PURPOSE AND DESIGN OF THE RURAL INCOME MAINTENANCE EXPERIMENT

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The Rural Income Maintenance Experiment was the second of four major experiments to test the behavioral consequences of a universal income-conditioned cash transfer program. It followed closely its predecessor, the New Jersey Income Maintenance Experiment, in objectives and design. Of the four experiments, its principal uniqueness is that it is the only one focusing on the rural sector (farmers and those in towns of less than 2500).

This initial paper describes the setting which spawned experimentation with a universal income-conditioned transfer program (commonly referred to as the negative income tax), gives the rationale for the Rural Experiment, and sets forth its objectives and basic design.

ORIGINS OF NEGATIVE INCOME TAX EXPERIMENTATION

The negative income tax experiments originated in the mid-sixties. Public assistance programs in the United States had come to be regarded as illogically conceived, poorly administered, and inequitably applied. Over half of the poor people in the United States were receiving neither public assistance nor Food Stamps, and of those that were--mainly from Aid to Families with Dependent Children (AFDC) and Old Age Assistance (OAA)--some families were receiving eight times the assistance of other families of similar size and pre-transfer income, merely because of

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regional location. Except for a meagerly funded and unpublicized AFDC-UP program in about half the states, households headed by able-bodied males under 65 years of age--the so-called working poor--were ineligible for public assistance; yet two out of every five poor people in the United States were in such households.

Out of this dissatisfaction with the current transfer system, interest grew in an income maintenance program which was open to all poor people and which had simplified eligibility requirements. A universal negative income tax emerged as the most promising alternative among several, partly because of its ability to more efficiently channel funds to the low-income population and partly because of its inherent logic as a downward extension of the positive income tax. In its simplest form, a negative income tax embodies two principal parameters: (1) a guarantee or basic benefit, which varies by family size and which is available to families who have no income, and (2) a tax rate, which is the rate by which this basic benefit (guarantee) is reduced per dollar of other income received by the family. (Thus, a 50 percent tax rate means that benefits are reduced by $.50 for each $1.00 of income received by the family from other sources.)

The major reason for experimentation was that a negative income tax--because of its relatively high "tax" on earnings--would likely have some negative effect on work effort. But no one knew how much. And the cost of any given negative income tax program was dependent on the amount of work disincentive that it would induce. Moreover, the choice of the appropriate parameters of such a program (the guarantee and tax rate) depended in part on the relationship of

work disincentive to those key parameters. A large-scale experiment would permit identification of the effect of alternative negative income tax programs on work effort, as well as on the attitudes and other behavior of low-income families.

These were the major reasons that the Office of Economic Opportunity, in 1968, initiated an experiment in urban areas of New Jersey and Pennsylvania which focused on families headed by abled-bodied males between 18 and 58 years of age.

RATIONALE FOR THE RURAL INCOME MAINTENANCE EXPERIMENT

The New Jersey experiment was expected to yield a great deal of information about the effect of various negative tax plans on behavioral and attitudinal characteristics of urban wage earners. But these results were not expected to be directly applicable to the rural sector, in which over one-third of the nation's poor reside.[1] Differences between rural and urban residents in their work responses to such a program were expected because of differences in alternative employment opportunities and in the proportion of self-employed people. An accurate estimate of the magnitude of disincentive, both rural and urban, was necessary to estimate the cost of a nationwide program.

Also, it was not readily apparent that some features of a program most effective for addressing urban poverty problems were best suited for addressing rural poverty. For example, a large number of rural residents with low incomes are operators of farms or businesses in small towns. Determination of annual income as well as the appropriate

timing of payments for the self-employed are different than for wage earners. This is especially true for those farmers who receive their entire annual income at harvest time.

These needs for experimentation in a rural setting in conjunction with the urban experiment in New Jersey led to a planning grant from the Ford Foundation to the Institute for Research on Poverty at the University of Wisconsin. Under the Ford grant ten staff members at the University of Wisconsin, all affiliated with the Institute for Research on Poverty and representing the disciplines of economics, agricultural economics, sociology, political science, law, and social work, combined in an interdisciplinary effort to design the rural experiment.

The experiment began in late 1969 and extended over a four-year period, with payments made to families for 36 months. The total cost of the project was about $5.5 million, financed initially by OEO and later by HEW.

DESCRIPTION OF THE EXPERIMENT

The primary objective of the Rural Experiment was to measure the effect of alternative tax rates and minimum guarantees upon the work behavior of rural residents, both wage-earners and farmers. Of secondary importance were a host of other objectives, among them being to learn the effect of payments upon (1) the children of the poor--their health, school performance, peer and reference group involvements, attitudes towards authority, delinquency rates, vocational aspirations, and numerous other characteristics; (2) changes in expenditure patterns--

the distribution between savings and consumption; marginal expenditures on medical care and housing; credit vs. cash buying; (3) job search behavior; (4) farm production and financial decisions; (5) nutrition; (6) family structure (separation and divorce rates); (7) geographic mobility; (8) psychological well-being; and (9) political involvement.

Two locations were chosen for the experiment, one in the South, the other in the Midwest. The alternative of taking a nationwide rural sample was rejected in deference to administrative ease and a smaller operating budget. By selecting two locations, regional and ethnic differences in work incentives and other behavioral characteristics could be tested. The South was chosen because it contains a higher incidence of rural poverty than any other area in the United States and because over half of the rural poor reside there. The Midwest was selected because it is (as classified by the USDA) "a relatively affluent area with a poor white minority."

The sample was drawn from one county in the South (Duplin County, North Carolina) and two contiguous counties in the more sparsely settled Midwest (Calhoun and Pocahontas Counties, Iowa). Criteria for selecting the counties included the size and number of rural towns, their proximity to large cities, density of the farm population, diversity of agriculture, and representativeness of the entire region with respect to incidence of poverty, unemployment, racial mix, age distribution, and educational level.

Families were selected randomly from the predesignated areas, and were deemed eligible for the program if their incomes were less than one and one-half times the established poverty line. Eligible families

were then randomly assigned to a control group or to one of five treatment plans, involving combinations of three tax rates (30, 50, and 70 percent) and three guaranteed minimums (50, 75, and 100 percent of the poverty level). The plans are shown in Table 1 along with their 1969 minimum dollar guarantees and breakeven levels for a family of four. Families remained on the plan to which they were initially assigned for the duration of the experiment, and they were eligible for payments for the 36-month period regardless of their subsequent geographic location, as long as it was within the United States.

A total of 809 families were selected in all; 54 percent were assigned to the control group and 46 percent were distributed among the five treatments. The sample was stratified by income level, age of head and region. Sixty-two percent of the sample was allocated to North Carolina, 38 percent to Iowa. Seventy-two percent of the families were headed by an able-bodied male age 18-58, 13 percent were headed by a female of the same age range, and 14 percent were headed by a person of either sex over age 58.

Payments were based on income and number of members of the "filing unit". The "central" family of the household (husband, wife and minor children) were one filing unit and received one payment; other household members--those over age 20, or over age 17 if married--were separate filing units and received their own separate payment, but at a reduced level. If the latter left the original tax unit, they became eligible for the full "head-of-household" payment level. A family head or spouse who left the original family unit was eligible for a payment of one-half the amount that a head and spouse together

Table 1

Program Alternatives

Guarantee (% poverty level)	Tax Rates		
	30 percent	50 percent	70 percent
	Guarantee level/breakeven[a]		
50		1741/3482	
75	2611/8703	2611/5222	2611/3730
100		3482/6964	

[a]Breakeven is the level of the family's own income at which the negative income tax payments become zero. The guarantees were adjusted upward each year of the experiment by the rise in the Consumer Price Index.

were entitled to when both were in the unit. After one year of separation, they each were entitled to a full head-of-household payment.

Income and filing unit size were reported every month to a payments Office. Income was defined as total gross income in cash or in-kind from all sources, less business expenses. The self employed also reported depreciation and other noncash costs once a year, after filing their personal income tax returns. Ten percent of net capital wealth was added annually to income to represent potential capital consumption. However, the first $20,000 of business assets, the first $10,000 equity in owner-occupied homes, $1,000 in cash or savings, and all personal effects were excluded from net capital wealth for purposes of this imputation. A portion of out-of-pocket medical expenses were deducted from income. Federal and State income taxes were reimbursed on a dollar-for-dollar basis.

All filing units were paid semi-monthly, with married heads receiving one check made payable to husband and wife jointly.

The basic accounting plan--the period for computing income, upon which payments were based--was the same for both the rural and urban experiments: a three-period moving average, each period representing four weeks (or one month). However, the income accounting procedure in the Rural Experiment embodied a "carryover" provision. Earned income in excess of the breakeven level was carried forward for a maximum of one year and was added to income in any period in which such income fell below the breakeven level. Negative income payments were based on earned income plus any amount assigned to that period

from the carryover. This was a major innovation in the accounting procedure from the New Jersey Experiment, necessitated by the uneven flow of income of the self-employed.

Adult members of the households (all those over age 15) were interviewed quarterly to gather information on the previously mentioned attitudinal and behavioral characteristics.

EMPIRICAL ANALYSIS

A number of researchers, both at the University of Wisconsin and at other universities, participated in analyzing the effects of the experiment. The results are reported in 41 separate papers, to be published by the Institute for Research on Poverty.[2] The three papers to be presented this afternoon are summaries of three of the 41 papers, and they are among the most important for they focus on the effect of the experiment on the work and income of farm families and on their business and financial decisions.

FOOTNOTES

* Lee Bawden was Director of the Rural Experiment. Formerly Professor of Economics and Agricultural Economics and Fellow of the Institute for Research on Poverty, University of Wisconsin, he is currently Director of Human Resources and Income Security, The Urban Institute. Bill Harrar was Manager of the North Carolina Field Office of the Rural Experiment, and was later Director of Operations. He is currently self-employed in San Francisco, California.

[1] In 1969 the rural population represented only 26.6 percent of the total U.S. population but contained 35.5 percent of the poor people.

[2] Copies of these papers are available from the Institute at a nominal cost. The data base is also maintained by the Institute, and a staff is available to prepare extracts for interested researchers. The cost will vary depending on the size and complexity of the extract.