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PUBLIC SERVICE EMPLOYMENT PARTICIPATION
AND EARNINGS IMPROVEMENTS IN
THE RURAL SOUTH

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The low level of income and earnings in the rural South relative to the nation as a whole is a well documented and generally accepted fact.¹ The mechanization of agriculture, substantial outmigration, a deficiency of essential resources, a shortage of capital, a low level of technological development, labor market discrimination and a lack of entrepreneurial ability have contributed to the underdevelopment of the rural South resulting in low per capital income levels. The industrial base in the rural South is narrow and concentrated in low-wage industries although agricultural employment remains important in most rural southern labor markets. While there is a predominance of low-wage occupations, many in agriculture, there is a scarcity of jobs relative to the potential labor supply. This surplus of labor helps explain the low labor force participation rates found in the rural South as well as the inability of official unemployment rates to accurately reflect the labor market situation.²

The lack of industrialization, low levels of education and training among population and the existing labor markets have resulted in a disproportionately large low income population in the rural South. For a number of reasons, the low income population of the rural South differs significantly from the poor elsewhere. Out-migration over the years of young people, often the best educated, has left the South with an inordinately high proportion of aged and persons with low levels of education, in essence, those least prepared to compete in the labor market.

The complexity of poverty in the rural South is amplified by the presence of a large black population. The legacy of discrimination and poverty has in many cases left this segment of the population largely devoid of the human

capital endowments needed to obtain even the low-skill jobs which exist in the rural South. Further, blacks continue to face occupational segregation and wage discrimination to a greater extent in the South than elsewhere.³

Given the characteristics of the low income population and the nature of rural southern labor markets, it is little wonder that federally funded public service employment (PSE) under the Comprehensive Employment and Training Act was viewed by many as the ideal program for the rural South. Not only did PSE provide immediate increased income and employment to the rural poor, it provided job exposure and work experience to the participants. This latter fact was deemed especially important for low-income blacks. Through PSE blacks could obtain jobs in the government sector, long closed to black workers in much of the rural South. Further, the nature of the program virtually assured equal pay. The long-run hope of course was that the PSE experience would enhance employability of participants in the private sector. This goal became clearer with the structured orientation of PSE embodied in the 1978 CETA amendments.

This paper reviews the earnings of PSE participants in the rural South prior to program participation and after leaving the program. The major purpose of the paper is to isolate the effect which PSE had on post-program earnings of participants.

Data

The analysis in this paper is based upon data collected as part of a study conducted for the U.S. Department of Labor, Employment and Training Administration during the period 1979-1981.⁴ Information collected on 494 individuals was selected randomly from all PSE participants in eight rural southern counties, four in Mississippi and four in Georgia, from the period 1976-1980.⁵ The sample was 54 percent Black and 52 percent male. Thirty-six

TABLE I
 Selected Characteristics of PSE Participants
 Rural South and United States

(In Percent)

Characteristics	Rural South	U.S.
<u>Sex</u>		
Male	58.3	61
Female	41.7	39
<u>Race</u>		
White	47.0	65
Black and Other	53.0	35
<u>Age</u>		
16 - 21	32.8	21
22 - 44	44.5	65
45 and over	23.4	14
<u>Economically Disadvantaged</u>	78.6	78

Source: U.S. data from William Mirengoff, et al., CETA: Assessment of Public Service Employment Programs, National Research Council National Academy of Sciences (Washington, 1980) p. 120. Sample data from: Vernon M. Briggs, Jr., et al., Public Service Employment In The Rural South. report submitted to Employment and Training Administration, U.S. Department of Labor (August, 1981).

percent of the persons in the sample were between 18 and 24 years of age while 14 percent were over 55 years of age. Almost 80 percent were economically disadvantaged. Over half the sample had less than a high school education.

In general, the difference between the characteristics of PSE participants in the sample and at the national level mirrors differences between the population of the rural South and the U.S. as a whole. Sample participants were more likely to be Black and less likely to be of prime labor force age than PSE participants nationally. The sample contained slightly more females.

Impact of PSE on Wages

Even though PSE participants were unemployed at the time they entered the program, most had worked at some time and the majority for a period during the previous year. Therefore, one possible measure of the impact which the PSE experience has on participants is the difference in wages earned in unsubsidized employment after PSE relative to wages earned prior to PSE. There are several reasons for believing that a net increase should occur.

First, there is evidence that limited OJT occurred. Where participants gain skills through PSE it is reasonable to assume that their value in the labor market is enhanced. Assuming that they secure unsubsidized employment, their earnings should be greater than prior to PSE.

A second factor stems from the characteristics of PSE participants. On average, participants tend to possess relatively little training and education. Their work experience has largely been confined to low level jobs. Moreover, their labor force attachment is often weak and their past work history sporadic. PSE offers an opportunity to acquire knowledge of job behavior and to

develop a work history. Although no substitute for skilled training, the work experience gained through PSE should enhance both employability and earnings.

Finally, in the rural South, PSE exposes participants to public employers and vice versa. The result may be access to unsubsidized job opportunities in the public sector which did not exist before. This exposure is particularly relevant for blacks. In general, jobs in the public sector are superior both in terms of wages and in terms of regularity of employment to private sector jobs which PSE participants would normally be able to secure.

One study of the rural South conducted in 1974 found that the average wage ranged from \$2.48 to \$2.95 depending on geographic location. For persons with characteristics similar to the average PSE participant, wages were much lower with over 35 percent of the working poor earning less than the then minimum wage of 1.60.⁶ The figures in Table II indicate that preprogram earnings had not improved substantially since the 1974 study.⁷ The average was \$2.67 which was approximately in the middle of the range found in 1974 for all rural Southern workers studied. In fact, 60.5 percent of those sampled in this study earned less than the average with almost 50 percent earning less than \$2.60. The average pre-PSE wage was very near the federal minimum which applied when most sample members entered the program.

The post PSE wages shown in Table II indicate a substantial improvement in wage rates with a post-PSE average wage of \$3.65, significantly above the 1980 federal minimum of \$3.10. There was, however, a substantial dispersion in the amount of actual increase. The benefits of PSE as reflected in wage changes were not uniform across the study sample. For example, the average increase for blacks was \$0.71 while for whites it was \$1.23. Moreover, blacks were less likely to have gained substantially. The post-PSE

TABLE II
 Average Wages of PSE Participants
 Prior to Entering the Program and After Leaving
 By Selected Characteristics

<u>Characteristics</u>	Pre-PSE Average Wage	Post-PSE Average Wage
Total	\$2.57	\$3.65
<u>Race</u>		
Black	2.62	3.33
White	2.88	4.01
<u>Sex</u>		
Male	2.87	3.60
Female	2.58	3.60

wage difference between blacks and whites was actually greater than the pre-PSE differential although both blacks and whites gained absolutely.

Women not only experienced a greater increase in wages than men, but the \$.30 average wage differential which existed prior to PSE disappeared completely. Moreover, women were more likely to have made substantial gains (\$1.00 or more) than men.

An important finding is that economically disadvantaged participants appear to have benefited more in terms of increased wages than the non-disadvantaged. Figures for average wages support this conclusion. The mean increase for disadvantaged participants was \$1.83 while for the non-disadvantaged it was \$1.01. The PSE experience seems to have been of greater benefit to the major target group.

Wage Change Model

If PSE is successful in enhancing the employability of participants and therefore their value to an employer, this should be reflected in higher post-PSE wages. While many factors may contribute to this increase in wages, the primary importance is to isolate the impact of PSE on the wage change.

The change in an individual's wage is assumed to be given by

$$W_{\text{post}} - W_{\text{pre}} = \beta_0 + \beta_1 \sum_{i=1}^I \text{DEMO}_i + \beta_2 \sum_{j=1}^J \text{ENV}_j + \beta_3 \sum_{k=1}^K \text{PSE}_k + u$$

where W_{post} is the difference between the individual's wage rate after termination from the program and the minimum wage, W_{pre} is the difference between the wage rate in the last job held before entering PSE and the minimum wage, DEMO_i is the i th demographic variable influencing the wage differential, ENV_j is the j th environmental variable that will cause differences in wage changes, and PSE_k is the k th variable that encompasses any impact the

PSE program might have on the wage differential. Deviation from the minimum wage was used in the computation of W_{post} and W_{pre} because it has been argued elsewhere that for occupations such as those held by the PSE participants, wages in the rural South do not increase with the price level; rather, they increase with increases in the minimum wage.⁸ It would be inappropriate then to adjust wage rates for inflation. An alternative measure would be to include dummy variables to account for the number of times the minimum wage increased in the time span between wages after and wages before the program. However, this specification would merely differentiate the year the participants held a job prior to entry into PSE, and would perhaps include other factors that may explain differences in wages.

The demographic variables included are MALE, a dummy variable for sex of the respondent equal to one if male and zero if female; BLACK, a dummy variable for race of the respondent equal to one if black and zero if white; AGE, the age of the respondent at the time of the interview; AGESQ, age squared and ED1, a dummy variable equal to one if the respondent had less than twelve years of education and zero if otherwise. The quadratic form for age was used to assess any productivity advantages primary aged workers have over younger or older workers. ED1 was specified as such because it is suspected that a high school degree is the major educational qualification to gain entrance into the type of jobs held by most of the participants.

Two variables were used to measure the difference in industrial structure between the sample counties since some of the counties may be more dominated by industries that generate low-wage jobs than others. Thus, dummy variables for Dodge County (DODGE equals one if the respondent was from Dodge County, zero if otherwise), and for Tallahatchie County (TALLA equals one if the respondent was from Tallahatchie County, zero if otherwise), the

counties with the highest and lowest mean wages in 1970 respectively, were included as independent variables.

To assess the impact of PSE on the wage differential, the number of weeks spent on the program was used as an estimate of the benefits gained from the program. It is hypothesized that the longer the time spent on PSE, the greater the increase in marketable skills.

Using ordinary least squares, the dependent variable WCHANGE ($W_{\text{post}} - W_{\text{pre}}$) was regressed on the above independent variables. The results are presented in Table III.

Findings

Regression results indicate that the PSE program had a positive and significant impact on participant wage differentials. As expected, industrial structure also had an important role in determining changes in wages increased by approximately the same amount regardless of the age of the participant. Thus, if some workers do enjoy higher wages because they are in the primary age group, the relationship is maintained after termination from the program. The same applied to sex of the participant, although marginal significance of the coefficient could be claimed. Interestingly, the coefficient for BLACK was negative and significant. This appears to indicate that PSE was unable to overcome the wage advantage of whites in the rural South.

The benefits of PSE may be derived from skill training, obtained while in the program, or simply from work experience and the development of a work history. Despite the 1978 Amendments requiring that a portion of the funds be spent for training, only 14.1 percent of the sampled participants received any type of training, and of these, 91 percent were in clerical or professional occupations. All of the training received can be considered informal on-the-job training (OJT), for there is no evidence that any of the PSE funds

TABLE III
 Estimated Wage Differential Function
 Employed PSE Participants

Variable	Coefficient	t-Statistic
BLACK	-0.76	-2.25
MALE	0.54	1.50
AGE	0.74	1.10
AGESQ	-0.86	-1.04
LESS THAN 12 YRS. ED.	-0.72	-1.94
DODGE	0.15	2.37
TALLAHATCHIE	-0.13	-2.96
WEEKS PSE	0.32	2.51
CONSTANT	-0.35	
F-EQUATION	5.97	
R ²	0.20	
N	196	

were spent for formal training in the sample counties. A study by the Brookings Institute contends that the probability of OJT is a positive function of the level of skill required for the occupation.⁹ Data in this sample somewhat contradict this conclusion. Almost 17 percent of those interviewed were in the same occupation while participating in PSE as they had been during their last job prior to PSE. Of this group, 70 percent were in professional or clerical occupations. Apparently, employers attempted to obtain PSE participants who already had skills applicable to the occupation available. For most other types of PSE jobs, neither prior training was required of, nor OJT given to, many of the participants.

Training in the PSE program then was virtually nonexistent. Any human capital gains can be considered general labor market experience obtained from job exposure and general work skills. Given the low initial human capital endowments, these gains were sufficient to increase the wage rates of the participants.

The results of the analysis indicate that wage rate improvements occurred for whites in the rural South who participated in PSE. A similar result for blacks is not supported by the findings. Although blacks gained in wages relative to pre-PSE levels, there is no direct evidence that PSE participation was a factor in this increase.

In addition, there is no support for the position that PSE was effective in reducing wage discrimination. This does not mean that the program was of no benefit to blacks. It is possible that the wage increases registered by blacks resulted from the ability to obtain jobs previously unavailable. Unfortunately the sample size in the study precludes specific analysis of this possibility.

Footnotes

¹For example see Ray Marshall, Rural Workers in Rural Labor Markets (Salt Lake City: Olympus Publishing Company, 1974), or Brian Rungeling, Lewis Smith, Vernon Briggs and John Adams, Employment, Income and Welfare in the Rural South (New York: Praeger Publishers, Inc., 1977).

²Brian Rungeling, et al., Employment, Income and Welfare.

³Stanley Masters, "The Effect of Educational Defficiency and Labor Market Discrimination on the Relative Earnings of Black Males," Journal of Human Resources, 9 (Summer, 1974), pp. 342-360 and James P. Smith, and Fines Welch, Race Differences In Earnings: A Survey and New Evidence (Santa Monica, California: The Rand Corporation, 1978).

⁴For a complete discussion of the sampling procedure and of the data collected see Vernon M. Briggs, Jr., Brian Rungeling and Lewis Smith, Public Service Employment in the Rural South, report to the U.S. Department of Labor, Employment and Training Administration (August, 1981), pp. 9-13 and Appendix A.

⁵The counties were designated as rural according to the U.S. Department of Labor definition.

⁶Brian Rungeling, et al., Employment, Income and Welfare.

⁷Ibid.

⁸John F. Adams, et al., Labor Markets in the Rural South, report submitted to the U.S. Department of Labor, Employment and Training Administration (February, 1977), pp. 468-479, and Lewis H. Smith, "The Role of Minimum Wages in the Rural South" presented at Thirty-Fourth Annual Meeting of the Industrial Relations Research Association, December, 1981 (Memeographed), p. 4.

⁹Richard Nathan, et al., Monitoring the Public Service Employment Program: The Second Round (Washington: National Commission for Manpower Policy: March, 1979), pp. 90-97.