

Memo on Representativeness of the Panel Study of Income Dynamics

James N. Morgan
Survey Research Center - Institute for Social Research
University of Michigan

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From: James N. Morgan

Without waiting for our revision of the weights after the eleventh year of interviewing, and without even adjusting the weights for families which have acquired a non-sample spouse (several hundred married split-offs plus some others), we produced the attached tables comparing the 1977 income and demographics from the March 1978 Current Population Survey with the Panel data, using Current Population Reports, Consumer Income, P-60, No. 117, December 1978.

The population size estimates in the CPS are adjusted to 1970 population census controls, and start with a much larger (56,000 household) sample, which had a 5% nonresponse rate and had 24% of the families where one or more members gave incomplete income information, and missing items had to be imputed from other similar families.

A much larger Survey of Income and Education in Spring 1976 by the Census collected data on 151,000 households, produced substantially higher income estimates than the CPS, using the same questionnaire format, but with many newly trained interviewers. Comparisons of those data with the Panel data are needed.

The only substantial demographic difference between the 1977 CPS and SRC data is the larger number of young people in the SRC and that will be altered when we adjust downward the weights of married splitoffs who are mostly young.

We also have higher income reports, which might well result both from the reinterview process and from the much lower rate of missing information that has to be assigned in the SRC Panel.

Overall, however, the distribution of the Panel sample on both income and the relevant demographic data is remarkably consistent with the official CPS data.

When the weights were first estimated, each digit accounted for about 400 households, but with attrition and population growth, dividing the CPS estimates of aggregate households by our aggregate weight indicates that each digit of the weight accounts for 488 households.

PRELIMINARY - OLD WEIGHT - DO NOT USE
 DIFFERENCES IN PERCENT OF ALL HOUSEHOLDS
 SRC-CENSUS - INCOME x AGE

<u>Income in 1977</u>	<u>Age</u>						<u>All Ages</u>
	<u>25</u>	<u>25-34</u>	<u>35-44</u>	<u>45-54</u>	<u>55-64</u>	<u>65-</u>	
Under \$4,000	0.6	-0.2	-0.5	-0.5	-0.4	-1.3	-2.4
4,000-6,999	0.6	0.3	-0.5	-0.1	-0.6	-0.3	-0.6
7,000-9,999	0.8	-0.1	-0.2	-0.4	-0.3	0.2	-0.3
10,000-11,999	0.7	0.3	0.0	0.1	-0.1	0.1	0.9
12,000-14,999	0.3	0.2	-0.4	-0.2	-0.5	0.1	-0.5
15,000-17,499	0.1	0.2	-0.4	-0.2	-0.5	0.2	-0.6
17,500-19,999	0.2	0.2	-0.5	0.1	-0.3	0.2	-0.2
20,000-24,999	0.1	0.7	-0.3	0.5	-0.3	0.1	0.4
25,000-49,999	0.1	1.1	0.8	0.9	0.2	-0.1	2.8
50,000 or more	0.0	0.2	0.0	0.3	-0.2	0.1	0.2
All incomes	3.2	2.6	-2.3	0.2	-3.0	-1.0	0
 <u>Mean Income</u>							
SRC	\$10,313	\$17,069	\$23,040	\$24,456	\$18,642	\$10,048	\$17,287
CPS	10,494	16,148	20,101	21,537	17,498	9,309	16,100

Source: CPS P-60 No. 117 (Dec. 1978) p. 34, and old weight Panel tape C0384A, Vol. 4945.

PRELIMINARY - OLD WEIGHT - DO NOT USE

1977 FAMILY MONEY INCOME BY REGION, SRC PANEL IN ELEVENTH YEAR AND CPS

Income	Northeast		Central		South		West		All Regions	
	SRC	CPS	SRC	CPS	SRC	CPS	SRC	CPS	SRC	CPS
Under \$4,000	7.5	11.6	8.3	11.3	14.4	14.5	7.9	10.8	9.8	12.3
4,000-6,999	10.4	12.6	12.3	12.3	12.7	13.4	12.7	12.4	12.2	12.7
7,000-9,999	11.0	11.0	10.6	11.1	12.2	12.7	12.8	11.7	11.5	11.7
10,000-11,999	7.4	6.7	7.9	6.9	9.4	7.6	7.5	7.6	8.1	7.2
12,000-14,999	10.8	10.4	9.2	10.7	10.8	10.9	10.0	10.9	10.1	10.7
15,000-17,499	8.6	8.6	8.1	9.4	7.5	8.1	8.7	8.5	8.1	8.6
17,500-19,999	7.0	7.4	6.6	7.1	6.4	6.9	7.6	6.7	6.8	7.0
20,000-24,999	13.3	12.4	12.4	12.1	11.3	10.3	11.3	11.8	12.0	11.5
25,000-49,999	20.4	16.8	23.2	17.3	13.5	13.7	19.0	17.4	18.9	16.0
50,000 or more	3.7	2.4	1.4	2.0	1.9	1.9	2.6	2.2	2.3	2.1
	100.1	99.9	100.0	100.2	100.1	100.0	100.1	100.0	99.8	99.8
<u>Mean Income</u>										
SRC	\$18,784		\$17,871		\$15,328		\$17,646		\$17,287	
CPS	16,680		16,474		15,069		16,027		16,100	

Source: CPS P-60, No. 117, December 1978.

PRELIMINARY - OLD WEIGHT - DO NOT USE
 INCOME BY FAMILY SIZE, SRC AND CPS

Number in Household (Family) SRC and CPS

Family Total Money Income	1		2		3		4		5		6		7+		All Sizes			
	SRC	CPS	SRC	CPS	SRC	CPS	SRC	CPS	SRC	CPS	SRC	CPS	SRC	CPS	SRC	CPS		
Under \$4000	6.9	1.5	2.5	0.7	1.0	0.4	0.6	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	9.8	12.3
\$4000-6999	6.3	4.8	3.4	4.6	1.1	1.4	0.8	1.0	0.4	0.6	0.1	0.3	0.1	0.2	12.2	12.7		
\$7000-9999	4.3	3.1	3.7	4.4	1.6	1.8	1.0	1.2	0.5	0.6	0.2	0.3	0.2	0.2	11.5	11.7		
\$10,000-11,999	2.8	1.6	2.5	2.4	1.1	1.3	0.8	1.0	0.5	0.5	0.3	0.2	0.1	0.2	8.1	7.2		
\$12,000-14,999	2.3	1.9	3.6	3.7	1.6	2.0	1.3	1.7	0.8	0.8	0.4	0.3	0.2	0.3	10.1	10.7		
\$15,000-17,499	1.2	1.1	2.1	2.7	1.4	1.7	1.5	1.7	0.8	0.9	0.4	0.3	0.3	0.3	8.1	8.6		
\$17,500-19,999	1.2	0.6	2.0	2.2	1.1	1.4	1.4	1.5	0.8	0.8	0.2	0.3	0.1	0.2	6.8	7.0		
\$20,000-24,999	0.4	0.6	3.9	3.5	2.8	2.6	2.7	2.7	1.1	1.4	0.5	0.5	0.2	0.3	12.0	11.5		
\$25,000-29,999	0.3	0.3	2.3	2.0	1.7	1.6	1.7	1.9	0.9	0.9	0.4	0.4	0.2	0.3	7.4	7.3		
\$30,000-49,999	0.5	0.3	3.1	2.2	2.4	1.7	2.7	2.1	1.6	1.3	0.8	0.6	0.4	0.3	11.5	8.8		
\$50,000 or more	0.1	0.1	0.8	0.5	0.4	0.4	0.4	0.5	0.3	0.3	0.3	0.1	0.1	0.4	2.3	2.1		
All incomes	26.7	22.0	29.0	30.7	16.2	17.2	14.7	15.7	7.7	8.4	3.5	3.6	2.1	2.5				

PRELIMINARY - OLD WEIGHT - DO NOT USE
FAMILY SIZE BY SEX OF HEAD - SRC AND CPS

<u>Number in Unit</u>	<u>Male</u>		<u>Female</u>		<u>SRC</u>	<u>CPS</u>
	<u>SRC</u>	<u>CPS</u>	<u>SRC</u>	<u>CPS</u>		
1	10.7	18.4	16.1	13.6	26.7	22.0
2	24.0	25.1	5.0	5.6	29.0	30.7
3	13.1	14.1	3.1	3.0	16.2	17.2
4	13.3	14.1	1.4	1.6	14.7	15.7
5	7.1	7.5	0.6	0.8	7.7	8.4
6	3.1	3.2	0.4	0.4	3.5	3.6
7+	1.9	2.2	0.3	0.3	2.1	2.5
	73.2	74.6	26.8	25.4		

Source: CPS, P-60, No. 117, p. 45.

A COMPARISON OF THE DISTRIBUTION OF HOUSEHOLDS BY RACE-SEX OF HEAD AND
FAMILY MONEY INCOME, PANEL STUDY AND CPS

Income Bracket	Male				Female			
	White		Black		White		Black	
	SRC	CPS	SRC	CPS	SRC	CPS	SRC	CPS
Less than \$4000	3.4	5.3	12.2	11.8	22.6	29.6	34.9	39.1
\$4000-6999	6.6	8.7	13.6	15.3	24.6	22.4	30.1	25.3
\$7000-9999	9.4	10.1	13.2	14.6	16.2	15.8	14.6	14.8
\$10,000-11,999	7.1	7.0	11.0	8.7	10.6	7.6	8.4	6.1
\$12,000-14,999	10.2	11.4	11.0	11.6	10.1	9.0	6.5	6.4
\$15,000-17,499	9.6	10.1	7.8	8.5	4.9	5.0	2.0	3.3
\$17,500-19,999	8.3	8.5	8.0	7.4	3.3	3.1	1.4	2.2
\$20,000-24,999	15.2	14.6	10.1	10.5	5.2	3.7	1.9	1.6
\$25,000-29,999	10.1	9.6	6.9	5.3	1.2	1.8	0.2	0.8
\$30,000-49,999	16.5	11.7	5.9	5.7	1.2	1.5	0.0	0.9
\$50,000 or more	3.4	2.9	0.2	0.7	0.1	0.1	0.0	0.0
Total	99.8	99.9	99.9	100.1	100.0	99.6	100.0	99.6
Mean income	\$21,168	\$19,129	\$14,101	\$13,813	\$9,102	\$8,867	\$6,448	\$6,742
Percent of all households	64.4	67.4	6.6	6.0	21.4	20.5	4.7	4.4

Source: SPS, P-60, No. 117, page 31.

A COMPARISON OF THE DISTRIBUTION OF HOUSEHOLDS BY
AGE AND FAMILY SIZE, PANEL STUDY AND CPS

Family Size	Age													
	18-24		25-34		35-44		45-54		55-64		65+		All	
	SRC	CPS	SRC	CPS	SRC	CPS	SRC	CPS	SRC	CPS	SRC	CPS	SRC	CPS
1	4.9	2.1	5.8	3.5	1.6	1.7	2.0	2.1	3.1	3.6	9.2	8.9	26.7	22.0
2	3.5	3.3	5.2	5.1	1.6	1.9	4.4	4.1	6.2	7.3	8.2	9.0	29.0	30.7
3	2.1	1.8	5.2	4.9	2.5	0.7	3.4	3.5	2.1	2.8	1.0	1.4	16.2	17.2
4	0.7	0.7	5.6	5.3	3.9	4.8	3.3	3.2	0.8	1.3	0.3	0.4	14.7	15.7
5	0.2	0.2	2.1	2.2	2.7	3.3	2.1	1.6	0.5	0.6	0.2	0.2	7.7	8.4
6	0.0	0.1	0.8	0.7	1.6	1.6	0.8	0.9	0.2	0.3	0.1	0.1	3.5	3.6
7+	0.0	0.0	0.2	0.3	0.9	1.1	0.8	0.8	0.2	0.2	0.1	0.1	2.1	2.5
Total	11.5	8.2	24.8	22.1	14.7	17.1	16.8	16.6	13.1	16.0	19.0	20.0	100.0	

Source: CPS, P-60, No. 117, page 45.

PRELIMINARY - OLD WEIGHT - DO NOT USE

1977 MEAN FAMILY INCOME, BY SEX AND MARITAL STATUS

<u>Male Head</u>	<u>SRC</u>	<u>CPS</u>	<u>SRC</u>	<u>CPS</u>
Married	\$22,022	\$19,834	60.1	62.3
Separated	14,389	12,724	1.1	1.8
Widowed	9,768	10,648	1.8	2.0
Divorced	17,796	14,549	3.8	3.0
Single	11,665	12,873	6.3	5.6
 <u>Female Head</u>				
Married	9,561	7,251	0.3	3.2
Separated	9,192		1.9	
Widowed	7,560	7,496	4.9	11.2
Divorced	10,009	10,159	6.9	5.7
Single	8,523	9,506	6.6	5.3
Total	\$17,287	\$16,100	100.0	100.0

Source: CPS, P-60, No. 117, page 9.

PRELIMINARY - OLD WEIGHT - DO NOT USE

1977 FAMILY INCOME BY EDUCATION

<u>Education</u>	<u>Family Income</u>		<u>Percent of Husbands</u>	
	<u>SRC</u>	<u>CPS</u>	<u>SRC</u>	<u>CPS</u>
0-7		\$ 8,774		10.5
8	\$10,314	10,636	18.8	9.3
9-11	13,154	12,358	16.5	14.6
12 (SRC including non-academic ed. beyond h.s.)	17,557	10,079	48.2	33.3
13-15 (1-3 yrs. college)	24,819	17,918	1.0	15.0
College (16 yrs.)	25,489	22,994	11.4	9.5
Post grad.	30,210	27,744	<u>5.7</u>	<u>7.8</u>
			100.0	100.0

Source: CPS, P-60, No. 117, page 36.