



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

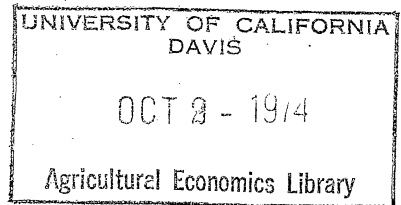
AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.



FEDERAL REVENUE SHARING: SOME ALLOCATION FINDINGS
AND IMPLICATIONS FOR RURAL COMMUNITIES

By

Fred J. Hitzhusen*

1974

On October 20, 1972, Federal revenue sharing became law with the President's signing of the State and Local Fiscal Assistance Act of 1972. This new law makes \$30.2 billion in Federal revenues available to the 50 state and over 38,000 local governments over a five-year period ending in 1976. The payments started at an annual rate of \$5.3 billion in calendar year 1972 and will increase each year until they reach \$6.4 billion in calendar year 1976. The enactment of this general revenue sharing legislation by the 92nd Congress is purported to give some fiscal relief to state and local governments, to redistribute certain governmental responsibilities and to promote new cooperation between the three branches of government within the federal system [21].

FINANCE

Federal revenue sharing is one of at least four possible ways of transferring or redistributing federal revenues to state and local governments.^{1/} Proponents of revenue sharing generally refer to "fiscal mismatch" between the Federal and state-local governments. They contend that the

*Assistant Professor, Resource Economics, Department of Agricultural Economics and Rural Sociology, The Ohio State University, Columbus, Ohio.

^{1/}Weintraub defines the four possibilities as follows [20]:

1. Grants-in-aid for single-purpose specific projects and programs.
2. Grants-in-aid earmarked for a broad purpose such as education, i.e., "functional-block" grants.
3. Grants-in-aid for multi-function or multi-project programs.
4. Unassigned grants-in-aid (e.g. Federal revenue sharing) given with no strings attached and generally called "block grants".

Contributed paper AAEA meetings, College Station, Texas, Aug. 1974.

ability to generate revenues is disproportionately under the control of the federal government while expenditure "needs" have become increasingly urgent at state-local levels. The suggested solution to this problem is "the regular distribution of a specified portion of the federal income tax to the states on the basis of population and with few strings attached" [1].

Others have evaluated the distribution of various types of Federal grants, expenditures or services among U.S. urban and rural counties prior to Federal revenue sharing [13,14]. Conclusions ranged from the statement that "rural Americans do not share proportionately in programs funded by the Federal government" [14, p.V] to the statement that "total domestic Federal outlays were allocated between rural and urban areas approximately in proportion to the population in those areas during fiscal years 1970, 1971, and 1972" [13, p.2].

This paper briefly outlines the main allocation and use criteria associated with Federal revenue sharing, discusses some preliminary findings on use and allocation for the U.S. and Ohio, identifies some sources of allocation formula bias and suggests some allocation formula revisions with respect to rural communities. For purposes of this paper, rural communities are defined as places of less than 2,500 population.

2/ Allocation and Use Criteria

The State and Local Fiscal Assistance Act allocates money to states on the basis of two formulas: a three-factor Senate formula and a five-

2/ Information in this section was derived primarily from published material provided by staff members of the Ohio Public Expenditure Council, Ohio Municipal League and State Department of Finance [2,12,16,19]. See Appendix I for a numerical illustration of the allocation formula at the local government level.

factor House formula. The formula resulting in the largest allocation for any given state determines that State's entitlement or allocation of funds. The three-factor Senate formula for computing revenue sharing is based on state population, state and local tax effort, and the inverse per capita income (poverty factor) in each state. The five-factor House formula is based on state population, proportion of population urbanized, per capita income, state income tax collections and tax effort. The tax effort of each state is measured by the ratio of its total net tax collections (including taxes for education) to total personal income in the state. Relative state per capita income is measured by the ratio of the national per capita income to that state's per capita income.

Allocation of revenue sharing funds within each state involves several steps. First, one-third of the revenues are retained for state government. The remaining two-thirds of local government share is distributed to county areas based upon the ratio that each county geographic area bears to all county geographic areas within the state. The allocation ratio is based on the formula: $\text{population} \times \text{tax effort} \times \text{relative income}$. No county area allocation may be less than 20 percent nor more than 145 percent of the average per capita local share for the state.

The next step is to divide each county geographic area allocation into three possible parts. An Indian tribe allocation is determined based on their proportion of the county population. A township and county government allocation is then determined on the basis of the ratio of all township and county government adjusted taxes (excluding taxes for education and user

charges) to the total adjusted taxes in the county area. The remaining proportion is allocated to the city and village units of government.

County, township, city and village local government units receive their respective allocations on the basis of the same formula used to determine the county geographic area allocation, i.e., population x tax effort x relative income. The same upper (above 145 percent) and lower (below 20 percent) adjustments provided for county geographic areas are also applied to the townships, county, and municipal units of government within each county geographic area. One exception is that any local unit of government receiving less than 20 percent of the average per capita local share for the state may have the allocation increased to the lower of either the 20 percent level or 50 percent of its adjusted taxes and intergovernmental transfers. Finally, if any allocation is less than \$200, or any unit of local government waives its entitlement, that amount is allocated to the county government.

State governments are not restricted in their use of revenue sharing funds as long as expenditures are made in accordance with state law and do not violate the State and Local Assistance Act's prohibition on discrimination and use of revenue sharing in federal matching programs. States must also comply with Davis-Bacon wage guidelines and the prevailing wage rate guidelines for persons employed in revenue sharing financed programs where these guidelines are applicable [12].

There are eight priority categories in which local governments may spend revenue sharing monies for operating and maintenance costs. They are: public safety (law enforcement, fire protection and building code

enforcement), environmental protection (sewage disposal, sanitation, and pollution abatement), public transportation (transit systems, streets and roads) health, recreation, libraries, social services for the poor or aged and financial administration. Local governments may also spend their allocations on any capital expenditure permissible under state and local law [17].

Although the eight priority categories are quite general, several important qualifications need to be made. First, the priority categories do not include operating expenses for general administration. Secondly, the categories do not include operating expenditures for education or welfare. Furthermore, not all debts may be retired with revenue sharing monies, i.e., the debt must have been incurred in a priority area since January 1, 1972 and must be in compliance with anti-discrimination, matching and wage guidelines.

Some Preliminary U. S. Findings on Use

Available data on Federal revenue sharing include dollars received through the third entitlement period (1/1/73 to 6/30/73) and the expected 1974 allocation (7/1/73 to 6/30/74). Data are also available on planned use of funds for the third entitlement period (1/1/73 to 6/30/73).

Based on these data, some preliminary findings emerge. Contrary to early speculation, more money has been earmarked for operating and maintenance expenses (57 percent) than for capital expenditures (43 percent). State governments have allocated 75 percent and local governments 48 percent

of their revenue sharing funds to operating and maintenance expenses. In addition, 17.6 percent of the state governments and 27.5 percent of the local governments have utilized Federal revenue sharing funds to avoid or lessen debt increases. Furthermore, 33.8 percent of the state governments and 50.8 percent of the local governments will reduce, prevent increase, prevent enactment or reduce the rate of increase in taxes with their allocations.

Table 1 summarizes the third entitlement period planned use reports by expenditure categories. In proportion of total capital, operating and maintenance expenditures, public safety ranks first followed by education, transportation, general government, environment/conservation, health, recreation/culture, social services, financial administration, housing/community development, libraries, and economic development. The first three expenditure categories (public safety, education, and transportation) account for 58.6 percent of the total Federal revenue sharing funds allocated for the third entitlement period. Data were not available for a more detailed breakdown on use by type and size of local government.

Some Allocation Findings for Ohio

One-third of the 1974 Federal revenue sharing Ohio allocation of \$242.4 million will provide state government in Ohio with \$80.7 million in fiscal year 1974. The remaining two-thirds or \$161.7 million will be distributed among Ohio's local governments on the basis of the standardized

Table 1. Planned Use of Federal Revenue Sharing Funds by
State and Local Governments (1/1/73 to 6/30/73).

Categories	Amount Allocated (Millions of dollars)	Percent of Total
Public Safety	696.40	23.5
Education	651.43	22.0
Transportation	388.75	13.1
General Government	311.70	10.5
Environment/Conservation	225.55	7.6
Health	173.99	5.9
Recreation/Culture	142.92	4.8
Social Services	109.09	3.7
Financial Administration	41.48	1.4
Housing/Community Development	37.43	1.3
Libraries	21.48	0.7
Economic Development	11.92	0.4
Other	<u>147.86</u>	<u>6.5</u>
TOTALS	2812.14*	100.0

*Does not include all planned use reports due to late filing by some units of government.

SOURCE: [17]

allocation formulas discussed earlier. The same local government allocation formulas apply in all states, thus the allocation findings for Ohio should be reasonably representative of the situations in other states.

Ohio has over 3,200 total units of local government including 88 counties, 229 cities, 707 villages, 1,324 townships, 625 school districts and 228 special districts. Most of these units of local government are directly or indirectly but not equally affected by revenue sharing. Some general comparisons by type and size of local government in Ohio illustrate the differential impact of Federal revenue sharing allocations.

In fiscal year 1974, estimated Federal revenue sharing payments to Ohio local governments will total \$92.0 million (37.9 percent) to municipalities, \$54.2 million (22.4 percent) to counties and \$15.5 million (6.4 percent) to townships. An analysis in Ohio Township News estimated the proportion of Federal revenue sharing payments to Ohio municipalities above and below 2,500 population in 1972 [16]. Applying this proportion to the projected 1974 payments to Ohio municipalities results in estimated payments of \$86.4 million (35.8 percent) to municipalities over 2,500 and \$5.6 million (2.1 percent) to municipalities under 2,500 population.

Additional insights are provided by making per capita comparisons between the respective units of local government. This type of comparison is complicated by the fact that residents of any given township, village or city are also residents of and served by county government. County government population is assumed equal to total county area population and township population is assumed to equal total county area population

minus village and city population within the county area. Given these and previous assumptions, Federal revenue sharing payments in Ohio for fiscal year 1974 are estimated at \$5.10 per capita for county governments, \$5.53 per capita for townships, \$9.93 per capita for municipalities under 2,500 and \$11.85 for municipalities over 2,500 population. Per capita Federal revenue sharing payments to be made to each of the 88 county governments in 1974 range from \$2.77 to \$13.84.

Sources of Allocation Bias

Some general patterns emerge from the analysis of Federal revenue sharing allocations within Ohio. On a per capita basis, municipalities (villages and cities) are favored over township and county governments. This finding is reinforced by the fact that residents of villages and cities also benefit from Federal revenue sharing funds allocated to county governments. Larger municipalities (over 2,500 population) appear to fare somewhat better than smaller municipalities (under 2,500 population) on a per capita basis. Similar findings would be expected in other states. The measurement of adjusted taxes in the tax effort formula may provide a partial explanation for these findings.^{3/} Higher tax effort is intended to result in larger revenue sharing allocations. However, tax effort at

$$\text{Tax effort} = \frac{\text{adjusted taxes}^{\text{a/}} \text{ of the county, township or municipal government}}{\text{aggregate income}^{\text{b/}} \text{ of the county, township, or municipal government}}$$

- ^{a/} Adjusted taxes for county, municipal or township government are all those general purpose taxes enacted or collected by the unit of government during its fiscal year. Adjusted taxes exclude all taxes enacted for schools or other educational purposes as well as receipts from service charges, special assessments, interest earnings, or fines.
- ^{b/} Aggregate income for any local government unit means total money income as defined by the Bureau of the Census in the 1970 Census of Population and Housing.

the local level excludes user charges for services such as water supply, sewage, and waste disposal. It also excludes the services of volunteers such as firemen and hospital workers. To the extent that smaller communities substitute user charges for general revenue financing and volunteer for paid effort, their "tax effort" and thus their revenue sharing payment is decreased.

Some comparisons from the 1967 U.S. Census of Governments are helpful in determining the direction and magnitude of these sources of bias in assessing tax effort.^{4/} For example, municipalities under 2,500 population collected 108 percent of total utility expenditures from user charges while municipalities over 2,500 collected 96 percent of utility expenditures from user charges. All other user charges and special assessments were 27.6 percent of total revenues in communities under 2,500 population and 18.9 percent of total revenue in communities over 2,500 population [18, p.32]. The substitution of volunteer for paid effort is more difficult to measure and evaluate due primarily to qualitative considerations. However, it would appear that volunteerism in government (particularly in fire protection)^{5/} is predominately a phenomenon of small rather than large communities.

4/ The Advisory Commission on Intergovernmental Relations has completed a rather comprehensive evaluation of alternative measures of tax capacity and effort which provides additional insights [9].

5/ Per capita expenditure comparisons are void of qualitative controls. Given this limitation, 1967 U.S. Census of Government data show fire department per capita expenditures of \$2.50 for municipalities under 2,500 and \$11.87 for municipalities over 2,500 population. Since salaries comprise approximately 85 percent of the average paid fire department's total budget, these data appear supportive of the above statement on volunteerism as predominately a small place phenomenon.

Conclusions and Implications

Some preliminary findings on the use of Federal revenue sharing funds are: (1) over half of the funds (57 percent) have been earmarked for operating and maintenance expenditures by state and local governments in total, (2) a significant proportion of state and local governments have utilized Federal revenue sharing funds to avoid or lessen debt increases and to reduce, prevent increase or reduce the rate of increase in taxes, and (3) the top three expenditure categories (public safety, education, and transportation) account for 58.6 percent of the total Federal revenue sharing funds allocated.

The evidence on allocation bias suggests at least one change in the tax effort component of the Federal revenue sharing allocation formula of significance to rural communities. It would seem desirable to include total revenues collected for any community service as tax effort regardless of whether these revenues are from user charges or taxes. Utilizing 1967 Census of Government data it would appear that this change alone could result in an average increase of approximately 35 percent in Federal revenue sharing payments to municipalities under 2,500 population. Similar implications may exist for rural counties and townships.

Adjustments for volunteer effort would be much more complicated. However, in the case of fire protection, the American Insurance Association currently utilizes a conversion factor of four volunteers equal to one paid fireman in grading a community fire department and establishing a base fire insurance rate [15]. A similar procedure might be utilized in determining the "tax effort equivalent" of volunteer vs. paid firemen in those communities that have opted for volunteer fire protection.

It is unlikely that these suggested changes in the measurement of tax effort could be implemented before the current Federal revenue sharing program expires in 1976. However, there seems to be considerable support for Federal revenue sharing and its renewal appears to be a strong prospect. It is hoped that these suggested changes will at least be given a hearing during the political process of program modification and renewal.

APPENDIX I HOW FEDERAL REVENUE SHARING ALLOCATIONS ARE MADE TO LOCAL GOVERNMENTS WITHIN A COUNTY AREA

Formula

Illustrative Example

1. The county-area allocation is distributed in each county area among the county, all municipalities as a group and all townships as a group.
County-area allocation:

County X*
\$1,016,000

2. The county government's share is determined by this formula:
 - a. Total adjusted taxes of county government
divided by
 - b. Total adjusted taxes of all governments in county area
 - c. The county-area allocation
is multiplied by the resultant figure
to determine the county-government share of the
county-area allocation.

\$1,000,000
÷
\$4,000,000=
.25
\$1,016,000
× .25
\$ 254,000

3. The share of the aggregate of municipal and township government is
 - a. The county-area allocation
less
 - b. The county-government share
 - c. The remainder is the allocation for all municipalities
(and townships, if any).

\$1,016,000
- 254,000=
\$ 762,000

4. The share of each municipality is determined by this formula:

	City I	City II
a. Population of municipality	20,000	15,000
b. General Tax effort of municipality (total taxes of municipality divided by total income of residents of municipality) multiplied by	$\frac{\$1,000,000}{\$100,000,000} = .01$	$\frac{\$750,000}{\$50,000,000} = .015$
c. Relative per capita income of municipality (county-area per capita income divided by per capita income of municipality)	$\frac{\$2,800}{\$3,000} = .93$ $20,000 \times .01 \times .93 = 186$	$\frac{\$2,800}{\$2,000} = 1.40$ $15,000 \times .015 \times 1.40 = 315$
d. The products determined thus for each municipality are totaled.	186.	315=
e. The product of each municipality is divided by the sum of the products of all municipalities in the county area	$\frac{186}{501} = .371$	$\frac{315}{501} = .629$
f. The allocation for the aggregate of municipal and township governments is multiplied by the resultant figure to determine each municipality's allocation	$\frac{\$762,000}{.371} = \$282,702$	$\frac{\$762,000}{.629} = \$479,298$

*In this example County X is assumed to have two cities and no townships.

BIBLIOGRAPHY

1. Bradford, David F. and Oates, Wallace E., "The Analysis of Revenue Sharing in a New Approach to Collective Fiscal Decisions," The Quarterly Journal of Economics, Vol. LXXXV, No. 3, August 1971, pp. 416-439.
2. "Federal Revenue Sharing," The Ohio Municipal League, November, 1972.
3. "Federal Revenue Sharing Distribution List," U.S. Department of Treasury, Office of Revenue Sharing, Washington, D.C., 1973, pp. 257-277.
4. "Federal Revenue Sharing Monies Allocated to Ohio for Fiscal 1974," Ohio Public Expenditure Council, Special Study, 73-14.
5. General Revenue Sharing - The First Actual Use Reports, U.S. Department of Treasury, Office of Revenue Sharing, Washington, D.C., March 1974.
6. Goetz, Charles J., What is Revenue Sharing? The Urban Institute, Washington, D.C., 1972.
7. Hewitt, Sylvia V., "A History of Revenue Sharing," State Government: The Journal of State Affairs, Volume XLVI, No. 1, Winter, 1973, pp. 37-43.
8. Marshall, J. Paxton and Arthur J. Walrath, "1972 Revenue Sharing in Virginia," No. 245, April 1973.
9. Measuring the Fiscal Capacity and Effort of State and Local Areas, Advisory Commission on Intergovernmental Relations, M-58, Washington.
10. Nathan, Richard P. et. al., Monitoring Revenue Sharing, The Brookings Institution, Washington, D. C., Fall 1974.
11. "Revenue Sharing--A One-Year Report," News and Views, published by the American Society for Public Administration, Vol. XXII, No. 9, September 1973.
12. Revenue Sharing: Guide for Ohio Local Officials, Ohio Department of Economic and Community Development, Columbus, Ohio, 1973.
13. Rural Development, Third Annual Report of the President to the Congress on Government Services to Rural Areas, Washington, D.C., 1973.

14. The Economic and Social Condition of Rural America in the 1970's-- Part 3. The Distribution of Federal Outlays Among U.S. Counties, Economic Development Division, ERS, U.S.D.A., December 1971.
15. The Grading of Municipal Fire Protection Facilities: Its Relationship to Fire Insurance and to the Municipality's Fire Protection Policy, National League to Cities, Washington, D.C., July 1967.
16. "Treasury Department Revenue Sharing Figures for Ohio," Ohio Township News, November-December, 1972, pp. 13-15.
17. "The Federal Revenue Sharing First Planned Use Reports; Ohio Legislative Service Commission, Information Memorandum Number 6, February 4, 1974.
18. U.S. Bureau of the Census, Census of Governments 1967, Vol. 4, No. 4. Finances of Municipalities and Township Governments, Washington, D.C., July 1969.
19. U.S. Bureau of the Census, U.S. Census of Population: 1970 Number of Inhabitants, Final Report PC(1)-A37, Ohio.
20. Weintraub, Robert, "Benefits and Costs of Ways of Sharing Federal Revenues," Review of Social Economy, Vol. XXX, No. 3, September 1972, pp. 373-384.
21. What General Revenue Sharing is All About, U.S. Department of Treasury, Office of Revenue Sharing, Washington, D.C., 1972.