

**THE SURVEY OF INCOME AND  
PROGRAM PARTICIPATION**

**RESERVATION WAGES AND  
SUBSEQUENT ACCEPTANCE WAGES  
OF UNEMPLOYED PERSONS**

No. 8819 *66*

**Paul Ryscavage**

**August 1988**

**U.S. Department of Commerce BUREAU OF THE CENSUS**

Presented at the annual meeting of the American Statistical Association in New Orleans, Louisiana, August 22-25. Paul Ryscavage is a labor economist in the Housing and Household Economic Statistics Division of the U.S. Bureau of the Census. This paper reports the general results of research undertaken by Census Bureau staff. The views expressed are attributable to the author and do not necessarily reflect those of the Census Bureau. Special thanks go to Arvella Nelson for developing the extract file and tabulations used in this paper and to Victor Anglin for performing the regression analyses. Both are members of the Bureau's Population Division.

The views expressed in this paper are those of the author and do not necessarily reflect those of the Bureau of the Census.

RESERVATION WAGES AND SUBSEQUENT ACCEPTANCE WAGES  
OF UNEMPLOYED PERSONS

by Paul Ryscavage

The reservation wage, or the lowest wage a person would accept for market work, continues to be an important concept in the theory of labor markets. Theoretically, it is viewed as the value of leisure when a person is not engaged in market work. An offer wage in excess of the reservation wage will result in a positive labor supply response.

The empirical measurement of the reservation wage, however, is problematic. It is a subjective value based on market as well as nonmarket factors. Unlike market determined values such as the nominal wage, the reservation wage is the result of an individual's cognitive process. Nevertheless, attempts to measure reservation wages have occurred from time-to-time in household surveys such as the Current Population Survey (CPS) and National Longitudinal Surveys (NLS). <sup>1/</sup> Economists have used the reservation wage data from these surveys to analyze such issues as the impact of unemployment insurance on the reservation wage (Feldstein and Poterba, 1984) and the unemployment experiences of white and black male youths (Holzer, 1986).

Given the usefulness of reservation wage data, the U.S. Bureau of the Census (BC) introduced some "reservation wage questions" in its Survey of Income and Program Participation (SIPP). This survey, which is a longitudinal survey of

persons, was designed to monitor the economic well-being of persons and households across the country. The reservation wage questions were asked during the fifth interview of SIPP's 1984 panel.

The quality of the reservation wage data were discussed in an earlier paper presented at the 1987 meetings of the American Statistical Association (ASA) (Ryscavage, 1988). The data were shown to have limitations because of SIPP's relatively small sample size, the lack of related job market information, and the possibility of conditioning effects on the data. Nevertheless, it was the conclusion of the author that the SIPP reservation wage data were probably of adequate quality for certain modelling purposes, one of which was demonstrated in that paper.

The discussant of this paper was even less sanguine about the quality of the data and reservation wage data in general (Jacobs, 1988). The large proportion of persons with reservation wages below the minimum wage and the subjective nature of the questions suggested to the discussant that the data were of little value.

This paper represents a continuation of the earlier paper. It reports on an error found in the tabulations of the earlier paper and then proceeds to explore the "quality issue" from a new angle. Because SIPP is a longitudinal survey, we can find out if unemployed persons at the time of the fifth interview eventually found jobs--and at what acceptance wages--from subsequent SIPP interviews. These additional data should

provide further insight into the quality of the reservation wage data. The basis for judging their quality will be how good the relationship looks between the two sets of data in light of theoretical expectations and existing research dealing with reservation wages.

#### A Tabulation Error

In the preparation of this paper, a tabulation error was discovered in the distribution of SIPP reservation wages as presented in the 1987 ASA paper. The error occurred in the programming of the tables. Reservation wages were misclassified in the lower intervals, most notably between the less than \$3.35 and \$3.35 to \$4.49 intervals. Table 1, which is based on weighted estimates, shows that the proportion of unemployed persons with reservation wages below \$3.35 (the Federal minimum wage) in the incorrect tabulation was 48.2 percent, but in the corrected one, only 5.0 percent. In the next two intervals--\$3.35 to \$4.49 and \$4.50 to \$5.99--the corrected distributions reflect this realignment and the proportions of persons in them now become larger than in the incorrect distribution. Proportions remained the same above these intervals. 2/

This tabulation error, however, had no effect on the model presented in the earlier paper since it was based on unweighted estimates. This model, which replicated one developed by Feldstein and Poterba (1984), estimated the impact on an individual's reservation wage when the ratio of unemployment

Table 1. Incorrect and Correct Reservation Wage Distributions, Winter 1984-85

Reservation wage	Incorrect (1987 ASA Paper)		Correct (1988 ASA Paper)	
	Number (thous.)	Percent (%)	Number (thous.)	Percent (%)
Total	5,165	100.0	5,165	100.0
Less than \$3.35	2,487	48.2	259	5.0
\$3.35 to \$4.49	824	15.9	2,743	53.1
\$4.50 to \$5.99	677	13.1	986	19.1
\$6.00 to \$7.99	570	11.0	570	11.0
\$8.00 to \$9.99	269	5.2	269	5.2
\$10.00 to \$11.99	133	2.6	133	2.6
\$12.00 and over	205	4.0	205	4.0
Median	\$3.48	-	\$4.32	-
Std. error	.13	-	.04	-

NOTE: Data are weighted.

insurance to the previous wage increases. Although both models yielded different quantitative results, each showed positive effects.

#### Reservation and Acceptance Wage Data

Reservation wage data were collected in the topical module of the fifth interview of SIPP's 1984 panel. This panel began with slightly more than 20,000 sample households. <sup>3/</sup> The fifth interview in the panel was conducted in the months of January through April of 1985. For persons who were identified as being on layoff and looking for work or jobless and looking for work in the previous month (December, 1984 through March, 1985), a battery of questions were asked about their unemployment experience--to include, of course, their reservation wage (see Appendix A for the questions). <sup>4/</sup>

Only persons responding for themselves, or self-respondents, were asked about their reservation wages. This restriction was made because of concern that answers from proxy respondents would be of poor quality. However, it also resulted in a possible "selection" problem in that a large proportion of the unemployed were not asked the reservation wage question. Approximately 2,000 persons were identified as looking for work in the December, 1984 to March, 1985 period. Because of the self-respondent rule, only 1,021 persons with reservation wages were available for analysis (including 157 whose reservation wages were imputed). Thus, over 50 percent of the potential sample was not asked about their reservation

wages. Since it is possible that self-respondents had different characteristics than those not interviewed, the data results may have differed if the complete sample had been composed of self-respondents.

From the sixth, seventh, and eighth interviews of the 1984 panel it was possible to find out how many of the unemployed persons with reservation wages found jobs and at what acceptance wages. These interviews cover a period of one year since roughly four months elapse between each SIPP interview. Unlike the reservation wage information which was collected in the topical module portion of the questionnaire, information about finding a job and at what acceptance wages was done in the core portion of the questionnaire. While it may be tempting to consider the period from the time of the fifth interview to the time of the new job as a continuous spell of unemployment in this analysis, that would be inappropriate. Unemployed persons as of the fifth interview may have subsequently ceased looking for a job for a time and then resumed the job search.

All of the reservation wage and acceptance wage data are presented on an hourly basis. <sup>5/</sup> In addition, these data are unweighted and statements about them are in the context of sample observations (unlike the preceding section).

The first column of Table 2 shows the unweighted distribution of reservation wages of persons unemployed in the winter of 1984-85. The distribution is positively skewed with almost 50 percent of the sample reporting a reservation wage below \$4.00 an hour. About 6 percent indicated a reservation



wage of \$10.00 or more an hour. The mean reservation wage was \$4.97.

The second and third columns show the distributions of reservation wages of persons who did not find jobs and those who did and reported acceptance wages. Slightly more than half of these unemployed persons never found a job over a one-year period. One quality issue is whether or not this is a reasonable estimate. Although little information exists to which this proportion can be compared, we can turn to the monthly gross labor force flow data for some guidance. For example, in 1983 the CPS gross labor force flow data showed that in an average month-to-month period approximately 76 percent of the unemployed continued to be unemployed or outside the labor force in the next month (Hogue and Flaim, 1986). When the data have been adjusted for their many problems (e.g., rotation group bias, misclassification), this proportion has been estimated to be even higher (Poterba and Summers, 1985). Therefore, the SIPP estimate of slightly more than 50 percent never taking a job may not necessarily be an unreasonable estimate.

The distributions of persons with reservation wages who did and did not find jobs were similar. Both were positively skewed and the mean reservation wage in each was a little less than \$5.00 an hour.

As theory would suggest, acceptance wages, on average, were higher than reservation wages--\$5.71 vs. \$4.95--as is shown in the third and fourth columns. The difference in means

Table 2. Distribution of Unemployed Persons by Their Reservation Wages and, for Those Who Eventually Found Jobs, Their Acceptance Wages, Winter, 1984-85 <sup>1/</sup>

Hourly wage level	Unemployed persons with:			
	Total	Reservation wages Never found job	Found job	Acceptance wages Found job
Total	1,018	535	483	483
Total (%)	100.0	100.0	100.0	100.0
Less than \$3.35	4.8	4.7	5.0	4.4
\$3.35	34.0	33.9	34.2	16.5
\$3.36 to \$3.99	10.1	9.7	10.6	12.7
\$4.00 to \$4.99	15.3	15.9	14.6	20.5
\$5.00 to \$5.99	13.1	13.1	13.2	17.1
\$6.00 to \$6.99	7.1	6.9	7.3	7.3
\$7.00 to \$7.99	3.9	3.4	4.6	4.6
\$8.00 to \$8.99	3.8	4.3	3.3	5.0
\$9.00 to \$9.99	1.4	0.9	1.9	2.5
\$10.00 and over	6.4	7.1	5.6	9.4
Mean	\$4.97	\$4.98	\$4.95	\$5.71
Std. error	.003	.005	.004	.006

<sup>1/</sup> Reservation wages were collected in the period of January to April, 1985, and relate to the period December, 1984, to March, 1985. Acceptance wage data relate to those persons who found jobs in the 12-month period after the collection of the reservation wage data.

NOTE: Data are unweighted.

was statistically significant at the 5-percent level. (All statements of comparison have been tested at this level and standard errors have been adjusted upward by 1.2049 for a sample design effect.) This of course assumes a constant reservation wage over time, an assumption which research has shown to be of dubious validity (Kiefer and Neumann, 1979). Another statistically significant difference in the distributions is the smaller proportion of persons with acceptance wages at or below the minimum wage (slightly more than 20 percent) as compared to the reservation wage distribution (slightly less than 40 percent).

Had we not found these two differences in the distributions, the reservation wage data would have been seriously suspect.

Table 3 contains selected social, demographic, and economic characteristics of persons with reservation wages who found jobs and did not find jobs. Some differences would also be expected in these two groups on the basis of these characteristics. For example, of those persons who never found jobs, 59.4 percent were women compared to 53.0 percent for those who found jobs. Higher jobless rates for women and their lower participation rates relative to those for men would support this finding. Proportionately more blacks and persons of other races were found among the non-jobfinders than job finders (at least some evidence at the 10-percent significance level) and this conforms to what we know about the labor market problems of blacks and other races. A greater proportion of the jobfinders were receiving unemployment insurance--28.0 vs.

Table 3. Selected Characteristics of Unemployed Persons with Reservation Wages Who Never Found Jobs and Who Found Jobs, Winter, 1984-85 1/

Characteristics	Unemployed persons with reservation wages	
	Never found job	Found job
Total	535	483
Total (%)	100.0	100.0
Percent female	59.4	53.0
Percent Black and other races	23.7	19.9
Percent receiving unemployment insurance	17.2	28.0
Percent receiving cash welfare	25.4	14.3
Percent receiving noncash welfare	34.4	20.5
Percent with:		
0 - 8 yrs. of sch. compl.	12.5	7.5
9 - 11       "       "	26.4	21.9
12         "       "	38.5	46.8
13 -15     "       "	13.6	18.6
16 yrs. of sch. compl. and over	9.0	5.2

1/ See footnote 1, Table 2.

NOTE: Data are unweighted.

17.2 percent. Persons receiving unemployment insurance typically have strong ties to the labor force. On the other hand, greater proportions of the non-jobfinders received cash and noncash welfare in their households and this is usually indicative of weak labor force ties. <sup>6/</sup> Last, expected differences by years of school completed were evident, that is, job finders were generally better educated than non-jobfinders (except in the instance of those with 16 or more years of school completed).

Table 4 shows averages of reservation and acceptance wages by age and sex for the 483 persons who found jobs at some time during the 12-month period after the winter of 1984-85. As mentioned earlier, the acceptance wage, overall, was about 15 percent above the reservation wage. For men, the acceptance wage was about 18 percent higher than the reservation wage. For women it was only about 12 percent higher. Among all the age-sex groups, the greatest difference between the acceptance wage and reservation wage was for men age 25 to 54--\$7.47 vs. \$6.12.

As research has shown, an individual's reservation wage is likely to change as the length of the job search continues and job offers are received. In our analysis, of course, the reservation wage is fixed at a point in time. Many persons begin the search with overly optimistic wage expectations and quickly learn what the relevant job offer range is and adjust their lowest acceptable wage (Barnes, 1975).

Table 4. Mean Reservation Wages and Acceptance Wages of Unemployed Persons Who Found Jobs by Age and Sex, Winter, 1984-85 <sup>1/</sup>

Age and sex	Total person	Reservation wage	Stand. error	Acceptance wage	Stand. error
Total	483	\$4.95	\$.004	\$5.71	\$.006
Men, age 16 and over	227	5.52	.007	6.53	.009
16 to 19	26	3.84	.007	4.65	.011
20 to 24	63	4.48	.008	5.10	.009
25 to 54	121	6.12	.011	7.47	.014
55 to 64	13	8.02	.046	8.45	.045
65 and over	4	6.47	.060	6.39	.020
Women, age 16 and over	256	4.46	.005	4.98	.008
16 to 19	33	3.46	.003	3.98	.007
20 to 24	49	3.80	.004	4.13	.007
25 to 54	155	4.81	.008	5.46	.013
55 to 64	18	4.85	.019	4.97	.017
65 and over	1	6.50	.000	4.50	.000

<sup>1/</sup> See footnote 1, Table 2.

NOTE: Data are unweighted.

### Regression Analyses

Table 5 presents the results of two regressions, one of which relates to persons who never found jobs and the second to persons who did find jobs. They have been specified for the purpose of evaluating the reservation wage data and not for testing hypotheses relating to the theory of reservation wages. As was shown, the composition of the samples who did and did not find jobs differed significantly in certain characteristics and, therefore, separate regressions were run for these groups.

The dependent variable in each regression is the natural logarithm of the reservation wage. These dependent variables have been regressed on various dummy independent variables. They consisted of age, sex, and race variables, as well as human capital variables, defined here as years of school completed. These variables are commonly found in earnings models. In addition, since the reservation wage is affected by income, the regressions also contain dummy variables reflecting levels of individuals' monthly household income, the receipt of unemployment insurance by the individual, and the receipt of cash or noncash welfare by the household (see footnote 6 for the definitions of the last items). Other nonpecuniary factors which might affect the reservation wage, such as the presence of young children in the household, availability of day care, and school enrollment, were not included.

Since the dependent variables are in logarithmic form, the regression coefficients are interpreted as estimated percentage changes in the reservation wage of a reference group

to a unit change in a particular dummy variable. <sup>1/</sup> The reference group in both regressions was an unemployed white male, age 25 to 54, who had a high school education, a monthly household income of between \$1,000 and \$1,999, and received no unemployment insurance or cash or noncash welfare payments in his household.

As shown in Table 5, the female coefficients were highly significant in both regressions and indicated that the reservation wages of women would be about 18 percent lower than men, holding other variables constant. (All significant tests were at the 5-percent level.) While this obviously reflects differences in tastes for nonmarket work, it also probably reflects market wage expectations. The coefficients for blacks and others were not statistically significant, but each had a negative sign. This result is consistent with what Holzer (1986) found for white and black male youths. He also showed that while black youths have generally the same reservation wages as white youths, the former's acceptance wages are generally lower than the latter's.

Coefficients on the 16 to 19 and 20 to 24 year old variables were negative as would be expected and were significant. This too reflects differences in the value of nonmarket time and wage expectations relative to that of the reference group. For the older age groups, only the coefficient on the 55 to 64 year old variable for non-jobfinders was significant.



Given the positive relationship between education and income, one would expect that reservation wages would be positively related to years of school completed. As shown in Table 5, the coefficients of 0 to 8 years and 9 to 11 years of school completed do have negative signs as expected (since the reference group's education level is 12 years), but only the non-jobfinders coefficient on the 9 to 11 years variable was significant. For jobfinders with 13 to 15 years of education and with 16 or more, coefficients were positive and significant. The reservation wage for a person who found a job and had 16 or more years of schooling would be about 38 percent higher than the reference group's.

With respect to income, reservation wages would be expected to rise as income rises. This is because as the ability to buy more goods and services increases so to would the value of leisure and therefore the reservation wage. As shown in the table, none of the coefficients were statistically significant. The unemployment insurance coefficient, however, had a strong positive effect on reservation wages as would be expected, especially for those who finally found jobs. The reservation wage would have been almost 20 percent higher for those in this latter group. The stronger effect on the job finders probably reflects their more serious job search and stronger attachment to the labor force.

A large and significant negative effect was recorded on the noncash welfare coefficient for those who never found a job. This means that the reservation wage would have been

nearly 18 percent lower than the reference group if noncash welfare had been received in the household. This finding is puzzling since theory suggests that nonlabor income would increase the reservation wage. <sup>8/</sup> One possible interpretation is that respondents are providing a conditioned response since contained in this variable is the Food Stamps Program, a program that has a work requirement. In the households in which food stamps were received, persons of working age who did not hold jobs may have wanted to demonstrate their interest in the job market by reporting that they were indeed looking for work and would take a relatively low wage if they found a job. Another interpretation is that unemployed persons who receive food stamps in their household are different than unemployed persons from other households, even though we are controlling for many differences. For example, wage expectations may differ greatly for the low income, high school educated, middle-aged man from a rural area and for a similar individual from an urban area who has been on and off various means-tested programs for many years. Even though we have controlled for a number of factors, one's wage expectations may still differ because of background and environmental reasons.

The noncash welfare coefficient for persons who found jobs was also negative but not statistically significant. Cash welfare coefficients all carried positive signs as would be expected, but were not significant.

Table 6 presents the results of a third regression which uses the natural logarithm of the acceptance wage for its

**Table 5. Regression Results of Regressing the Natural Logarithms of Reservation Wages of Unemployed Persons Who Never Found Jobs and Found Jobs on Various Social, Demographic, and Economic Characteristics of These Persons**

Variable	Unemployed persons with reservation wages:	
	Never found job	Found job
Female	-.178 (.039)	-.183 (.040)
Black and other races	-.069 (.046)	-.019 (.050)
Age 16 to 19	-.205 (.071)	-.226 (.064)
Age 20 to 24	-.108 (.049)	-.176 (.050)
Age 55 to 64	.136 (.064)	.088 (.082)
Age 65 and over	.209 (.133)	.211 (.193)
0 to 8 yrs. sch. compl.	-.119 (.064)	-.051 (.078)
9 to 11 yrs. sch. compl.	-.107 (.050)	-.002 (.051)
13 to 15 yrs. sch compl.	.103 (.060)	.109 (.053)
16 or more yrs. sch. compl.	.280 (.072)	.382 (.090)
\$0 to \$999 mthly. hhld. inc.	-.004 (.047)	-.051 (.046)
\$2,000 to 2,999 mthly. hhld. inc.	.065 (.067)	-.053 (.064)
\$3,000 to 3,999 mthly. hhld. inc.	.041 (.081)	-.019 (.086)
\$4,000 or more mthly. hhld. inc.	.108 (.095)	.134 (.083)

Table 5. Continued.

Variable	Unemployed persons with reservation wages:	
	Never found job	Found job
Unemployment insurance	.133 (.052)	.194 (.046)
Cash welfare <u>1/</u>	.080 (.059)	.007 (.066)
Noncash welfare <u>1/</u>	-.178 (.057)	-.117 (.060)
Constant	1.651 (.055)	1.619 (.054)
<sup>2</sup> R	.305	.285
N	535	483
Mean of dependent variable (natural logarithm of reservation wage)	1.502	1.506

1/ Cash welfare consists of benefits from Supplemental Security Income, Veterans pensions, Aid to Families with Dependent Children, General Assistance, and Indian and Cuban Refugee Assistance. Noncash welfare consists of benefits from the Food Stamp Program, Women, Infants, and Children Nutrition Program, and the Low-Income Energy Assistance Program.

NOTE: Standard errors, which are shown in parentheses, have been adjusted upward by 1.2049 for a sample design effect.

dependent variable. The independent variables are age, sex, race, years of school completed, the receipt of unemployment insurance, and the receipt of cash and noncash welfare in the household, as in the earlier regressions, and a few new variables. Reservation wage levels were introduced as dummy variables, and a time variable was included. The time variable has three categories which represent the three four month periods in which an acceptance wage (or job) could have been received. Monthly household income was divided into three categorical variables.

Except for the time and acceptance wage variables, all other variables relate to the period at which the reservation wage was reported. The reference group for this regression is similar to that for the earlier ones, except now we assume that persons resided in households with monthly incomes of between \$2,000 and \$2,999, had a reservation wage of between \$5.00 and \$5.99, and found a job in Time 1, or in the first four month period after reporting his reservation wage. Again, the coefficients are interpreted as percentage deviations about the average acceptance wage for the reference group, given a unit change in an independent variable.

The female coefficient in Table 6 indicated a 16 percent lower acceptance wage than the reference group's, a difference that continues to reflect sex differences in earnings even though this model controls for many factors. The coefficient on blacks and other races also had a negative sign but was not

Table 6. Regression Results of Regressing the Natural Logarithms of Acceptance Wages of Unemployed Persons Who Found Jobs on Various Social, Demographic, and Economic Characteristics of These Persons

Variable	Unemployed persons with reservation wages who found jobs
Female	-.158 (.045)
Black and other races	-.030 (.055)
Age 16 to 19	-.126 (.073)
Age 20 to 24	-.134 (.056)
Age 55 to 64	-.015 (.090)
Age 65 and over	-.046 (.214)
0 to 8 yrs. sch. compl.	-.109 (.087)
9 to 11 yrs. sch. compl.	-.046 (.056)
13 to 15 yrs. sch. compl.	-.053 (.060)
16 or more yrs. sch. compl.	-.002 (.102)
\$0 to \$1,999 mthly. hhld. inc.	-.065 (.067)
\$3,000 or more mthly. hhld. inc.	-.086 (.085)
Res. wage less than \$3.35	-.146 (.121)
Res. wage, \$3.35	-.104 (.074)
Res. wage, \$3.36 to \$3.99	-.122 (.090)

significant. According to this model and the previous model, there exists little difference in the acceptance and reservation wages of whites and blacks, although here too we were not explicitly testing these hypotheses. The only significant age coefficient was on the 20 to 24 year old variable which would indicate that acceptance wages would be 13 percent lower than the reference groups.

None of the human capital and monthly household income coefficients were statistically significant at the 5 percent level. One might have anticipated a positive relationship here between education and wages. The unemployment insurance coefficient, however, was highly significant and positive and would have been predicted.

Among the reservation wage coefficients, only the \$7.00 and over coefficient was significant, implying that if the reference group person had a reservation wage at this level his acceptance wage would have been 35 percent higher. Given the reference group's reservation wage of between \$5.00 and \$5.99, the remaining coefficients on these variables had the expected signs but were not significant.

Theory as well as empirical evidence (Barnes, 1975) would indicate that the acceptance wage should decline as a spell of unemployment lengthens. There is some evidence of this in the SIPP data but it is not entirely convincing. It should be remembered that these spells are spells of nonemployment and not spells of unemployment. The Time 2 coefficient was statistically significant and negative indicating that these

Table 6. Continued.

Variable	Unemployed persons with reservation wages who found jobs
Res. wage, \$4.00 to \$4.99	-.070 (.082)
Res. wage, \$6.00 to \$6.99	.153 (.099)
Res. wage, \$7.00 or more	.353 (.082)
Time 2 (second four month period)	-.107 (.050)
Time 3 (third four month period)	-.053 (.075)
Unemployment insurance	.142 (.052)
Cash welfare <u>1/</u>	-.049 (.073)
Noncash welfare <u>1/</u>	-.048 (.066)
Constant	1.851 (.096)
2	
R	.340
N	483
Mean of dependent variable (natural logarithm of acceptance wage)	1.619

1/ See footnote 1, Table 5.

NOTE: Standard errors, which are shown in parentheses, have been adjusted upward by 1.2049 for a sample design effect.



longer term job finders received about 11 percent less than the reference group who found their job in the first four months after the reservation wage was reported. The Time 3 variable, however, was less negative and not statistically significant.

### Conclusions

In this paper the reservation wages of unemployed persons collected in the fifth interview of SIPP's 1984 panel were evaluated. Because SIPP is a longitudinal survey, it is possible to find out whether or not these individuals eventually found jobs and at what acceptance wages in SIPP's sixth, seventh, and eighth interviews. The relationship between what respondents said were their reservation wages and what eventually happened to them, in light of theoretical expectations and existing empirical research, therefore, was the basis of the evaluation.

In a very broad sense, the reservation wage data appeared reasonable. Slightly less than half of the unemployed found jobs in a year, and for those who did, the acceptance wage, on average, was approximately 15 percent higher than the reported reservation wage. In other words, their reported reservation wage, on average, appeared to be a lower limit for market work as theory suggests. It was also shown that jobfinders and non-jobfinders differed in certain characteristics as would be expected. Job finders were comprised of proportionally more men and recipients of unemployment insurance and proportionally fewer persons from households in which welfare payments had been received.

In a narrower sense, however, the data were less convincing. Regression models were estimated which also tested the reservation wage data. When controlling for a variety of social, demographic, and economic characteristics, a number of the estimated coefficients failed to agree with predicted results. For example, there was no evidence that monthly household income had a significant effect on the reservation wage. Also puzzling was the result obtained with respect to noncash welfare benefits. Theory would predict the receipt of such nonlabor income to have a positive effect on the reservation wage. The opposite was found. It should be remembered, however, that the estimated models have limitations as well, one of them being the omission of variables accounting for the presence of young children in the family, the availability of day care, school enrollment, and other noneconomic variables which may affect the reservation wage and the value of nonmarket time.

Given these findings, users of the SIPP reservation wage data should be mindful of the fact that these data are based on respondents' judgements. No doubt some considered all the various factors, both market and nonmarket, that might influence their reservation wage. Others may have been less comprehensive in their assessment. The result is a data set that must be used judiciously.

**FOOTNOTES**

- 1/ In May 1976, the CPS contained a special supplement to its regular labor force questions inquiring about the job seeking activities of unemployed persons and their reservation wages. The NLS also contained reservation wage questions in its 1979 and 1980 survey of young men.
- 2/ Other corrected tables from the 1987 ASA paper are available from the author upon request.
- 3/ Additional SIPP panels have been started in 1985, 1986, 1987, and 1988. These panels' sample size averaged approximately 14,000 households. See Nelson, McMillen, and Kasprzyk (1985) for an overview of the SIPP.
- 4/ Reservation wage questions were also asked of those persons outside the labor force who expressed interest in eventually returning to the labor market within 12 months.
- 5/ Although most unemployed wage earners are paid by the hour, some did report their reservation wages and acceptance wages on another basis (e.g., weekly, bi-weekly, monthly, annual). To place these data on a consistent basis, all non-hourly wage data were transformed to an hourly basis. It was assumed all jobseekers were looking for full-time jobs of 40 hours a week so that figure was used in the conversion of non-hourly reservation wages. In addition, 4.3 weeks was used in the conversion of any monthly reservation salaries and 52 weeks was used in the adjustment of annual earnings. Over 75 percent of the reservation wage data responses were on a per hour basis.
- 6/ Contained in the cash welfare variable were Supplemental Security Income, Veterans pensions, Aid to Families with Dependent Children, General Assistance, and Indian and Cuban Refugee Assistance. The noncash welfare variable consisted of Food Stamps, Women, Infants, and Children Nutrition Program, and Low Income Home Energy Assistance.
- 7/ This dummy variable method subsumes in the constant term the average wage of persons with particular characteristics defined by the selection of the independent variables. Consequently, the coefficients represent the multiplicative effects of the associated characteristics and measure deviations relative to these persons, or the "reference" group.
- 8/ Multicollinearity is present between the cash and noncash welfare variables. Running the same model, but excluding the noncash welfare variable, produced very little change in the coefficient of the cash welfare variable, however.

**REFERENCES**

Barnes, W., "Job Search Models, the Duration of Unemployment, and the Asking Wage: Some Empirical Evidence," Journal of Human Resources, 1975, 10, 235.

Feldstein, M. and Poterba, J., "Unemployment Insurance and Reservation Wages," Journal of Public Finance, 1984, 23, 141-167.

Hogue, C. and Flaim, P.O., "Measuring Gross Flows in the Labor Force: An Overview of a Special Conference," Journal of Business and Economic Statistics, January 1986, 111-121.

Holzer, H.J., "Black Youth Nonemployment: Duration and Job Search," in The Black Youth Employment Crisis, (ed. R.B Freeman H.J. Holzer), Chicago: The University of Chicago Press, 1986, 23-73.

Jacobs, E., "Discussion," Proceedings of the Social Statistics Section of the 1987 Meetings of the American Statistical Association, 1988, Washington, D.C.

Kiefer, N. and Neumann, G., "An Empirical Job-Search Model, with a Test of the Constant Reservation Wage Hypotheses," Journal of Political Economy, 1979, 87, 99.

Nelson, D.D., McMillen, D.B., and Kasprzyk, D., "An Overview of the Survey of Income and Program Participation: Update 1," Survey of Income and Program Participation Working Paper No. 8401, Washington, D.C.: U.S. Bureau of the Census, December 1985.

Poterba, J.M. and Summers, L., "Adjusting the Gross Change Data: Implications for Labor Market Dynamics," Proceedings of the Conference on Gross Flows in Labor Force Statistics, June 1985, 81-89.

Ryscavage, P., "An Evaluation and Analysis of Reservation Wage Data from SIPP," Proceedings of the Social Statistics Section of the 1987 Meetings of the American Statistical Association, 1988, Washington, D.C.

APPENDIX A, Reservation Wage Questions

Section 5 - TOPICAL MODULES (Continued)

Part C - REASONS FOR NOT WORKING/RESERVATION WAGE

CHECK ITEM T16	Is "Worked" marked on the ISS?	B192	<input type="checkbox"/> Yes - SKIP to Check Item T18 <input type="checkbox"/> No
CHECK ITEM T17	Did ... spend time looking for work or on layoff from a job? (See item 2a, page 2)	B194	<input type="checkbox"/> Yes - SKIP to 15a <input type="checkbox"/> No - SKIP to Check Item T20, page 53
CHECK ITEM T18	Did ... work at a job or business either full or part time during EACH of the weeks in this period? (See item 5a, page 2)	B198	<input type="checkbox"/> Yes - SKIP to 18a, page 54 <input type="checkbox"/> No
14. ASK OR VERIFY -	Did ... work at a job or business (or was ... on paid leave) during the last week of (last month)?	B198	<input type="checkbox"/> Yes - SKIP to 18a, page 54 <input type="checkbox"/> No
15a.	This next question concerns the last week of (last month). Was ... on layoff from a job during that week?	B200	<input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to 16a
b.	For how many weeks had ... been on layoff up until that time?	B202	<input type="text"/> <input type="text"/> Weeks x1 <input type="checkbox"/> DK
15c. ASK OR VERIFY -	Does ... now have a job or business?	B204	<input type="checkbox"/> Yes - SKIP to 15f <input type="checkbox"/> No
d.	Does ... expect to be called back to that job?	B208	<input type="checkbox"/> Yes <input type="checkbox"/> No x1 <input type="checkbox"/> DK } SKIP to 15f
e.	Does ... have a specific date to return to work?	B209	<input type="checkbox"/> Yes <input type="checkbox"/> No
f.	What wage or salary was ... receiving at the time ... was laid off that job?	B210	<input type="text"/> \$ <input type="text"/> <input type="text"/> Per hour OR
	Mark only one.	B212	<input type="text"/> \$ <input type="text"/> <input type="text"/> 00 Per week OR
		B214	<input type="text"/> \$ <input type="text"/> <input type="text"/> 00 Per month OR
		B218	<input type="text"/> \$ <input type="text"/> <input type="text"/> 00 Per year B218 x1 <input type="checkbox"/> DK
16a. ASK OR VERIFY -	Did ... spend any time looking for work during the month of (last month)?	B220	<input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to Check Item T20
b.	Was ... looking for a full-time or part-time job?	B222	<input type="checkbox"/> Full-time <input type="checkbox"/> Part-time <input type="checkbox"/> Either
c.	Did ... contact any employers, during (last month) in person, by mail, or by telephone?	B224	<input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to 16e
d.	How many different employers did ... contact?	B226	<input type="text"/> <input type="text"/> Employers } SKIP to Check Item T19 x1 <input type="checkbox"/> DK
e.	What did ... do during (last month) to find work - did ... (Read categories) -	B228	<input type="checkbox"/> Yes <input type="checkbox"/> No
	(1) Check with the unemployment office? ...	B229	<input type="checkbox"/> Yes <input type="checkbox"/> No
	(2) Check with a private employment agency? ..	B230	<input type="checkbox"/> Yes <input type="checkbox"/> No
	(3) Ask friends or relatives? .....	B232	<input type="checkbox"/> Yes <input type="checkbox"/> No
	(4) Anything else? .....	B234	<input type="checkbox"/> Yes <input type="checkbox"/> No Specify/
CHECK ITEM T19	Is ... a self-dependent?	B238	<input type="checkbox"/> Yes <input type="checkbox"/> No - SKIP to 18a, page 54

**Section 5 – TOPICAL MODULES (Continued)**

**Part C – REASONS FOR NOT WORKING/RESERVATION WAGE (Continued)**

<p><b>16f. Were you looking for a particular kind of job?</b></p>	<p><b>8238</b> <input type="checkbox"/> Yes  <input type="checkbox"/> No – SKIP to 16k</p>
<p><b>g. What kind of job were you looking for?</b></p>	<p>Code <span style="margin-left: 100px;">Name of job</span></p> <p><b>8240</b> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/></p>
<p><b>h. Had you done this kind of work before?</b></p>	<p><b>8242</b> <input type="checkbox"/> Yes  <input type="checkbox"/> No – SKIP to 16j</p>
<p><b>i. When did you last do this kind of work?</b></p>	<p>Month <span style="margin-left: 50px;">Year</span></p> <p><b>8246</b> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> <b>8248</b> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/> <input style="width: 30px;" type="text"/></p> <p><b>8260</b> <input type="checkbox"/> DK</p>
<p><b>j. What wage or salary did you expect to receive for this kind of work?</b></p>	<p><b>8262</b> \$ <input style="width: 60px;" type="text"/> . <input style="width: 30px;" type="text"/> Per hour</p> <p>OR</p> <p><b>8264</b> \$ <input style="width: 60px;" type="text"/> . 00 Per week</p> <p>OR</p> <p><b>8266</b> \$ <input style="width: 60px;" type="text"/> . 00 Per month</p> <p>OR</p> <p><b>8268</b> \$ <input style="width: 60px;" type="text"/> . 00 Per year</p> <p><b>8290</b> <input type="checkbox"/> DK  <input type="checkbox"/> Ref.</p>
<p><b>k. What is the lowest wage or salary you would have accepted (for this kind of work)?</b></p>	<p><b>8262</b> \$ <input style="width: 60px;" type="text"/> . <input style="width: 30px;" type="text"/> Per hour</p> <p>OR</p> <p><b>8264</b> \$ <input style="width: 60px;" type="text"/> . 00 Per week</p> <p>OR</p> <p><b>8266</b> \$ <input style="width: 60px;" type="text"/> . 00 Per month</p> <p>OR</p> <p><b>8268</b> \$ <input style="width: 60px;" type="text"/> . 00 Per year</p> <p><b>8270</b> <input type="checkbox"/> DK  <input type="checkbox"/> Ref.</p>
<p><b>l. During the time you have been looking for a job did you receive any job offers that you did not take?</b></p>	<p><b>8272</b> <input type="checkbox"/> Yes  <input type="checkbox"/> No – SKIP to 18a, page 54</p>
<p><b>m. What is the main reason you did not accept the (most recent) job offer?</b></p>	<p><b>8274</b></p> <p><input type="checkbox"/> Did not want that kind of work  <input type="checkbox"/> Pay too low  <input type="checkbox"/> Job too far away  <input type="checkbox"/> Lack transportation  <input type="checkbox"/> Job was only temporary  <input type="checkbox"/> Couldn't arrange child care  <input type="checkbox"/> Hours were not satisfactory  <input type="checkbox"/> Other job conditions were not satisfactory  <input type="checkbox"/> Inadequate benefits  <input type="checkbox"/> Other – Specify _____</p>
<p><b>n. What wage or salary was offered?</b></p>	<p><b>8276</b> \$ <input style="width: 60px;" type="text"/> . <input style="width: 30px;" type="text"/> Per hour</p> <p>OR</p> <p><b>8278</b> \$ <input style="width: 60px;" type="text"/> . 00 Per week</p> <p>OR</p> <p><b>8280</b> \$ <input style="width: 60px;" type="text"/> . 00 Per month</p> <p>OR</p> <p><b>8282</b> \$ <input style="width: 60px;" type="text"/> . 00 Per year</p> <p><b>8294</b> <input type="checkbox"/> DK  <input type="checkbox"/> Ref.</p>

SKIP to 18a, page 54