

INCOME MAINTENANCE AND THE STATE AND LOCAL TAX-EXPENDITURE PACKAGE

A. James Heins



UNIVERSITY OF WISCONSIN ~ MADISON

INCOME MAINTENANCE AND THE STATE AND LOCAL TAX-EXPENDITURE PACKAGE

A. James Heins

This research was supported by funds granted to the Institute for Research on Poverty, University of Wisconsin, pursuant to the provisions of the Economic Opportunity Act of 1964. The author was a member of the Institute's senior research staff and a visiting professor in the economics department at the University of Wisconsin during the period from September, 1968 to August, 1969, while on leave from the University of Illinois, Urbana, where he is an Associate Professor of Economics.

ABSTRACT

This study attempts to analyze the effects of an income maintenance program on state and local tax shares and the provision of public services, in the aggregate and the mix. The theoretical analysis is based upon the emerging theory of public goods and collective choice developed by Buchana, *et al.*, and traditional demand theory.

The general conclusions of this study are that a national negative income tax program based upon the general features of the federal income tax including deductibility of state and local taxes, will tend to:

- increase or decrease local (or state) public expenditures in poor or wealthy localities (or states), respectively, and increase state and local expenditures in the aggregate;
- (2) increase the rate of migration of the wealthy to suburban tax havens;
- (3) increase the regressiveness of state and local tax sharing arrangements;
- (4) increase local political tensions to the extent that phenomena (2) and (3) above are inhibited by cultural and institutional inflexibility;
- (5) eliminate or significantly reduce cash transfer programs at the state and local level, but not significantly affect more directed welfare programs such as family services; and
- (6) increase the public (as opposed to private) provision of quasi-public services and reduce the use of user-charge financing of public services in favor of general tax financing.

The study then goes on to suggest means by which the central hypotheses of this paper may be tested. In general, social experimentation can play but a minor role here, the bulk of the research effort having to rely on the more traditional modes of economic and social empirical research.

Income Maintenance and the State and Local Tax-Expenditure Package

A much neglected phenomena in public finance is the impact of the federal income tax structure, more particularly the deductibility of state and local taxes, on state and local tax-expenditure decisions. Of course, it is widely recognized that the deductibility feature reduces the marginal cost of public expenditures at the state and local level and thus has a positive effect on their aggregate amount; but the nature of this effect has not been rigorously specified nor has much attention been paid to its empirical measurement. The purpose of this paper is to approach this problem with special reference to the possible adoption of a negative income tax or other income maintenance program.

The predictive model developed below will be based primarily on the newly emerging theory of public goods and political decision making. At the forefront, of course, is the work of Buchanan and his colleagues and disciples.¹ I wish to make it very clear at the outset that I make no claim to breaking new theoretical ground in the fundamental theory; nor will the models be as rigorously specified as they are in conventional economic theory of market and private goods. The state of the emerging theory of public goods and political decision does not permit such

¹Sec. [2, 3, 4, and 5]. The work of Arrow [1] and Downs [6] also bears on these questions as do many others. See [3 and 5] for excellent bibliographies on the development of the new theory.

۰.

rigor and I do not bridge that gap. Rather, I will couch the problem at hand, predicting impact of income maintenance on local tax-expenditure decisions, in terms of reasonable or common sense derivations of the new theory.

The questions to be asked fall into three broad categories: what impact will an income maintenance program have on (1) aggregate taxborrowing-expenditure decisions by localities, (2) tax sharing arrangements, and (3) the mix of public services provided?

The questions are asked within the framework of a federal system of decision making; that is, public goods and tax decisions are made at three different levels of government, national, state, and local. I accept national or federal decisions as given, except, of course, the basic decision to be considered, the adoption of an income maintenance program. This federal program would impinge on states and localities in three basic ways. (1) It would provide a public service, welfare in the form of transfers to the poor, that may induce reaction in the provision of substitutable and complementary local services. (2) It would induce aggregate income effects in the various localities, positive in poor localities, negative in rich. (3) It would induce price effects in all localities because of the feature of the federal income tax that provides for deductibility of local taxes for federal tax purposes and for nonreporting of municipal bond interest.

Price and Income Effects Considered

Let me imagine that the federal government adopts a negative income tax of the Friedman form in which payments are made to poor families on

•

the basis of some rate times the amount their gross income falls short of exemptions plus deductions for federal tax purposes. I will assume that in the broad aggregate--the country as a whole--the program is fully funded; that is, the increase in rates above the break-even point is just sufficient to pay the transfers to the families and individuals below the break-even point. Thus, in the whole, income effects are zero. Within the whole, of course, poor communities will receive more transfers to their poor than the well-off will pay in higher taxes. And rich communities will experience the reverse aggregate income effect.

For the moment, however, let me work with a typical or average community in which aggregate income effects are nil. For this community, the program induces a positive price effect for all in the sense that the increase in marginal tax rates across the board will reduce the marginal cost of public services to all, given present tax shares. For example, previously a tax bill of \$100 to a poor family cost the family \$100 since they yaid no federal taxes to be reduced by the deduction. With this program, however, the \$100 deduction will accord them a \$50 transfer, assuming a 50 percent negative tax rate. (I will overlook the effect of the standard deduction scheme which eliminates itemizing of deductions by many poor families). Similarly, the well-off will experience a reduction in marginal cost of local taxes since their tax bill now reduces their federal tax more by reason of the tax rate increase required to finance the program. Presumably, the marginal tax increase for the welloff will be much less than that for the poor since their numbers are so many more.

Income effects for the poor and well-off groups are opposite, however. Poor families experience a positive income effect as well as a positive price effect since they receive the transfers under the program. Families above the break-even point will experience negative income effects because they pay higher taxes. Since I am assuming a typical community, aggregate positive effects on the poor balance off negative effects felt by the well-off.

Now, assuming that individual demand for public goods is a function of income and price, demand for public goods by the poor will certainly increase since their incomes have risen and the marginal price of public goods has fallen. For the well-off, the impact of the program or demand is not certain, since the price effect on public goods is positive and the income effect negative. However, if the income elasticity of demand for public goods is close to one, and empirical evidence indicates that this is a fair presumption, the net effect on the demand of the well-off will probably be slightly negative. These effects are illustrated in Figure 1.

Figure 1



For the well-off and the poor respectively, WW and PP represent the initial budget lines as between public and private goods. The entire lines are not shown (especially for the well-off) because the marginal federal income tax rate is not constant. I will assume constancy in the marginal rate in the neighborhoods shown in the graph. The slopes of PP and WW represent the marginal cost of public goods and reflect tax sharing arrangements and the deductibility of federal taxes. (Without going into the detail of budget line construction for given tax shares, I will point out that the more progressive [or less regressive] the local tax sharing, the steeper will be the slope of PP relative to WW). Assuming tax sharing remains unchanged, the effect of a negative income tax would be to shift the budget lines to W'W' and P'P'. Note that slope (P'P') > slope (PP), and slope (W'W') > slope (WW) in terms of absolute values.

If the income elasticity of demand for public goods is close to one (as drawn in Figure 1) the effect of the program is to sharply increase demand for public services by the poor. The increase in demand T_1-T_0 is proportionately greater than the increase in transfer income precipitating the increased demand because of the price effect induced by deductability of local taxes for federal tax purposes; that is, $T_1-T_0 > T_0'-T_0$, where T'_0-T_0 is the increase in demand we would expect with no price effect (budget line P''P'') and income elasticity of one.

For the well-off, the decline in demand for public goods is mild in the sense that it is proportionately less than the decline in disposable income induced by higher taxes because of the positive price

Heins-5

offect of higher tax rates. That is, $G_0-G_1 < G_0-G_0'$ where G_0-G_0' is the proportionately equal decline in demand expected with reduction in disposable income with no price effects (budget line $W^{ii}W^{ii}$) and income elasticity of one.² It can be readily proved that if the increased transfers to the poor equal the higher taxes on the rich, the sum of the increased demands T_1-T_0 of the poor will exceed the decreased demands G_0-G_1 of the well-off.

The Impact on Expenditure Decisions

Within a framework of majority rule political decisions, one cannot conclude that the changes described above will necessarily induce an increase in the quantity of public services provided. Unfortunately, expenditure models within a voting mechanism and many-person world are not yet sufficiently refined to draw definitive conclusions. But, let me proceed in a speculative manner to draw some tentative conclusions based on relatively simple notions of collective decision making.

Suppose the relevant model is one in which persons have well defined uni-modal preferences and majority rule prevails with no means of registering intensity of preferences.³ In this case the median voter will

²While it is obvious that $G_1 > G_0'$ given my assumptions, it is not obvious that $G_0 > G_1$, that is, that the positive price effect will not more than offset the negative income effect. Proof that my construction is accurate is complex and involves better specification of the budget line reductions required to make the increased federal taxes on the well-off balance the transfers to the poor. For my purposes, it is sufficient that $G_1 > G_0'$.

³For the moment I am assuming fixed tax sharing, and votes are only taken on the expenditure level so that vote trading on various issues is not permitted. See [3, pp. 101-125] for a discussion of such models.

prevail as the decisionmaker. The impact of the negative income tax described above will then depend on the arrays of demand for public sources before and after the adoption of the program.

Consider Figures 2(a) and 2(b) in which two such arrays with resultant changes are shown. The figures are one dimensional with the quantity of public services demanded represented on the horizontal axis. The symbols w and p represent well-off and poor individuals respectively with various initial demands for public services, with w' and p' representing their demands after the program is adopted. Tax sharing is



Figure 2(b)

assumed to be given in each case and momentarily unchangeable.⁴ Reflecting the expected changes derived in the previous section, the w' are to the

Heins-7

⁴Constant tax sharing means that individuals will finance increases in expenditures by paying the same proportion of the increase as they paid for the initial expenditure level. Tax sharing is determined on the basis of gross local tax payments and not net of federal taxes thereby reduced. I think it is worthwhile noting that if tax shares are imposed from outside the locality (as differentiated from internally determined in which case expenditure and sharing decisions are mutual), the initial arrays are more likely to look like Figure 2(b) than figure 2(a) if tax sharing is progressive. Progressive sharing means that the poor are apt to demand more services and the well-off less.

Teins-8

left of the w, and the p' are to the right of the p; that is, the welloff show a mild decrease in demand and the poor a marked increase in demand.

Given the array in Figure 2(a) the expenditure level can be expected to increase from G_0 to G_1 , but the array in Figure 2(b) shows a reduction from G_0 to G_1 . What this means, of course, is that if the poor are for the most part already demanding more public services (given their tax share) than are provided, the political forces induced by the program are apt to result in decreased provision of local services as shown in Figure 2(b). But, if the poor are substantially represented below the median demand, the program may induce an increase in public services as shown in 2(a).

The Impact on Tax Shares

9

Let me now assume the possibility of changing the tax sharing scheme.⁵ Because the poor have now experienced a marked decline in the net cost of local taxes and higher disposable incomes, they may be induced to offer an increase in their tax share in trade for a higher expenditure level. An analysis modified from [3, pp. 131-36] for a twoperson model illustrates the forces at work.

Assuming a two-person locality in which decisions are to be made about tax shares and expenditure levels as indicated in Figure 3.

⁵Because of state constitutional provisions that limit tax modes localities can use and frequent requirements of uniformity in assessment, tax shares at the local level may be substantially rigid, at least in the short run. Analysis of changes in tax shares may be more fruitfully directed at state docisions. But, the models discussed here are applicable for describing expected tax-expenditure changes at the state level as well as at the local level.

P downward from \overline{T} . For example, at point Q, P pays a tax share of $(\overline{T}-T_0)/\overline{T}$ and W pays a tax share of T_0/\overline{T} .

Lines TP and TW describe the demands for public services by P and W respectively with varying tax shares. The downward slope of TP signifies that as his tax share increases, P will demand fewer public services. Presumably, there will be a point (where TP cuts the vertical axis) at which his tax share is so high he will not demand any public services. The slope of TW is upward for the same reason; as W's tax share increases he too will demand fewer services. In his case, reflecting his riches, it may be that he will still demand some public services if his tax share were

Figure 3



100 percent as indicated by the intersection of TW and his 100 percent vector extending from T. If we assume now that W is allowed to deduct his taxes for outside (federal and perhaps state) tax purposes, his demand line can be expected to shift upward to TW' where the vertical distance between the lines reflects the rate of tax savings by reason of deductibility. Consider that points P and W represent some optimum point at which each would wish to be if he could make the total decision. The fact that point W is not on the horizontal axis reflects some notion of equity that may motivate W, and point W' represents the same point with dedictibility. Point P is similarly not on P's zero percent vector extending from \overline{T} by reason of a feeling he ought to pay at least something. The lines TW, TW', and TP are derived from the tangency of indifference contours radiating from W, W' and P, respectively, and tax share vectors. The lines I and I show two such contours for P and W passing through Q; they must be tangent at that point. Note that the demand lines reflect public service demands at stated tax shares. I could also derive lines that show willingness to pay tax shares at various levels of expenditures. These lines will in general differ from my demand lines TW and TP, but they are not shown because I do not need them for my analysis [3, pp. 133-134].

Suppose P and W grope for and find point Q at which both are satisfied with expenditure G_0 given their respective tax shares $(\overline{T}-T_0)/\overline{T}$ and T_0/\overline{T} . Point Q is pareto optimal, but it is only one of many such optimal points indicated along the dark line W'QP. Thus, I cannot conclude that W and P will necessarily find Q. They may grope their way to some other point on W'QP, all of which represent a stable equilibrium in the sense that a movement cannot be made from any such point which will make both simultaneously better off. However, if I assume that the bargaining process takes the form of finding a point at which agreement on public expenditures can be made with specified tax shares, point Q is the only point at which this occurs and I can assume it will be ultimately reached. At point Q, public expenditures are G_0 ; W's net tax share is $(\bar{T}-T'_0)/\bar{T}$; and the federal government picks up share $(T_0+T_0')/\bar{T}$ because W can deduct his gross tax bill T_0G_0 from his federal income tax.

Now consider Figure 4 which shows the impact of the adoption of a negative income tax that allows both P and W to deduct local taxes for purposes of determining federal taxes whether positive or negative. W's



optimal position will likely shift down and to the left to point NW (NW' allowing for deductibility) because of the negative income effect of the program. P's optimal position will likely shift down and to the right to NP because of the positive income effect, from which line NTP represents P's new demand line. Line NTP' is P's effective demand line reflecting the deductibility of his local taxes under the new program where the vertical difference between NTP and NTP' reflects the marginal tax rate paid by P. If the marginal tax rate paid by the poor is high (say 50 percent), the difference between NTP and NTP' will be marked. Lines NTW and NTW' represent the new demand lines for W, before and after deductibility respectively. If the negative income effect for W more than offsets his positive price effect (as is likely) line NTW' will be everywhere to the left of line TW', although the vertical difference between NTW' and NTW will be greater than the difference between TW' and TW by reason of the increase in the marginal tax rate paid by W.

Now if I assume that P and W start bargaining from scratch under the same procedure as before, they will untimately reach Q_1 at which P pays net tax share $(\bar{T}-T_1^{"})/\bar{T}$, W pays net tax share T'/\bar{T}_2 and the federal government picks up share $(T_1^{"}-T_1)/\bar{T}$. The gross tax shares (not allowing for deductibility) of P and W respectively are $(\bar{T}-T_1)/\bar{T}$ and T_1/\bar{T} .

Given the assumptions, Q_1 necessarily lies below Q_0 ; that is, the gross tax shares of P and W will have increased and decreased respectively. In the context of this rarified two-person model, this suggests that a negative income tax will lead to an increase in gross local tax shares paid by the poor and a decrease in tax shares by the rich, which can be fairly translated into a reduction in progressivity or increase in regressivity of the tax structure. The net tax share of the well-off will clearly decrease since gross shares are lower and the rate of saving from deductibility (the marginal tax rate) has increased. Net tax shares of the poor may increase or decrease depending on how the curves are drawn, or the relative strengths of the price and income effects of the program on both the poor and the rich.

While Figure 4 shows an increase in public expenditures from G_0 to G_1 , this is not a necessary result since the new curves could have been drawn, incorporating all assumptions, for which Q_1 could have fallen to the left of Q_0 . However, given that NTP' has a steeper slope than TP, and NTW' has a steeper slope than TW' reflecting the positive price effect of the program on both P and W, it would take a particularly strong negative income effect on W to yield this result.

It will be obvious to the reader that this analysis glosses over the difficulty of specifying the decision process that allows P and W to arrive at Q_1 . If I had taken Q_c as the initial point from which bargaining takes place after adoption of the program, it is unlikely that Q_1 would be reached. Indeed, given the indifference contours shown in Figure 4 passing through Q_0 , the endpoint of the bargaining process will be somewhere in the new locus of optimal points $IW'Q_1NP'$ between the two contours. (I'_w and I'_p cannot be tangent at Q_0 after adoption of the program since the shift from P to NP' and W' to FW' has shifted the contours so that the new locus of optimal points has shifted to $IW'Q_1NP'$). However, since I'_w is likely to be downward sloping to the right of Q_0 -- the move from W' to MW' has shifted W's contour map to the left--the ultimate solution point will show a reduced gross tax share for W and increased gross tax share for P, although the change will not be as marked as the change from Q_0 to Q_1 . However, in this case public expenditures will necessarily increase.

A Digression on Political Tensions

I think it worthwhile to consider the impact of an income maintenance program on such a noneconomic variable as "political tensions." By this term, I mean to infer the degree to which individuals participating in the political process are dissatisfied with outcomes. One economic manifestation of political tension may be mobility in the classic Tiebout sense [7]. If people are sufficiently dissatisfied with the structure of taxes and services, they may move to another community in which decisions are more to their taste. If we invoke immobility, particularly for some economic or racial classes, manifestation of political tensions may take the form of protest movements, violence, and the like.

Now let me return to the assumption of fixed tax sharing arrangements in localities as determined by constitutional structure and refer back to the analysis illustrated in Figures 2(a) and 2(b). If Figure 2(b) depicts the typical situation---the poor tend to have positive excess demands for public services and the well--off negative excess demands--the adoption of an income maintenance program in the face of fixed tax shares will tend to increase political tensions. The poor will experience increased demands for public services, but the level of services may not

Heins-15

change or may even decline. The well-off conversely have reduced demands which may or may not be realized in expenditure reduction. While motiliby may syphon off the tension in a more desirable fashion, the likelihood that it is the well-off who move may leave the poor even less satisfied since tax shares leave with the movers.

Of course, if the poor are substantially below the median demand to start with, the effect of the program may be to diminish political tensions of the type described here. While I cannot claim to have the pulse of the people, intuition tells me that this latter case is not as likely to exist in communities across the country as is the former case.

Since one of the hoped for outcomes of an income maintenance program at the federal level is to reduce political tensions by improving the economic position of the poor, I find it an interesting hypothesis that the program may actually increase tensions at the local level because of a changed structure of demands for local services and inflexibility of tax sharing schemes. It would be a social tragedy if an income maintenance program resulted in greater social conflict in localities because the poor were even more frustrated than before in their demands for community services.

Of course, flexibility in tax shares would tend to mitigate the forces described above. If the results described in the previous section could obtain, increased local tax shares borne by the poor after the program were adopted would tend to reduce their positive excess demands for services and also mitigate the negative excess demands of the well-off, all of which would tend to reduce political tensions. These results may be bemoaned by those who strongly advocate adoption of an income maintenance program designed to reduce the incidence in poverty, because increased tax shares borne by the poor at the local level would seem to frustrate this objective, at least partially; however, the realities of human behavior and social conflict must be confronted, and adjustment in local tax shares may be required to balance the political pressures generated by the program.

The Mix of Public Services

Presumably, the adoption of an income maintenance program will affect the mix of public services provided at the state and local level because of its impact on complementary and substitutable public services. Without going into the detail of a well known economic analysis, this program should have the effect of reducing local demand for substitutable services and increasing demand for complementary services. The difficulty in implementing the analysis to make specific predictions lies in identifying the characteristics of complementarity and substitutability emong the variety of public services generally available at the state and local level.

The simplest case is that of local and state welfare services; a national income maintenance program is clearly a substitute for these programs and can thus be expected to reduce state and local provision of such services. However, looking beyond the broad aggregate of welfare services into the details of specific programs, one finds varying degrees of substitutability among the specific services. An income maintenance program involving cash transfers is highly substitutable for state and local programs involving cash transfers such as aid to dependent children (federally funded in part), "county pensions," and the like. However, other welfare programs such as family service agencies, mental health clinics, and public housing are far less substitutable for cash transfer programs. Each of these programs provides a specific service to the poor (not exclusively) at a subsidized rate. If we increased cash transfers and removed the subsidized programs, the mix of services, private and public, acquired by the poor would be very different. This just says that if you replace a specific service, say free medical service, with an equivalent cash transfer, it is unlikely that recipients will use the cash to acquire the same service. They may acquire some of it, but most certainly they will channel part of the cash transfer into other goods and services.

Thus, I would expect that a general income maintenance program will have the effect of substantially reducing cash transfer programs at the state and local level, but its import on specific welfare services will be much less.

Of course, the effect on cash transfers described above will be different in the various regions of the country. Transfers under a federal program would in all likelihood far exceed cash transfers currently provided in the poorer regions of the country. In these areas, the effect would probably be to eliminate state and local contributions under their own or federally shared programs completely. In the wealthier areas of the country, however, the likely transfer under a national program will fall short of current cash transfers by states and localities (including federal share). In these areas, I would expect state and local contributions to be substantially reduced, but not eliminated altogether.

Ranging beyond welfare services to other public services such as police, fire, roads, education, and so forth, the problem of identifying program impact on the mix of services becomes more difficult. For example, police protection may be conceived by a large segment of society as a substitute for welfare programs. At least one would think so from listening to the views promulgated by public office seekers. Do we vote for the man who wants to curb violence by enlarging our protective forces, or do we vote for the man who want to get at the "roots of violence," the condition of poverty and social deprivation? To this extent, I might predict that an income maintenance program would result in reductions in police expenditures.

However, it is program results that will eventually yield the answer, not forward views that helping the poor will reduce social conflict. If, for example, my suggestion that changed demands for local services in the face of fixed tax shares may materialize in increased local political tensions manifested by increased violence, police protection then becomes complementary to income maintenance, and increased police expenditures would be expected. Similar statements might be made about fire protection to the extent that violence and social disorder are involved. The outcomes here are necessarily speculative, and needless to say, impossible to quantify short of having a body of national experience.

The impact of income maintenance on education expenditures is even more difficult to identify. To the extent that one views free education as partly a welfare service to the poor, substitutability exists. But, to the extent that the segment of society directly benefitting from income maintenance views education as complementary to family economic standing (over and above the simple income effect), then a degree of complementarity exists. These questions must currently remain in the realm of speculation. The same considerations apply to roads, recreation, and the like, only more so.

A Word on Quasi-Public Services and Pricing Policy

Deductibility of local taxes from the federal income tax influences the trade-off between providing some services in the public sector or alternatively in the private sector. Such services as roads and police are so clearly public goods (goods with substantial externalities or non-exclusiveness) that they must be provided publicly if they are to be generally provided at all. And within our cultural and institutional setting other goods and services are equally private: clothing, food, luxuries, and the like. But, there are a variety of services about which localities might face a reasonable decision to produce either publicly or privately, and the influence of deductibility here is substantial; I call these services quasi-public. At one time education may have been in this realm, but recent Supreme Court decisions seem to have firmed up education as necessarily a public offering. As to the remaining quasi-public services the impact of increased marginal tax rates coincident with income maintenance may be to push some currently in the private sector into the public sector.

A case in point is garbage and trash collection. In my home

土壤

Heins-20

community of Urbana, Illinois, this service is provided privately and is very efficient in the sense that the service is excellent. Collections are frequent, careful, and neat. In Madison, Wisconsin, however, this service is public; and to exercise a complaint, not as frequent, damaging to containers, and messy. There may well be a cost differential that explains the difference; but in part it may be due to the greater efficiency of service provision under competitive market conditions.

Now, if marginal tax rates increase substantially, especially on the poor, there may be strong demand to provide garbage collection publicly in Urbana in order to capitalize on the cost reduction due to deductibility. To the extent that this results broadly in a shift of functions efficiently provided in the private sector to the public sector in which efficiency may be less, the artificiality of social costing because of deductibility may diminish aggregate social efficiency in production of those services.

Similarly, increased marginal tax rates may induce some communities to shift from user-charge financing of public services (such as pools, parks, water, etc.), which charges are not generally deductible, to general tax financing because general taxes are deductible. There may be some loss of social efficiency here.

How significant the above effects may be would be difficult to measure. Adoption of income maintenance may precipitate only minor shifts in pricing policy or quasi-public service provision, in which case the problem is of small concern. Or, of course, the effect may be more substantial.

Income Maintenance Without Deductibility

The considerations of the preceding sections have been based on the assumption that income maintenance would take the form of a negative income tax under which the poor could deduct state and local taxes for purposes of determining their cash transfer. If the program wore integrated with the federal income tax, this would be a likely format. However, the program may have a different structure in which transfers are based on gross income rather than taxable income. Or transfers may simply amount to children or family allowances in which income is no test. In such cases, the poor would not experience the reduction in cost of state and local public services assumed above. However, because I assume any program is fully funded under the income tax, the well-off will necessarily experience an increase in marginal tax rates and consequent lowering of the price of such services regardless of the program adopted.

If I conducted a new analysis for a program with a non-deductibility feature for the poor, the forces I previously identified would be similar but less strong. Some price effect would remain because of increased marginal tax rates on the well-off, but the income effects would clearly dominate. The impact of this consideration on specific hypotheses that might be derived from the analysis will be indicated in the next section.

Summary of Hypotheses

The hypotheses advanced below reflect the foregoing analyses and a liberal input of my intuition about the underlying behavioral pattern of the people, poor and well-off alike, who would be affected by an income maintenance program. A tenative hypotheses may be advanced with other behavioral assumptions, but I will leave these to the reader.

1. In poor communities, an income maintenance program (hereafter referred to as program) will tend to increase local government expenditures.

2. In communities dominated by the well-off, local expenditures will tend to decrease as a result of the program.

3. In average communities, or communities liberally represented by both poor and well-off, I would expect little change in public expenditures, but slightly positive if any.

4. The program will tend to increase the dispersion of positive and negative excess demands for public services and thus increase "political tensions." Here the question of deductibility of state and local taxes for purposes of determining negative tax transfers is crucial in determining the significance of this effect.

5. As a result of 4 above, the program will tend to increase the rate at which the rich migrate to wealthy "tax havens."

6. The program will tend to increase the regressivity (or reduce progressivity) of state and local tax shares. But, inflexibility imposed by most state constitutions on local tax forms will substantially restrict this outcome to state tax shares. In other words, I would expect tax changes at the state level in the face of the program to result in a less progressive (or again, more regressive) tax structure. Again, the question of deductibility of taxes by the poor is crucial; this effect will be much more significant if deductibility is allowed. To illustrate

ture

2

the form in which this effect might be realized, states now exempting food from their sales tax, may remove this exemption. Here the interaction of all of the above hypotheses becomes apparent: this outcome--reduction in progressivity--may lead to greater increases or smaller reductions in expenditures (hypotheses 1, 2, and 3) and may mitigate the effects of the program on political tensions and mobility (hypotheses 4 and 5).

7. Hypotheses about the impact of the program on the mix of public services are, as indicated earlier, highly speculative. Given this qualification, I would expect welfare services provided at the state and local level to diminish (relatively) in the broad aggregate. Within the aggregate, the program can be expected to reduce drastically, if not eliminate completely, state and local financed cash transfer programs. But, I would expect specific service oriented welfare programs to be affected much less. In other words, the county pension may become a thing of the past, but mental health clinics and family service agencies will continue to operate.

Since so many state and local welfare programs are financed in part by the federal government, outcomes here are likely to be dominated by federal posture regarding other welfare programs in the face of adoption of an income maintenance program. For example, if the program were adopted, AFDC would likely be altered drastically. Such alteration would probably influence state and local contributions to this particular welfare service far more than simple adoption of the program itself. This factor confounds the problem of predicting program impact, and will subsequently make impossible the isolation of program impact after it is adopted.

Predicting program impact on other state and local public services is so highly speculative, I will not attempt to frame specific hypotheses regarding that impact.

8. Adoption of the program will induce some communities to make public provision for some services previously provided in the private sector. Examples here are garbage collection, recreation facilities and parking. Similarly, some communities may shift from user-charge financing of particular public services to general tax financing in order to capitalize on the tax savings from deductibility. In both of these cases, deductibility of state and local taxes for purposes of determining transfers is crucial. Provisions for deductibility would accentuate these effects; non-deductibility would make the effects minimal.

Testing the Hypotheses

Because the hypotheses advanced above concern the aggregate effects of an income maintenance program, they are not amenable to direct test or quantification of parameters through social experimentation. Measuring program impact on public service provision in localities would require a long-term saturation project in many communities and total replication of the program including the balancing increase in taxes on the wealthy members of the community. Obviously, such experiments are impossible to perform at this stage.

However, it may be possible to determine some of the individual behavioral inputs in the analysis via experimentation, and thus to refine predictions about program impact. For example, if we could determine the before and after demands of program recipients for local public services we might get some insight into the questions raised in the analysis. This information may be gleaned from interviews regarding taxexpenditure attitudes, or from actual behavior such as voting patterns, especially on bond issue referenda, and attachment to or activity in behalf of political organizations. However, it would be crucial here that the experimental program replicate as closely as possible the national program under consideration. Most crucially, deductibility of state and local taxes for purposes of determining transfers would have to be included in the experiment if grounded conclusions were to be reached about a national program in which such deductibility were included.

On the whole, however, I believe that the significant questions raised in this paper will have to be approached by more traditional methods of political, sociological, and economic research. At this point, it would be presumptuous for me to detail the precise methods by which tests of my hypotheses and quantification of the forces at work could be accomplished. Rather, I will illustrate the methods of analysis that might be employed toward this end.

The impact of the federal income tax with its features of progressivity and deductibility of local and state taxes is difficult to ascertain directly because of its pervasiveness and its uniformity throughout the country. One might undertake a longitudinal study in which he sought to examine tax-expenditure behavior at the state and local level in response to significant changes in the federal tax. For example, in response to changes in progressivity, did states and localities follow up with systematic changes in the progressivity of their tax structures? When federal tax rates were increased (or decreased) significantly, did states and localities systematically change pricing policies on the various public services amenable to user-charge financing? Can we identify systematic responses in state and local expenditures to changes in the federal tax?

Heins-26

The difficulty of all this is of course apparent. As in all timeseries analyses, especially those with no cross-section controls, it is difficult to determine the flow of causality. Is there the famous Z factor that precipitates both changes, changes in the federal tax and the supposed state and local response? And, in this case, there are so few significant changes in the federal tax covering a large span of years, it would be difficult to control for the underlying institutional and cultural patterns that play so large a role in the responses to be analyzed. However, some insight might be gleaned from a historical analysis despite all the pitfalls.

Since direct cross-section analysis of the impact of the federal tax is out of the question, one would have to construct a suitable analogue if cross-section analysis were to be employed. One possibility here would be to identify the responses of localities in the various states to differential state tax structures. If we would note that localities in states with no income tax, or perhaps a proportional income tax (e.g., Illinois), showed systematically different responses than localities in states with highly progressive income taxes (e.g., Wisconsin), we might infer something about the impact of progressivity

Heins-27

and deductibility on local tax-expenditure behavior. For example, if Illinois localities have a greater propensity to employ user-charge financing than do Wisconsin localities, the inference might be made that progressivity and deductibility do significantly affect pricing policies, and thus that changes in the federal tax structure would induce such responses across the country. Or, if we discover that localities have systematically different tax-expenditure packages in the various states with significantly different tax structures, suitable inferences might be made about the impact of the federal tax on the local tax-expenditure package.

As to hypotheses 4 and 5, it may be possible to identify the impact of differential state tax structures on the geographical dispersion in the income distribution in metropolitan areas and make the required inferences. To illustrate, if we discovered that metropolitan areas in states with a highly progressive income tax were more fragmented and diverse in per capita income than similar areas were in states with no income tax, hypotheses 4 and 5 would tend to be confirmed. Professor Charles Cnudde suggested to me that we might also gain some insight by looking at differential annexation procedures and responses in the various states to gain similar insight. He also suggested that we might identify different voting patterns for referenda and make inferences about the impact of state tax structures on excess demands for public services.

The difficulties with cross-section analyses are also apparent and manifold, but in this case two stand out. Differentials in state tax structures are small compared to the contemplated change in the federal income tax accompanying an income maintenance program, and thus the forces detailed in the hypotheses may be at work but unidentifiable through the noise. And, it would be difficult to control for the underlying structural and cultural differences between the states and might simultaneously impinge on both the causal and the caused factors making definitive conclusions impossible. Nonetheless, the effort must be made.

REFERENCES

- 1. Kenneth J. Arrow, Social Choice and Individual Value. New York, 1951, Rev. ed. 1963.
- 2. Duncan Black, The Theory of Committees and Elections. Cambridge, 1958.
- 3. James M. Buchanan, The Demand and Supply of Public Goods. Chicago, 1968.
- 4. _____, Public Finance in a Democratic Process, Chapel Hill, 1967.
- 5. James M. Buchanan and Gordon Tulloch, The Calculus of Consent. Ann Arbor, 1962.
- 6. Anthony Downs, An Economic Theory of Democracy. New York, 1957.
- 7. Charles Tiebout, "The Pure Theory of Local Expenditure," Journal of Political Economics, October, 1956, 64, 416-24.

REFERENCES

- Kenneth J. Arrow, Social Choice and Individual Value. New York, 1951, Rev. ed. 1963.
- 2. Duncan Black, The Theory of Committees and Elections. Cambridge, 1958.

23

- 3. James M. Buchanan, The Demand and Supply of Public Goods. Chicago, 1968.
- 4. _____, Public Finance in a Democratic Process, Chapel Hill, 1967.
- 5. James M. Buchanan and Gordon Tulloch, The Calculus of Consent. Ann Arbor, 1962.
- 5. Anthony Downs, An Economic Theory of Democracy. New York, 1957.
- 7. Charles Tiebout, "The Pure Theory of Local Expenditure," Journal of Political Economics, October, 1956, <u>64</u>, 416-24.