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Programs: an Example of Administrative Discretion

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ABSTRACT

With the welfare reform measures now being considered by the Senate, a great deal of attention is being paid to the marginal tax rate that will be used in the new program. Surprisingly, little attention is paid to the marginal tax rate in use in current programs. This paper considers the way in which the actual tax rate varies from the tax rate which is specified in federal statutes and uses data from a survey of Vermont welfare cases to illustrate the large variance in average and hence marginal negative tax rates faced by current welfare recipients. The paper also explores the ways in which this variation is created.

Variations in Negative Tax Rates in Current Public
Assistance Programs: an Example of Administrative Discretion

In the evaluation of new schemes of income maintenance, serious consideration is given to the rate at which welfare benefits are reduced as income from work increases.¹ This rate is called the negative tax rate.² There is a considerable and rapidly growing body of literature which explores the relationship of negative tax rates to the work effort, or labor supply effects, of the recipients of the transfer payment.³

One aspect of this literature makes a distinction between the average negative tax rate and the marginal negative tax rate and argues that the latter is the more significant in influencing the work response of welfare recipients.⁴ One of the explanations frequently given for the Senate's rejection of the administration's Family Assistance Plan or "Welfare Reform" in the last Congress is that many Senators apparently felt that when Family Assistance Plan, public housing, medicare and food stamps were viewed as a single package the cumulative marginal tax rate would have a disastrous incentive effect.⁵ In the light of this concern with the operative tax rate in proposed programs, it is surprising that there has not been more discussion of the operative tax rates which are in effect in current programs.

The general belief is that the negative tax rate specified in existing legislation (the statutory rate) is the tax rate which is actually applied in the real world (the operative tax rate) both for marginal and average taxes. This is so despite the fact that there is little consensus that the statutory tax rates and the operative tax rates are identical in the positive system. There is even less reason to assume that there is a close fit between operative and statutory tax rates in the negative system. By the negative system I mean the prime

income maintenance program: public assistance. Income in the positive tax system bears little relationship to income specified in the Haig-Simmons definition of income,⁶ but income as defined by the welfare worker in the calculation of a welfare benefit is a downright stranger to the Haig-Simmons definition. In the positive system the relation of ordinary earnings to the tax bite is relatively precise; in fact, one of the most common critiques of the positive income tax is the certainty of taxation on wages in comparison to the relative uncertainty of taxation on other sources of income. In the welfare system, the relation of earnings to the transfer is anything but certain.

The causes of the divergence between the federally specified negative rates tax established in the 1967 Amendments to the Social Security Act and actual field practice are many, but two factors predominate. The first is that, state procedures used to calculate welfare benefits are highly varied, this variance in procedures produces a large, unintended and even unrecognized variance in the average, and hence in marginal tax rates. The second reason for wide discrepancies is the predominant role played by welfare workers in the calculation of a welfare benefit. State procedures cede a great deal of discretion to these caseworkers and the varied use of that discretion produces an additional variance in the real tax rates imposed on welfare earnings.

I. The Calculation of Welfare Benefits

In the simplest form of welfare (W), the government pays the difference between some established need level (N) and available income (Y).

$$(1) \quad W = N - Y$$

In most jurisdictions, that is the way the amount of general assistance

is determined. General assistance, funded by state and local governments, is a form of emergency assistance and only scant consideration is given to questions of equity and/or incentives. The need is defined by casework judgment and prescribed procedures, and casework judgment and client provided information (usually substantiated by external evidence) defines income.

Such a simple and direct method is not acceptable for a more permanent program. One of the reasons for this is the near universally held belief that such a program would appear arbitrary to recipients and as a "give-away" to taxpayers. A permanent program of relief, should have a more precise determination of need and, in order to 1) preserve equity between working poor and non-working poor and 2) to provide incentives for relief recipients to seek work, the benefit should be reduced only by a portion of the earnings. Hence the welfare payment should include some sort of negative taxation rate. The simplest formulation of this would be:

$$(2) \quad W = G - r (Y) \quad \text{where } G = \text{Guarantee by family size}$$

$$Y = \text{All income}$$

$$r = \text{Reduction rate}$$

Formula 2 is the standard formula of a negative income tax. Formula 1 is the simplest formula of a welfare payment. The current public assistance program in the United States operates between these two extreme formulations. A reading of the statutes and regulations concerning public assistance reveals that a simple negative income tax is rejected on the grounds that we, as a society, do not want to treat all poor equally nor do we want to treat all income similarly. Hence public assistance payments look something like this

$$(3) W_{ij} = G_{ij} - r_1 Y_a - r_2 Y_b - r_3 Y_c$$

where

W_{ij} = the welfare payment to an individual with characteristic i
in state j

G_{ij} = the guarantee for an individual with characteristics i in
state j

$r_1, .2, \& 3$ = different negative tax rates

$Y_a, b, \& c$ = different income streams.

The expanded welfare formula allows clients to be separated on the basis of political power, status, and residency and different forms of income to reduce the welfare payment at different rates. Viewed as a simple income redistribution scheme this sort of public assistance is "unnecessarily" complicated by political realities. However we may wish these political realities away, they are there.

A. Example of Procedure

The current AFDC program is the most politically troublesome portion of our welfare system because it is the fastest growing and because its clientele is the most politically upsetting welfare population. The procedures used to calculate AFDC payments are widely varied between the states and even within states by jurisdiction and caseworker. The 1967 Amendments to the Social Security Act specify that the level of the guarantee is to be established by the state but in order to receive federal reimbursement for some of the welfare cost the states must disregard the first \$30 of earnings and 1/3 of the remainder. Thus the federally specified formula is:

$$(4) W_{ij} = G_{ij} - Y_o - .67(Y_e - 30) \quad \text{where } Y_e = \text{earned income}$$

$$Y_o = \text{unearned income.}$$

The widespread publicity of the "thirty and 1/3" rule has led many to the belief that the public assistance marginal tax rate is zero on the first \$30 and .67 on the remaining earnings up to the state break-even point. Actually, the problem is more complex than that. Two illustrations of procedural variance will illustrate this point: the first has to do with the relationship between the state need standard and the state's guarantee; the second illustration has to do with the treatment of child care expenses. There are many other equally significant procedural variances among the states. These two clearly demonstrate the impact of procedure on negative marginal tax rates.

II. Procedural Variance Among the States

In the administration of the AFDC program, the states have not one standard but two. The first is the state need standard and it reflects the state welfare department's definition of a minimally necessary income for families of specified size and composition. This is referred to as the stated need standard (S.N.). The second state standard is the state's maximum payment standard (S.M.) which specifies the maximum allowable payment to a family of specified size and composition. In 37 states S.N. is greater than S.M. Seventeen of these states use the ratio $S.M./S.N.$ in the calculation of the welfare benefit. The remaining 20 disregard income between state need and state maximum. Within each group there are still further variance in procedures. Basically, however, there are three adaptations of the federally specified formula. They are:

$$(5) \quad W_{ij} = G_{ij} - Y_o - .67(Y_e - 30) \text{ in 13 states where } SN = SM$$

$$(6) \quad W_{ij} = \alpha [G_{ij} - Y_o - .67(Y_e - 30)] \text{ in 17 states where } SN > SM \\ \text{and } \alpha = SN/SM.$$

$$(7) \quad W_{ij} = G_{ij} - Y_o - .67[Y_e - (30 + SN-SM)]$$

The resulting impact of the procedure on the marginal tax rate is shown in the table below, when the state guarantee to a family of four is 200 but the latter two states have a need standard of 250.

Table 1

Marginal Tax Rates on Incomes by State Procedure in
Benefit Calculation

Procedure	Income Range							Breakeven
	0	30	50	80	180	280	330	404
	30	50	80	180	280	330	404	454
(5)	.00	.67	.67	.67	.67	.67		330
(6)	.00	.00	.53	.53	.53	.53	.53	404
(7)	.00	.00	.00	.67	.67	.67	.67	.67 454

A similar problem is encountered in the treatment of child care expenditures. In some states, the 67 percent reduction is taken before child care expenses are deducted; in others, the reduction is taken after the child care expenditures have been deducted.

$$1) \quad W_{ij} = G_{ij} - .67(Y_e - 30 - CHC)$$

$$2) \quad W_{ij} = G_{ij} - .67(Y_e - 30) + CHC$$

In the latter case, the cost of CHC is reimbursed to the client. Frequently, it is actually paid to the vendor by the agency, thus the clients marginal and average tax rates are unaffected by the cost of child care. In the former case the individual pays his own child care expenses but his grant is not reduced by 67 percent of his child care expenses. Obviously, he thus pays 1/3 of his own child care costs. This latter method is the one directed by the federal regulation but less than

half the states were in conformity in 1970. Clearly the marginal tax rate is thus varied by the procedure used in the state and the cost of the child care involved. The federally prescribed procedure is illustrated below.

Table 2

Impact of Child Care Costs on Welfare Benefits
Using Federal Procedures

	>0		1+2-3	
$G_{ij} - [.67 (Y_e - 30 - \text{Ch.C.})] =$	2.	3.	1	Δ_r
		-Ch.C.)	B	Y_Δ
200 - [.67 (0 - 30 - 0)]	=		200	200
200 - [.67 (30 - 30 - 50)]	=		200	180
200 - [.67 (50 - 30 - 50)]	=		200	200
200 - [.67 (80 - 30 - 50)]	=		200	230
200 - [.67 (180 - 30 - 50)]	=		133	263
200 - [.67 (280 - 30 - 50)]	=		67	297
200 - [.67 (330* - 30 - 50)]	=		33	313
200 - [.67 (331 - 30 - 50)]	=		0	281

Following the federal procedures produces the erratic pattern cited above which is probably why half the states do not follow the federal pattern. One accommodation used is reimbursement i.e., $W_{ij} + G_{ij} - .67(Y - 30) + \text{Ch.C.}$ but unless $.67(Y - 30) > \text{Ch.C.}$ the state does not reimburse for child care cost (Wisconsin).

III. Caseworker Discretion

State formulas are not the only source of variance in the marginal tax rates encountered by recipients of current welfare. Another major source of unintended variance is the degree of caseworker discretion currently practiced in the administration of public assistance.

Public Assistance procedures are enormously complex: The complexity is a function of the varied conditions that force a family to seek public aid. It is also complex as a function of the caseworker's attempt to blend harmoniously the contradictory charges of saving human lives and saving money. Finally, it is complex as a result of the natural growth of bureaucratic procedures. Whatever the cause, the caseworker who seeks to verify eligibility and determine the appropriate grant for a specific family must follow a set of procedures which have been characterized by a presidential commission as: "confusing, onerous, and demeaning for the applicant, complex and time consuming for the worker; and incompatible with the concept of assistance as a legal right."⁷

A. Procedure

Assistance is, generally speaking, given on a "case" basis with each individual applicant's "need" being determined by a budget study (as set forth in a state manual) of actual living costs in relation to actual, and, in some jurisdictions, "assumed" resources. If the documented needs exceed the identified resources, then the applicant is eligible for a grant to cover all or a portion of the "budget deficit." The massive regulations governing eligibility, grant applications, and disbursement, are in a constant process of revision--sometimes the revisions are retroactive, sometimes they are not. The form in which liquid assets are held also affects the grant. In Wisconsin \$50 in cash is counted as a resource, but \$50 in a savings account is not.

While the highly authoritative structure of social welfare agencies and the utilization of frequent audits by federal and state officials prevent the process of assistance from being as idiosyncratic or subject to the whims of the caseworker as sometimes appears, there is still an enormous residual of discretion available to the individual caseworker.

Given the varied uniqueness of factors that can plunge a family into "present immediate need," this discretion is not entirely undesirable.

Charles Frankel commented in the following manner:

Discretion is unavoidable in any field where judgment is involved, but the exercise of discretion is the essence of the administrator's task. It is why we need him and not a computing machine. An official in a welfare agency, for example, may be required by the orders given him to deny certain forms of assistance to individuals who are voluntarily unemployed. He may be provided with the further specification that any individual who is out of work because he has voluntarily quit his job and moved to another locality shall be regarded as voluntarily unemployed. But the letter of this rule will kill if the administrator applies it to a man who has changed his residence because his wife is ill and requires a sunnier climate. The attempt to dot every i and cross every t when framing policies or writing legislation only prevents those who must administer these policies and laws from behaving intelligently. The sensible exercise of foresight obviously involves making allowances for the circumstances that not everything can be foreseen.⁸

In order to understand fully the relationship of earnings to disposable income for welfare recipients, it is necessary to examine the eligibility and grant-giving process in some specific detail. There are large interjurisdiction and inter-agency differences in this process. The process followed in Wisconsin is obviously not that of New York. It is not so generally recognized that the process in Madison is also not the same as in Milwaukee; and what still less recognized is that the workers under the supervision of Mrs. Jones operate differently, and sometimes in important ways differently, from those who report to Mrs. Smith. The procedural variance is reduced as one moves from interstate to intercounty to intersupervisor differences. The effect of this on incentives is that, by varying the definition of income or need, the effective marginal rates applied to the recipients earnings are altered.

In almost every county welfare office there are two manuals; one is the official manual which is usually a large loose-leaf book filled with instructions, exceptions and contingencies. For the non-initiated to try to use this is like looking up a phone number without knowing the alphabet or the proper spelling of the name. To compensate, a set of simplified procedures are typed up, reproduced and passed on. While these simplified procedures have no official status, they are the documents of first reference.

A typical guide is reproduced below:

AFDC Budgeting Procedure

1. Determine Appropriate Basic Allowance For Family From Table X _____
2. Determine Actual Rent Paid (If Rent Exceeds Maximum Allowed in Table XI Record the Maximum.) _____
3. Total Special Need Items Allowed For Family _____
4. Total of 1, 2 & 3 Represents Total Basic Need For Family _____
5. Subtract--Available Income As Computed Below _____
6. Remainder is Amount of Monthly Grant (rounded off to nearest dollar) _____

Determination of Available Income

1. Obtain a Declaration of Family Income from All Sources _____
2. Subtract Earnings of Children in School _____
3. Subtract Mandatory Deductions in Earnings _____
4. Subtract Employment Related Expenses _____
5. Remainder is Available Income _____

B. Determination of Basic Need

1. The Basic Allowance: It is frequently assumed that the basic allowance is a constant that is varied only by family size. Such is not the case for family composition also varies the size of the basic allowance.

Some of the ways in which the composition affects the grant are: Older children count for more than younger children; if other adults live in the family dwelling the size of the allowance is changed even though the other adult doesn't affect the families' income; in some states families with all boys or all girls will get one allowance while a family that has both boys and girls gets another. An examination of the state manuals reflect the 30 years of bargaining and compromising which has gone into their writing. In Tennessee the sex of the children is a relevant consideration; in Wisconsin the age of the child is important; while in Vermont the grade level of the children effects the families' basic allowance. Usually families of identical size and composition within a jurisdiction get identical basic allowances.

2. Rents: Rents and mortgages are varied for welfare recipients and the usual practice is to pay actual rents up to maximum provided for in the state manual. While caseworkers cannot alter the basic allowance they can and do alter the rents which families pay by encouraging them to move to apartments which charge more or less rent. Caseworkers who seek to maximize the benefit to clients are likely to perceive the maximum rent as a client right, and, acting as advocates for their clients, they encourage and aid them in moving to better quarters. Other caseworkers who seek to minimize state costs have been known to persuade recipients to move to less expensive rental units. In either case, having the family grant fluctuate in response to rent produces a situation where welfare workers can influence grant levels and hence average and marginal taxes.

3. Special Need Items: Special needs once referred to unique payments such as a special food allowance for diabetics. Now special need can refer to all manner of goods; telephones for example. As a general rule, special need items exist on an official list of items that the

caseworker may approve for the family. Clearly a generous social worker can pad the list, while a miserly one could deny items that most other workers would consider legitimate.

C. Determination of Available Income

Family Monthly Income

In some states this amount is "Declared" by the recipient; in others it is verified by the worker from contact with employers, etc. At this writing the "Declaratory system" is on the rise but over the past 30 years states have fluctuated between declaratory and verified procedures.

Mandatory Deductions

In some states, this is a flat percentage of income, in some a flat amount, in others it is the actual deductions on the pay stubs and in still others it is determined by procedures known only to god and the caseworker and neither are sure just what happened last month.

Employment Related Expenses

The manipulation of employment related expenses is one of the prime sources of intended and unintended grant manipulation. Caseworkers and casework supervisors who are identified with the goal of saving the agency money can be (and are) quite rigid in allowing employment related expenses. On the other hand, caseworkers and supervisors who are more liberal in their orientation can be quite ingenious in creating employment related expenses. Some states, in a effort to block this deliberate manipulation of the benefit level, require firm proof of employment related expenses. Others specify a flat amount for full time workers and part time workers. Caseworker determination remains the general rule. Some pro-client caseworkers take pride in generating enough expenses so that allowable income falls to zero, thus producing a negative tax rate of zero. At times this means sometimes creating employment expenses

greater than earnings so that employment related expenses can be used to cut the 100% negative tax rate on alimony, social security and other non-employment sources of income. The general effect of this alone is to produce the circumstance that the real marginal tax rate is a function of the liberality and ingenuity of the caseworker.

An illustration of this is given below:

When the recipient starts to work, only the net earnings are deducted from this grant. If the mandatory deductions at work at \$10, this is exempted. A specific deduction of X dollars (say 40) which need not be specified is also made before the net earnings are arrived at in many states. A prevailing sentiment among "pro-client" caseworkers and supervisors would be: "If you can't find another \$50 worth of exemptions--turn in your pencils--you're through." Since expenses of earnings don't have to be actually incurred to be deducted, but only be "reasonable," caseworkers have a great deal of legitimate space within the procedures to affect the recipient's marginal tax rate. As an illustration, here are some of the suggestions a public assistance supervisor could make: "Give the family a full transportation allowance--i.e., 10¢ per mile regardless of actual transportation cost--this could easily be a \$20 net gain to the family. Encourage the recipient to purchase on time any needed appliance and we call it an employment expense--that should hack you another \$10. Let the school kids buy their lunch, now that will take care of the remaining \$20; if she gets a raise, come back and we'll figure out some additional expenses."

While the above is hypothetical, it is not atypical. A favorite pastime of pro-client supervisors is exchanging gimmicks to get by the auditors. In this illustration the actual job expenses could be as low as \$20 (the mandatory deductions plus transportation cost), but the paper

net income would be zero. Since there are certain fixed costs involved in working, and as the ingenuity of supervisors in developing gimmicks of evasion becomes strained as income rises, the marginal tax rate becomes increasingly high.

Thus, there is a greater incentive to work at very low incomes. This incentive decreases as earnings increase, to the point where there can be a ratchet effect as the family goes off of relief. Curiously, as the empirical data will show, there is also a ratchet when one first enters the labor market.

IV. Empirical Findings

With over 3,000 offices and 30,000 caseworkers administering categorical aid, there is almost infinite variation possible in actual costs of keeping a job and inordinate complexity in deciding on the "proper" grant. It is clearly impossible to speak with any precision about the actual marginal tax rates faced by public assistance recipients. The rest of this paper explores the effective marginal rates on the earnings of public assistance recipients by a direct examining of a sample of public assistance case records in one state.

Estimates of the effective average negative tax were obtained by an examination of 10% sample of Aid to Needy Families with Children (ANFC) records in Vermont for May 1970. As expected when family size was held constant, there remained a considerable range in the caseworker's calculation of the families' basic need as is shown below.

The result of this individualized procedure is that the amount of the guarantee fluctuates rather widely. In Table I the variation of total basic need is recorded for a ten percent sample of ANFC recipients taken in May of 1970.

Table 1

Variation in Total Budget Need for a Ten Percent Sample of Vermont ANFC Recipients in May 1970

Family Size	Mean TBN	Minimum TBN	Maximum TBN	Percent Variance Due to Rent
1	91	48	228	.92
2	169	30	387	.68
3	230	123	328	.76
4	272	175	451	.68
5	298	219	360	.87
6	344	276	445	.86
7	378	323	469	.93

Despite the rather large administrative expense incurred in the individualization of the benefit level, most of the variation can be explained as a function of the rents paid.

The distribution of the guarantee levels is given in the table below.

Table 2

Distribution of Total Basic Need Budgets for Ten Percent Sample of ANFC Families of Four in Assistance Group in Vermont, May 1970

Total Basic Need	less than 209	210-239	240-259	260-279	280-299	300-319	over 320	Total
Number of Families	6	2	10	17	9	6	6	56

The case-records, in addition to the caseworker recorded total basic need, provided information on the size and sources of other income and the amount of monthly grant for the month of May. The income figure was for the month of April, reflecting the usual procedure of having the level of assistance payment lag by one month. From this data the average tax rate could be calculated. It was assumed that a families' basic income need did not change as a result of earnings. In fact, there could be real or caseworker-created changes in circumstances that produced a change in the families' total basic need. For the purpose of calculating the average tax it was assumed that:

TBN = the amount the family would receive in ANFC payments if there were no other source of income,

and that

$TBN - Y_o$ = the amount the family would have received had there been no earned income but the family did receive unearned income in the amount of Y_o

thus

$\left(TBN - Y_o \right) - ANFC$ is equal to the amount of benefit reduction because of earned income.

The average tax on the income is then

$$\frac{\left(TBN - Y_o \right) - ANFC}{Y_e}$$

where Y_e equals the amount of earned income.

In order to assess the marginal tax in operation the average, average tax was calculated for those ANFC recipients with earnings greater than zero. From the average, average tax rate the overall effective marginal tax rate could be calculated.

The results of this calculation are reported in Table 3.

An examination of the table reveals that operative tax rate is not the federally specified $ANFC = G - .67(Y_e - 30)$ but rather a formula that is approximately $ANFC = G - .34-48(Y_e - 80)$. The sudden substitution of a formula-based negative tax type transfer for the current caseworker determined benefit levels is likely to increase rather than reduce the marginal tax rates of working welfare recipients.

Table 3

Marginal Tax Rates in Operation

Income	Average Average Tax Rate (\bar{x}_r)	Negative Tax (Reduction in benefit due to earnings)	Marginal Negative Tax Rate
0	.00	.00	.00
80	.00	.00	1.25
100	.25	25	.34
150	.28	42	.48
200	.33	66	.38
250	.34	85	.40
300	.35	105	.34
350	.35	122	.36
400	.35	140	.40
450	.40	180	

V. Conclusion

The substitution of a formula-based transfer where caseworker discretion is reduced to a minimum would, however, have the effect of introducing equity into a current system that has little equity. It would also provide a certainty in the effective tax rates in place of the uncertainty where the incentives are highly influenced by caseworker intervention. The uncertainty of benefit levels and tax rates is not discussed in any theory of incentives. The trade-off is between high and certain marginal tax rates as opposed to low and uncertain tax rates. This trade-off needs further examination.

NOTES

¹Students of Welfare reform are also concerned with the relation of the basic income maintenance payments to other nonearned income sources. There are serious equity issues involved in the question of the impact of a social security payment on a welfare payment. This question is discussed in the Proposed Program Papers of the Presidential Commission on Income Maintenance, paper 3.2.4. (unpublished). If child support payments reduce welfare by 100% then the recipients' incentive to secure child support is eliminated. This paper's focus of attention is is on the tax on earned income.

²Christopher Green, Negative Taxes and the Poverty Problem, (Washington, D.C.: The Brookings Institution, 1967).

James Tobin, Joseph C. Pechman and Peter M. Mieszkowski, "Is the Negative Income Tax Practical?" Yale Law Journal 77 (November 1967).

James Tobin, "Improving the Economic Status of the Negro," Daedalus 94, (Fall, 1965): 889-95.

James Tobin, "Memorandum on Basic Income Allowance," (unpublished paper, Yale University, Summer 1965).

Milton Friedman, with the assistance of Rosa Friedman, Capitalism and Freedom (Chicago: The University of Chicago Press, 1962).

If the benefit is specified as B, the minimum allowance as A, and the rate of reduction or negative tax rate as r then the magnitude of the benefit to earnings is expressed as $B - A - rY_e$ when Y_e is equal to the amount of earnings. This is illustrated in the table below:

$$B = A - rY_e$$

1	2	3	4	5
Minimum Allowance	Negative tax rate	Earnings	Benefit	Disposable Income 3+4
A	r	Y_e	B	Y_Δ
1500	.50	0	1500	1500
1500	.50	1000	1000	2000
1500	.50	1500	750	2250
1500	.50	2000	500	2500
1500	.50	3000	0	3000

³C.T. Brehm and T.R. Saving, "The Demand for General Assistance Payments," American Economic Review, 54 (December 1964): 1002-18.

Lowell E. Galloway, "Negative Income Tax Rates and the Elimination of Poverty," National Tax Journal 19 (September 1966): 298-307.

Harold Watts, Adjusted and Extended Preliminary Results from the Urban Graduated Work Incentive Experiment, Institute for Research on Poverty Discussion Paper (Madison, Wisconsin: The University of Wisconsin, June 10, 1970)

David H. Greenberg and Marvin Koters, Income Guarantees and the Working Poor: The Effect of Income Maintenance Programs on the Hours of Work of Male Family Heads, (Santa Monica, California, December 1970).

⁴Green, Negative Taxes and the Poverty Problem, Ch. 8. Professor Green provides a cogent explanation of the theory of disincentives in programs with negative taxation rates. It is reproduced here for those not conversant with the basic argument.

"It is useful to begin a discussion of how transfer-by-taxation affects work incentives by distinguishing between marginal tax rates and average tax rates. Under the present progressive income tax system, the marginal and average rates are positive and rise as taxable income rises. The picture is somewhat different on the "negative" side of the system. There the marginal rates are positive and they may be high--in fact, a good deal higher than the present marginal tax rates on the taxable income of low income groups. However, the average tax rate is a negative rate which approaches minus infinity as income approaches zero. This is shown in the following table. Note that the average tax rate is negative because transfer-by-taxation allowances are treated as negative taxes. This is a useful way in which to treat allowances because it helps clarify the analysis of how negative tax rates might affect work incentives.

"It is common to divide the effect of income taxes into two parts: a "substitution effect" and an "income effect." Income taxation produces a substitution effect by reducing the price of leisure relative to the price of work. The substitution effect is usually associated with the marginal tax rate since that rate indicates the amount of the after-tax return from another hour of work. Income taxation produces an income effect by reducing the net compensation from work. This reduction in net compensation is reflected in the average tax rate. It is usually assumed that the income effect produced by taxation will induce the taxpayer to work more in order to offset the losses due to taxation. Thus, the positive income tax system tends to produce substitution and income effects which work in opposite directions, although they may not be completely offsetting.

"What happens when a transfer-by-taxation plan is adopted? Clearly the marginal tax rate will create a substitution effect in which leisure would be substituted for work. But what about the income effect? In which direction will it operate? Because the average tax rate of those persons and families eligible for transfer-by-taxation allowances is

less than zero, the effect of negative taxation is to raise incomes, not reduce them. Those eligible for allowances will find that it takes less work in order to maintain the same income position they had before the introduction of the allowances. It is likely, then, that the income effect will be reduced work effort, especially when earned income is below the minimum income guarantee. Thus it seems likely that both the substitution and income effects produced by a transfer-by-taxation plan will operate in the direction of reducing work effort."

Marginal and Average Tax Rates on the Income of a Family
of Four Under Two Negative Rates Taxation Plans^a

Income Before Allow- ance (Dollars)	Plan with 50 Percent Allowance Tax Rate				Plan with Regressive Allowance Tax Rate Schedule			
	Allow- ance (Dollars)	Posi- tive Tax (Dollars)	Average Tax Rate ^b (Percent)	Marginal Tax Rate (Percent)	Allow- ance (Dollars)	Posi- tive Tax (Dollars)	Average Tax Rate ^b (Percent)	Marginal Tax Rate (Percent)
0	1,500	0	- ∞	50	1,500	0	- ∞	75
500	1,250	0	-250.0	50	1,125	0	-225.0	75
1,000	1,000	0	-100.0	50	750	0	- 75.0	50
1,500	750	0	- 50.0	50	500	0	- 33.0	50
2,000	500	0	- 25.0	50	250	0	- 12.5	25
2,500	250	0	- 10.0	50	125	0	- 5.0	25
3,000	0	0	0	0	0	0	0	0
4,000	0	140	+ 3.5 ^c	14	0	140	+ 3.5 ^c	14
5,000	0	290	+ 5.8 ^c	15	0	290	+ 5.8 ^c	15
6,000	0	450	+ 7.5 ^c	16	0	450	+ 7.5 ^c	16

^aBoth plans use tax exemptions and minimum standard deductions (EX-MSD) for breakeven lines.

^bAverage tax rate equals tax minus allowance divided by income.

^cAssumes money income equals adjusted gross income (AGI). Thus for a family of four which does not itemize deductions any income in excess of \$3,000 is taxable.

⁵D.L. Bawden, G.C. Cain and L.J. Hausman, The Family Assistance Plan: An Analysis and Evaluation, Institute for Research on Poverty Discussion Paper 73-70 (Madison, Wisconsin: University of Wisconsin, 1970).

Joseph Heffernan and Robert F. Smith, "Work Incentives and Welfare Reform: FAP" Mississippi Valley Journal of Business and Economics (Fall 1971): 11-25.

⁶R. Haig, "The Concept of Income—Economic and Legal Aspects" in R. Haig (ed.) The Federal—Income Tax (1921). See also R. Musgrave, "In Defense of an Income Concept" 81 Harvard Law Review (1967).
J. Pechman, "Comprehensive Income Taxation: A Comment" 81 Harvard Law Review (1967).

⁷Report of the Advisory Council on Public Welfare, June, 1966, p. xii.

⁸Charles Frankel, The Democratic Prospect, New York, Harper, 1962, p. 137.