

**Technical Report**

**Panel Study of Income Dynamics  
2019 PSID Cross-Sectional Individual and Family Unit Weights**

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This technical report documents the methodological approach to the cross-sectional weights constructed for the family units and individuals from the 2019 Panel Study of Income Dynamics (PSID).

The PSID longitudinal analysis weights for individuals and family units are documented in Chang et al. (2021) and Gouskova, et al. (2008). While researchers have always been able to perform cross-sectional analysis using longitudinal weights for PSID sample persons, the cross-sectional individual weights offer an additional approach for weighted cross-sectional estimation based on the PSID individual data. Specifically, the PSID cross-sectional weights permit analysts to use all available data for both PSID sample and nonsample persons to estimate population characteristics or model population relationships at specific points in time.

In addition, the cross-sectional weights are calibrated to the population characteristics from the Current Population Survey (CPS) or American Community Survey (ACS) for the respective year<sup>1</sup>. CPS and ACS are large, high-quality nationally representative survey samples conducted by the U.S. Census Bureau that provide annual population estimates by demographic characteristics in non-census years. This calibration adjustment not only aligns the sample distribution to the population over selected social-demographic dimensions, but it also has the potential to mitigate bias from nonresponse and coverage error, and improve the precision of survey estimates. PSID has provided the cross-sectional individual weight since 1997 and plans to provide the cross-sectional individual weight for each future wave.

Prior to 2017, very few families have a value of zero for their longitudinal weight, hence there is relatively little advantage to creating a cross-sectional family weight. Therefore, it is recommended that the Longitudinal Family Unit Weights be used for cross-sectional analyses of family unit characteristics and outcomes when analyzing family unit data for the years prior to 2017. In 2017, a baseline sample of post-1997 immigrant families and individuals was added to the PSID (also known as the 2017 immigrant refresher sample). A cross-sectional family weight was created in 2017 to represent U.S. families - including those with post-1997 immigrants added as part of the 2017 New Immigrant Sample. Because the calibration adjustment has the potential to mitigate bias from nonresponse and coverage error, and improve the precision of

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<sup>1</sup> The PSID longitudinal weights are not calibrated at each wave against external, nationally representative population estimates.

survey estimates, a cross-sectional family weight is created for the PSID 2019 responding families to be used for cross-sectional analyses of 2019 family unit characteristics and outcomes. Beginning in 2017, analysts have the choice of using either the PSID longitudinal family weight or the cross-sectional family weight for cross-sectional analysis of a biennial wave's data on families. Analyses of family-level data should not be differentially affected by the use of either the longitudinal or the cross-sectional family weight alternatives. However, for 2017 and 2019, use of the cross-sectional family weight may be preferred since these weights will incorporate the calibration to ACS estimates of population totals for demographic and socio-economic characteristics of U.S. families including more precise statistical controls for characteristics of post-1997 immigrant families. Analysts who are interested in reporting a time series (e.g. 2011, 2013, 2015, 2017, 2019) of repeated cross-sectional estimates for families should consider using the longitudinal family weight for each wave to ensure consistency across waves in the methodology used to derive the biennial weights.

This technical report is organized into five sections. Section I defines sample and non-sample persons in the PSID and explains the rationale for creating the cross-sectional weights. The “fair shares” methodology that underlies the construction of the PSID cross-sectional weights is discussed in Section II. Section III describes how the cross-sectional weights are constructed. Section IV continues with a descriptive analysis of the weights, including comparisons of distributions of U.S. socio-demographic characteristics using weighted estimates from the CPS, ACS and PSID, and the concluding remarks are included in Section V.

## I. Background

### Sample and nonsample persons in the PSID

PSID traditionally categorizes individuals into one of two groups: sample persons and nonsample persons. The definition of these categories has changed slightly over the years. From 1968 to 1993, a sample person was defined as someone who was either an original sample person; i.e., resident of a PSID sample family in 1968, or offspring born to or adopted by a sample individual who was actively participating in the study at the time. A newborn child had to appear in the study at the wave immediately following their birth to be considered a sample person. In 1994, the definition of a sample person was expanded to include children born to or adopted by a sample person when the sample person was not participating in the study; i.e., the child need not be residing with a responding panel family unit at birth or adoption.

In 1997, a baseline sample of post-1968 immigrant families and individuals was added. The same current PSID definition of sample persons (implemented in 1994) applies to the 1997 Immigrant sample. For 1997 Immigrant families, the true baseline year for sample selection and sample status determination for individuals is 1997 or 1999.

In 2017, a baseline sample of post-1997 immigrant families and individuals was added to the PSID. The same current PSID definition of sample persons also applies to the 2017 Immigrant sample. The 2017 Immigrant sample was recruited by either the New Immigrant Supplement (NIS-2017) study or the New Immigrant Multiplicity Supplement (NIMS) study. The NIMS study was needed because of the concurrent recruitment with the Health and Retirement Study (HRS). See Chang et al. (2021) for the details of the sample recruitment of the 2017 Immigrant sample. For 2017 Immigrant families responding in 2017, the sample status determination for individuals is 2017. For NIMS families and NIS-2017 families that did not respond in 2017 but responded in 2019, the sample status determination for individuals is 2019.

All other members of PSID families are considered nonsample persons. They are typically spouses and partners or other family unit members. See McGonagle and Schoeni (2006) for a detailed background on the PSID. Under the conventional method for computing PSID longitudinal weights for individuals, nonsample persons are automatically assigned a “0” weight and, thus, excluded from any properly weighted longitudinal analysis of the PSID individual data. The justification for assigning a zero longitudinal weight value to nonsample persons was two-fold. First, barring any biases due to non-response and attrition, the dynamic sampling design for individuals and families employed in the PSID provides unbiased representation of the survey population at each measurement point (cross-sectional) and over time (longitudinal). Second, the process of dynamic recruitment of nonsample persons to PSID families is left-censored. This means that the time at which a nonsample person is first observed in a longitudinal sequence of observations is stochastic—potentially dependent on age and other factors but otherwise random conditional on such covariates.

In longitudinal analysis such as modeling simple change over time, repeated measures, growth curves or other more sophisticated models of change over time, analysts typically select the weight for the terminal (“end point”) wave of the longitudinal reference period. This ensures that there will be a minimum of missing data for the cases that are included in the longitudinal

analysis and that the results of the analysis, when properly weighted, are representative of the population over the time period of interest.

### Rationale for creating the cross-sectional weights

The data loss resulting from excluding nonsample persons was not significant in the early years because nonsample persons represented a modest fraction of the total individuals in the PSID sample of families. For instance, among 17,212 total PSID individuals in 1969, 537 (3.1%) were nonsample persons. However, as Table A1 in the Appendix shows, with the passage of time, nonsample persons have comprised an increasing and now substantial share of the total PSID individuals. For example, the number of nonsample persons grew to 7,029 out of 26,084 PSID individuals in 2019 (26.9%).

Although the PSID panel supports various forms of longitudinal analysis, cross-sectional analysis is a popular usage of the PSID data. In order to increase the effective sample size for such analysis, a new set of weights has been developed at the individual level. These new weights are labeled cross-sectional weights to underscore their purpose and to distinguish them from the traditional PSID longitudinal weights. Unlike the longitudinal individual weights, the cross-sectional individual weight are non-zero for both sample and nonsample persons. This allows information on sample and nonsample persons to be included in weighted analyses. Beginning in 2017, a new cross-sectional weight for all PSID families—including the 2017 Immigrant families—has also been introduced.

## II. “Fair Shares” Methodology for Constructing PSID Cross-sectional Weights

As early as 1984, statisticians working in the U.S. Survey of Income and Program Participation (SIPP) began to study weighting methodologies for including “nonsample” persons who entered a dynamic, longitudinal sample (Huang, 1984). In 1987, the PSID Board of Overseers expressed interest in a methodology for incorporating the increasing number of nonsample persons in PSID families into weighted cross-sectional analyses that would represent the general population. Kalton (1987) and Little (1989) developed working papers for the PSID Board that looked specifically at methodology that would enable both PSID sample and nonsample persons to be included in cross-sectional analysis of the panel data. Subsequently, several major panel studies modeled on the PSID and its “dynamic sampling” method have employed the methods discussed in these early papers to develop a cross-sectional weight for point in time analyses of the panel

data. These include the British Household Panel Survey (Lynn, et al., 2006) and the Canadian Survey of Labour and Income Dynamics (Lavalley, 1995). A comprehensive review of the theory and methods for cross-sectional weight development in longitudinal surveys is provided by Kalton and Brick (1995) and Ernst (1989).

Following Kalton and Brick (1995), one method for assigning nonzero weights to all members—both sample and nonsample persons—of a PSID family unit is labeled the “fair shares” method. Application of the fair shares method assumes that the probability of observing each person in a family unit is equal to the probability of observing the family unit itself. This equivalence of family unit and individual probabilities was true for the original samples of PSID family units and individuals first interviewed in the 1968 baseline wave. However, in subsequent waves, probabilities for nonsample persons who were not members of a 1968 sample family unit were unknown or could not be readily determined.

At any data collection time point,  $t$ , an initial non-zero cross-sectional weight for each person in a PSID family unit can be assigned using the fair shares method:

$$W_{i,t}^0 = \sum_{i=1}^{n_f} \alpha_i \cdot w_{i,t}^*$$

where :

$n_f$  = the total number of sample and nonsample persons in family  $f$ ;

$w_{i,t}^*$  = the current non-zero individual weight for sample person,  $i$ , at wave  $t$ .  
 = 0 if person  $i$  is nonsample;

$\alpha_i$  = (general) an arbitrary influence weight  $\in (0, 1)$  ,  $\sum_{i=1}^{n_f} \alpha_i = 1$ .

In general, the values of  $\alpha_i$  may be derived to optimize the precision of a specific population estimator (e.g. a population total); however, here we choose an equal individual weighting scheme with  $\alpha_i=1/n_f$  and  $W_{i,t}^0$  is equivalent to the PSID Longitudinal Family Unit Weight at wave  $t$ .

Using a version of the “fair shares” methodology described above, cross-sectional weights for all PSID individuals have been constructed for every wave since 1997. For the waves prior to 1997, data users are advised to use longitudinal weights to conduct cross-sectional analyses, recognizing that for these earlier years the analysis will be based only on PSID sample persons.

### III. Weight construction

#### 2019 Cross-Sectional Individual Weight

As described in section II, we choose an equal individual weighting scheme for the Fair Share method so the initial non-zero cross-sectional weight for each person is equivalent to the PSID longitudinal family weight at wave  $t$ . The 2019 cross-sectional weight uses the 2019 longitudinal family weight as the starting point, and calibrates those weights to the population totals estimated from the ACS 2019 1-year PUMS data.

In order to decrease bias from nonresponse and coverage error while not increasing sampling variance of the survey estimates, the covariates used in the calibration adjustment should be correlated with both the survey response and the study outcomes (Little and Vartivarian, 2003). For this reason, we started to use a different approach to do the calibration since 2017 that accounts for the correlation between the survey response and calibration dimensions.

The following PSID key outcomes were selected to assist in this adjustment:

- mean age of reference person
- percentage of reference persons with health insurance
- percentage of spouse/partner with health insurance
- mean family unit income
- mean reference person labor income
- mean family unit wealth
- percentage of black
- percentage of white
- percentage of foreign born - reference person
- percentage of foreign born – spouse/partner
- percentage of families owning a home
- percentage of families with food stamps/SNAP
- mean total food spending

To select the variables (and interactions) that were employed in the calibration, the 13 selected outcome variables from the PSID-2019 interview were regressed on demographic and socio-economic characteristics for each individual.

The regression model for each of the 13 outcomes included all main and two-way interaction effects for each of the following predictors:

- age of individual (0-9/10-19/20-29/30-39/40-49/50-59/60-69/70+)
- sex of individual (Male/Female),
- race of reference person (Black alone or in combination with one or more other races /Non-Black)
- race of reference person (Asian alone or in combination with one or more other races /Non-Asian)
- ethnicity of reference person (Hispanic/Non-Hispanic)
- region (Northeast/Midwest/South/West)
- education of individual (15 years old or younger/11 years or less/12 years/13-15 years/16 years/17 years or more)
- family unit type and employment status (FES) (LF=Labor Force)
  - family unit headed by a couple: reference person and spouse/partner in LF
  - family unit headed by a couple: reference person or spouse/partner in LF
  - family unit headed by a couple: Neither reference person or spouse/partner in LF
  - male reference person, no spouse/partner present, in LF
  - female reference person, no spouse/partner present, in LF
  - Non-Couple, reference person not in LF
- family unit size ( 1/2/3/4 or more)
- presence of children (Yes/No)
- being in a Core-S family unit<sup>2</sup> (Yes/No)

Using the results of these 13 regression models, the final set of controls for the weight calibration was chosen to include all the main effects (regardless of their level of explanation on the survey outcomes) and any two-way interactions of these predictors that were significant, at a 10% level, in the regression models for at least ten of the thirteen key survey outcomes. The selected interactions employed in the calibration included:

- age of individual x Black
- age of individual x presence of children
- Black x education of individual
- Black x FES
- Black x region
- Black x presence of children
- Black x being a Core-S family unit
- Hispanic x Black
- Hispanic x education of individual
- Hispanic x FES
- Hispanic x region

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<sup>2</sup> Individuals living in the group quarters from the ACS data are categorized together with Core-S family unit for calibration



- Hispanic x being a Core-S family unit
- education of individual x FES
- education of individual x family unit size
- education of individual x presence of children
- FES x family unit size
- FES x presence of children
- FES x Core-S family unit
- family unit size x presence of children
- region x Core-S family unit

In order to avoid undue increase in the variability of the weights, the following calibration cells with small sample sizes were collapsed for the calibration procedure:

- age of individual x presence of children: the presence of children of ‘yes’ and ‘no’ were collapsed when age is 0 to 9; age of 60 and above were collapsed when the presence of children is yes
- family unit size x education: family unit size 1 and 2 were collapsed when education of individuals is 15 years old or younger
- FES x being a Core-S family unit: “Married-couple family: neither husband nor wife in LF” and Non-Couple, reference person not in LF” were collapsed for Joint Core or 2017 Immigrant families

The calibration adjustment was performed using a raking ratio (or iterative proportional fitting) method (Deming and Stephan, 1940) through a SAS macro developed by Battaglia et al (2009). An advantage of this SAS macro is that apart from running the raking procedure to adjust the weights to enforce the weighted sample distribution to match the population margins in the selected calibration dimensions, it also simultaneously trims the weights according to trimming parameters, in order to mitigate some potential increase of the variance of statistical estimates due to weight variability.

In 2017, a baseline sample of post-1997 immigrant families and individuals was added to the PSID. To ensure an appropriate representation of the post-1997 immigrant families in the weighted analysis, the indicator of being in a Core-S family unit is included as one of the calibration dimension. A Core-S family unit is the family unit that originated from the 1968 SRC/SEO sample or the 1997 Immigrant sample that has no probability to be selected to the NIS-2017 or NIMS samples. Both ACS PUMS data and Integrated Public Use Microdata Series (IPUMS) are needed to define PSID equivalent family units and identify Core-S families. See Chang et al. (2021) and Chang et al. (2019) for the details about different family unit types included in the PSID 2019 sample and how we define PSID equivalent family units for ACS data to get estimated proportion of Core-S families.

The final cross-sectional individual weight for the PSID-2019 data was derived from the output weights of this calibration adjustment with trimming. Table A2a in the Appendix provides a descriptive summary of the PSID-2019 sample sizes, the distributions of the 2019 cross-sectional individual weight and the ACS population totals in 2019. The variable names for the 2019 Cross-Sectional Individual Weight in the PSID data archive are provided in Table A3 in the Appendix.

## 2019 Cross-Sectional Family Weight

Because calibration adjustment has the potential to mitigate bias from nonresponse and coverage error, and improve the precision of survey estimates, a cross-sectional family weight has been created for the PSID since 2017 to be used for cross-sectional analyses of family unit characteristics and outcomes. The 2019 cross-sectional family weight uses the 2019 longitudinal family weight as the initial weight, and calibrate to the population totals at family unit level estimated from the ACS 2019 one-year PUMS data<sup>3</sup>.

To minimize sampling variance of the survey estimates, the covariates used in the calibration adjustment are selected based on their correlation with the study outcomes. The same set of outcome variables used to choose the calibration dimensions for the cross-sectional individual weight are used to choose the calibration dimensions for the cross-sectional family weight. The following demographic and socio-economic characteristics at family unit level were considered as the candidates for the calibration control variables and we regressed the 13 selected outcome variables on these variables and their two-way interactions.

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<sup>3</sup> Family units were first defined by the variable ‘FAMUNIT’ from the IPUMS data. To make the family unit definition closer to the PSID, two adjustments were made. First, foster children of the family unit reference person were reassigned to the main family unit. Second, the additional family unit including only one unmarried child was reassigned to the main family unit. Family unit PUMS data were then created for each modified family unit and the family unit weight was assigned the housing unit weight of the originated housing unit.

The variable ‘RELP’ from the PUMS data was used to identify the reference person, spouse and partner in the main family unit. The variable ‘SFRELATE’ from the IPUMS data was used to identify the reference person and spouse of the additional family units in the same housing unit.

Some of the family unit characteristics used for calibration are based on the characteristic of the reference person. The reference person in a PSID family unit headed by a couple would be the male spouse or partner if he resided in the family unit at the time of interview. To make these family unit characteristics equivalent to the ones for the PSID data, the reference person in an ACS family unit was switched with the spouse or partner if the reference person was not a male spouse or partner. More details can be found in Chang et al.(2019)

- age of reference person (10-19/20-29/30-39/40-49/50-59/60-69/70+ )
- race of reference person (Black alone or in combination with one or more other races /Non-Black)
- race of reference person (Asian alone or in combination with one or more other races /Non-Asian)
- ethnicity of reference person (Hispanic/Non-Hispanic)
- region (Northeast/Midwest/South/West)
- education of reference person (11 years or less/12 years/13-15 years/16 years/17 years or more)
- family unit type and employment status (FES) (LF=Labor Force)
  - family unit headed by a couple: reference person and spouse/partner in LF
  - family unit headed by a couple: reference person or spouse/partner in LF
  - family unit headed by a couple: Neither reference person or spouse/partner in LF
  - male reference person, no spouse/partner present, in LF
  - female reference person, no spouse/partner present, in LF
  - Non-Couple, reference person not in LF
- family unit size ( 1/2/3/4 or more)
- presence of children (Yes/No)
- being a Core-S family unit (Yes/No)

All the main effects (regardless of their level of explanation of the survey outcomes) and the two-way interactions that were significant at a 10% level ( $p \leq .10$ ) for at least nine of the thirteen key survey outcomes were chosen as calibration controls. The selected interactions employed in the calibration included:

- age of reference person x presence of children
- Black x presence of children
- Black x Core-S family unit
- Black x education of reference person
- Hispanic x Black
- Hispanic x education of reference person
- Hispanic x region
- Hispanic x Core-S family unit
- education of reference person x presence of children
- FES x presence of children
- family unit size x presence of children
- region x education of reference person
- region x Core-S family unit

In order to avoid undue increase in the variability of the weights, the following calibration cells with small sample sizes were collapsed for the calibration procedure:

- age of reference person x presence of children: ages between 10 to 29 were collapsed; ages 60 and above were collapsed

- FES x presence of children: presence of children of ‘yes’ and ‘no’ were collapsed for 'Married-couple family: Neither husband nor wife in LF'
- Hispanic x education of reference person: education of 16 years or above were collapsed
- region x education of reference person: education of 12 years of less were collapsed for Northeast

The calibration adjustment was performed using the same raking ratio method used for calibrating the cross-sectional individual weight. The final cross-sectional family weight was derived from the output weight of this calibration adjustment with trimming.

Table A2b in the Appendix provides a descriptive summary of the sample sizes, the distributions of the cross-sectional family weight and the ACS population totals for each PSID wave. The variable names for the cross-sectional family weight in the PSID data archive are listed in Table A4 in the Appendix.

#### IV. Evaluation of the PSID Cross-Sectional Weights: Comparisons with the CPS or ACS

Tables A4 through A8 in the Appendix compare PSID with CPS or ACS weighted estimates of selected demographic univariate statistics, including age, gender, race, and region. All analyses use individuals as the unit of analysis for the results displayed in these tables. In each table, the upper panel reports the estimates using the weighted CPS data, the weighted ACS data, the PSID data weighted by the cross-sectional individual weight (or cross-sectional family weight for Table A8), and the PSID data weighted by the longitudinal individual weight (or longitudinal family weight for Table A8). The first and second columns in the lower panel of each table report the ratio of the weighted estimate for the PSID using the new cross-sectional individual weights to the estimates for the CPS and for the ACS, respectively. The statistics in the third and fourth columns in the lower panel of each table are ratios of the estimate for the PSID using the longitudinal weights to the estimates for the CPS and the ACS, respectively. Comparing the ratios of PSID/CPS and PSID/ACS estimates allows one to examine the extent to which population level estimates based on the PSID differ when one uses the cross-sectional weight instead of the longitudinal weight.

Simple examination of the results of these comparisons shows that, as expected, when considering characteristics that are used as calibration controls (e.g. gender, race, region) the weighted distributions across categories exactly (or closely) match the corresponding population

totals from ACS (or CPS for the waves prior to 2015)<sup>4</sup>. Table A8 to A13<sup>5</sup> shows the comparison of family level estimates based on the cross-sectional and longitudinal weights. As stated above, for 2017 and 2019, use of the cross-sectional family weight may be preferred since these weights incorporate the calibration to ACS estimates of population totals. On the other than, the difference is small so the choice of the longitudinal or cross-sectional family weight should not seriously affect interpretation of the analysis.

## V. Concluding Comments

Analysts should keep in mind that for any given wave before 2017, the calibration did not explicitly take into account PSID non-coverage of immigrant populations after 1997. Therefore, for the waves between 1999 and 2015, the cross-sectional weights attempted to numerically account for all individuals in the United States. However, immigrants arriving after 1997, when the immigrant sample was added to the PSID, were not fully represented in the PSID before 2017. In 2017, the 2017 Immigrant sample was added so the PSID 2019 sample also represents post-1997 immigrants. The cross-sectional family weight allows analysts to generalize their statistical results for family unit characteristics to the national population of families. The cross-sectional individual weight allows analysts to generalize their analysis of individual characteristics to the national population of individuals.

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<sup>4</sup> The only exception is the comparison by age categories in Table A5. The actual calibration of the PSID cross-sectional individual weight uses age categorized in 10-year splits. The comparison shown in Table A5 uses mid-decade splits (e.g. 45-64, 65+) for estimation and comparison. Even though the calibration exactly controls the ratio of PSID to ACS (or CPS before 2015), differences in the division by mid-decade splits, for example 60-64 and 65-69, relative to ACS or CPS, could lead to differences in the estimates.

<sup>5</sup> We see a larger difference in the percentage of reference persons who were born outside of the US when comparing the 2017 longitudinal weight weighted PSID estimates with 2017 ACS estimates. It was driven by the fact that 2017 New Immigrant sample was not included in the longitudinal weight weighted estimates.

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U.S. Census Bureau; American Community Survey (ACS), One-Year Public Use Microdata Sample (PUMS), 2019.

## Appendix

**Table A1. PSID Size of Sample and Nonsample Individuals and Family Units: 1997-2019**

<b>Year</b>	<b>Total Number of Person Records</b>	<b>Total Number of Sample Persons</b>	<b>Total Number of Nonsample Persons</b>	<b>Total Number of Family Units</b>
1969	17212	16675	537	4460
1970	17349	16359	990	4645
1971	17590	16244	1346	4840
1972	18051	16283	1768	5060
1973	18236	16155	2081	5285
1974	18396	16068	2328	5517
1975	18623	16028	2595	5725
1976	18768	15937	2831	5862
1977	18998	15898	3100	6007
1978	19140	15833	3307	6154
1979	19443	15892	3551	6373
1980	19747	15916	3831	6533
1981	19796	15897	3899	6620
1982	20112	16008	4104	6742
1983	20327	16010	4317	6852
1984	20393	15987	4406	6918
1985	20680	16024	4656	7032
1986	20437	15782	4655	7018
1987	20486	15755	4731	7061
1988	20506	15692	4814	7114
1989	20451	15564	4887	7114
1990	20745	15626	5119	9371
1991	20770	15607	5163	9363
1992	21145	15752	5393	9829
1993	22311	16121	6190	9977
1994	24512	18153	6359	10764
1995	23929	17699	6230	10401
1996	23810	17587	6223	8511
1997	19761	15047	4714	6747
1999	20515	15313	5202	6997
2001	21400	15639	5761	7406
2003	22290	16005	6285	7822
2005	22918	16614	6304	8002
2007	23501	16906	6595	8289
2009	24385	17471	6914	8690
2011	24661	17643	7018	8907
2013	24952	17785	7167	9063
2015	24637	17505	7132	9048
2017	26445	19258	7187	9607
2019	26084	19055	7029	9569



**Table A2a. Distribution of PSID Cross-Sectional Individual Weights: 1997-2019**

Year	PSID						CPS	ACS
	Sample Size	Cross-Sectional Individual Weight					March Supplement Population Total	One Year PUMS Population Total
		Mean	Std Dev	Min	Max	Sum of Weights		
1997	19,761	13,501	10,121	62	68,079	266,792,421	266,792,407	Not Used
1999	20,515	13,246	9,964	32	78,034	271,742,851	271,742,834	
2001	21,400	13,062	10,094	34	76,156	279,517,336	279,517,359	
2003	22,290	12,828	10,099	67	80,408	285,933,473	285,933,409	
2005	22,918	12,705	10,270	69	67,753	291,166,164	291,166,198	
2007	23,501	12,630	10,293	48	68,214	296,824,059	296,824,002	
2009	24,385	12,363	9,311	118	53,258	301,482,827	301,482,827	
2011	24,661	12,413	10,614	66	88,308	306,109,661	306,109,661	
2013	24,952	12,469	10,851	45	85,742	311,116,170	311,116,170	
2015	24,637	13,046	11,756	60	86,506	321,418,821	316,167,949	321,418,821
2017	26,445	12,180	11,415	37	78,618	322,103,607	Not Used	322,103,564*
2019	26,084	12,584	12,667	193	52,853	328,239,523	Not Used	328,239,523

\* Due to overlap with the HRS screening for its new cohorts, recent immigrants born between 1960 and 1971 (as well as post-1997 immigrants who co-reside with individuals born in these years) were not part of the PSID NIS-2017 sample. Recent immigrants born between 1960 and 1971 is referenced as the ‘donut hole’ group. The families in which the reference person and/or the spouse/partner are in the donut hole (‘donut hole’ families) were not added to the PSID panel until 2019. Individuals living in the donut hole families and individuals who are recent (post-1997) immigrants but live in group quarters were excluded from the ACS estimate in 2017

**Table A2b. Distribution of PSID Cross-Sectional Family Unit Weights: 2017-2019**

Year	PSID						ACS
	Sample Size	Cross-sectional Family Weight					1-Year PUMS
		Mean	Std Dev	Min	Max	Weighted Total	
2017	9,607	13,190	12,927	237	63,313	126,718,916	126,718,916*
2019	9,569	13,678	13,407	179	57,447	130,883,752	130,883,752

\*Donut hole family units were excluded from the ACS estimate in 2017

**Table A3. Variable Names for PSID Cross-Sectional Weights**

<b>Year</b>	<b>Individual Weight Variable Name</b>	<b>Family Weight Variable Name</b>
1997	ER33438	ER12224
1999	ER33547	ER16519
2001	ER33639	ER20459
2003	ER33742	ER24180
2005	ER33849	Not Computed
2007	ER33951	
2009	ER34046	
2011	ER34155	
2013	ER34269	
2015	ER34414	
2017	ER34651	ER71571
2019	ER34864	ER77632

**Table A4. Comparisons of Age Distributions between CPS, ACS and PSID Cross-Sectional and Longitudinal Individual Weights: 1997-2019 (Individual Level Data)**

CPS Table of Year by Age						ACS Table of Year by Age						PSID Table of Year by Age***, Weighted with PSID Cross-Sectional Weight						PSID Table of Year by Age***, Weighted with Longitudinal Individual Weight*					
Year	<=17	18-29	Age 30-44	45-64	>=65	Year	<=17	18-29	Age 30-44	45-64	>=65	Year	<=17	18-29	Age 30-44	45-64	>=65	Year	<=17	18-29	Age 30-44	45-64	>=65
1997	26.70	16.58	24.35	20.42	11.95	1997						1997	26.86	16.42	24.03	20.18	12.51	1997	27.17	16.50	23.48	20.17	12.68
1999	26.50	16.41	23.76	21.40	11.92	1999						1999	26.42	16.50	23.35	21.40	12.33	1999	26.01	16.71	22.69	21.71	12.88
2001	25.87	16.23	23.21	22.68	12.01	2001						2001	25.75	16.35	22.89	22.80	12.21	2001	25.03	16.73	21.98	23.49	12.77
2003	25.64	16.14	22.59	23.65	11.97	2003						2003	25.20	16.59	22.51	23.59	12.12	2003	24.16	17.73	21.37	24.28	12.46
2005	25.34	16.32	21.69	24.56	12.09	2005			Not Used			2005	25.05	16.61	21.52	24.75	12.07	2005	23.82	17.84	20.03	25.81	12.50
2007	24.96	16.53	20.88	25.49	12.14	2007						2007	24.65	16.84	20.54	25.84	12.13	2007	23.26	18.14	19.18	26.70	12.72
2009	24.71	16.57	20.10	26.09	12.53	2009						2009	24.37	16.91	19.78	27.07	11.87	2009	22.90	17.87	18.66	27.48	13.09
2011	24.47	16.67	19.62	26.44	12.80	2011						2011	24.21	16.93	19.33	27.00	12.52	2011	22.09	17.25	18.33	27.99	14.35
2013	23.85	16.45	19.46	26.34	13.91	2013						2013	23.71	16.58	19.35	26.66	13.70	2013	21.87	16.78	18.42	27.25	15.69
2015						2015	22.88	16.67	19.47	26.13	14.85	2015	22.82	16.73	19.36	26.16	14.93	2015	21.07	16.15	18.33	26.93	17.52
2017			Not Used			2017**	22.63	16.42	19.55	25.65	15.74	2017	23.02	16.04	19.89	25.02	16.03	2017	21.08	15.11	19.14	25.43	19.24
2019						2019	22.21	16.32	19.63	25.36	16.47	2019	22.20	16.31	19.79	24.77	16.92	2019	22.14	14.84	21.24	23.81	17.97

  

Ratio PSID with Cross-Sectional Weight/CPS						Ratio PSID with Cross-Sectional Weight/ACS						Ratio PSID with Longitudinal Weight/CPS						Ratio PSID with Longitudinal Weight/ACS					
Year	<=17	18-29	Age 30-44	45-64	>=65	Year	<=17	18-29	Age 30-44	45-64	>=65	Year	<=17	18-29	Age 30-44	45-64	>=65	Year	<=17	18-29	Age 30-44	45-64	>=65
1997	1.01	0.99	0.99	0.99	1.05	1997						1997	1.02	1.00	0.96	0.99	1.06	1997					
1999	1.00	1.01	0.98	1.00	1.03	1999						1999	0.98	1.02	0.95	1.01	1.08	1999					
2001	1.00	1.01	0.99	1.01	1.02	2001						2001	0.97	1.03	0.95	1.04	1.06	2001					
2003	0.98	1.03	1.00	1.00	1.01	2003						2003	0.94	1.10	0.95	1.03	1.04	2003					
2005	0.99	1.02	0.99	1.01	1.00	2005			Not Used			2005	0.94	1.09	0.92	1.05	1.03	2005			Not Used		
2007	0.99	1.02	0.98	1.01	1.00	2007						2007	0.93	1.10	0.92	1.05	1.05	2007					
2009	0.99	1.02	0.98	1.04	0.95	2009						2009	0.93	1.08	0.93	1.05	1.04	2009					
2011	0.99	1.02	0.99	1.02	0.98	2011						2011	0.90	1.03	0.93	1.06	1.12	2011					
2013	0.99	1.01	0.99	1.01	0.98	2013						2013	0.92	1.02	0.95	1.03	1.13	2013					
2015						2015	1.00	1.00	0.99	1.00	1.01	2015						2015	0.92	0.97	0.94	1.03	1.18
2017			Not Used			2017	1.02	0.98	1.02	0.98	1.02	2017			Not Used			2017	0.93	0.92	0.98	0.99	1.22
2019						2019	1.00	1.00	1.01	0.98	1.03	2019						2019	1.00	0.91	1.08	0.94	1.09

\* PSID 2017 New Immigrants (post-1997 immigrants) were not included for the weighted percentage in 2017 with longitudinal weight

\*\* Individuals living in the donut hole families and individuals who are recent (post-1997) immigrants but live in group quarters were excluded from the ACS estimate in 2017

\*\*\* Missing value of age in PSID data was imputed

‡Prior to 2015, we used CPS estimates as the population totals for calibration so CPS data was used as the benchmark for this table. We started to use ACS estimates as the population totals for calibration since 2015 and thus changed the benchmark for the comparison.

**Table A5. Comparisons of Gender Distributions between CPS, ACS and PSID Cross-Sectional and Longitudinal Individual Weights: 1997-2019**  
**(Individual Level Data)**

CPS Table of Year by Sex			ACS Table of Year by Sex			PSID Table of Year by Sex, Weighted with PSID Cross-Sectional Weight			PSID Table of Year by Sex, Weighted with Longitudinal Individual *		
Year	Male	Female	Year	Male	Female	Year	Male	Female	Year	Male	Female
1997	48.97	51.03	1997			1997	48.97	51.03	1997	48.03	51.97
1999	48.86	51.14	1999			1999	48.86	51.14	1999	48.15	51.85
2001	48.86	51.14	2001			2001	48.86	51.14	2001	48.08	51.92
2003	48.92	51.08	2003			2003	48.92	51.08	2003	48.18	51.82
2005	49.03	50.97	2005		Not Used	2005	49.03	50.97	2005	48.23	51.77
2007	49.08	50.92	2007			2007	49.08	50.92	2007	48.58	51.42
2009	49.12	50.88	2009			2009	49.12	50.88	2009	48.42	51.58
2011	49.21	50.79	2011			2011	49.21	50.79	2011	48.74	51.26
2013	48.96	51.04	2013			2013	48.96	51.04	2013	48.83	51.17
2015			2015	49.20	50.80	2015	49.20	50.80	2015	48.70	51.30
2017		Not Used	2017**	49.22	50.78	2017	49.22	50.78	2017	48.62	51.38
2019			2019	49.23	50.77	2019	49.23	50.77	2019	49.19	50.81

  

Ratio PSID with Cross-Sectional Weight			Ratio PSID with Cross-Sectional Weight/ACS			Ratio PSID with Longitudinal Weight/CPS			Ratio PSID with Longitudinal Weight/ACS		
Year	Male	Female	Year	Male	Female	Year	Male	Female	Year	Male	Female
1997	1.00	1.00	1997			1997	0.98	1.02	1997		
1999	1.00	1.00	1999			1999	0.99	1.01	1999		
2001	1.00	1.00	2001			2001	0.98	1.02	2001		
2003	1.00	1.00	2003			2003	0.98	1.01	2003		
2005	1.00	1.00	2005		Not Used	2005	0.98	1.02	2005		Not Used
2007	1.00	1.00	2007			2007	0.99	1.01	2007		
2009	1.00	1.00	2009			2009	0.99	1.01	2009		
2011	1.00	1.00	2011			2011	0.99	1.01	2011		
2013	1.00	1.00	2013			2013	1.00	1.00	2013		
2015			2015	1.00	1.00	2015			2015	0.99	1.01
2017		Not Used	2017	1.00	1.00	2017		Not Used	2017	0.99	1.01
2019			2019	1.00	1.00	2019			2019	1.00	1.00

\* PSID 2017 New Immigrants (post-1997 immigrants) were not included for the weighted percentage in 2017 with longitudinal weight

\*\* Individuals living in the honut hole families and individuals who are recent (post-1997) immigrants but live in group quarters were excluded from the ACS estimate in 2017

#Prior to 2015, we used CPS estimates as the population totals for calibration so CPS data was used as the benchmark for this table. We started to use ACS estimates as the population totals for calibration since 2015 and thus changed the benchmark for the comparison.

**Table A6. Comparisons of Race Distributions between CPS, ACS and PSID Cross-Sectional and Longitudinal Individual Weights: 1997-2019 (Individual Level Data)**

CPS Table of Year by Race****			ACS Table of Year by Race****			PSID Table of Year by Race***, Weighted with PSID Cross-Sectional Weight			PSID Table of Year by Race***, Weighted with Longitudinal Individual *		
Year	Non-Black	Black	Year	Non-Black	Black	Year	Non-Black	Black	Year	Non-Black	Black
1997	87.17	12.83	1997			1997	87.17	12.83	1997	86.62	13.38
1999	87.09	12.91	1999			1999	87.09	12.91	1999	86.73	13.27
2001	87.26	12.74	2001			2001	87.26	12.74	2001	86.52	13.48
2003	87.48	12.52	2003			2003	87.48	12.52	2003	86.21	13.79
2005	87.45	12.55	2005	Not Used		2005	87.45	12.55	2005	85.94	14.06
2007	87.41	12.59	2007			2007	87.41	12.59	2007	85.88	14.12
2009	86.67	13.33	2009			2009	86.67	13.33	2009	85.18	14.82
2011	86.43	13.57	2011			2011	86.43	13.57	2011	84.19	15.81
2013	85.95	14.05	2013			2013	85.95	14.05	2013	84.79	15.21
2015			2015	86.10	13.90	2015	86.10	13.90	2015	84.85	15.15
2017	Not Used		2017**	85.92	14.08	2017	85.92	14.08	2017	84.42	15.58
			2019	85.75	14.25	2019	85.74	14.26	2019	84.01	15.99

  

Ratio PSID with Cross-Sectional Weight/CPS			Ratio PSID with Cross-Sectional Weight/ACS			Ratio PSID with Longitudinal Weight/CPS			Ratio PSID with Longitudinal Weight/ACS		
Year	Non-Black	Black	Year	Non-Black	Black	Year	Non-Black	Black	Year	Non-Black	Black
1997	1.00	1.00	1997			1997	0.99	1.04	1997		
1999	1.00	1.00	1999			1999	1.00	1.03	1999		
2001	1.00	1.00	2001			2001	0.99	1.06	2001		
2003	1.00	1.00	2003			2003	0.99	1.10	2003		
2005	1.00	1.00	2005	Not Used		2005	0.98	1.12	2005	Not Used	
2007	1.00	1.00	2007			2007	0.98	1.12	2007		
2009	1.00	1.00	2009			2009	0.98	1.11	2009		
2011	1.00	1.00	2011			2011	0.99	1.17	2011		
2013	1.00	1.00	2013			2013	0.99	1.08	2013		
2015			2015	1.00	1.00	2015			2015	0.99	1.09
2017	Not Used		2017	1.00	1.00	2017	Not Used		2017	0.98	1.11
2019			2019	1.00	1.00	2019			2019	0.98	1.12

\* PSID 2017 New Immigrants (post-1997 immigrants) were not included for the weighted percentage in 2017 with longitudinal weight

\*\* Individuals living in the donut hole families and individuals who are recent (post-1997) immigrants but live in group quarters were excluded from the ACS estimate in 2017

\*\*\* Individual race in PSID data was approximated using the race of the family unit reference person. Missing value of race first mention in PSID data was imputed. Prior to 2017, Black was defined based on the race first mention of reference person for PSID estimates. Since 2017, Black was defined by black alone or in combination with one or more other races

\*\*\*\* Black was defined by black alone or in combination with one or more other races for CPS or ACS estimates

#Prior to 2015, we used CPS estimates as the population totals for calibration so CPS data was used as the benchmark for this table. We started to use ACS estimates as the population totals for calibration since 2015 and thus changed the benchmark for the comparison.

**Table A7. Comparisons of Region\*\*\* Distributions between CPS, ACS and PSID Cross-Sectional and Longitudinal Individual Weights: 1997-2019 (Individual Level Data)**

CPS Table of Year by Region					ACS Table of Year by Region					PSID Table of Year by Region, Weighted with PSID Cross-Sectional Weight					PSID Table of Year by Region, Weighted with Longitudinal Individual Weight*				
Year	NE	MW	South	West	Year	NE	MW	South	West	Year	NE	MW	South	West	Year	NE	MW	South	West
1997	19.32	23.27	34.98	22.43	1997					1997	19.32	23.27	34.98	22.43	1997	20.14	27.66	31.23	20.97
1999	19.09	23.29	34.92	22.70	1999					1999	19.09	23.29	34.92	22.70	1999	19.12	27.51	31.75	21.62
2001	18.98	22.76	35.57	22.69	2001					2001	18.98	22.76	35.57	22.69	2001	19.30	27.49	31.69	21.52
2003	18.93	22.59	35.60	22.88	2003					2003	18.93	22.59	35.60	22.88	2003	18.86	26.93	31.96	22.26
2005	18.55	22.28	36.09	23.09	2005		Not Used			2005	18.55	22.28	36.09	23.09	2005	18.02	27.27	32.68	22.02
2007	18.24	22.06	36.40	23.30	2007					2007	18.24	22.06	36.40	23.30	2007	18.26	26.63	32.88	22.23
2009	17.97	21.78	36.77	23.48	2009					2009	17.97	21.78	36.77	23.48	2009	17.41	26.28	33.24	23.07
2011	17.90	21.59	37.00	23.50	2011					2011	17.90	21.60	37.00	23.50	2011	17.44	26.01	33.40	23.16
2013	17.72	21.35	37.33	23.60	2013					2013	17.72	21.35	37.33	23.60	2013	17.37	25.97	33.38	23.28
2015					2015	17.51	21.13	37.70	23.66	2015	17.51	21.13	37.70	23.66	2015	16.88	26.01	33.60	23.51
2017					2017**	17.27	21.05	37.95	23.72	2017	17.27	21.05	37.95	23.72	2017	16.43	26.22	33.93	23.42
2019					2019	17.06	20.82	38.26	23.87	2019	17.06	20.82	38.26	23.86	2019	16.84	24.37	35.12	23.67

  

Ratio PSID with Cross-Sectional Weight/CPS					Ratio PSID with Cross-Sectional Weight/ACS					Ratio PSID with Longitudinal Weight/CPS					Ratio PSID with Longitudinal Weight/ACS				
Year	NE	MW	South	West	Year	NE	MW	South	West	Year	NE	MW	South	West	Year	NE	MW	South	West
1997	1.00	1.00	1.00	1.00	1997					1997	1.04	1.19	0.89	0.93	1997				
1999	1.00	1.00	1.00	1.00	1999					1999	1.00	1.18	0.91	0.95	1999				
2001	1.00	1.00	1.00	1.00	2001					2001	1.02	1.21	0.89	0.95	2001				
2003	1.00	1.00	1.00	1.00	2003					2003	1.00	1.19	0.90	0.97	2003				
2005	1.00	1.00	1.00	1.00	2005		Not Used			2005	0.97	1.22	0.91	0.95	2005		Not Used		
2007	1.00	1.00	1.00	1.00	2007					2007	1.00	1.21	0.90	0.95	2007				
2009	1.00	1.00	1.00	1.00	2009					2009	0.97	1.21	0.90	0.98	2009				
2011	1.00	1.00	1.00	1.00	2011					2011	0.97	1.20	0.90	0.99	2011				
2013	1.00	1.00	1.00	1.00	2013					2013	0.98	1.22	0.89	0.99	2013				
2015					2015	1.00	1.00	1.00	1.00	2015					2015	0.96	1.23	0.89	0.99
2017					2017	1.00	1.00	1.00	1.00	2017					2017	0.95	1.25	0.89	0.99
2019					2019	1.00	1.00	1.00	1.00	2019					2019	0.99	1.17	0.92	0.99

\* PSID 2017 New Immigrants (post-1997 immigrants) were not included for the weighted percentage in 2017 with longitudinal weight

\*\* Individuals living in the donut hole families and individuals who are recent (post-1997) immigrants but live in group quarters were excluded from the ACS estimate in 2017

\*\*\* A few families in the PSID Core living outside of the U.S during the PSID interview and their region were categorized as 'West' for the calibration

‡Prior to 2015, we used CPS estimates as the population totals for calibration so CPS data was used as the benchmark for this table. We started to use ACS estimates as the population totals for calibration since 2015 and thus changed the benchmark for the comparison.

**Table A8. Comparisons of Family Unit Type and Employment Status (FES) Distributions between ACS and PSID Cross-Sectional and Longitudinal Family Weights: 2017-2019 (Family Level Data)**

ACS Table of Year by FES							PSID Table of Year by FES, Weighted with PSID Cross-Sectional Family Weight							PSID Table of Year by FES, Weighted with Longitudinal Family Weight						
Year	FES=1	FES=2	FES=3	FES=4	FES=5	FES=6	Year	FES=1	FES=2	FES=3	FES=4	FES=5	FES=6	Year	FES=1	FES=2	FES=3	FES=4	FES=5	FES=6
2017**	27.30	14.92	8.98	13.71	18.55	16.55	2017	27.31	14.92	8.98	13.7	18.54	16.54	2017*	24.80	13.14	9.47	14.83	19.33	18.43
2019	27.44	14.40	9.00	13.93	18.59	16.65	2019	27.43	14.41	9.00	13.92	18.59	16.65	2019	26.43	13.52	8.15	15.09	18.71	18.1
							Ratio PSID with Cross-Sectional Weight/ACS							Ratio PSID with Longitudinal Weight/ACS						
Year	FES=1	FES=2	FES=3	FES=4	FES=5	FES=6	Year	FES=1	FES=2	FES=3	FES=4	FES=5	FES=6	Year	FES=1	FES=2	FES=3	FES=4	FES=5	FES=6
2017	1.00	1.00	1.00	1.00	1.00	1.00	2017	1.00	1.00	1.05	1.08	1.04	1.11	2017*	0.91	0.88	1.05	1.08	1.04	1.11
2019	1.00	1.00	1.00	1.00	1.00	1.00	2019	1.00	1.00	0.91	1.08	1.01	1.09	2019	0.96	0.94	0.91	1.08	1.01	1.09

\* PSID 2017 New Immigrants (post-1997 immigrants) were not included for the weighted percentage in 2017 with longitudinal weight. Part of the difference between PSID estimates and ACS estimated in 2017 in this table could be resulted from the inclusion of post-1997 immigrants in the ACS estimates

\*\* Non-Joint Donut Hole Families (DH-S) were excluded from the 2017 ACS estimates

‡FES groups:

FES=1: Family unit headed by a couple: reference person and spouse/partner in LF

FES=2: Family unit headed by a couple: reference person or spouse/partner in LF

FES=3: Family unit headed by a couple: reference person or spouse/partner in LF

FES=4: Male reference person, no spouse/partner present, in LF

FES=5: Non-Couple, reference person not in LF

FES=6: Female reference person, no spouse/partner present, in LF

‡Family unit definition for ACS data was adjusted to make it more equivalent to PSID family unit definition. Please see footnote 3 for details.

**Table A9. Comparisons of Presence of Children Distributions between ACS and PSID Cross-Sectional and Longitudinal Family Weights: 2017-2019 (Family Level Data)**

ACS Table of Year by Presence of Children			PSID Table of Year by Presence of Children , Weighted with PSID Cross-Sectional Family Weight			PSID Table of Year by Presence of Children , Weighted with Longitudinal Family Weight		
Year	With Children	No Children	Year	With Children	No Children	Year	With Children	No Children
2017**	28.95	71.05	2017	28.95	71.05	2017*	24.80	75.20
2019	28.10	71.90	2019	28.10	71.90	2019	26.82	73.18
			Ratio PSID with Cross-Sectional Weight/ACS			Ratio PSID with Longitudinal Weight/ACS		
Year	With Children	No Children	Year	With Children	No Children	Year	With Children	No Children
2017	1.00	1.00	2017	1.00	1.06	2017*	0.86	1.06
2019	1.00	1.00	2019	1.00	1.02	2019	0.95	1.02

\* PSID 2017 New Immigrants (post-1997 immigrants) were not included for the weighted percentage in 2017 with longitudinal weight. Part of the difference between PSID estimates and ACS estimated in 2017 in this table could be resulted from the inclusion of post-1997 immigrants in the ACS estimates

\*\* Non-Joint Donut Hole Families (DH-S) were excluded from the 2017 ACS estimates

‡Family unit definition for ACS data was adjusted to make it more equivalent to PSID family unit definition. Please see footnote 3 for details.

**Table A10. Comparisons of Food Stamp Reciprocity Distributions between ACS and PSID Cross-Sectional and Longitudinal Family Weights: 2017-2019 (Family Level Data)**

ACS Table of Year by Food Stamp Reciprocity			PSID Table of Year by Food Stamp Reciprocity, Weighted with PSID Cross-Sectional Family Weight			PSID Table of Year by Food Stamp Reciprocity, Weighted with Longitudinal Family Weight		
Year	Received Food Stamp	No Food Stamp	Year	Received Food Stamp	No Food Stamp	Year	Received Food Stamp	No Food Stamp
2017**	11.95	88.05	2017	11.12	88.88	2017*	10.88	89.12
2019	11.01	88.99	2019	10.09	89.91	2019	9.93	90.07

  

Ratio PSID with Cross-Sectional Weight/ACS			Ratio PSID with Longitudinal Weight/ACS		
Year	Received Food Stamp	No Food Stamp	Year	Received Food Stamp	No Food Stamp
2017	0.93	1.01	2017*	0.91	1.01
2019	0.92	1.01	2019	0.90	1.01

\* PSID 2017 New Immigrants (post-1997 immigrants) were not included for the weighted percentage in 2017 with longitudinal weight. Part of the difference between PSID estimates and ACS estimated in 2017 in this table could be resulted from the inclusion of post-1997 immigrants in the ACS estimates

\*\* Non-Joint Donut Hole Families (DH-S) were excluded from the 2017 ACS estimates

‡Family unit definition for ACS data was adjusted to make it more equivalent to PSID family unit definition. Please see footnote 3 for details.

**Table A11. Comparisons of Tenure Distributions between ACS and PSID Cross-Sectional and Longitudinal Family Weights: 2017-2019 (Family Level Data)**

ACS Table of Year by Presence of Children			PSID Table of Year by Presence of Children , Weighted with PSID Cross-Sectional Family Weight			PSID Table of Year by Presence of Children , Weighted with Longitudinal Family Weight		
Year	Own Home	Rent or Other	Year	Own Home	Rent or Other	Year	Own Home	Rent or Other
2017**	62.50	37.50	2017	58.52	41.48	2017*	59.63	40.37
2019	62.58	37.42	2019	58.76	41.24	2019	57.92	42.08

  

Ratio PSID with Cross-Sectional Weight/ACS			Ratio PSID with Longitudinal Weight/ACS		
Year	Own Home	Rent or Other	Year	Own Home	Rent or Other
2017	0.94	1.11	2017*	0.95	1.08
2019	0.94	1.10	2019	0.93	1.12

\* PSID 2017 New Immigrants (post-1997 immigrants) were not included for the weighted percentage in 2017 with longitudinal weight. Part of the difference between PSID estimates and ACS estimated in 2017 in this table could be resulted from the inclusion of post-1997 immigrants in the ACS estimates

\*\* Non-Joint Donut Hole Families (DH-S) were excluded from the 2017 ACS estimates

‡Family unit definition for ACS data was adjusted to make it more equivalent to PSID family unit definition. Please see footnote 3 for details.



**Table A12. Comparisons of Family Income Distributions between ACS and PSID Cross-Sectional and Longitudinal Family Weights: 2017-2019 (Family Level Data)**

ACS Table of Year by Family Income						PSID Table of Year by Family Income, Weighted with PSID Cross-Sectional Family Weight						PSID Table of Year by Family Income, Weighted with Longitudinal Family Weight					
Year	\$12,500 or less	\$12,500-\$32,000	\$32,000-\$65,000	\$65,000-\$116,000	above \$116,000	Year	\$12,500 or less	\$12,500-\$32,000	\$32,000-\$65,000	\$65,000-\$116,000	above \$116,000	Year	\$12,500 or less	\$12,500-\$32,000	\$32,000-\$65,000	\$65,000-\$116,000	above \$116,000
2017**	11.40	19.87	26.48	22.86	19.39	2017	9.07	19.91	27.46	24.09	19.48	2017*	9.29	20.33	27.55	23.42	19.42
2019	10.37	18.05	25.62	23.62	22.33	2019	9.31	18.36	26.95	23.83	21.55	2019	9.62	18.68	26.92	23.65	21.13

  

Ratio PSID with Cross-Sectional Weight/ACS						Ratio PSID with Longitudinal Weight/ACS					
Year	\$12,500 or less	\$12,500-\$32,000	\$32,000-\$65,000	\$65,000-\$116,000	above \$116,000	Year	\$12,500 or less	\$12,500-\$32,000	\$32,000-\$65,000	\$65,000-\$116,000	above \$116,000
2017	0.80	1.00	1.04	1.05	1.00	2017*	0.82	1.02	1.04	1.02	1.00
2019	0.90	1.02	1.05	1.01	0.96	2019	0.93	1.04	1.05	1.00	0.95

\* PSID 2017 New Immigrants (post-1997 immigrants) were not included for the weighted percentage in 2017 with longitudinal weight. Part of the difference between PSID estimates and ACS estimated in 2017 in this table could be resulted from the inclusion of post-1997 immigrants in the ACS estimates

\*\* Non-Joint Donut Hole Families (DH-S) were excluded from the 2017 ACS estimates

‡Family unit definition for ACS data was adjusted to make it more equivalent to PSID family unit definition. Please see footnote 3 for details.

**Table A13. Comparisons of Foreign-Born Reference Person Distributions between ACS and PSID Cross-Sectional and Longitudinal Weights: 2017-2019 (Family Level Data)**

ACS Table of Year by Foreign-Born Reference Person			PSID Table of Year by Foreign-Born Reference Person , Weighted with PSID Cross-Sectional Weight			PSID Table of Year by Foreign-Born Reference Person , Weighted with Longitudinal Individual Weight*		
Year	Foreign-Born	Not Foreign-Born	Year	Foreign-Born	Not Foreign-Born	Year	Foreign-Born	Not Foreign-Born
2017**	16.63	83.37	2017	15.88	84.12	2017	8.70	91.30
2019	17.52	82.48	2019	17.47	82.53	2019	16.27	83.73

  

Ratio PSID with Cross-Sectional Weight/ACS			Ratio PSID with Longitudinal Weight/ACS		
Year	Foreign-Born	Not Foreign-Born	Year	Foreign-Born	Not Foreign-Born
2017	0.96	1.01	2017	0.52	1.10
2019	1.00	1.00	2019	0.93	1.02

\* PSID 2017 New Immigrants (post-1997 immigrants) were not included for the weighted percentage in 2017 with longitudinal weight. Part of the difference between PSID estimates and ACS estimated in 2017 in this table could be resulted from the inclusion of post-1997 immigrants in the ACS estimates

\*\* Non-Joint Donut Hole Families (DH-S) were excluded from the 2017 ACS estimates

‡Family unit definition for ACS data was adjusted to make it more equivalent to PSID family unit definition. For families headed by a couple, the reference person would be the male spouse or partner. Please see footnote 3 for details.

‡Foreign-born is defined as being born in U.S. territory or foreign country.