

## Disparities in the Length of Interviews among PSID Respondents

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### **I. INTRODUCTION**

The length of time to complete the interview for the Panel Study of Income Dynamics (PSID) has more than doubled from the mid-1990's to 2007 (see figure 1). Part of this increase can be attributed to the addition of valuable questionnaire content. The 1999 questionnaire was two-thirds larger than the 1997 questionnaire, an increase of about 1400 new variables. The 1999 questionnaire included new sets of questions regarding utility costs, vehicles owned, pensions belonging to both the head and wife, and an expanded health series for head and wife. Other notable contributions to the increased interview length over the years were philanthropic giving added to the 2001 questionnaire, an employment event history calendar added in 2003, and major modifications to the health module in 2007.

The objective of this report is to provide an assessment of disparities in the length of interview across PSID respondents. Specifically, the report documents the amount of variation in interview length and then identifies the types of families that have particularly short or long interviews. This information will be one factor taken into account when survey questions are being considered to be added or subtracted in the future. For example, all else equal, the PSID would like to avoid adding new questions whose burden would fall heavily on families who already have especially long interviews.

### **II. RESULTS**

We begin the report by examining the 2007 interview. There were 8289 family interviews conducted in 2007. Length of interview is defined as the length of time the questionnaire took the respondent to complete in minutes. (Note that this total excludes the time devoted to collecting administrative information from the respondent such as their contact information.) Figure 2 presents interview length for all families by percentiles. The median length of interview was 76 minutes. Roughly 10% of families have interviews of less than 15 minutes, while another 10% have long interviews of over nearly two hours. About one half of all families have an interview that lasts between 60 minutes and 90 minutes.

Table 1 reports the average interview length by section 2007. The longest module covers employment and lasts on average 19 min. The health module is the second longest section of the instrument, requiring nearly 17 min. of interview time on average. Other sections of notable length are housework and expenditures (9.5 min.), wealth (7.9 min.), income (6.7 min.), and housing and computer usage (5.1 min.).

Information is collected about everyone in the family unit, with the greatest detail obtained for the head and wife, thus the interview length will be directly related to the family unit composition. The average interview length for a head-only household in 2007 was 67.4 minutes, while a family unit containing both a head and wife averaged 90.5 minutes per interview. Table 2 presents the mean (sd) interview length for various demographic characteristics of the head for families with a head-only and families where both a head and a wife are present.

Family units with heads ages 70 and over have the shortest interviews for both family types. This group is most likely out of the labor force and thus skips out of much of the employment section. Families whose head is in the youngest age group are the most likely to contain a new head and thus are asked a series of background questions at the end of the interview, which averages an additional two minutes per interview. Female headed households, on average, have significantly longer interviews than male headed households, (69 minutes versus 64 minutes, respectively). In the head-only family unit there is not a statistically significant difference between race of the head and interview length. Although the difference is minor, for family units with both a head and a wife, blacks take significantly longer than whites or other races to complete the PSID interview. In about 90% of the cases, if the family unit contains a head and wife then the head's marital status is married. In the remaining cases, the "wife" in the family unit is a romantic partner who has been living in the household for over a year. The longest interviews appear to be with heads who are separated from their wife and living with a romantic partner.

Table 3 examines the relationship between interview length and additional characteristics of family units that consist of a head-only and a head and wife. Employed heads or wives tend to have longer interviews, which is not surprising given the fact that the battery of questions associated with employment is the longest of all sections. Educational level of both heads and wives also appears to affect interview length. The longest interviews were seen for heads and wives with a high school degree, as compared to those with less than or more than a high school degree. For the head-only families longer interviews are seen for heads with greater than a high school education as compared to those with less education. Health status of the head and of the wife were not significantly related to interview length for the head-only or head and wife family units. Interview length was also consistent across family wealth quartiles. Head-only, as well as head and wife family units with higher levels of income, however, have more to report in the interview and thus have longer interviews.

To determine if any particular characteristic stands out as predicting interview length for a family unit consisting of both a head and wife we estimated ordinary least squares regression models controlling for respondent's gender, head's age, head's and wife's employment status, educational status and self-assessed health, as well as family income and wealth quartiles. The results of the regression analysis are presented in Table 4.

After controlling for these variables we find that female respondents take about 3 minutes longer to complete the PSID interview than male respondents. The only

characteristic of the head that adds significantly to the interview length is head's race. Heads of the household who are black have, on average, interview times that are about 4 minutes longer whites.

Characteristics of the wife that are statistically significant predictors of interview length include employment status, high education and fair or poor health. Employed wives had interviews that were about 6 minutes longer than those who were not employed. Wives with greater than a high school education also had interviews that were about 6 minutes longer, compared to those with lesser education. Wife's health status, while not a significant predictor in the bivariate analysis, became more important after controlling for the other variables of interest. Families with wives in fair or poor health took significantly longer to complete interviews than families consisting of healthy wives.

As expected, family income is an important predictor of interview length. Given that one of the primary roles of the PSID is to assess many aspects of family income, it is not surprising that families in the higher income quartiles took longer to complete an interview. Family units in the top 25% of the income distribution took, on average, 6 additional minutes to complete an interview when compared to the families in the lowest income quartile.

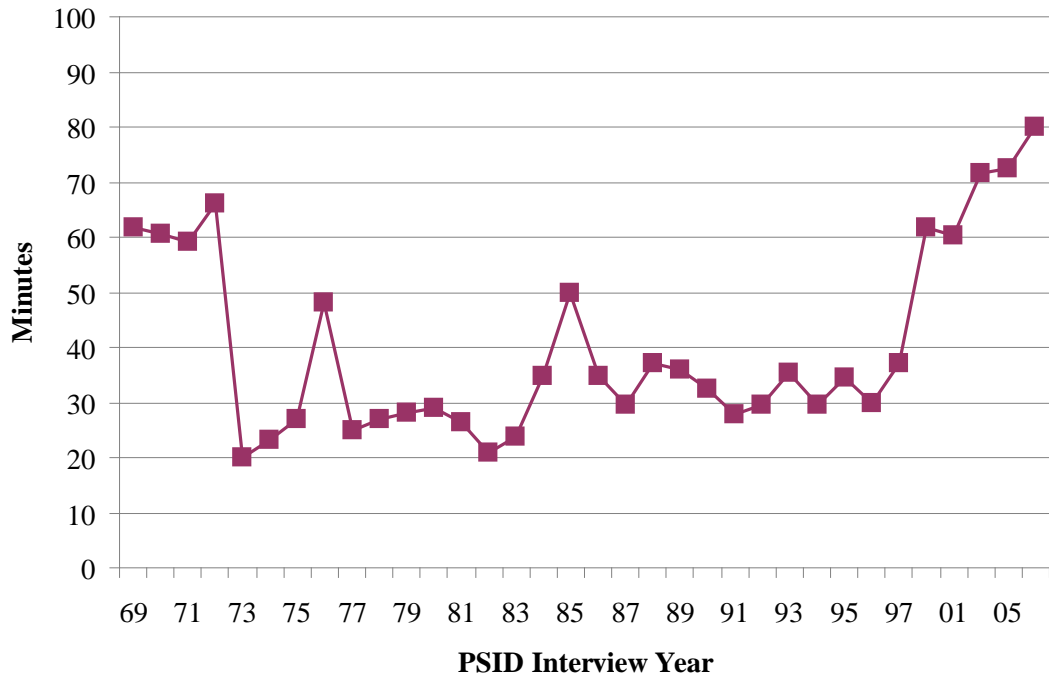
We also examined families consisting of a head-only to determine if there are different characteristics that predict interview length for this sample of families. The results of the regression analysis are presented in Table 5. Several socio-demographic characteristics either remained significant or became significant for these families in predicting interview length. Race and family income remained significant predictors of interview length for head-only families. Head's age and education became additional predictors of interview length for the heads-only sample. Younger heads averaged 7.5 additional minutes, and middle aged heads averaged 4.1 additional minutes, when compared to heads over the age of 70. Family heads with more than a high school education as compared to those with a high school education or less also took longer to complete an interview, averaging an additional 4.7 minutes.

Current self-assessed health of the head also became an important factor in predicting interview length for the heads-only families. The time to complete the interview increased for each category of decreasing health when compared to excellent self-assessed health status.

### **III. SUMMARY AND CONCLUSION**

Overall, the examination of the relationship between interview length and characteristics of the PSID families yielded specific characteristics of heads or wives that resulted in a longer than average interview. Not surprisingly, families with individuals who are in poor health and families with high income have relatively long interviews. Because health status and income are positively correlated, these two effects offset each other, helping to spread the burden of the interview more evenly across families.

**Figure 1. Mean interview length: PSID, 1969-2007**



**Figure 2. Interview Length at Percentiles**

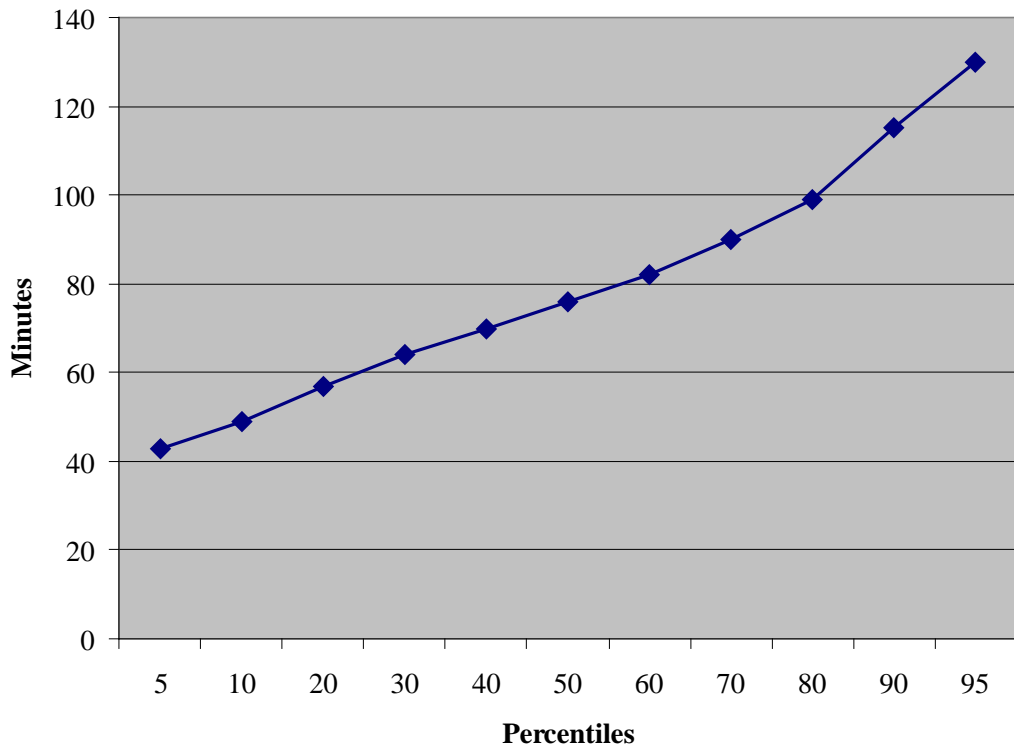


Table 1. Average Interview Length in Minutes by Section, 2007

Section of the questionnaire	
Housing, utilities, computer usage (A)	5.1
Employment (B, C, D, E)	19.0
Housework, food expenses, food assistance, transportation, education expenses, other expenditures (F)	9.5
Income (G)	6.7
Health status, health behaviors, health expenditures (H)	16.8
Marriage/fertility (J)	1.0
New head/wife background (K, L)	1.8
Philanthropic giving and volunteering, religiosity, help received (M)	2.6
Pensions (P)	3.7
Off – year income and public assistance (R)	3.0
Wealth and active savings (W)	7.9
<b>Total questionnaire length</b>	<b>77.1</b>

Table 2. 2007 Interview Length by Demographic Characteristics of the Head

	<u>Head Only Family Unit</u>			<u>Head and Wife Family Unit</u>		
	N	Mean	SD	N	Mean	SD
<u>Age of head</u>						
16-29	1057	69.2	21.8	670	94.1	27.4
30-49	1398	66.7	25.0	2114	89.5	27.7
50-69	834	68.9	22.8	1442	91.4	28.3
70+	453	62.5	25.2	319	85.1	27.2
<u>Sex of head</u>						
Female	2528	68.8	25.1			
Male	1215	64.4	20.3			
<u>Race of head</u>						
Asian	38	67.1	18.1	71	90.7	38.7
Black	1812	67.3	25.3	1004	92.8	30.4
Other	90	65.6	20.7	195	86.7	31.3
White	1780	67.5	22.3	3230	90.1	26.5
<u>Marital status of head</u>						
Married	61	71.8	23.5	4017	90.2	27.2
Divorced	1042	69.6	24.5	145	88.1	26.3
Widowed	546	67.7	24.9	10	86.6	14.7
Separated	321	68.6	22.2	21	97.3	36.3
Single	1772	66.2	23.1	352	94.6	34.2



Table 3. 2007 Interview Length by Characteristics of the PSID Family

	<u>Head Only Family Unit</u>			<u>Head and Wife Family Unit</u>		
	N	Mean	SD	N	Mean	SD
<u>Employment status</u>						
Head Employed	2436	69.3	21.7	3704	91.3	27.7
Head Not Employed	1307	63.8	26.8	842	85.6	28.3
Wife Employed				3075	93.1	27.7
Wife Not Employed				1471	85.0	27.3
<u>Education</u>						
Head < High School	809	62.4	25.2	692	86.0	29.2
Head High School Graduate	1184	65.5	22.5	2175	92.9	27.5
Head > High School	1595	71.3	23.3	1402	89.7	27.9
Wife < High School				520	84.1	27.8
Wife High School Graduate				2256	93.6	27.3
Wife > High School				1409	88.5	27.8
<u>Self-assessed health status</u>						
Head: Excellent	661	66.1	19.7	1111	89.6	28.7
Very Good	1185	67.7	21.9	426	90.7	32.4
Good	1121	68.7	25.7	1229	91.6	28.5
Fair	547	66.4	25.3	140	86.4	28.1
Poor	215	64.0	29.3	1627	90.6	25.4
Wife: Excellent				941	89.4	29.5
Very Good				448	92.1	32.6
Good				1397	90.6	27.5
Fair				156	91.4	30.4
Poor				1580	90.8	25.2
<u>Family wealth* quartiles (lowest-1 to highest-4)</u>						
Quartile 1	708	69.6	21.9	1129	89.8	27.9
Quartile 2	1162	62.3	24.3	1144	90.0	27.1
Quartile 3	937	68.5	22.3	1136	90.3	28.6
Quartile 4	936	71.0	24.8	1137	91.7	27.8
<u>Total family income quartiles (lowest-1 to highest-4)</u>						
Quartile 1	935	61.5	25.4	1136	85.6	27.8
Quartile 2	936	66.4	21.9	1137	90.2	26.9
Quartile 3	936	68.3	21.2	1136	92.5	26.5
Quartile 4	936	73.3	24.6	1137	93.6	29.5

\*Wealth includes housing equity.

Table 4. Multiple Regression Results for Interview Length for Head and Wife Family Units (N=4448)

	Estimate	SE	p
Respondent=Wife v. Head	2.97	0.85	0.0005
<u>Head Age:</u>			
16-29	4.61	2.36	0.0509
30-49	-2.53	2.06	0.2098
50-69	-0.98	1.93	0.6099
70+ (reference)			
<u>Head Race:</u>			
Black	3.91	1.05	0.0002
Other	-0.86	1.79	0.6303
White (reference)			
Head Employed v. Not Employed	2.05	1.30	0.1151
<u>Head Self-Assessed Health:</u>			
Excellent (reference)			
Very Good	1.12	1.18	0.3433
Good	2.47	1.28	0.0540
Fair	3.53	1.76	0.0457
Poor	2.09	2.74	0.4449
<u>Head Education:</u>			
< High School (reference)			
High School	0.98	1.38	0.4785
> High School	2.78	1.43	0.0523
Wife Employed v. Not Employed	6.02	0.97	<.0001
<u>Wife Self-Assessed Health:</u>			
Excellent (reference)			
Very Good	1.18	1.25	0.3449
Good	2.43	1.32	0.0659
Fair	6.79	1.78	0.0001
Poor	8.55	2.55	0.0008
<u>Wife Education:</u>			
< High School (reference)			
High School	2.14	1.52	0.1586
> High School	5.71	1.57	0.0003
Wealth Quartile 1 (reference)			
Wealth Quartile 2	-1.00	1.22	0.4142
Wealth Quartile 3	-0.28	1.34	0.8349
Wealth Quartile 4	0.88	1.53	0.5633
Family Income Quartile 1 (reference)			
Family Income Quartile 2	3.06	1.25	0.0145
Family Income Quartile 3	5.23	1.37	0.0001
Family Income Quartile 4	5.97	1.54	0.0001
Intercept	70.86	2.66	<.0001

Table 5. Multiple Regression Results for Interview Length for Head Only Family Units (N=3711)

	Estimate	SE	p
<u>Head Age:</u>			
16-29	7.54	1.62	<.0001
30-49	2.79	1.50	0.0624
50-69	4.10	1.48	0.0055
70+ (reference)			
<u>Head Race:</u>			
Black	2.59	0.83	0.0018
Other	-0.27	2.13	0.9008
White (reference)			
Head Employed v. Not Employed	1.28	1.01	0.2056
<u>Head Self-Assessed Health:</u>			
Excellent (reference)			
Very Good	2.24	1.14	0.0488
Good	4.61	1.78	<.0001
Fair	5.14	1.44	0.0004
Poor	5.05	1.98	0.0107
<u>Head Education:</u>			
< High School (reference)			
High School	1.20	1.09	0.2726
> High School	4.70	1.11	<.0001
Wealth Quartile 1 (reference)			
Wealth Quartile 2	-4.45	1.14	0.0001
Wealth Quartile 3	-0.38	1.19	0.7500
Wealth Quartile 4	2.56	1.32	0.0514
Family Income Quartile 1 (reference)			
Family Income Quartile 2	3.45	1.12	0.0021
Family Income Quartile 3	4.14	1.21	0.0006
Family Income Quartile 4	8.11	1.33	<.0001
Intercept	52.55	2.09	<.0001