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# Work Behavior of Low-Income, Nonfarm Wage Earners

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**O**F THE THREE major census subpopulations —farm, rural nonfarm, and urban—we know the least about the work behavior of the rural nonfarm population. Agricultural economists have directed most of their attention to farmers and, to a lesser extent, farm laborers, while general labor economists have been preoccupied with the urban sector. Work behavior of the rural nonfarm residents, which comprise 22 percent of the total U. S. population, has generally fallen between the slats.

The purpose of this paper is to take a modest step toward filling this gap by looking at the work behavior of one segment of the rural nonfarm population, namely low-income families in which both the husband and wife are present and the husband is of working age.

Data are from the Rural Negative Income Tax Experiment, which is a sample of 810 farm and rural nonfarm families in North Carolina and Iowa. The two samples were chosen to be representative of their respective regions and therefore should provide some insight into the work behavior of a broader spectrum of the rural south and midwest.

The principal purpose of the Rural Experiment was to measure the consequences of extending welfare payments to the working poor, those with incomes less than one and one half the poverty line at the beginning of the experiment. Approximately half of the sample received income-conditioned payments over a three-year period, the other half served as a control group. In order not to confuse "normal" work behavior, which is the subject of this paper, with behavior under a negative income tax, only the control group is used for the present analysis.<sup>1</sup> The population is further restricted to families in which (1) the head's principal source of earned income, if any, is from wages and salaries, (2) both husband and wife are present, and (3) the husband was able-bodied and less than age 60

<sup>1</sup> The impact of the transfer payments on work behavior will be reported during the coming year in a series of publications of the Institute for Research on Poverty.

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at the beginning of the three-year period.<sup>2</sup> These restrictions reduce the sample size to 146 families.

Each family member over age 16 was interviewed quarterly over the three-year period, 1970-72, and information on work behavior was asked for the previous three months. Thus the interviews provide a rich and continuous source of data for the purposes of this paper.

Since so little is known about the work behavior of low-income rural nonfarm families, the first part of the paper will use descriptive statistics to provide demographic and economic profiles. Where appropriate, distinctions will be made along both regional and racial lines by considering three subgroups—Iowa, North Carolina blacks, and North Carolina whites.<sup>3</sup>

Following the descriptive profiles, the dynamics of family income will be addressed. Last, regression analysis will be used to relate certain family and regional characteristics to the wage income of husbands.

## Descriptive Profiles

### Socio-demographic

The mean age of the head of this sample is 42, which is about the average for the entire population in the age range of 20 to 60, from which this sample was selected. On average, wives are almost four years younger than their husbands.

The average educational attainment of both husbands and wives in Iowa is 10½ years, but only seven years for North Carolina husbands and eight and one half for North Carolina wives. There is virtually no difference in education levels between the two races in North Carolina.

The average number of children under 21 and still at home is four in Iowa, 3.2 for North Carolina blacks, and lowest of all—2.3—for North Carolina whites. However, the North Carolina families have more other adults living with the

<sup>2</sup> The sample, therefore, is not strictly defined as rural nonfarm by residence. It is, rather, defined by income source (wages and salaries) and therefore includes a few farm hands who live on their employer's farm, as well as some families who live in the open country and have small amounts of farm income (and therefore, might be defined as farmers by the Census Bureau) but work principally for wages.

<sup>3</sup> The Iowa sample was all white.

central family—an average of 0.4 and 0.2 for blacks and whites, respectively, compared to only 0.05 for Iowa families.

The distribution of occupations of husbands is only available by region. Nearly 40 percent of the Iowa wage earners were in the craftsman-kindred category. A fourth of these were auto mechanics. The remainder were distributed among carpentry, plumbing, painting, radio and TV repair, and machine operation. About 20 percent of the North Carolina sample were in the craftsman-kindred category, with almost half being carpenters and auto mechanics.

A fourth of the Iowa husbands were classified as operatives, with half of these being truck drivers. Forty percent of North Carolina husbands were operatives, a fourth of which were truck drivers.

Approximately 10 percent of the North Carolina sample, and virtually none of the Iowa sample, were service workers—janitors, barbers, hospital attendants, and kitchen workers. Eighteen percent of Iowa men were farm hands, while only 6 percent of North Carolina wage earners were in this occupational grouping.

Laborers represented nearly 10 percent of Iowa men and about 20 percent of the North Carolina sample.

There was a preacher, a sheriff, and a policeman, but the main bulk of the sample was in unskilled or semi-skilled occupations. The average wage rate was only \$2.05 per hour. One in four husbands earned less than \$1.60 per hour, while less than 10 percent earned more than \$3.00 per hour.

### Income

Turning now to an income profile of this sample, we begin by describing sources of income and contributions to family wage income by various family members, and wind up with data on some measures of work behavior.

Average family income of this sample over the three-year period 1970-1972 was \$6145 per year. This is about three fifths of the average income of all male-headed rural nonfarm families. In terms of the poverty level ratio, this is about 1.5 the poverty line adjusted for family size.<sup>4</sup> In terms of a distribution, 24 percent were below the poverty line, 32 percent were between 1.0

and 1.5, 24 percent between 1.5 and 2.0, and 20 percent were over twice the poverty line.

Of the average total family income of \$6145, over 93 percent was earned income, mostly from wages and salaries (hereafter simply referred to as wages). About 10 percent of the sample had some farm income, and approximately 5 percent had some business income, but those amounts were small, representing only 2 percent and less than 1 percent of total income, respectively. The Iowa subsample had the most farm and business income, but even here the two sources together represented only 6 percent of total family income.

About 6½ percent of total income, then, was unearned, with half of the families reporting such income. This represents a variety of kinds of income: unemployment insurance, food stamps, college scholarships, asset income, free meals at school, and life insurance benefits. The largest source under this category was the bonus value of food stamps, representing \$125 per year or 2 percent of total income. A fifth of the families reported receiving such income; for them the net addition to income was about \$600 per year.

Perhaps surprisingly, the next largest source was the value of free or subsidized meals received by children at school. Half the families reported receiving these benefits, and the net addition to their income was about \$150 per year. None of the other sources of unearned income represented as much as six tenths of 1 percent of total income. At any given time less than 5 percent of the families received unemployment compensation, and less than 2 percent had any asset income.

Wages, then, represented over 90 percent of total family income, and over 98 percent of the families had wage income during any given quarter. Most of this wage income, about three fourths, was contributed by the husband; however, there was considerable variation by region and race. The relative contributions by husband, wife, and dependents at home under 21 years of age are shown below for the three subpopulations:

	Iowa	NC-W	NC-B
	Percent of Total		
husband	91	82	70
wife	7	13	26
dependents	2	5	4
Total	100	100	100

<sup>4</sup> At first glance it may seem puzzling that the average poverty ratio could be 1.5 for a sample initially chosen to be below 1.5 the poverty line. However, the initial selection was based on 1968 and 1969 income, whereas the 1.5 average is for the period 1970-72.

The husband's contribution to all wage income of the family ranged from a low of 70 percent for North Carolina blacks to 91 percent for Iowans. However, the North Carolina black wives' share of family wage income (26 percent) was twice that of North Carolina white wives (13 percent), and over three and one half times that of Iowa wives (7 percent). The children's contribution to total family wage income was small, ranging from 2 percent in Iowa to 5 percent among North Carolina whites.

It is instructive to look now at the number of weeks worked, hours worked per week, and wage rates, the product of which determines wage income.

In any given quarter, over 96 percent of the husbands worked for wages, and 76 percent worked the entire 13 weeks of the quarter. Of those who worked at any time during the quarter, the average hours per week was slightly in excess of 40, and their wage rate averaged \$2.05 per hour.<sup>5</sup>

It is informative to look at the regional and racial differences in these data. In any given quarter, about 5 percent of the black men in North Carolina were unemployed, 16 percent worked between 9 and 12 weeks, and 72 percent worked the entire 13 weeks. In contrast only 3 percent of Iowa men were unemployed, less than 6 percent worked 9-12 weeks, and 85 percent worked the entire 13 weeks. North Carolina white men fell approximately midway between these two extremes, suggesting differences in labor markets between the two regions as well as racial differences in North Carolina.

These differences, moreover, are magnified by the data on hours worked per week and wage rates per hour. A surprising 60 percent of the Iowa men worked over 45 hours per week, compared with 28 percent of white men in North Carolina and 20 percent of black men in North Carolina.<sup>6</sup> As to wage rates, 42 percent of Iowa men earned over \$2.50 per hour, compared with 26 percent of whites in North Carolina and only

<sup>5</sup> This \$2.05 figure includes the average implicit wage rate of salaried workers. Twenty-two percent of the husbands were salaried, with a considerable racial differential. Only 12 percent of North Carolina black husbands were salaried, while 32 percent and 38 percent of North Carolina white and Iowa husbands, respectively, were salaried.

<sup>6</sup> Regional differences in hours per week may be slightly biased because a much higher proportion of Iowans were farm hands, who probably worked long hours in a week but who might also have tended to overestimate their actual hours of working time.

10 percent of North Carolina blacks. These differentials are also reflected in average wage rates (excluding the unemployed) of \$2.37 for Iowa men, \$2.14 for North Carolina whites, and only \$1.89 for North Carolina black men.

So the black man faced more unemployment, less full time employment, and a lower wage rate than his white counterpart in North Carolina, despite the fact that he was of about the same age and had a slightly higher level of education. And the Iowa wage earner, of the same age but with three more years education, had less unemployment, more full time employment, more overtime work, and a higher wage rate.

The work experience of wives is somewhat the reverse situation from that of men with regard to racial and regional differences. Black wives, especially in low-income families, have traditionally had a greater attachment to the labor force, due in large part to the discrimination faced by their husbands and the resultant lower male earnings. Among the rural nonfarm families in this sample, we find 68 percent of black wives working in any given quarter, compared with 44 percent of North Carolina white wives and only 30 percent of Iowa wives. Moreover, twice as many black wives worked all 13 weeks in a quarter (35 percent) and three times as many worked 9 to 12 weeks (14 percent) compared to white wives. In terms of hours worked per week, a third of the black wives worked 25 or more hours versus 18 percent of North Carolina white wives and only 9 percent of Iowa wives.

These differences are not as pronounced for wage rates, however. Despite the fact that more black wives worked full time and, presumably, had a longer work history and more job tenure, their average wage rate was the same as for Iowa wives—\$1.41 per hour. North Carolina white wives had a lower average wage rate—\$1.27 per hour.

To summarize the economic profile briefly, we find this low-income rural nonfarm group to have a high attachment to the labor force. This industriousness is most exemplified by the black subsample, where 95 percent of the husbands and 68 percent of the wives worked in any given quarter. The men averaged 12 weeks per quarter and 41 hours per week. The working wives averaged almost 10 weeks per quarter and 31 hours per week.

The work experience of men in the other two subsamples is much the same—almost 97 percent worked, and they averaged 12 weeks per quarter and 43 hours per week. However, there are fewer

wives working in these two groups: 44 percent of the North Carolina whites and 30 percent of the Iowa wives. They averaged 8 weeks per quarter and about 30 hours per week.

The inadequate incomes experienced by these families is obviously not because they cannot or will not work, nor is it principally due to sporadic or part-time employment. To be sure, the lack of a year-round, 40-hour-a-week job for some is a contributing factor to their low-income status, *but the principal problem is low wage rates*. With an average wage rate of \$1.89 per hour, the black man can earn only \$3931 if he works 40 hours per week, 52 weeks per year. And if he and his wife both work full time at the prevailing wage rates, together they cannot earn even \$7000 per year.

The potential for North Carolina white families, who face no racial discrimination, is not much better, probably no more than an additional \$500 to \$1000 per year.<sup>7</sup>

### The Dynamics of Family Income

Since the data base of the Rural Experiment is longitudinal in nature, with quarterly observations over a three-year period, it is of interest to look at the dynamics of family income: the proportion of families who move out of poverty or who fall into poverty, as well as the more general issue of magnitudes of income change over the three-year period.

Average family income rose from \$5588 in 1970 to \$6196 in 1971, an increase of \$608, or almost 11 percent. From 1971 to 1972 the increase was \$420 or a little over 8 percent. This average annual increase of 9.6 percent varied somewhat by subgroup, from 11.6 for North Carolina blacks to 9.9 for Iowans to 6.6 for North Carolina whites. During this period the poverty line, as adjusted by the Consumer Price Index, rose about 6 percent per year; thus the ratio of family income to the poverty level rose slightly, from 1.4 in 1970 to 1.6 in 1972. Not everyone experienced this modest increase in income, however. A third of the families had an income reversal from 1970 to 1972, while the other two thirds experienced income gains. In relation to

the upward-inching poverty line, slightly over 40 percent of the families lost ground.

The situation looks slightly different in terms of movement into and out of poverty. Twenty-three percent of the families were below the poverty line in 1970. By 1972, half of these had moved out of the poverty classification. However, of the 77 percent above the poverty line in 1970, one in five had fallen *below* the line by 1972. Viewed as proportions of the total sample of families, 11 percent moved above the poverty line from 1970 to 1972, but nearly 16 percent dropped below the poverty line.<sup>8</sup>

Looking at all families, not just those crossing the poverty line, many of the income changes, both up and down, were substantial. In terms of poverty ratios, one in five families changed by more than three fourths the poverty index. For a family of four this represented a change in income of more than \$2600. Measured on the same scale, another 11 percent of the families had income changes between \$2600 and \$1750, while less than 38 percent of the families had incomes which fluctuated less than \$875.

These are substantial changes when viewed in terms of an average family income of about \$6000. It illustrates the income instability which many low-income families must adjust to, a situation for which they are particularly ill-equipped, given their low net worth positions.<sup>9</sup>

These findings support those of other longitudinal studies (see, for example, [1] and [2]) which show that the poverty population is not a stable group. The incomes of low-income families can and do fluctuate substantially from month to month and year to year, and there are considerable differences in who is poor from one year to the next.

We turn next to regression analysis in an attempt to explore further the work behavior of low-income rural nonfarm families by relating husbands' wage income to various family, individual, and regional characteristics.

### Regression Analysis

The type of analysis used here is error components, which allows the combining of cross-

<sup>8</sup> While this is slightly surprising, given the previous finding that the average ratio of income to the poverty line rose from 1.4 to 1.6 over the same period of time, it is not inconsistent. It merely means that the aggregate income increases exceeded in absolute magnitude the income decreases—and by more than the 6 percent annual rise in the poverty level.

<sup>9</sup> The average net worth of the sample families was only \$1330.

<sup>7</sup> This would be \$500 if one uses the prevailing wage rates for white men and assumes their wives, who now work less than black wives, would have the same wage rate if they worked more; and \$1000 if one assumes that white wives working full time would have wage rates 25 cents per hour higher than black wives, which is the current black/white wage differential for men.

section and time series data in obtaining OLS regression estimates. The observations are quarterly, on 146 families over the three-year period. There are 1651 observations in all.<sup>10</sup>

The only regression equation presented here relates husbands' wage income per quarter to a number of hypothesized explanatory variables. For the sake of brevity, the rationale for selecting the independent variables will be omitted, and we proceed directly to the interpretation of the results, shown in Table 1.

The first two variables are (0, 1) dummies representing region (NC = 1) and race (black = 1). The coefficients are not directly interpretable because both variables also appear as interactions with age and education. Regional and racial

differences in husband's earnings can be computed, however, by fixing age and education in these interaction variables at their sample means. Doing so we find that North Carolina white husbands average \$340 less per year than Iowa husbands, controlling for all other factors in the regression equation. This compares with a sample mean difference of \$1296, indicating that most of the latter difference is explained by other variables in the equation such as the higher level of education possessed by the Iowa husbands.

The racial difference in earnings is more pronounced. After controlling for all other factors, the regression shows that black husbands make \$1380 per year less than white husband in North Carolina. This is larger than the sample mean difference of \$764. The regression figure of \$1380 might be regarded as an approximate measure of discrimination, with two important qualifications. First, the sample is only of low-income families, so this figure represents racial

<sup>10</sup> Twelve quarters times 146 families yields a maximum N of 1752. The loss of 101 quarterly observations is due to sample attrition via wage earners becoming farmers, separation of husband and wife, or simply refusing to be interviewed.

Table 1. Husband's wage income, per quarter

Independent Variables				
No.	Name	Coefficient	t Statistic	Sig. Level
1.	Region Dummy (1 = NC)	1169.589	0.99	.32
2.	Race Dummy (1 = black)	1795.851	2.17	.03
3.	Head's Age	37.814	0.57	.57
4.	Head's Age Squared	-0.622	0.86	.39
5.	Head's Education	287.707	1.03	.30
6.	Head's Education Squared	-10.424	0.87	.38
7.	Head's Age $\times$ Education	-2.178	0.31	.76
8.	Head's Age Sq. $\times$ Education	0.051	0.65	.52
9.	Race $\times$ Age	-70.366	1.92	.06
10.	Race $\times$ Age Squared	0.777	1.78	.07
11.	Race $\times$ Education	-64.225	0.66	.51
12.	Race $\times$ Education Squared	-1.572	0.23	.82
13.	Region $\times$ Education	-305.102	1.20	.23
14.	Region $\times$ Education Squared	17.948	1.33	.18
15.	Other Adult Present (1 = yes)	11.448	0.37	.71
16.	Number of Dependents	19.215	1.64	.10
17.	Business Income (1 = yes)	168.201	2.63	<.01
18.	Acres Operated	-0.047	0.81	.42
19.	Acres Operated Squared	-0.005	0.02	.98
20.	Distance From Large Town	-7.950	3.40	<.01
21.	Unemployment Rate (%)	-30.586	2.09	.04
22.	Season 1—Winter	-51.578	3.27	<.01
23.	Season 2—Spring	20.151	1.45	.15
24.	Season 3—Summer	24.161	1.56	.12
25.	Quarter of Observation	27.777	2.92	<.01
26.	Quarter Squared	-0.581	0.81	.42
27.	Farm Hand (1 = yes)	-68.409	1.76	.08
28.	Other Family Income	0.004	0.18	.86
29.	Health Prevents Work (1 = yes)	-556.661	7.50	<.01
30.	In Job Training (1 = yes)	-1777.416	7.62	<.01
31.	Constant	-651.642	0.34	.73
$R = .590$		$\bar{R}^2 = .335$		
$R^2 = .348$		$F = 13.84$		

differences only among that group. As such, it probably is an under-estimate of the measure one would get for the entire rural nonfarm population. Secondly, the equation explains only 35 percent of the variance in wages earnings. One must therefore assume that the omitted variables are uncorrelated with race in order to regard this as an accurate measure of discrimination.

The next six variables (3-8) relate to age and education of the husband. Both age and education are represented in quadratic form, and age and age squared are each interacted with education. None of these variables are individually significant, but taken as a group they are significant at the .05 level. They cannot be interpreted, however, without reference to the next group of variables, 9-14. These are the interactions of race with age and age squared, and race and region with education and education squared. The interactions of race with age and age squared are both significant (.06 and .07, respectively). The two race and education interactions are not individually significant, but as a pair they are significant at the .03 level. The region and education interactions are not particularly significant, either individually (.23 and .18) or as a pair (.35).

The coefficients of these 12 variables plus those of the region and race dummies, when interpreted together, yield age/earnings profiles for the three subsamples. These profiles of husband's wage incomes are presented in Figure 1, holding education constant at eight years, approximately the sample mean. Since the equation has no regional interactions with age (they were tried in earlier runs but omitted in the final formulation because of their extremely low significance levels), the profiles for the two white subsamples are the same except for a difference in level.

These profiles differ from the usual age/earnings relationships in that the sample is truncated with respect to income. We would therefore expect the curves to be flatter than for the entire U. S. population, and this is the case. The profiles of the two white low-income subsamples are flatter but in the same general shape as for the U. S. population as a whole—rising to about age 45 and then declining thereafter.

The age/earnings profile for the North Carolina black sample is just the reverse, with earnings decreasing at a decreasing rate until a minimum is reached at about 45 years of age, and then increasing again. The result is slightly surprising. I expected a fairly flat curve, or perhaps even one with a slightly downward slope, but

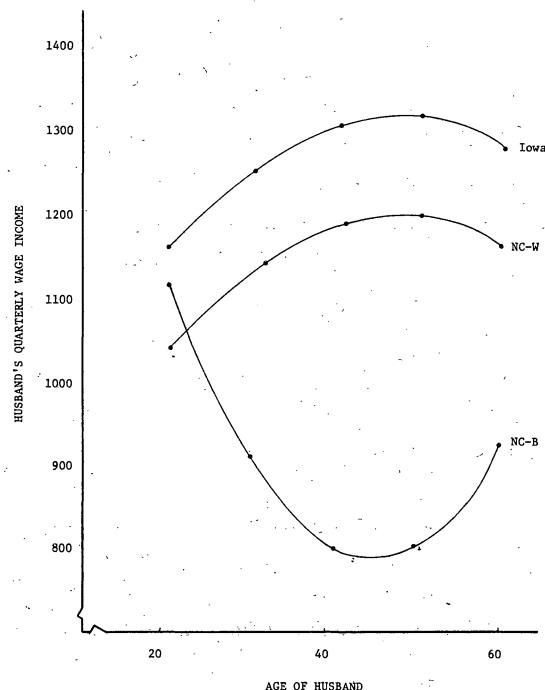


Figure 1. Age/earnings profiles

not the U-shaped curve shown. An *ex post* rationale of such a profile is the following.

With integration of the public school system, previous research has shown that both the quantity and quality of education for blacks is increasing faster than that for whites [3]. Thus the *age difference* in human capital stock is greater for blacks than for whites—older black people received their education in grossly inferior, segregated schools. Education, therefore, is not held "as constant" over the age range for blacks as for whites in this equation because quality is not controlled for.

This is portrayed in Figure 2, which represents hypothetical *cohort* age/earnings profiles. These are the profiles of age cohorts over time, rather than a cross section of all ages at any point in time. Each curve represents a cohort; the bottom one might represent the life earnings of men who were age 20 in 1930; the next, men who were age 20 in 1940, and so on; the last curve representing the cohort of men age 20 in 1970. The dotted lines represent projections into the future. What we are observing in cross section analysis is the points connected by the downward sloping line.

This phenomenon is present to a lesser degree in all cross-section estimates of earnings by age, and it is the reason we find that the cross-section

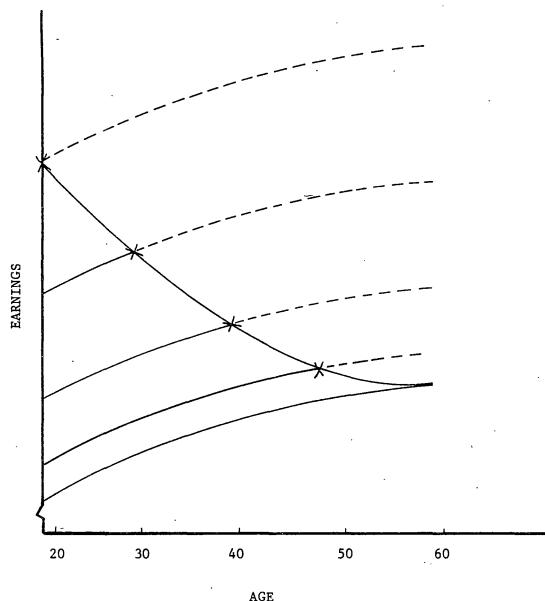


Figure 2. Hypothetical cohort age/earnings profiles

profiles begin to decline after about age 45 (whereas *over time* most people at age 55 are earning more than they did at age 45). But the vertical distances between these cohort profiles are likely greater for blacks than for whites among the younger cohorts, and they may in fact be large enough to result in a downward sloping curve when estimated from cross-section data. One can, in fact, draw a reasonable set of cohort profiles which, when connected as shown in Figure 2, would yield a cross section profile which is U-shaped, the same as in Figure 1 (through perhaps not as extreme).

Turning to other variables in the regression equation, the next two relate to family composition. The first (15) is a binomial dummy in which a value of one indicates that one or more adults other than the central family reside in the household.<sup>11</sup> The next variable (16) is the number of unmarried children less than 21 and living at home. Both variables have a positive effect on the husband's wage income, but only the latter is significant and then only at the .10 level. The usual explanation for this positive relationship is that a larger number of children result in a greater need for income, hence the father of a large family will tend to earn slightly more than if he has less dependents to support.

Counter to expectations, those husbands with

<sup>11</sup> The central family is defined as the husband and wife and all unmarried dependents less than age 21.

business income had *higher* wage income (\$168 per quarter, variable 17). The hypothesis with respect to part-time farmers was weakly supported by the regression—they had less wages and the size of their farming operation (represented by acres operated, variables 18 and 19) was negatively correlated with wage income, but operating 40 acres only reduced wages by an average of \$10 per quarter.

Interestingly, nearness to a larger town (over 10,000) resulted in higher wage income: for every mile farther away, quarterly wage income declined by \$8 (variable 20). The unemployment rate in the area (variable 21) was also an important explanatory variable, indicating that as the unemployment rate increased one point, quarterly wage income declined by \$30.

The seasonal dummies (22–24) were highly significant as a group, and each was individually significant at the .15 level or less, but the differences among the coefficients were surprisingly small. They show that earnings in the Winter (Season 1) were only \$75 per quarter or \$25 per month lower than in the Summer. Wage income in the Spring was almost the same as in the Summer (\$4 per quarter less), while Fall income declined from the Summer level by an average of only \$17 per quarter.<sup>12</sup>

The variables "quarter" (25) and "quarter squared" (26) were included to capture the trend in wage income over the three years. As discussed previously, the average income of the sample rose over that period.

Two other variables are of some interest. Farm-hands (variable 27) earned \$68 per quarter or \$272 per year less than other wage earners, after controlling for the other factors in the regression. The variable representing other income of the family (28), which includes the wages of other family members and all unearned income, is not at all significant (.86 level).

The two remaining variables in the regression, health conditions preventing work (29) and full-time job training (30), were simply introduced to control for these infrequent situations in case they might be correlated with one or more of the other independent variables. As expected these coefficients were negative, large, and highly significant.

To summarize the regression results, they show (1) that age and education are important

<sup>12</sup> The seasonal dummies are coded such that the omitted season, the Fall, is the sum of the coefficients of the other three seasons and opposite in sign. Thus the implicit coefficient for the Fall season is \$7.27.

variables in explaining variation in the wage income of husbands of low-income families and that they operate differently by race; (2) that there appears to be a good deal of racial discrimination in rural nonfarm labor markets and, if anything, our estimates tend to minimize this effect because the sample is restricted to low-income families; (3) distance from a larger town has a significant effect on wage income; and (4) seasonal fluctuations in the wage income of low-income rural nonfarm husbands are surprisingly small. Similar regressions to explain variation in the wage income of wives, not reported here, show even smaller fluctuations, with a difference in earnings of only \$17 per month between the Summer and Winter. Regressions on total family income show the difference between the two seasons to be about \$80 per month, with roughly half of that due to summer earnings of dependents.

### Concluding Remarks

One cannot advocate income and manpower policies for the rural nonfarm sector on the basis of a sample of 146 families, even though they were chosen to represent the Southeast and West North Central regions. We need more research on rural nonfarm labor markets and on the characteristics and behavior of the people who live there. Nonetheless, the findings presented in this paper lend support, at least, to three policy directions.

The first is a conscious policy to raise wage rates in the rural nonfarm sector. While unemployment contributes to income insufficiency of non-aged, male-headed families, it is not the major problem. Over 95 percent of the husbands in this sample worked in any given quarter, and they averaged over 40 hours per week and slightly more than 48 weeks per year. The wives, especially of the black subsample, also had a high degree of work involvement. For virtually all of the families in this sample, the major cause of low incomes was low wage rates. In fact, one-

fourth of the husbands and an amazing 70 percent of the working wives received less than the minimum wage of \$1.60 per hour. This suggests that they are either working in uncovered industries or the minimum wage law is not being enforced.

Attention must be given, of course, to the relationship between wage rates and the unemployment rate, but it is likely that a policy to raise wage rates in the rural nonfarm labor market would greatly benefit low-income families with a head of working age. Such a policy might involve expanded coverage of the minimum wage, raising the minimum wage, as has recently occurred, and perhaps providing incentives for unionizing more workers in the rural nonfarm sector.

A second policy suggested by these findings is to reduce racial discrimination. This might be accomplished by more vigorous enforcement of antidiscrimination laws in employment, such as the Civil Rights Act, an insistence on equal opportunity of employment when federal or state funds are involved, and government funding of affirmative action programs aimed at small businesses.

Lastly, it is the very group under consideration here—the working poor and near-poor—who are not covered by welfare. Passage of a negative income tax like the one presently being developed by HEW would provide a modest income supplement to those families. Roughly three of every five families in this sample would receive some cash assistance. Those with no income would receive from \$200 to \$300 per month, depending on family size. However, the average supplement for all families eligible would be in the neighborhood of \$40-\$60 per month.

To conclude, then, the findings of this analysis suggest that the most progress can be made in alleviating low incomes of working-age families in rural nonfarm areas by raising wage rates, reducing racial discrimination, and extending income-conditioned cash transfer programs to male-headed families.

### References

- [1] KELLY, TERENCE F., "Factors Affecting Poverty: A Gross Flow Analysis," in *The President's Commission on Income Maintenance Programs: Technical Studies*, Washington, D. C., 1970, pp. 1-81.
- [2] MORGAN, JAMES N., et al., *Five Thousand American Families—Patterns of Economic Progress*, Vol. I, Ann Arbor, Institute for Social Research, University of Michigan, 1974.
- [3] WELCH, FINIS, "Black-White Differences in Returns to Schooling," *Am. Econ. Rev.* 63:893-907, Dec. 1973.