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Measuring Income in the 1973 PNAD Sample

David B. Bills Department of Sociology University of Wisconsin-Madison

This material was based upon work supported by the National Science Foundation under grant number SOC 78-07414, and by the College of Agricultural and Life Sciences, University of Wisconsin-Madison. particular choices seem quite reasonable.

The next step was to annualize income. Respondents who were paid by the month simply had their monthly incomes multiplied by 12. Those who reported weekly incomes had their incomes multiplied by 52, with one additional modification. Respondents who reported that they held a carteira (or work-employment card) were considered to receive an extra four weeks salary. (No one paid by the month also held a carteira.) About 55.6% of the weekly wage earners held a carteira,¹ although this percent varied greatly by occupation (see Table 2).

1. This estimate (as well as all ensuing calculations) is based on a weighted sample of 988 working men aged 15-64.

The final step in calculating income was to convert cruzeiros into 1973 U.S. dollars. This was done simply to make the numbers more readily interpretable to our research staff, and has no effect on either the properties of the income distribution (other, of course, than affecting its mean and absolute but not relative size of its standard deviation) or the relationship of income to other variables. We used the Conjunctura Economica 28, March 1974 (Pp. 24-26), which listed the 1973 exchange rate as 6.142 cruzeiros = U.S. \$1.00.

This constitutes our metric version of annualized income, and we will use it as the baseline for most of the ensuing discussion. The mean of income is 1294.34, with a standard deviation of 2261.59 (hence a coefficient of variation of 1.75). Income is far from normally distributed. The measure of skewness of the income distribution is 5.985,¹ and the measure of kurtosis is 47.061.² These statistics represent substantial

-2-

or statistically by using $income^{1/2}$ or $income^{1/3}$ rather than simply metric or ln income (results not shown).

We have also experimented with a number of other specifications. One question on the interview schedule asked respondents if they had any income in addition to that received from their major occupation. Here we create a variable called "extra income," in which respondents who indicated that they had extra income had their reported incomes inflated by 10%. This specification proves to differ very little from the metric version of income. The equations they produce are practically identical, the two specifications correlate .9988, and their means differ by less than 2.0%. Similarly, the "In extra income measure" gives us no new information.

We also explored the issue of outliers by inflating the upper category of the income distribution to \$50,000. We call this "high income." The effects of this are to greatly reduce the correlations of the income measure with education and occupation, and to badly distort the shape of the income distribution. In short, this specification gives entirely too much weight to high earners.

The Problem of Zero-Wage Earners

The usual way of dealing with employed individuals who report zero earnings in past stratification research has been to exclude them. As the recent debate between Beck et al. (1978; 198) and Hauser (198) has shown, however, decisions on low or zero earners in U.S. samples are consequential. We would expect the issue to be even more important in a sample such as ours, given that 8.3% of the respondents in our subsample

The Problem of Experience

The PNAD data permit us to construct several different measures of work experience. Neither the economic nor the sociological literature is especially useful in helping us to choose one specification over another.

-6-

In Table 4, we augment our usual regression equation with four different measures of experience. "Job experience" is the number of months that the respondent has held his current job. "Occupational experience" is the number of months that he has been employed in his current occupation. "Labor force experience" is calculated as the respondent's current age minus the age at which he reported himself to have begun working. "Age" is respondent's age in years, within the range of 15-64.

Obviously, these measures are conceptually as well as empirically distinct, and Table 4 indicates that they do not yield identical results. The choice of which specification to use is a consequential one. While it depends on the researcher's interests, we cannot expect these measures to simply proxy one another.

			WAGES				
7	Range		Median	In money only	Also	in kind	
	· · · · · · · · · · · · · · · · · · ·		· · · ·				
Weekly	Up to 3.92			10		31	
	3.92 to	7.84	5.88	11		32	
- -	7.85 to	15.68	11.76	12		33	* .
	15.69 to	23.52	19.60	13		34	
	23.53 to	31.36	27.45	14		35	
	31.37 to	47.01	39,19	15		36	
-	47.02 to	62.72	54.87	16		37	
	62.73 to	94.08	78,40	17		38	
." <u>.</u>	94.09 to	125.44	109.76	18		39	
	125.45 to	156.80	141.12	19	-	40	
	156.81 to	188.16	172.48	20		41	
T - C	188.17 to	250.88	219.52	21		42	
	250.89 to	313.60	282.24	22		43	
	313.61 to	376.32	344.96	23	: 	44	
•	376-33 to	439.04	407.68	24	•	45	
	439.05 to	533.12	486.08	25	_ *	46	
	533-13 to	627.20	580.17	26	•	47	
· _ ·	627.21 to	940.80	784.00	27		48	
	940.81 to	1.254.40	1.097.60	28		49	
	1.254.41 to	1.881.60	1,568,00	29		50	
	1.881.61 and	more	3.000.00		•		
	No declaration	mor a	0,000,00	01		02	2
		•		V1			
Monthly	Hp to 67 20	-	•		i i	н. Н	
<u></u>	67 21 to	134 40	100 80	60	-		·
	134 41 to	268 80	201 60	61			
	268 81 to	527 60	402.20	62 62			
	537 61 to	806.40	672 50	64		-	
	906 /1 to		1 075 20	66		н., с. с. с. С	
	1 366 01 +0	1 001 60	1,07,0.20	66			
. *	1 001 61 +-	1,001.00	1,012,80	00			
· ·	1,001.01 to	2,088.00	2,284.80	67			•
	2,008.01 to	4,032.00	3,360.00	68			
	4,032.01 to	5,376.00	4,704.00	69	÷.,		
•	5,376.01 to	8,064.00	6,720.00	70			
	8.064.01 and	more		71			

	Paid	by Month	Paid by Week	<pre># With Carteira</pre>
High Professional	6		17	11
Managers	4	:	24	20
Low Professional	2		8	5
High Clerical	0		8	7
High Sales	43		6	. 4
Low Clerical	0		45	34
Low Sales	14		29	19
High Production	7		49	42
High Service	0		6	5
Medium Production	47	-	11.3	73
Low Service	0	•	51	34
Low Production	5		62	30
Small Farmer	37		16	5
Farm Worker ¹	<u>156</u>		124	
TOTALS	321	(36,5%)	558 (63.5%)	310

Table 2. Distribution of Payment Type by Occupational Groups.

1 In addition, 76 farm workers (probably unpaid family workers) reported no income.

	Mean	S.D.	Father's Occupation	Education	Occupation	R ²
Income β b	1294.34	2761.59	034 -6.11	.233 149.12	.369 51.03	. 289
Income 0 ß b	1186.81	2194.81	017 -2.90	.185 114.88	.408 54.78	.296
Ln (Income 0)	5.93	2.17	.037	095	.506	.218

Table 3. Consequences of Including Zero-Wage Earnings in Income Equations.

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