FOCUS

Institute for Research on Poverty
Newsletter

THE RURAL INCOME MAINTENANCE EXPERIMENT

Do the rural poor work less when they are eligible to receive cash benefits from an income maintenance program? The Rural Income Maintenance Experiment, fielded by the Institute for Research on Poverty and directed by D. Lee Bawden, has just released its final report to provide new evidence on this question.

The effect of income maintenance on how much the poor, particularly those with family responsibilities, choose to work has proven a recurrent and politically significant issue. Equity argues in favor of income support for the "working" poor, just like the rest of the poor; intuition and economic theory both lead us to expect that those who *can* work will work less if they receive benefits.

Several major social experiments—two of which were conducted by the Institute for Research on Poverty—have been funded by the Office of Economic Opportunity and the Department of Health, Education, and Welfare to find out whether, in fact, the poor will work less and, if they do, how much less. The Rural Experiment was the second of these. (The first one—the New Jersey Experiment directed by Harold W. Watts—reported its results in December, 1973. Revised results are currently being published in the Institute's Research Monograph Series.)

Why More Than One Income Maintenance Experiment?

When the possibility of fielding a large-scale social experiment was discussed almost ten years ago, a consensus rapidly developed that *one* such experiment, however well designed, would not be sufficient to provide definitive information concerning the effects of a national income maintenance program on work behavior. The diversity of demographic groups and labor markets, it was argued, necessitated several experiments with different samples and different subsidiary hypotheses.

The best-known experiment, and probably the project for which the Institute has received most professional and public recognition, was the New Jersey Graduated Work Incentive Experiment. Following the early consensus that no single experiment could answer everything, the New Jersey Experiment was designed with rather a restricted research focus. The sample was not only limited to families headed by able-bodied men who were in the 18-58 age range. It was also limited to families living in the urban northeast of the United States.

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The purpose of FOCUS is to acquaint a wide audience with the work of the Institute for Research on Poverty, by means of short essays on selected pieces of research.

The material in any one issue is, of course, just a small sample of what is being done at the Institute. It is our hope that these summaries will whet the appetite of the reader to learn more about the research itself, and more about other research on poverty—an area of vital social concern—by Institute staff.

The views expressed are those of individual members of the Institute; they do not represent the position of the Institute for Research on Poverty, the University of Wisconsin, the Department of Health, Education, and Welfare, or other funding agencies.

ORDER FORMS ARE AT THE BACK

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Over a third of the U.S. poor population live in rural areas (on farms or in towns of less than 2,500), and are assumed to face very different opportunities from those faced by their urban counterparts. Most have rather limited income opportunities that are highly seasonal. Many are self-employed farmers, a large proportion of which also work for wages off the farm.

A second experiment was thus designed to find out whether these differences would result in a rural/urban difference in work response to a national income maintenance program.

The Rural Experiment

Like the New Jersey Experiment, the Rural Experiment set out to measure the effects on work and earnings (and therefore on the cost of a national program) of a particular kind of income maintenance program, namely one that relied on self-reporting of income and family size by the recipients. The two principal experimental variables were those common to all transfer programs that depend on income level for eligibility—a basic benefit (the payment level for a family with no other income) and an implicit tax rate (the rate at which the basic benefit payment declines as income from earnings and other sources rises). These together determine the size of the benefit payment. In the negative income tax plans under consideration they are set in such a way that total income (that is, earnings plus unearned income plus benefit payment) always rises as earnings rise.

Also like the New Jersey Experiment, eligible families were selected randomly from within the experimental sites. They were divided into three income categories and assigned randomly within the categories to the control group or to one of the various negative income tax plans to be tested. The experimental groups were eligible to receive payments every two weeks over a three-year period, based on monthly reports of income and family size. Experimentals and controls alike were interviewed every three months.

Unlike the New Jersey Experiment, single individuals, families headed by women, and families with an aged head were included in addition to the two-parent, "working poor" family. Five negative income tax plans were tested (in contrast to the eight tested in New Jersey):

Basic Benefit (as % of poverty line)	Tax Rate (%)
50	50
75	30
75	50
75	70
100	50

Summary Report

THE RURAL INCOME MAINTENANCE EXPERIMENT

conducted by

Institute for Research on Poverty

for

Office of Economic Opportunity

and

Department of Health, Education, and Welfare

Institute Special Report no. SR10

- There will be a conference on the Rural Income Maintenance Experiment at the Brookings Institution, Washington, D.C., in January 1977.
- A special issue of the *Journal of Human Resources* will be devoted to the Rural Experiment in the summer of 1977.

Iowa and North Carolina were the two sites chosen. The Iowa sample was all white, the North Carolina sample was half black and half white. The original sample totalled 809 families, of which 729 remained in the program for the entire three years.

In analyzing work and income response to the experiment, the sample was divided according to the principal source of earned income: wages or farming.

Work Behavior of Farm Families

Farm operators in the experimental group worked more on the farms than their control counterparts—11 percent more in both Iowa and North Carolina. Wives in the experimental group also tended to work more on the farm than the control wives (although hours worked declined in absolute terms for both groups).

Consistent with this, the hours worked for off-farm wages by members of farm families in the experimental group declined relative to controls in every group—and for wives the effect was large. (A substantial proportion of the farm families did have members working for wages—about 78 percent in North Carolina and 50 percent in Iowa.)

Table 1 shows the contrast.

Table 1

Experimental/Control Differences in Hours Worked for Farm Families On and Off the Farm

	North Carolina	Iowa
Farm Operators		
Hours of farm work	+10.7%	+10.9%
Hours of wage work	−33.3	−10.4
Total hours of work	− 2.7	+ 9.5
Wives		
Hours of wage work	−63.5	−56.7
Farm Operators and Wives		
Total hours of work	−17.0	+ 7.2

With the experimentals putting in more farm work than controls, one would expect their profit picture to be correspondingly better. But here again is a paradox. Farm operators' participation in the experiment generally *reduced* profit (defined as gross revenues less current costs) for a farm operation of a given size, as is shown in Table 2. Efficiency of farm operations (measured by the amount of output produced with a given bundle of fixed and variable inputs) also declined for experimentals relative to controls.

How are these paradoxes to be explained? We do not have definitive answers, but there are several possibilities.

Table 2

Experimental/Control Differences in Farm Profit, by Year

	North Carolina	Iowa
1970	−28.1%	−18.1%
1971	−26.7	+16.2
1972	−19.7	−22.9

Explaining the Paradox of the Farmers

There are three plausible reasons for the increased farm work of the experimentals relative to controls.

First, to the extent that farmers and their families also held wage jobs, the payments may have made it less costly for them to work less at those jobs (on the reasonable assumption that they liked them less than work on the farm), leaving more time free for farm work.

Second, farmers may tend to devote most of their free time to farm work, somewhat independent of the demand for their labor (via a more or less leisurely work pace), or they may simply *report* that all their free time is devoted to the farm, since they are unaccustomed to keeping track of their hours. Third, farmers in the experiment may have been able to spend more time on improvements and repairs.

The decrease in relative profits, in light of the reported increase in hours, is a puzzle with no definitive answer. The gain from additional hours worked in self–employment is not straightforward. A self–employed farmer, for instance, can respond to the payments by changing not only the amount of his own work, but the kind of work he does, the kind of work others do, and even the production process itself.

Possible explanations of the relative decline in profits include: (a) Farmers may have become less careful and less concerned with profit because of the financial cushion of the payments, enabling them to spend time on the farm for enjoyment without regard to the financial return; (b) They may have spent time on improvements that would increase profit in the long run but not during the three–year span of the experiment. The payments may also have allowed them to take more risks; (c) There may have been measurement problems in the data that biased the experimental–control comparisons. For instance, the necessity to report every month (as opposed to only every three months for the controls) may have made the experimentals more efficient at keeping track of all their costs.

Work Behavior of Wage Earners

Over half the rural sample earned most of their income from wage work, with most of them living and working in small towns. Their responses were analyzed separately because working for wages was expected to set up different behavior patterns from those of people working on their own farm. The work behavior of the members of these families differed somewhat by race and region. The results reported here involve husband/wife families where the husband was of working age.

No statistically significant evidence of withdrawal from the labor force appeared for any group of *husbands,* whether black or white, whether in North Carolina or Iowa. Nor was there any change in the average hours they worked.

For *wives,* in contrast, large statistically significant negative experimental effects on hours worked also appeared for all

groups of wives, although they were only statistically significant for the blacks in North Carolina.

Among children living at home, the effect of the experiment on the average hours worked was also strongly negative (the difference between experimentals and controls amounting to 46 percent) although, again, a statistically significant level was only reached for one subgroup–white children in North Carolina.

All this added up to a statistically significant average reduction both in hours worked by families and in the numbers of earners per family compared with the control group.

These results cannot be generalized to the country as a whole. But they can be used to predict the response for the three midwestern and five southern states that the experimental sites were chosen to represent (Wisconsin, Illinois, Iowa, Mississippi, Alabama, Georgia, South Carolina, and North Carolina)—about 30 percent of the U.S. poor and near-poor rural nonfarm population. For this 30 percent, then, the results of the experiment predict a negative effect on hours worked of 13 percent.

Table 3 shows the experimental–control differences in hours worked for the various groups.

Table 3

Experimental/Control Differences in Hours Worked for Rural Wage Earners

	North Carolina		Iowa	8–State
	Blacks	Whites	Whites	Average
Husbands	− 8%	+ 3%	− 1%	− 1%
Wives	−31	−23	−22	−27
Family	−10	−18	− 5	−13

Note: These are expressed as percentages of the control mean for a middle–range negative income tax plan.

School Performance and Nutrition

As in the New Jersey Experiment, there was some change in expenditures, particularly an increase in purchase of consumer durables, but few aspects of behavior other than work patterns changed noticeably as a result of the Rural Experiment. Two conspicuous exceptions appeared in North Carolina, however, that were not found either in Iowa or in New Jersey.

First, although aspirations, attitudes, and school behavior of teenagers did not change, *school performance* improved significantly for both black and white grade school children (up through grade 8) in North Carolina as a result of the experiment. This was true for attendance, comportment, academic grades, *and* standardized tests.

Second, *nutrition* improved significantly among experimental families in North Carolina.

That Iowa (and New Jersey) did not share in the gains can probably be attributed to initially better home environments, school performance, and nutritional levels.

Important Implications for Program Administration

Changes in behavior are what everyone looks for in the income maintenance experiments. Indeed, issues with respect to behavior were the only ones paid major attention to as the experiments were being planned.

During the course of events, however, questions of administrative rules and reporting reliability *were found to have at least as great a potential impact on program costs as the actual changes in work behavior induced by the payments.*

Benefits in the Rural Experiment were calculated on the basis of family size, assets, and income as reported every month by the families. Reporting accuracy was thus extremely important, as it would be in any national program, not only to ensure accurate and equitable benefit calculation, but because underreporting could result in substantially inflated program costs.

Families showed satisfactory willingness and ability to complete the monthly forms on which they reported their financial status—this in spite of the fact that half the family heads in North Carolina either had difficulty reading or could not read at all, and a quarter could not write more than their own names.

Except for farm income, the families did a fairly accurate job of reporting. With the quarterly interview data as the standard of comparison, family size changes were reported faithfully on the monthly income report form even though adding a fictitious family member was the most straightforward way of inflating the payments received. Net worth was underreported by 27 percent in Iowa and 14 percent in North Carolina, although the effect of this on payments was slight. Transfer payments from other programs were reported with high accuracy. Wages, the most important source of income, were also reported accurately (about 91 percent of the total as ascertained from interviews and outside documentation). Altogether 89 percent of all nonfarm income was reported.

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Rural experiment
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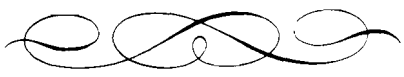
The monthly reporting of farm income and expenses proved to be very inaccurate: the average farm family reported only 61 percent of its net farm cash income (as measured against the net income figures derived from interviews, production data, and IRS tax returns). This underreporting arose mainly from the omission of income items rather than from an overreporting of expenses, and could be largely corrected with improved administrative procedures.

The time period over which income was counted in benefit calculation proved to be a very important issue both for equity and for program costs. If income is counted over a very short period (one week is used for Unemployment Compensation and one month for AFDC) benefits respond rapidly to changes in need. But such a system can also distort the timing of income receipts and create inequities between those receiving regular income and those receiving irregular lump sums. Under a one-month accounting period, for example, a wage earner making $1000 a month would not qualify for benefits under feasible levels of generosity, but a farmer clearing $12,000 in crop sales during a three-month period would be eligible for maximum benefits during the rest of the year.

To permit short-term responsiveness and still ensure equal treatment of wage earners and self-employed farmers, the Rural Experiment developed a system of accounting whereby income was counted for the most recent month but both excess income and losses were carried over and included in income for a twelve-month period.

* * *

Write to the Institute for Research on Poverty for a list of the Technical Papers from the Rural Experiment, which are available at cost.



New challenges
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The most recent challenge came from Charles Killingsworth and the structuralists of the 1950s. They questioned the orthodox view that full employment could be restored without inflation—arguing that technology, population shifts and other "structural shocks" were the root causes of pervasive unemployment and were beyond the easy remedy of economic stimulation through the "free market." This concept of structural unemployment of the unskilled due to the faults of the free market is closely allied to the modern dissidents' depiction of the depressed secondary labor market.

Defense of the Neoclassical Approach

A defense of neoclassical research must rest on (1) adherence to the view that positive economic analysis can be separated from normative issues; (2) a denial that neoclassical models assume away conflict among various economic groups in society; (3) a belief that it is useful to construct economic models which assume that tastes and institutional factors are determined *outside* the economic system, while at the same time (4) claiming that neoclassical theory is capable of analyzing a variety of "noneconomic" variables and "disequilibrium" conditions.

Cain's Assessment of the Debate

Cain's conclusion is that the theoretical contributions of the newest challenge to orthodoxy can be best formulated as modifications and additions to orthodox theory. (1) The new theorists have focussed "on a major gap in neoclassical models of labor market behavior," which make no allowance for the possibility that *attitudes may be a result of one's labor market achievement.* "The effects of discrimination, other systematic factors or even random factors that start workers off in the secondary sector (that is, in "bad" jobs), can shape tastes in an antiwork direction and thereby reinforce the disadvantageous position of low-wage workers." Neoclassicists need now to concentrate on building into their framework the possibility that these factors themselves affect and are affected by the working of the labor market.

(2) The new theorists have also reinforced the charge that neoclassical economics does not provide a very complete or convincing theory of *discrimination.* Neoclassical theories of discrimination have developed along three lines: competitive models which predict a long-run disappearance of wage (or job) discrimination; noncompetitive