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HOW FEDERAL AID HIKES STATE AND LOCAL TAXES

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INTRODUCTION

Has federal aid to states and localities during recent decades increased the burden on local taxpayers? The evidence, surprisingly, seems to argue that it has. Instead of permitting states and localities to reduce their taxes, funds from Washington have led to local tax increases. What has been intended as aid, therefore, has become a burden. It is this burden, in part, that the Reagan Administration's New Federalism could lighten.

Federal aid in the form of categorical and block grants and general revenue sharing grew in real terms at a compound annual rate of 8.1 percent between 1960 and 1980. On a per capita basis, the real growth for the two decades was, of course, at a lower but still striking rate -- 6.9 percent. Representing about one tenth of state and local government revenues in 1960 (as well as 1950), federal aid by 1980 had practically doubled its contribution to state and local revenue coffers.

This dramatic growth in the dependence of subordinate governments on the federal treasury occurred at a time of steady growth in the revenues collected by state and local governments from their own sources (relative to the growth in revenues of the federal government). Between 1960 and 1980, real per capita taxes collected by state and local governments (excluding federal aid and charges) grew at a compound yearly

rate of nearly 3 percent. During the same period, federal taxes per capita increased at a compound rate of 2.4 percent. The extraordinarily strong positive association between growth in state and local taxes _from own sources_ and federal aid raises intriguing questions concerning the interplay between federal and state fiscal authority. One of the more important is: Does a cause-and-effect relationship exist between the rise in federal aid and the rise in state and local taxes?

Arguing that economic power should be returned to the people through tax cuts and reductions in federal social programs, including aid to state and local governments, the Reagan Administration has sought to restructure fiscal federalism, first by reducing the federal aid level, second by creating block grant programs out of former categorical grant programs, and third by having state governments eventually assume full financial responsibility for more than 40 aid programs. These shifts also lead to questions concerning the interaction of federal and subordinate government fiscal powers. Many commentators assume that the transfer to the states of the funding of the aid programs, previously funded in part by the federal government, will entail increases in state and local taxes.

The purpose of this paper is limited to sorting out the theoretical and working relationship between federal aid and the tax levels of subordinate governments. More specifically, the analysis provides the basis for predicting the effects of both reducing the funding level of fiscal federalism and shifting from categorical to block grants. Additional research will involve empirical tests of the predictions developed here.

A central conclusion of this institutional and theoretical analysis is that, by design, federal aid has been an important positive force behind the growth in state and local tax collections over the past two decades. Further, compared to categorical grants, block grants reduce the tendency of subordinate governments to grow in response to an expansion of the federal funding. Therefore, contrary to popular presumption, a reduction in the level of federal aid and a greater use by the federal government of block grants can be expected to lead, _ceteris paribus_, to a reduction in state and local taxes from their own sources. The New Federalism of the Reagan Administration is a subtle means of controlling growth in government at all levels. These conclusions are supported by empirical studies that are being evaluated by the author and that will be reported in a later paper.

CURRENT POLICY PROPOSALS

The issue of the interdependence of federal aid and state and local taxes undergirds the theory of both fiscal federalism in a "compound republic" and current presidential policy. The Reagan Administration, acknowledging that by 1982 the federal aid system had become an unwieldy bureaucratic maze of hundreds of grant programs with thousands of rules and mandates for state and local governments, has proposed cuts of as much as 60 percent in the total funding level for the aid programs.[1] These proposed current dollar cuts are to be phased in by 1991 and will simply accelerate the decline in real dollars of aid begun in 1978 under the Carter Administration.

In 1981 President Reagan proposed further that, in the fiscal 1983 budget, 83 categorical grant programs be combined into six block grants to the states, and that the funding level of the block grants be reduced by 25 percent below the total of the 83 categorical grants in fiscal 1981. Congress passed legislation that combined only 56 categorical grants. The restrictions Congress placed on the new broader block grant programs make it doubtful that the measures will achieve the desired flexibility for state and local governments in their use of federal funds.[2]

In early 1982, the Administration unveiled a more comprehensive program for reshaping fiscal federalism. The final version of the New Federalism is highly unpredictable, but an examination of this first federalism proposal is instructive of the type of program that may well emerge. Its key features are as follows:[3]

1. Program Swaps. Under the Administration's first federalism package submitted in 1982, the federal government, beginning in 1984, would assume full financial responsibility for Medicaid, while the states would assume full funding of Aid to Families with Dependent Children and food stamps. The Administration estimates that in 1984 the states will save approximately $19 billion in Medicaid payments and incur between $15 and $16 billion in additional expenditures on AFDC and food stamp programs. (In a later version of the "swap" component of the program, the federal government retained responsibility for food stamps.)

2. Program Turnbacks. The Administration's first federalism program mandated that between 1984 and 1991 responsibility for 43 categorical grants would be returned to the states. The additional cost of these programs to the states would be about $30 billion in 1984. (The second proposal developed by the Administration increased the number of turnback programs to 50.)

3. Declining Trust Fund. Excise taxes on tobacco, alcohol, gasoline, and windfall profits were to be set aside to provide an annual trust fund of $28 billion for the states. Each state's share of the trust fund "will be based on its 1979-1981 share of specified federal grants now slated for 'turnback' . . ., with an adjustment for any gains or losses for individual states resulting from the Medicaid-welfare swap."[4]

4. Program participation. Finally, between 1984 and 1987, states would have a choice whether they would continue to receive categorical grants or change to funds (called "super revenue sharing") from the trust funds. After 1984, the assumption of responsibility for the categorical grant programs would be mandatory. Between 1988 and 1991, allocations from the trust fund would be reduced to zero.

If the view tendered in this paper is correct, these cuts in real dollar aid may, *ceteris paribus*, lead eventually to even greater reductions in real state and local expenditures. A $10 billion reduction in federal aid, for example, can be expected to lead to more than a $10 billion decrease in state and local expenditures.[5] Although it may seem somewhat counterintuitive, given popular analysis of federal aid programs, statistical analysis supports such a conclusion.

PERSPECTIVES ON FEDERAL AID

A positive relationship between federal aid and state and local taxes can be deduced from operational and institutional as well as theoretical perspectives. The reasons for the anticipated positive relationship should therefore be explored in both the institutional and the conceptual setting.

The Institutional Setting

From an institutional perspective, a positive link between federal aid and state and local taxes can be established tentatively by considering the operational complexity and built-in incentives of the system. The grants system involves more than 500 programs (exactly how many depends on which programs are counted and who does the counting), administered by scores of agencies and bureaus, many of which have overlapping and conflicting authority.[6] The number of grant programs by category are listed in Table 1. In 1978, for example, there were 35 pollution control programs, 36 transportation programs (not all administered by the Department of Transportation), 78 health programs, and

Table 1

CATEGORICAL GRANT PROGRAMS, 1978

Budget Subfunction	Number of Programs
Department of Defense - Military	5
General Science and Basic Research	1
Energy	6
Water Resources	7
Conservation and Land Management	13
Recreational Resources	10
Pollution Control and Abatement	35
Other Natural Resources	4
Agricultural Research and Services	9
Mortgage Credit and Thrift Insurance	2
Other Advancement and Regulation of Commerce	2
Ground Transportation	36
Water Transportation	2
Mass Transportation	8
Air Transportation	3
Other Transportation	1
Community Development	5
Area and Regional Development	36
Disaster Relief and Insurance	9
Elementary, Secondary & Vocational Education	70
Higher Education	10
Research and General Education Aids	21
Training and Employment	23
Other Labor Services	1
Social Services	47
Health	78
Public Assistance & Other Income Supplements	27
Hospital and Medical Care for Veterans	5
Criminal Justice Assistance	13
General Property and Records Management	1
Other General Government	2
Total	492

SOURCE: Advisory Commission on Intergovernmental Regulations.

more than 100 education programs. In 1980, 25 percent of the approximately $80 billion in aid went directly to local governments, up from 8 percent in 1960. All in all, by 1980 four-fifths of the local governments, or 65,000 jurisdictions, received federal aid either directly from the federal treasury or indirectly through state governments charged with the responsibility of dispersal.[7]

State and local taxes can be -- and of necessity are -- used to finance the search through this bureaucratic maze for programs in which the probability of success in securing grants warrants the time devoted to completing applications, many of which end up encompassing hundreds of pages of justification for the requested monies. These search costs impinge on state and local budgets.

The Advisory Commission on Intergovernmental Relations (ACIR), in a survey of 442 grant programs in existence during 1975, found that two-thirds of the grants, amounting to 60 percent of the total grant funds for the year, were "project grants," meaning the funds were distributed predominantly by administrative discretion. An additional 8 percent was distributed according to a blend of formulas and administrative discretion. But a sizable proportion of the formula and formula/project grants was based on formulas constructed by the administering bureau.[8]

State and local taxes can be -- and of necessity are -- used to lobby for the discretionary government grants. The grants system, in other words, induces state and local governments to become classic rent seekers. Of course, the net effect of the grants system on state and local taxes depends on the ability of state and local governments to cover their searching and lobbying costs with additional federal dollars. The often-made assumption that such costs are readily and fully compensated by federal grants must be questioned because of the dynamics of any grants system. The lobbying of one or several state and local governments (which eventually may be fully compensated for their lobbying and searching costs) can influence other governments to enter the competitive game for grant favors. In the two-party competitive case, this can be illustrated by reaction curves that project outward and cross at an ever higher equilibrium as the total federal aid increases.[9]

Further, as Gordon Tullock has shown, when the number of game players, or rent seekers, is "large" (and there were 80,000 governmental units in the U.S. in the late 1970s) and the slope of the marginal cost curve of rent seeking is "low," the rent-seeking expenditures of all state and local governments can, in equilibrium, exceed the total value of the rent (federal aid) that is sought.[10] Granted, competition for

grants is restricted both by the use of formulas and by minimums and maximums on the amounts that can be distributed to governmental units. Nevertheless, to establish a positive relationship between federal aid and state and local taxes, such an extreme equilibrium condition as illustrated in Tullock's work need not exist. All that is required is for a portion of the rent-seeking expenditures to be a "tack-on" to the level of government revenues that would be collected in the absence of fiscal federalism. To the extent that a portion of the state and local governments' rent-seeking costs are absorbed by the federal government, the rent-seeking cost curves of state and local governments are lowered, increasing the probability that the rents will be absorbed by the collective rent-seeking expenditures.

Of the 442 programs in the ACIR's 1975 survey, 64 percent of the formula based categorical grants included matching provisions, under which state and local governments were required to finance a portion, and sometimes a major portion, of projects from their own tax sources.[11] Sixty-one percent of the project grants required a nonfederal match.[12] How these matching provisions affect total state and local tax collections depends on (1) the elasticity of demand for the subsidized goods and services, (2) the extent to which only marginal units are subsidized, and (3) the degree to which the grants system induces a reallocation of state and local tax monies away from nonfederally subsidized to federally subsidized programs. A federally subsidized good with an elastic demand can lead to greater state and local expenditures even if all marginal (those units bought because of federal subsidy) and inframarginal (those units purchased in the absence of the subsidy) units are subsidized; the lower price (net of federal subsidy) combined with the proportionally greater quantity will result in greater expenditures. Of course, if the federal government subsidizes goods and services not provided originally by state and local governments, then any state and local expenditures must come either from greater tax collections or other state and local programs, or both.

Although nothing certain can be said *a priori* about the impact of federal grant matching provisions on state and local taxes, there are several institutional reasons for expecting a positive relationship. First, empirical studies have tended to show that publicly provided goods and services have low elasticity coefficients.[13] However, following an expansion in the scope and magnitude of state and local government through the grants system, an expansion of these governments into product and service markets that have private substitutes might be anticipated. This would imply a general increase, over time, in the elasticity of demand for state and local products and services along with the growth in the

grants system. The greater the number of private alternatives, the greater the elasticity of demand. One prominently cited study on the impact of federal aid on state and local expenditures found that in the ten survey areas 51 percent of local projects with federal and state aid would not have been undertaken in the absence of the federal aid. Eleven percent would have been undertaken only partially.[14] Of all the categorical grants that te ACIR classified by purpose, 57 percent were wholly or in part designed to stimulate activities that otherwise would not have been undertaken by state and local governments; one-third of the formula grants were also "stimulative" in nature; and many grant programs were designed to "add to" the capacity of state and local governments to provide goods and services.[15] Admittedly, these observations do not mean that state and local taxes must always be driven upward by federal aid (programs funded partially by the federal government may replace other programs in state and local government budgets). However, it certainly should not be concluded, as it often is, that federal aid necessarily supplants the need for state and local taxes. Obviously, the matter must be submitted to empirical tests.

Second, given the discretion bureaus and agencies have in allotting their funds, state and local governments are forced to compete for federal aid in terms of the types of projects undertaken, the level at which the programs are funded, and the state and local governments' shares of the project costs. Such competition can drive up the taxes that state and local governments are required to collect. Although the rents may not be fully dissipated with the competition, the competitive process, over time, can lead to greater taxes imposed on state and local constituencies.

Third, revenue sharing explicitly introduces "tax effort" (i.e., state and local taxes as a percent of state and local incomes) as a factor in the formula used to distribute any given amount appropriated by Congress. The higher the tax effort, the greater the federal aid. Thirty-two other formula grants are founded partially on some factor representing "financial need," most often per capita income. In some of the cases, however, "need" is left undefined.[16] Supposedly, high income states and localities experiencing severe financial exigencies would still qualify for aid on the basis of need, even though the need may have been self-inflicted, as in the case of many urban areas. From previous research, tax effort is known as one of the most prominent positive determinants of the distribution of federal aid across states.[17]

Such tax effort provisions, explicitly written into the formulas or implicitly employed by grant administrators in the

use of their discretionary authority, effectively reduce the marginal price of state and local government goods and services (since a dollar of state and local taxes can buy more than a dollar's worth of goods and services). And they convert a portion of the federal budget into a common access resource, giving rise to expenditures to use, and possibly overuse, that resource. By raising its own taxes in response to the way in which tax effort is employed, a state can tap into the tax bases of other states and externalize its own production costs. An incentive inheres in such a solution for all states to install new taxes or increase old ones and to avoid tax decreases (since a cut in state and local taxes would lead to an increase in the effective tax prices of goods and services due to a reduction in federal aid).

The existing brand of fiscal federalism forces state and local governments into a classic prisoner's dilemma: On the one hand, if they raise taxes independently, they acquire access to the federal treasury, thereby raising their budget totals. On the other, if they don't raise taxes, then their share of the federal aid budget can slip while other state and local governments are raising their taxes to gain a competitive edge. To the extent that area growth is dependent on the distribution of federal aid, state and local governments that stay out of the competitive struggle can be doomed to relatively lower growth rates.[18] Such a noncompetitive response to the emergence and growth of fiscal federalism may lead only to an increase in a state or local government's "fiscal residuum" (total tax collections minus the value of the public goods and services provided). This increase in fiscal residuum can occur because states that do not respond competitively to the tax effort factors in grant programs will shoulder, through the federal tax system, a greater share of the costs of goods and services produced in other states and localities.

Finally, fiscal federalism should be designed to pursue general public purposes, not narrow interests reflected in redistributive programs. The present grants system, however, has all the markings of special interest legislative efforts. Grant programs can be counted for almost every conceivable purpose, reflecting the particular interests of the congressional committees supervising the programs and blocks of congressional votes. It appears that grant programs have been heaped on top of grant programs.

The growth in the number and scope of programs over the years can be expected to occur as a consequence of the federal government's attempts to raise state and local taxes and as a consequence of state and local government attempts to avoid tax increases by meeting matching requirements on grants by shifting funds around in their budgets. When the federal

government provided the first matching grant program, say in education, state and local governments may have responded by drawing the state and local match requirement from, say, the police budget, which became "deficient." A matching grant program may then have been devised to overcome the deficiency in the police budget, which may have given rise to a deficiency in health expenditures. The grant system could have, in other words, effected budgetary deficiencies at the state and local levels, giving birth to the further expansion of the grant system (to the extent that, as noted at the start, more than 500 programs are involved). In short, one consequence has been a considerable expansion in the scope of state and local programs -- and in the process, an increase in state and local taxes.

Conceptual Perspective

Conventional public finance discussions of fiscal federalism are concerned with how federal grants can best be used to overcome externalities in the production of state and local goods and services. Albert Breton develops an "economically optimum constitution" that partitions government responsibilities according to the spatial coverage of the benefits from the governmentally provided goods and services.[19] Under such a constitution, the national government would produce "national" goods, regional governments, "regional" goods, and so forth. A "perfect mapping" of government responsibilities would exist when the benefits of the goods extended only to the boundaries of the government producing the goods. In a similar manner, Mancur Olson develops the concept of "fiscal equivalence" for identifying the optimum distribution of government responsibilities.[20] A system of governments established with complete fiscal equivalence would be one in which only those who benefited from a particular government's activity paid for those benefits.

Both authors base their organizational structures on the inefficiencies created by the existence of externalities in state and local government production and taxing decisions.[21] In both cases public goods and services are underproduced. When, for example, external benefits flow into another governmental jurisdiction, the government producing the goods cannot collect for all benefits received. It must therefore fail to produce all units for which total marginal benefits exceed the total marginal cost of production. Similarly, underproduction can occur because of the limited taxing power of local governments: if tax rates are raised independently by one locality, a part of its tax base will be induced to migrate to some point just across the jurisdictional boundary, creating what is known in the literature as the "border effect." Again, local governments

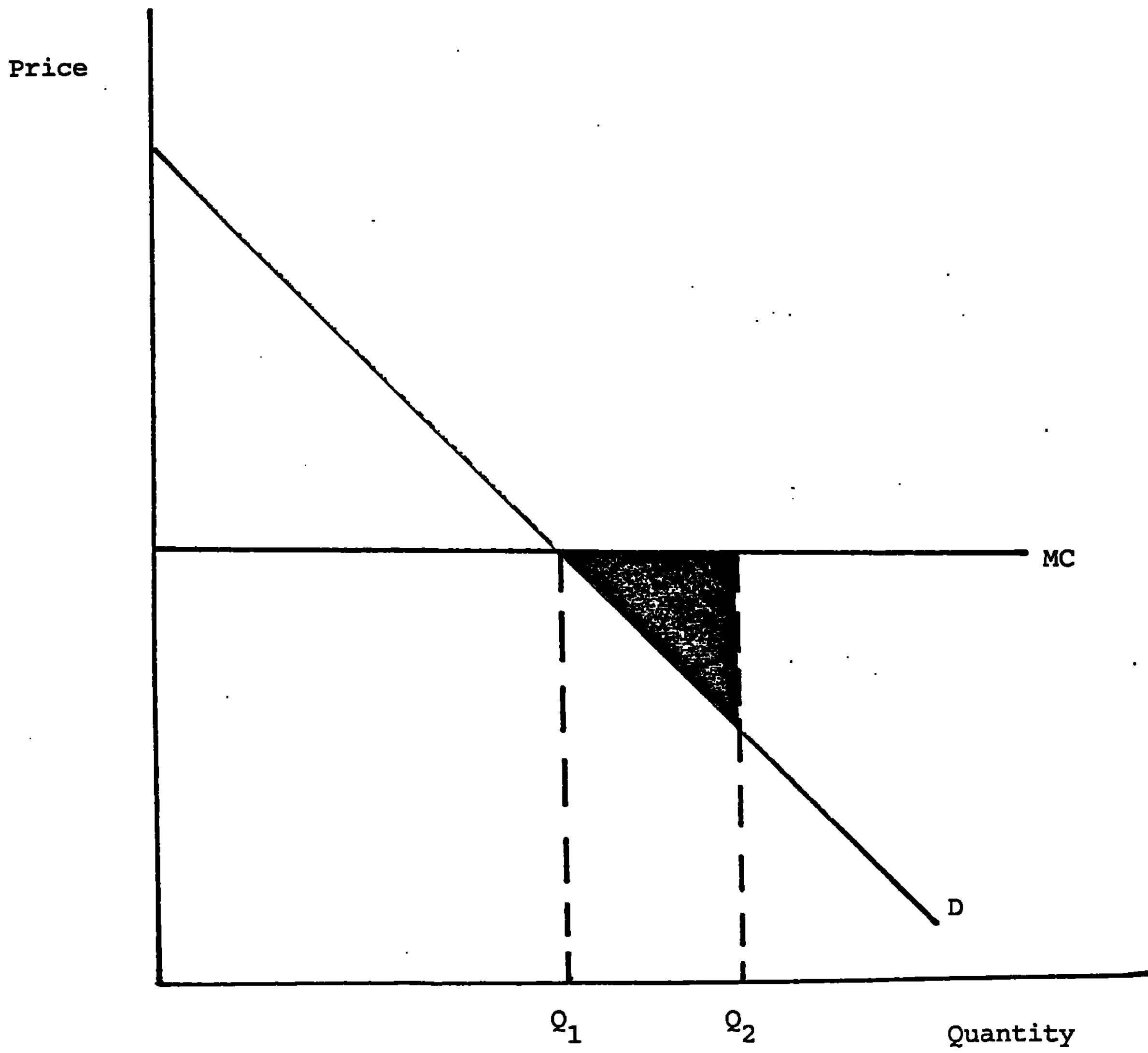
are unable to raise their taxes sufficiently to cover the total cost of the optimum production level. To achieve the optimum, Breton and Olson recommend adjusting the boundaries to "internalize the externalities." The grants economy developed at the federal and state levels is a device for moving closer to, if not fully achieving, a perfect mapping or complete fiscal equivalence.

A federal government interested solely in achieving greater efficiency in production, as implicitly envisioned in Breton and Olson's work, would be largely indifferent to the method by which extended production was to be financed -- whether all marginal and inframarginal units were subsidized, marginal units were subsidized, or the necessary revenues were raised by higher federal tax rates or federally induced higher state and local tax rates. Under such a benevolent, altruistic government, the tax revenues of state and local governments may go up or down with an extension of the grants economy. What happens depends on the method of financing employed and, as noted above, on the elasticities of demands for the subsidized goods and services.

However, predictions regarding the directional influence of federal aid on state and local taxes can be garnered from a maximizing model of government. Conventional public finance theorists tend to assume by implication that the federal government is a nonmaximizer, i.e., it is more or less unconcerned with how it can best use its fiscal powers to its own advantage.[22] Hence, the elasticity of demand is important in addressing the question of whether state and local tax collections go up or down when the federal budget is changed. A federal government interested in maximizing its own influence, given its own limited budget resources and the necessity for the political goodwill of members of Congress, will seek, to the extent possible, (1) to subsidize only marginal units (in which case the elasticity of demand for the individual publicly provided goods and services does not matter) and (2) to finance only a part of the additional units, which can be accomplished by using federal aid to pull up state and local tax rates. Tax increases across all states uniformly reduce the elasticity of demand faced by individual government units. Either of these methods minimizes the cost to the federal treasury, which may seek to maximize its influence, and to the political operatives in Congress, who may seek to maximize their political fortunes.

In terms of Figure 1, expansion of a locally provided good from Q_1, the equilibrium quantity in the absence of federal aid, to Q_2, the social optimum, can be achieved with minimum expense to the federal treasury by grants covering slightly more than the difference between the marginal cost curve (MC) and the demand curve (D), or the shaded triangular

Figure 1



area. The local government would have to raise additional taxes to cover the remaining area between Q_1 and Q_2 under the demand curve. State and local taxes would have to go up even if highly inelastic goods were subsidized, on the margin, by the federal government. Of course, when the aid is withdrawn, production will return to Q_1 and local taxes will contract.

Further, as argued by the author and Robert Staaf, state and local officials have an interest in supporting a grants economy that induces upward pressures on all state and local tax rates.[23] Under their model of monopoly government, revenue sharing (as well as other grant programs) is a device by which state and local governments seek to cartelize the government market, overriding their competitive dilemma and the relatively low elasticities of demand they confront. When governments are forced to operate independently of one another, their tax rates are held in check by the ability of people and industry to "vote with their feet." One means of going beyond the competitive tax equilibrium is for the federal government to apply uniform tax rates across the country and to distribute the proceeds to state and local governments in the form of aid. Another means of accomplishing the same objective is for the federal government to induce subordinate governments to raise their tax rates. From this perspective, the matching requirements are effectively *quid pro quo's* between the different levels of government, each intent on shifting a greater portion of the nation's income into the public sector.

Whether efficiency rises or falls with an extension of fiscal federalism is unclear. Production may be extended up to or beyond the optimum level. Clearly, from this maximizing government perspective, state and local government taxes should be induced upward. The maximizing revenue level of the federal government, however, may be unaltered by the introduction of fiscal federalism. On the other hand, the government can, through the grants system, spread its revenues over a greater quantity of goods and services in its objective function, whatever its objective function happens to be.

CATEGORICAL VS. BLOCK GRANTS

Categorical grants, by definition, are quite restrictive, leaving state and local officials little leeway in determining how federal funds are spent. A categorical grant for patrol cars may spell out in some detail what types of cars can be purchased. Block grants offer state and local governments considerable discretion in determining spending allocations. Funds may be provided, for example, "to improve police readiness," a sufficiently general objective that allows the subordinate government the freedom to spend the funds on officers or equipment, or even fire power. But with

categorical grants, subordinate governments are more limited in their opportunities to use federal funds for the needs that might otherwise have been financed by state and/or local taxes.

Left to their own devices in raising revenue, states will seek an equilibrium level of taxation consistent with competition from other states. If funds are handed over to the states in lump sum form, the competitive drive of states for a greater tax base will, in equilibrium, induce states to respond to the availability of federal funds by lowering their own tax collections. The penalty to the states for lowering taxes under lump sum grants is zero. The very distinction between categorical and block grants implies that the penalty for substituting federal for state funds is greater under categorical grants. It follows that the distinction implies greater opportunity for substitution of federal for state funds under the block grant programs. Further, a shift of a given number of dollars from categorical to block grants will lead to a reduction in state taxes. The commonly voiced concern that "block grants reduce federal control of state and local government" speaks to this prediction.

CONCLUSION

The exact effect of President Reagan's New Fiscal Federalism on state and local taxes is not completely clear. It will depend ultimately on the rules for allocating federal funds under the new system, if a new system is ever enacted. Although fewer federal funds may be involved and a greater share of the funding level will be made in the form of block grants, the importance of the amounts of state and local taxes in determining the distribution of federal aid eventually may be enhanced.

To date, the Reagan Administration has provided only the broad outline of its programs; and because of the opposition to the program voiced by state and local governments, the New Federalism may not take final shape until 1983. Criticism from state and local officials, however, may be construed as tentative confirmation of the central proposition of this paper: across-the-board reductions in federal aid will result in a reduction in state and local taxes from their own sources, perhaps not immediately but eventually, when state and local governments are able to rid themselves of the fixed costs of current programs. State and local officials sense the competitive bind that the new program imposes on them.[24] Officials may balk at the program, but state and local taxpayers have every reason to welcome it.

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Notes

[1]For a description of the federal aid system see, Claude E. Barfield, Rethinking Federalism: Block Grants and Federal, State, and Local Responsibilities (Washington, D.C.: American Enterprise Institute, 1981); Significant Features of Fiscal Federalism: 1980-1981 Edition (Washington, D.C.: Advisory Commission on Intergovernmental Relations, 1981); and Categorical Grants: Their Role and Design (Washington, D.C.: Advisory Commission on Intergovernmental Relations, 1978). For a breakdown of the way the monies are allocated by the different departments, see U.S. Department of the Treasury, Fiscal Service Bureau, Federal Aid to States (annual).

[2]Thomas R. Ascik, "The Reagan Block Grant Proposal and Congressional Revisions," Backgrounder No. 145 (Washington, D.C.: The Heritage Foundation, June 17, 1981).

[3]See Office of the Press Secretary, The White House, "Federalism Initiative," Fact Sheet (January 27, 1982) and The President's Federalism Initiative: Basic Framework (January 26, 1982).

[4]The White House, "Federalism Initiative," p. 5.

[5]This does not mean that total state, local, and federal spending will actually be reduced under the Reagan proposal. The reductions in state and local tax collections may be offset by greater federal tax collections brought about by the federal government's need to finance growing Medicaid. The point of this paper is that, given a more or less even swap in fiscal responsibilities, state and local tax collections will go down. The categorical grant programs will not be maintained by state and local governments at the same level as would have been the case under federal stewardship.

[6]Barfield, Rethinking Federalism, pp. 18-19.

[7]Categorical Grants, chapter 4.

[8]Ibid.

[9]For a description of how reaction curves can be usefully employed in game theoretical situations, such as that which probably exists in the grants economy, see Roger Congleton, "Competitive Process, Competitive Waste, and Institutions," in Toward a Theory of Rent-Seeking Society, James M. Buchanan, Robert D. Tollison, and Gordon Tullock, eds. (College Station, Texas: Texas A and M University, 1980), pp. 153-179.

[10] Gordon Tullock, "Efficient Rent Seeking," in Towards a Theory of a Rent-Seeking Society, pp. 97-112. According to Tullock's calculations, when the exponent on the rent-seeking cost function is 3 or greater and the number of rent seekers is 2 or more, the sum of the investment across all rent seekers will exceed the rent that is to be achieved.

[11] Categorical Grants, p. 99.

[12] Ibid., pp. 106-107. For a delineation of the distribution of the matching requirement, by the extent of the nonfederal match, see figure IV-1, p. 108.

[13] For a review of much of the empirical literature on the subject of elasticity of demand, see Edward M. Gramlich, "Intergovernmental Grants: A Review of the Empirical Literature," The Political Economy of Fiscal Federalism, edited by Wallace E. Oates (Lexington, Mass.: Lexington Books, 1977), pp. 219-240.

[14] Catherine H. Lovell, et. al., Federal and State Mandating on Local Governments: An Exploration of Issues and Impacts (Riverside, Cal.: University of California-Riverside, June 1979).

[15] Categorical Grants, pp. 108-109. See also Advisory Commission on Intergovernmental Relations, The Federal Influence on State and Local Roles in the Federal System (Washington, D.C., November 1981).

[16] Ibid., p. 101.

[17] See Richard B. McKenzie and Bruce Yandle, "The Impact of Delegation Size on the Distribution of Federal Aid across State Governments" (Clemson, S.C.: Department of Economics, Clemson University, 1982). When broken down, per capita state and local taxes are consistently positive, while per capita state income is negative in explaining the allocation of per capita federal aid across states.

[18] How much state and local taxes are raised depends on the comparison of the positive effect of greater government aid due to the tax increase, and the negative effect of the tax rate increase, on economic development.

[19] Albert Breton, "A Theory of Government Grants," Canadian Journal of Economics and Political Science, May 1965, pp. 175-187.

[20] Mancur Olson, "The Principle of 'Fiscal Equivalence': The Division of Responsibilities among Different Levels of Government," American Economic Review Proceedings,

May 1969, pp. 479-487.

[21]Olson goes further and discusses the identical inefficiencies created by "internalities," benefits received by only a part of any government's citizenry.

[22]See Gramlich, "Intergovernmental Grants."

[23]Richard B. McKenzie and Robert J. Staaf, "Revenue Sharing and Monopoly Government," Public Choice, Summer 1979.

[24]Empirical tests of this proposition support the central argument of this paper. When state and local revenue from their own sources are regressed against federal aid to states with a two-year lag, as well as a number of other standardizing variables, federal aid is always positive and statistically significant at the .0001 confidence level. See E. Berrier Frye and Richard B. McKenzie, "The Impact of Federal Aid on State and Local Taxes" (Washington, D.C.: The Heritage Foundation, forthcoming).