

Generating Nationally Representative Estimates  
of Multi-Generational Families and Related Statistics  
for Blacks in the PSID

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## Introduction

A modest upward distortion in the weighted estimates of Black individuals with children has been identified in PSID, beginning in the late 1990s, for selected cohorts. We recommend analysts use caution in estimating with the PSID beginning in 1997 the percentages with children in the household (and related statistics such as childlessness and fertility) for Black women born in the late 1960s and in the 1970s, and for Black men born in the late 1960s, 1970s, and early 1980s. This distortion may also affect estimates of multigenerational Black families in later years. Analysts who are not addressing questions of this type can reasonably ignore this concern.

## Background

This distortion is linked to the nearly 600 Black PSID families with children under the age of 13 who were identified to be dropped as part of a larger sample size reduction in 1997, but were retained in the PSID sample (or “reinstated”) so that they could be part of the original Child Development Supplement (CDS) [see below for family file variable names to identify these families].<sup>1</sup> These reinstated cases were initially given a value of zero for their individual longitudinal sample weight, but in 2008 when PSID’s longitudinal sample weights were revised, these individuals were given a positive weight for the period 1997 forward. Although the revised longitudinal weights did account for race of head, age and sex of sample persons, they did not account for the presence of children in the household. Consequently, in 1997, using the longitudinal weight, 45.0% (73.6%) of Black men (women) in their 20s in PSID had a child in their household under the age of 13 whereas 35.2% (66.1%) did so in in the Current Population Survey (CPS).<sup>2</sup> Future years are also affected as the retained individuals age and as new households are formed.

## Recommendations

When estimating multivariate models with fertility-related outcomes for any year, we recommend that analysts include as a control variable the CDS eligibility indicator available on the 1997 Individual File (ER33418). Doing so allows one to adjust directly for the differential likelihood of Black families with younger children being in the PSID sample. For analyses using years after 1997, the CDS eligibility indicator from the 1997 Individual File should be merged onto the files from the years of interest.

Some analysts may wish to post-stratify the assigned PSID weights for Black individuals to the Current Population Survey (CPS) totals by presence of a child under the age of 13. Here, we have provided the adjustment factors needed to implement post-stratification for 1997 and future years (see Tables 1-3).<sup>3</sup> Note that the adjustments have been created for individuals rather than for households or heads and

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<sup>1</sup> We also investigated whether the major effort in 1992, 1993 and 1994 to find and reinstate sample persons who had been lost to nonresponse over the preceding decade contributed to the discrepancy between the PSID and CPS estimates. Black families with children do not appear to have been disproportionately brought back to PSID by this effort. These recontacted families can be identified with the splitoff indicator [92]V20307 [93]V21606 [94]ER2005F.

<sup>2</sup> The PSID individual cross-sectional weights, which build upon the longitudinal weight and are post-stratified to the CPS by age, sex, race of head, and region, also exhibit an upward distortion for select age groups. Using the cross-sectional weight, 43.7% (75.9%) of Black men (women) in their 20s in PSID had a child under the age of 13 in the household in 1997 (vs. 35.2% (66.1%) in CPS).

<sup>3</sup> Note that the “aged” factors we have created do not account for any potential additional differential mortality or nonresponse in PSID in future years related to having a child <13 in the household in 1997 that is not accounted for in the weights.

spouses/partners in order to align as closely as possible with CPS definitions. Analysts may apply the adjustments to all individuals or to a subset of individuals (e.g. heads and spouses/partners or particular age groups). We encourage analysts to compare their estimates with and without the adjustment factors in order to evaluate the implications of the reinstated cases for their particular analyses.

#### WTR REINSTATED DROPPED FAMILY

[97]ER10005H [99]ER13020 [01]ER17023 [03]ER21010 [05]ER25010 [07]ER36010 [09]ER42010 [11]ER47310 [13]ER53010

#### Calculation of adjustment factors

We calculated adjustment factors to post-stratify individual weights for Black individuals to the CPS distribution of individuals with children < 13 years of age.

To calculate the adjustment factors, we first created a table with the estimated percentage of Black individuals with a child < 13 years of age in the household, by individuals' age, sex, and race of head in the CPS and PSID in 1997 (Table 1). For both CPS and PSID, we used the individual weight provided with the data to estimate the population percentage.<sup>4</sup>

Next, for each cell, we created adjustment factors for PSID individuals with a child < 13 in the household and without a child < 13 in the household (Tables 2 and 3).<sup>5</sup> The race/age/sex adjustment factor for PSID individuals with a child < 13 in the family is the ratio of the CPS estimate to the PSID estimate in Table 1. The weight adjustment factor for PSID individuals without a child < 13 in the household is the ratio of 100% minus the CPS estimate to 100% minus the PSID estimate in Table 1. Tables 2 and 3 show the age groups to which these adjustment factors should be applied by year (1997-2015).

Analysts who choose to use these factors should multiply each individual's PSID weight by the appropriate factor for their race of head/age/sex/ presence of child <13 in 1997 adjustment cell.<sup>6,7</sup> Note this methodology does not produce correction factors for individuals 17 years or younger in 2015.

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<sup>4</sup> To align with CPS definitions, we have created from the individual file whether there is a child < 13 in the household (rather than family). However, we found adjustment factors were nearly identical when using the variable provided by PSID on the family file that indicates whether there is a child < 13 in the FU (in 1997, ER10013>=1 & ER10013<=12). Analysts may wish to use this variable to assign adjustment cells. For race, we follow the convention used in the cross-sectional weight post-stratification and have used first mention of Head's race (in 1997, ER11848) to determine if the Head is black.

<sup>5</sup> Note that we have provided illustrations using both the individual cross-sectional and individual longitudinal weights. The analyst must decide whether their analysis of PSID warrants use of the individual cross-sectional weight or individual longitudinal weight. The former weight is provided for all sample and nonsample persons and is post-stratified to CPS by age, sex, race of head, and region. The latter is available only for sample persons and is not post-stratified to an external source.

<sup>6</sup> If a longitudinal family weight is of interest, first create an adjusted individual longitudinal weight and then take the average of the individual longitudinal weights of all family unit members including non-sample members with weights of zero.

<sup>7</sup> The factors should be applied to all individuals in the select year of interest, based on the individual's race, the individual's age in the year of interest, and whether anyone in the household in the current year who was a sample member in 1997 had a child<13 in the household in 1997.

Table 1. Percentage of Individuals with a Child < 13 Years Old in the Household, Current Population Survey and Panel Study of Income Dynamics, 1997

	Race of Head Black					
	Male			Female		
	CPS % child < 13 in hh	PSID % child < 13 in hh (x-sect weight)	PSID % child < 13 in hh (longitudinal weight)	CPS % child < 13 in hh	PSID % child < 13 in hh (x-sect weight)	PSID % child < 13 in hh (longitudinal weight)
Age in 1997						
0-12	100.0	100.0	100.0	100.0	100.0	100.0
13-19	51.4	61.9	56.1	59.8	57.7	56.0
20-29	35.2	43.7	45.0	66.1	75.9	73.6
30-39	47.5	45.5	47.1	67.5	64.1	62.5
40-49	35.3	34.8	34.6	37.4	43.4	39.3
50-59	21.7	19.8	22.8	20.5	16.3	19.6
60+	9.4	13.6	13.3	13.2	11.1	9.0
Total	53.1	59.1	57.4	59.2	59.9	55.5

Table 2. PSID Individual Cross-Sectional Weight Adjustment Factors for Individuals in Households with Black Heads, 1997-2015

Year adjustment applied/Age group										Male		Female	
1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	Adjustment for PSID individual <u>with</u> child < 13 in hh in 1997	Adjustment for PSID individual <u>without</u> child < 13 in hh in 1997	Adjustment for PSID individual <u>with</u> child < 13 in hh in 1997	Adjustment for PSID individual <u>without</u> child < 13 in hh in 1997
--	0-1	0-3	0-5	0-7	0-9	0-11	0-13	0-15	0-17	NA	NA	NA	NA
0-12	2-14	4-16	6-18	8-20	10-22	12-24	14-26	16-28	18-30	1.00	1.00	1.00	1.00
13-19	15-21	17-23	19-25	21-27	23-29	25-31	27-33	29-35	31-37	0.83	1.28	1.04	0.95
20-29	22-31	24-33	26-35	28-37	30-39	32-41	34-43	36-45	38-47	0.81	1.15	0.87	1.41
30-39	32-41'	34-43	36-45	38-47	40-49	42-51	44-53	46-55	48-57	1.04	0.96	1.05	0.91
40-49	42-51'	44-53	46-55	48-57	50-59	52-61	54-63	56-65	58-67	1.01	0.99	0.86	1.11
50-59	52-61	54-63	56-65	58-67	60-69	62-71	64-73	66-75	68-77	1.09	0.98	1.26	0.95
60+	62+	64+	66+	68+	70+	72+	74+	76+	78+	0.69	1.05	1.19	0.98

Table 3. PSID Individual Longitudinal Weight Adjustment Factors for Individuals in Households with Black Heads, 1997-2015

Year adjustment applied/Age group										Male		Female	
1997	1999	2001	2003	2005	2007	2009	2011	2013	2015	Adjustment for PSID individual <u>with</u> child < 13 in hh in 1997	Adjustment for PSID individual <u>without</u> child < 13 in hh in 1997	Adjustment for PSID individual <u>with</u> child < 13 in hh in 1997	Adjustment for PSID individual <u>without</u> child < 13 in hh in 1997
--	0-1	0-3	0-5	0-7	0-9	0-11	0-13	0-15	0-17	NA	NA	NA	NA
0-12	2-14	4-16	6-18	8-20	10-22	12-24	14-26	16-28	18-30	1.00	1.00	1.00	1.00
13-19	15-21	17-23	19-25	21-27	23-29	25-31	27-33	29-35	31-37	0.92	1.11	1.07	0.91
20-29	22-31	24-33	26-35	28-37	30-39	32-41	34-43	36-45	38-47	0.78	1.18	0.9	1.28
30-39	32-41	34-43	36-45	38-47	40-49	42-51	44-53	46-55	48-57	1.01	0.99	1.08	0.87
40-49	42-51	44-53	46-55	48-57	50-59	52-61	54-63	56-65	58-67	1.02	0.99	0.95	1.03
50-59	52-61	54-63	56-65	58-67	60-69	62-71	64-73	66-75	68-77	0.95	1.01	1.04	0.99
60+	62+	64+	66+	68+	70+	72+	74+	76+	78+	0.71	1.04	1.47	0.95