

## EFFECTIVE PUBLIC POLICY AND THE GOVERNMENT BUDGET: A UNIFORM TREATMENT OF PUBLIC EXPENDITURES AND PUBLIC RULES

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Professor Schmid discusses the relevance of benefit-cost type analysis to government rule-making decisions (e.g., "market bargaining and contract rules, permits, and licenses, zoning, prohibitions and quotas"). He points out that benefit-cost analysis is as necessary for the framing of government rules as in the evaluation of public expenditure decisions, for "the issuance of a rule also directs the use of resources which have alternative employment. \* \* \* The test is the same for both budget outlays and rules—namely, is the value of the resources in a new use worth more than the alternative uses foregone?" Professor Schmid discusses both the efficiency impacts and the incidence of benefits and costs of public decisions and emphasizes the possible redistributive effects of rule as well as spending decisions.

Insofar as both rule-making and expenditure decisions have similar resource allocation and equity effects, there should be a common framework through which both kinds of impacts of both kinds of decisions can be evaluated. Professor Schmid proposes the formation of an economic budget which would display these relevant variables in a meaningful way. "Systematic treatment of the relationship between expenditure and rule-making decisions is one of the major unresolved issues and next steps in PPBS."

### I. *Introduction*

In order to have an analytic system that considers the full range of alternative ways to get goods or service produced for the public, it is appropriate to look not only at the range of public spending alternatives, but also at the police power and rulemaking alternatives. In some cases these two sets of institutional arrangements are complementary to each other and in others they are substitutes. The rulemaking decisions referred to here are the broad category of Government action including market bargaining and contract rules, permits and licenses, zoning, prohibitions, and quotas.

This paper will discuss how spending and budget matters can be systematically related to rule and control matters. Involved in this is how the program and output of a department like the Justice Department which is a relatively low budget, rule administering agency can be related to those which are primarily spending agencies with big budgets. Focus on this issue is relevant not only for Federal policy decisions, but also for the connection between Federal and local governments, the latter possessing much of the police power. The Govern-

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ment is interested in improved resource allocation which will increase national income and this is treated in part II of this paper. Government is also interested in changing the distribution of the ownership of wealth which is treated in part III.

Therefore, this paper will make these objectives of income increase and its distribution explicit in analyzing spending and rule decisions. Systematic treatment of the relationship between expenditure and rulemaking decisions is one of the major unresolved issues and next steps in PPBS.

All are familiar with the presentation of spending alternatives in PPBS and benefit-cost analysis. A Government program such as flood control reservoirs or disease control employs resources which have alternative uses. The value of these alternative products foregone is the opportunity cost of the Government project to be compared with the value of the project output to the public. Government rulemaking is usually analyzed outside of the above formulations. Yet, the issuance of a rule also directs the use of resources which have alternative employment. Can we then conceive of a benefit-cost ratio for a rule change as well as for an item in the Federal budget?

As other papers have pointed out, the Government acts as agent for groups of people who cannot make their demands for the production of certain goods effective through market bargaining alone. The bid of the representative government for the output of a public project means that resources are allocated differently than they would have been in the absence of the bid. The bid based on tax money can be thought of as an order or command for the allocation of resources made legitimate by the public's representatives.

A rule also directs the use of resources. While it may short circuit the usual order contained in a money bid, the function is the same. A rule orders that resources be used in a certain way for the production of services which its users consider more valuable than the alternative foregone. Again this is made effective and legitimate by the public representatives. The test is the same for both budget outlays and rules—namely, is the value of the resources in a new use worth more than the alternative uses foregone.

## II. SPENDING AND RULES IN RESOURCE ALLOCATION

### RELATION BETWEEN SPENDING AND RULES: FLOOD CONTROL ILLUSTRATION

Perhaps an illustration would be useful at this point. Take the case of people subject to flood damage. One alternative is to build a reservoir to control the water. There may be problems for the potential users to express their demand for this service in the market. Therefore, we find flood control reservoirs in the Federal budget. Systems of analysis have been developed to compare various flood control projects and other water development projects.

There are, however, alternative ways to allocate resources to accomplish a similar service. For example, transportation resources can be substituted for location and protection in the flood plain. Economic activity could be organized outside the flood plain. Assume a simple case where a particular set of industries finds that transportation costs are cheapest with a river bank location. The cost of a nonflood plain location then is the extra transport cost associated with it.

The economics of the reservoir compared with alternative locations of industrial activity turn on their costs. We have the cost of the reservoir construction resources on the one hand and the cost of the transport resources on the other. If the cost of transport exceeds the cost of the reservoir the firms should locate in the flood plain and petition the Government to buy the reservoir for them with their tax money. This would result in a net profit for the firms and a gain for the economy.

But, just as there is a problem in expressing demand for certain goods and services such as those produced by reservoirs, there may be problems in organizing industry off the flood plain. Acting as individuals, the managers of these firms may not account for all costs. If they were one giant firm, the above economics of reservoir versus alternative industrial location should be clear. But acting alone, some firms, for example, may be unaware of the flood risk and thus locate next to the river. If enough do this, the whole economics of location changes and other firms will find it advantageous to locate next to them in spite of the flood risk. If all firms acted together at once this uneconomic dynamics would not develop. The method to institute this demand for the desired allocation of resources may therefore not be market bids, but rather take the form of a zoning law prohibiting anyone from locating in the flood plain. The economics of the zoning rule, however, turns on the same type of analysis used for evaluation of the reservoir. If the allocation of resources to overcoming the disadvantage of a nonriverbank location is less than protecting the flood plain location, the rule is superior to the reservoir and represents the optimum direction of resource use.

#### RELATION BETWEEN SPENDING AND RULES: WILD RIVER ILLUSTRATION

The above illustrates only one way in which a rule and spending are alternatives. Consider the use of a stream as a wild river. A proposed law to create a wild river is not now likely to be in the same analytic system as that for various water development projects. However, it is conceptually possible to put this rule into the benefit-cost framework. Perhaps some hypothetical numbers could make this clear. Assume that it costs a set of industries \$1,000 more in transportation to locate out of the flood plain than in it and that this is the only relevant cost difference. This \$1,000 then represents the potential benefit of a flood control project which would allow the industries to locate on the flood plain. Further, assume it is possible to obtain protection with some combination of reservoirs, levees, and flood proofing at a cost of \$400. This would produce a ratio of benefit to cost for the Government spending project of  $\$1,000/\$400$  or 2.5/1. The \$400 project cost includes the cost of any reservoir land site. In this situation, the Government acting as a collection agent for the industries could afford to pay \$400 for the flood control works and also up to \$600 more for any other costs that might have to be covered.

Assume that the reservoir destroys certain uses of the river that could be made in its wild state and that this has a benefit worth \$700 in total to all wild users. However, the consumers of this wild river product may have difficulty expressing their demand for this use in the market. Therefore, the agents of the industries may not

be able to see all the opportunities foregone by their reservoir. They may only see the \$400 construction cost and the \$1,000 benefit and conclude they have a sound project.

For simplicity, assume the land has no alternative uses except for reservoirs or wild uses. It was noted above that the industrial group through Government could afford to pay up to \$600 for any damage or extra land needed to construct the reservoir. The wild users as a group would, through Government, be willing to make a bid of \$700 for the affected land. This would then appear as a cost of the flood control project as follows:  $1,000/400 + 700$  and the benefit-cost ratio would be less than one and uneconomic.

Considering the wild river as a project, it would have benefits of \$700 and costs equal to the industrial alternative foregone of \$600 and thus a favorable benefit-cost ratio of  $\$700/\$600$ . Rules sometimes short circuit the Government bidding process and there may simply be a rule banning all reservoirs on the stream. The wild river users wouldn't have to pay the \$700 they would be willing to pay for the benefits. This involves a redistribution of income in their favor which will be examined later. But, the economics of resource use remains the same with the wild river as the better "project."

Rules are often ambiguous and may or not be redistributive. The land in this case may already be owned by the users of the wild river. In that case, they have a property worth \$700 to them for which the industrial users would pay only \$600. Obviously, this ratio says they shouldn't sell. Yet, we may be back to our group demand problem. Some few individual owners may be tempted to sell their rights which would destroy the value of others' property. To prevent this, the owners may wish to zone the whole area as a wild river. In effect they are saying they can't imagine a total bid exceeding \$700, the value to them in the wild state, and therefore as a group they reject all bids and other users need not bother making bids. The economics of the wild river rule still turns on the value of the benefit compared to the values of the alternative uses foregone. In this case, there is no transfer and no relevant cost to be charged to any public budget.

### III. SPENDING AND RULES IN REDISTRIBUTION OF INCOME

#### INCIDENCE OF BENEFITS AND COSTS

Under current procedures, the benefits and costs of a flood plain zoning law and spending for a dam have quite different incidence, though they could be designed to be identical. If the dam is paid for by all taxpayers and extra transport costs of nonflood plain location are paid only by specific industrial firms, the incidence of costs are quite different. One of the reasons that these considerations are not now resolved and incorporated into systematic analysis is their complexity. Government spending and rules represent not only the direction of resources use by their acknowledged owners, but also sometimes a redistribution of that ownership. Separation of these factors is difficult. Many Government spending projects are financed by taxes and by user charges. The spending decision correctly involves total cost regardless of source. However, it may not be clear if there is also a redistribution of wealth involved. This is difficult to tell on a project by project basis and often even in total. Therefore the spending project

may or may not involve a redistribution and, while the project analysis tells the return on the total investment, a separate analysis is needed to indicate how the public feels about transferring resources from present owners to project beneficiaries. There will be further discussion of this below.

Consider the rulemaking decision. It too can be double barreled. We have already noted that a rule such as zoning to achieve a wild river may, if the land is already owned and accessible by the wild river beneficiaries, simply involve a decision to retain or sell. If retained, the opportunity cost of refusing to entertain bids from other users is borne by the wild river users who own the land.

However, the wild river users may not own the relevant land or have hired its use. A zoning rule may make the owners of the land unable to get bids from potential industrial users and unable to be reimbursed by the wild river users though the latter would be willing to pay. This would involve a redistribution which in effect taxes the landowners of a portion of their potential values and gives it to the wild river users. A separate analysis is needed to determine the economics of this transfer. In short, spending projects and rules which involve reallocation and recombination of resources by their owners—whether collected by user fees or taxes—can be grouped and compared. On the other hand, spending projects and rules which involve a redistribution of ownership and one-way transfers must have their test made in a different framework.

#### SYSTEMATIC ANALYSIS OF REDISTRIBUTION\*

A suggestion on what a systematic redistribution framework might look like can be seen if we start with a tentative public objective to make one-way transfers of ownership (income). This is what is usually meant by redistribution of income or it might also be called a grant. For simplicity, this discussion will consider only projects whose sole output benefits a target who may pay only a portion of the cost. From the viewpoint of the general taxpayer, redistribution is the difference between project cost and the amount paid by project target beneficiaries, whether in taxes or user charges. This assumes that, after netting out all payments and benefits of other public programs, target beneficiaries paid less than the cost of the projects under consideration.<sup>1</sup> However, a given transfer from the grantors may or may not be received as income by the target beneficiaries. This is affected by the productivity of the investment.

For example, the general taxpayers may contribute the total cost of a given project (say \$100), but because of low productivity, the target beneficiaries receive only \$85. The beneficiaries are better off by \$85, but \$15 of the \$100 transfer is wasted. If this represents the best investment available, the beneficiaries would have been better off if the \$100 transfer had been made in cash.

<sup>1</sup> A technical note on this conception which differs from some of the literature on this subject is attached at end of this paper.

\*Further discussion of this issue is found in the papers by Weisbrod, Bonnen, and Freeman, in this volume, and Feldman in vol. 3 of this collection.

It is sometimes suggested that the transfer be measured by the difference between returns to beneficiaries and their contribution to cost. In the above case this would be  $\$85 - 0 = 85$ . Yet, this would not call attention to the fact that the taxpayers transferred and gave up \$100 and, while they intended it to go to the target beneficiaries, \$15 of it was wasted.

A grant can be given as cash or in the form of a particular project. The alternatives are that the recipients might invest (or consume) it as they wish, or the Government may invest it for them in projects from reservoirs to urban renewal. The first thing decisionmakers need to know is the size of the grant involved, and then whether it generates as much income to the target group in the form of a given project as it would in other alternative projects or cash. If it does not, the grant-in-kind in the given project is wasteful (assuming indifference on the part of the recipient to the form).

While the objective may be to give a grant and to achieve the maximum resulting change in the target group income, this latter calculation in no way prices or evaluates the desirability of the grant itself. The size of the grant that taxpayers wish to make to a target group must be an expression of general public values communicated to public representatives. For example, the public may be willing to give grants over a period of years with the objective of raising all incomes in the United States to \$3,000. Whatever budget is available for grants, a particular investment competes with other project alternatives in terms of the productivity of return.

The taxpayers don't want to spend more than they have to in achieving \$3,000 for everyone. In fact until it is known just how much transfer is necessary to achieve this, the objective may be a tentative one, or at least the time schedule for its achievement would be uncertain.

In current policy terms the amount of Federal cost share of projects paid by taxpayers, who receive less in public investment than their share of tax payments, is a major vehicle of redistribution. The amount involved depends on general public policy and is not the function of a particular project analysis. The project analysis only indicates what the productivity of the grant is in the form of a particular investment. This knowledge would be masked if analysts or Congress attempted to put weights on the benefits received by target beneficiaries.

In short, there are no redistribution benefits to be added to other categories of project benefits. All that is relevant is for the public to ask itself if a dollar of its assets granted to others is what they want and to communicate this to their public representatives. The project analysis can then indicate which projects are most productive for investment of this grant or whether it should be transferred in cash. If a redistribution objective is adopted, it should be implemented systematically with all kinds of public projects and programs competing in terms of productivity to the specified target groups and not piecemeal on a hit-and-miss individual project basis. Even within a given product field, care must be taken that special ad hoc arguments are not made for a particular project because of its impact on a certain group of worthy beneficiaries when other projects may produce more for the target group.

## IV. RECAPITULATION IN TERMS OF ILLUSTRATIVE ACCOUNTS

The above discussion can be summarized and further illustrated in terms of an account or bookkeeping system. Consider a list of survey reports which show preliminary benefits and cost estimates for water development. Some suboptimization has already taken place. In this illustration the optimum development for each *site* is an item in the system for selecting new starts. So the array of "projects" and benefit-cost ratios might include some which are Federal spending projects and some which are rule projects. An account designed to show national income gain might look like this:

TABLE 1.—NATIONAL INCOME GAIN ACCOUNT

Project	Benefit/cost	Total cost	Cost relevant to Federal budget constraint	Cumulative cost relevant to Federal budget constraint
1. Reservoir on river A.....	4/1	\$10,000	\$10,000	\$10,000
2. Zoning rule, river C.....	3/1	10,000	0	10,000
3. Reservoir on river W.....	2/1	10,000	10,000	20,000
4. Reservoir on river Y.....	1.5/1	10,000	10,000	30,000

Such an array would indicate first of all that preliminary survey money which produces a zoning project discovers opportunities for improving the economy just as those which result in public spending projects. In fact, the table shows that in retrospect if the survey budget were limited to two surveys, projects No. 1 and No. 2 (with No. 2 being a rule "project") should have had priority over projects No. 3 and No. 4. The practical problem at the current time is that construction agencies tend to prefer survey efforts which produce spending projects to surveys that do not.<sup>2</sup> In part, this is because they get no credit from anyone for nonspending recommendations. In fact, it may work the other way with the field offices of a given agency being commended if survey costs are low relative to construction spending, but criticized if planning costs are relatively high. This would be less likely to happen if accounts were kept as in the above table. There are many unresolved issues in systematic management of programs that require substantial project surveys, but the direction of improvement lies in the above approach.

Now consider the new-start analysis.<sup>3</sup> Table 1 shows that if the Federal budget constraint were \$20,000, then the reservoir projects A and W and the rule project of river C should be recommended. Since the rule project has no Federal cost—although there is a private cost—it should be recommended for local government implementation even if the budget constraint were \$10,000 since it is a net gain for the economy which is not limited by the Federal budget constraint that happens to be in force. It is assumed here that the costs are borne by the beneficiaries with no demand on any public treasury.

<sup>2</sup> Also the action of congressional committees that control rule changes may not be coordinated with those committees that control spending.

<sup>3</sup> For simplicity, the fact that some projects require a detailed planning and design stage and others do not is ignored. Also ignored is the fact that the rule change may also require detailed planning and design before it is ready to function as is the case for construction projects.

If we turn to the objective of redistribution, a separate analysis is relevant. This might be termed the "Grants" or "Redistribution" or "Transfer account." This account is aimed at some target beneficiaries determined by Congress. Therefore, only projects from table 1 that benefit the target group are included in the "Grants account" in table 2. (In the hypothetical cases here assume only reservoir project, river W from table 1 aids the target group.) For simplicity assume all costs are paid by the public and not by the target beneficiary who receives all benefits. In practice only a portion of most projects would be redistributive.

TABLE 2.—GRANTS ACCOUNT (REDISTRIBUTION AND TRANSFERS)

Project	Benefit to cost	Transfer and total cost	Cumulative cost
1. Health project X.....	5/1	\$10,000	\$10,000
2. Reservoir, river W.....	2/1	10,000	20,000
3. Wild river rule B (700/600).....	1.1/1	600	20,600
4. Cash.....		(1)	\$40,000
5. Reservoir, river N.....	.8/1	10,000	

<sup>1</sup> Dollar for dollar.

<sup>2</sup> Or to limit of budget constraint.

Assume that the public acting through Congress has decided that an amount up to \$40,000 would give the public who taxed itself more satisfaction if transferred to a specified group than if it is consumed or invested by its owners.<sup>4</sup>

If table 2 is the list of available projects that aid the target group, then the \$40,000 grants budget should be spent for projects 1 through 4. \$20,600 would be used for investments, and \$19,400 would be transferred in cash since the next best investment project would transfer less to the target group than the grantors give up.

Wild river rule B would, therefore, be enacted. Assume the target beneficiaries do not now own the relevant lands and because of poverty have no effective demand. In effect, the rule forces the current landowners to forgo bids from industrial users of \$600 (using portions of the case developed earlier in part II). This is the same as taxing them \$600 and giving a gift to the wild river beneficiaries. This equivalent of a tax of \$600 and transfer of \$600 may not show in current Federal budgets, but the effect is as described nevertheless.<sup>5</sup> If the group that wants to make a transfer is in fact these landowners, this rule would be an efficient transfer.

If the landowners are not the relevant grantors, then the public can reimburse the private landowners for the foregone \$600 bid from industry that wants to build flood control works. Since the benefits obtained for the noncontributing target group of wild river users are worth \$700, this is an efficient transfer. In this case, the \$600 investment would show in the Federal budget as now constituted. If the wild river users were not the objects of transfers, but wished to tax themselves to preserve the river, they would express their demand through Government. In that case, project B would show in the table 1, Na-

<sup>4</sup> To be perfectly symmetrical this entire grants budget might be regarded as a project and put on table 1 showing that it has a benefit-to-cost ratio at least greater than 1. But this is not too helpful in an *ex ante* decisionmaking sense.

<sup>5</sup> This calculation might be added to the Department of the Treasury's *Comparison of Budget Outlays and Tax Expenditures by Function*, presented to hearings before the Joint Economic Committee, Jan. 17, 1969, *The 1969 Economic Report of the President* (Washington), Government Printing Office, pp. 11-31.



tional Income Gain Account, with a Federal budget cost of \$600 necessary to reimburse the landowners. Table 1 includes only projects for which there is effective demand backed by owned income.

The relationship between the national income gain account and the redistribution account can now be spelled out in more detail. It is possible that a project with a benefit-to-cost ratio greater than 1 in the table 1 national income account may not be built because of a budget constraint on the types of projects in the Government program represented by the table. This rejected project may have a better benefit-to-cost ratio than one accepted in the redistribution account. To illustrate this, assume that the budget of table 1 is limited for some reason to \$10,000 and only the projects on rivers A and C were selected with W and Y rejected.

Further, assume that the public communicates to their representatives that the redistribution account budget constraint should be \$20,600. This would mean that the project on river W would be built although rejected in terms of the national income account budget. Also, under the wild river rule, river B would be implemented because it helps the target group even though its benefit-to-cost ratio of 1.1:1 is less than the project on river Y which has a benefit-to-cost ratio of 1.5:1. River Y project was rejected in the national income account because of a budget constraint and not accepted in the redistribution account because it does not aid the target group.

If public decisionmakers could rely completely on these program analyses as a guide to budget size, they should expand the national income accounts budget to include river Y and then they would never miss a project that added more to national income than it cost.

This does not show, however, that the redistribution budget is too large relative to the national income budget. The public may wish to transfer wealth (and give up the opportunity represented by project W and other alternatives including consumption) because they derive more satisfaction through transferral than through their own consumption. The return of project Y given up will certainly be a factor in the public's opinion on whether they want to transfer part of their wealth to others, but there is nothing inherent in the productivity of project Y which automatically invalidates their demand to be charitable. However, if the benefits of project Y could be collected and given to the target group this would be superior to project B. However, in this illustration it was assumed that this was not the case and only project W from table 1 would benefit the target group.

#### V. USES OF A SYSTEMATIC COMBINATION OF EXPENDITURE AND PUBLIC RULES ACCOUNTS\*

##### SOME FURTHER ISSUES ILLUMINATED BY SYSTEMATIC ANALYSIS

The water field can be used further to illustrate issues in the mix of Federal spending and rulemaking decisions. If we look forward to the day when all agencies affecting a given product or service are grouped together for budget analysis, it will be useful to have a PPB system that encompasses spending and rules. In addition to the reser-

\*Further discussion of this issue is found in the papers by Schultze, and Mushkin & Cotton in this volume.

voir spending and zoning rules there is now flood insurance under the administration of HUD which is not one of the traditional water agencies. Insurance schemes also have their opportunity cost and benefits. Much work remains to incorporate this into PPB so that the complete effort in a given field can be totaled.

Next consider the 1966 Executive order directing increased attention to the location of Federal installations in the flood plain. The costs of implementing this will show up in the budgets of every Department that has extensive building facilities. The Federal investment in flood damage reduction will not be complete until this is systematically accounted for.

Another area of increasing interest is that of interstate compacts often involving the Federal Government as a partner. Negotiation of these compacts involves not only the traditional water agencies but also the Justice Department. The compacts are ratified in the Senate, for example, by the Judiciary Committee and not the Public Works Committee which examines spending projects. These compacts are going to have a great effect on the ability of non-Federal units to pay for improvements that have primarily a local effect. At the present time, the Federal Government pays for some projects of relatively local effect because there is no procedure for facilitating agreement among the local government units on their relative cost shares. So this is a case where a rule change may have a great impact on demands for the Federal budget.

State pollution control rules may affect whether an expected recreation benefit on a Federal reservoir will be realized. Here rules and spending are complements.

Various agencies administer licenses and permits. In the water field, for example, the FPC licenses hydrodams, AEC licenses nuclear powerplants, and the Corps of Engineers issues permits for private dredging. To take only one dimension, each of these can have an effect on water quality. Each of them directs resource use in a certain way which has benefits and opportunity costs. Each of them in some respect is an alternative to Federal spending such as that for municipal sewage treatment plant grants or for reservoirs that provide low-flood augmentation. A rational decisionmaking system must somehow encompass all of these or the Nation will be over investing in one area while there are cheaper substitutes or possibilities of greater output if certain complementary rules and projects are combined.

#### OTHER EXAMPLES OF SPENDING AND RULE ALTERNATIVES

Water examples have been chosen to illustrate the general problem of relating spending and rule decisions. To further illustrate the kinds of questions involved, several other fields will be briefly explored. Much of Government activity is concerned with formulating rules of market behavior. The Department of Justice spends \$8.2 million to enforce competitive behavior.<sup>6</sup> To illustrate the potential relationships, consider the competitive rules for railroads and spending programs of the Department of Transportation. The public may want to obtain a certain performance in the railroad industry. In certain contexts this

<sup>6</sup> *Special Analyses, Budget of the United States, 1970* (Washington), Government Printing Office, 1969, p. 262.

might be secured by having the Department of Justice follow a certain antitrust and merger policy.<sup>7</sup> An alternative—or complement—might be a grant or subsidy program offered to encourage the same performance administered by the Department of Transportation. Somehow these alternatives must be related and shown together in an information system.

Another relationship of spending and rules in the regulatory field is the use of Government enterprise as a yardstick to stimulate private performance. The public spending project has not only commodity-producing benefits but it may test and demonstrate new efficiencies possible for other firms. A direct regulatory order could accomplish the same thing but for various reasons it may not be possible. A decision system encompassing direct regulation and spending yardsticks would be useful, but many unresolved issues remain.

There is great interest now in rebuilding our cities. Among the many alternatives are such things as direct Federal spending for urban clearance and renewal. A nonspending alternative—or complement—is reform of the property tax rules. New tax systems could be designed to give greater encouragement to private owners to improve their properties. This is an illustration of how State-Federal relationships are important in relating spending and rule decisions. Property tax rules are matters of State and local control, but nevertheless, failure to incorporate these alternatives into systematic analysis has great impact on demands for the Federal budget.

#### CONCLUSIONS

1. The argument has been presented that both public spending and rulemaking decisions produce benefits and have opportunity costs, and thus can be compared and ranked together as alternatives in a PPB system. While unresolved problems remain, there appear to be strong possibilities for improved systematic analysis.

2. Both spending and rules may involve redistribution of the ownership of wealth. Care must be taken to determine whether a given spending or rule project is designed to increase national income or transfer ownership and to see that the appropriate analysis is made for each. The benefit-and-cost incidence of expenditures and rules must be clearly spelled out so that decisions may be properly accounted for.

3. The display of spending and rule projects in a single information system gives credit to survey investigations which produce no Federal spending for construction. While availability of information does not insure its use, this is the first step in avoiding a construction bias.

4. Explicit and systematic consideration of spending and rule decisions illuminates some of the connection between Federal and State and local decisions. Federal spending and more local level rulemaking are often substitutes and in some cases if local rules don't complement the Federal spending project the potential benefits won't be realized.

5. Combination of spending and rulemaking activities in a single information system will facilitate the totaling of Federal activity in a given field regardless of the particular department it happens to be in.

<sup>7</sup> It is interesting to note that a research study on railroad mergers has recently been made, not by Justice, but by the Department of Transportation, *Western Railroad Mergers* (Washington), January, 1969.

*Technical Notes on Redistribution*

A. The computation of redistribution is slightly more complicated if the taxpayer who wishes to make a transfer also receives part of the benefits of an indivisible project. In that case, redistribution is the difference between the target beneficiaries' actual contribution to cost and the contribution they would pay if total costs were shared in the same proportion as benefits are shared. For example, assume a general taxpayer group (G) and a target beneficiary (B) and a project as follows:

$$\begin{aligned} \$60_G + 60_B &= 120 \\ \$60_G + 40_B &= 100 \end{aligned}$$

If costs were shared in the same proportion as benefits, the target beneficiary would have paid one-half of the cost or \$50, instead of the \$40 actually paid. The difference,  $\$50 - \$40 = \$10$ , is the amount of redistribution or transfer.

If the total benefit-cost ratio is less than one, the amount of the transfer plus the target beneficiaries' contribution will be more than the beneficiary receives in benefits and the project would be wasteful. The beneficiary would be better off to retain his own contribution and to take the general taxpayers' transfer in cash.

The U.S. national income accounts, as now kept, assume Government transfers have a benefit-to-cost ratio of unity. When this is the case, the definition of redistribution outlined above gives the same result as that sometimes defined in the literature as the difference between target group benefits and their contribution to costs. This latter concept is appropriate when considering redistribution from the recipient point of view, but it gives the wrong answer from the taxpayer-grantor point of view when the benefit-to-cost ratio is greater or less than unity.

B. There is a technical problem in valuing the contribution of the taxpayer who wishes to transfer income to a target group. Assume a project with a ratio of benefits to costs \$150/\$100 with all benefits going to a target group and all costs paid by the general taxpayer. In a sense, if an investment of \$100 could earn \$150, then those who own the \$100 are really transferring an asset whose present worth at market rates is \$150 in a certain investment. If the \$150 is a project return to a certain target group, the payer of the \$100 could have offered it as a loan and bargained for a share of the net profit and thus it might be said that the transfer is what the beneficiary received minus what he paid or  $\$150 - 0 = \$150$ .

If the taxpayer consumes the \$100, this means his consumption is worth more now than consumption of the returns of investment later. Yet, for bookkeeping purposes we can only observe that \$100 is consumed. The U.S. national income accounts as now kept show only the dollars consumed. Similarly, if the taxpayer derives more satisfaction by transfer than by his own consumption or investment we can only observe the \$100 being transferred. The \$100 is not the full value of the wealth being transferred, but we cannot determine it through observation of market transactions.

Taxpayers are generally aware of investment opportunities in the private sector and can ask themselves if the transfer would give them more satisfaction than the consumption and later investment returns given up. They may not be aware of certain opportunities for the public to loan money to certain groups who cannot express their loan demand in the private sector. If this were quite high and known to the taxpayers, they might prefer to tap these returns rather than be charitable and transfer their wealth. This does not seem highly probable. For these reasons, it is preferred here to consider only the observable nominal value of the dollars transferred by the general taxpayer.

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