Technical Report

Panel Study of Income Dynamics
PSID Cross-sectional Individual Weights, 1997-2013

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This technical report documents the methodology and properties for a series of weights that have been developed for cross-sectional analysis of individual data from the 1997-2013 Panel Study of Income Dynamics (PSID). The PSID longitudinal analysis weights for individuals and families are documented in Heeringa et al. (2015) and Gouskova, et al. (2008). While researchers have always been able to perform cross-sectional analysis using longitudinal weights for PSID sample persons, the new cross-sectional 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 persons and non-sample persons to estimate population characteristics or model population relationships at specific points in time. In addition, the cross-sectional weights are post-stratified to the population characteristics from the Current Population Survey (CPS) for the respective year. This is not the case for the longitudinal weights. PSID plans to provide the cross-sectional weights for each future wave.

This technical report is organized in four 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. The report concludes in Section IV with a descriptive analysis of the weights, including comparisons of distributions of U.S. socioeconomic characteristics using weighted estimates from the CPS and PSID.

I. Introduction

PSID traditionally categorizes persons into one of two groups: sample persons and non-sample 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 an 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 at birth or adoption.

In 1997, a baseline sample of new immigrant families and individuals was added. The same current PSID definition of sample persons (implemented in 1994) applies to the immigrant

sample. Throughout the remainder of this memorandum, 1968 will be referenced as the base year for PSID. Readers should note that for immigrant supplement families the true baseline for sample selection and sample status determination for individuals is 1997.

All other members of PSID families are considered non-sample persons. They are typically new spouses and partners or other family members. See McGonagle and Schoeni (2006) for a detailed background on the PSID. Under the conventional methods for computing PSID longitudinal weights for individuals, non-sample persons are automatically assigned a "0" weight and, thus, excluded from any properly weighted longitudinal or cross-sectional analysis of the PSID individual data. The justification for assigning a zero longitudinal weight value to non-sample 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). Under the simple assumption that initial sample inclusion probabilities for spouses are exchangeable (equal), survey weights for newborn children and current family units, including newly formed families or existing families that add new members, can be easily computed. Second, the process of dynamic recruitment of non-sample persons to PSID families is left-censored. This means that the time at which a non-sample 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.

The data loss resulting from excluding non-sample persons was not significant in the early years because these individuals represented a modest fraction of the total persons in the PSID sample of families. For instance, among 17,212 total PSID persons in 1969, 537 were non-sample persons. However, as Table 1 shows, with the passage of time, non-sample individuals have comprised an increasing and now substantial share of the total PSID persons. For example, the number of non-sample persons grew to 7,167 out of a total of 24,952 PSID individual respondents in 2013.

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 effective sample size for such analysis, a new set of weights have 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 weights, the cross-sectional weights are non-zero for both sample and non-sample persons. This allows information on sample and non-sample individuals to be included in weighted analyses.

The cross-sectional weights are not provided at the family level. 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 weights be used for cross-sectional analyses of family characteristics and outcomes.

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 individuals 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 (Lavallee, 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 is labeled the "fair shares" method. Application of the fair shares method assumes that the probability of observing each person in a family is equal to the probability of observing the family itself. This equivalence of family and individual probabilities was true for the original samples of PSID families and individuals first interviewed in the 1968 baseline wave. However, in subsequent waves, probabilities for

nonsample persons that were not members of a 1968 sample family were unknown or could not be readily determined.

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

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

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

= 0 if person i is nonsample;

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

In general, the values of α_i may be derived to optimize the precision of a specific population estimator (e.g. a population total); however, here we choose an equal person weighting scheme with $\alpha_i=1/n_f$. In simple terms, this is equivalent to assuming that at time t, each PSID family includes only members of a single original 1968 PSID family or that the 1968 families represented in a new family at time t had identical probabilities of selection when the 1968 baseline sample was drawn—the "like marries like" assumption that since 1969 has been the basis for the calculation of PSID family weights.

III. Weight construction and evaluation

Using a version of the "fair shares" methodology described in Section II above, cross-sectional weights for all PSID individuals have been constructed for the following waves: 1997, 1999, 2001, 2003, 2005, 2007, 2009, 2011, and 2013. 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.

The cross-sectional weight uses the longitudinal family weight as the starting point, and a two-step adjustment is applied as shown in Figure 1. The base weight is prepared in the first step through cell-based trimming and imputation. To do so, the PSID sample of families is stratified into cells, *d*, cross-classified by the following characteristics:

- SRC/SEO/1997 immigrant sample,
- age of household head (<34, 35-54, 55+),
- race of household head (Black, Non-Black), and
- region of residence (North East, Midwest, South, West).

Cells with small case counts are combined together. Within each cell, the most extreme family weight values are trimmed at the 95th percentile for the family weight distribution. Next, for each cell, the sum of all weights is restored to its pre-trimmed value, distributing or "smoothing" the "trimmed" share of extreme family weights over families in the same demographic cell. The adjusted family-level weights are assigned to each sample and non-sample person in the family to create the base weight, $W^0_{i(d)}$ for person *i* in cell *d*.

In the second step, the base weights are post-stratified to known individual population totals for major demographic characteristics using the March Current Population Survey (CPS) Annual Demographic Survey. The post-strata cells, *c*, are formed by crossing the following characteristics:

- gender of person (Male/Female),
- age of person (0-9/10-19/20-29/30-39/40-49/50-59/60-69/70+)
- race of household head (Black/Non-Black), and
- region (Northeast/Midwest/South/West).

Some cells are combined to have a minimum number of observations. Table 2 shows the individual sample sizes of these post-strata for the 1997, 1999, 2001, 2003, 2005, 2007, 2009, 2011, and 2013 waves. Similarly, the CPS sample for the corresponding year is divided into the post-stratification cells defined above. Once the post-stratification cells have been created, the adjustment factor for cell *c* is calculated as:

$$f_{(c)} = \frac{\sum_{l(c)} W^{CPS}_{l(c)}}{\sum_{j(c)} W^{0}_{j(c)}}$$

where $W^0_{j(c)}$ is the base weight from Step 1, and $W^{CPS}_{l(c)}$ is the individual weight of CPS individual l in cell c.

Then the adjustment factor, $f_{(c)}$, is multiplied to the base weight as follows:

$$W_{j(c)} = W^0_{j(c)} f_{(c)}.$$

The result, $W_{j(c)}$, is the final cross-sectional weight.

Table 3 provides a descriptive summary of the sample size, the distributions of the cross-sectional weights and the CPS population totals for each PSID wave. The variable names for the cross-sectional weights in the PSID data archive are listed in Table 4.

IV. Evaluation of the PSID Cross-sectional Weights: Comparisons with the CPS.

Tables 5 through 8 compare PSID and CPS weighted estimates of selected demographic statistics based on characteristics 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, PSID data weighted by the individual cross-sectional weight, and the PSID data weighted by the individual longitudinal weight. The second panel of each table reports the ratio of the weighted estimate for the PSID using the new cross-sectional individual weights to the estimate for the CPS. The statistics in the third panel of each table are ratios of the estimate for the PSID using the longitudinal individual weights to the estimate for the CPS. Comparing across the ratios of PSID/CPS allows one to examine the extent to which population level estimates using the PSID differ when one uses the cross-sectional individual weight instead of the longitudinal individual weight.

Simple examination of the results of these comparisons shows that, as expected, when considering characteristics that are used as post-stratification controls (e.g. gender, race, region) the weighted distributions across categories exactly match the corresponding category totals from CPS. However, caution is advised in placing too much emphasis on minor differences between the PSID and CPS weighted distribution. Take for example, the comparison by age categories in Table 5. As shown in Table 2, the actual post-stratification of the PSID cross-sectional weights for individuals uses age categorized in 10 year decades. The comparison

shown in Table 5 uses mid-decade splits (e.g. 45-64, 65+) for estimation and comparison. Note that even though the post-stratification exactly controls the ratio of PSID to CPS weighted totals for the 60-69 year age group, there appears to be some difference in the apportionment of 60-64 and 65-69 year olds relative to CPS.

Analysts should keep in mind that for any given wave, the post-stratification described above does not explicitly take into account PSID non-coverage of immigrant populations after 1997. Therefore, the cross-sectional weights for 1999, 2001, 2003, 2005, 2007, 2009, 2011, and 2013 attempt to numerically account for all individuals in the United States; however, immigrants arriving after 1997 when the immigrant sample was added to the PSID are not fully represented in the PSID. In addition, another limitation of this post-stratification is that the CPS does not cover the institutionalized population while PSID due to the dynamic nature of the sample may include institutionalized persons.

V. References

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Table 1. PSID Size of Sample and Non-Sample Persons and Families: 1997-2013

Year	Total Number of Person Records	Total Number of Sample Persons	Total Number of Non-sample Persons	Total Number of Families
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

Table 2. PSID Person Sample Size in Cross-sectional Weight Post-stratification Cells: 1997-2013

Sex	Race	Region	Age	1997	1999	2001	2003	2005	2007	2009	2011	2013
Female	Black	Mid West	age 1-9	153	143	140	146	156	161	173	188	186
Male	Black	Mid West	age 1-9	146	150	139	135	157	164	172	181	187
Female	Black	Mid West	age 10-19	142	155	158	167	173	185	173	171	162
Male	Black	Mid West	age 10-19	139	150	161	171	171	161	166	162	162
Female	Black	Mid West	age 20-29	86	96	118	134	161	181	189	201	203
Male	Black	Mid West	age 20-29	58	64	74	87	128	139	154	152	180
Female	Black	Mid West	age 30-39	131	119	105	102	106	103	108	134	146
Male	Black	Mid West	age 30-39	85	72	67	69	66	58	67	71	79
Female	Black	Mid West	age 40-49	77	104	121	125	141	140	117	107	93
Male	Black	Mid West	age 40-49	62	75	90	84	72	61	53	59	60
Female	Black	Mid West	age 50+	75	83	94	119	129	142	168	168	178
Male	Black	Mid West	age 50+	43	51	59	71	81	91	96	100	101
Female	Black	North East	age 1-9	43	43	37	51	56	53	65	70	73
Male	Black	North East	age 1-9	53	54	58	54	51	52	58	50	55
Female	Black	North East	age 10-19	52	57	60	53	56	54	46	40	44
Male	Black	North East	age 10-19	69	67	69	75	75	62	61	53	52
Female	Black	North East	age 20-29	27	29	37	55	63	70	77	67	68
Male	Black	North East	age 20-29	28	33	38	48	66	70	62	64	68
Female	Black	North East	age 30-39	59	53	46	37	40	37	45	47	50
Male	Black	North East	age 30-39	30	28	32	29	26	27	43	44	41
Female	Black	North East	age 40-49	43	47	53	58	60	47	48	47	41
Male	Black	North East	age 40-49	28	34	34	41	39	35	38	36	36
Female	Black	North East	age 50+	45	47	51	55	59	71	83	82	92
Male	Black	North East	age 50+	20	28	33	34	37	43	52	50	54
Female	Black	South	age 1-9	511	509	506	504	513	544	561	597	625
Male	Black	South	age 1-9	539	523	505	499	517	545	565	578	588
Female	Black	South	age 10-19	500	514	530	558	571	554	547	539	551
Male	Black	South	age 10-19	517	548	543	585	597	575	559	576	570
Female	Black	South	age 20-29	363	394	432	466	508	575	598	596	642
Male	Black	South	age 20-29	278	322	369	404	468	510	548	553	598
Female	Black	South	age 30-39	466	431	415	388	388	383	429	475	523
Male	Black	South	age 30-39	293	300	271	278	284	290	325	385	421
Female	Black	South	age 40-49	329	386	427	478	495	479	435	407	377
Male	Black	South	age 40-49	266	281	305	328	297	292	272	238	256
Female	Black	South	age 50-59	94	117	163	223	274	336	383	398	426
Male	Black	South	age 50-59	78	102	152	201	245	269	265	283	269
Female	Black	South	age 60-69	81	79	89	76	79	79	107	159	211
Male	Black	South	age 60-69	47	47	52	54	61	77	103	140	155
Female	Black	South	age 70+	85	94	96	104	105	107	106	101	101
Male	Black	South	age 70+	55	55	50	55	56	54	55	53	63
Female	Black	West	age 1-9	65	59	56	53	59	41	64	59	57
Male	Black	West	age 1-9	58	58	63	49	44	38	43	56	62
Female	Black	West	age 10-19	38	44	57	60	57	69	71	67	61
Male	Black	West	age 10-19	47	46	54	69	68	62	68	71	56
Female	Black	West	age 20-29	37	33	31	34	43	42	65	75	86
Male	Black	West	age 20-29	25	17	26	41	40	56	63	74	73
Female	Black	West	age 30-39	50	50	52	55	38	37	51	58	60

Male	Black	West	age 30-39	49	42	28	24	23	23	33	37	46
Female	Black	West	age 40-49	18	22	28	44	52	54	56	51	44
Male	Black	West	age 40-49	18	26	40	51	50	47	48	35	28
Female	Black	West	age 50+	28	32	37	42	48	47	59	67	73
Male	Black	West	age 50+	16	16	20	26	31	37	58	69	79
Female	NonBlack	Mid West	age 1-9	320	285	292	312	341	337	377	381	381
Male	NonBlack	Mid West	age 1-9	314	325	336	333	341	334	370	384	381
Female	NonBlack	Mid West	age 10-19	338	372	370	340	304	328	316	281	294
Male	NonBlack	Mid West	age 10-19	332	322	313	308	307	313	312	293	290
Female	NonBlack	Mid West	age 20-29	283	303	351	374	394	406	403	396	368
Male	NonBlack	Mid West	age 20-29	273	318	338	346	343	355	346	350	337
Female	NonBlack	Mid West	age 30-39	318	300	304	284	266	277	309	321	337
Male	NonBlack	Mid West	age 30-39	311	293	277	282	303	319	345	345	350
Female	NonBlack	Mid West	age 40-49	307	329	308	309	305	280	276	265	245
Male	NonBlack	Mid West	age 40-49	291	285	312	303	281	270	263	248	246
Female	NonBlack	Mid West	age 50+	135	169	210	244	264	284	267	248	251
Male	NonBlack	Mid West	age 50+	158	206	230	237	243	241	233	246	245
Female	NonBlack	Mid West	age 60-69	106	99	94	94	101	123	153	186	203
Male	NonBlack	Mid West	age 60-69	88	85	79	89	107	138	163	178	180
Female	NonBlack	Mid West	age 70+	142	149	151	153	152	143	142	141	148
Male	NonBlack	Mid West	age 70+	97	109	112	106	113	105	109	110	124
Female	NonBlack	North East	age 1-9	212	185	187	172	171	156	158	151	164
Male	NonBlack	North East	age 1-9	198	206	190	177	184	197	171	179	172
Female	NonBlack	North East	age 10-19	188	189	191	206	179	184	170	156	138
Male	NonBlack	North East	age 10-19	187	181	203	198	176	177	178	162	147
Female	NonBlack	North East	age 20-29	155	149	158	178	197	214	199	190	181
Male	NonBlack	North East	age 20-29	150	153	163	177	183	175	177	189	176
Female	NonBlack	North East	age 30-39	243	222	210	186	155	151	157	173	173
Male	NonBlack	North East	age 30-39	206	182	173	178	153	169	164	169	173
Female	NonBlack	North East	age 40-49	187	199	220	224	210	200	190	154	140
Male	NonBlack	North East	age 40-49	216	224	236	224	197	176	157	136	130
Female	NonBlack	North East	age 50-59	91	99	115	136	149	161	171	185	176
Male	NonBlack	North East	age 50-59	78	94	111	138	166	175	182	185	164
Female	NonBlack	North East	age 60-69	91	73	67	64	63	77	81	91	106
Male	NonBlack	North East	age 60-69	69	58	57	53	54	59	80	86	103
Female	NonBlack	North East	age 70+	73	91	105	104	104	100	94	102	96
Male	NonBlack	North East	age 70+	60	68	73	78	77	84	70	69	70
Female	NonBlack	South	age 1-9	277	277	305	287	306	336	370	373	390
Male	NonBlack	South	age 1-9	319	314	342	333	331	361	389	406	395
Female	NonBlack	South	age 10-19	273	276	286	294	305	298	313	261	273
Male	NonBlack	South	age 10-19	306	305	306	310	309	315	332	331	322
Female	NonBlack	South	age 20-29	300	334	363	362	363	376	383	373	349
Male	NonBlack	South	age 20-29	283	289	322	363	360	367	365	344	347
Female	NonBlack	South	age 30-39	341	314	311	321	341	333	383	377	389
Male	NonBlack	South	age 30-39	325	314	322	319	350	350	356	365	374
Female	NonBlack	South	age 40-49	309	313	347	327	307	309	302	286	295
Male	NonBlack	South	age 40-49	281	307	317	312	304	292	313	295	271
Female	NonBlack	South	age 50-59	172	222	241	279	305	294	292	277	264
Male	NonBlack	South	age 50-59	170	200	227	266	264	268	262	248	259
Female	NonBlack	South	age 60-69	114	116	113	124	144	175	208	229	235

Male	NonBlack	South	age 60-69	108	110	116	121	151	166	186	213	226
Female	NonBlack	South	age 70+	149	156	164	167	167	172	179	171	174
Male	NonBlack	South	age 70+	91	107	108	109	112	131	143	141	130
Female	NonBlack	West	age 1-9	272	288	285	296	306	334	355	400	378
Male	NonBlack	West	age 1-9	302	293	289	284	294	317	334	345	359
Female	NonBlack	West	age 10-19	289	328	297	312	314	287	270	282	272
Male	NonBlack	West	age 10-19	272	288	275	316	307	305	308	290	265
Female	NonBlack	West	age 20-29	217	251	295	338	361	357	378	375	357
Male	NonBlack	West	age 20-29	226	266	289	300	311	325	340	342	336
Female	NonBlack	West	age 30-39	268	253	261	254	252	272	286	320	335
Male	NonBlack	West	age 30-39	229	240	220	244	258	277	302	309	323
Female	NonBlack	West	age 40-49	247	275	277	300	279	253	229	230	211
Male	NonBlack	West	age 40-49	245	252	271	269	245	225	214	202	208
Female	NonBlack	West	age 50-59	100	127	161	184	217	242	262	255	259
Male	NonBlack	West	age 50-59	125	150	177	196	224	236	239	232	211
Female	NonBlack	West	age 60-69	75	77	69	73	77	92	114	141	160
Male	NonBlack	West	age 60-69	57	58	69	83	86	108	128	151	164
Female	NonBlack	West	age 70+	93	96	97	111	117	107	115	114	117
Male	NonBlack	West	age 70+	64	68	71	80	88	84	101	92	103

Table 3. Distribution of PSID Cross-sectional Weights: 1997-2013

Year	PSID						CPS
	Sample Size	Cross-sectional Weight					March Supplement Population Total
		Mean	Std Dev	Min	Max	Weighted Total	
1997	19,761	13,501	10,121	62	68,079	266,792,421	266,792,407
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

Table 4. Variable Names for PSID Cross-Sectional Weights

Year	Weight Variable Name
1997	ER33438
1999	ER33547
2001	ER33639
2003	ER33742
2005	ER33849
2007	ER33951
2009	ER34046
2011	ER34155
2013	ER34269

Table 5. Comparisons of Age Distributions between CPS and PSID Cross-Sectional and Longitudinal Individual Weights: 1997-2013

CPS Table of Year by Age, Weighted With CPS Weight

	Age				
	<=17	**18-29**	**30-44**	**45-64**	**>=65**
1997	26.70	16.58	24.35	20.42	11.95
1999	26.50	16.41	23.76	21.40	11.92
2001	25.87	16.23	23.21	22.68	12.01
2003	25.64	16.14	22.59	23.65	11.97
2005	25.34	16.32	21.69	24.56	12.09
2007	24.96	16.53	20.88	25.49	12.14
2009	24.71	16.57	20.10	26.09	12.53
2011	24.47	16.67	19.62	26.44	12.80
2013	23.85	16.45	19.46	26.34	13.91

PSID Table of Year by Age, Weighted with PSID Cross-Sectional

	Age				
	<=17	**18-29**	**30-44**	**45-64**	**>=65**
1997	26.86	16.42	24.03	20.18	12.51
1999	26.42	16.50	23.35	21.40	12.33
2001	25.75	16.35	22.89	22.80	12.21
2003	25.20	16.59	22.51	23.59	12.12
2005	25.05	16.61	21.52	24.75	12.07
2007	24.65	16.84	20.54	25.84	12.13
2009	24.37	16.91	19.78	27.07	11.87
2011	24.21	16.93	19.33	27.00	12.52
2013	23.71	16.58	19.35	26.66	13.70

PSID Table of Year by Age, Weighted with Individual Longitudinal

	Age				
	<=17	**18-29**	**30-44**	**45-64**	**>=65**
1997	27.17	16.50	23.48	20.17	12.68
1999	26.01	16.71	22.69	21.71	12.88
2001	25.03	16.73	21.98	23.49	12.77
2003	24.16	17.73	21.37	24.28	12.46
2005	23.82	17.84	20.03	25.81	12.50
2007	23.26	18.14	19.18	26.70	12.72
2009	22.9	17.87	18.66	27.48	13.09
2011	22.09	17.25	18.33	27.99	14.35
2013	21.87	16.78	18.42	27.25	15.69

Ratio PSID with Cross Sectional Weight/CPS

	Age				
	<=17	**18-29**	**30-44**	**45-64**	**>=65**
1997	1.01	0.99	0.99	0.99	1.05
1999	1.00	1.01	0.98	1.00	1.03
2001	1.00	1.01	0.99	1.01	1.02
2003	0.98	1.03	1.00	1.00	1.01
2005	0.99	1.02	0.99	1.01	1.00
2007	0.99	1.02	0.98	1.01	1.00
2009	0.99	1.02	0.98	1.04	0.95
2011	0.99	1.02	0.99	1.02	0.98
2013	0.99	1.01	0.99	1.01	0.98

Ratio PSID with Longitudinal Weight/CPS

	Age				
	<=17	**18-29**	**30-44**	**45-64**	**>=65**
1997	1.02	1.00	0.96	0.99	1.06
1999	0.98	1.02	0.95	1.01	1.08
2001	0.97	1.03	0.95	1.04	1.06
2003	0.94	1.10	0.95	1.03	1.04
2005	0.94	1.09	0.92	1.05	1.03
2007	0.93	1.10	0.92	1.05	1.05
2009	0.93	1.08	0.93	1.05	1.04
2011	0.90	1.03	0.93	1.06	1.12
2013	0.92	1.02	0.95	1.03	1.13

Table 6. Comparisons of Gender Distributions between CPS and PSID Cross-Sectional and Longitudinal Weights: 1997-2013

CPS Year by Sex, Weighted with CPS Weight			PSID Year by Sex, Weighted by Cross-Sectional Weight			PSID Year by Sex, Weighted by Individual Longitudinal Weight		
Year	**Male**	**Female**	**Year**	**Male**	**Female**	**Year**	**Male**	**Female**
1997	48.97	51.03	**1997**	48.97	51.03	**1997**	48.03	51.97
1999	48.86	51.14	**1999**	48.86	51.14	**1999**	48.15	51.85
2001	48.86	51.14	**2001**	48.86	51.14	**2001**	48.08	51.92
2003	48.92	51.08	**2003**	48.92	51.08	**2003**	48.18	51.82
2005	49.03	50.97	**2005**	49.03	50.97	**2005**	48.23	51.77
2007	49.08	50.92	**2007**	49.08	50.92	**2007**	48.58	51.42
2009	49.12	50.88	**2009**	49.12	50.88	**2009**	48.42	51.58
2011	49.21	50.79	**2011**	49.21	50.79	**2011**	48.74	51.26
2013	48.96	51.04	**2013**	48.96	51.04	**2013**	48.83	51.17

Ratio PSID with Cross Sectional Weight/CPS		
	Male	**Female**
1997	1.00	1.00
1999	1.00	1.00
2001	1.00	1.00
2003	1.00	1.00
2005	1.00	1.00
2007	1.00	1.00
2009	1.00	1.00
2011	1.00	1.00
2013	1.00	1.00

Ratio PSID with Longitudinal Weight/CPS		
	Male	**Female**
1997	0.98	1.02
1999	0.99	1.01
2001	0.98	1.02
2003	0.98	1.01
2005	0.98	1.02
2007	0.99	1.01
2009	0.99	1.01
2011	0.99	1.01
2013	1.00	1.00

Table 7. Comparisons of Race Distributions between CPS and PSID Cross-Sectional and Longitudinal Weights: 1997-2013

CPS Table of Year by Race

Year	Non-Black	Black
1997	87.17	12.83
1999	87.09	12.91
2001	87.26	12.74
2003	87.48	12.52
2005	87.45	12.55
2007	87.41	12.59
2009	86.67	13.33
2011	86.43	13.57
2013	85.95	14.05

PSID Table of Year by Race, Weighted by Cross-sectional Weight

Year	Non-Black	Black
1997	87.17	12.83
1999	87.09	12.91
2001	87.26	12.74
2003	87.48	12.52
2005	87.45	12.55
2007	87.41	12.59
2009	86.67	13.33
2011	86.43	13.57
2013	85.95	14.05

PSID Table of Year by Race, Weighted by Individual Longitudinal Weight

Year	Non-Black	Black
1997	86.62	13.38
1999	86.73	13.27
2001	86.52	13.48
2003	86.21	13.79
2005	85.94	14.06
2007	85.88	14.12
2009	85.18	14.82
2011	85.18	14.82
2013	84.79	15.21

Ratio PSID with Cross Sectional Weight/CPS

Year	Non-Black	Black
1997	1.00	1.00
1999	1.00	1.00
2001	1.00	1.00
2003	1.00	1.00
2005	1.00	1.00
2007	1.00	1.00
2009	1.00	1.00
2011	1.00	1.00
2013	1.00	1.00

Ratio PSID with Longitudinal Weight/CPS

Year	Non-Black	Black
1997	0.99	1.04
1999	1.00	1.03
2001	0.99	1.06
2003	0.99	1.10
2005	0.98	1.12
2007	0.98	1.12
2009	0.98	1.11
2011	0.99	1.09
2013	0.99	1.08

Table 8. Comparisons of Region Distributions between CPS and PSID Cross-Sectional and Longitudinal Weights: 1997-2013

CPS Table of Year by Region

Year	NE	MW	South	West
1997	19.32	23.27	34.98	22.43
1999	19.09	23.29	34.92	22.70
2001	18.98	22.76	35.57	22.69
2003	18.93	22.59	35.60	22.88
2005	18.55	22.28	36.09	23.09
2007	18.24	22.06	36.40	23.30
2009	17.97	21.78	36.77	23.48
2011	17.90	21.59	37.00	23.50
2013	17.72	21.35	37.33	23.6

PSID Table of Year by Region, Weighted by Cross-Sectional Weight

Year	NE	MW	South	West
1997	19.32	23.27	34.98	22.43
1999	19.09	23.29	34.92	22.70
2001	18.98	22.76	35.57	22.69
2003	18.93	22.59	35.60	22.88
2005	18.55	22.28	36.09	23.09
2007	18.24	22.06	36.40	23.30
2009	17.97	21.78	36.77	23.48
2011	17.90	21.60	37.00	23.50
2013	17.72	21.35	37.33	23.6

PSID Table of Year by Region, Weighted by Indiviudal Longitudinal Weight

	NE	MW	South	West
1997	20.14	27.66	31.23	20.97
1999	19.12	27.51	31.75	21.62
2001	19.30	27.49	31.69	21.52
2003	18.86	26.93	31.96	22.26
2005	18.02	27.27	32.68	22.02
2007	18.26	26.63	32.88	22.23
2009	17.41	26.28	33.24	23.07
2011	17.44	26.01	33.40	23.16
2013	17.37	25.97	33.38	23.28

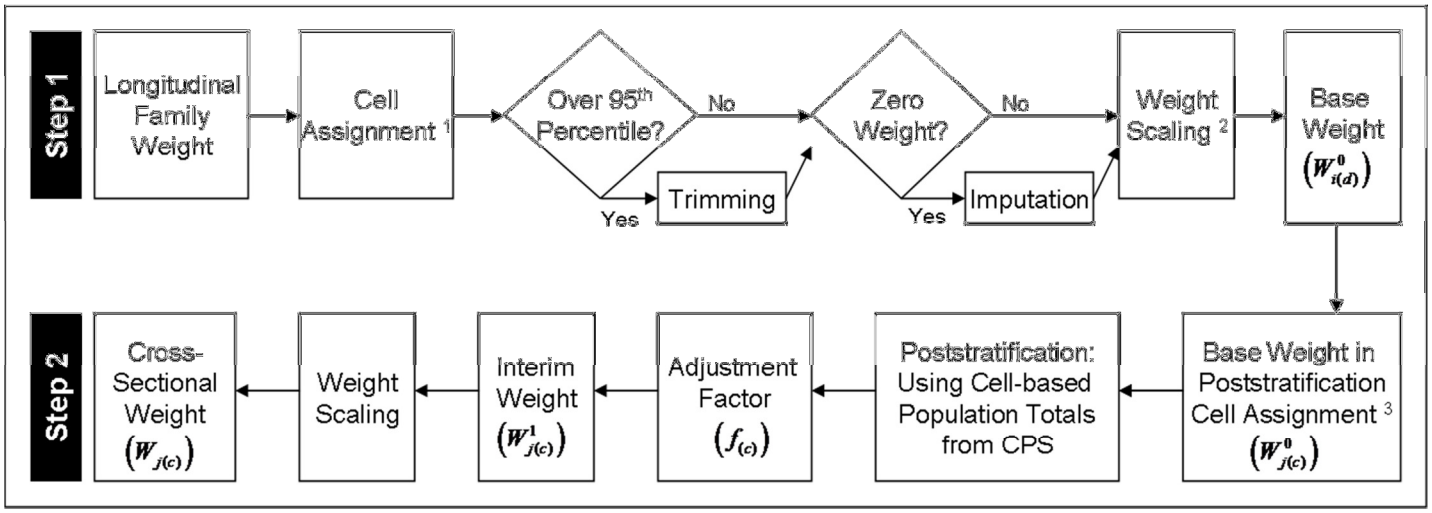
Ratio PSID with Cross Sectional Weight/CPS

Year	NE	MW	South	West
1997	1.00	1.00	1.00	1.00
1999	1.00	1.00	1.00	1.00
2001	1.00	1.00	1.00	1.00
2003	1.00	1.00	1.00	1.00
2005	1.00	1.00	1.00	1.00
2007	1.00	1.00	1.00	1.00
2009	1.00	1.00	1.00	1.00
2011	1.00	1.00	1.00	1.00
2013	1.00	1.00	1.00	1.00

Ratio PSID with Longitudinal Weight/CPS

Year	NE	MW	South	West
1997	1.04	1.19	0.89	0.93
1999	1.00	1.18	0.91	0.95
2001	1.02	1.21	0.89	0.95
2003	1.00	1.19	0.90	0.97
2005	0.97	1.22	0.91	0.95
2007	1.00	1.21	0.90	0.95
2009	0.97	1.21	0.90	0.98
2011	0.97	1.20	0.90	0.99
2013	0.98	1.22	0.89	0.99

Figure 1. Construction of PSID Cross-Sectional Individual Weights: 1997-2013



1. PSID sample type, age and race of household head and region were crossed to form the cells.

2. Weights were rescaled to match the sum of the trimmed and imputed weights in each cell to the sum of original weights within the corresponding cell.

3. Age and gender of persons, race of household head and region were crossed to form the cells.