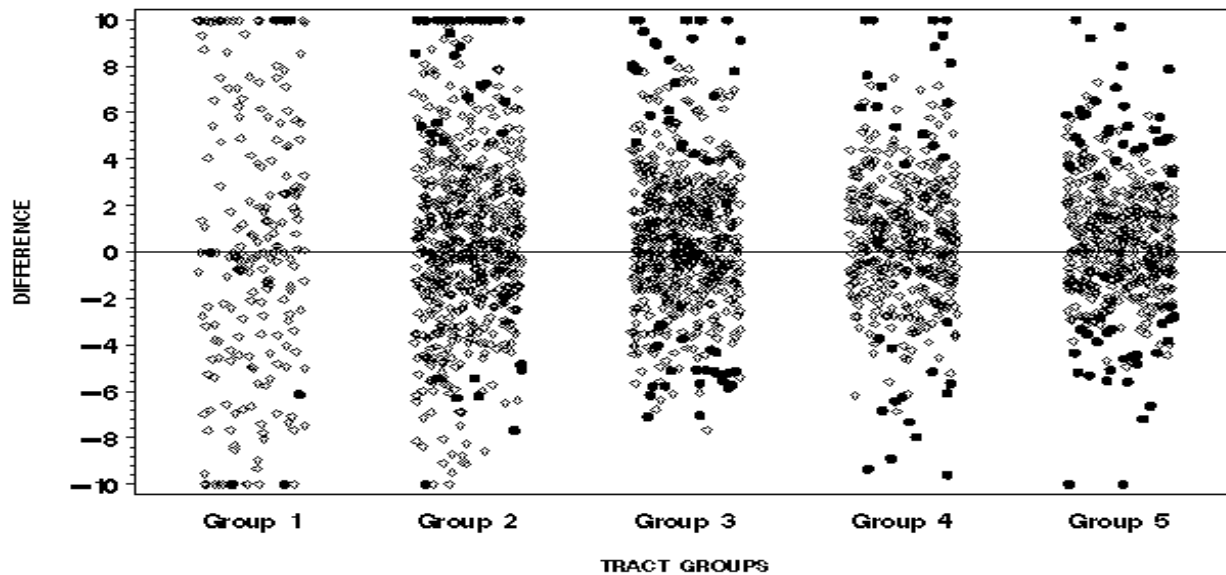
Figure 16c. Difference (ACS—CENSUS) in Household Income for Income $15,000 to $24,999 for Tracts in 34 ACS Counties
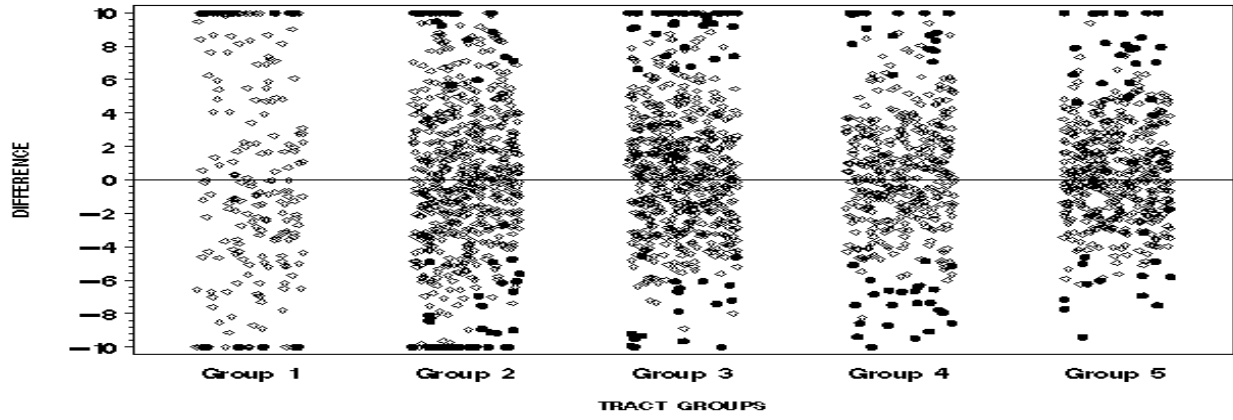
Figure 16d. Difference (ACS—CENSUS) in Household Income for Income $25,000 to $34,999 for Tracts in 34 ACS Counties
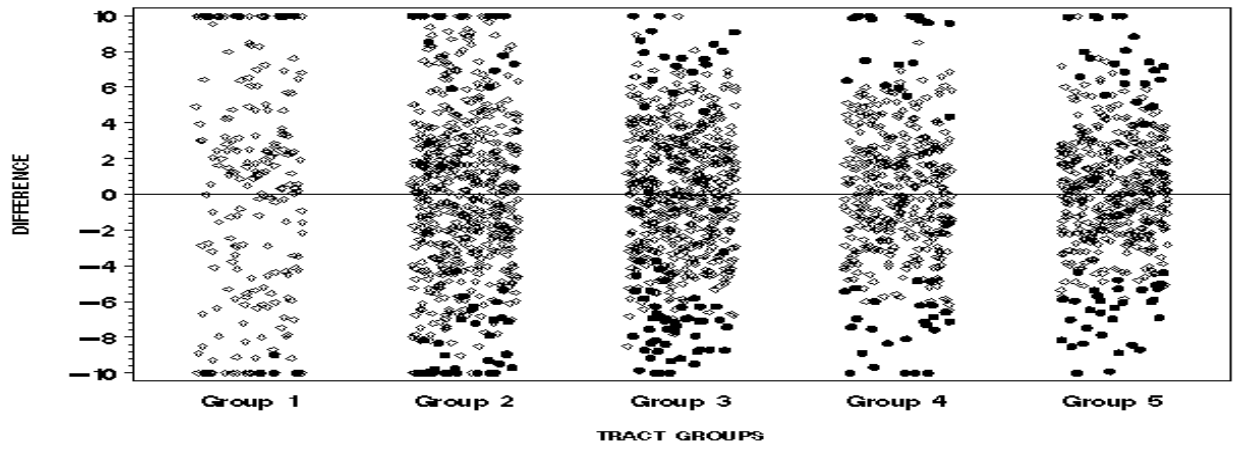
Figure 16e. Difference (ACS—CENSUS) in Household Income for Income $35,000 to $49,999 for Tracts in 34 ACS Counties

49
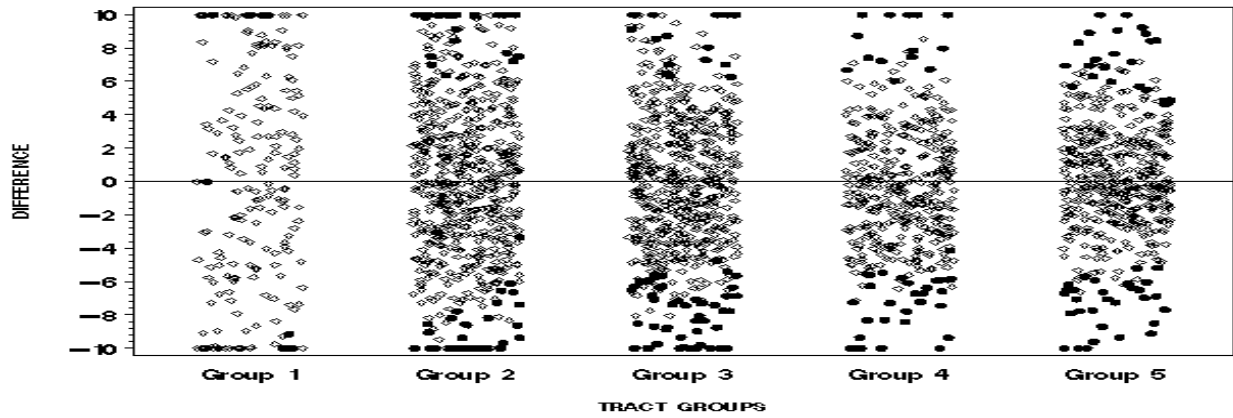
Figure 16f. Difference (ACS—CENSUS) in Household Income for Income $50,000 to $74,999 for Tracts in 34 ACS Counties
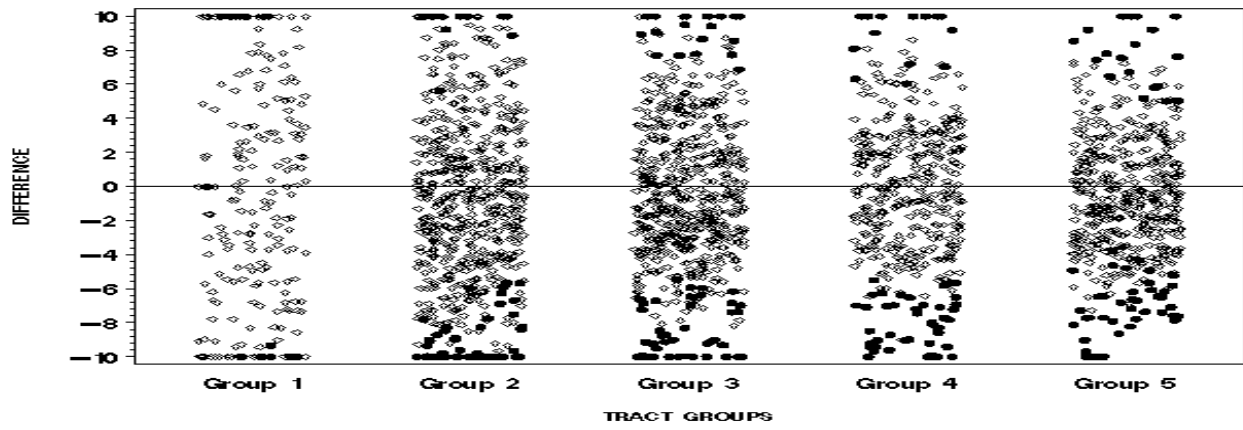
Figure 16g. Difference (ACS—CENSUS) in Household Income for Income $75,000 to $99,999 for Tracts in 34 ACS Counties
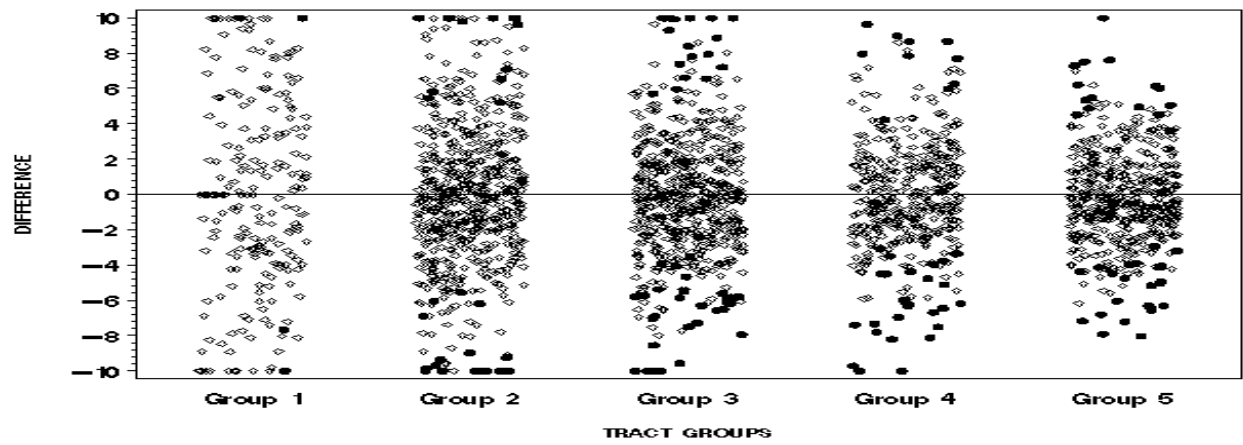
Figure 16h. Difference (ACS—CENSUS) in Household Income for Income $100,000 to $149,999 for Tracts in 34 ACS Counties

50
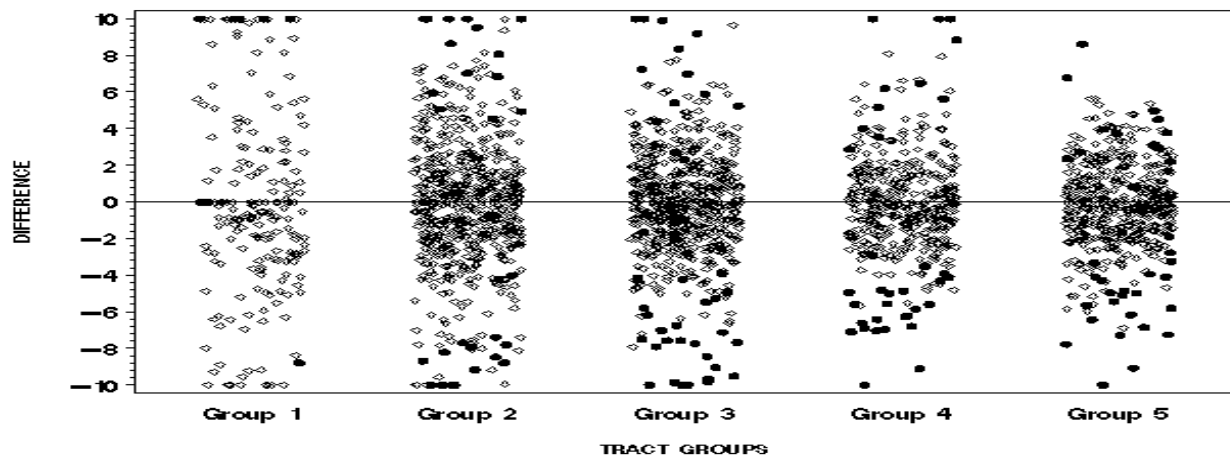
Figure 16i. Difference (ACS—CENSUS) in Household Income for Income $150,000 to $199,999 for Tracts in 34 ACS Counties
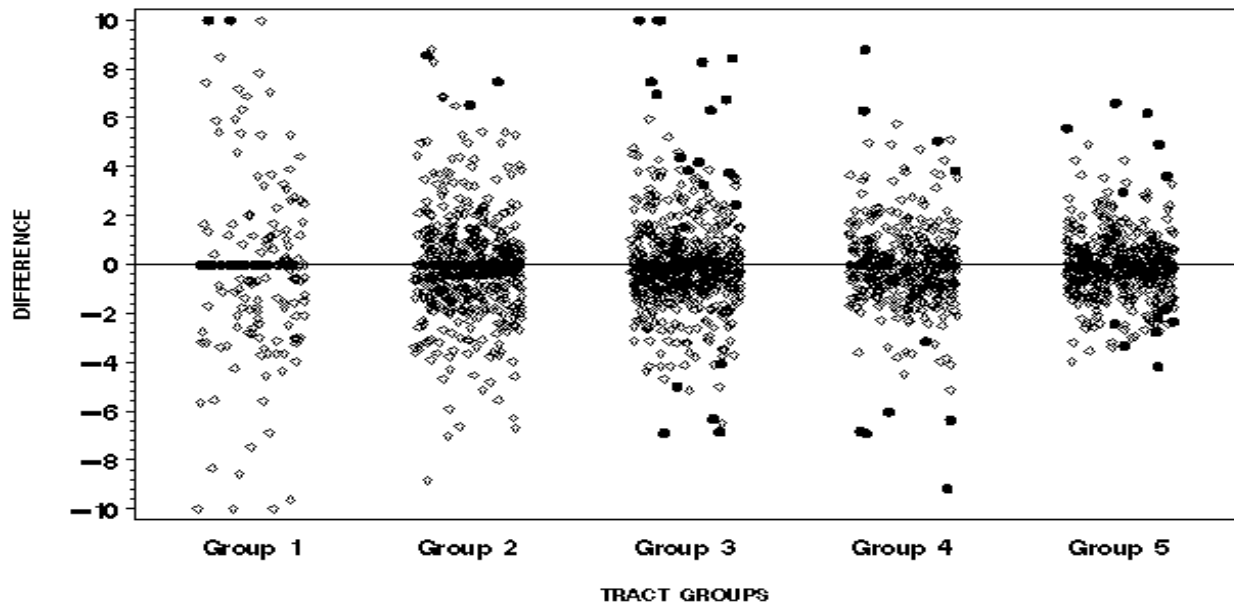
Figure 16j. Difference (ACS—CENSUS) in Household Income for Income $200,000 or More for Tracts in 34 ACS Counties
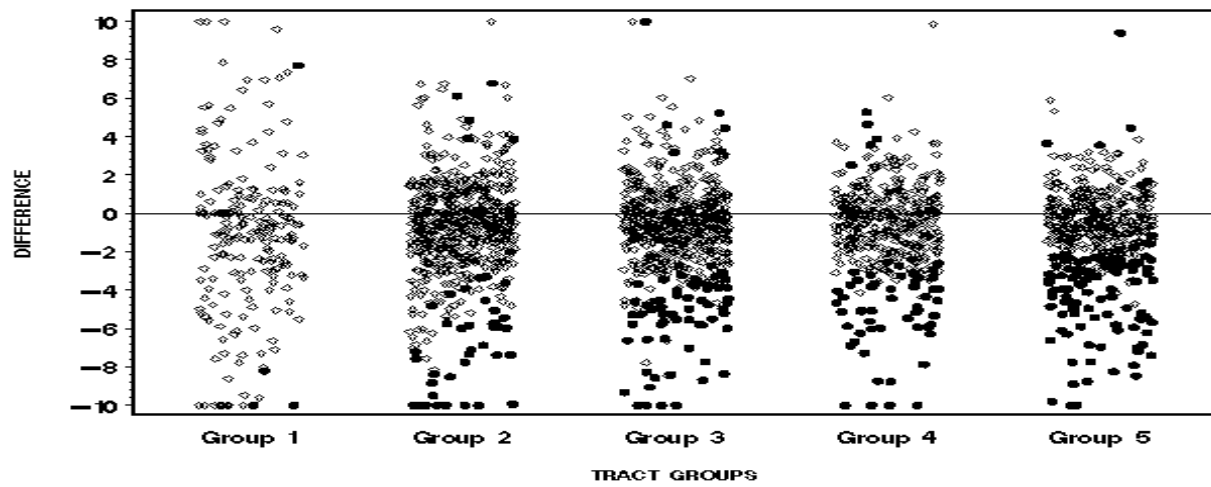
51
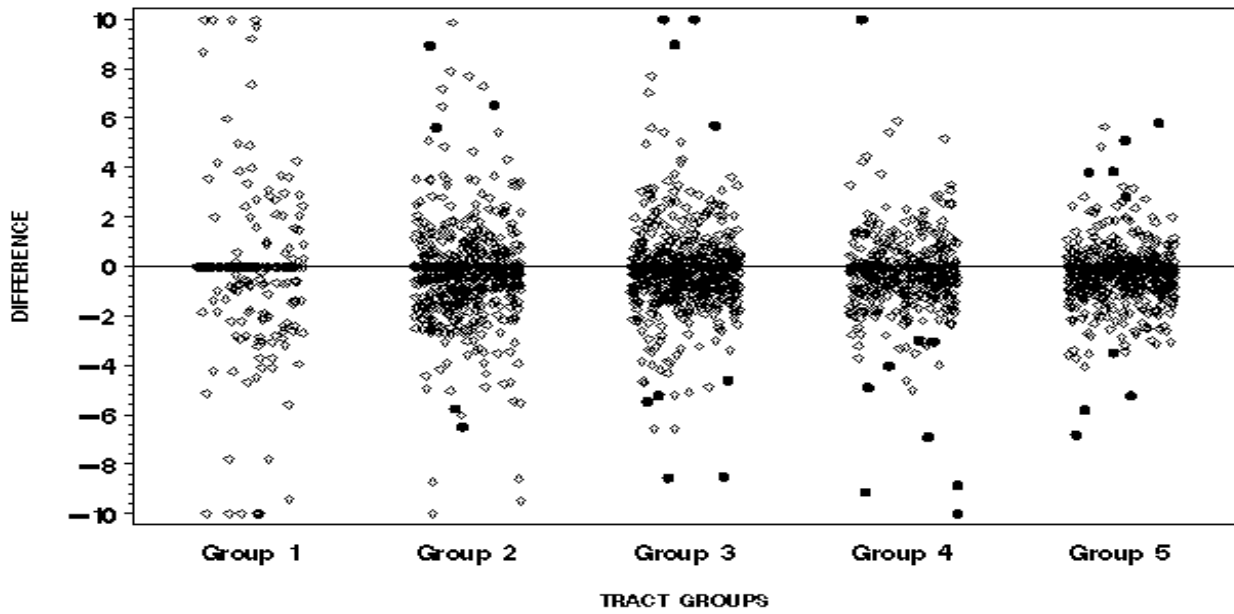
Table 19. ACS and Census 2000 Summary Statistics for the Household Income Categories by the Five Tract Groups

Tract group1 (n=207) Tract group2 (n=592) Tract group3 (n=580) Tract group4 (n=401) Tract group5 (n=470)	ACS Average Percent	Census 2000 Average Percent	Number of Tracts in which the ACS Percent is Significantly Higher (Percent)	Number of Tracts in which the Census 2000 Percent is Significantly Higher (Percent)
Less Than $10,000	13.2	14.0	7 (3.4)	16 (7.7)
	9.8	9.9	20 (3.4)	24 (4.1)
	8.8	8.7	21 (3.6)	34 (5.9)
	16.0	16.1	15 (3.7)	11 (2.7)
	13.5	13.5	19 (4.0)	30 (6.4)
$10,000 to $14,999	9.5	8.6	13 (6.3)	11 (5.3)
	6.7	6.0	27 (4.6)	17 (2.9)
	6.4	5.8	30 (5.2)	21 (3.6)
	8.0	7.8	8 (2.0)	5 (1.3)
	7.3	6.7	26 (5.5)	18 (3.8)
$15,000 to $24,999	16.2	15.7	7 (3.4)	13 (6.3)
	13.0	12.4	28 (4.7)	19 (3.2)
	12.7	12.1	33 (5.7)	24 (4.1)
	14.8	13.9	14 (3.5)	17 (4.2)
	13.5	12.7	23 (4.9)	15 (3.2)
$25,000 to $34,999	14.0	13.8	14 (6.8)	15 (7.3)
	12.2	12.2	18 (3.0)	34 (5.7)
	12.3	12.2	23 (4.0)	34 (5.9)
	13.1	13.3	8 (2.0)	28 (7.0)
	13.1	12.9	20 (4.3)	34 (7.2)
$35,000 to $49,999	15.9	16.3	6 (2.9)	12 (5.8)
	15.4	15.1	27 (4.6)	31 (5.2)
	15.7	15.9	24 (4.1)	45 (7.8)
	15.4	15.2	5 (1.3)	18 (4.5)
	15.6	15.7	19 (4.0)	36 (7.7)
$50,000 to $74,999	16.1	16.3	9 (4.4)	13 (6.3)
	17.7	18.6	16 (2.7)	44 (7.4)
	18.4	19.1	18 (3.1)	58 (10.0)
	16.4	16.7	11 (2.7)	24 (6.0)
	17.7	18.2	15 (3.2)	43 (9.2)
$75,000 to $99,999	7.4	7.6	3 (1.5)	4 (1.9)
	10.1	10.3	15 (2.5)	27 (4.6)
	10.6	10.7	19 (3.3)	42 (7.2)
	8.1	7.9	10 (2.5)	6 (1.5)
	9.2	9.4	14 (3.0)	18 (3.8)

$100,000 to $149,999	5.1 8.7 9.1 5.5 6.8	5.1 8.8 9.2 5.8 7.0	10 (4.8) 18 (3.0) 14 (2.4) 8 (2.0) 6 (1.3)	5 (2.4) 31 (5.2) 26 (4.5) 9 (2.2) 22 (4.7)
$150,000 to $199,999	1.4 2.9 3.0 1.5 1.7	1.4 2.9 3.0 1.6 1.9	1 (0.5) 7 (1.2) 14 (2.4) 3 (0.8) 5 (1.1)	1 (0.5) 2 (0.3) 8 (1.4) 1 (0.3) 7 (1.5)
$200,000 or More	1.2 3.5 3.0 1.3 1.6	1.3 3.8 3.2 1.7 1.9	2 (1.0) 2 (0.3) 3 (0.5) 0 (0.0) 6 (1.3)	0 (0.0) 7 (1.2) 9 (1.6) 2 (0.5) 2 (0.4)

Comparisons

Figures 16 a-j show the household income estimates for the tracts in 34 of the 36 ACS counties. The income categories $25,000 to $34,999, $35,000 to $49,999, and $50,000 to $74,999 generally have a higher number of tracts with the Census 2000 estimates being statistically significantly higher. The other categories do not in general show a large number of tracts with statistically significant differences.

8.5 Number of Rooms

Description

The number of rooms is tabulated for all housing units at the tract level. Each graph shows the 5 tract groups for a single number of rooms category. The 9 number of rooms categories are shown on separate graphs for the tracts in 34 of the 36 counties.

Figure 17a. Difference (ACS—CENSUS) in Rooms for One Room for Tracts in 34 ACS Counties
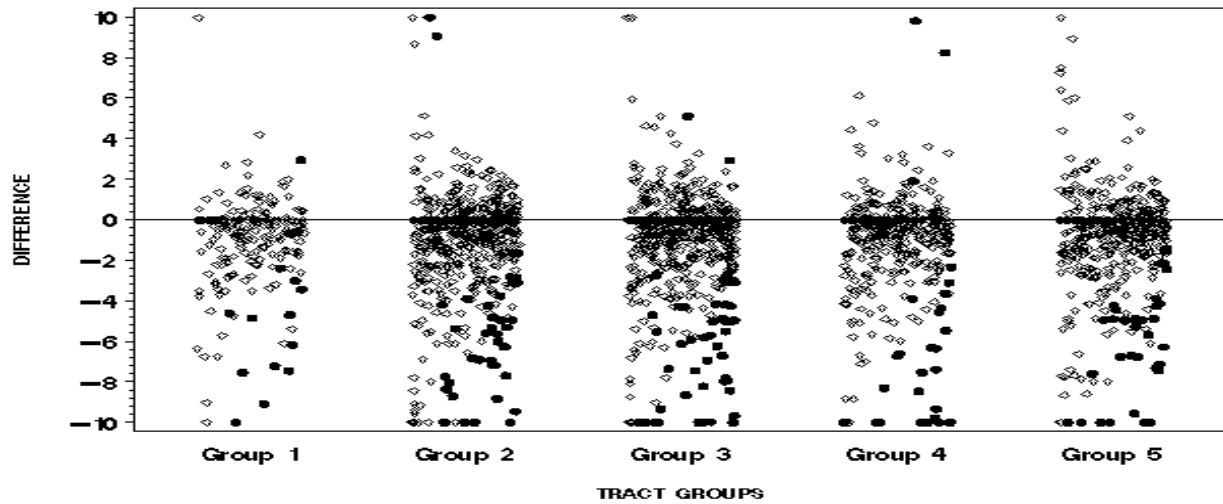
Figure 17b. Difference (ACS—CENSUS) in Rooms for Two Rooms for Tracts in 34 ACS Counties
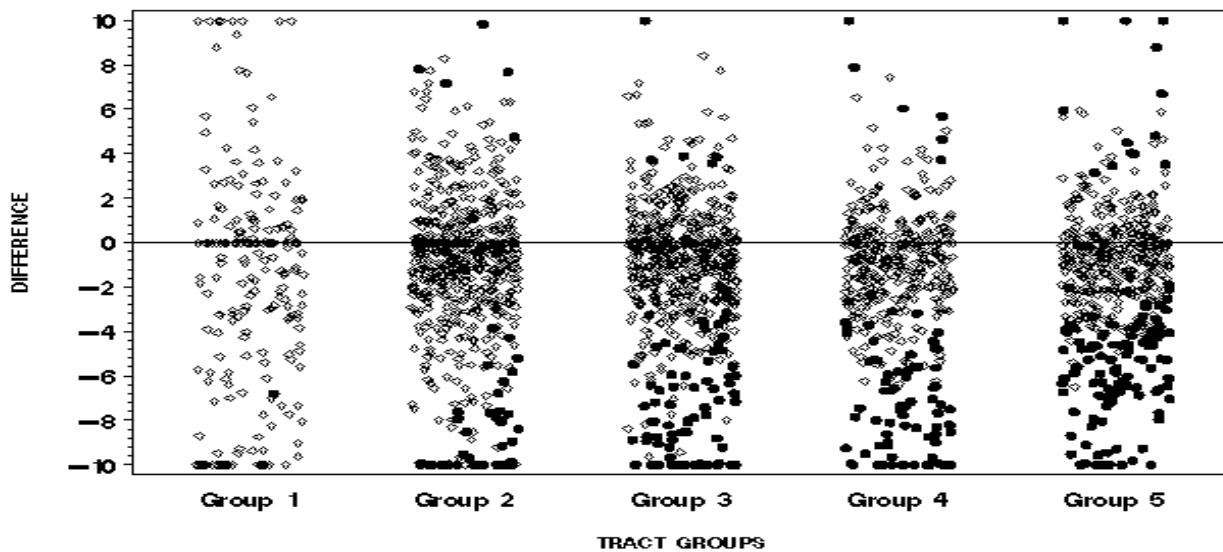
Figure 17c. Difference (ACS—CENSUS) in Rooms for Three Rooms for Tracts in 34 ACS Counties
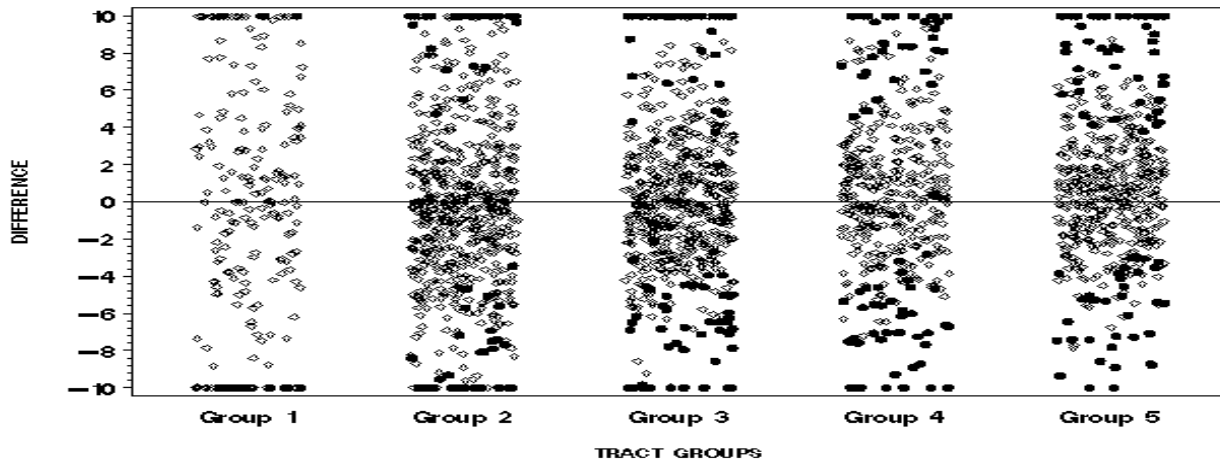
Figure 17d. Difference (ACS—CENSUS) in Rooms for Four Rooms for Tracts in 34 ACS Counties
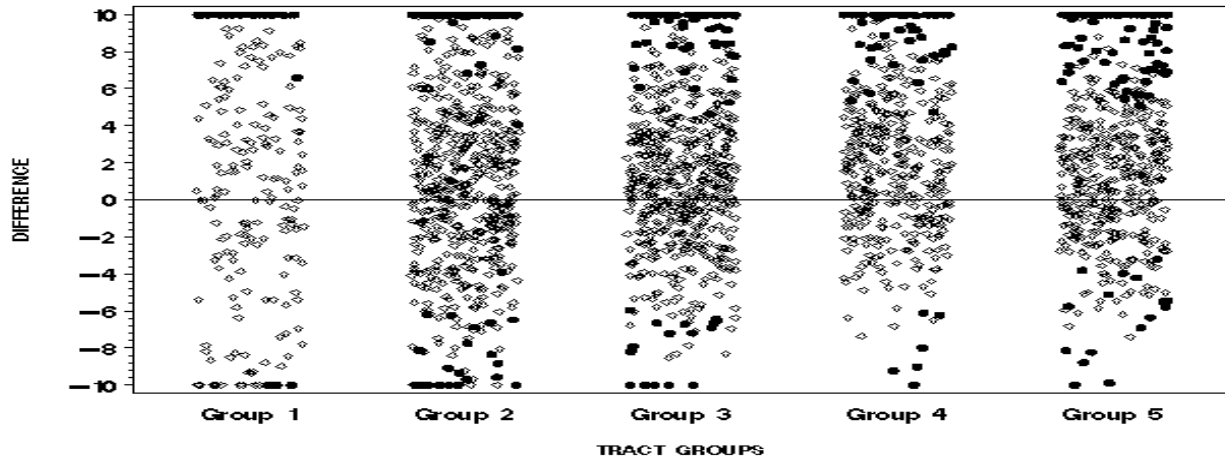
Figure 17e. Difference (ACS—CENSUS) in Rooms for Five Rooms for Tracts in 34 ACS Counties

55
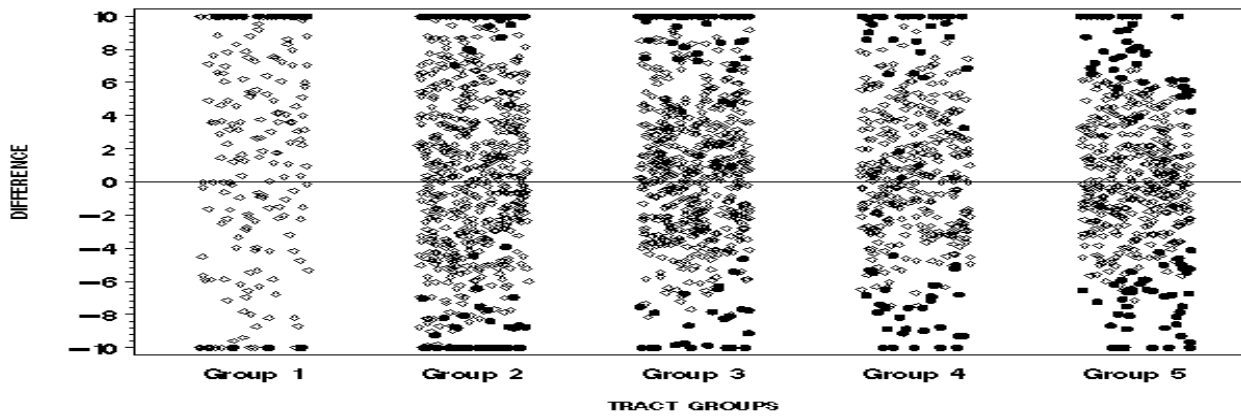
Figure 17f. Difference (ACS—CENSUS) in Rooms for
Six Rooms for Tracts in 34 ACS Counties
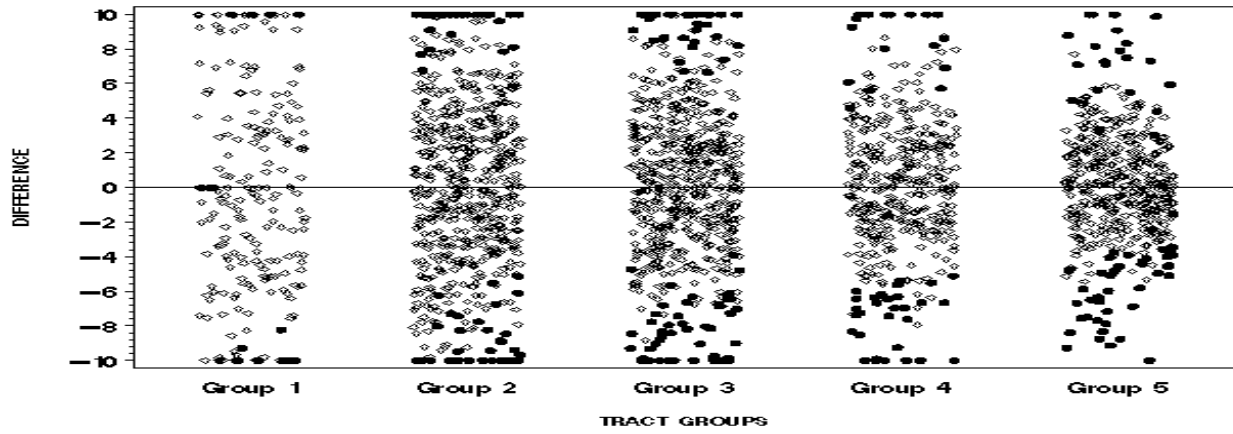
Figure 17g. Difference (ACS—CENSUS) in Rooms for
Seven Rooms for Tracts in 34 ACS Counties
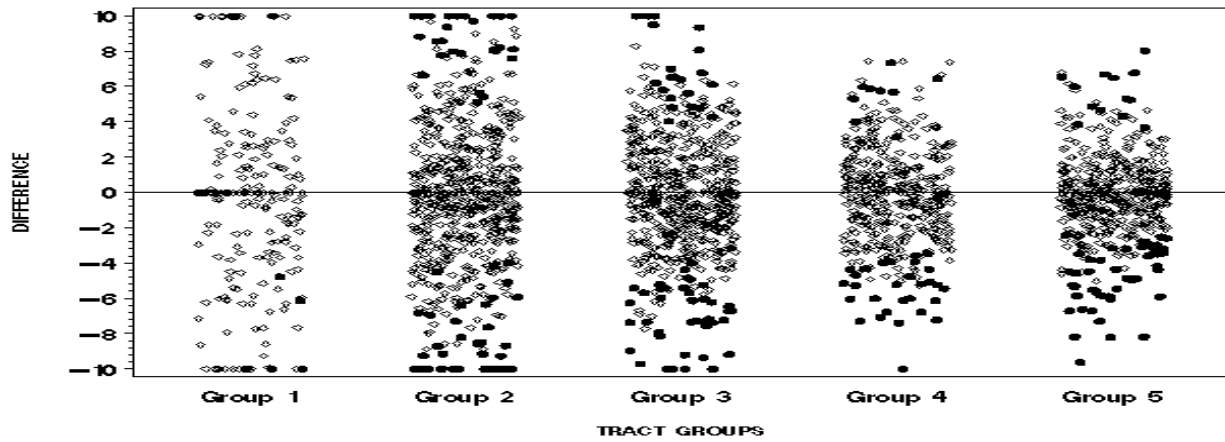
Figure 17h. Difference (ACS—CENSUS) in Rooms for
Eight Rooms for Tracts in 34 ACS Counties
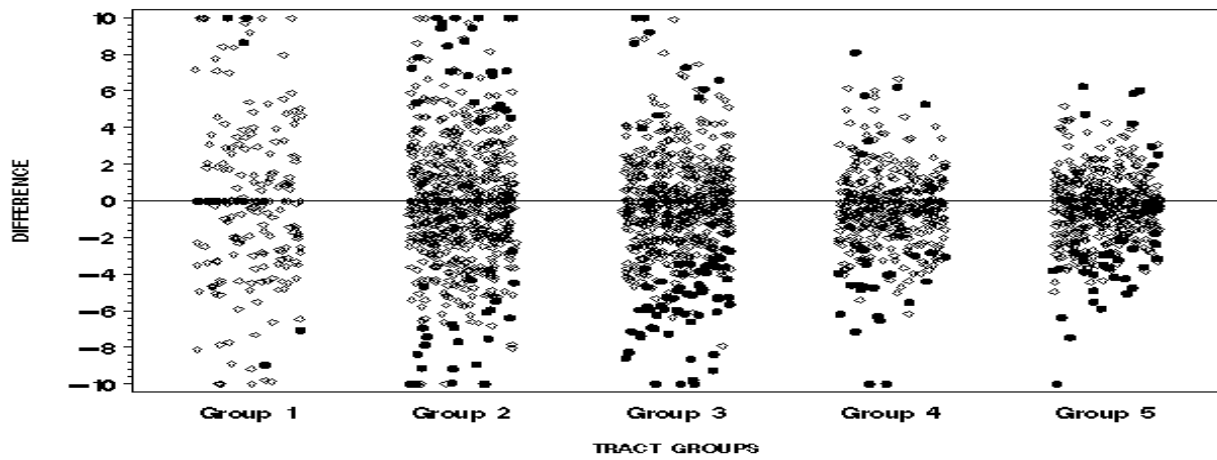
Figure 17i. Difference (ACS—CENSUS) in Rooms for Nine or More Rooms for Tracts in 34 ACS Counties
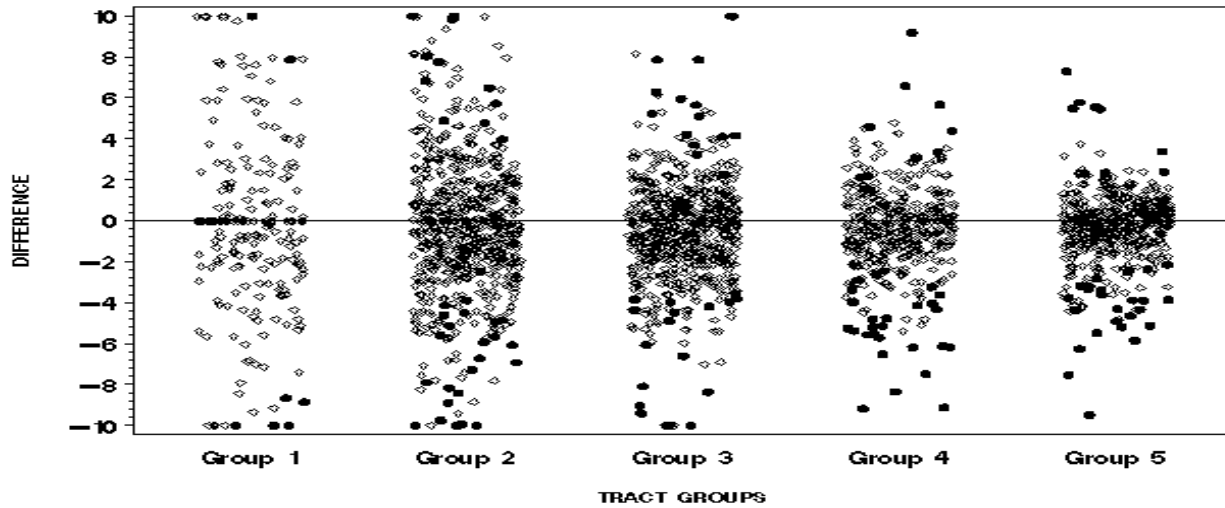
Table 20. ACS and Census 2000 Summary Statistics for the Number of Rooms Categories by the Five Tract Groups

Tract group1 (n=207) Tract group2 (n=592) Tract group3 (n=580) Tract group4 (n=401) Tract group5 (n=470)	ACS Average Percent	Census 2000 Average Percent	Number of Tracts in which the ACS Percent is Significantly Higher (Percent)	Number of Tracts in which the Census 2000 Percent is Significantly Higher (Percent)
1 Room	1.0	1.2	1 (0.5)	3 (1.5)
	3.4	4.3	1 (0.2)	27 (4.6)
	2.5	3.4	2 (0.3)	38 (6.6)
	2.3	4.1	2 (0.5)	12 (3.0)
	2.1	3.7	2 (0.4)	74 (15.7)
2 Rooms	3.2	3.7	5 (2.4)	12 (5.8)
	5.6	6.4	8 (1.4)	38 (6.4)
	5.2	6.6	12 (2.1)	84 (14.5)
	4.7	7.4	1 (0.3)	39 (9.7)
	4.8	7.5	3 (0.6)	123 (26.2)
3 Rooms	8.5	8.3	16 (7.7)	16 (7.7)
	11.1	11.1	31 (5.2)	24 (4.1)
	11.0	11.2	35 (6.0)	63 (10.9)
	18.7	17.7	25 (6.2)	18 (4.5)
	18.1	16.9	52 (11.1)	39 (8.3)

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4 Rooms	19.0	17.3	23 (11.1)	5 (2.4)
	15.6	14.2	48 (8.1)	21 (3.6)
	17.3	15.4	71 (12.2)	14 (2.4)
	23.5	19.8	46 (11.5)	13 (3.2)
	24.4	21.1	82 (17.5)	13 (2.8)
5 Rooms	24.2	23.4	16 (7.7)	13 (6.3)
	19.7	18.7	44 (7.4)	31 (5.2)
	20.9	19.5	67 (11.6)	32 (5.5)
	20.1	19.0	23 (5.7)	24 (6.0)
	18.9	18.2	42 (8.9)	43 (9.2)
6 Rooms	19.3	19.8	14 (6.8)	26 (12.6)
	16.7	16.6	27 (4.6)	41 (6.9)
	16.9	16.6	32 (5.5)	51 (8.8)
	14.4	14.4	15 (3.7)	15 (3.7)
	13.2	12.7	26 (5.5)	32 (6.8)
7 Rooms	11.4	11.7	7 (3.4)	21 (10.1)
	11.3	11.6	24 (4.1)	37 (6.3)
	11.2	11.2	25 (4.3)	44 (7.6)
	7.4	7.7	8 (2.0)	21 (5.2)
	8.3	8.6	11 (2.3)	36 (7.7)
8 Rooms	6.7	7.1	6 (2.9)	20 (9.7)
	8.0	8.2	21 (3.6)	37 (6.3)
	7.6	8.1	11 (1.9)	39 (6.7)
	4.6	4.7	6 (1.5)	11 (2.7)
	5.9	6.3	7 (1.5)	31 (6.6)
9 Rooms or More	6.7	7.4	3 (1.5)	17 (8.2)
	8.6	8.8	14 (2.4)	18 (3.0)
	7.4	7.9	18 (3.1)	32 (5.5)
	4.5	4.9	7 (1.8)	13 (3.2)
	4.4	4.9	4 (0.9)	21 (4.5)

Comparisons

Figures 17a-i show the number of rooms estimates for the tracts in 34 of the 36 ACS counties. There are a large number of tracts with statistically significant differences across many of the categories. For the one room category, the Census 2000 estimates are statistically significantly higher for over 10 percent of the tracts for tract group 5 and generally higher for the other four tract groups. For the 2 rooms category, the Census 2000 estimates are statistically significantly higher for over 10 percent of the tracts for tract groups 3 and 5 and generally higher for the other three tract groups.

For the 3 rooms category, there are large number of tracts with statistically significant differences but they vary across the tract groups with the ACS having over 10 percent of the tracts being

statistically significantly higher than the census for tract group 5 while the census has over 10 percent of the tracts being statistically higher than the ACS for tract group 3.

For the 4 rooms category, the ACS estimates are statistically significant higher for over 10 percent of the tracts for all tract groups except for tract group 2. For the 5 room category, the ACS estimates are statistically significant higher for over 10 percent of the tracts for tract group 3. There are generally a large number of statistically significant differences for a large number of tracts for the 5 room category across all of the tract groups.

For the 6 and 7 rooms category, the Census 2000 estimates are statistically significant higher for over 10 percent of the tracts for tract group 1. Generally the Census 2000 estimates are statistically significant higher for a higher number of tracts for the 6, 7, 8, and 9+ room categories for all tract groups, but especially for tract group 1.

9. Conclusions

This report covers all of the comparable variables in the profile tables for the ACS three-year average estimates and the Census 2000 estimates for the 36 counties, as well as a handful of comparisons at the tract level. Graphs were used to summarize the data and statistical tests summarize the number of statistically significantly different estimates for each topic.

The graphs clearly show the differences in the percent estimates at the county and tract levels. Much higher variability is seen at the tract level. In addition, much higher variability is observed for the small counties than for the large counties, while smaller differences are statistically significant for the large counties. Many of these differences are less than 1 percent but are statistically significant. This is all partly explained by statistical theory, but care should be used in interpreting small differences which may not be substantively meaningful.

Most of the variables show small differences between the ACS and Census 2000. These include sex, age, grandparents as caregivers, veteran status, nativity and place of birth, region of birth, occupation, industry, class of worker, and year householder moved in.

However, the results also identify a few variables where the ACS estimates differed from the Census 2000 estimates, especially for race, disability, employment, number of rooms, and occupants per room. Comparisons between the ACS and the Census 2000 estimates at the national level may verify whether these differences exist at the national level or whether some of these differences are particular to the counties chosen for this study. The paper by Stern (2003) argues that the disability differences are due to questionnaire wording which is corrected using the ACS computer-assisted instruments for the telephone and personal visit ACS interviews. Other differences may be due to other differences between the ACS and the census processes such as questionnaire design issues, editing, and imputation procedures, differences due to mode of data collection, differences in weighting, differences in residence rules, using multiple years of data for the ACS, and perhaps other reasons. Analysts in the Population and Housing and Household Economics Statistics Divisions are examining some of these differences to provide a clearer understanding of why these differences exist. In addition, a series of reports are planned to examine these differences at the national level using the Census 2000 Supplementary Survey data which uses the ACS methodology.

10. References

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Appendix A. Changes to the Census Profile Tables

Below are the list of lines deleted and combined from the Census profile tables. The results are presented by the four different profile tables – Demographic, Social, Economic, and Housing.

Census Demographic Profile table changes:
Delete
- Age 18 years and over - male
- Age 18 years and over - female
- Relationship - Child - Own child under 18 years
- Relationship - Other relatives - Under 18 years
- Relationship - In group quarters
- Relationship - Institutionalized population
- Relationship - Noninstitutionalized population
- Household by Type - Households with individuals under 18 years
- Household by Type - Households with individuals 65 years and over
- Housing Occupancy - Vacant housing units - For seasonal, recreational or occasional use
- Housing Occupancy - Homeowner vacancy rate (percent)
- Housing Occupancy - Rental vacancy rate (percent)

Combine
- Race - Chinese and Other Asian

Census Social Profile table changes:
Delete
- Residence in 1995 - entire table
- Ancestry - Total ancestries reported
- Ancestry - Other ancestries

Census Economic Profile table changes:
Delete
- Poverty Status - Families - With related children under 5 years
- Poverty Status - Families with female householder, no husband present - With related children under 5 years

Census Housing Profile table changes:
Combine
- Year Householder Moved Into Unit - 1999-2000 and 1995 to 1998.
- Selected Monthly Owner Costs as a Percentage of Household Income in 1999 - Less than 15.0 percent and 15.0 to 19.9 percent.

Appendix B. Additional County Level Demographic Profile Tables

B.1 Sex

Description of Item

The sex data are tabulated for the entire household population. Table B1 shows the average percent for each of the two categories for the 36 counties.

Figure B1 Difference (ACS—CENSUS) in Sex for the 36 ACS Counties
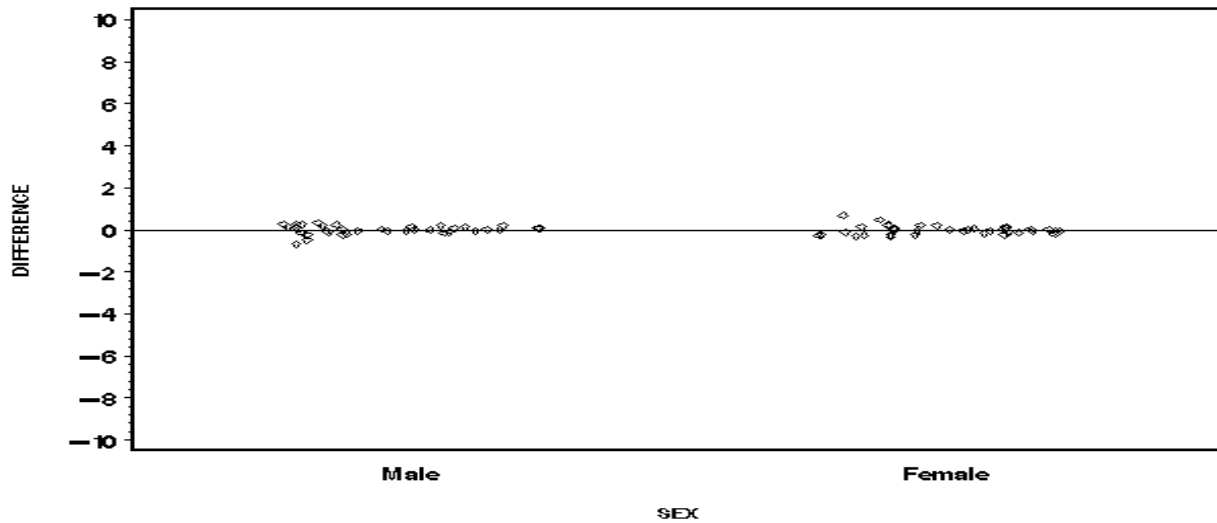
Table B1. ACS and Census 2000 Summary Statistics for the Sex Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Male	48.8	48.8	0	0
Female	51.2	51.2	0	0

Comparisons

Figure B1 depicts the differences between the 1999-2001 ACS three-year average estimate and the Census 2000 estimate for the 36 ACS counties. No counties have statistically significant differences between the ACS and the census. As part of the weighting for the ACS, sex is a control variable. This means that the ACS estimates are forced to agree to the number of males and females (except for collapsing) in each of the 3 years. Therefore the differences we observe are mostly due to the changes in the sex distributions as measured by the different population controls used each year.

B.2 Median Age

Description of Item

The median age is tabulated for the total household population of the county. The estimate is a derived statistic reflecting the age of the population of the county.

Figure B2. Scatter Plot of Median Age (years) for the 36 ACS Counties
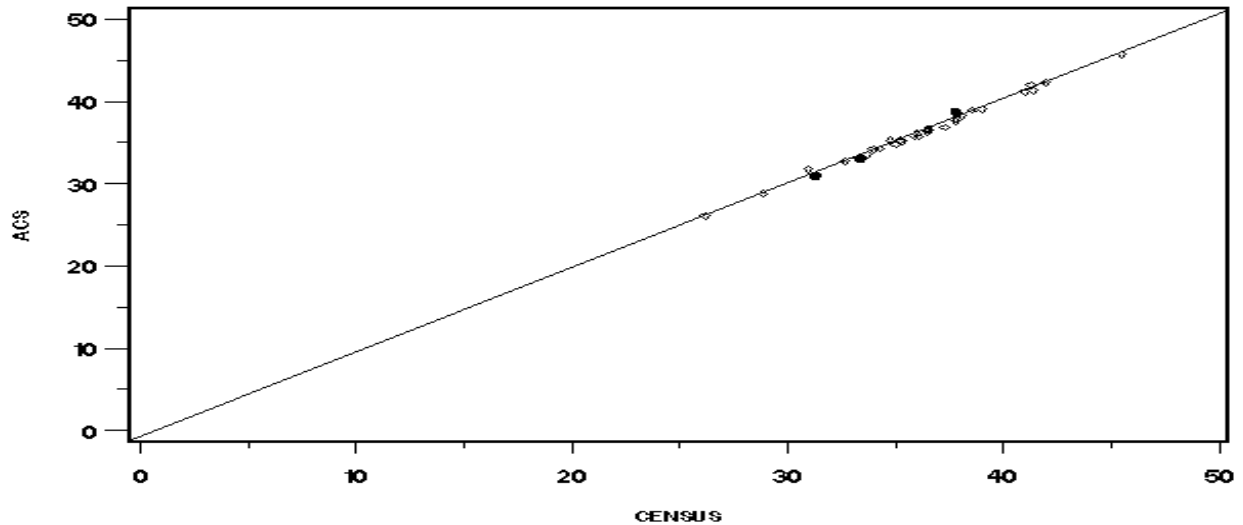
Table B2. ACS and Census 2000 Summary Statistics for Median Age

Item	Median Age
ACS Average	35.9
Census 2000 Average	35.8
Number of Counties in which the ACS Estimate is Significantly Higher	1
Number of Counties in which the Census 2000 Estimate is Significantly Higher	2

Comparisons

Figure B2 depicts the ACS value and the census value for each county. The values range from about 26 to over 45 years of age. There are three statistically significant differences, although the differences are not very large. Figure B2 generally shows very little difference between the ACS and census for the median age. The ACS estimates are statistically significantly higher for Fulton, PA and the Census 2000 estimates are statistically significantly higher for Fort Bend, TX and Harris, TX.

B.3 Asian Race

Description of Item

The Asian race data are tabulated for the total household population. Table B3 shows the average percent for each of the seven categories for the 36 counties. The Asian race shown here is also included in the race table 5 above. The other six categories are the different subgroups of the Asian group.

Figure B3. Difference (ACS—CENSUS) in Asian Race for the 36 ACS Counties
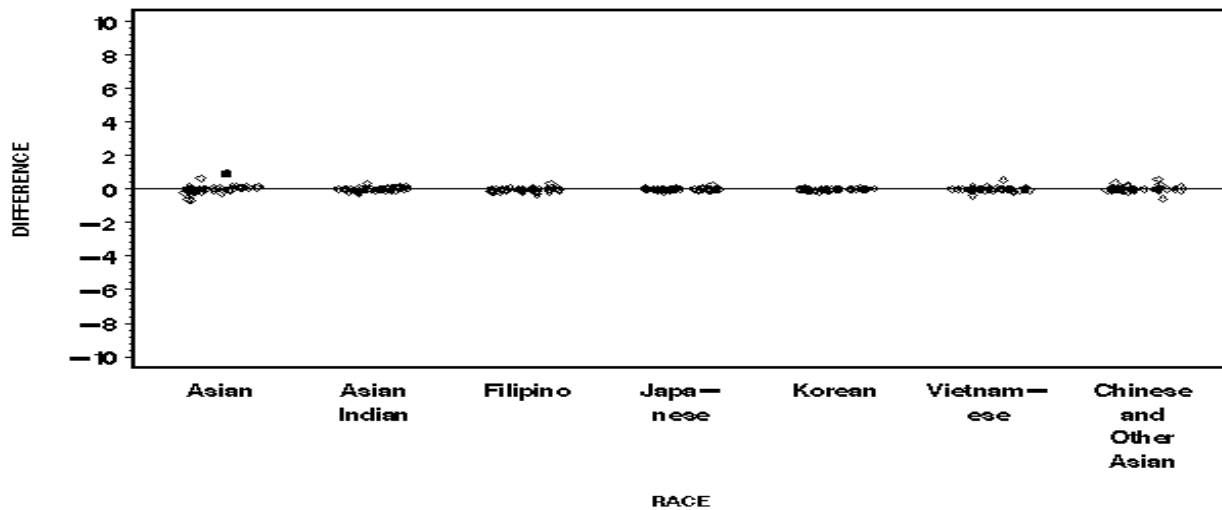
Table B3. ACS and Census 2000 Summary Statistics for the Asian Race Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Asian	2.6	2.6	1	0
Asian Indian	0.4	0.4	0	0
Filipino	0.4	0.4	0	0
Japanese	0.1	0.1	0	0
Korean	0.2	0.2	0	0
Vietnamese	0.3	0.3	0	0
Chinese and Other Asian	1.2	1.1	0	0

Comparisons

Figure B3 depicts the differences between the ACS and the census Asian race for the 36 ACS counties. One county estimate is statistically significant different between the ACS and the census for the Asian category, and there are no statistically significant differences for the individual Asian subgroups. The Asian subgroups are not used in the weighting controls. Only the Asian group is used in the weighting and it is collapsed in many cases when the sample sizes are too small to support a separate estimate.

B.4 Native Hawaiian and Other Pacific Islander Race

Description of Item

The Native Hawaiian and Other Pacific Islander race data are tabulated for the total household population. Table B4 shows the average percent for each of the five categories for the 36 counties. The Native Hawaiian and Other Pacific Islander race shown here is also included in the race table 5 above. The other four categories are the different subgroups of the Native Hawaiian and Other Pacific Islander group.

Figure B4. Difference (ACS—CENSUS) in Native Hawaiian and Other Pacific Islander Race for the 36 ACS Counties
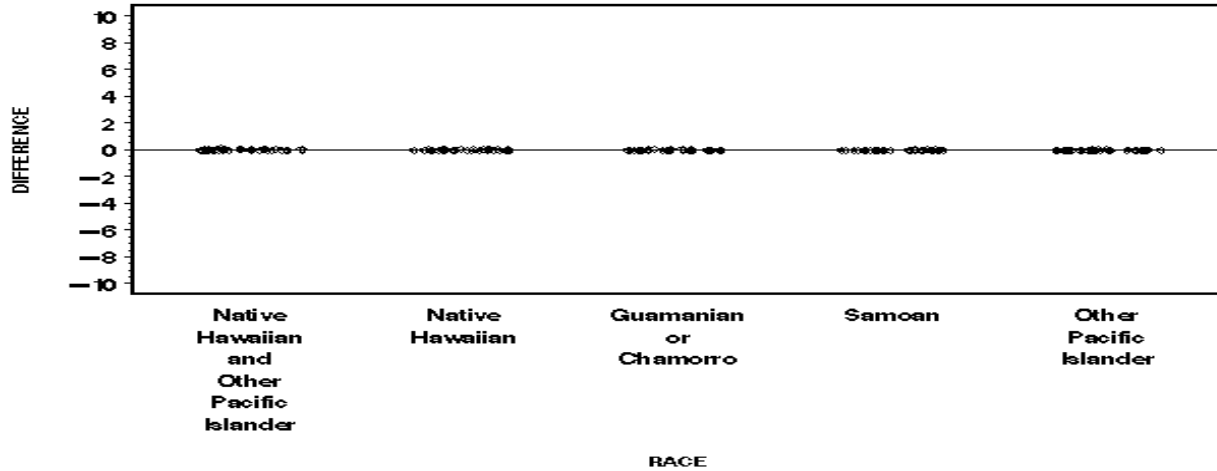
Table B4. ACS and Census 2000 Summary Statistics for the Native Hawaiian And Other Pacific Islander Race Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Native Hawaiian and Other Pacific Islander	0.06	0.05	0	0
Native Hawaiian	0.02	0.01	0	0
Guamanian or Chamorro	0.01	0.01	0	0
Samoan	0.01	0.01	0	0
Other Pacific Islander	0.01	0.02	0	0

Comparisons

Figure B4 depicts the differences between the ACS and the census Native Hawaiian and Other Pacific Islander race for the 36 ACS counties. No county estimates are statistically significantly different between the ACS and the census for the Native Hawaiian and Other Pacific Islander categories. The Native Hawaiian and Other Pacific Islander subgroups are not used individually in the weighting controls. Only the Native Hawaiian and Other Pacific Islander group is used in the weighting and it is collapsed with other race categories in many cases when the sample sizes are too small to support a separate estimate. There are no ACS counties that had a large percent of the population with any of these groups. No county had even 1.0 percent of the population with any Native Hawaiian and Other Pacific Islander race group or any of the subgroups.

B.5 Race Alone or in Combination

Description of Item

The race alone or in combination data are tabulated for the entire household population. The race variable in this table counts each race response, so that multiple race responses are included more than once. Consequently the percent estimates will add up to more than one. An earlier table tabulates the race data including anyone who responded as being exactly one specified race, as well as those responded with more than one race as separate categories.

Figure B5. Difference (ACS—CENSUS) in Race Alone Or In Combination for the 36 ACS Counties
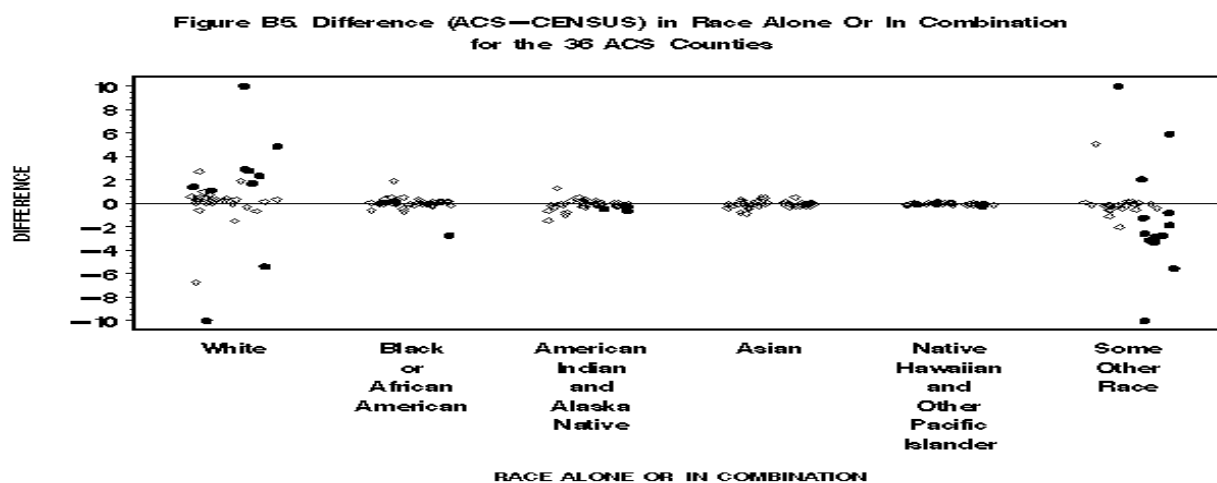
Table B5. ACS and Census 2000 Summary Statistics for the Race Alone or in Combination Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
White	77.6	77.8	8	2
Black or African American	12.6	12.6	0	1
American Indian or Alaska Native	2.2	2.3	0	3
Asian	2.9	2.9	0	0
Native Hawaiian and Other Pacific Islander	0.1	0.1	0	1
Some Other Race	6.6	6.6	3	10

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Comparisons

Figure B5 depicts the differences between the ACS and the census race for the 36 ACS counties. One or more county estimates are statistically significantly different for all race categories except for Asians. The White and Some Other Race categories have a large number of statistically significant differences, 10 and 13 respectively.

For the White alone and in combination group the ACS estimates are statistically significantly higher for Pima, AZ; Tulare, CA; Lake, IL; Hampden, MA; Iron, MO; Multnomah, OR; Sevier, TN; and Harris, TX and the Census 2000 estimates are statistically significantly higher for Bronx, NY and Starr, TX. It is interesting to note that areas with large differences are balanced between the ACS and census with Tulare, CA and Harris, TX for the ACS and Bronx, NY and Starr, TX for the census. For the Black or African American group the Census 2000 estimates are statistically significantly higher for the Bronx, NY. For the American Indian or Alaska Native group, the Census 2000 estimates are statistically significantly higher for Tulare, CA; Bronx, NY; and Harris, TX. For the Native Hawaiian and Other Pacific Islander group, the Census 2000 estimates are statistically significantly higher for the Bronx, NY. For the some other race group, the ACS estimates are statistically significantly higher for Bronx, NY; Starr, TX; and Yakima, WA and the Census 2000 estimates are statistically significantly higher for Pima, AZ; Tulare, CA; Broward, FL; Lake, IL; Hampden, MA; Rockland, NY; Franklin, OH; Multnomah, OR; Fort Bend, TX; and Harris, TX. Many of these counties overlap with the White group above.

The results are similar to the results observed at the national level (Bennett and Griffin 2002) where the C2SS had higher White alone and the Census 2000 had a higher Some Other Race alone. But as was observed for the race data above, there were a few counties with statistically significant differences that were counter to this trend (Bronx, NY and Starr, TX).

B.6 Hispanic or Latino

Description of Item

The Hispanic or Latino data are tabulated for the total household population. Table B6 shows the average percent for each of the seven categories for the 36 counties.

Figure B6. Difference (ACS — CENSUS) in Hispanic Or Latino for the 36 ACS Counties
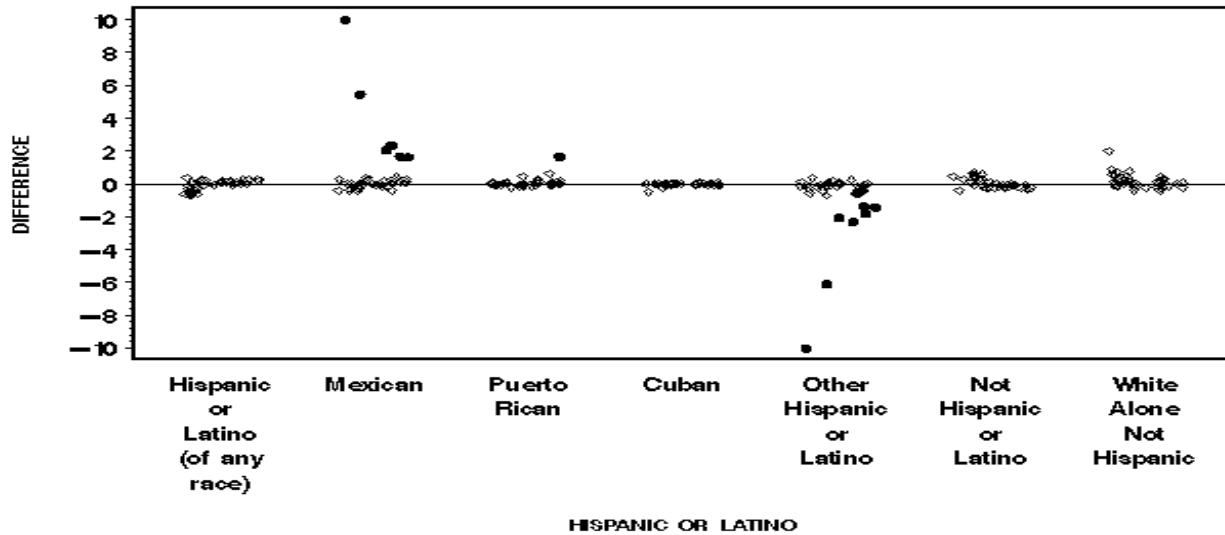
Table B6. ACS and Census 2000 Summary Statistics for the Hispanic or Latino Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Hispanic or Latino	15.1	15.2	0	0
Mexican	10.9	10.1	6	0
Puerto Rican	1.5	1.4	1	0
Cuban	0.2	0.2	0	0
Other Hispanic or Latino	2.5	3.5	0	9
Not Hispanic or Latino	84.9	84.8	0	0
White Alone, Not Hispanic or Latino	67.6	67.4	0	0

Comparisons

Figure B6 depicts the differences between the ACS and the Census 2000 estimates for the different Hispanic or Non-Hispanic categories for the 36 ACS counties. One or more county estimates are statistically significantly different between the ACS and the census for the Hispanic or Latino categories for the Mexican, Puerto Rican, and Other Hispanic or Latino, and no county estimates are statistically significantly different for the Hispanic or Latino, Cuban, not Hispanic or Latino, and White Alone, not Hispanic or Latino. The Hispanic or Latino and not Hispanic or Latino are used in the weighting controls. The Hispanic or Latino subgroups are not used separately for the weighting controls. There is generally a higher ACS estimate for Mexican while the census has a higher estimate for the Other Hispanic or Latino. There is a large difference in the percent Hispanic or Latino for the different counties. Some counties have very few, while the counties in Texas, California, Arizona, and Florida have much higher percent Hispanic or Latino.

For the Mexican group, the ACS estimates are statistically significantly higher for Pima, AZ; Tulare, CA; Harris, TX; Starr, TX; Zapata, TX; and Yakima, WA. For the Puerto Rico group, the ACS estimates are statistically significantly higher for Bronx, NY. For the Other Hispanic group, the Census 2000 estimates are statistically significantly higher for Pima, AZ; Tulare, CA; Hampden, MA; Bronx, NY; Multnomah, OR; Harris, TX; Starr, TX; Zapata, TX; and Yakima, WA.

B.7 Relationship

Description of Item

The relationship data are tabulated for the total household population. Table B7 shows the average percent for each of the six categories for the 36 counties. The unmarried partner category is a subset of the nonrelatives but the denominator is still the total household population.

Figure B7. Difference (ACS—CENSUS) in Relationship for the 36 ACS Counties
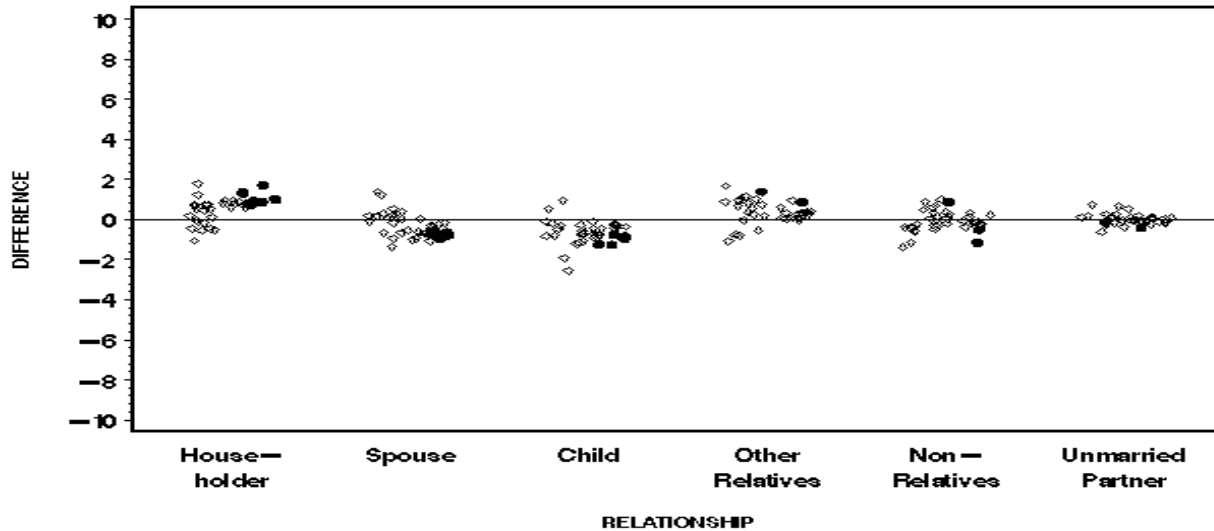
Table B7. ACS and Census 2000 Summary Statistics for the Relationship Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Householder	39.1	38.5	10	0
Spouse	20.2	20.5	0	6
Child	30.4	31.0	0	6
Other Relatives	5.8	5.4	2	0
Nonrelatives	4.4	4.5	1	2
Unmarried Partners	1.9	1.9	0	1

Comparisons

Figure B7 depicts the differences between the ACS and the census relationship for the 36 ACS counties. One or more county estimates are statistically significantly different between the ACS and the census for all relationship categories. The ACS has generally a higher estimate for the householder and other relative. The census has generally a higher estimate for the spouse and child.

For the householder group, the ACS estimates are statistically significantly higher for Pima, AZ; San Francisco, CA; Tulare, CA; Broward, FL; Lake, IL; Hampden, MA; Bronx, NY; Franklin, OH; Multnomah, OR; and Harris, TX. For the spouse group, the Census 2000 estimates are statistically significantly higher for Pima, AZ; Tulare, CA; Broward, FL; Bronx, NY; Multnomah, OR; and Harris, TX. For the child group, the Census 2000 estimates are statistically significantly higher for Hampden, MA; Douglas, NE; Bronx, NY; Franklin, OH; Harris, TX; and Yakima, WA. For the other relative group the ACS estimates are statistically significantly higher for San Francisco, CA and Calvert, MD. For nonrelative, the ACS estimates are statistically significantly higher for Yakima, WA and the Census 2000 estimates are statistically significantly higher for San Francisco, CA and Bronx, NY. For the unmarried partner group, the Census 2000 estimates are statistically significantly higher for Tulare, CA.

B.8 Household By Type

Description of Item

The household by type data are tabulated for the total households. Table B8 shows the average percent for each of the nine categories for the 36 counties.

Figure B8. Difference (ACS—CENSUS) in Household By Type for the 36 ACS Counties
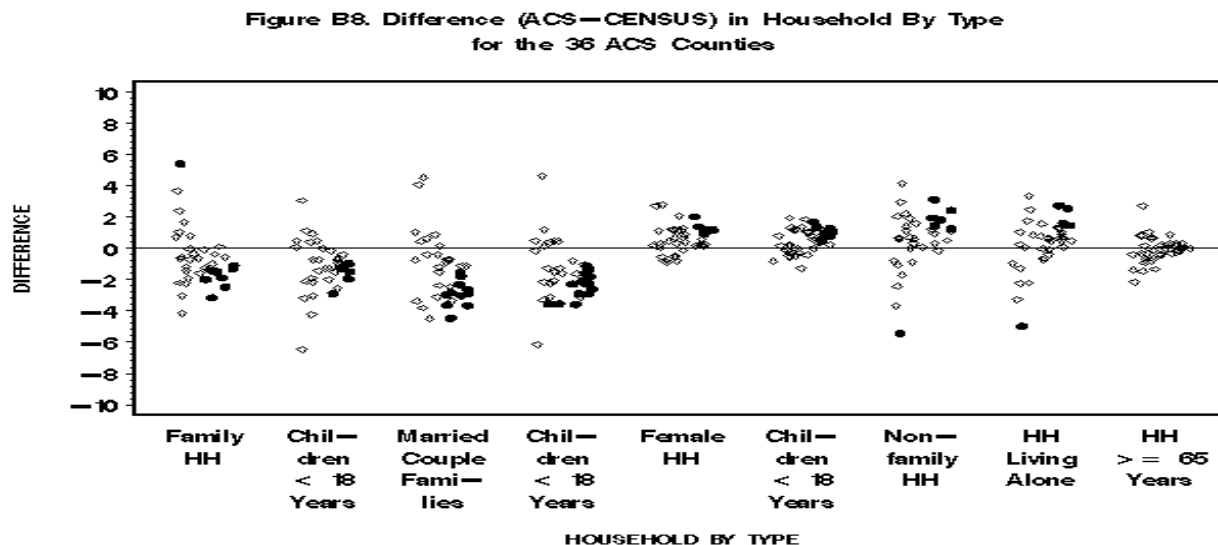
Table B8. ACS and Census 2000 Summary Statistics for the Household By Type Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Family Households	69.5	70.2	1	8
With Own Children Under 18 Years	33.2	34.3	0	6
Married Couple Family	52.2	53.7	0	11
With Own Children Under 18 Years	23.0	24.6	0	14
Female Householder, No Husband Present	13.0	12.4	5	0
With Own Children Under 18 Years	8.0	7.5	7	0
Nonfamily Household	30.5	29.8	6	1

Householder Living Alone	25.4	25.0	4	1
Householder 65 Years and Over	9.7	9.8	0	0

Comparisons

Figure B8 depicts the differences between the ACS and the census household by type for the 36 ACS counties. One or more county estimates are statistically significantly different between the ACS and the census for all categories except for Householder 65 years and over. The census generally has higher estimates for the family households and married couple families and those with children under 18 years. The ACS generally has higher estimates for female householder, no husband present and those with children under 18 years of age and nonfamily households and householder living alone.

For the family households, the ACS estimates are statistically significantly higher for Vilas, WI and the Census 2000 estimates are statistically significantly higher for Pima, AZ; Broward, FL; Douglas, NE; Bronx, NY; Rockland, NY; Multnomah, OR; Fort Bend, TX; and Harris, TX. For the family households with children under 18 years, the Census 2000 estimates are statistically significantly higher for Pima, AZ; Broward, FL; Bronx, NY; Multnomah, OR; Harris, TX; and Yakima, WA. For the married couple family, the Census 2000 estimates are statistically significantly higher for Pima, AZ; Jefferson, AR; Tulare, CA; Broward, FL; Black Hawk, IA; Hampden, MA; Douglas, NE; Bronx, NY; Rockland, NY; Multnomah, OR; and Harris, TX. For the married couple family with children under 18 years of age, the Census 2000 estimates are statistically significantly higher for the same counties as married couple families except for Douglas, NE and Rockland, NY; but also includes San Francisco, CA; Lake, IL; Franklin, OH; Petersburg, VA; and Yakima, WA.

For the female householder, no husband present, the ACS estimates are statistically significantly higher for Pima, AZ; Tulare, CA; Broward, FL; Hampden, MA; and Harris, TX. For the female householder, no husband present with children under 18 years of age the same counties listed under female householder, no husband present are included here as well as San Francisco, CA and Bronx, NY. For the nonfamily households, the ACS estimates are statistically significantly higher for Pima, AZ; Broward, FL; Bronx, NY; Rockland, NY; Multnomah, OR; and Fort Bend, TX and the Census 2000 estimates are statistically significantly higher for Vilas, WI. For the householder living alone the ACS estimates are statistically significantly higher for Pima, AZ; Broward, FL; Bronx, NY; and Fort Bend, TX and the Census 2000 estimates are statistically significantly higher for Vilas, WI.

It is interesting to note that Pima, AZ differs for eight of the nine categories. Also Vilas, WI bucks the trend of the other counties for nonfamily households and householder living alone. Vilas, WI is a fairly small county and the differences observed are fairly large.

B.9 Housing Occupancy and Housing Tenure

Description of Item

The housing occupancy data are tabulated for the all housing units. Housing tenure is tabulated for all occupied housing units. Table B9 shows the average percent for each of the four categories for the 36 counties.

Figure B9. Difference (ACS—CENSUS) in Housing Occupancy and Housing Tenure for the 36 ACS Counties
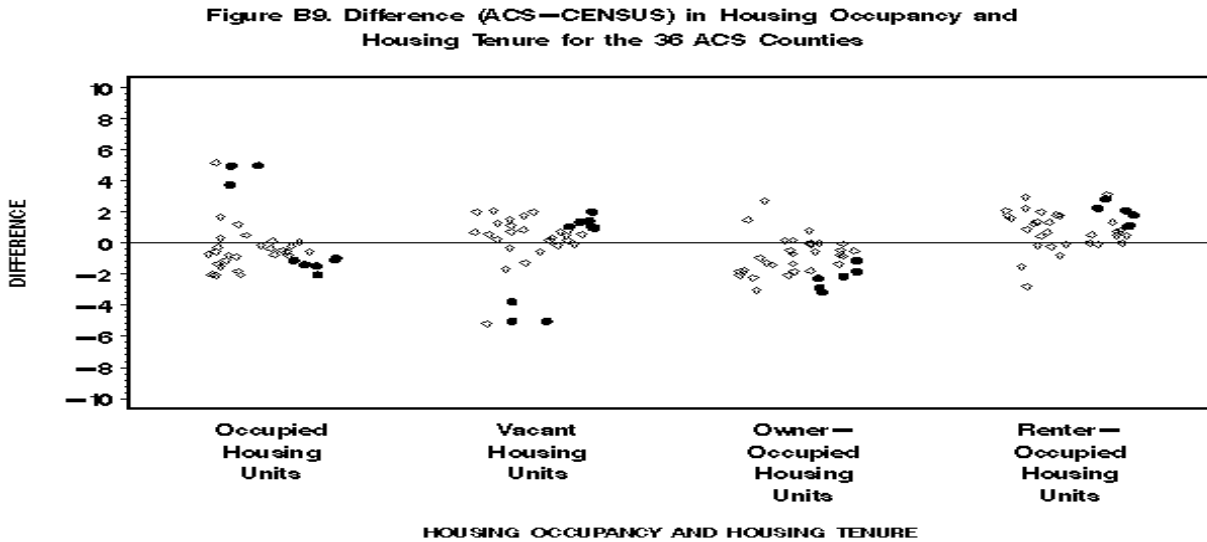
Table B9. ACS and Census 2000 Summary Statistics for the Housing Occupancy and Housing Tenure Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Occupied Housing Units	86.1	86.2	3	6
Vacant Housing Units	13.9	12.8	6	3
Owner-Occupied Housing Units	67.6	68.6	0	7
Renter-Occupied Housing Units	32.4	31.4	6	0

Comparisons

Figure B9 depicts the differences between the ACS and the census housing occupancy and housing tenure for the 36 ACS counties. One or more county estimates are statistically

significantly different between the ACS and the census for all of the categories. We expected to see some differences in the occupied and vacant percent estimates since the census and ACS use different residence rules and the ACS estimates are known to have a slight bias in underestimating the number of vacant housing units. The census has a generally higher estimate for the owner-occupied housing units while the ACS has a generally higher estimate for the renter-occupied housing units.

For the occupied housing units, the ACS estimates are statistically significantly higher for Sevier, TN; Oneida, WI; and Vilas, WI and the Census 2000 estimates are statistically significantly higher for San Francisco, CA; Broward, FL; Lake, IL; Bronx, NY; Franklin, OH; and Harris, TX. The same counties are statistically significantly different for vacant housing units but the direction of the differences are reversed. For the owner-occupied housing units, the Census 2000 estimates are statistically significantly higher for Pima, AZ; Tulare, CA; Broward, FL; Bronx, NY; Fort Bend, TX; Harris, TX; and Yakima, WA. For the renter-occupied housing units, the ACS estimates are statistically significantly higher for Pima, AZ; Tulare, CA; Broward, FL; Bronx, NY; Harris, TX; and Yakima, WA.

B.10 Average Family Size

Description of Item

The average family size is tabulated for the total household population with families of the county. The estimate is a derived statistic reflecting the family size of the county.

Figure B10. Scatter Plot of Average Family Size for the 36 ACS Counties
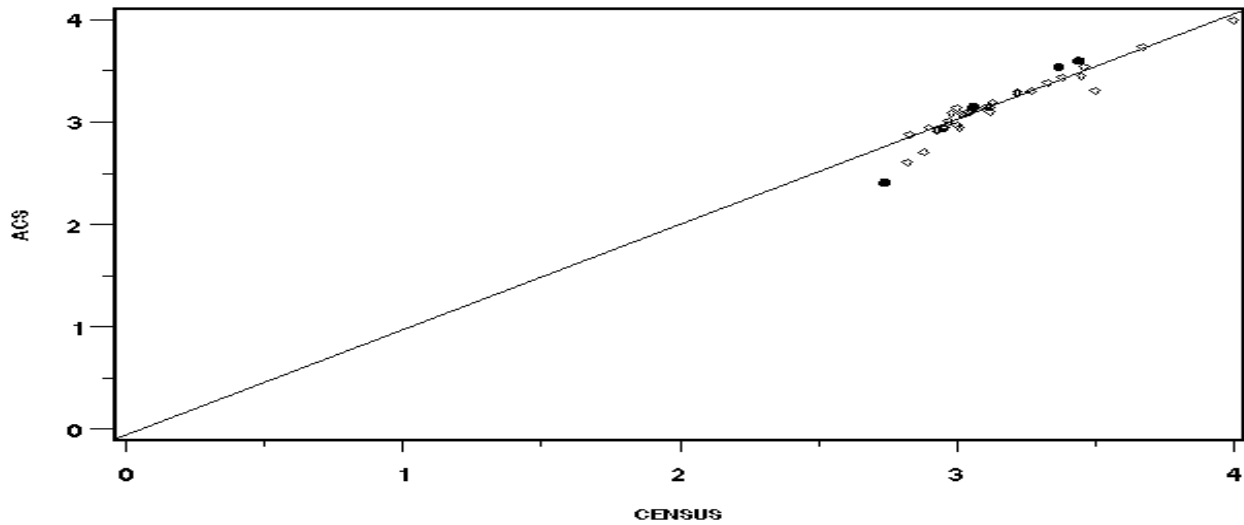
Table B10. ACS and Census 2000 Summary Statistics for Average Family Size

Item	Average Family Size
ACS Average	3.16
Census 2000 Average	3.14
Number of Counties in which the ACS Estimate is Significantly Higher	3
Number of Counties in which the Census 2000 Estimate is Significantly Higher	1

Comparisons

Figure B10 depicts the ACS value and the census value for each county. The values range from about 2.7 to 4.0 persons per family. There are four statistically significant differences for the average family size with ACS higher for Broward, FL; Bronx, NY; and Fort Bend, TX and census higher for Vilas, WI. Although the total population is controlled in the ACS weighting, the number of families is not controlled. There does appear to be a general pattern of the ACS estimate being higher than the census for most counties.

B.11 Average Household Size of Owner-Occupied Units

Description of Item

The average household size of owner-occupied units is tabulated for the population of owned housing units. The estimate is a derived statistic reflecting the average number of persons living in units occupied by an owner in the county.

Figure B11 Scatter Plot of Average Household Size of Owner—Occupied Units for the 36 ACS Counties
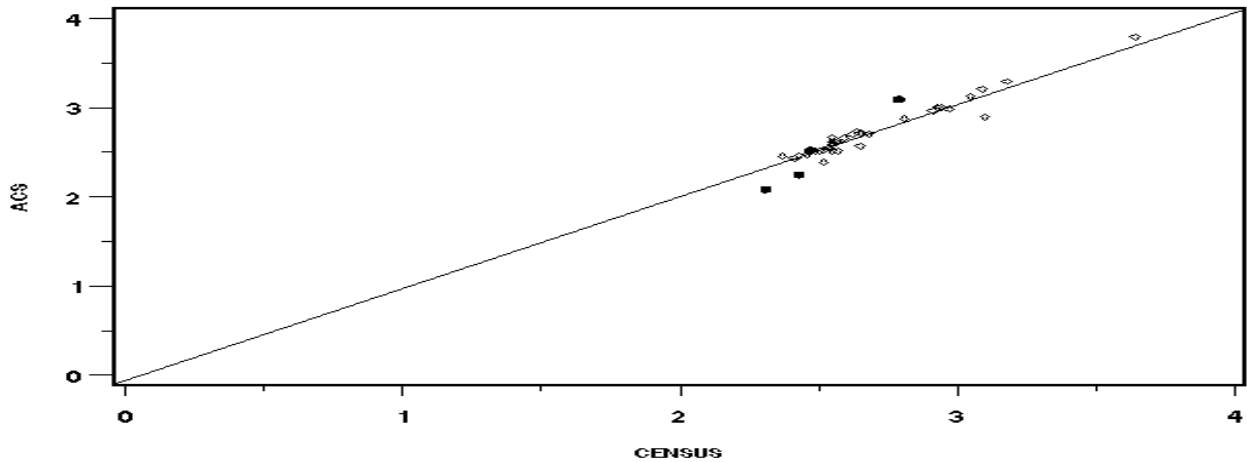
Table B11. ACS and Census 2000 Summary Statistics for Average Household Size of Owner-Occupied Units

Item	Average Household Size of Owner-Occupied Units
ACS Average	2.71
Census 2000 Average	2.68
Number of Counties in which the ACS Estimate is Significantly Higher	2
Number of Counties in which the Census 2000 Estimate is Significantly Higher	2

Comparisons

Figure B11 depicts the ACS value and the census value for each county. The values range from about 2.3 to 3.6 persons per household of owner-occupied units. There are four statistically significant differences for the average household size of renter-occupied units. The ACS estimates are higher for Broward, FL and Bronx, NY and the Census 2000 estimates are higher for Oneida, WI and Vilas, WI. There does appear to be a general pattern of the ACS estimate being higher than the census for most counties.

B.12 Average Household Size of Renter-Occupied Units

Description of Item

The average household size of renter-occupied units is tabulated for the population living in rented housing units. The estimate is a derived statistic reflecting the household size of the population living in rented housing units in the county.

Figure B12. Scatter Plot of Average Household Size of Renter—Occupied Units for the 36 ACS Counties
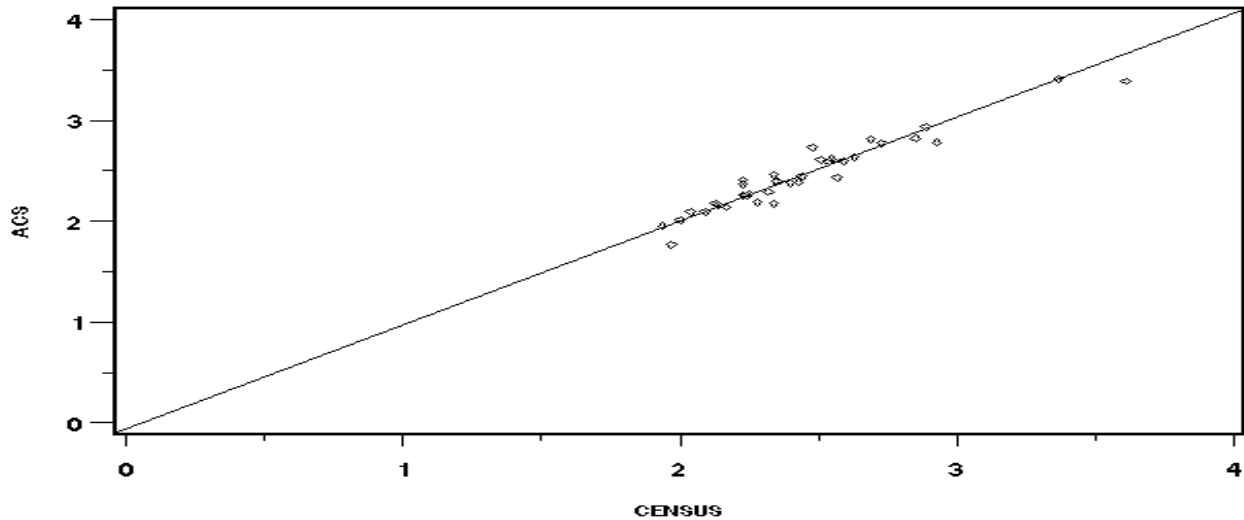
Table B12. ACS and Census 2000 Summary Statistics for Average Household Size of Renter-Occupied Units

Item	Average Household Size of Renter-Occupied Units
ACS Average	2.45
Census 2000 Average	2.44
Number of Counties in which the ACS Estimate is Significantly Higher	0
Number of Counties in which the Census 2000 Estimate is Significantly Higher	0

Comparisons

Figure B12 depicts the ACS value and the census value for each county. The values range from about 1.9 to 3.6 persons per household in renter-occupied units. There are no statistically significant differences for the average household size of renter-occupied units. The census and ACS generally agree for the counties.

Appendix C. Additional County Level Social Profile Tables

C.1 Educational Attainment

Description of Item

The Educational Attainment data are tabulated for the household population 25 years of age and older. Table C1 shows the average percent for each of the seven categories for the 36 ACS counties.

Figure C1 Difference (ACS—CENSUS) in Educational Attainment for the 36 ACS Counties
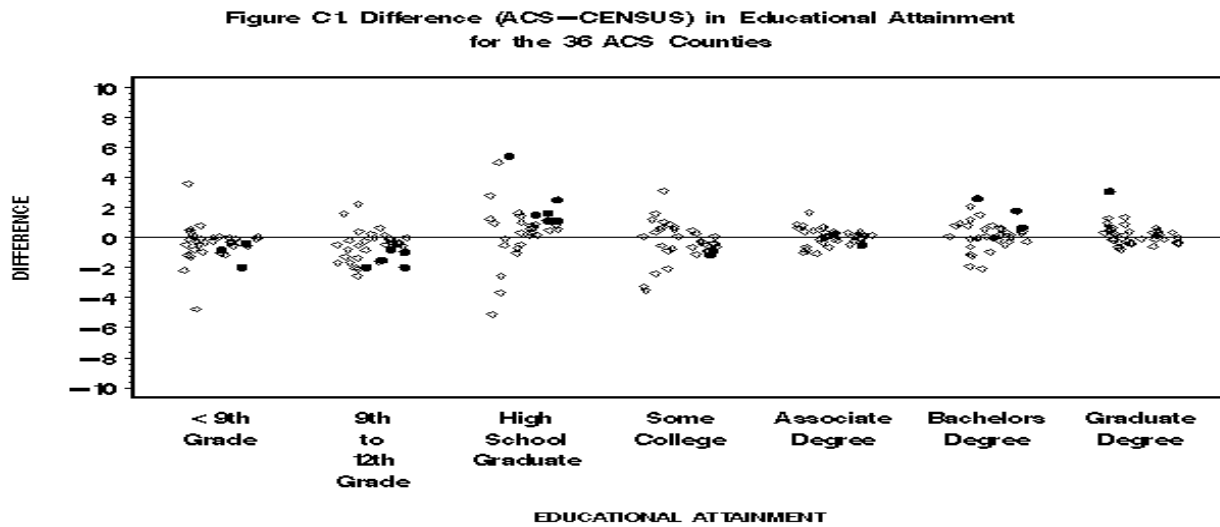
Table C1. ACS and Census 2000 Summary Statistics for the Educational Attainment Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Less than 9th Grade	9.6	10.0	0	3
9th to12th Grade	12.7	13.3	0	5
High School Graduate	31.5	30.8	7	0
Some College	19.6	19.8	0	2
Associate Degree	5.6	5.5	0	1
Bachelors Degree	13.6	13.3	3	0
Graduate Degree	7.5	7.2	1	0

Comparisons

Figure C1 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. Considerable variability is observed in the estimates. Some counties have over 20 percent (e.g. Starr, TX 46 percent; Zapata, TX 30 percent; Tulare, CA 23 percent) of the population over 25 years of age with less than a ninth grade education, while other counties have less than 5 percent (e.g. Franklin, OH; Vilas, WI; and Oneida, WI). This variable does demonstrate the diversity of the counties chosen for this study.

All categories have at least one difference that is statistically significant. Census 2000 estimates are generally higher for less than ninth grade and for ninth to twelfth grade while the ACS estimates are higher for high school graduate.

For the less then ninth grade group, the Census 2000 estimates are statistically significantly higher for San Francisco, CA; Rockland, NY; and Franklin, OH. For the ninth to twelfth grade group, the Census 2000 estimates are statistically significantly higher for Broward, FL; Calvert, MD; Douglas, NE; Bronx, NY; and Schuylkill, PA. For the high school graduate, the ACS estimates are statistically significantly higher for Pima, AZ; San Francisco, CA; Broward, FL; Lake, IL; Bronx, NY; Rockland, NY; and Petersburg, VA. For the some college group, the Census 2000 estimates are statistically significantly higher for Pima, AZ and Franklin, OH. For the associate degree group, the Census 2000 estimates are statistically significantly higher for the Bronx, NY. For the bachelor degree, the ACS estimates are statistically significantly higher for San Francisco, CA; Bronx, NY; and Starr, TX. For the graduate or professional degree group, the ACS estimates are statistically significantly higher for Vilas, WI.

C.2 Percent Bachelor's Degree or Higher

Description of Item

The percent bachelor's degree or higher is tabulated for the household population 25 years and over. The derived statistic is a summary of the higher education level of the county.

Figure C2. Scatter Plot of Percent Bachelor's Degree Or Higher for the 36 ACS Counties
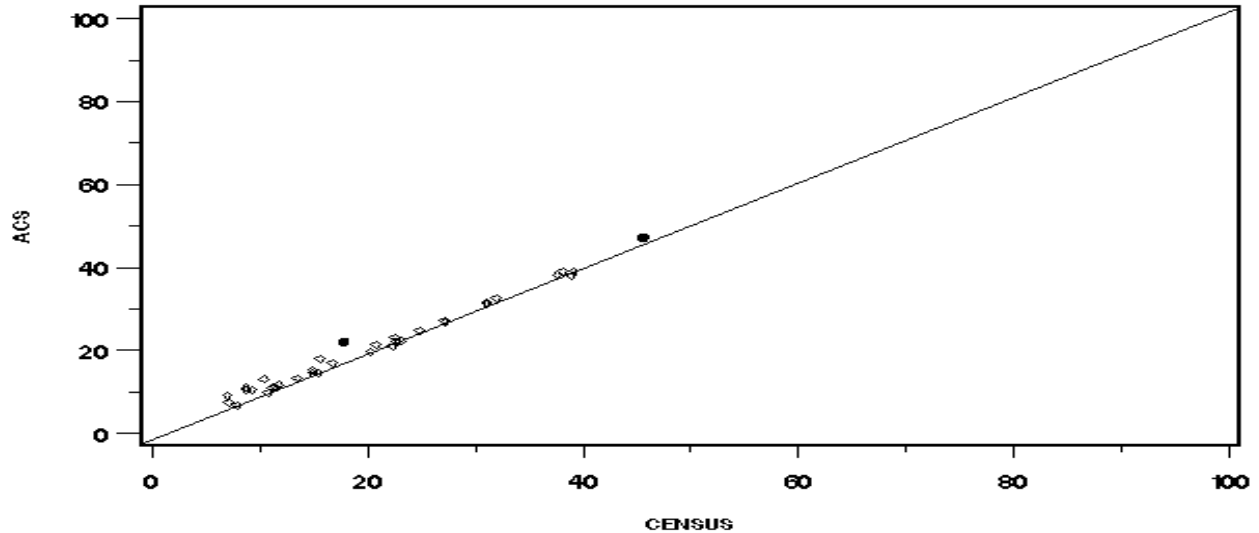
Table C2. ACS and Census 2000 Summary Statistics for Percent Bachelor's Degree or Higher

Item	Percent Bachelor's Degree or Higher
ACS Average	21.0
Census 2000 Average	20.5
Number of Counties in which the ACS Estimate is Significantly Higher	2
Number of Counties in which the Census 2000 Estimate is Significantly Higher	0

Comparisons

Figure C2 depicts the ACS value and the census value for each county. The values range from 7 percent to 45 percent. The ACS estimate is statistically significantly higher in San Francisco, CA and Vilas, WI. Generally the ACS estimates tend to be higher than the Census 2000 estimates.

C.3 Marital Status

Description of Item

Marital Status data are tabulated for the household population 15 years of age and older. Table C3 shows the average percent for each of the seven categories for the 36 ACS counties.

Figure C3. Difference (ACS−CENSUS) in Marital Status for the 36 ACS Counties
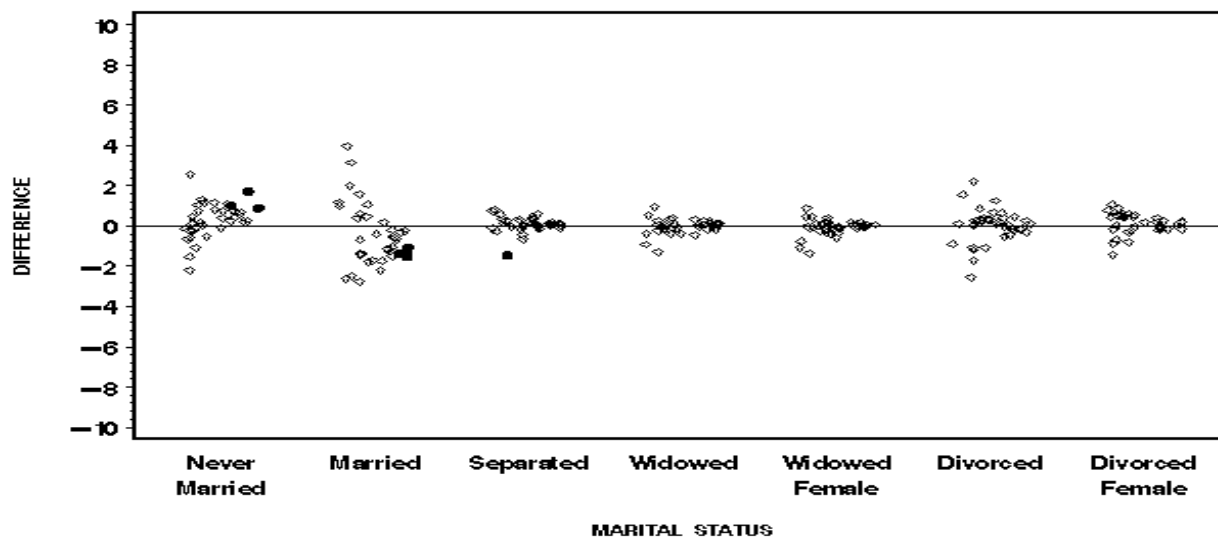
Table C3. ACS and Census 2000 Summary Statistics for the Marital Status Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Never Married	25.8	25.5	4	0
Married	55.2	55.7	0	4
Separated	2.3	2.2	0	1
Widowed	6.8	6.9	0	0
Female	5.5	5.6	0	0
Divorced	9.8	9.7	0	0
Female	5.5	5.6	0	0

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Comparisons

Figure C3 depicts the differences between the ACS and the census values for the 36 ACS counties. Never married and currently married each have 4 counties with statistically significant differences and separated has one county that has a statistically significant difference. Differences for Broward, FL; Bronx, NY; and Harris, TX are statistically significant for never married and currently married. The Pima, AZ difference is statistically significant for never married. The Hampden, MA difference is statistically significant for currently married. The Upson, GA difference is statistically significant for separated. There is a slightly higher average value for never married for the ACS, while there is a slightly higher value for currently married for the census. The other five categories, separated, widowed, female widowed, divorced, and female divorced have essentially the same values.

C.4 Grandparents as Caregivers and Veteran Status

Description of Item

Grandparents as caregivers data are tabulated for the grandparents living in households with one or more own grandchildren under 18. Veteran status data are tabulated for the civilian population 18 years and over. Table C4 shows the average percent for each of the two categories for the 36 ACS counties.

Figure C4. Difference (ACS—CENSUS) in Grandparents As Caregivers and Veteran Status for the 36 ACS Counties
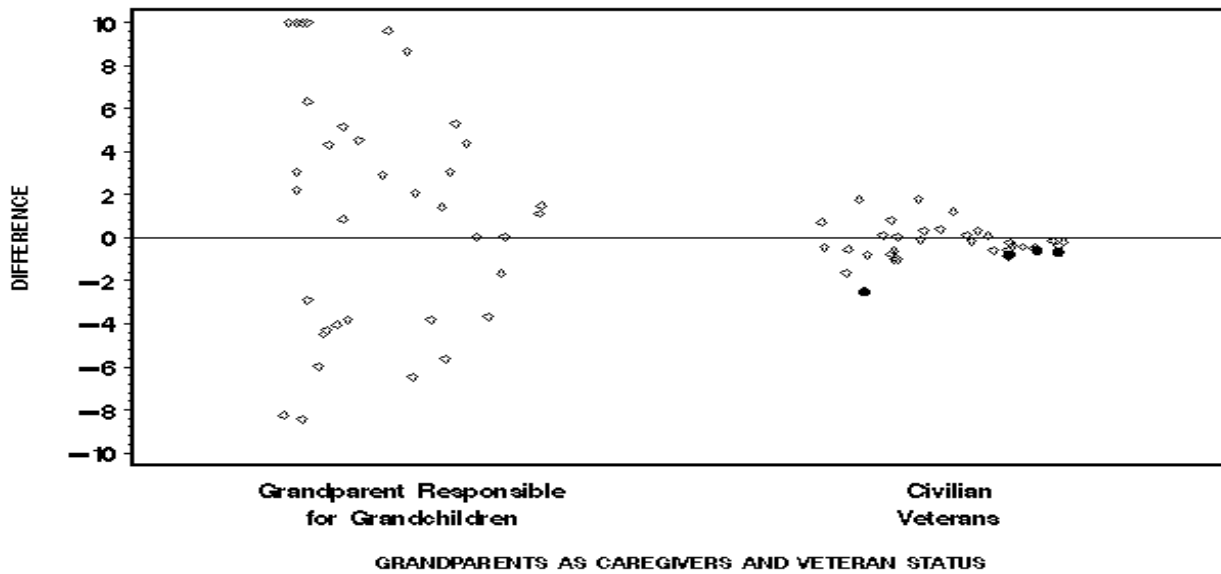
Table C4. ACS and Census 2000 Summary Statistics for the Grandparents as Caregivers and Civilian Veterans Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Grandparent Responsible for Grandchildren	47.3	44.9	0	0
Civilian Veterans	13.3	13.5	0	4

Comparisons

Figure C4 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. There are no statistically significant differences for the grandparents as caregivers and four statistically significant differences for the veteran status estimate. Figure C4 generally shows a random pattern of differences. Even though all of the statistically significant differences for the veteran status have a higher Census 2000 estimate, the differences are fairly small. For the civilian veterans group, the Census 2000 estimates are statistically significantly higher for San Francisco, CA; Broward, FL; Hampden, MA; and Vilas, WI.

C.5 Percent Employed with a Disability

Description of Item

The percent employed with a disability is tabulated for the disabled household population 21 to 64 years. The derived statistic is a summary of the employment level for the disabled population of the county.

Figure C5. Scatter Plot of Percent Employed (Population 21 to 64 Years) With A Disability for the 36 ACS Counties
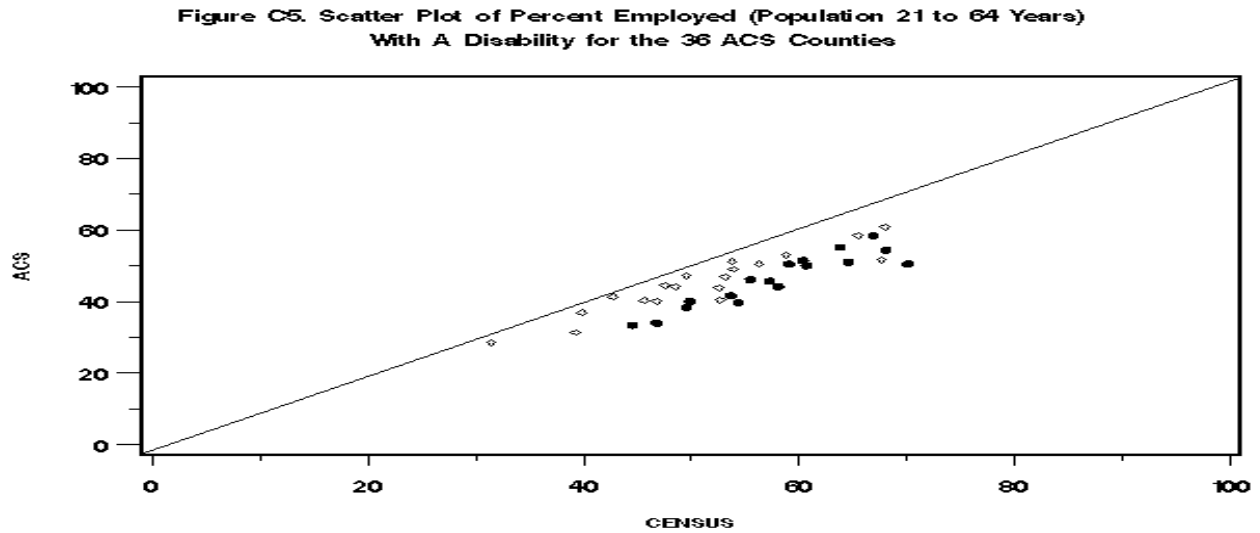
Table C5. ACS and Census 2000 Summary Statistics for Percent Employed with a Disability

Item	Percent Employed with a Disability
ACS Average	45.8
Census 2000 Average	54.4
Number of Counties in which the ACS Estimate is Significantly Higher	0
Number of Counties in which the Census 2000 Estimate is Significantly Higher	17

Comparisons

Figure C5 depicts the ACS value and the census value for each county. The values range from 30 percent to 71 percent. The Census 2000 estimates are always higher than the ACS estimates with almost half of them being statistically significant. These results would follow from the conclusions in Stern (2003) as persons in the census who recorded that they had a disability but did not, would have a much higher employment rate than those who do have a disability.

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C.6 Percent Employed Without a Disability

Description of Item

The percent employed without a disability is tabulated for the household population 21 to 64 years without a disability. The derived statistic is a summary of the employment level for the population without a disability for the county.

Figure C6. Scatter Plot of Percent Employed (Population 21 to 64 Years) Without a Disability for the 36 ACS Counties
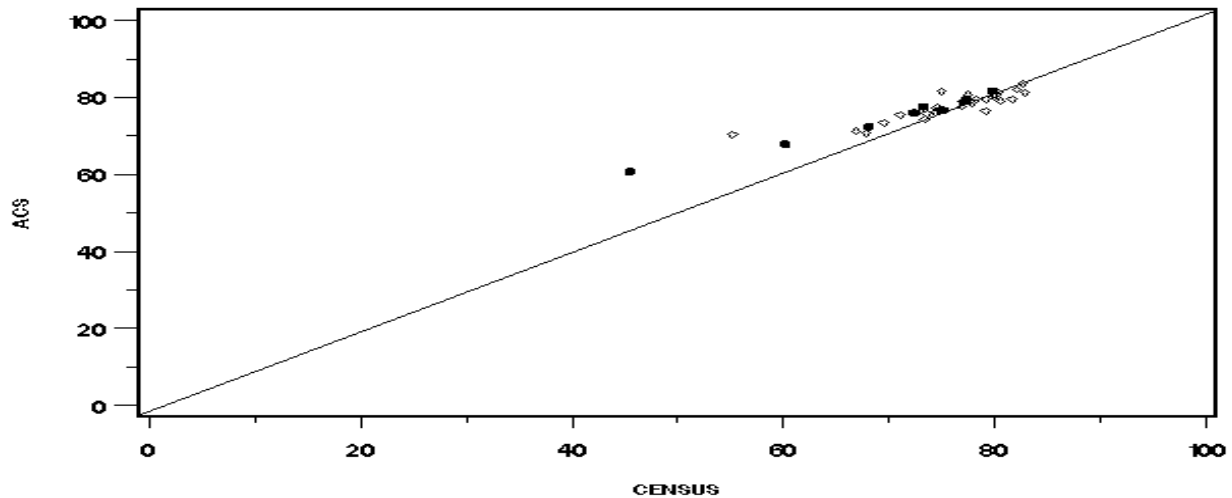
Table C6. ACS and Census 2000 Summary Statistics for Percent Employed Without a Disability

Item	Percent Employed Without a Disability
ACS Average	77.1
Census 2000 Average	74.4
Number of Counties in which the ACS Estimate is Significantly Higher	8
Number of Counties in which the Census 2000 Estimate is Significantly Higher	0

Comparisons

Figure C6 depicts the ACS value and the census value for each county. The values range from 45 percent to 83 percent. The ACS estimates are generally higher than the Census 2000 estimates and all of the statistically significant differences have the ACS higher than the census. The ACS is statistically significantly higher for Pima, AZ; Tulare, CA; Broward, FL; Hampden, MA; Bronx, NY; Harris, TX; Starr, TX; and Yakima, WA.

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C.7 Nativity and Place of Birth

Description

The Nativity and Place of Birth data are tabulated for the total household population. Native and foreign born together equal the total household population. Born in the United States and born outside the United States together equal the native. The born in the United States is split into two parts, those born in the same state and those born in a different state. The foreign born is split into two parts, those who report they are a naturalized citizen and those who report they are not a citizen. A subset of the foreign born is shown for those who have entered the United States since 1990. Table C7 shows the average percent for each of the nine categories for the 36 counties.

Figure C7. Difference (ACS—CENSUS) in Nativity And Place Of Birth for the 36 ACS Counties
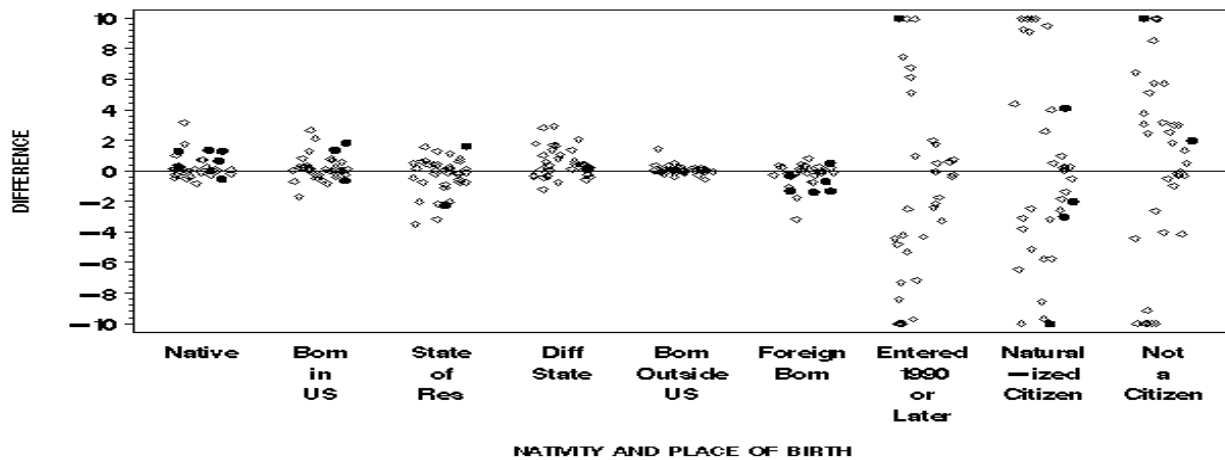
Table C7. ACS and Census 2000 Summary Statistics for the Nativity and Place of Birth Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Native	90.5	90.2	4	1
Born in US	89.1	88.9	2	1
State of Residence	63.3	63.6	1	1
Different State	25.8	25.3	0	0
Born Outside US	1.4	1.3	0	0

Foreign Born	9.5	9.8	1	4
Entered 1990 or Later	38.7	39.2	1	0
Naturalized Citizen	45.4	45.9	1	3
Not a Citizen	54.6	54.1	2	0

Comparisons

Figure C7 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. Differences for one or more counties are statistically significant between the ACS and the census for seven categories and there are no counties statistically significant different for two categories.

For the native born group, the ACS estimates are statistically significantly higher for Pima, AZ; Tulare, CA; Upson, GA; and Bronx, NY and the Census 2000 estimates are statistically significantly higher for Franklin, OH. The same counties occur for the foreign born except the direction of the differences are reversed from the native group. For the born in the United States group, the ACS estimates are statistically significantly higher for Tulare, CA and Bronx, NY and the Census 2000 estimates are statistically significantly higher for Franklin, OH. For the state of residence group, the ACS estimates are statistically significantly higher for Bronx, NY and the Census 2000 estimates are statistically significantly higher for Black Hawk, IA. For the entered 1990 or later group the ACS estimates are statistically significantly higher for Iron, MO. For the naturalized citizen group, the ACS estimates are statistically significantly higher for Lake, IL and the Census 2000 estimates are statistically significantly higher for Multnomah, OR; Harris, TX; and Zapata, TX. For the not a citizen group, the ACS estimates are statistically significantly higher for Iron, MO and Harris, TX.

C.8 Region of Birth of Foreign Born

Description

The Region of Birth of Foreign Born data are tabulated for the foreign born household population only. The universe for this table ranges from 30 (Reynolds, MO) to over 750,000(Harris, TX). Table C8 shows the average percent for each of the six categories for the 36 counties.

Figure C8. Difference (ACS—CENSUS) in Region Of Birth Of Foreign Born for the 36 ACS Counties
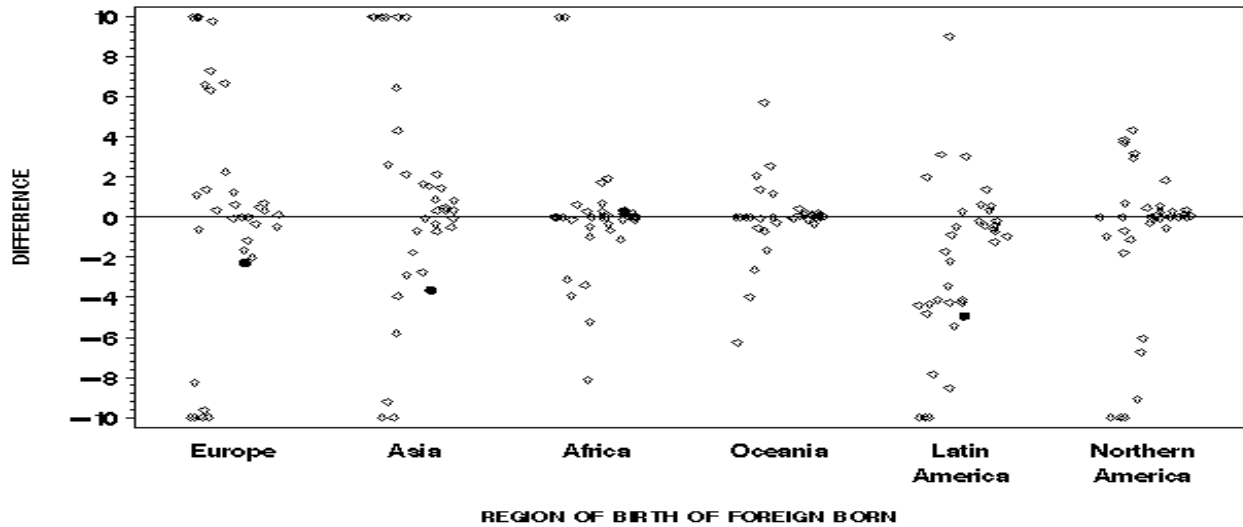
Table C8. ACS and Census 2000 Summary Statistics for the Region of Birth of Foreign Born Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Europe	27.3	26.9	0	1
Asia	26.2	23.8	0	1
Africa	3.7	02.8	0	0
Oceania	0.7	0.9	0	0
Latin America	36.7	39.1	0	1
Northern America	5.4	6.5	0	0

Comparisons

Figure C8 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. There are only three statistically significant differences. The difference for Fort Bend, TX is statistically significant for the Europe category. The difference for Hampden, MA is statistically significant for the Asia category and the difference for Douglas, NE is statistically significant for the Latin America category. Even though many values have large change estimates, none are statistically significant because of the large standard errors of the estimates. The estimates do not demonstrate any obvious pattern.

C.9 Language Spoken at Home

Description of Item

Language spoken at home data are tabulated for the household population 5 years and over. Table C9 shows the average percent for each of the nine categories for the 36 ACS counties. There are some grouping of the variables for the language spoken at home. The English only and language other than English equal the total household population universe. Language other than English is split into three major language groups- Spanish, other Indo-European, and Asian and Pacific Island languages. The ability to speak English less than very well is a subset of the four language grouping. The first speak English less than very well is a subset of all persons who speak a language other than English at home, the second one is a subset of the persons who speak Spanish at home, etc.

Figure C9. Difference (ACS−CENSUS) in Language Spoken At Home for the 36 ACS Counties
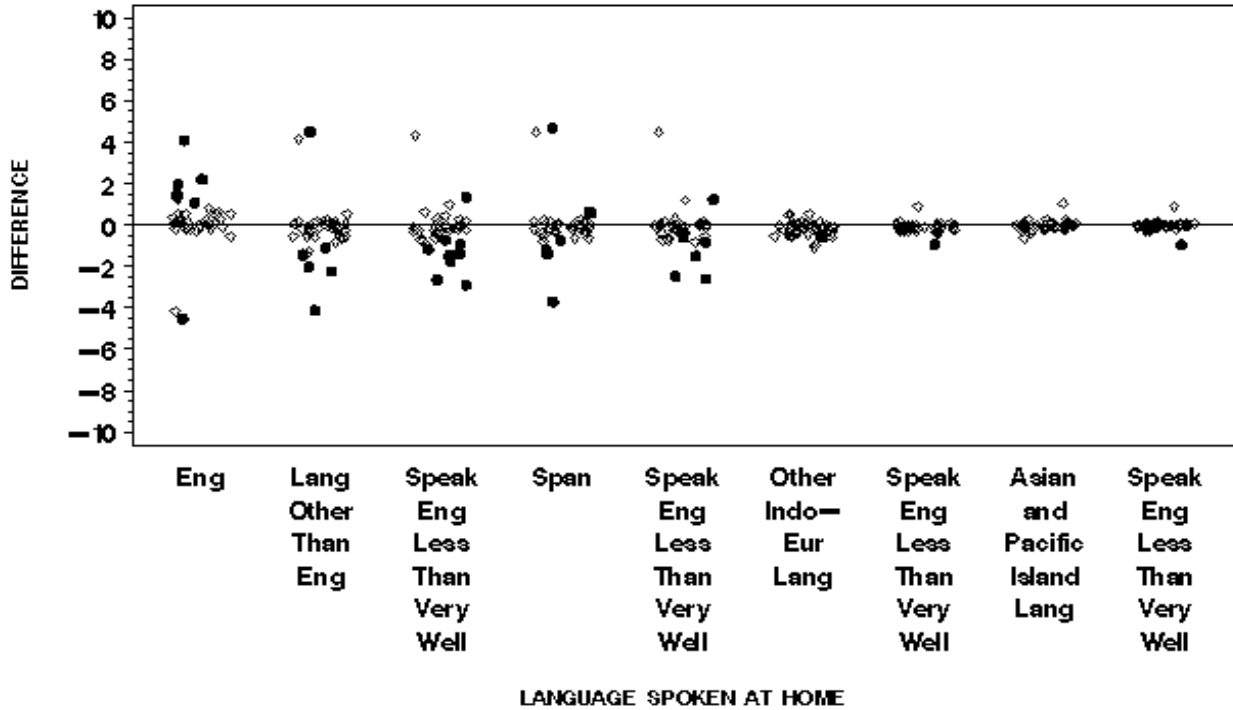
Table C9. ACS and Census 2000 Summary Statistics for the Language Spoken at Home Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
English Only	81.4	81.2	5	1
Language Other Than English	18.6	18.8	1	5
Speaks English Less Than Very Well	8.4	8.6	1	8
Spanish	13.4	13.4	3	4
Speaks English Less Than Very Well	6.3	6.5	1	5
Other Indo-European Languages	2.7	2.9	0	1
Speaks English Less Than Very Well	0.9	1.0	0	1
Asian and Pacific Island Languages	1.9	1.9	0	0
Speaks English Less Than Very Well	1.0	1.0	0	1

Comparisons

Figure C9 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. Differences for one or more counties are statistically significant for all of the categories except for those who speak Asian and Pacific Island languages at home. The ACS estimates are generally higher for speaks English only at home and the Census 2000 estimates are generally higher for speak a language other than English at home and speaks English less than very well and for the Spanish spoken at home and the Spanish who speak English less than very well.

For the English only spoken at home, the ACS estimates are statistically significantly higher for Jefferson, AR; Upson, GA; Washington, MO; Otero, NM; and Rockland, NY and the Census 2000 estimates are statistically significantly higher for Starr, TX. For the language other than English spoken at home, the same counties are statistically significant but the direction of the differences are reversed from the English only spoken at home. For the speak English less than

very well group, the ACS estimates are statistically significantly higher for Harris, TX and the Census 2000 estimates are statistically significantly higher for Pima, AZ; Jefferson, AR; San Francisco, CA; Tulare, CA; Otero, NM; Bronx, NY; Rockland, NY; and Petersburg, VA.

For the Spanish language spoken at home group, the ACS estimates are statistically significantly higher for Bronx, NY; Harris, TX; and Starr, TX and the Census 2000 estimates are statistically significantly higher for Jefferson, AR; Upson, GA; Otero, NM; and Petersburg, VA. For the language spoken at home is Spanish and speak English less than very well group, the ACS estimates are statistically significantly higher for Harris, TX and the Census 2000 estimates are statistically significantly higher for Pima, AZ; Jefferson, AR; Tulare, CA; Otero, NM; and Bronx, NY.

For the Indo-European languages spoken at home, the Census 2000 estimates are statistically significantly higher for Multnomah, OR. For the Indo European languages spoken at home and speak English less than very well, the Census 2000 estimates are statistically significantly higher for Rockland, NY. For the Asian language spoken at home and speak English less than very well, the Census 2000 estimates are statistically significantly higher for San Francisco, CA.

C.10 Ancestry

Description of Item

Ancestry data are tabulated for the entire household population. Table C10 shows the average percent for each of the 27 categories for the 36 ACS counties. The categories listed are not mutually exclusive or exhaustive. There is no 'other' ancestry as a catch all. The base for calculating the percent estimates is the total household population. No imputation is done if a person has no ancestries reported. In addition, those who respond with more than one ancestry are recorded multiple times in Table C10.

Figure C10.a   Difference (ACS—CENSUS) in Ancestry (single or multiple) for the 36 ACS Counties
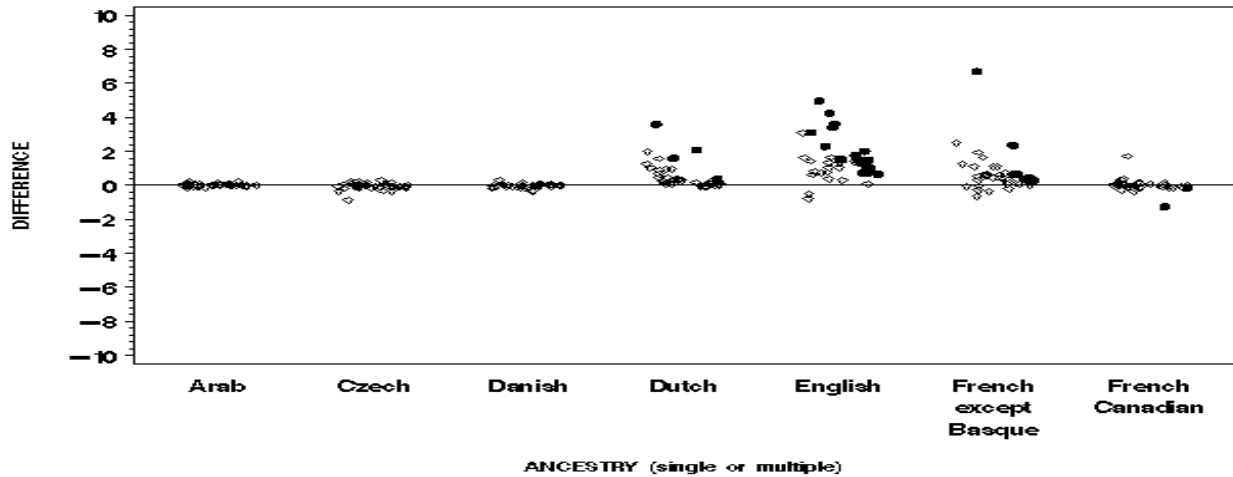
Figure C10.b   Difference (ACS—CENSUS) in Ancestry (single or multiple) for the 36 ACS Counties

Figure C10.c Difference (ACS—CENSUS) in Ancestry (single or multiple) for the 36 ACS Counties
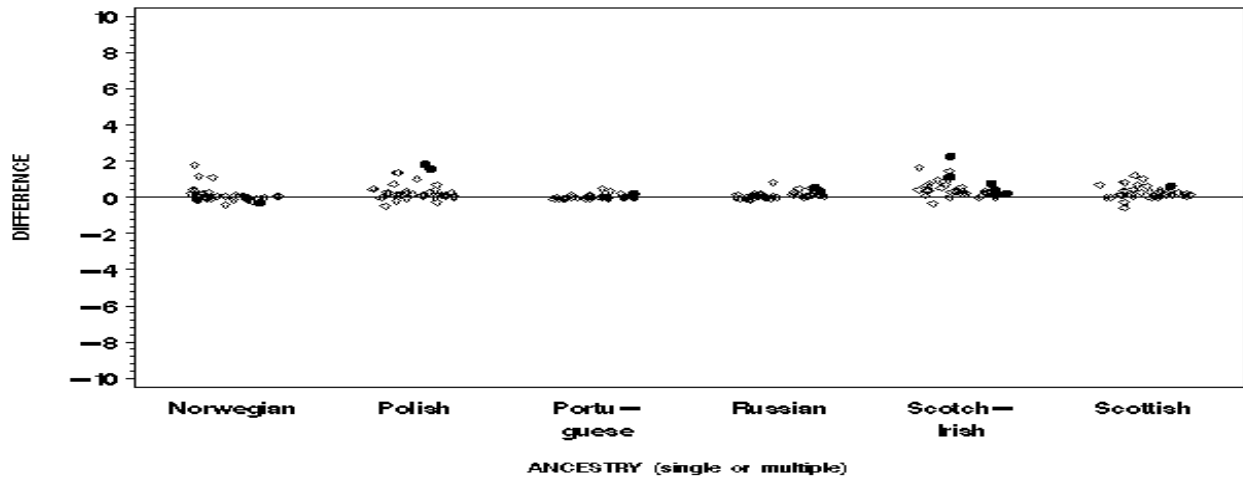
Figure C10.d Difference (ACS—CENSUS) in Ancestry (single or multiple) for the 36 ACS Counties
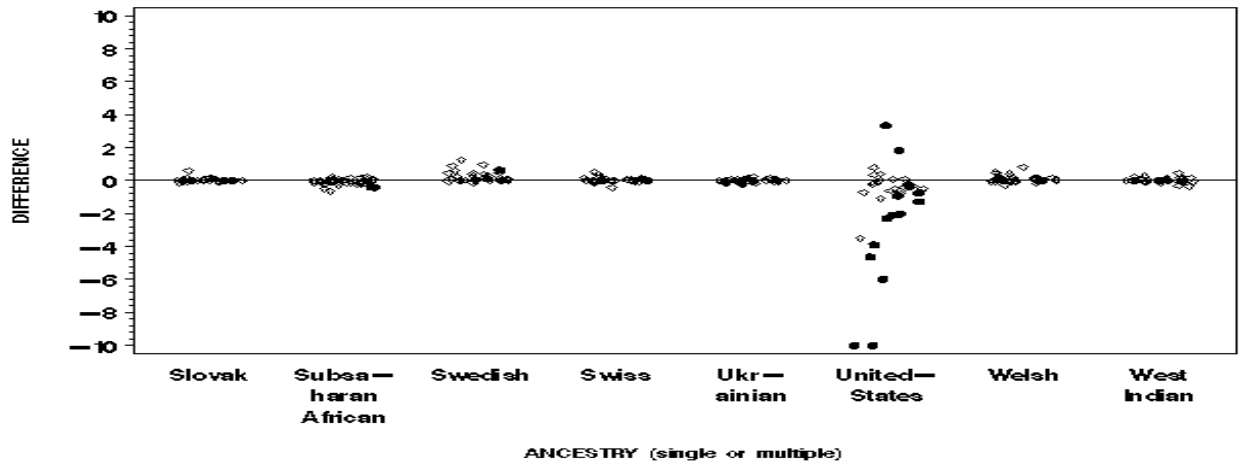
Table C10. ACS and Census 2000 Summary Statistics for the Ancestry Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Arab	0.3	0.3	0	0
Czech	0.7	0.7	0	0

Danish	0.5	0.6	0	0
Dutch	2.2	1.6	5	0
English	8.9	7.4	18	0
French (except Basque)	4.1	3.3	8	0
French Canadian	0.7	0.7	0	2
German	19.2	16.1	21	0
Greek	0.3	0.3	0	0
Hungarian	0.4	0.4	1	0
Irish	12.0	10.3	9	0
Italian	3.9	3.7	0	0
Lithuanian	0.4	0.3	1	0
Norwegian	1.8	1.6	0	1
Polish	3.1	2.8	2	0
Portuguese	0.3	0.2	1	0
Russian	0.9	0.8	2	0
Scotch-Irish	1.9	1.5	6	0
Scottish	1.8	1.5	1	0
Slovak	0.3	0.2	0	0
Subsaharan African	0.4	0.5	0	2
Swedish	1.5	1.3	1	0
Swiss	0.3	0.3	0	0
Ukranian	0.3	0.3	0	0
United States or American	6.4	7.9	2	13
Welsh	0.7	0.6	0	0
West Indian (excluding Hispanic groups)	0.8	0.7	0	0

Comparisons

Figures C10a-d depict the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. Differences for one or more counties are statistically significant for 17 of the 27 categories. The ACS estimates are generally higher for the German, Irish, Dutch, English, French (except Basque), and Scotch-Irish. The Census 2000 estimates are generally higher for the United States or American. All of these groups had a fairly large number of statistically significant differences.

Appendix D. Additional County Level Economic Profile Tables

D.1 Percent of Civilian Labor Force Unemployed

Description of Item

The percent unemployed is tabulated for the civilian labor force. The estimate is a derived statistic reflecting the percent unemployed at the county level.

Figure D1 Scatter Plot of Percent of Civilian Labor Force Unemployed (Population 16 Years and over) for the 36 ACS Counties
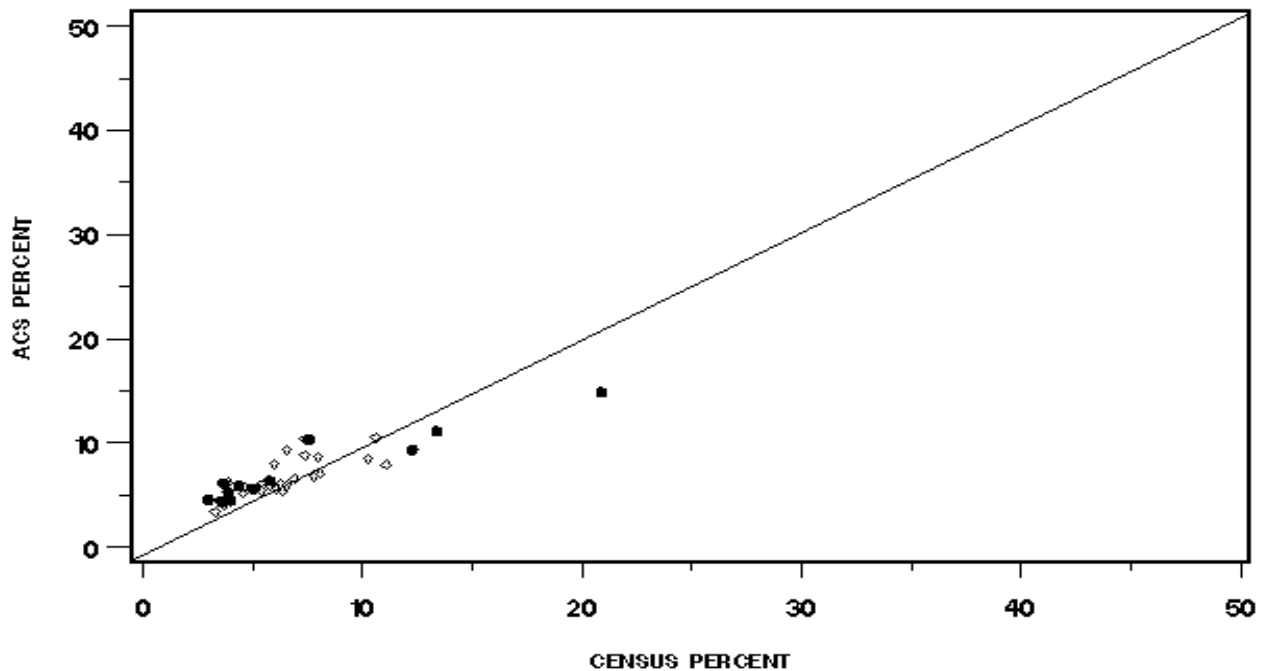
Table D1. ACS and Census 2000 Summary Statistics for the Percent of Civilian Labor Force Unemployed

Item	Percent of Civilian Labor Force Unemployed
ACS Average	7.02
Census 2000 Average	6.81
Number of Counties in which the ACS Estimate is Significantly Higher	10
Number of Counties in which the Census 2000 Estimate is Significantly Higher	3

Comparisons

Figure D1 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from about 3 percent to almost 21 percent. There are 13 counties with statistically significant differences. The ACS estimates are higher than the Census 2000 estimates for unemployment if the estimate is under 9 percent while the Census 2000 estimate is higher for the unemployment estimates over 9 percent. The ACS estimates are statistically significantly higher for Pima, AZ; Jefferson, AR; San Francisco, CA; Broward, FL; Miami, IN; Black Hawk, IA; Calvert, MD; Douglas, NE; Franklin, OH; and Multnomah, OR. The Census 2000 estimates are statistically significantly higher for Tulare, CA; Bronx, NY; and Starr, TX.

D.2 Employment Status for Females and Working Parents

Description

Employment status for females are tabulated for the female population 16 years and over. The employment status for all parents in labor force is tabulated for the number of persons 16 years and over who have children under 6 years. Table D2 shows the average percent estimates for each of the four categories for the 36 counties.

Figure D2. Difference (ACS—CENSUS) in Employment Status for the 36 ACS Counties
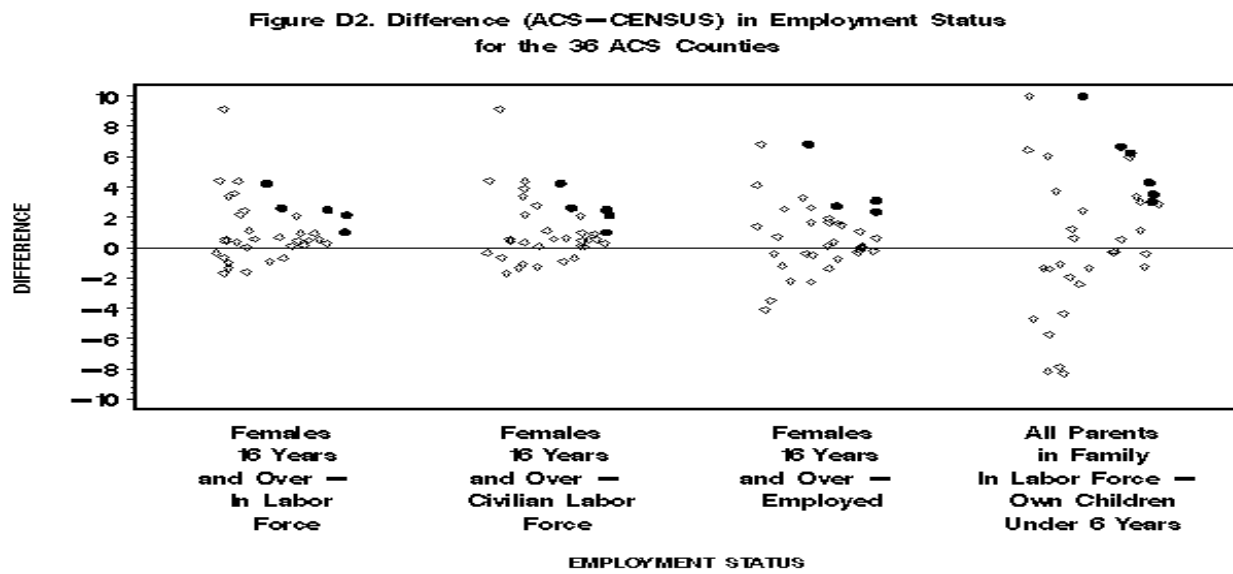
Table D2. ACS and Census 2000 Summary Statistics for the Employment Status for Females and Working Parents Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Females 16 Years and Over- In Labor Force	57.0	55.7	5	0
Females 16 Years and Over- Civilian Labor Force	56.9	55.6	5	0
Females 16 Years and Over- Employed	52.8	52.0	4	0
All Parents in Family in Labor Force - Own Children Under 6 Years	60.0	59.0	6	0

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Comparisons

Figure D2 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. The ACS estimates are fairly consistently higher than the Census 2000 estimates for in the labor force, civilian labor force, and employed. These results are fairly consistent with the results from the employment status shown in section 6.1.

The ACS estimates for females 16 years and older, in labor force and civilian labor force, are statistically significantly higher for Jefferson, AR; Broward, FL; Bronx, NY; Harris, TX; and Yakima, WA. For the females 16 years and over employed, the ACS estimates are statistically significantly higher for Bronx, NY; Harris, TX; Starr, TX; and Yakima, WA. For the all parents in family employed with own children under 6 years, the ACS estimates are statistically significantly higher for Pima, AZ; Jefferson, AR; Broward, FL; Hampden, MA; Bronx, NY; and Yakima, WA.

D.3 Commuting to Work

Description

Commuting to work data are tabulated for workers 16 years and over. Table D3 shows the average percent for each of the five categories for the 36 counties. There are some sizeable differences from the mean for some counties. For example, Bronx, NY and San Francisco, CA both have less than 50 percent of workers who drive alone.

Figure D3. Difference (ACS—CENSUS) in Commuting to Work for the 36 ACS Counties (workers 16 years and over)

Table D3. ACS and Census 2000 Summary Statistics for the Commuting To Work Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Car, Truck, or Van --Drove Alone	75.6	75.2	3	2
Car, Truck, or Van --Carpool	12.3	13.6	0	9
Public Transportation (including taxicab)	04.1	3.9	2	0
Walked	2.9	2.7	0	0
Other Means	1.7	1.3	7	1
Worked at Home	3.4	3.3	3	0

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Comparisons

Figure D3 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. All but walked to work show some statistically significant differences between the ACS and Census 2000 estimates. The carpool to work category had the largest number of statistically significant differences with nine and the Census 2000 estimates are generally higher than the ACS estimates for this variable. The ACS estimates are generally higher for the other means commuting to work.

For the car, truck or van–drive alone, the ACS estimates are statistically significantly higher for San Francisco, CA; Franklin, OH; and Harris, TX and the Census 2000 estimates are statistically significantly higher for Broward, FL and Bronx, NY. For the car, truck, or van–carpool, the Census 2000 estimates are statistically significantly higher for Pima, AZ; San Francisco, CA; Hampden, MA; Madison, MS; Flathead, MT; Bronx, NY; Franklin, OH; and Harris, TX. For the public transportation (including taxicab), the ACS estimates are statistically significantly higher for Bronx, NY and Rockland, NY. For the other means to commute to work, the ACS estimates are statistically significantly higher for Black Hawk, IA; Hampden, MA; Reynolds, MO; Washington, MO; Rockland, NY; Multnomah, OR; and Sevier, TN and the Census 2000 estimates are statistically significantly higher for Tulare, CA. For the work at home, the ACS estimates are statistically significantly higher for Bronx, NY; Harris, TX; and Starr, TX.

D.4 Occupation

Description

Occupation data are tabulated for the employed civilian household population 16 years and over. Table D4 shows the average percent for each of the six categories for the 36 counties. Census 2000 and ACS both code written responses into 509 civilian occupations that are summarized here into the six categories.

Figure D4. Difference (ACS—CENSUS) in Occupation for the 36 ACS Counties (employed civilian population 16 years and over)
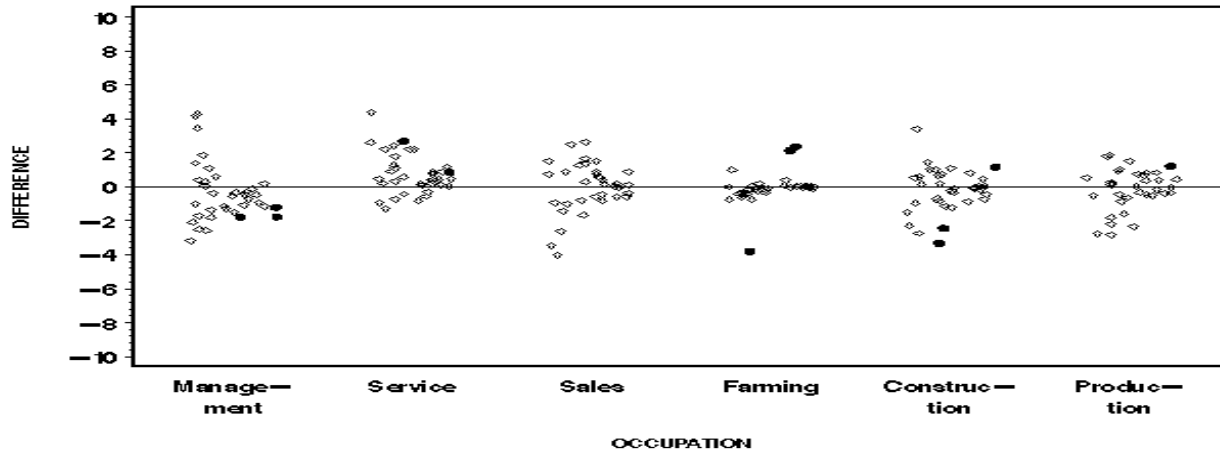
Table D4. ACS and Census 2000 Summary Statistics for the Occupation Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Management, Professional and Related Occupations	29.7	30.1	0	3
Service	17.2	16.4	2	0
Sales & Office	24.8	24.8	0	0
Farming, Fishing and Forestry	1.6	1.6	2	1
Construction, Extraction and Maintenance	10.6	10.8	1	2
Production, Transportation and Material Moving	16.1	16.2	1	0

Comparisons

Figure D4 depicts the differences between the ACS estimates and the Census 2000 estimates for occupation for the 36 ACS counties. Differences for one or more counties are statistically significant between the ACS and the Census 2000 estimates for all but sales and office occupations. The data shows generally agreement between the ACS and the Census 2000 estimates. The statistically significant differences do not look like outliers except for the farming and fishing. The other counties clearly cluster around zero difference.

For the management, professional and related occupations, the Census 2000 estimates are statistically significantly higher for Tulare, CA; Broward, FL; and Harris, TX. For the services occupation, the ACS estimates are statistically significantly higher for Jefferson, AR and Broward, FL. For the farming, fishing, and forestry occupations, the ACS estimates are statistically significantly higher for Tulare, CA and Yakima, WA and the Census 2000 estimates are statistically significantly higher for Starr, TX. For the construction, extraction, and maintenance occupations, the ACS estimates are statistically significantly higher for Harris, TX and the Census 2000 estimates are statistically significantly higher for Flathead, MT and Otero, NM. For the production, transportation, and material moving occupations, the ACS estimates are statistically significantly higher for Bronx, NY.

D.5 Industry

Description

Industry data are tabulated for the employed civilian household population 16 years of age and over. Table D5 shows the average percent for each of the 13 categories for the 36 counties. Some of the categories are abbreviated in figures D5.a and D5.b because of space considerations. Census 2000 and ACS both code written responses into 265 industries that are summarized here by the 13 categories.

Figure D5.a Difference (ACS—CENSUS) in Industry for the 36 ACS Counties (employed civilian population 16 years and over)
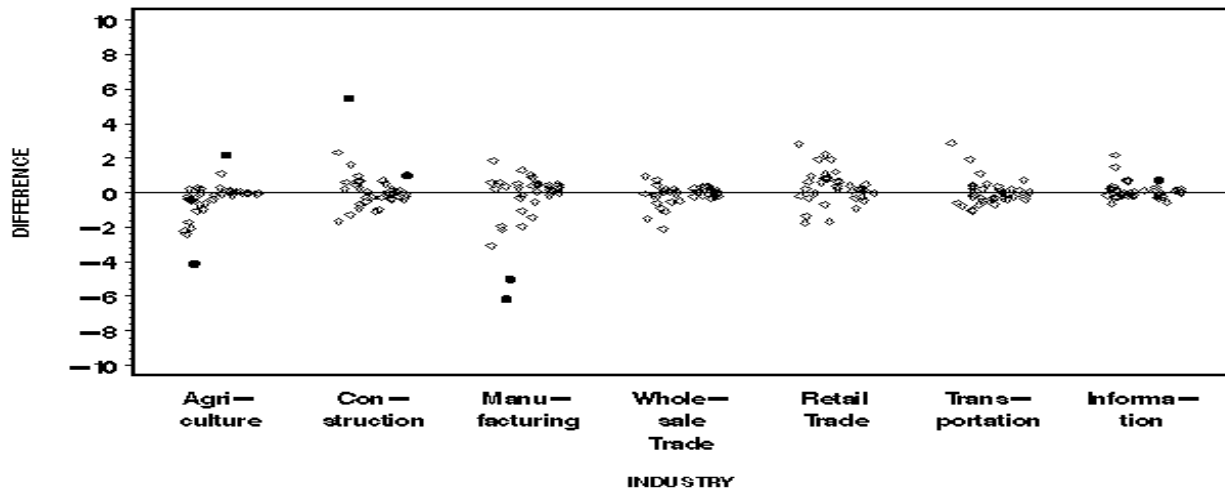
Figure D5.b Difference (ACS—CENSUS) in Industry for the 36 ACS Counties (employed civilian population 16 years and over)
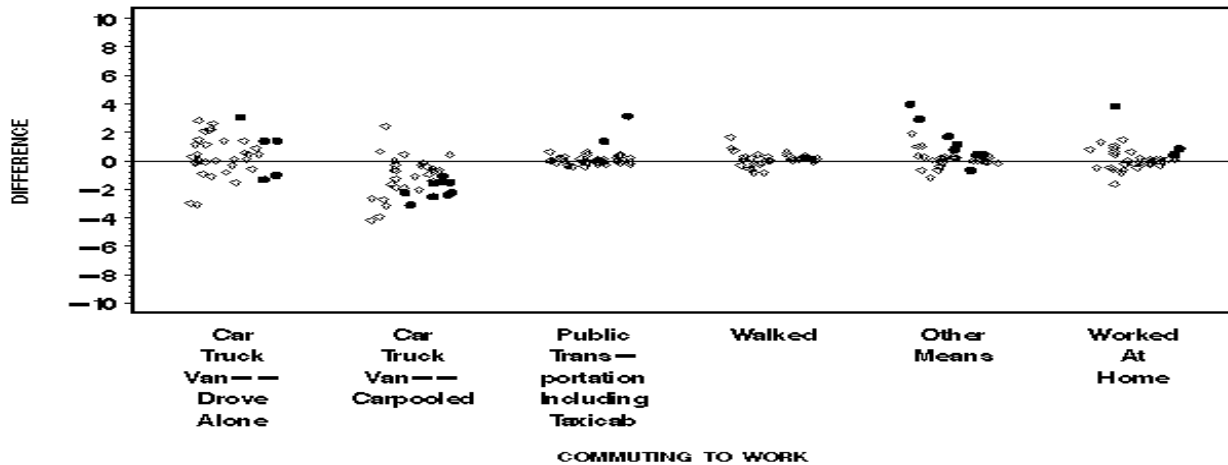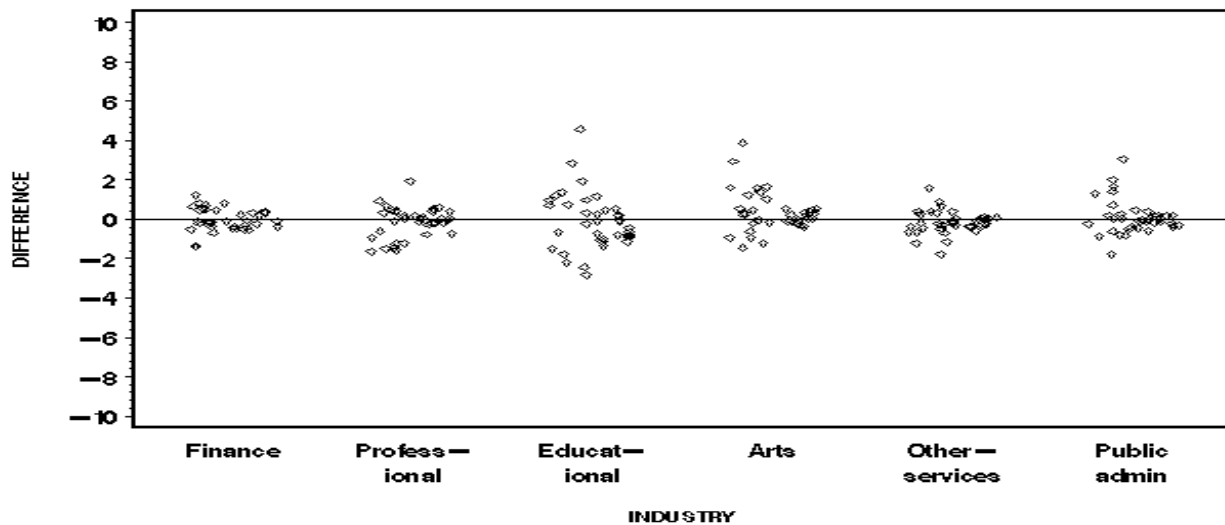
Table D5. ACS and Census 2000 Summary Statistics for the Industry Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Agriculture, Forestry, Fishing, and Hunting and Mining	3.6	4.0	1	1
Construction	7.5	7.3	2	0
Manufacturing	13.3	13.6	0	2
Wholesale Trade	3.3	3.4	0	0
Retail Trade	12.1	11.8	0	0
Transportation and Warehousing and Utilities	5.1	5.1	0	0
Information	2.4	2.2	1	0
Finance, Insurance, Real Estate, and Rental and Leasing	5.7	5.8	0	0
Professional, Scientific, Management, Administrative, and Waste Management Services	7.4	7.5	0	0
Educational, Health, and Social Services	21.0	21.1	0	1
Arts, Entertainment, Recreation, Accommodations, and Food Services	8.3	7.9	0	0
Other Services (except Public Administration)	4.7	4.8	0	0

Public Administration	5.5	5.4	0	0

Comparisons

Figures D5.a and D5.b depict the differences between the ACS and Census 2000 estimates for the 36 ACS counties. The industry estimates appear to be generally consistent between the ACS and the census. There are a few outliers for agriculture (Tulare, CA and Starr, TX), construction (Washington, MO and Harris, TX), manufacturing (Upson, GA and Petersburg, VA), information (Douglas, NE), and educational, health, and social services (Broward, FL). There is general agreement between the ACS and Census 2000 estimates for the industry category.

D.6 Class of Worker

Description

Class of worker data are tabulated for the employed household civilian population 16 years of age and over. Table D6 shows the average percent for each of the four categories for the 36 counties.

Figure D6. Difference (ACS—CENSUS) in Class of Worker for the 36 ACS Counties (employed civilian population 16 years and over)

Table D6. ACS and Census 2000 Summary Statistics for the Class of Worker Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Private Wage and Salary Workers	75.2	75.8	1	0
Government Workers	16.9	16.6	1	5
Self-Employed Workers in Own Not Incorporated Business	7.7	7.2	1	0
Unpaid Family Workers	0.3	0.4	0	0

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Comparisons

The ACS and Census 2000 estimates seem to generally track fairly well together for this variable. Only government workers had a number of statistically significant differences, but the differences are not large. For the private wage and salary workers, Starr, TX and Zapata, TX had the large differences (around -5 percent), but are not statistically significant due to their large standard errors. Quite a few smaller counties seem to have higher Census 2000 estimates, but none by themselves are statistically significant. Only Hampden, MA is statistically significant for the private wage and salary workers.

For government workers, the ACS estimates are statistically significantly higher for Otero, NM and the Census 2000 estimates are statistically significantly higher for Tulare, CA; Broward, FL; Hampden, MA; Bronx, NY; and Harris, TX. For the self-employed workers in own not incorporated business, the ACS estimates are statistically significantly higher for Broward, FL.

D.7 Median Household Income

Description of Item

Household income is tabulated for all households. The estimate is a derived statistic reflecting the household income at the county level.

Figure D7. Scatter Plot of Median Household Income (dollars) for the 36 ACS Counties
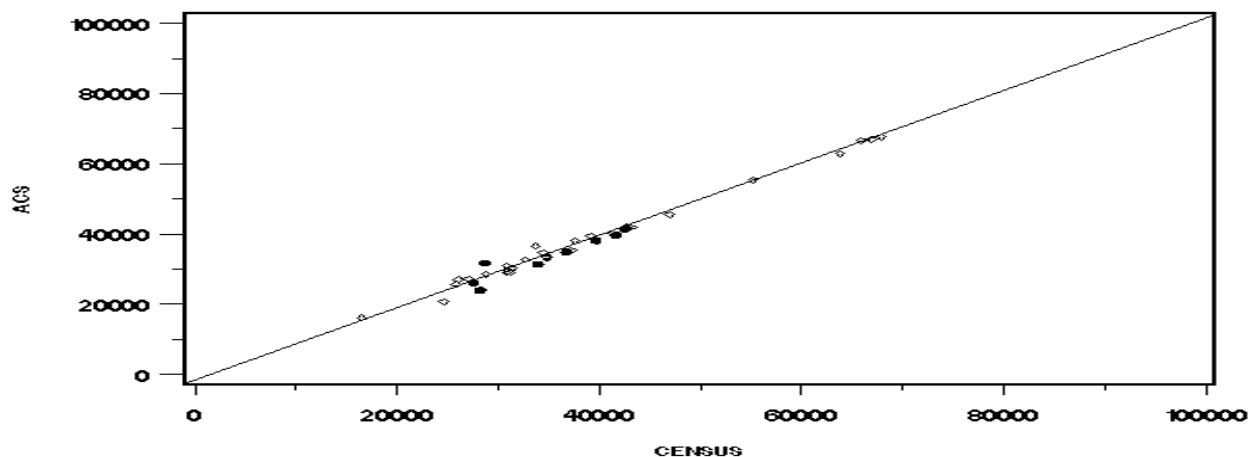
Table D7. ACS and Census 2000 Summary Statistics for the Median Household Income

Item	Median Household Income
ACS Average	$37,249
Census 2000 Average	$37,949
Number of Counties in which the ACS Estimate is Significantly Higher	1
Number of Counties in which the Census 2000 Estimate is Significantly Higher	7

Comparisons

Figure D7 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from about $16,500 to almost $68,000. There are eight counties with statistically significant differences. Seven of the eight statistically significant differences occurred with the Census 2000 estimate higher than the ACS estimate. The ACS estimates are statistically significantly higher for Lake, MT and the Census 2000 estimates are statistically significantly higher for Pima, AZ; Tulare, CA; Broward, FL; De Soto, LA; Hampden, MA; Bronx, NY; and Harris, TX.

D.8 Household Income by Type

Description

Household income by type is tabulated using the household population. Table D8 shows the average percent for each of the five income types for the 36 counties. The denominator for each of these items is the total number of households.

Figure D8. Difference (ACS—CENSUS) in Household Income by Type for the 36 ACS Counties
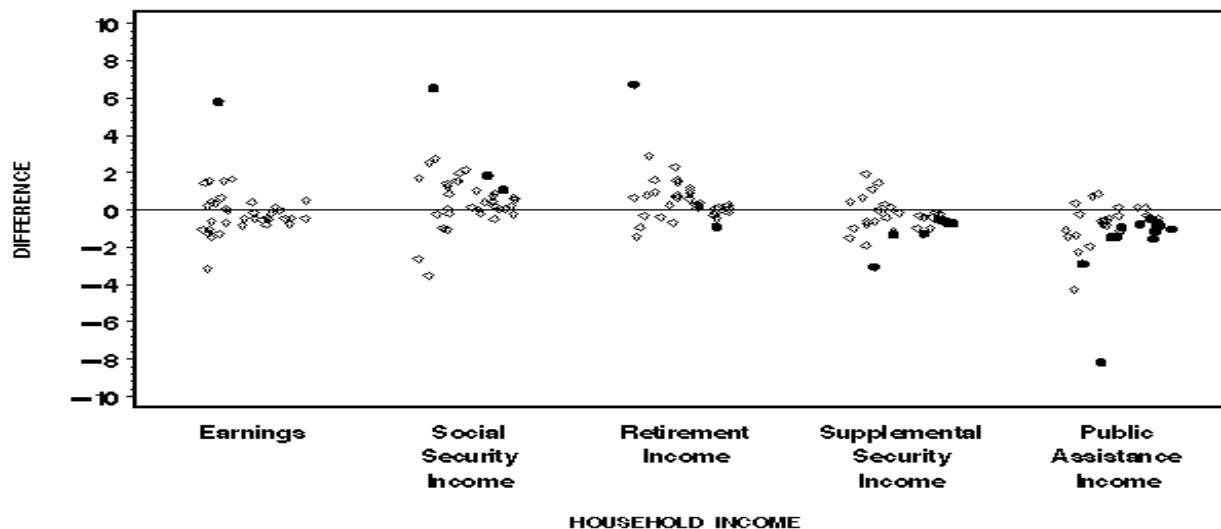
Table D8. ACS and Census 2000 Summary Statistics for the Household Income Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Earnings	78.0	78.0	1	0
Social Security Income	28.3	27.7	3	0
Retirement Income	17.4	16.8	1	1
Supplemental Security Income	4.9	5.3	0	8
Public Assistance Income	3.3	4.3	0	13

Comparisons

Figure D8 depicts the differences between the ACS estimates and the Census 2000 estimates for the households by type of income for the 36 ACS counties. All categories have some counties with statistically significant differences. The Census 2000 estimates for the supplemental security and public assistance income types are generally higher than the ACS estimates, while the ACS estimates are generally higher than the Census 2000 estimates for the social security and retirement income types.

For households with earnings, the ACS estimates are statistically significantly higher for Starr, TX. For households with social security income, the ACS estimates are statistically significantly higher for San Francisco, CA; Washington, MO; and Rockland, NY. For households with retirement income, the ACS estimates are statistically significantly higher for Reynolds, MO and the Census 2000 estimates are statistically significantly higher for Multnomah, OR. For households with supplemental security income, the ACS estimates are statistically significantly higher for Pima, AZ; Broward, FL; Lake, IL; Flathead, MT; Rockland, NY; Franklin, OH; Harris, TX; and Petersburg, VA. For households with public assistance income, the Census 2000 estimates are statistically significantly higher for Pima, AZ; Jefferson, AR; San Francisco, CA; Broward, FL; Lake, IL; Lake, MT; Rockland, NY; Franklin, OH; Multnomah, OR; Sevier, TN; Fort Bend, TX; Harris, TX; and Starr, TX.

D.9 Mean Earnings

Description of Item

Mean earnings is tabulated for all households with earnings. The estimate is a derived statistic reflecting the household earnings at the county level.

Figure D9. Scatter Plot of Household Mean Earnings (dollars) for the 36 ACS Counties
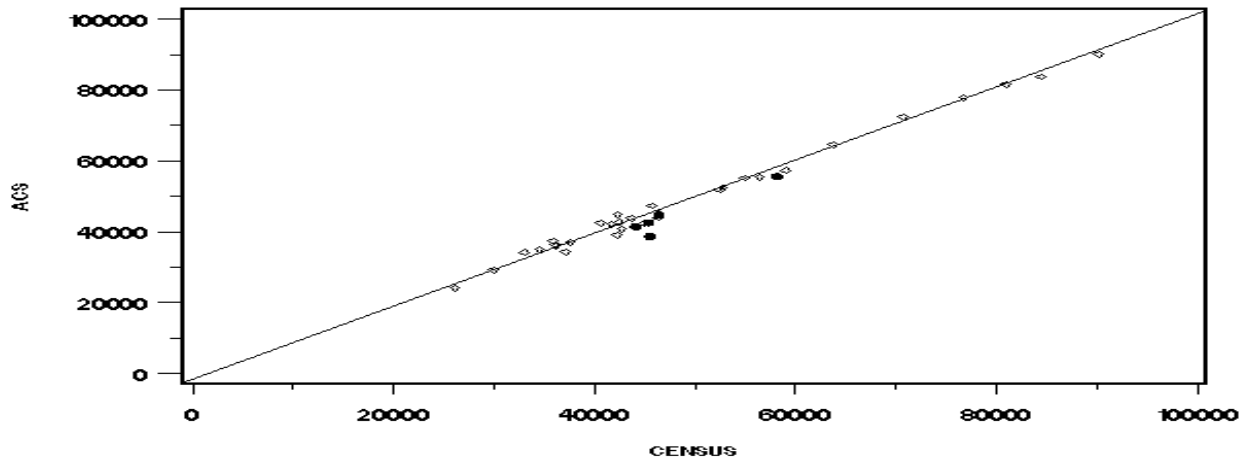
Table D9. ACS and Census 2000 Summary Statistics for Mean Earnings

Item	Mean Earnings
ACS Average	$48,504
Census 2000 Average	$49,112
Number of Counties in which the ACS Estimate is Significantly Higher	0
Number of Counties in which the Census 2000 Estimate is Significantly Higher	5

Comparisons

Figure D9 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from about $26,200 to over $90,000. There are five counties with statistically significant differences, all of them having a higher Census 2000 estimate than the ACS estimate. From examining Figure D9, the ACS estimates generally agree with the Census 2000 estimates. The Census 2000 estimates statistically significantly higher are Pima, AZ; Tulare, CA; Broward, FL; Upson, GA; and Bronx, NY.

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D.10 Mean Social Security Income

Description of Item

Mean Social Security income is tabulated for all households with a Social Security income. The estimate is a derived statistic reflecting the mean Social Security income at the county level.

Figure D10. Scatter Plot of Mean Social Security Income (dollars) for the 36 ACS Counties
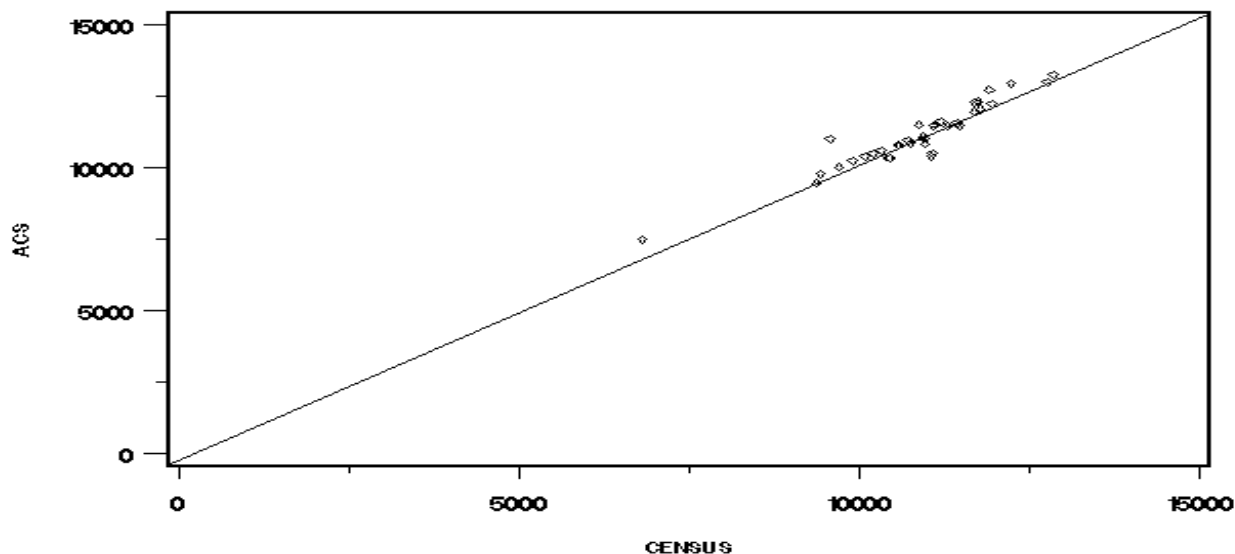
Table D10. ACS and Census 2000 Summary Statistics for Mean Social Security Income

Item	Mean Social Security Income
ACS Average	$11,149
Census 2000 Average	$10,862
Number of Counties in which the ACS Estimate is Significantly Higher	0
Number of Counties in which the Census 2000 Estimate is Significantly Higher	0

Comparisons

Figure D10 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from about $6,800 to over $12,800. There are no county estimates that are statistically significant different. From examining Figure D10, the ACS estimates appear to generally have higher social security income than the Census 2000 estimates.

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D.11 Mean Supplemental Security Income

Description of Item

Mean Supplemental Security income is tabulated for all households with a supplemental security income. The estimate is a derived statistic reflecting the mean supplemental security income at the county level.

Figure D11 Scatter Plot of Mean Supplemental Security Income (dollars) for the 36 ACS Counties
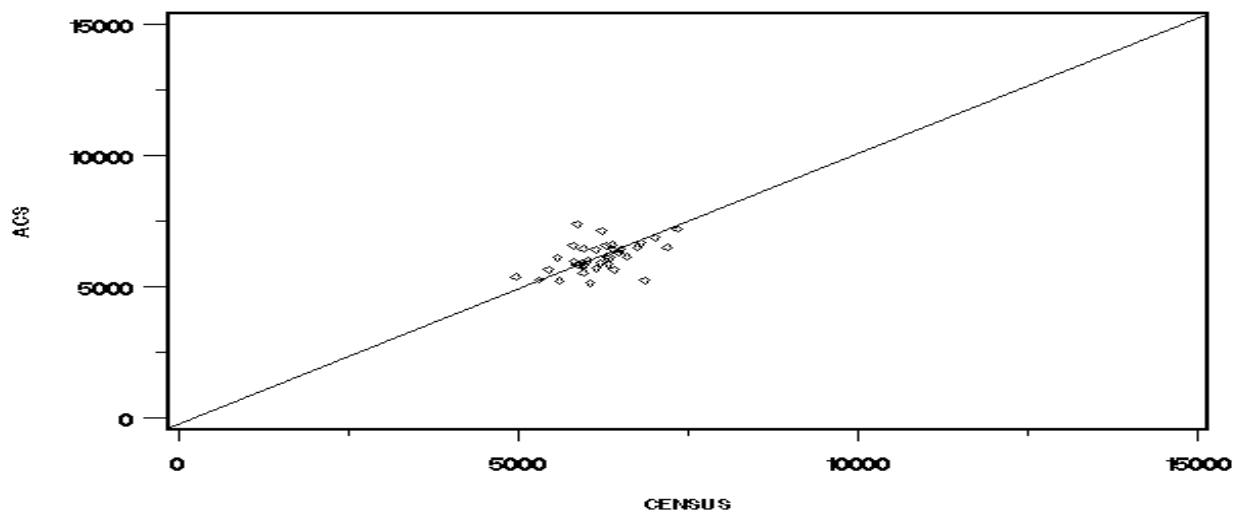
Table D11. ACS and Census 2000 Summary Statistics for Mean Supplemental Security Income

Item	Mean Supplemental Security Income
ACS Average	$6,139
Census 2000 Average	$6,194
Number of Counties in which the ACS Estimate is Significantly Higher	0
Number of Counties in which the Census 2000 Estimate is Significantly Higher	0

Comparisons

Figure D11 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from about $5,000 to over $7,300. There are no county estimates that are statistically significantly different. From examining figure D11, the ACS estimates generally agree with the Census 2000 estimates.

D.12 Mean Public Assistance Income

Description of Item

Mean Public Assistance income is tabulated for all households with public assistance income. The estimate is a derived statistic reflecting the mean public assistance income at the county level.

Figure D12. Scatter Plot of Mean Public Assistance Income (dollars) for the 36 ACS Counties
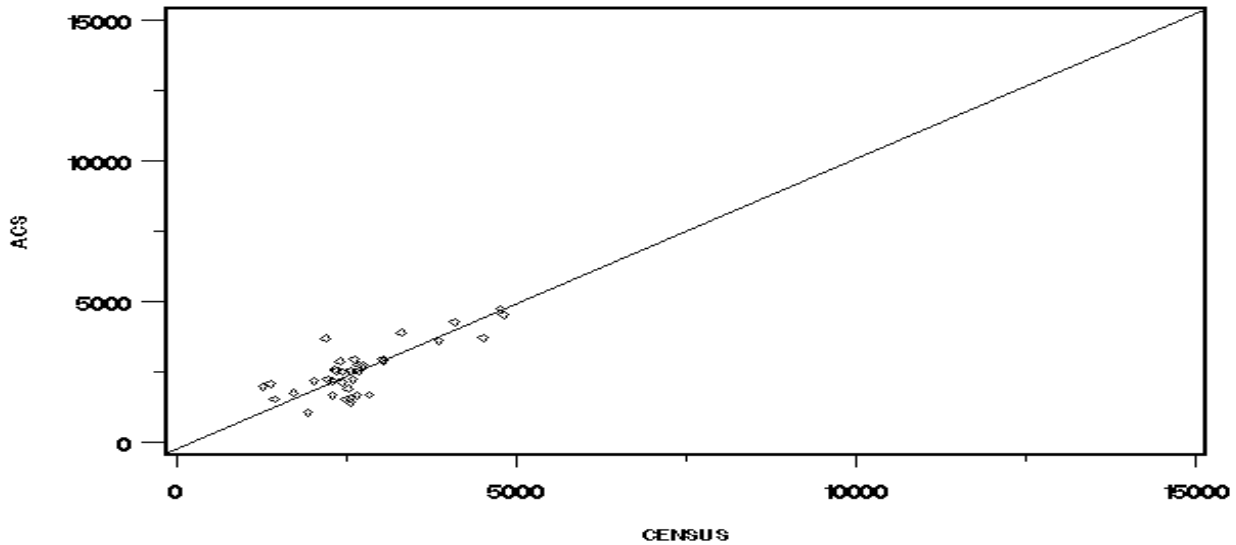
Table D12. ACS and Census 2000 Summary Statistics for Mean Public Assistance Income

Item	Mean Public Assistance Income
ACS Average	$2,565
Census 2000 Average	$2,680
Number of Counties in which the ACS Estimate is Significantly Higher	0
Number of Counties in which the Census 2000 Estimate is Significantly Higher	0

Comparisons

Figure D12 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from about $1,200 to over $4,800. There are no county estimates that are statistically significantly different. From examining figure D12, the ACS estimates generally agree with the Census 2000 estimates.

D.13 Mean Retirement Income

Description of Item

Mean retirement income is tabulated for all households with retirement income. The estimate is a derived statistic reflecting the mean retirement income at the county level.

Figure D13. Scatter Plot of Mean Retirement Income (dollars) for the 36 ACS Counties

Table D13. ACS and Census 2000 Summary Statistics for Mean Retirement Income

Item	Mean Retirement Income
ACS Average	$14,287
Census 2000 Average	$16,027
Number of Counties in which the ACS Estimate is Significantly Higher	0
Number of Counties in which the Census 2000 Estimate is Significantly Higher	9

Comparisons

Figure D13 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from about $10,400 to over $26,000. There are nine counties with statistically significant differences and with a higher Census 2000 estimate than the ACS estimate. The counties with the census statistically significantly higher are Pima, AZ; Broward, FL; Black Hawk, IA; Iron, MO; Bronx, NY; Franklin, OH; Schuylkill, PA; Harris, TX; and Ohio, WV. There appears to be a general pattern of the Census 2000 estimates having higher mean retirement income estimates than the ACS estimates.

D.14 Family Income

Description of Item

Family income is tabulated for all families. Table D14 shows the average percent for each of the ten categories for the 36 ACS counties. The labels of the categories are abbreviated for display purposes.

Figure D14. Difference (ACS—CENSUS) in Family Income for the 36 ACS Counties
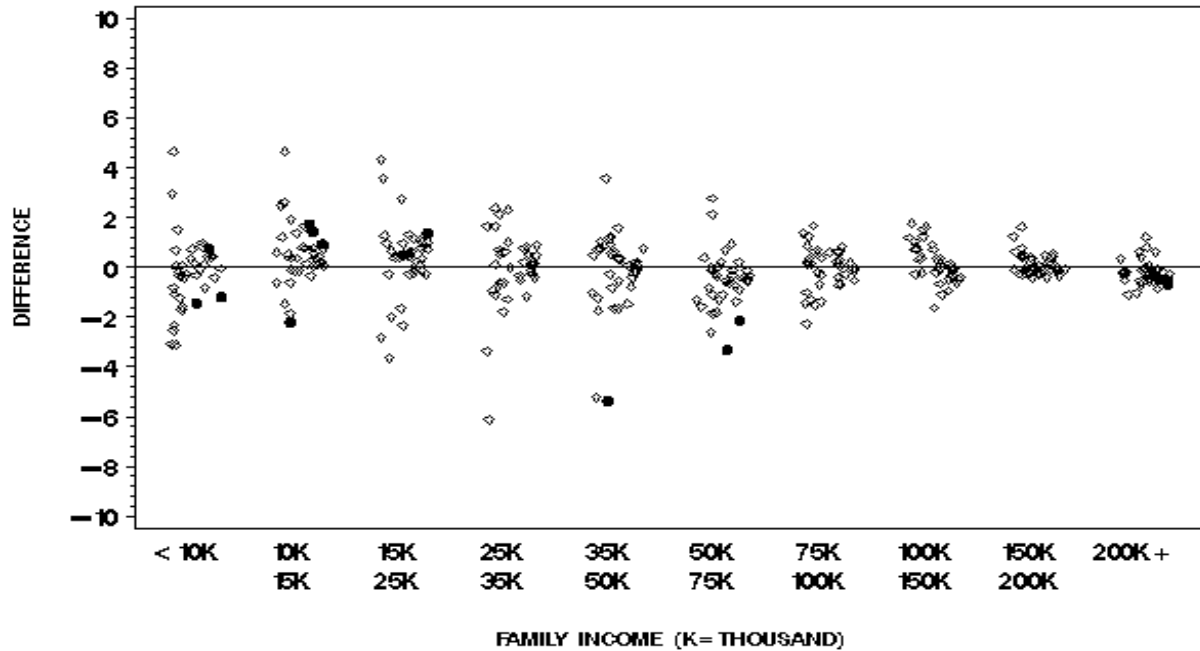
Table D14. ACS and Census 2000 Summary Statistics for the Family Income Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Less than $10,000	7.6	7.8	1	2
$10,000 - $14,999	6.3	5.8	3	1
$15,000 - $24,999	13.6	13.2	1	0
$25,000 - $34,999	13.5	13.6	0	0

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$35,000 - $49,999	17.5	17.7	0	1
$50,000 - $74,999	19.8	20.3	0	2
$75,000 - $99,999	10.1	10.2	0	0
$100,000 - $149,999	7.4	7.2	0	0
$150,000 - $199,999	2.2	2.1	0	0
$200,000 or More	2.0	2.2	0	3

Comparisons

Figure D14 depicts the differences between the ACS family income and the census family income for the 36 ACS counties. Differences for one or more counties are statistically significant for six categories and no differences are statistically significant for four categories. The ACS estimates are generally higher for the $10,000-$14,999 and $15,000-$24,999 categories while the Census 2000 estimates are generally higher for the $50,000-$74,999 and $200,000 or more categories. Except for the minor differences noted, the ACS estimates seem to be in general agreement with the Census 2000 estimates. These results are very similar to the results for the household income.

For the less than $10,000 family income, the ACS estimates are statistically significantly higher for Lake, IL and the Census 2000 estimates are statistically significantly higher for Rockland, NY and Harris, TX. For the $10,000 to $14,999 family income, the ACS estimates are statistically significantly higher for Tulare, CA; Broward, FL; and Yakima, WA and the Census 2000 estimates are statistically significantly higher for Oneida, WI. For the $15,000 to $24,999 family income, the ACS estimates are statistically significantly higher for Bronx, NY. For the $35,000 to $49,999 family income, the Census 2000 estimates are statistically significantly higher for Miami, IN. For the $50,000 to $74,999 family income, the Census 2000 estimates are statistically significantly higher for Lake, IL and Black Hawk, IA. For the more then $200,000 family income, the Census 2000 estimates are statistically significantly higher for Pima, AZ; Broward, FL; and Bronx, NY.

D.15 Median Family Income

Description of Item

Median family income is tabulated for all families. The estimate is a derived statistic reflecting the median family income at the county level.

Figure D15. Scatter Plot of Median Family Income (dollars) for the 36 ACS Counties
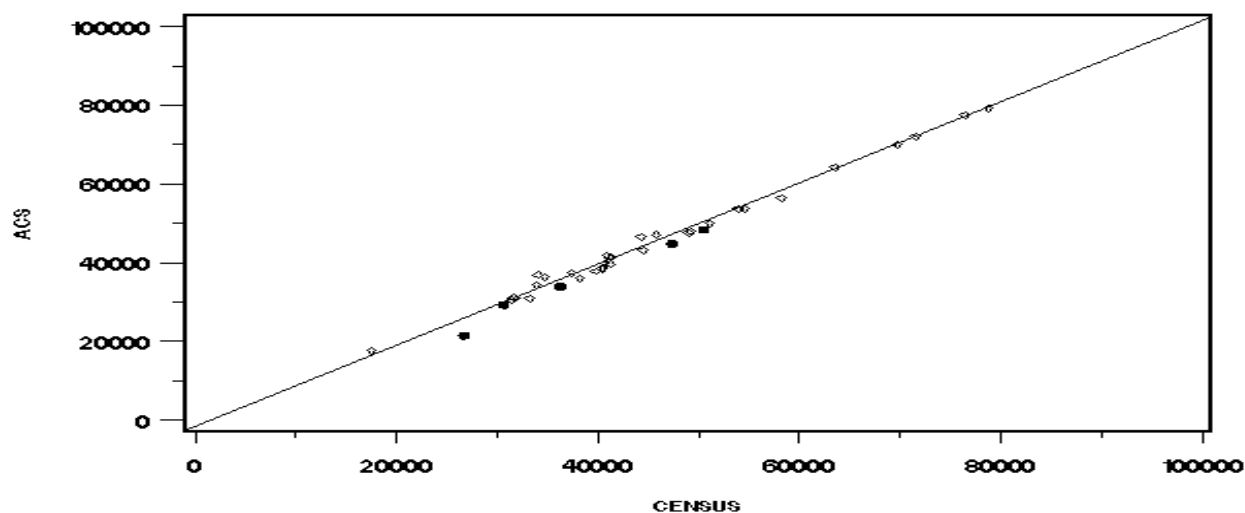
Table D15. ACS and Census 2000 Summary Statistics for Median Family Income

Item	Median Family Income
ACS Average	$44,154
Census 2000 Average	$44,750
Number of Counties in which the ACS Estimate is Significantly Higher	0
Number of Counties in which the Census 2000 Estimate is Significantly Higher	5

Comparisons

Figure D15 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from about $17,500 to almost $79,000. There are five counties with statistically significant differences. All five statistically significant differences occurred with the Census 2000 estimate higher than the ACS estimate. The counties with the Census 2000 estimates being statistically significantly higher are Pima, AZ; Broward, FL; Black Hawk, IA; Bronx, NY; and Zapata, TX.

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D.16 Per Capita Income

Description of Item

Per capita income is tabulated for all persons. The estimate is a derived statistic reflecting the per capita income at the county level.

Figure D16. Scatter Plot of Per Capita Income (dollars) for the 36 ACS Counties

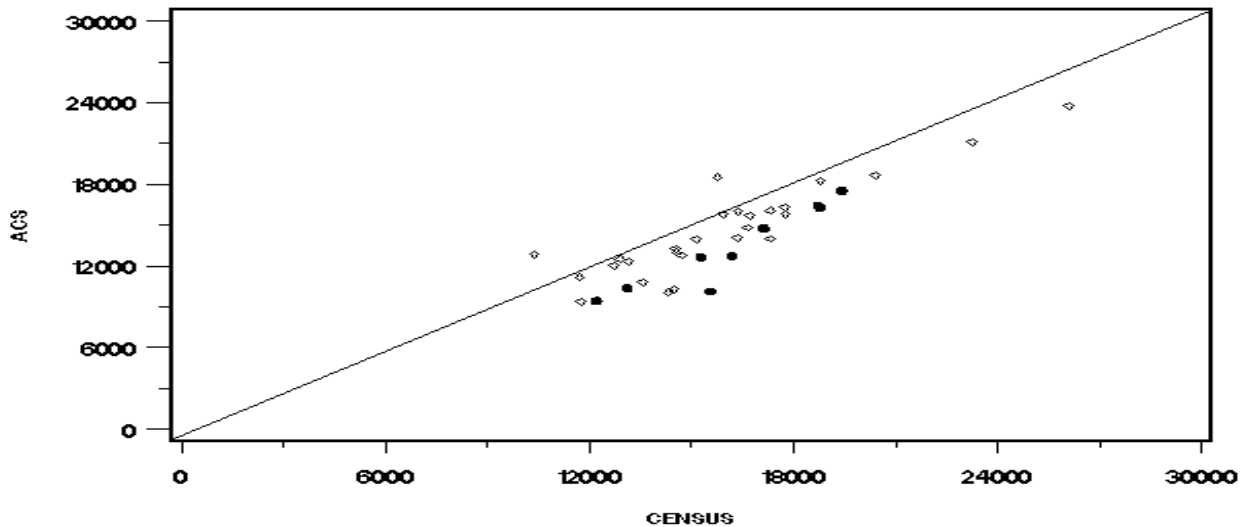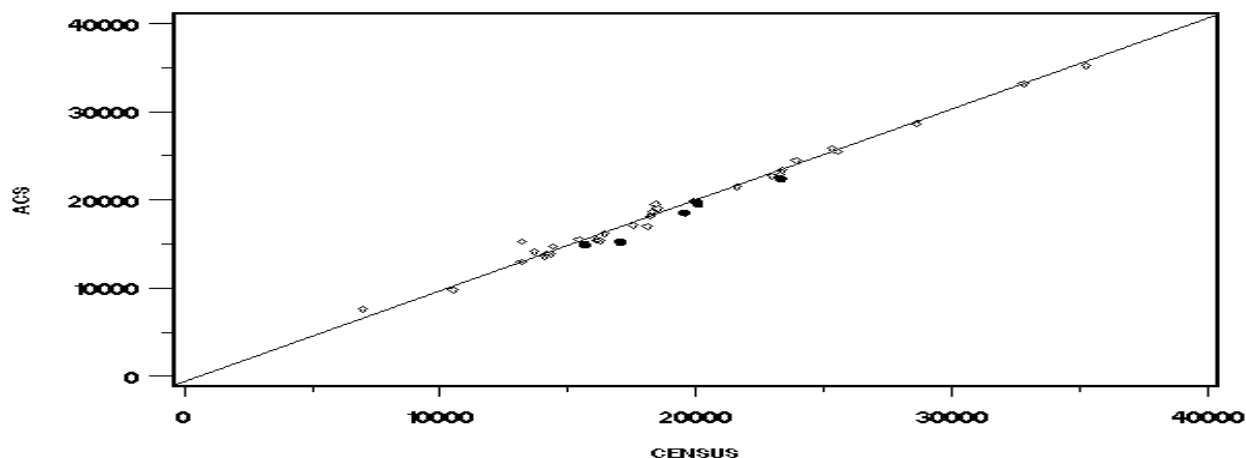**Table D16. ACS and Census 2000 Summary Statistics for Per Capita Income**

Item	Per Capita Income
ACS Average	$18,951
Census 2000 Average	$19,054
Number of Counties in which the ACS Estimate is Significantly Higher	0
Number of Counties in which the Census 2000 Estimate is Significantly Higher	5

Comparisons

Figure D16 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from about $7,000 to over $35,000. There are five counties with statistically significant differences. All five statistically significant differences occurred with the Census 2000 estimate higher than the ACS estimate. Despite the five statistically significant differences, there does not appear to be a systematic difference between the ACS and the Census 2000 estimates. The counties with the census statistically significantly higher are Pima, AZ; Broward, FL; Upson, GA; Black Hawk, IA; and Yakima, WA.

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D.17 Median Earnings for Male Full-Time Year-Round Workers

Description of Item

Median earnings is tabulated for all male full-time year-round workers 16 years of age or older. The estimate is a derived statistic reflecting the male earnings at the county level.

Figure D17. Median Earnings (dollars) for Male Full—Time Year—Round Workers for the 36 ACS Counties
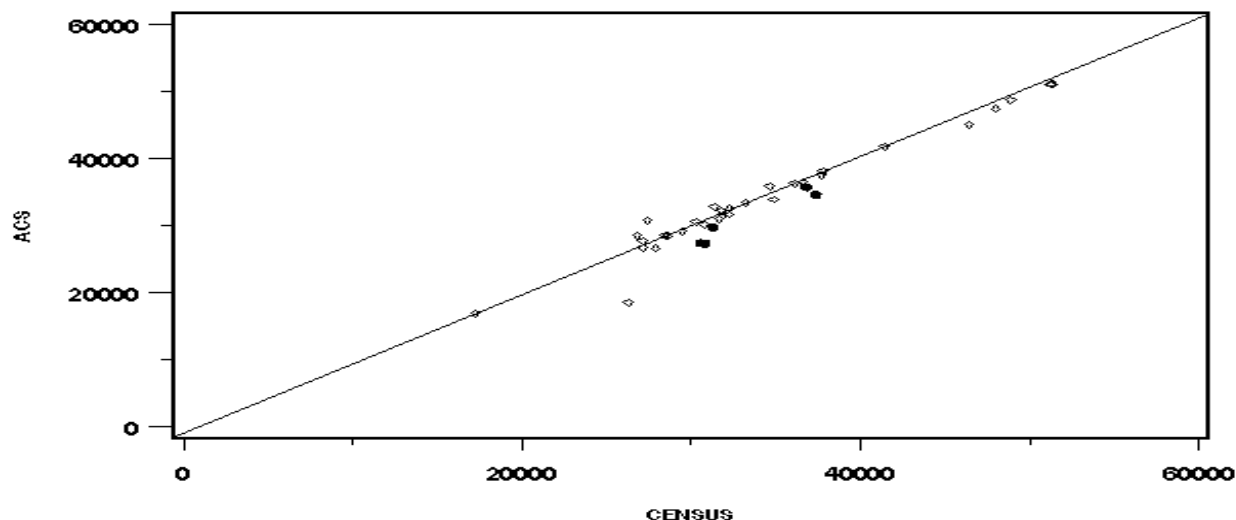
Table D17. ACS and Census 2000 Summary Statistics for Median Earnings for Male Full-Time Year-Round Workers

Item	Median Earnings for Male Full-Time Year-Round Workers
ACS Average	$33,558
Census 2000 Average	$34,010
Number of Counties in which the ACS Estimate is Significantly Higher	0
Number of Counties in which the Census 2000 Estimate is Significantly Higher	5

Comparisons

Figure D17 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from about $17,000 to over $51,000. All five statistically significant differences occurred with the Census 2000 estimate higher than the ACS estimate. The Census 2000 estimates are statistically significantly higher for Tulare, CA; Broward, FL; Upson, GA; Bronx, NY; and Harris, TX.

D.18 Median Earnings for Female Full-Time Year-Round Workers

Description of Item

Median earnings is tabulated for all female full-time year-round workers 16 years of age or older. The estimate is a derived statistic reflecting the female earnings at the county level.

Figure D18. Median Earnings (dollars) for Female Full-Time Year-Round Workers for the 36 ACS Counties
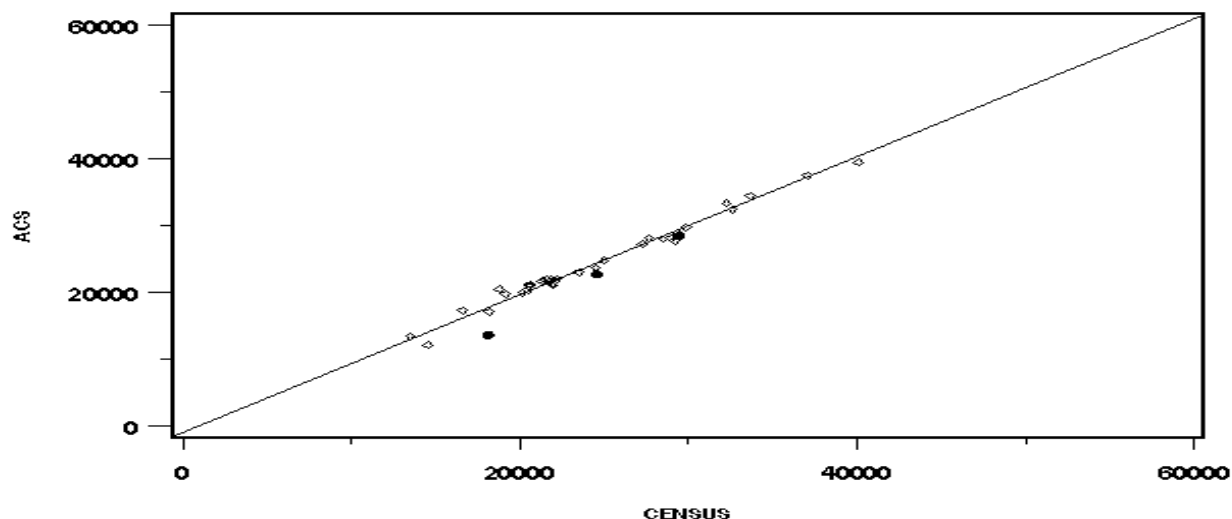
Table D18. ACS and Census 2000 Summary Statistics for Median Earnings for Female Full-Time Year-Round Workers

Item	Median Earnings for Female Full-Time Year-Round Workers
ACS Average	$24,140
Census 2000 Average	$24,392
Number of Counties in which the ACS Estimate is Significantly Higher	0
Number of Counties in which the Census 2000 Estimate is Significantly Higher	3

Comparisons

Figure D18 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from about $13,500 to over $40,000. All three statistically significant differences occurred with the Census 2000 estimate higher than the ACS estimate. The Census 2000 estimates are statistically significantly higher for Tulare, CA; Reynolds, MO; and Bronx, NY.

D.19 Poverty Status for Families

Description of Item

Poverty status data are tabulated for the total household population. The denominator for the category in poverty families with related children under 18 years is all families in poverty. The denominator for the category in poverty families with female householder, no husband present with related children under 18 years is all families with female householder, no husband present in poverty. Table D19 shows the average percent for each of the two categories for the 36 ACS counties.

Figure D19. Difference (ACS—CENSUS) in Poverty Status for Families for the 36 ACS Counties
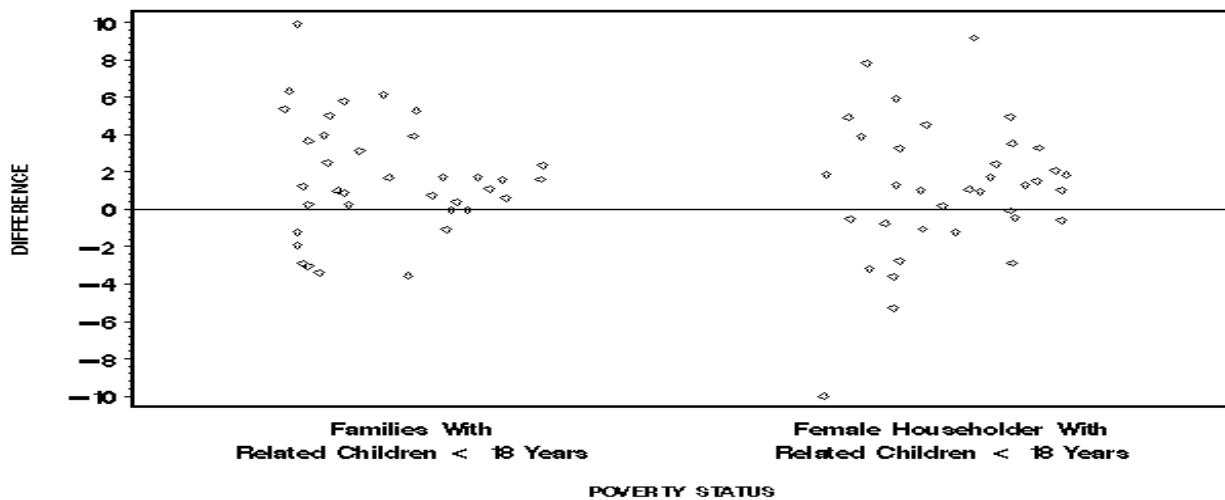
Table D19. ACS and Census 2000 Summary Statistics for the Poverty Status for Families Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
In Poverty Families with Related Children Under 18 Years	79.2	77.5	0	0
In Poverty Families with Female Householder, no Husband Present, with Related Children Under 18 Years	90.5	89.8	0	0

Comparisons

Figure D19 depicts the differences between the ACS poverty status and the census poverty status for the 36 ACS counties. Even though there is large variability in the estimates, there are not any statistically significant differences.

D.20 Poverty Status for Individuals

Description

Poverty status for individuals is tabulated for the population below the poverty level. Table D20 shows the average percent for each of the five categories for the 36 counties. The denominator for each of these items is the total number of people below the poverty level.

Figure D20. Difference (ACS—CENSUS) in Poverty Status for Individuals for the 36 ACS Counties
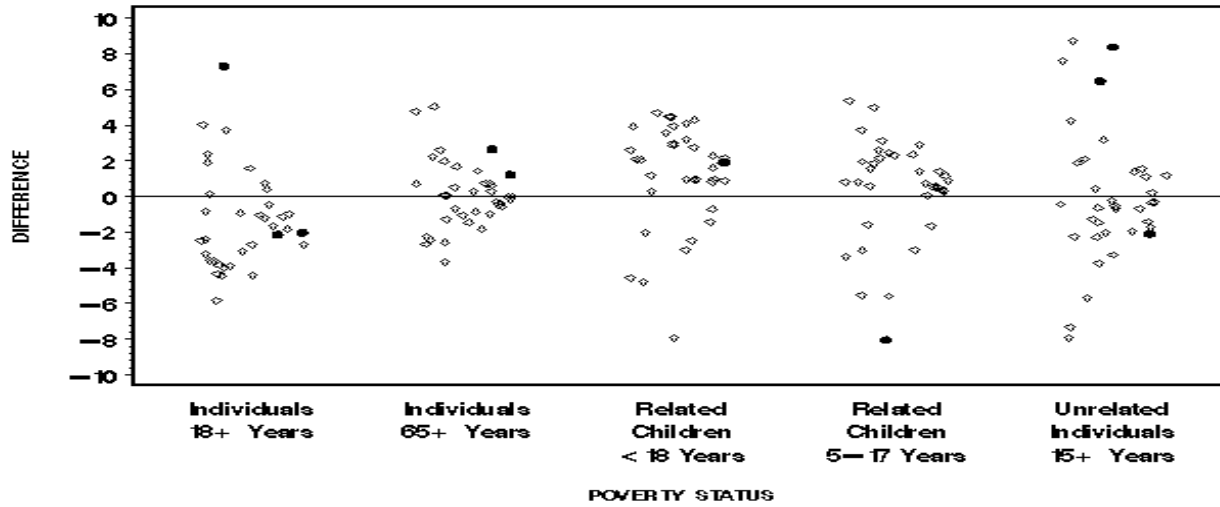
Table D20. ACS and Census 2000 Summary Statistics for the Poverty Status for Individuals Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Individuals 18 Years and Over	62.3	63.6	1	2
Individuals 65 Years and Over	9.9	9.8	2	0
Related Children Under 18 Years	36.6	35.4	1	0
Related Children 5 to 17 Years	25.5	25.1	0	1
Unrelated Individuals 15 Years and Over	28.1	28.1	2	1

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Comparisons

Figure D20 depicts the differences between the ACS estimates and the Census 2000 estimates for the individuals in poverty for the 36 ACS counties. All categories have at least one county with a statistically significant difference. The Census 2000 estimates for the individuals in poverty 18 years and over seem to be generally higher than the ACS estimates, while the ACS estimates are generally higher than the census for the related children in poverty. For the other categories, the estimates generally agree with no strong pattern of the estimates being systematically higher or smaller.

For the individuals 18 years and older in poverty, the ACS estimates are statistically significantly higher for Madison, MS and the Census 2000 estimates are statistically significantly higher for Tulare, CA and Bronx, NY. For the individuals 65 years and older in poverty, the ACS estimates are statistically significantly higher for San Francisco, CA and Broward, FL. For the related children under 18 years of age in poverty, the ACS estimates are statistically significantly higher for Bronx, NY. For the related children 5 to 17 years of age in poverty, the Census 2000 estimates are statistically significantly higher for Madison, MS. For the unrelated children 15 years of age and over in poverty, the ACS estimates are statistically significantly higher for Madison, MS and Rockland, NY and the Census 2000 estimates are statistically significantly higher for Tulare, CA.

Appendix E. Additional County Level Housing Profile Tables

E.1 Units in Structure

Description

Units in structure data are tabulated for all housing units. Table E1 shows the average percent for each of the nine categories for the 36 counties.

Figure E1 Difference (ACS—CENSUS) in Units in Structure for the 36 ACS Counties
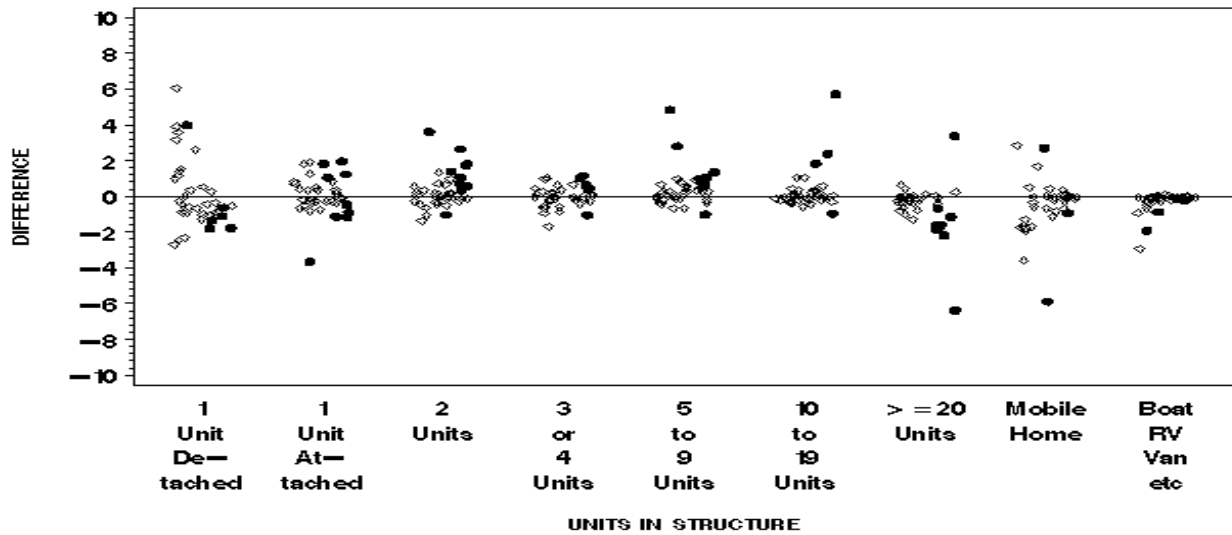
Table E1. ACS and Census 2000 Summary Statistics for the Units in Structure Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
1 Unit Detached	63.8	63.6	1	5
1 Unit Attached	4.6	4.5	4	5
2 Units	3.8	3.5	9	1
3 or 4 Units	4.0	3.9	4	1
5 to 9 Units	3.8	3.3	6	1

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10 to 19 Units	3.0	2.7	3	1
20 or More Units	6.6	7.1	1	8
Mobile Home	10.4	10.9	1	2
Boat, RV, Van, etc.	0.1	0.4	0	3

Comparisons

Figure E1 depicts the differences between the ACS percent estimates and the census percent estimates for the units in structure for the 36 ACS counties. All units in structure categories have at least one county with a statistically significant difference. The Census 2000 estimates for the 20 or more units and boats, RV and van, etc. are generally higher than the ACS estimates. For the other categories, the estimates generally agree with no strong pattern of the estimates being systematically higher or smaller. Harris, TX has a much higher ACS estimate for the 10 to 19 units and a much higher Census 2000 estimate for 20 or more units. Bronx, NY is the reverse of Harris, TX with a much higher Census 2000 estimate for the 10 to 19 units and a much higher ACS estimate for 20 or more units.

For the 1-unit detached category, the ACS estimate is statistically significantly higher for Otero, NM and the Census 2000 estimate is statistically significantly higher for Broward, FL; Lake, IL; Hampden, MA; Bronx, NY; and Franklin, OH. For the 1-unit attached category, the ACS estimate is statistically significantly higher for San Francisco, CA; Black Hawk, IA; Flathead, MT; and Franklin, OH and the Census 2000 estimate is statistically significantly higher for Tulare, CA; Broward, FL; Bronx, NY; Harris, TX; and Petersburg, VA. For the 2 units category, the ACS estimate is statistically significantly higher for Pima, AZ; San Francisco, CA; Tulare, CA; Broward, FL; Lake, IL; Franklin, OH; Multnomah, OR; Harris, TX; and Petersburg, VA and the Census 2000 estimate is statistically significantly higher for Black Hawk, IA. For the 3 or 4 units category, the ACS estimate is statistically significantly higher for Pima, AZ; Tulare, CA; Hampden, MA; and Multnomah, OR and the Census 2000 estimate is statistically significantly higher for San Francisco, CA. For the 5 to 9 units category, the ACS estimate is statistically significantly higher for Pima, AZ; Hampden, MA; Madison, MS; Multnomah, OR; Harris, TX; and Petersburg, VA and the Census 2000 estimate is statistically significantly higher for San Francisco, CA. For the 10 to 19 units category, the ACS estimate is statistically significantly higher for Pima, AZ; Fort Bend, TX; and Harris, TX and the Census 2000 estimate is statistically significantly higher for Bronx, NY. For the 20 or more units category, the ACS estimate is statistically significantly higher for Bronx, NY and the Census 2000 estimate is statistically significantly higher for Pima, AZ; San Francisco, CA; Tulare, CA; Rockland, NY; Franklin, OH; Multnomah, OR; Fort Bend, TX; and Harris, TX. For the mobile home category, the ACS estimate is statistically significantly higher for Oneida, WI and the Census 2000 estimate is statistically significantly higher for Pima, AZ and Otero, NM. For the boat, RV, van, etc. category, the Census 2000 estimate is statistically significantly higher for Pima, AZ; Washington, MO; and Otero, NM.

E.2 Year Structure Built

Description of Item

Year structure built data are tabulated for all housing units. Table E2 shows the average percent for each of the eight categories for the 36 ACS counties.

Figure E2. Difference (ACS—CENSUS) in Year Structure Built for the 36 ACS Counties
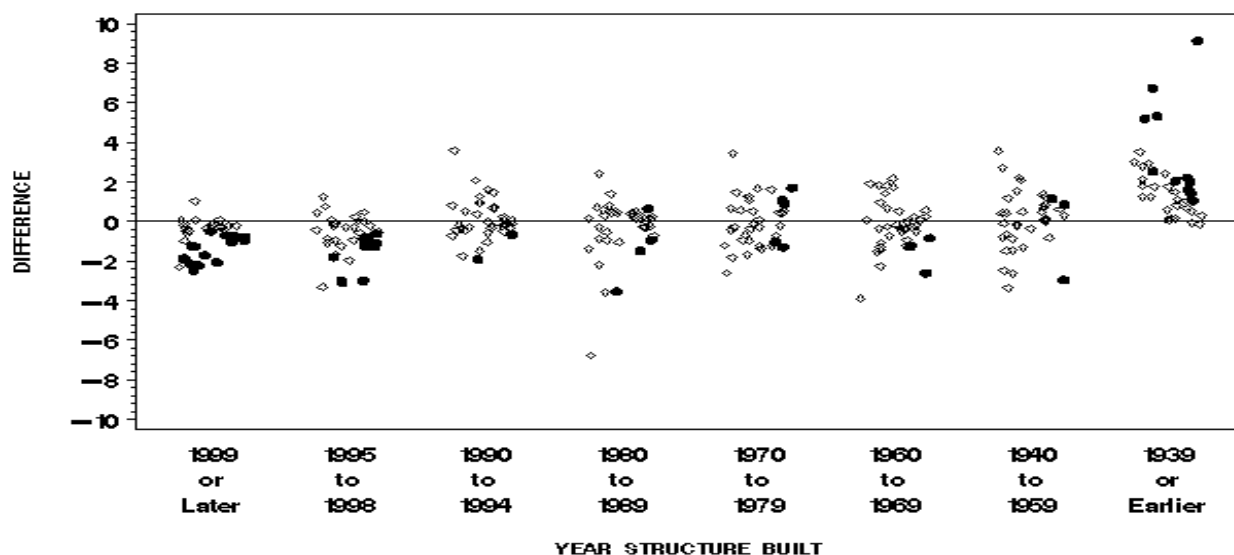
Table E2. ACS and Census 2000 Summary Statistics for the Year Structure Built Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
1999 or Later	1.7	2.5	0	15
1995 to 1998	7.4	8.2	0	11
1990 to 1994	8.0	7.9	0	2
1980 to 1989	15.4	15.8	1	3
1970 to 1979	19.6	19.6	3	2
1960 to 1969	12.9	13.1	0	3
1940 to 1959	17.9	17.8	2	1
1939 or Earlier	17.1	15.2	11	0

Comparisons

Figure E2 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. There are one or more statistically significant differences for all of the categories with especially large number of counties with statistically significant differences for 1999 or later, 1995 to 1998, and 1939 or earlier each having over 10. The 1999 or later and 1995 to 1998 generally have higher estimates for the census while the 1939 or earlier generally have higher estimates for the ACS.

For the 1999 or later category, the Census 2000 estimate is statistically significantly higher for Pima, AZ; Broward, FL; Calvert, MD; Washington, MO; Flathead, MT; Lake, MT; Otero, NM; Franklin, OH; Multnomah, OR; Schuylkill, PA; Sevier, TN; Fort Bend, TX; Harris, TX; Oneida, WI; and Vilas, WI. For the 1995 to 1998 category, the Census 2000 estimate is statistically significantly higher for Pima, AZ; Broward, FL; Lake, IL; Miami, IN; Madison, MS; Douglas, NE; Otero, NM; Bronx, NY; Franklin, OH; Multnomah, OR; and Fort Bend, TX. For the 1990 to 1994 category, the Census 2000 estimate is statistically significantly higher for Bronx, NY and Vilas, WI. For the 1980 to 1989 category, the ACS estimate is statistically significantly higher for San Francisco, CA and the Census 2000 estimate is statistically significantly higher for Jefferson, AR; Tulare, CA; and the Bronx, NY. For the 1970 to 1979 category, the ACS estimate is statistically significantly higher for Pima, AZ; Broward, FL; and Harris, TX and the Census 2000 estimate is statistically significantly higher for Hampden, MA and Bronx, NY. For the 1960 to 1969 category, the Census 2000 estimate is statistically significantly higher for Hampden, MA; Bronx, NY; and Harris, TX. For the 1940 to 1959 category, the ACS estimate is statistically significantly higher for Pima, AZ and Harris, TX and the Census 2000 estimate is statistically significantly higher for Bronx, NY. For the 1939 or earlier category, the ACS estimate is statistically significantly higher for Tulare, CA; Upson, GA; Black Hawk, IA; Hampden, MA; Douglas, NE; Bronx, NY; Franklin, OH; Multnomah, OR; Starr, TX; Petersburg, VA; and Vilas, WI.

E.3 Median Number of Rooms

Description of Item

Median number of rooms is tabulated for all housing units. The estimate is a derived statistic reflecting the median number of rooms at the county level.

Figure E3. Scatter Plot of Median Number of Rooms for the 36 ACS Counties
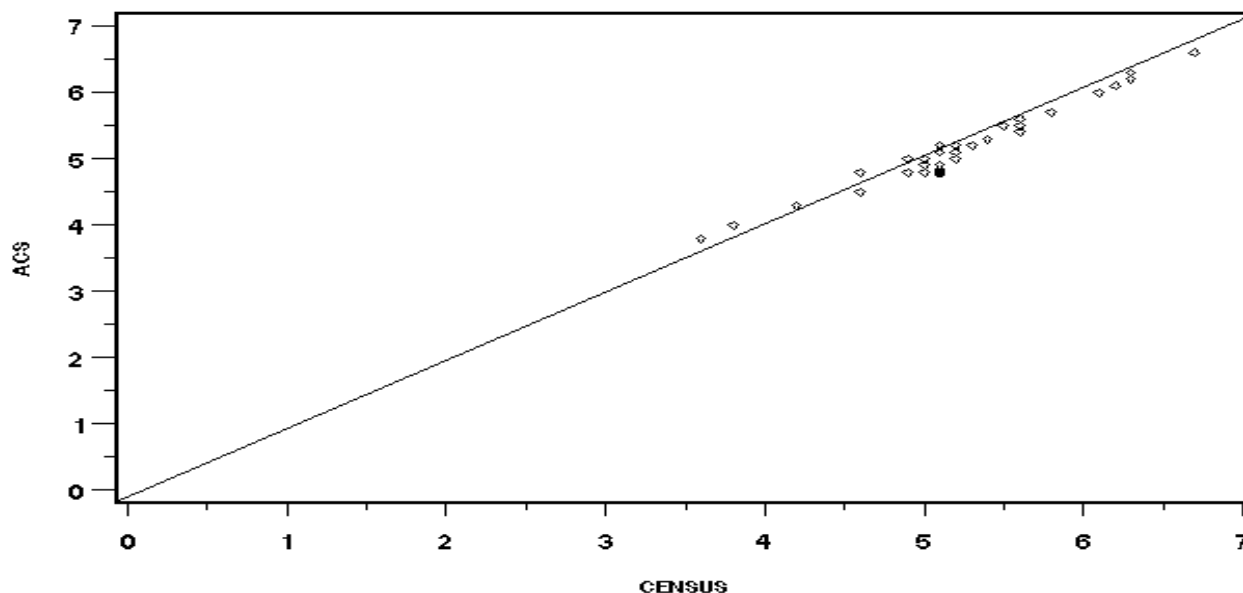
Table E3. ACS and Census 2000 Summary Statistics for Median Number of Rooms

Item	Median Number of Rooms
ACS Average	5.18
Census 2000 Average	5.23
Number of Counties in which the ACS Estimate is Significantly Higher	0
Number of Counties in which the Census 2000 Estimate is Significantly Higher	1

Comparisons

Figure E3 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from a little over 3.5 to almost 7 rooms per housing unit. There was only one county (Vilas, WI) with a statistically significant difference. There is a general agreement between the ACS and the Census 2000 estimates for this item.

E.4 Year Householder Moved Into Unit

Description of Item

Year householder moved into unit data are tabulated for all householders. Table E4 shows the average percent for each of the five categories for the 36 ACS counties. Usually the category 1995 to present is split into two categories, 1995 to 1998 and 1999 to present. Because of inconsistency between the ACS and the census categories for these tabulations, the two groups are added together for this study.

Figure E4. Difference (ACS—CENSUS) in Year Householder Moved Into Unit for the 36 ACS Counties
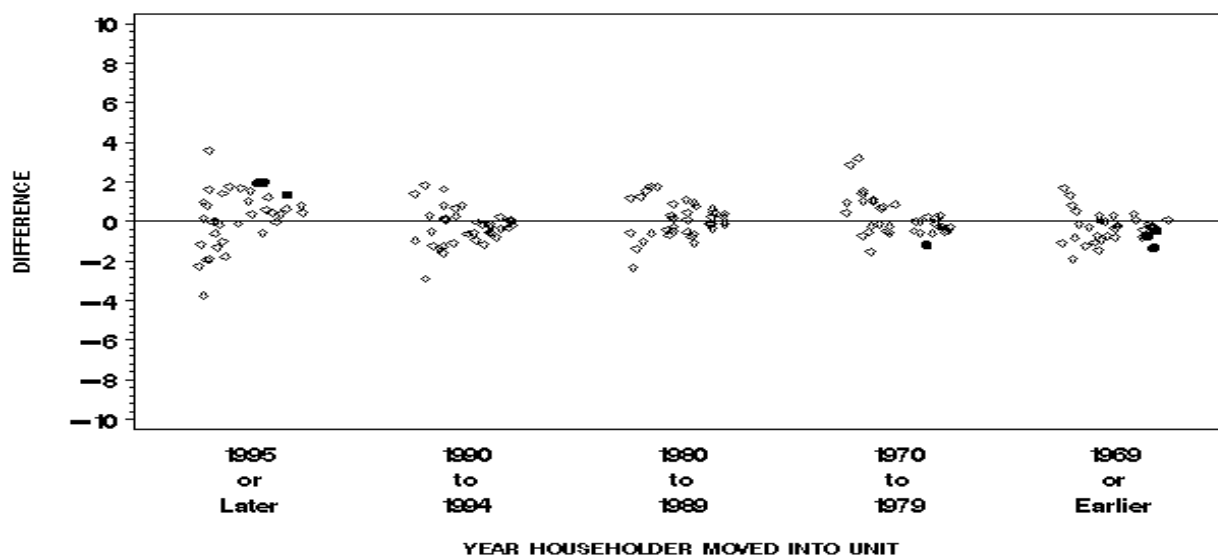
Table E4. ACS and Census 2000 Summary Statistics for the Year Householder Moved into Unit Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
1995 or Later	46.6	46.4	3	0
1990 to 1994	16.6	16.9	0	0
1980 to 1989	16.5	16.4	0	0
1970 to 1979	10.7	10.5	0	1
1969 or Earlier	9.6	9.9	0	3

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Comparisons

Figure E4 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. There are one or more statistically significant differences for the 1995 or later, 1970 to 1979, and 1969 or earlier categories, and no statistically significant differences for 1990 to 1994 and 1980 to 1989 categories. The greatest number of statistically significant differences are found for the 1995 or later with all of the statistically significant differences positive and 1969 or earlier responses with all of the statistically significant differences negative. Only the Bronx, NY is included in both of these groups while Tulare, CA had two outliers in the 1995 or later group and 1970 to 1979 group. In general the results seem to indicate that the year householder moved in groups are fairly consistent between the ACS and the Census 2000 estimates except for the ACS estimate being higher for the 1995 or later group and the Census 2000 estimate being higher for the1969 or earlier group.

For the 1995 or later category, the ACS estimate is statistically significantly higher for Tulare, CA; Hampden, MA; and Bronx, NY. For the 1970 to 1979 category, the Census 2000 estimate is statistically significantly higher for Tulare, CA. For the 1969 or earlier category, the Census 2000 estimate is statistically significantly higher for Broward, FL; Lake, IL; and Bronx, NY.

E.5 Vehicles Available

Description of Item

The number of vehicles available is tabulated for every occupied housing unit. Table E5 shows the average percent for each of the four categories for the 36 ACS counties.

Figure E5. Difference (ACS—CENSUS) in Number of Vehicles Available for the 36 ACS Counties
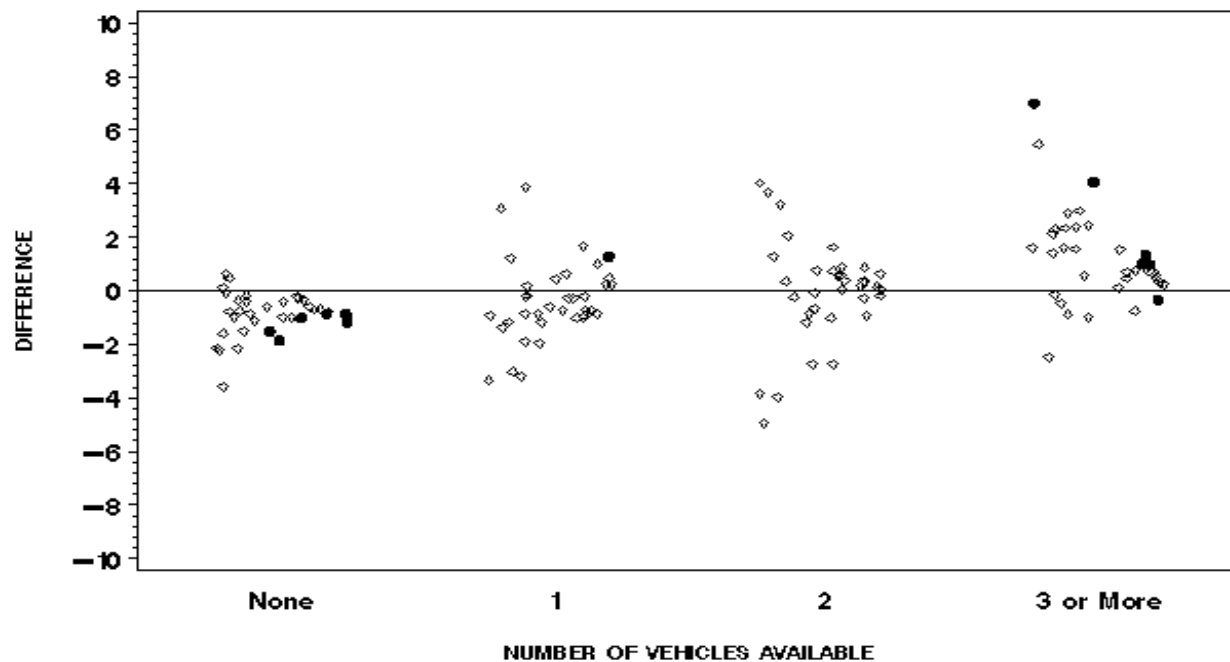
Table E5. ACS and Census 2000 Summary Statistics for the Vehicles Available Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
None	10.0	10.8	0	6
1	33.1	33.5	1	0
2	38.0	38.0	0	0
3 or More	19.0	17.7	5	1

Comparisons

Figure E5 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. There are one or more statistically significant differences for the none, one, and three or more vehicle categories, and no statistically significant differences for the two vehicles category. The greatest number of statistically significant differences are found for the no vehicles with all of the statistically significant differences being negative and three or more vehicles estimates with all but one of the statistically significant differences positive.

For the no vehicle category, the Census 2000 estimate is statistically significantly higher for Broward, FL; Black Hawk, IA; Douglas, NE; Franklin, OH; Schuylkill, PA; and Harris, TX. For the one vehicle category, the ACS estimate is statistically significantly higher for Bronx, NY. For the three or more vehicle category, the ACS estimate is statistically significantly higher for Lake, IL; Hampden, MA; Iron, MO; Multnomah, OR; and Sevier, TN and the Census 2000 estimate is statistically significantly higher for Bronx, NY.

E.6 House Heating Fuel

Description of Item

House heating fuel data are tabulated for all occupied housing units. Table E6 shows the average percent for each of the nine categories for the 36 ACS counties.

Figure E6. Difference (ACS—CENSUS) in House Heating Fuel for the 36 ACS Counties
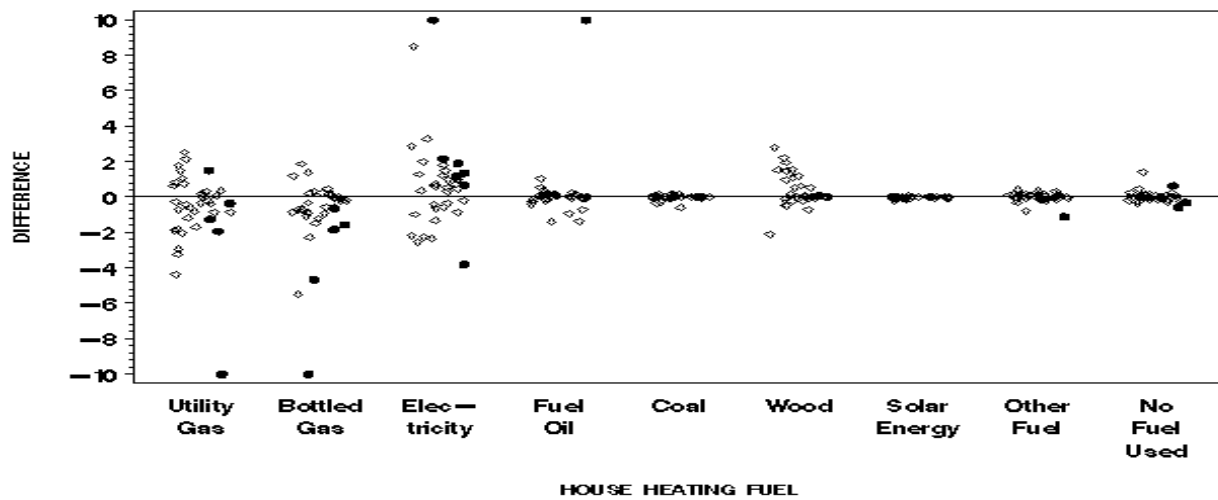
Table E6. ACS and Census 2000 Summary Statistics for the House Heating Fuel Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Utility Gas	42.3	43.1	1	4
Bottled, Tank, or LP Gas	10.1	10.1	0	5
Electricity	32.4	31.5	6	1
Fuel Oil, Kerosene, etc.	8.7	8.2	1	0
Coal or Coke	0.5	0.5	0	0
Wood	5.0	4.7	0	0
Solar Energy	0.03	0.03	0	0
Other Fuel	0.4	0.4	0	1
No Fuel Used	0.6	0.5	1	2

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Comparisons

Figure E6 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. There are one or more statistically significant differences for 6 of the 9 house heating fuel categories. The ACS and Census 2000 estimates do seem to generally agree with each other. The one county that shows some very large differences is Bronx, NY. For the Utility gas, the ACS estimate differs from the Census 2000 estimate by 14 percentage points and for the fuel oil the estimates differ by 21 percentage points. These are very large differences for the Bronx, NY with its very large sample sizes.

For the utility gas category, the ACS estimate is statistically significantly higher for Hampden, MA and the Census 2000 estimate is statistically significantly higher for Pima, AZ; Broward, FL; Douglas, NE; and Bronx, NY. For the bottled, tank or LP gas category, the Census 2000 estimate is statistically significantly higher for Tulare, CA; Hampden, MA; Otero, NM; Bronx, NY; and Starr, TX. For the electricity category, the ACS estimate is statistically significantly higher for Pima, AZ; Broward, FL; Black Hawk, IA; Douglas, NE; Harris, TX; and Starr, TX and the Census 2000 estimate is statistically significantly higher for Bronx, NY. For the fuel oil, kerosene, etc. category, the ACS estimate is statistically significantly higher for Bronx, NY. For the other fuel category, the Census 2000 estimate is statistically significantly higher for Bronx, NY. For the no fuel used category, the ACS estimate is statistically significantly higher for San Francisco, CA and the Census 2000 estimate is statistically significantly higher for Bronx, NY and Harris, TX.

E.7 Selected Housing Characteristics

Description of Item

Selected housing characteristics are tabulated for all occupied housing units. Table E7 shows the average percent for each of the three categories for the 36 ACS counties. The three estimates do not add to 1.0, but rather are the responses to three individual questions.

Figure E7. Difference (ACS—CENSUS) in Selected Housing Characteristics for the 36 ACS Counties

Table E7. ACS and Census 2000 Summary Statistics for the Selected Housing Characteristics Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Lacking Complete Plumbing Facilities	0.9	1.0	0	4
Lacking Complete Kitchen Facilities	0.9	0.9	0	3
No Telephone Service	4.3	3.5	13	0

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Comparisons

Figure E7 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. There are one or more statistically significant differences for each of the three categories. The no telephone service appears to generally have higher ACS estimates as all statistically significant differences follow this pattern. The lacking complete plumbing and lacking complete kitchen facilities are all very close to no difference.

For the lacking complete plumbing facilities, the Census 2000 estimate is statistically significantly higher for Tulare, CA; Hampden, MA; Bronx, NY; and Harris, TX. For the lacking complete kitchen facilities, the Census 2000 estimate is statistically significantly higher for San Francisco, CA; Bronx, NY; and Harris, TX. For the no telephone service category, the ACS estimate is statistically significantly higher for Pima, AZ; Tulare, CA; Broward, FL; Upson, GA; Lake, IL; Hampden, MA; Douglas, NE; Bronx, NY; Franklin, OH; Multnomah, OR; Harris, TX; Petersburg, VA; and Yakima, WA.

E.8 Occupants Per Room

Description

Occupants per room is derived for every occupied housing unit. Table E8 shows the average percent for each of the three categories for the 36 ACS counties.

Figure E8. Difference (ACS—CENSUS) in Occupants per Room for the 36 ACS Counties
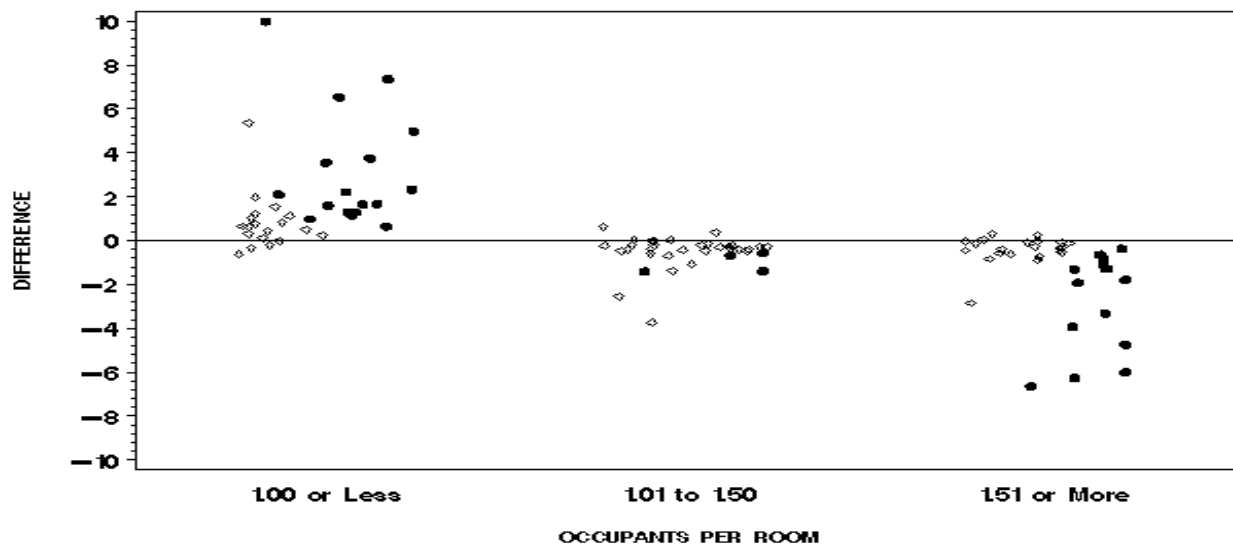
Table E8. ACS and Census 2000 Summary Statistics for the Occupants per Room Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
1.00 or Less	95.5	93.6	17	0
1.01 to 1.50	3.0	3.5	0	4
1.51 or More	1.5	2.9	0	15

Comparisons

Figure E8 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. There are one or more statistically significant differences for all three categories. There is a clear pattern of the ACS estimates being higher than the Census 2000 estimates for the 1.00 or less persons per room while the Census 2000 estimate is higher for the other two categories, especially for the 1.51 or more persons per room. These results may be the

outcome of the number of rooms where the census has much higher estimates for 1 and 2 rooms such housing units probably have a large number of 1.51 or higher persons per room if they have more than two or four persons living in them, respectively.

For the 1.00 persons per room or less, the ACS estimate is statistically significantly higher for Pima, AZ; San Francisco, CA; Tulare, CA; Broward, FL; Lake, IL; Black Hawk, IA; Hampden, MA; Madison, MS; Douglas, NE; Bronx, NY; Rockland, NY; Franklin, OH; Multnomah, OR; Fort Bend, TX; Harris, TX; Starr, TX; and Yakima, WA. For the 1.01 to 1.50 persons per room, the Census 2000 estimate is statistically significantly higher for Broward, FL; Hampden, MA; Lake, MT; and Bronx, NY. For the 1.51 persons per room or more, the Census 2000 estimate is statistically significantly higher for Pima, AZ; San Francisco, CA; Tulare, CA; Broward, FL; Lake, IL; Hampden, MA; Douglas, NE; Bronx, NY; Rockland, NY; Franklin, OH; Multnomah, OR; Fort Bend, TX; Harris, TX; Starr, TX; and Yakima, WA.

E.9 Median Value of Owner-Occupied Units

Description of Item

The median value is derived for all owner-occupied housing units, reflecting the median value at the county level.

Figure E9. Scatter Plot of Median (dollars) Value of Specified Owner—Occupied Units for the 36 ACS Counties
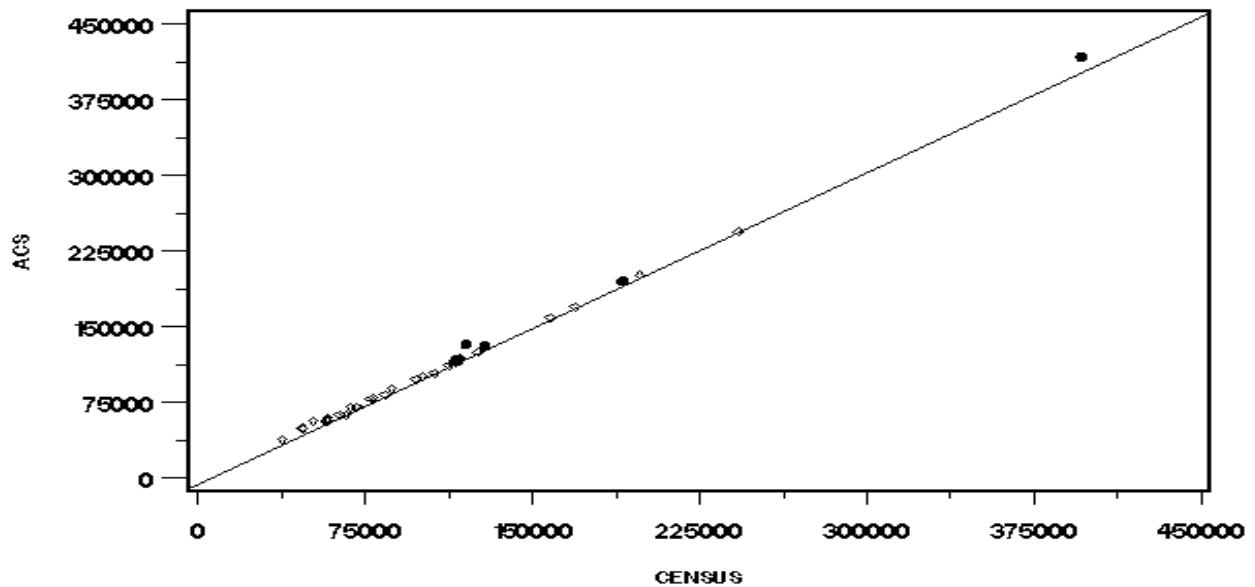
Table E9. ACS and Census 2000 Summary Statistics for Median Value of Owner-Occupied Units

Item	Median Value of Owner-Occupied Units
ACS Average	112,358
Census 2000 Average	110,594
Number of Counties in which the ACS Estimate is Significantly Higher	5
Number of Counties in which the Census 2000 Estimate is Significantly Higher	0

Comparison

Figure E9 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from under $38,000 to almost $400,000. There are five counties with the ACS estimates being statistically significantly higher: San Francisco, CA; Broward, FL; Bronx, NY; Franklin, OH; and Vilas, WI. In general, the ACS estimates are slightly higher than the Census 2000 estimates for most of the counties.

E.10 Selected Monthly Owner Costs

Description of Item

Selected monthly owner costs data are derived for all specified owner-occupied housing units with a mortgage. Table E10 shows the average percent for each of the seven categories for the 36 ACS counties. Selected monthly owner costs is defined as the sum of all payments for mortgages (or similar debt payments), real estate taxes, insurance, utilities (electricity, gas, and water and sewer), and fuels (oil, coal, kerosene, wood, etc.).

Figure E10. Difference (ACS—CENSUS) in Selected Monthly Owner Costs for the 36 ACS Counties
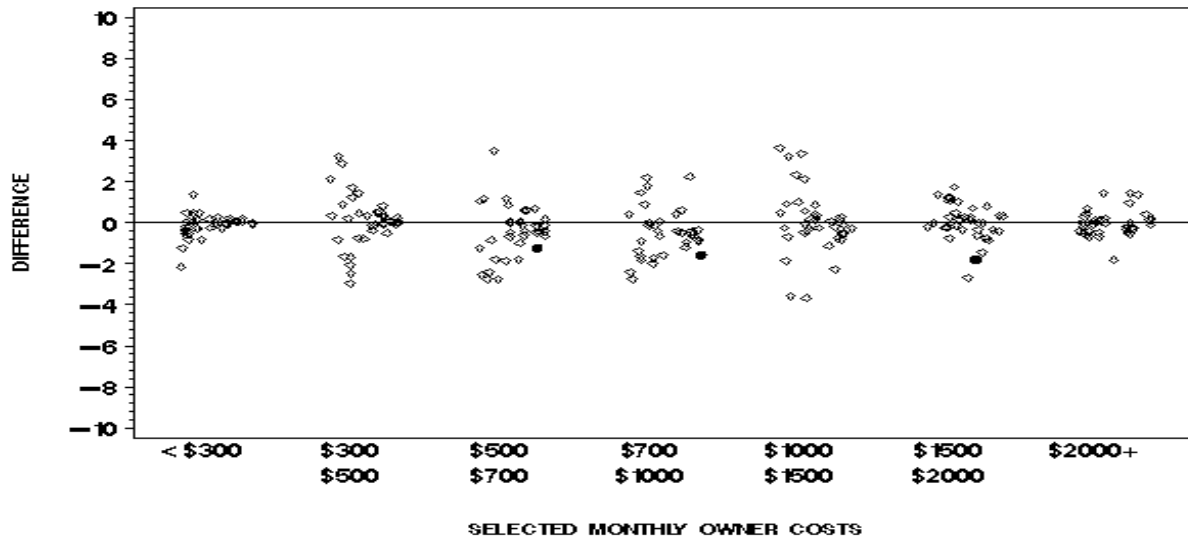
Table E10. ACS and Census 2000 Summary Statistics for the Selected Monthly Owner Costs

Item	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Less than $300	0.7	0.8	0	0
$300 to $499	6.1	6.0	0	0
$500 to $699	10.5	10.9	0	1
$700 to $999	16.3	16.6	0	1
$1,000 to $1,499	16.0	15.9	0	0
$1,500 to $1,999	7.0	7.0	0	1
$2,000 or More	5.8	5.8	0	0

Comparisons

Figure E10 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. There are one or more statistically significant differences for three categories and no differences are statistically significant for four categories. There is general agreement between the ACS and Census 2000 estimates for this variable.

For the $500 to $699 monthly owner costs, the Census 2000 estimate is statistically significantly higher for Douglas, NE. For the $700 to $999 monthly owner costs, the Census 2000 estimate is statistically significantly higher for Harris, TX. For the $1500 to $1999 monthly owner costs, the Census 2000 estimate is statistically significantly higher for Yakima, WA.

E.11 Median Selected Monthly Owner Costs With a Mortgage

Description of Item

Median selected monthly owner costs is derived for all owner-occupied housing units with a mortgage, statistic reflecting the median monthly owner costs at the county level.

Figure E11. Scatter Plot of Median (dollars) Monthly Owner Costs With A Mortgage for the 36 ACS Counties

Table E11. ACS and Census 2000 Summary Statistics for Median Selected Monthly Owner Costs With a Mortgage

Item	Median Selected Monthly Owner Costs With a Mortgage
ACS Average	$962
Census 2000 Average	$958
Number of Counties in which the ACS Estimate is Significantly Higher	2
Number of Counties in which the Census 2000 Estimate is Significantly Higher	0

Comparison

Figure E11 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from about $520 to almost $2,000. There are two counties with statistically significant differences, Lake, IL and Vilas, WI, both had higher ACS estimates. In general, the ACS and Census 2000 estimates agree for most of the counties.

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E.12 Median Selected Monthly Owner Costs Without a Mortgage

Description of Item

Median selected monthly owner costs is derived for all owner-occupied housing units without a mortgage, reflecting the median monthly owner costs at the county level.

Figure E12. Scatter Plot of Median (dollars) Monthly Owner Costs Without a Mortgage for the 36 ACS Counties
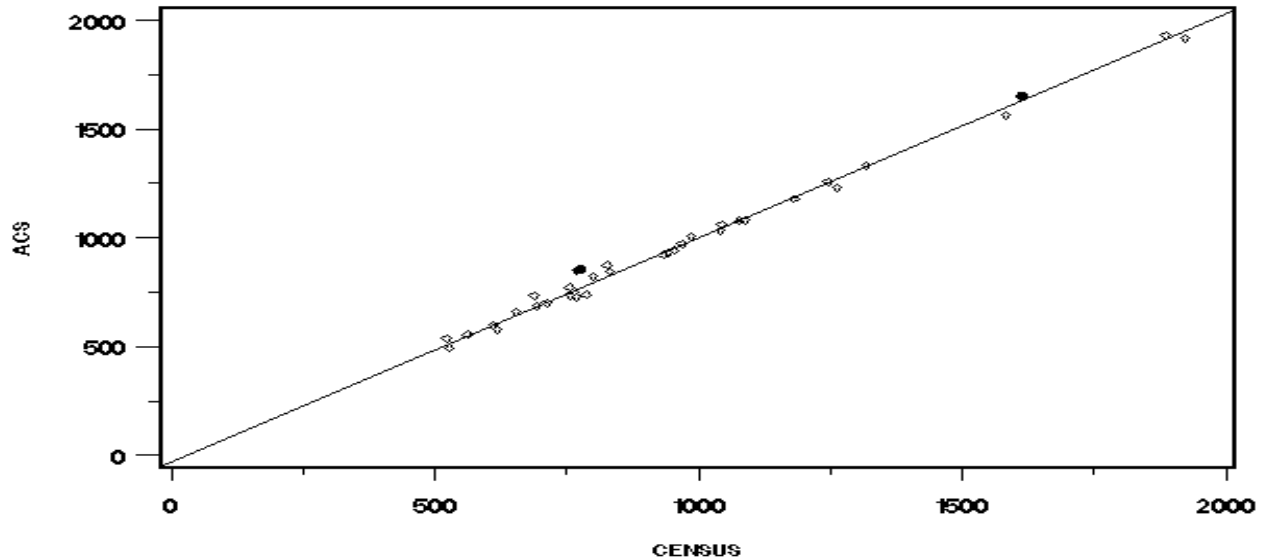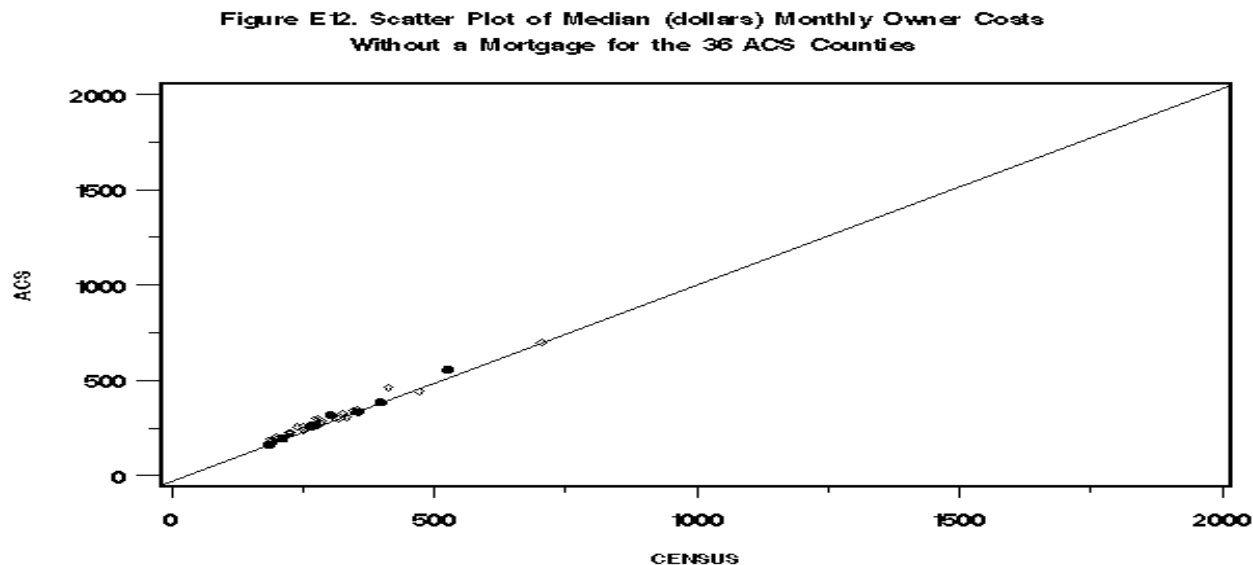
Table E12. ACS and Census 2000 Summary Statistics for Median Selected Monthly Owner Costs Without a Mortgage

Item	Median Selected Monthly Owner Costs Without a Mortgage
ACS Average	$291
Census 2000 Average	$293
Number of Counties in which the ACS Estimate is Significantly Higher	2
Number of Counties in which the Census 2000 Estimate is Significantly Higher	6

Comparison

Figure E12 plots the ACS estimate versus the Census 2000 estimate for each county. The estimates range from almost $200 to over $700. There are eight counties with statistically significant differences. In general, the ACS and Census 2000 estimates agree for most of the counties. The ACS estimates are statistically significantly higher for Lake, IL and Douglas, NE and the Census 2000 estimates are statistically significantly higher for Pima, AZ; Broward, FL; Schuylkill, PA; Harris, TX; Starr, TX; and Ohio, WV.

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E.13 Selected Monthly Owner Costs as a Percentage of Household Income

Description of Item

Selected monthly owner costs as a percentage of household income are tabulated for all specified owner-occupied housing units. Table E13 shows the average percent for each of the six categories for the 36 ACS counties. The less than 20 percent category is usually presented as less than 15 percent and 15 to 19.9 percent, but was collapsed because of differences between the ACS and census in the categories chosen.

Figure E13. Difference (ACS—CENSUS) in Selected Monthly Owner Costs as a Percentage of Household Income for the 36 ACS Counties

Table E13. ACS and Census 2000 Summary Statistics for the Selected Monthly Owner Costs as a Percentage of Household Income Categories

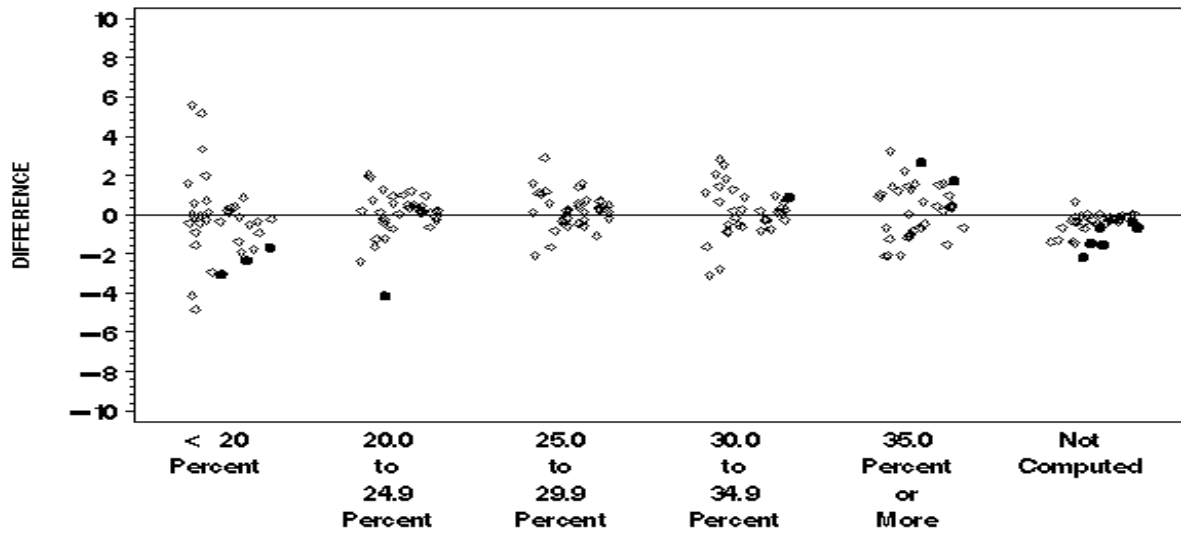| Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Less than 20.0 Percent	56.0	56.2	0	3
20.0 to 24.9 Percent	12.9	12.8	0	1
25.0 to 29.9 Percent	8.7	8.5	0	0
30.0 to 34.9 Percent	5.9	5.7	1	0
35.0 Percent or More	15.9	15.6	2	0
Not Computed	0.5	1.0	0	6

Comparisons

Figure E13 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. There are one or more statistically significant differences for five categories and no differences are statistically significant for the 25 to 29.9 percent category. There is general agreement between the ACS and Census 2000 estimates for all categories of this variable, except for not computed. Not computed generally has a higher Census 2000 estimate than the ACS estimate.

For the less than 20 percent category, the Census 2000 estimate is statistically significantly higher for Broward, FL; Black Hawk, IA; and Douglas, NE. For the 20 to 24.9 percent category, the Census 2000 estimate is statistically significantly higher for Otero, NM. For the 30 to 34.9 percent category, the ACS estimate is statistically significantly higher for Harris, TX. For the 35 percent or more category, the ACS estimate is statistically significantly higher for Broward, FL and Black Hawk, IA. For the not computed category, the Census 2000 estimate is statistically significantly higher for Jefferson, AR; Broward, FL; Black Hawk, IA; Bronx, NY; Harris, TX; and Starr, TX.

E.14 Gross Rent

Description of Item

Gross rent data are tabulated for all specified renter-occupied housing units. Table E14 shows the average percent for each of the eight categories for the 36 ACS counties. Gross rent is defined as the contract rent plus the estimated average monthly costs of utilities and fuels.

Figure E14. Difference (ACS—CENSUS) in Gross Rent for the 36 ACS Counties
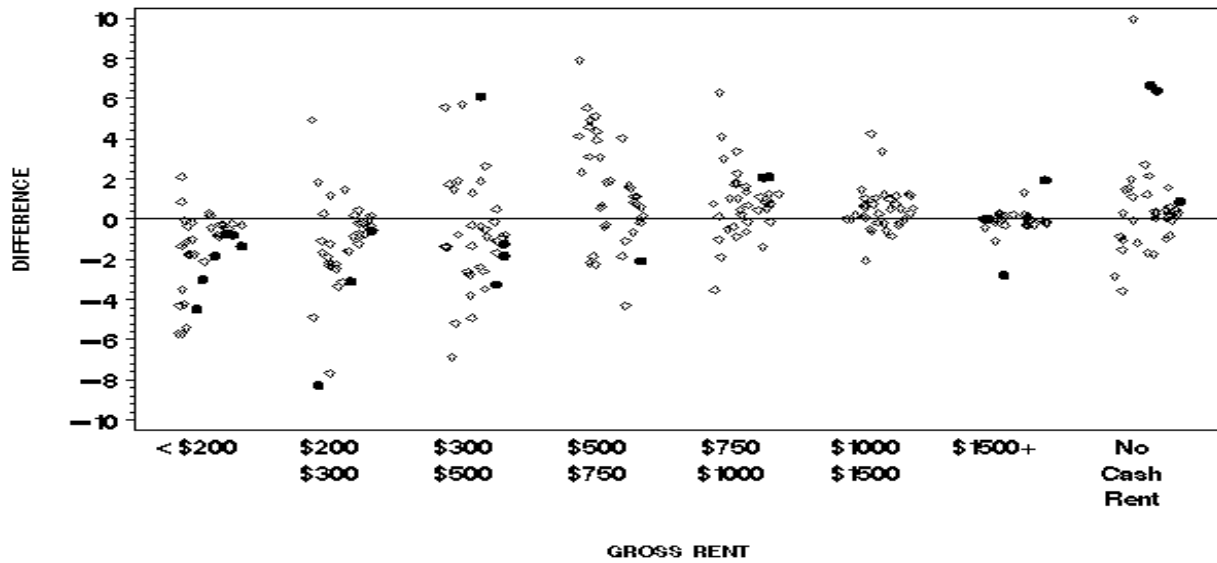
Table E14. ACS and Census 2000 Summary Statistics for the Gross Rent Categories

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Less than $200	6.5	8.0	0	6
$200 to $299	8.3	9.6	0	3
$300 to $499	27.7	28.3	1	3
$500 to $749	28.5	27.1	0	1
$750 to $999	11.7	10.8	2	0
$1000 to $1,499	5.5	5.1	0	0
$1,500 or More	1.7	1.7	1	1
No Cash Rent	10.1	9.3	3	0

Comparisons

Figure E14 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. There are one or more statistically significant differences for seven categories and no differences are statistically significant for gross rent $1,000 to $1,499. The Census 2000 estimates for the less than $200 category are generally higher than the ACS estimates.

For the less than $200 gross rent, the Census 2000 estimate is statistically significantly higher for Pima, AZ; Jefferson, AR; San Francisco, CA; Madison, MS; Bronx, NY; and Yakima, WA. For the $200 to $299 gross rent, the Census 2000 estimate is statistically significantly higher for Black Hawk, IA; Fulton, PA; and Harris, TX. For the $300 to $499 gross rent, the ACS estimate is statistically significantly higher for Schuylkill, PA and the Census 2000 estimate is statistically significantly higher for San Francisco, CA; Douglas, NE; and Harris, TX. For the $500 to $749 gross rent, the Census 2000 estimate is statistically significantly higher for San Francisco, CA. For the $750 to $999 gross rent, the ACS estimate is statistically significantly higher for Douglas, NE and Franklin, OH. For the $1500 or more gross rent, the ACS estimate is statistically significantly higher for San Francisco, CA and the Census 2000 estimate is statistically significantly higher for Madison, MS. For the no cash rent category, the ACS estimate is statistically significantly higher for Otero, NM; Fort Bend, TX; and Harris, TX.

E.15 Gross Rent as Percentage of Household Income

Description of Item

Gross rent as percentage of household income is derived for all specified renter-occupied housing units. Table E15 shows the average percent for each of the seven categories for the 36 ACS counties.
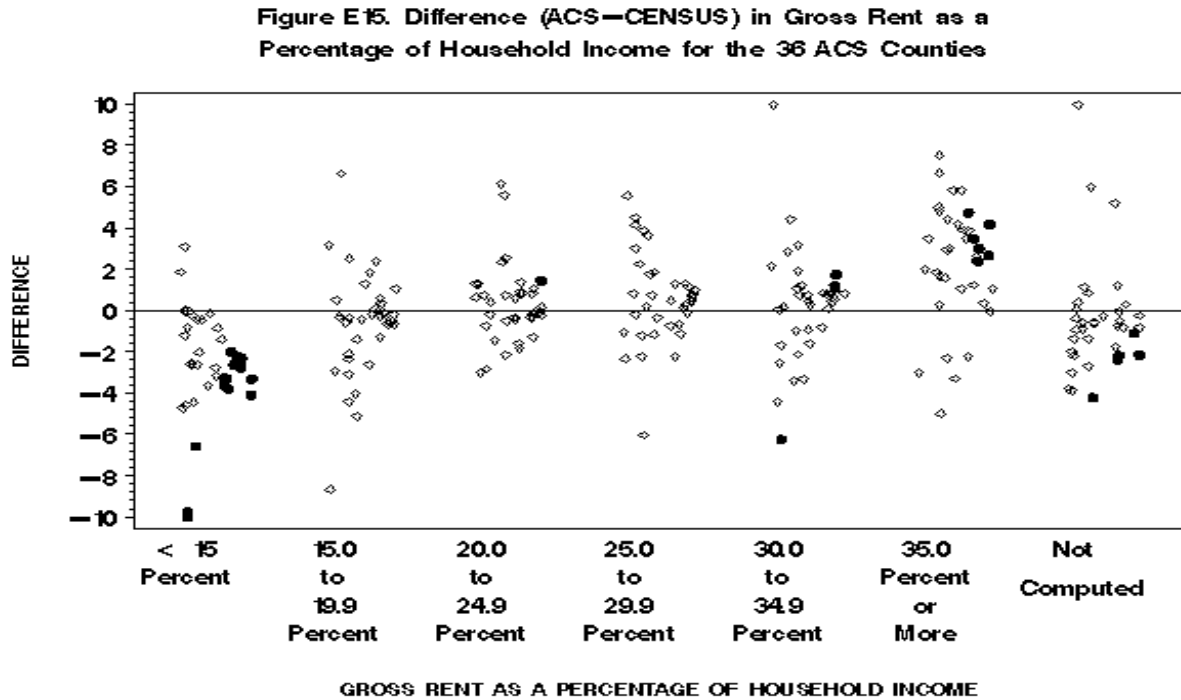

Figure E15. Difference (ACS—CENSUS) in Gross Rent as a Percentage of Household Income for the 36 ACS Counties

Table E15. ACS and Census 2000 Summary Statistics for the Gross Rent as a Percentage of Household Income

Category	ACS Average Percent	Census 2000 Average Percent	Number of Counties in which the ACS Percent is Significantly Higher	Number of Counties in which the Census 2000 Percent is Significantly Higher
Less than 15.0 Percent	16.2	18.8	0	14
15.0 to 19.9 Percent	13.2	13.8	0	0
20.0 to 24.9 Percent	12.1	11.8	1	0
25.0 to 29.9 Percent	10.2	9.6	0	0
30.0 to 34.9 Percent	7.3	6.8	3	1
35.0 Percent or More	29.9	27.6	6	0
Not Computed	11.1	11.6	0	5

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Comparisons

Figure E15 depicts the differences between the ACS estimate and the Census 2000 estimate for the 36 ACS counties. There are one or more statistically significant differences for the less than 15 percent, 20 to 24.9 percent, 30 to 34.9 percent, 35 percent or more, and not computed and no differences are statistically significant for 15.0 to 19.9 percent and 25.0 to 29.9 percent. The Census 2000 estimates for the less than 15 percent category are generally higher than the ACS estimate. For all of the statistically significant differences in this category, the Census 2000 estimates are higher than the ACS estimates. The ACS estimates are generally higher than the Census 2000 estimate for the more than 35.0 percent category. For all of the statistically significant differences in this category, the ACS estimates are higher than the Census 2000 estimates.

For the less than 15 percent category, the Census 2000 estimate is statistically significantly higher for Pima, AZ; San Francisco, CA; Tulare, CA; Broward, FL; Upson, GA; Lake, IL; De Soto, LA; Hampden, MA; Douglas, NE; Bronx, NY; Franklin, OH; Multnomah, OR; Harris, TX; and Petersburg, VA. For the 20 to 24.9 percent category, the ACS estimate is statistically significantly higher for San Francisco, CA. For the 30 to 34.9 percent category, the ACS estimate is statistically significantly higher for San Francisco, CA; Broward, FL; and Bronx, NY and the Census 2000 estimate is statistically significantly higher for Lake, MT. For the 35 percent or more category, the ACS estimate is statistically significantly higher for Pima, AZ; Tulare, CA; Broward, FL; Douglas, NE; Bronx, NY; and Multnomah, OR. For the not computed category, the Census 2000 estimate is statistically significantly higher for Broward, FL; Hampden, MA; Madison, MS; Bronx, NY; and Yakima, WA.

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