The Distribution of Federal Outlays Within Missouri

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CONTENTS

THE DISTRIBUTION OF FEDERAL OUTLAYS WITHIN MISSOURI

SUMMARY

This report describes the geographical distribution of federal outlays in Missouri.

In fiscal year 1973, total budgeted federal outlays within Missouri were about $1377 per person compared to $1282 nationwide. In Illinois, total outlays for a slightly earlier period (fiscal year 1970) were only about $701 per person. In addition to the 590 programs having budgeted outlays within Missouri, 32 programs had unbudgeted outlays. Programs with unbudgeted outlays, often called influence activities, involved donations and federally guaranteed and insured loans. Outlays for influence activities were nearly $100 per capita.

The distribution of per capita outlays throughout the state was examined using 35 program groups and seven alternative county grouping schemes. The program groups were organized into four program categories. They were Agriculture and Natural Resources, Community Development, Human Resource Development and an Other category. The counties were grouped according to their urban-rural orientation, metropolitan status, rate of population change, principal city size, per capita income, and regional planning district.

The Agriculture and Natural Resources category includes farm programs, conservation programs, administrative service programs related to agriculture, agricultural loans programs and natural resource programs. Statewide budgeted outlays for this category were $66 per capita. These outlays were distributed among counties in rather predictable ways. They were larger in more rural counties, in non-SMSA counties, in counties experiencing population decline, and in counties with smaller principal cities. They tended to be larger for poorer counties. Northwest Missouri, Missouri Valley, and Bootheel districts had the largest outlays. East-West Gateway, Lake of the Ozarks, and Lake's Country had the smallest.

Agricultural loans followed a somewhat different pattern. Statewide, these loans were about one-eighth as large as the budgeted Agriculture and Natural Resource outlays. This ratio was approximately realized for the Bootheel, Kaysinger Basin, Mid-Missouri and Missouri Valley districts. Substantially higher than usual loan to budgeted ratios were realized for South Central Ozarks, Green Hills, Lake of the Ozarks, and Northeast Missouri districts. Lake's Country, Mark Twain, Ozark Foothills, Ozark Gateway and Show-Me districts had moderately higher ratios.

The Community Development category includes development grants and loans, housing loans, health construction grants, transportation grants, and urban renewal grants. Budgeted outlays were $58 per capita for the state as a whole. Guaranteed loans amounted to $75 per capita. The budgeted and loan outlays were not always closely related.

Very low per capita budgeted outlays were observed for the Ozark Foothills, Ozark Gateway, Lake of the Ozarks, Northeast Missouri, Show-Me, and Bootheel districts. Extremely high outlays occurred in Northwest Missouri. Substantial per capita outlays were also observed for Mid-Missouri and Green Hills districts.

Guaranteed Community Development loans were less variable. The smaller per capita outlays were in the Ozark Foothills; the largest were in the Kansas City Metropolitan and Southeast Districts.

The Human Resource Development category includes programs related to education, health research, vocational rehabilitation, health service, social security and other federal retirement payments, welfare, employment, manpower and food distribution. Budgeted outlays were about $500 per capita statewide. These outlays were relatively uniform across the state but did tend to vary inversely with the rate of population change. The Mid-Missouri, Ozark Foothills, Bootheel, Northeast Missouri, Kaysinger, and Green Hills districts received the greatest per capita outlays. The Lake of the Ozarks district received the least.

Donations (food distribution) associated with the Human Resource Development category were highest on a per capita basis for the Ozark Foothills, Central Ozarks, Kaysinger Basin, Bootheel, and Southeast Missouri districts. They were lowest for the East-West Gateway and Kansas City Metropolitan districts.

A fourth category labelled Other included many, but not all, of the programs excluded from the first three categories. This category includes defense programs (other than retirement), National Aeronautics and Space Administration programs, Atomic Energy Commission programs, Census programs, payments to the Postal Service, interest on the public debt, revenue sharing, as well as programs of the Tennessee Valley Authority and the Environmental Protection agency. Statewide outlays for this category were about $580 per capita. The outlay patterns were dominated by defense contracts (St. Louis City) and the Fort Leonard Wood payroll.

These four categories included over 87 percent of the budgeted and influence outlays within Missouri. Because of the large size and variability of outlays in the Other category, no definite pattern emerged for total outlays. Thus, on a per capita basis, total budgeted outlays were largest in counties which were highly urban, part of an SMSA, had experienced rapid population loss, had the biggest principal cities, had per capita incomes in the $2,601 to $2,900 range or were in the Lake of the Ozarks district.

INTRODUCTION

Budgeted federal outlays in Missouri during fiscal year 1973 exceeded six billion dollars. They accounted for roughly two-

thirds of all governmental outlays within Missouri. This report describes the geographical distribution of these outlays.

At least three reasons for interest in the distribution of federal outlays may be cited. First, taxpayers and their elected representatives may be interested in determining whether their region is getting its "fair share." Some of the results presented in this report could be used to examine that issue.

Second, federal outlays help finance services such as education, health, income maintenance, employment opportunities, housing loans, development loans, farm and business loans, payments to farmers, conservation programs, natural resource development, and transportation. The geographical equity of federally provided services may be of interest to target groups, to persons interested in their welfare, and to persons responsible for related services at the state and local level. To some degree, the distribution of federally provided or supported services is related to the distribution of outlays for them. Thus part of the information presented in this report could be used to evaluate the geographical equity of these services.

Third, federal outlays affect the location of economic activity. This report was developed as part of an on-going research project designed to estimate the impacts of federal outlays on the location of economic activity within Missouri. Understanding the distribution of these outlays and the changes which occur in them were regarded as preliminary objectives. To accomplish these preliminary objectives, two fiscal years were selected. Analysis of 1973 data helped provide an understanding of the distribution of federal outlays. A similar analysis of 1977 data will reveal those changes in the outlays distribution which have occurred since 1973.

The fiscal year 1973 outlay data for Missouri were very detailed. To simplify the presentation while still providing some detail, the data were aggregated in two ways. Similar programs were combined into program groups. Each program group was associated with one of four major program categories. Counties having similar characteristics were combined using several classification schemes. These schemes depended upon urban-rural orientation, metropolitan status, rate of population change, size of principal city, per capita income, and regional planning districts. Additional discussion of the data sources and grouping schemes is provided in the procedure section. This is followed by presentation and discussion of the results.

The existence of a national study [1] and a similar study for the state of Illinois [2] simplified the design of this study. They also provided an opportunity for comparing Missouri's outlays with those received in other areas. This comparison is presented near the end of the report.

PROCEDURE

Data Sources

Most of the data used to group counties came from the County and City Data Book /6/. Population and principal city size data were obtained from a revenue sharing publication /5/. Regional planning district composition was determined from a map prepared by the Missouri Department of Community Affairs. Many of these data are presented in Table 1.

Outlay data were taken from Federal Outlays in Missouri, Fiscal Year 1973 /4/. Data of this sort have been published annually since the late 1960's. They possess limitations and deficiencies but it is generally believed that the quality of the data has improved from year to year. Outlays were reported by program for each of Missouri's 114 counties, the independent city of St. Louis, and other cities having over 25,000 people. In fiscal year 1973, there were 590 budgeted programs and 32 influence activities which had outlays within Missouri.

The outlays for budgeted programs represent obligations, costs, or expenditures for the most part. The outlays for influence activities reflect the current market value of donated commodities, the contingency liability value of guaranteed and insured loans, or the face value of such loans. The total budgeted outlays within Missouri were $6,438,105,075 in fiscal 1973. The total of the donation outlays was $23,800,060. Guaranteed and insured loans totalled $446,624,143.

Program Groups

Even though zero outlays were omitted, the 1973 Missouri federal outlays publication required 106 pages. To provide a manageable degree of detail, the data were aggregated in two ways. First, related programs were combined into program groups. Then counties with similar characteristics were combined into county groups.

Thirty-five program groups were constructed. Each program group was associated with one of four major program categories. These program categories were:

1. AGRICULTURE AND NATURAL RESOURCES PROGRAMS. This category included agricultural payments programs, conservation programs, administrative and marketing services, agricultural and farm loan programs, and natural resources programs of the Department of Agriculture. It also included natural resources programs of the Department of Interior.

2. COMMUNITY DEVELOPMENT PROGRAMS. This category included community development grants and loans, housing loans, grants for construction of health service facilities, transportation programs, and urban renewal.

TABLE 1. SELECTED DATA FOR MISSOURI COUNTIES

COUNTY	1970 POPULATION	PERSONS PER SQ. MILE	PERCENT URBAN	URBAN-RURAL ORIENTATION CATEGORY	POPULATION CHANGE, 1960-1970	PRINCIPAL CITY SIZE, 1970	PER CAPITA INCOME, 1969
					PERCENT		DOLLARS
ADAIR	22,472	39	68.4	3	11.8	15,560	2,472
ANDREW	11,913	27	27.9	5	7.7	3,324	2,482
ATCHISON	9,240	17	27.2	5	0.3	2,517	2,659
AUDRAIN	25,362	37	58.9	3	-2.7	11,807	2,652
BARRY	19,597	25	21.2	5	3.6	5,937	2,152
BARTON	10,431	18	36.0	5	-6.1	3,760	2,232
BATES	15,468	18	25.8	5	-2.7	3,984	2,457
BENTON	9,695	13	0.0	6	11.0	1,423	2,163
BOLLINGER	8,820	14	0.0	6	-3.8	626	1,728
BOONE	80,935	118	77.8	2	46.6	58,812	2,963
BUCHANAN	86,915	215	87.6	1	-4.0	72,748	2,738
BUTLER	33,529	47	49.7	5	-3.3	16,653	2,067
CALDWELL	8,351	19	0.0	6	-5.4	1,645	2,167
CALLAWAY	25,991	31	47.1	5	8.9	12,248	2,316
CAMDEN	13,315	21	0.0	6	46.1	1,636	2,352
CAPE GIRARDEAU	49,350	86	74.6	3	17.4	31,282	2,636
CARROLL	12,565	18	38.4	5	-9.3	4,847	2,404
CARTER	3,878	8	0.0	6	-2.4	714	2,331
CASS	39,448	57	44.7	4	32.8	12,179	2,664
CEDAR	9,424	19	33.1	5	2.6	3,300	1,910
CHARITON	11,084	15	0.0	6	-12.9	1,960	2,171
CHRISTIAN	15,124	27	0.0	6	22.4	2,384	2,225
CLARK	8,260	16	0.0	6	-5.3	2,207	2,101
CLAY	123,702	300	90.2	1	41.4	23,422	3,406
CLINTON	12,462	30	26.5	5	7.5	3,960	2,518
COLE	46,228	120	69.8	2	13.4	32,407	3,056
COOPER	14,732	26	50.4	3	-4.6	7,514	2,714
CRAWFORD	14,828	20	6.9	5	17.2	2,070	2,257
DADE	6,850	14	0.0	6	-9.6	1,172	1,908
DALLAS	10,054	19	0.0	6	7.9	1,915	1,732

TABLE 1.--CONTINUED

COUNTY	1970 POPULATION	PERSONS PER SQ. MILE	PERCENT URBAN	URBAN-RURAL ORIENTATION CATEGORY	POPULATION CHANGE, 1960-1970	PRINCIPAL CITY SIZE, 1970	PER CAPITA INCOME, 1969
					PERCENT		DOLLARS
DAVIESS	8,420	15	0.0	6	-11.4	1,833	2,083
DE KALB	7,305	17	6.1	5	1.1	1,045	2,279
DENT	11,457	15	36.8	5	9.7	4,363	2,189
DOUGLAS	9,268	11	27.0	5	-4.0	2,504	1,663
DUNKLIN	33,742	62	44.7	4	-13.8	10,090	1,926
FRANKLIN	55,127	59	43.3	4	23.7	8,499	2,614
GASCONADE	11,878	23	23.6	5	-2.6	2,658	2,312
GENTRY	8,060	17	0.0	6	-8.3	1,804	2,218
GREENE	152,929	226	79.3	2	21.1	120,096	2,781
GRUNDY	11,819	27	51.3	3	-3.3	6,731	2,450
HARRISON	10,257	14	29.5	5	-11.6	2,914	2,091
HENRY	18,451	25	56.0	3	-4.0	7,504	2,443
HICKORY	4,481	12	0.0	6	-0.8	343	2,029
HOLT	6,654	15	0.0	6	-15.6	1,202	2,764
HOWARD	10,561	22	33.3	5	-2.7	3,520	2,190
HOWELL	23,521	26	29.3	5	6.8	6,893	2,090
IRON	9,529	17	0.0	6	18.5	1,452	2,021
JACKSON	654,178	1,085	96.7	1	5.0	507,330	3,339
JASPER	79,852	124	68.6	2	1.3	39,256	2,561
JEFFERSON	105,248	158	16.8	2	58.6	17,381	2,723
JOHNSON	34,172	41	52.6	3	17.9	13,125	2,388
KNOX	5,692	11	0.0	6	-13.2	1,574	2,176
LACLEDE	19,944	26	43.2	5	5.0	8,616	2,245
LAFAYETTE	26,626	42	47.9	5	5.3	5,388	2,709
LAWRENCE	24,585	40	39.2	5	5.7	5,359	2,360
LEWIS	10,993	22	24.4	5	0.1	2,680	2,397
LINCOLN	18,041	29	14.1	5	22.0	2,538	2,377
LINN	15,125	24	53.6	3	-10.1	5,491	2,401
LIVINGSTON	15,368	29	60.5	3	-2.6	9,519	2,680
MCDONALD	12,357	23	0.0	6	4.7	1,065	2,026

TABLE 1.--CONTINUED

COUNTY	1970 POPULATION	PERSONS PER SQ. MILE	PERCENT URBAN	URBAN-RURAL ORIENTATION CATEGORY	POPULATION CHANGE, 1960-1970	PRINCIPAL CITY SIZE, 1970	PER CAPITA INCOME, 1969
					PERCENT		DOLLARS
MACON	15,432	19	34.7	5	-6.3	5,301	2,481
MADISON	8,641	17	48.2	5	-7.7	3,799	2,132
MARIES	6,851	13	0.0	6	-5.9	1,133	2,052
MARION	28,121	64	76.5	3	-4.7	18,609	2,596
MERCER	4,910	11	0.0	6	-14.6	1,328	2,277
MILLER	15,026	25	23.5	5	8.9	3,520	2,295
MISSISSIPPI	16,647	40	49.0	5	-19.6	5,131	1,734
MONITEAU	10,742	26	28.3	5	2.3	3,105	2,201
MONROE	9,542	14	0.0	6	-10.7	2,456	2,155
MONTGOMERY	11,000	21	0.0	6	-0.9	2,187	2,443
MORGAN	10,083	17	0.0	6	6.4	2,244	2,164
NEW MADRID	23,420	34	27.5	5	-25.3	3,117	1,785
NEWTON	32,981	52	29.7	4	9.6	7,517	2,356
NODAWAY	22,467	26	43.8	5	1.1	9,970	2,386
OREGON	9,180	12	0.0	6	-6.8	1,609	1,607
OSAGE	10,994	18	0.0	6	1.2	1,289	2,271
OZARK	6,226	9	0.0	6	-7.7	627	1,696
PEMISCOT	26,373	53	40.5	4	-30.8	7,350	1,796
PERRY	14,393	31	35.8	5	-1.7	5,149	2,016
PETTIS	34,137	50	66.9	3	-2.8	22,847	2,491
PHELPS	29,567	44	54.9	3	16.4	13,571	2,586
PIKE	16,928	25	44.6	5	1.3	4,533	2,550
PLATTE	32,081	75	43.0	4	37.4	2,123	3,491
POLK	15,415	24	30.9	5	12.1	4,769	2,048
PULASKI	53,967	98	69.2	3	15.9	3,375	2,496
PUTNAM	5,916	11	0.0	6	-15.5	2,075	2,009
RALLS	7,764	16	2.7	5	-3.9	967	2,405
RANDOLPH	22,434	47	58.5	3	1.9	12,988	2,513
RAY	17,599	31	28.7	5	9.5	4,948	2,635
REYNOLDS	6,106	7	0.0	6	18.3	1,094	1,721

TABLE 1.--CONTINUED

COUNTY	1970 POPULATION	PERSONS PER SQ. MILE	PERCENT URBAN	URBAN-RURAL ORIENTATION CATEGORY	POPULATION CHANGE, 1960-1970	PRINCIPAL CITY SIZE, 1970	PER CAPITA INCOME, 1969
					PERCENT		DOLLARS
RIPLEY	9,803	15	0.0	6	7.8	1,850	1,575
ST CHARLES	92,954	169	48.5	2	75.5	31,834	2,960
ST CLAIR	7,667	11	0.0	6	-9.0	1,058	2,109
ST FRANCOIS	36,875	81	48.1	4	1.0	7,031	2,351
ST LOUIS COUNTY	951,671	1,907	95.8	1	35.3	65,908	3,995
ST LOUIS CITY	622,236	10,201	100.0	1	-17.0	622,236	2,726
STE GENEVIEVE	12,867	26	34.7	5	6.2	4,714	2,206
SALINE	24,837	33	58.5	3	-1.2	12,051	2,620
SCHUYLER	4,665	15	0.0	6	-7.7	821	1,903
SCOTLAND	5,499	12	0.0	6	-15.2	2,081	2,025
SCOTT	33,250	79	51.8	3	1.5	14,699	2,383
SHANNON	7,196	7	0.0	6	1.5	973	1,764
SHELBY	7,906	16	0.0	6	-12.8	2,060	2,370
STODDARD	25,771	31	23.4	5	-12.6	6,024	1,989
STONE	9,921	22	0.0	6	21.3	1,003	2,427
SULLIVAN	7,572	12	0.0	6	-13.8	1,794	2,427
TANEY	13,023	21	0.0	6	27.2	2,175	2,286
TEXAS	18,320	15	0.0	6	3.2	2,178	1,972
VERNON	19,065	23	51.9	3	-7.2	9,736	2,149
WARREN	9,699	23	0.0	6	10.8	2,057	2,579
WASHINGTON	15,086	20	18.8	5	5.2	2,761	1,784
WAYNE	8,546	11	0.0	6	-1.1	1,906	1,799
WEBSTER	15,562	26	19.0	5	13.2	2,961	1,972
WORTH	3,359	13	0.0	6	-14.7	1,095	2,610
WRIGHT	13,667	20	25.9	5	-3.6	3,377	1,828

3. HUMAN RESOURCE DEVELOPMENT PROGRAMS. This category included education programs, research grants and fellowships, vocational rehabilitation programs, health services programs, social security, welfare, other retirement and income maintenance programs, employment and training programs, and food distribution.

4. OTHER PROGRAMS. This category did not exhaust the programs excluded above. It included defense payrolls and contracts, AEC and NASA programs, census and postal service programs, interest on the public debt, revenue sharing, Tennessee Valley Authority programs and outlays for the Environmental Protection Agency.

Nearly 400 programs were included in the 35 program groups. Slightly more than 87 percent of the budgeted federal outlays within Missouri were represented by these program groups.

The program categories and program groups were adapted from those used by Leuthold and Karr [2]. They modified the categories of a national study [1] by adding food distribution, administrative services, census and Post Office, interest, TVA, and insured loans groups. They also separated a direct payments (to Agriculture) and conservation group into two parts. For this report, EPA and Revenue Sharing program groups were added. The earlier studies were based on fiscal year 1970 data. The Environmental Protection Agency was formed in that year. It may have had outlays in 1970 but its influence on the economy was probably not as apparent as it is today. Revenue Sharing in its present form was not in existence in 1970 and was relatively new even in fiscal year 1973.

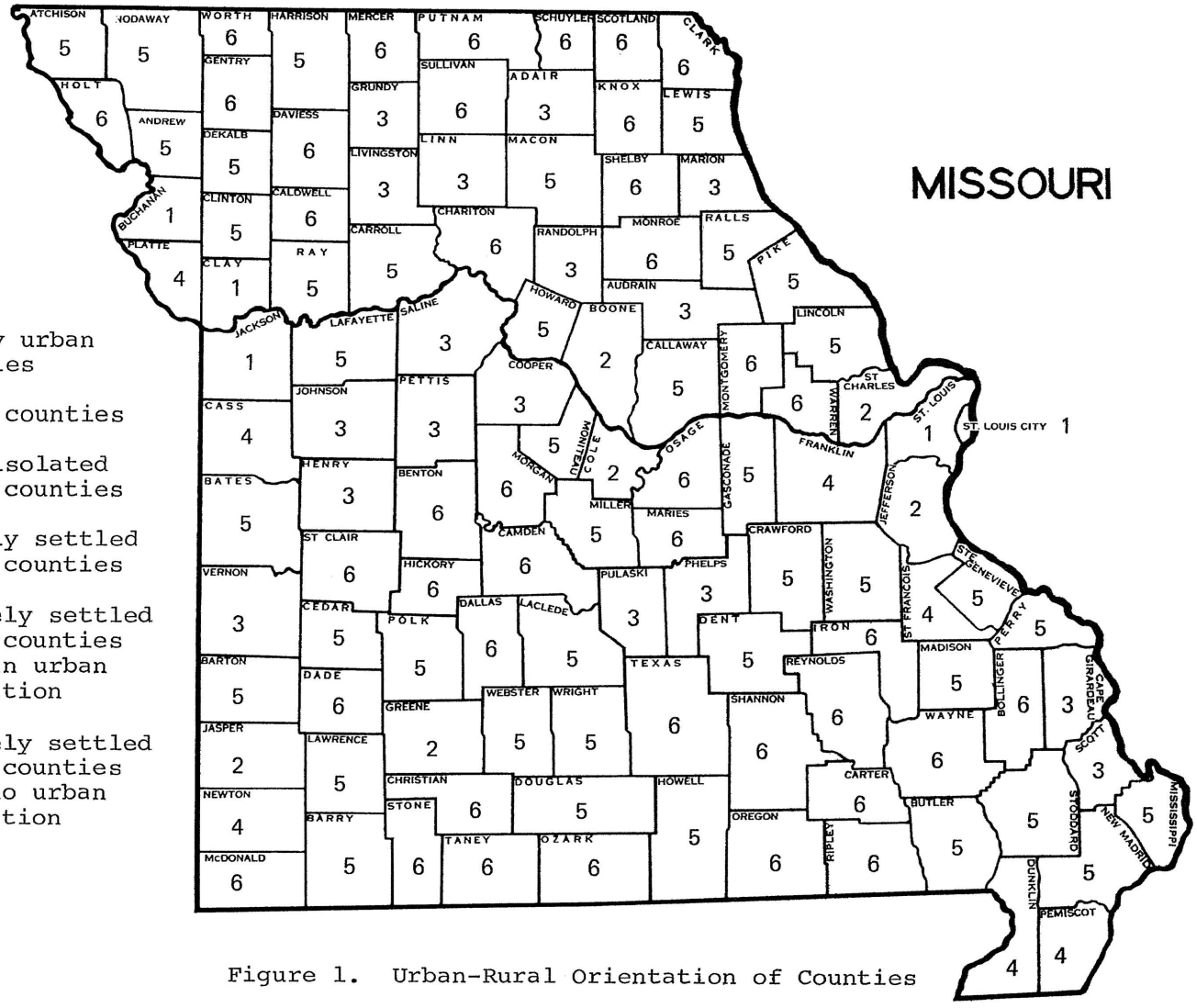
County Groups

To further reduce the volume of data to be presented, Missouri's 115 county areas (114 counties plus the city of St. Louis) were grouped in several ways:

1. Urban-rural orientation. The counties were divided into six groups on the basis of population density (number of persons per square mile) and the percentage of the population living in urban places (localities with a population of over 2,500). This concept of urban-rural orientation was used in the federal study [1] and later by Leuthold and Karr [2]. The six groups were defined as follows:

   a. Highly urban counties. These counties had either (1) an 85-percent or more urban population (i.e., persons living in places with 2,500 or more persons) and 100 or more persons per square mile, or (2) a 50-percent or more urban population and 500 or more persons per square mile. Five counties in Missouri which included 52 percent of the state's population were in this group (see Figure 1).

   b. Urban counties. These counties were less than 85 percent urban and had between 100 and 499.9 persons per square



Key

1. Highly urban counties
2. Urban counties
3. Semi-isolated urban counties
4. Densely settled rural counties
5. Sparsely settled rural counties with an urban population
6. Sparsely settled rural counties with no urban population

Figure 1. Urban-Rural Orientation of Counties in Missouri, 1970.

mile. Nationally, counties which satisfied these criteria could be called suburban counties. Of the six Missouri counties in this group, only Jefferson and St. Charles counties could be considered suburban. However, except for Jasper county, all were part of an SMSA or adjacent to an SMSA county. Twelve percent of the state's population was included.

c. Semi-isolated urban counties. These counties were 50 to 100 percent urban, and had fewer than 100 persons per square mile. Seventeen counties in Missouri were in this group. Ten percent of the state's population lived in these counties.

d. Densely settled rural counties. These counties were less than 50 percent urban, and had 50 to 99.9 persons per square mile. Counties which met these criteria were rare in states west of Missouri and more common in states further east. This is partly illustrated by the fact that Kansas had none while Illinois had twelve. Seven Missouri counties were in this group. Four of them were in or adjacent to SMSA's. A fifth, Newton county contained part of Joplin. The other two were located in the Bootheel. Five percent of the state's population was accounted for by these counties.

e. Sparsely settled rural counties with an urban population. These counties had an urban population of less than 50 percent, and fewer than 50 persons per square mile. Forty Missouri counties were in this group. Thirteen percent of the state's population was included.

f. Sparsely settled rural counties with no urban population. These counties had no urban population, and fewer than 50 persons per square mile. Forty Missouri counties were in this group. Seven percent of the state's population lived in these counties.

2. Metropolitan status. A Standard Metropolitan Statistical Area (SMSA) is a county containing at least one city of 50,000 or more inhabitants, or twin cities with a combined population of at least 50,000, or a contiguous county that is essentially metropolitan in character and is socially and economically integrated with a central city. Twelve Missouri counties were classified as SMSA counties (Figure 2). They contained 64 percent of the state's population. By comparing Figures 1 and 2, it can be seen that the SMSA county group included all of the highly urban counties, half of the urban counties, and almost half of the densely settled rural counties.

3. Rate of population change. For this grouping scheme, the counties were divided into four groups according to their rate of population change between 1960 and 1970: (a) an increase of more than 10.0 percent; (b) an increase of 0.1 to 10.0 percent; (c) a decrease of 5.0 percent to zero percent; and (d) a decrease of more than 5.0 percent. The percentage growth rate for Missouri as a whole was 8.3. Thirty-two counties realized

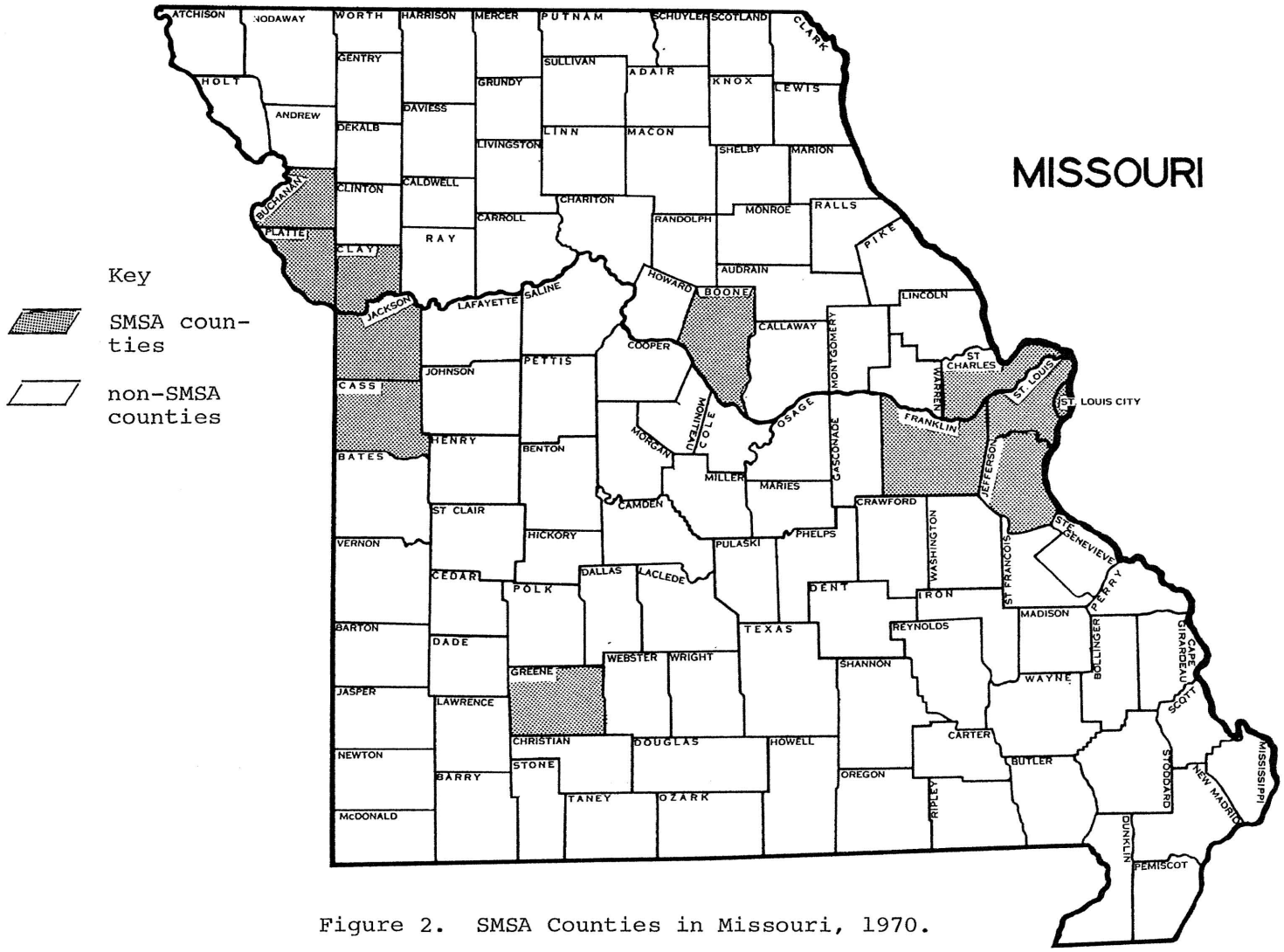


Figure 2. SMSA Counties in Missouri, 1970.

larger growth rates than the state average. From 1960 to 1970, 60 counties gained in population and 55 declined or held constant. Twenty-seven counties had growth rates larger than 10 percent. Thirty-three counties had population declines of more than 5 percent (Figure 3).

4. Principal city size. These groups depended on the principal city size in 1970: (a) 50,000 or more persons (six counties); (b) 25,000 to 49,999 persons (four counties); (c) 10,000 to 24,999 persons (fifteen counties); (d) 5,000 to 9,999 persons (twenty counties); (e) 2,500 to 4,999 persons (twenty-six counties); and (f) fewer than 2,500 persons (forty-four counties). (See Figure 4.)

5. Per capita income. These groups were defined on the basis of 1969 per capita income; (a) more than $2,900 (seven counties); (b) $2,601 to $2,900 (sixteen counties); (c) $2,301 to $2,600 (thirty-four counties); and (d) less than $2,300 (fifty-eight counties). (See Figure 5.)

6. Regional Planning Districts. Twenty regional planning districts have been established in Missouri. With two exceptions they are the same as Extension Program Planning Units. For Extension purposes, the South Central Ozarks district is divided into two parts (HOST and DOW) and Henry county is included in the Show-Me unit rather than in Kaysinger Basin. (See Figure 6.)

Caveats

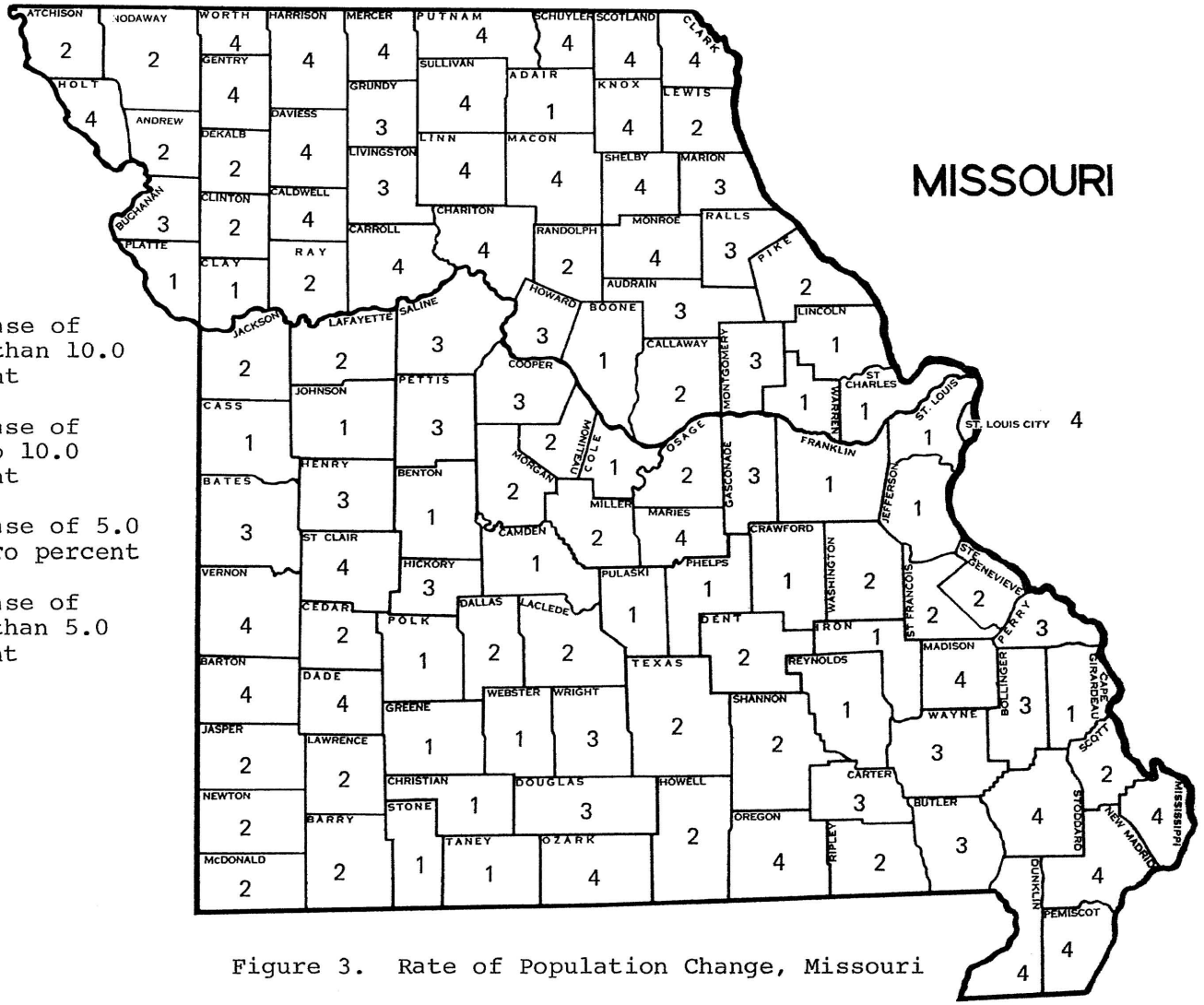
No attempt is made here to imply that the variables (such as income, principal city size) used to establish the county groups cause geographic variations in Federal outlays. Some fund distribution formulas may involve one or more of these variables, but in this report they were used simply as ways of classifying counties.

It is tempting to interpret dollar amounts directly as measures of the relative benefits or impacts of various program groups on receiving regions. Several limitations of this approach can be noted. First, the effect of a dollar from one program group need not, and indeed might not be expected to be the same as that of a dollar from another program group.

Second, even if these effects were uniform, the nature of the effects might not be. Different sectors of the economy may be affected by various program groups.

Third, the per dollar effect of a given program group may depend upon the receiving region itself.

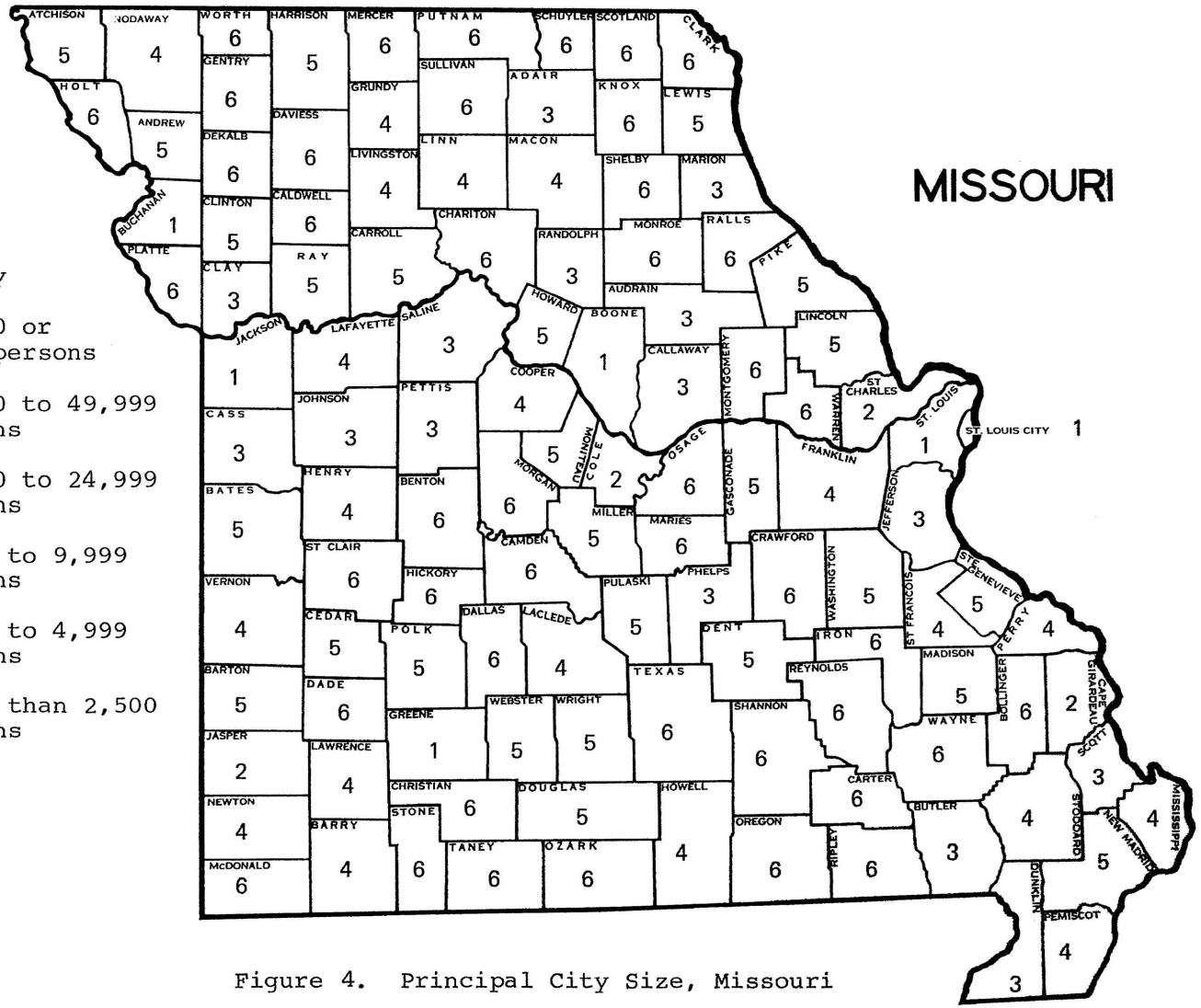
Fourth, outlay data, at best, only indicate the initial incidence. The spatial distribution of benefits and other impacts may be quite different. Indeed, one justification for federal activity in many program areas is the fact that benefits and other impacts from certain kinds of governmental activities ex-



Key

1. Increase of more than 10.0 percent
2. Increase of 0.1 to 10.0 percent
3. Decrease of 5.0 to zero percent
4. Decrease of more than 5.0 percent

Figure 3. Rate of Population Change, Missouri Counties, 1960-1970.



Key

1. 50,000 or more persons
2. 25,000 to 49,999 persons
3. 10,000 to 24,999 persons
4. 5,000 to 9,999 persons
5. 2,500 to 4,999 persons
6. Fewer than 2,500 persons

Figure 4. Principal City Size, Missouri Counties, 1970.

Key

1. Less than $2,300
2. $2,301 to $2,600
3. $2,601 to $2,900
4. More than $2,900

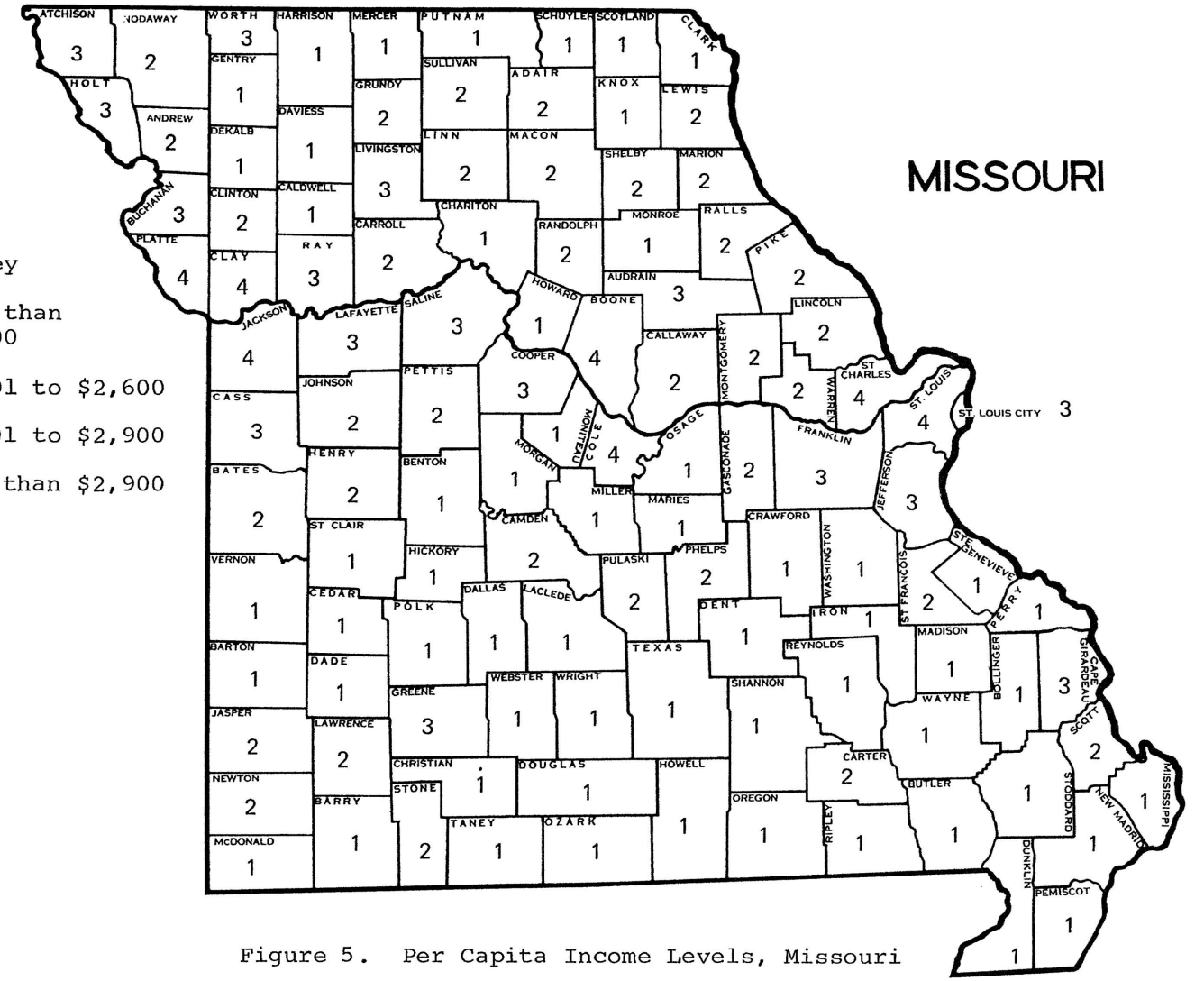


Figure 5. Per Capita Income Levels, Missouri Counties, 1969.

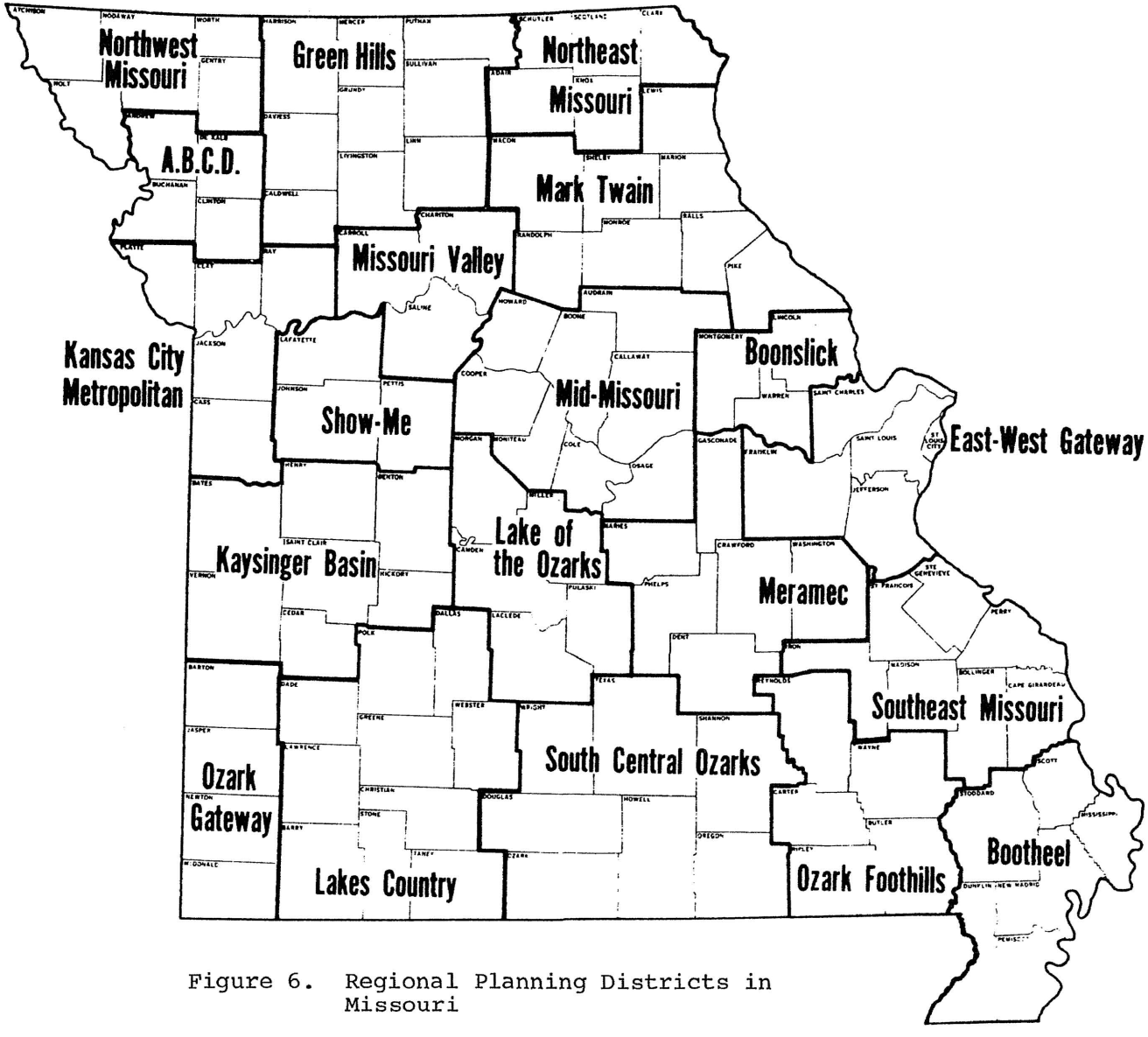


Figure 6. Regional Planning Districts in Missouri

tend beyond the boundaries of areas governed by lower levels of government.

Fifth, the reporting concepts used for various programs were not completely uniform. One standard which was apparently used was that the outlays should be allocated to the initial nongovernmental recipient or program beneficiary. It was not always possible to do this. In some cases the record keeping of the responsible agency was not adequate to provide the needed geographical detail. This necessitated the use of various prorating schemes. In other cases, the outlays were for programs carried out by agencies of the state government. It was not always possible to trace these outlays to individual counties or to devise a reasonable proration system.

Sixth, not all federal outlays were reported. Legislative expenditures and certain activities of quasi-governmental agencies fall in this category. For example, budgeted outlays of the Farm Credit Administration were reported but volumes of outstanding loans were not.

Seventh, outlays are not the only means by which governmental impacts are transmitted. Will [7] lists four fundamental ways in which the federal government influences the location of economic activity. The means he described were only partially reflected by outlays.

DISTRIBUTION OF FEDERAL OUTLAYS

Federal outlays within Missouri are described in Tables 2 through 8. Table 2 presents total and per capita outlays by program group for the entire state. Tables 3 through 7 present per capita outlays by program group and by county groups based on urban-rural orientation, metropolitan status, rate of population change, principal city size, and per capita income. Table 8 presents per capita outlays by program category for each regional planning district. It is intended that each table and its discussion can be examined independently, if desired.

Leuthold and Karr [2] omitted influence type outlays from the four major categories and lumped all insured loans together into one additional category. This study included influence program groups in three of the four program categories. The word guaranteed is parenthetically included in the titles of those program groups consisting of guaranteed and/or insured loan programs. The word donation is included in the title of one food distribution program group to differentiate it from a budgeted program group with a similar title. Up to three subtotals were possible for each major program category. They would correspond to Budgeted, Donation, and Guaranteed Loan outlays, respectively. In practice, no more than two subtotals appeared for any category. A subtotal was excluded unless there were at least two program groups of its type in the category.

Most of the programs included in the Agriculture and Natural Resources category were the responsibility of the Department of Agriculture. To a lesser degree, the programs in the Human Resource Development category were associated with the Department of Health, Education and Welfare. For this reason, in addition to presenting outlay subtotals for these two categories, total outlays by the Departments of Agriculture and Health, Education and Welfare, were presented.

The number of counties in each county group is shown on the last line of each of the tables.

Statewide Outlays

Statewide total and per capita outlays are presented in Table 2. Budgeted Agriculture and Natural Resource outlays in Missouri were nearly $307 million in fiscal 1973, or about $66 per person. Close to two-thirds of these outlays were for agricultural programs. Outlays for guaranteed loans were about equal to those for budgeted loan programs.

Budgeted USDA outlays were nearly $140 per capita. Less than half of these outlays are included in the Agriculture and Natural Resources category. Loans guaranteed or insured by the USDA amounted to about $25 per capita.

Per capita budgeted outlays in the Community Development category were $58. Transportation and urban renewal were the two largest program groups. Guaranteed or insured Community Development loans were greater than $75 per capita. Over 90 percent of these loans were housing loans.

Budgeted Human Resource Development outlays were about $500 per person. The Social Security and retirement program group was the largest. It had outlays of $363 per capita. Welfare program outlays were $44 per capita. Total budgeted outlays per capita by the Department of Health, Education, and Welfare were $408.

Outlays for the Other category were $581 per capita. Over two-thirds of these outlays were from the Defense department. The remaining program groups in the Other category all had relatively small outlays in 1973. Revenue Sharing and the Environmental Protection Agency (EPA) provide two examples of programs which are better known than their outlays would suggest. The distribution of EPA outlays may be quite unrelated to the distribution of the effects of this agency. On the other hand, the main activity of the Revenue Sharing program is the distribution of Federal funds. Its outlays of $26.3 per capita statewide amounted to less than five percent of the outlays in the Other category and less than two percent of total budgeted outlays.

Total budgeted outlays were about $1,377 per person, statewide. Total guaranteed and insured loans were over $95 per capita.

TABLE 2. TOTAL AND PER CAPITA OUTLAYS, BY PROGRAM TYPE, FISCAL YEAR 1973, MISSOURI

Program Group	Outlays Total	Outlays Per Capita
AGRICULTURE AND NATURAL RESOURCES		
Agricultural programs	$ 200,747,880	$ 42.9
Conservation programs	447,565	0.1
Administrative services	40,217,447	8.6
Agricultural loans (budgeted)	36,251,768	7.8
Agricultural loans (guaranteed)	37,568,130	8.0
Natural resources	29,054,719	6.2
Subtotal (budgeted outlays)	306,719,379	65.6
Budgeted USDA outlays	654,050,143	139.9
Guaranteed USDA loans	115,914,421	24.8
COMMUNITY DEVELOPMENT		
Development grants	32,116,871	6.9
Development loans (budgeted)	48,726,226	10.4
Development loans (guaranteed)	33,101,321	7.1
Housing loans (budgeted)	1,293,200	0.3
Housing loans (guaranteed)	318,498,374	68.1
Health service construction	12,221,287	2.6
Transportation programs	114,479,944	24.5
Urban renewal	62,208,250	13.3
Subtotal (budgeted outlays)	271,045,778	58.0
Subtotal (guaranteed loans)	351,599,695	75.2
HUMAN RESOURCE DEVELOPMENT		
Elementary & secondary education	71,872,664	15.4
Handicapped education	2,117,727	0.5
Higher education	14,674,832	3.1
Educational loans (budgeted)	13,734,621	2.9
Educational loans (guaranteed)	1,273,879	0.3
Research grants & fellowships	60,044,398	12.8
Vocational rehabilitation	17,724,933	3.8
Health services	95,760,722	20.5
Social Security and retirement	1,697,308,654	362.9
Welfare programs	206,536,591	44.2
Employment opportunities	71,233,431	15.2
Food distribution (budgeted)	82,316,745	17.6
Food distribution (donations)	23,769,357	5.1
Subtotal (budgeted outlays)	2,333,325,318	498.9
Budgeted HEW outlays	1,908,062,652	408.0
OTHER		
Defense payrolls	497,470,000	106.4
Defense contracts	1,324,851,000	283.3
AEC, NASA	231,085,170	49.4
Census and Postal Service	244,683,661	52.3
Interest on the public debt	183,235,316	39.2
Revenue sharing	123,001,778	26.3
Tennessee Valley Authority	87,253,819	18.7
Environmental Protection Agency	23,998,960	5.1
Subtotal (budgeted outlays)	2,715,579,704	580.7

TABLE 2. CONTINUED

Program Group	Outlays	
	Total	Per Capita
TOTALS		
Total (budgeted outlays)	$6,438,105,075	$1,376.7
Total (guaranteed loans)	446,624,143	95.5
NUMBER OF COUNTIES	115	115

Urban-Rural Orientation

Table 3 presents per capita outlays by program group and urban-rural orientation. Per capita budgeted Agriculture and Natural Resource outlays were higher in the more rural counties. If the semi-isolated urban and densely settled rural groups had been reversed, the per capita outlays for this category would have shown consistent increase from left to right in the table.

The ordering used for urban-rural orientation categories was established in the ERS report, 1971 [1] and was also used by Leuthold et al., 1975 [2]. In deference to tradition and to permit comparison of results with these studies, this same ordering was used here. However, Figure 1 supports the notion that in Missouri, densely settled rural counties are more urban than semi-isolated urban counties. Four of the seven counties included in the former category were in or adjacent to the two largest SMSA's; the other three were more truly rural. The semi-isolated urban counties on the other hand were quite rural in nature even though they (with two exceptions) included cities with populations in the 5,000 to 20,000 persons range.

Insured agricultural loans displayed the same basic pattern as budgeted Agriculture and Natural Resources outlays but tended to be even more strongly related to rurality.

Budgeted USDA outlays showed a somewhat different pattern. Urban and semi-isolated urban counties had the lowest per capita outlays. In an earlier study [3], it was found that programs which support commercial agriculture tend to dominate USDA expenditures in Missouri. Outlays for human needs programs tended to be large in urban areas. These findings are consistent with the observed pattern of greatest per capita expenditures in urban and very rural counties.

USDA loan outlays were fairly closely related to rurality. This would have been especially obvious if the two intermediate rurality categories had been reversed.

For urban counties budgeted Community Development outlays were almost double the statewide per capita outlays. Outlays for the semi-isolated urban and densely settled rural counties were substantially below the statewide average. By contrast, community development loans were largest for the semi-isolated urban counties. The variation for loans, relatively speaking, was smaller than for budgeted outlays across the urban-rural groups.

Human Resource Development outlays were relatively uniform across county groups. Counties with no urban population had the largest outlays; densely settled rural counties had the smallest. The only loan program in this category was education loans. On a per capita basis it was relatively small. The largest per capita loans were in urban counties; the smallest were in counties with no urban population. Food donation programs were the only type of donation program in this category. Except for the two intermediate groups, per capita donation outlays increased with rurality.

TABLE 3. PER CAPITA FEDERAL OUTLAYS, BY PROGRAM TYPE AND URBAN-RURAL ORIENTATION, FISCAL YEAR 1973, MISSOURI

Program Group	Urban-Rural Orientation					
	Highly Urban	Urban	Semi-Isolated Urban	Densely Settled Rural	Rural with Urban Pop.	Rural with No Urban Pop.
AGRICULTURE AND NATURAL RESOURCES						
Agricultural programs	$ 18.7	$ 21.5	$ 65.1	$ 71.7	$101.8	$ 91.5
Conservation programs	0.0	0.2	0.3	0.1	0.2	0.1
Administrative services	9.8	14.6	3.5	3.1	5.6	6.7
Agricultural loans (budgeted)	0.3	1.6	16.1	5.6	25.8	28.4
Agricultural loans (guaranteed)	0.0	1.4	16.4	7.7	25.0	33.8
Natural resources	1.3	7.7	21.6	1.9	8.7	17.2
Subtotal (budgeted outlays)	30.0	45.6	106.5	82.4	142.1	143.9
Budgeted USDA outlays	155.8	63.4	99.3	120.6	169.6	163.6
Guaranteed USDA loans	0.5	20.9	44.2	33.7	71.3	86.4
COMMUNITY DEVELOPMENT						
Development grants	1.1	46.8	1.1	0.9	1.5	5.0
Development loans (budgeted)	3.6	19.7	11.3	6.5	25.5	17.7
Development loans (guaranteed)	0.1	7.2	34.5	4.4	12.4	12.8
Housing loans (budgeted)	0.0	0.0	0.9	1.0	0.9	0.2
Housing loans (guaranteed)	78.7	71.2	55.1	61.9	46.5	48.7
Health service construction	2.7	6.7	1.2	0.0	1.0	2.2
Transportation programs	23.2	22.7	8.6	23.4	33.5	41.4
Urban renewal	21.6	7.6	5.0	1.3	3.0	2.2
Subtotal (budgeted outlays)	52.2	103.5	28.1	33.1	65.5	68.7
Subtotal (guaranteed loans)	78.8	78.4	89.6	66.3	58.9	61.5
HUMAN RESOURCE DEVELOPMENT						
Elementary & secondary education	9.3	47.6	11.6	15.4	14.7	12.3
Handicapped education	0.2	2.6	0.1	0.0	0.0	0.0
Higher education	3.0	6.6	3.1	2.1	2.3	0.6
Educational loans (budgeted)	2.9	5.8	3.8	0.5	2.5	0.0
Educational loans (guaranteed)	0.3	0.4	0.2	0.2	0.2	0.1
Research grants & fellowships	17.8	26.5	3.0	0.7	0.5	0.2
Vocational rehabilitation	2.3	3.9	4.3	5.2	6.5	7.4

TABLE 3. CONTINUED

Program Group	Urban-Rural Orientation					
	Highly Urban	Urban	Semi-Isolated Urban	Densely Settled Rural	Rural with Urban Pop.	Rural with No Urban Pop.
HUMAN RESOURCE DEVELOPMENT (CONT.)						
Health services	$ 29.0	$ 34.9	$ 1.7	$ 2.0	$ 8.6	$ 0.8
Social Security and retirement	339.8	330.9	387.8	342.5	416.0	463.4
Welfare programs	40.0	30.4	39.7	58.3	60.4	61.6
Employment opportunities	15.2	40.7	12.8	3.6	6.4	2.4
Food distribution (budgeted)	23.9	9.8	5.1	26.0	11.4	6.9
Food distribution (donations)	1.5	5.2	7.6	6.7	11.1	14.4
Subtotal (budgeted outlays)	483.4	539.9	472.9	456.3	529.2	555.6
Budgeted HEW outlays	389.1	403.8	381.0	387.0	459.1	505.2
OTHER						
Defense payrolls	113.8	21.4	432.5	18.5	8.4	7.0
Defense contracts	499.7	40.6	64.6	50.3	35.8	54.8
AEC, NASA	94.7	0.3	0.1	0.0	0.0	0.0
Census and Postal Service	65.9	37.4	37.5	29.8	36.5	45.1
Interest on the public debt	39.7	38.6	38.0	40.0	39.0	37.8
Revenue sharing	19.3	86.6	16.2	14.9	16.9	17.1
Tennessee Valley Authority	35.7	0.2	0.0	0.0	0.0	0.0
Environmental Protection Agency	4.9	2.3	7.3	6.4	9.1	0.6
Subtotal (budgeted outlays)	873.7	227.5	596.1	159.9	145.7	162.5
TOTALS						
Total (budgeted outlays)	1,699.9	1,022.7	1,256.9	790.6	978.7	976.2
Total (guaranteed loans)	91.4	92.0	116.4	87.4	96.4	107.2
NUMBER OF COUNTIES	5	6	17	7	40	40

Total HEW outlays per capita were slightly smaller than the statewide average of $408 per capita for all but the two most rural county groups.

Outlays in the Other category were much above the statewide average in highly urban counties, close to average in semi-isolated urban counties, and much below average for the other county groups. Per capita defense payrolls were much above average for semi-isolated urban counties. They were near the average in highly urban counties and much below for other county groups. Fort Leonard Wood, a major military installation, is located in a semi-isolated urban county (Pulaski). On the other hand, defense contracts were much above average for highly urban counties and much below for other county groups. In part, this merely reflected the location of military aircraft suppliers in the St. Louis area. The major variation in per capita revenue sharing outlays across orientation groups was due to the fact that the state government automatically received one-third of the state's allocation. Leaving out the urban county group (which included the state capital), outlays per capita ranged from $14.9 to $19.3. Thus, not only were these outlays small, they were also relatively uniformly distributed.

Total budgeted outlays were above average in highly urban counties, somewhat below average for the two most rural county groups, and substantially below average for densely settled rural counties. Guaranteed and insured loans were reasonably uniform across urban-rural orientation groups. Semi-isolated urban and no urban population counties were somewhat above average.

Metropolitan Status

Table 4 provides a different comparison of outlays for urban and rural counties. In the Agriculture and Natural Resources category, only administrative services had larger per capita outlays in SMSA than non-SMSA counties. The differences were very pronounced for all other program groups. Total budgeted USDA outlays were about the same for the two county groups. USDA loans were heavily concentrated in non-SMSA counties.

The situation was mixed for the Community Development category. Development loans and grants were much larger per capita in non-SMSA counties; transportation program group outlays were somewhat larger in non-SMSA counties. On the other hand, housing loans, health service construction, and urban renewal outlays were larger for SMSA counties. Overall, budgeted Community Development outlays were larger for non-SMSA counties while Community Development loans were larger for SMSA counties.

Within the Human Resource Development category, higher education, education loans (budgeted and influence), research grants and fellowships, health services, and food distribution (budgeted) outlays were larger for SMSA counties than for non-SMSA counties. Outlays for all other program groups in this category were larger for non-SMSA counties. Total budgeted Human Resource Development

TABLE 4. PER CAPITA FEDERAL OUTLAYS, BY PROGRAM TYPE AND METROPOLITAN STATUS, FISCAL YEAR 1973, MISSOURI

Program Group	Metropolitan Status	
	SMSA	Non-SMSA
AGRICULTURE AND NATURAL RESOURCES		
Agricultural programs	$ 19.5	$ 84.6
Conservation programs	0.0	0.2
Administrative services	8.8	8.3
Agricultural loans (budgeted)	0.7	20.3
Agricultural loans (guaranteed)	0.2	22.1
Natural resources	2.1	13.6
Subtotal (budgeted outlays)	31.1	127.0
Budgeted USDA outlays	137.5	144.0
Guaranteed USDA loans	3.5	62.7
COMMUNITY DEVELOPMENT		
Development grants	1.0	17.4
Development loans (budgeted)	6.7	17.0
Development loans (guaranteed)	1.6	16.8
Housing loans (budgeted)	0.0	0.8
Housing loans (guaranteed)	77.6	51.0
Health service construction	3.4	1.2
Transportation programs	22.4	28.2
Urban renewal	18.6	3.8
Subtotal (budgeted outlays)	52.1	68.4
Subtotal (guaranteed loans)	79.3	67.9
HUMAN RESOURCE DEVELOPMENT		
Elementary & secondary education	9.2	26.3
Handicapped education	0.4	0.6
Higher education	3.4	2.7
Educational loans (budgeted)	3.3	2.3
Educational loans (guaranteed)	0.3	0.2
Research grants & fellowships	19.3	1.2
Vocational rehabilitation	2.3	6.4
Health services	27.8	8.2
Social Security and retirement	331.6	418.5
Welfare programs	36.6	57.5
Employment opportunities	13.9	17.5
Food distribution (budgeted)	21.0	11.5
Food distribution (donations)	2.0	10.6
Subtotal (budgeted outlays)	469.0	552.8
Budgeted HEW outlays	374.6	467.4
OTHER		
Defense payrolls	96.2	124.4
Defense contracts	412.0	53.5
AEC, NASA	77.1	0.0
Census and Postal Service	60.1	38.4
Interest on the public debt	39.5	38.7
Revenue sharing	17.9	41.2
Tennessee Valley Authority	29.1	0.0
Environmental Protection Agency	4.3	6.7
Subtotal (budgeted outlays)	736.2	302.9

TABLE 4. CONTINUED

Program Group	Metropolitan Status	
	SMSA	Non-SMSA
TOTALS		
Total (budgeted outlays)	$1,516.3	$1,126.7
Total (guaranteed loans)	91.9	101.9
NUMBER OF COUNTIES	12	103

outlays were about $84 per person larger for non-SMSA counties. A slightly larger difference exists for total HEW outlays.

As noted above, Defense Department outlays dominate the Other category. As in Table 3, payrolls were greater for the more rural counties (non-SMSA's) and contracts were greater for the SMSA's. Total outlays in the Other category were over twice as large for SMSA's.

Total budgeted outlays were almost $400 per person larger for SMSA counties. Total guaranteed and insured loans were $10 per person greater in non-SMSA counties.

Rate of Population Change

Table 5 presents per capita outlay data by program group and rate of population change. Agricultural programs and farm loans (budgeted and influence) had greater per capita outlays in the county groups which lost population in the 1960's, while the natural resource resources program group had larger per capita outlays for counties which gained population. Overall, budgeted outlays in the Agriculture and Natural Resources category were larger for those counties which lost population. Only the most rapidly growing counties had outlays below the statewide average.

Total budgeted USDA outlays were substantially above average for counties experiencing moderate population growth and substantially below average for the most rapidly growing counties. Total USDA loans were below average only for the most rapidly growing counties.

Community Development: Development grants were concentrated in the fastest growing counties. Development loans (budgeted and influence) were larger for the fast growing and moderate loss counties. Housing loans (guaranteed) were above average for moderate growth counties, about average for the most rapidly growing counties and below average for counties which lost population. Transportation outlays were smallest for the county group having the largest population gain. Urban renewal outlays were above average for counties having the greatest population loss rate and for those experiencing moderate growth. Total budgeted Community Development outlays were also largest for the counties having the greatest population loss. They were slightly above average for counties having moderate growth and below average for the two remaining county groups. By contrast, Community Development loans were larger for counties which gained population.

Several program groups in the Human Resource Development category had larger per capita outlays for the extreme population change county groups than for the moderate growth or loss groups. These included elementary and secondary education, handicapped education, higher education, (budgeted) education loans, and research grants and fellowships. Vocational rehabilitation, welfare, budgeted human resource development outlays, and total budgeted HEW outlays were inversely related to the rate of population change. The same pattern prevailed for total budgeted Human Resource De-

TABLE 5. PER CAPITA FEDERAL OUTLAYS, BY PROGRAM TYPE AND RATE OF POPULATION CHANGE, FISCAL YEAR 1973, MISSOURI

Program Group	Rate of Population Change, 1960-1970 (Percent)			
	Greater than 10.0	0.1 to 10.0	-5.0 to Zero	Less than -5.0
AGRICULTURE AND NATURAL RESOURCES				
Agricultural programs	$ 14.5	$ 53.4	$ 76.4	$ 73.8
Conservation programs	0.1	0.0	0.2	0.1
Administrative services	4.7	16.2	4.7	8.6
Agricultural loans (budgeted)	1.3	8.0	19.4	15.8
Agricultural loans (guaranteed)	1.7	7.1	17.7	18.2
Natural resources	8.0	5.6	4.1	4.2
Subtotal (budgeted outlays)	28.6	83.2	104.8	102.5
Budgeted USDA outlays	38.8	291.6	121.7	160.2
Guaranteed USDA loans	13.4	29.8	41.4	34.8
COMMUNITY DEVELOPMENT				
Development grants	13.7	1.4	1.4	2.2
Development loans (budgeted)	12.6	6.8	14.8	8.7
Development loans (guaranteed)	10.1	4.9	6.4	3.9
Housing loans (budgeted)	0.1	0.3	0.7	0.5
Housing loans (guaranteed)	69.9	91.6	47.4	42.7
Health service construction	2.4	3.7	0.7	2.5
Transportation programs	15.5	34.2	28.2	28.7
Urban renewal	2.5	20.1	2.4	31.5
Subtotal (budgeted outlays)	46.8	66.4	48.3	74.1
Subtotal (guaranteed loans)	80.1	96.5	53.8	46.7
HUMAN RESOURCE DEVELOPMENT				
Elementary & secondary education	19.0	11.1	10.8	15.2
Handicapped education	0.8	0.0	0.0	0.6
Higher education	3.7	2.7	2.3	2.9
Educational loans (budgeted)	3.0	2.1	1.5	4.5
Educational loans (guaranteed)	0.2	0.4	0.1	0.3
Research grants & fellowships	9.2	3.4	0.6	37.7
Vocational rehabilitation	2.4	3.9	5.7	5.6
Health services	11.7	20.1	12.2	43.8
Social Security and retirement	300.2	378.5	458.1	431.7

TABLE 5. CONTINUED

Program Group	Rate of Population Change, 1960-1970 (Percent) Greater than 10.0	0.1 to 10.0	-5.0 to Zero	Less than -5.0
HUMAN RESOURCE DEVELOPMENT (CONT.)				
Welfare programs	$ 20.1	$ 43.8	$ 53.9	$ 90.1
Employment opportunities	15.4	13.5	13.6	17.9
Food distribution (budgeted)	7.4	14.1	8.9	46.8
Food distribution (donations)	3.4	5.7	10.0	5.6
Subtotal (budgeted outlays)	392.7	493.1	567.7	696.8
Budgeted HEW outlays	332.1	405.0	468.4	542.1
OTHER				
Defense payrolls	120.3	57.7	21.7	175.8
Defense contracts	30.8	103.0	17.5	1,145.5
AEC, NASA	0.1	94.2	0.0	114.0
Census and Postal Service	21.0	63.4	41.2	107.1
Interest on the public debt	38.4	41.2	39.5	38.1
Revenue sharing	32.1	21.1	19.2	24.0
Tennessee Valley Authority	8.0	0.0	0.0	72.3
Environmental Protection Agency	3.5	10.0	0.0	4.5
Subtotal (budgeted outlays)	254.2	390.6	139.1	1,681.3
TOTALS				
Total (budgeted outlays)	823.8	1,360.7	913.4	2,727.5
Total (guaranteed loans)	93.1	115.2	82.2	80.6
NUMBER OF COUNTIES	27	33	22	33

velopment outlays. Food donations were greatest for moderately declining counties and least for the most rapidly growing counties.

In the Other category, Defense payrolls, revenue sharing, and TVA outlays were greater for the extreme change county groups. Defense contracts and total outlays in the Other category were highly concentrated in the counties (notably St. Louis City) having the greatest rate of population decline.

Total budgeted outlays per capita were almost twice as large in the most rapidly declining counties as for any other county group. The pattern observed for the Other category accounts for part of this. Total guaranteed and insured loans were greater for growing counties than for counties which lost population.

Principal City Size

Table 6 presents per capita outlays by program group and principal city size. A few lines reflect outlays which increased with each decrease in city size group. These include the agricultural programs group, (budgeted and guaranteed) agricultural loans groups, and total Agriculture and Natural Resource outlays.

Within the Agriculture and Natural Resources category, administrative services were concentrated in counties whose largest cities had 25,000 to 49,999 persons. Natural resources outlays were larger than average for the 10,000 to 24,999 and fewer than 2,500 groups.

Total budgeted USDA outlays per capita were largest for the two groups having principal city sizes in the 10,000 to 49,999 persons interval. Total USDA loans tended to increase as principal city size decreased.

Cole County, the location of the state capital, is in the 25,000 to 49,999 group. This group dominated development grant outlays and guaranteed development loans. On a per capita basis, it was also the largest recipient of budgeted development loans and housing loans. Health service construction was largest for the county group having the largest cities. Transportation outlays per capita were largest in counties having principal cities smaller than 5,000 persons but the 25,000 to 49,999 group also did better than average. Urban renewal outlays generally increased with principal city size. Overall, budgeted Community Development outlays per capita were about three times the state average for the 25,000 to 49,999 group, somewhat larger than average for the groups under 5,000 persons, and about half of the average in the 5,000 to 24,999 range. Guaranteed Community Development loans followed somewhat the same pattern but tended to be somewhat more evenly distributed.

In the Human Resource Development category, the 25,000 to 49,999 group had larger (in some cases much larger) than average outlays for several program groups. These included elementary and secondary education, handicapped education, higher education, and

TABLE 6. PER CAPITA FEDERAL OUTLAYS, BY PROGRAM TYPE AND PRINCIPAL CITY SIZE, FISCAL YEAR 1973, MISSOURI

Program Group	Principal City Size, 1970 (Number of Persons)					
	At Least 50,000	25,000 to 49,999	10,000 to 24,999	5,000 to 9,999	2,500 to 4,999	Fewer than 2,500
AGRICULTURE AND NATURAL RESOURCES						
Agricultural programs	$ 19.5	$ 26.7	$ 50.2	$ 84.1	$ 99.8	$ 89.7
Conservation programs	0.0	0.0	0.3	0.1	0.2	0.1
Administrative services	10.1	22.6	2.5	4.6	5.3	6.5
Agricultural loans (budgeted)	0.3	3.6	10.0	17.2	24.6	27.2
Agricultural loans (guaranteed)	0.1	3.0	10.2	21.1	22.0	30.1
Natural resources	2.3	6.1	15.9	5.1	7.5	16.2
Subtotal (budgeted outlays)	32.3	59.0	78.8	111.3	137.4	139.7
Budgeted USDA outlays	154.9	68.9	79.0	131.9	164.5	170.1
Guaranteed USDA loans	1.5	30.8	30.4	62.6	60.7	81.9
COMMUNITY DEVELOPMENT						
Development grants	1.0	96.6	1.2	1.7	1.1	4.4
Development loans (budgeted)	3.4	32.8	11.6	12.5	24.3	22.6
Development loans (guaranteed)	0.7	50.1	6.5	11.8	9.0	12.3
Housing loans (budgeted)	0.0	0.0	0.4	1.2	1.0	0.2
Housing loans (guaranteed)	72.6	93.1	75.9	49.7	43.1	55.8
Health service construction	4.0	1.5	0.1	1.7	0.0	1.9
Transportation programs	21.4	32.4	14.8	8.1	49.2	47.9
Urban renewal	21.0	11.6	3.8	2.3	3.7	1.8
Subtotal (budgeted outlays)	50.8	174.8	32.0	27.5	79.2	78.9
Subtotal (guaranteed loans)	73.3	143.2	82.4	61.5	52.1	68.0
HUMAN RESOURCE DEVELOPMENT						
Elementary & secondary education	9.5	90.2	9.6	11.0	17.9	14.2
Handicapped education	0.4	3.5	0.1	0.0	0.0	0.0
Higher education	3.7	5.8	3.2	1.5	1.4	1.3
Educational loans (budgeted)	3.6	3.3	3.5	1.4	1.8	0.2
Educational loans (guaranteed)	0.3	0.5	0.3	0.2	0.2	0.1
Research grants & fellowships	21.8	1.4	5.9	0.2	0.1	0.5
Vocational rehabilitation	2.4	5.5	4.1	6.1	5.6	6.9
Health services	31.1	25.8	15.5	0.7	2.0	0.7

TABLE 6. CONTINUED

Program Group	Principal City Size, 1970 (Number of Persons) At Least 50,000	25,000 to 49,999	10,000 to 24,999	5,000 to 9,999	2,500 to 4,999	Fewer than 2,500
HUMAN RESOURCE DEVELOPMENT (CONT.)						
Social Security and retirement	$ 345.2	$ 353.4	$338.2	$416.2	$ 377.1	$444.4
Welfare programs	40.6	36.4	37.8	59.5	51.3	57.1
Employment opportunities	15.2	69.8	11.8	8.8	4.5	2.0
Food distribution (budgeted)	24.0	7.1	8.8	13.5	12.9	6.5
Food distribution (donations)	1.5	7.7	7.0	10.3	8.7	13.4
Subtotal (budgeted outlays)	497.5	602.3	438.5	518.8	474.6	533.9
Budgeted HEW outlays	383.4	470.5	397.0	449.7	417.0	481.8
OTHER						
Defense payrolls	106.9	24.5	82.4	8.6	413.4	13.4
Defense contracts	479.4	72.4	12.3	55.7	79.3	49.6
AEC, NASA	90.6	0.0	0.1	0.0	0.0	0.0
Census and Postal Service	66.8	36.1	28.5	37.1	34.9	41.3
Interest on the public debt	39.4	39.4	39.2	38.8	39.2	38.3
Revenue sharing	19.4	167.4	13.9	16.7	15.8	16.0
Tennessee Valley Authority	27.9	0.2	26.1	0.0	0.0	0.0
Environmental Protection Agency	4.2	3.0	8.2	12.9	2.9	1.4
Subtotal (budgeted outlays)	834.6	343.0	210.8	169.8	585.6	160.1
TOTALS						
Total (budgeted outlays)	1,651.9	1,284.3	903.2	879.3	1,396.3	964.4
Total (guaranteed loans)	85.9	161.6	103.0	95.9	84.7	110.1
NUMBER OF COUNTIES	6	4	15	20	26	44

employment opportunities. Budgeted education loans, research grants and fellowships and health services were larger (in varying degrees) for counties having larger principal cities. Social security and welfare outlays were largest for the three county groups having the smallest principal cities. Budgeted food distribution outlays were above the state average only for the counties including the largest cities, but food donations were above the statewide average for all other county groups. Outlays for Human Resource Development showed little variation. The 25,000 to 49,999 person group had the largest per capita outlays and the county group having the next smaller principal city sizes had the smallest. Total HEW outlays were slightly below average for the counties having the largest cities and for those having principal cities in the 10,000 to 24,999 interval. Counties with the smallest principal cities received the largest outlays.

The results for the Other category should by now be predictable. Pulaski county (in the 2,500 to 4,999 persons group) dominated defense payrolls, St. Louis City (in the at least 50,000 persons group) dominated defense contracts, and Cole County (in the 25,000 to 49,999 persons group) dominated revenue sharing.

Total budgeted outlays were substantially above average only for counties having the largest cities. With the exception of the 2,500 to 4,999 persons group, all other county groups had below average outlays. Total guaranteed and insured loans were about 70 percent above average for the 25,000 to 49,999 person group. Otherwise, outlays were relatively uniform across principal city groups.

Per Capita Income

Table 7 presents per capita outlays by program group and per capita income.

Agricultural programs and agricultural loans (both budgeted and guaranteed) were generally inversely related to income. Administrative services were dominated by the county group with per capita incomes greater than $2,900. Natural resource outlays were above average for counties with per capita incomes of $2,600 or less and substantially below average for the other two county groups. Total budgeted Agriculture and Natural Resource outlays decreased as per capita income increased. Loans in this category were strictly decreasing with increases in per capita income.

Much above average and somewhat above average budgeted USDA outlays were observed for the greater than $2,900 and less than $2,300 county groups. Total USDA loans decreased with increases in income.

Development grants, budgeted development loans, and health service construction were dominated by the greater than $2,900 income group. Guaranteed development loans increased with increases in per capita income up to $2,900 but were very small in the highest income category. Housing loans (guaranteed) were larger than average for the highest income group and below average for the

TABLE 7. PER CAPITA FEDERAL OUTLAYS, BY PROGRAM TYPE AND PER CAPITA INCOME, FISCAL YEAR 1973, MISSOURI

Program Group	Per Capita Income, 1969: Greater than $2,900	$2,601 to $2,900	$2,301 to $2,600	Less than $2,300
AGRICULTURE AND NATURAL RESOURCES				
Agricultural programs	$ 22.4	$ 33.7	$ 63.3	$ 95.0
Conservation programs	0.1	0.0	0.2	0.2
Administrative services	13.0	5.8	3.7	6.3
Agricultural loans (budgeted)	0.6	7.9	16.7	18.2
Agricultural loans (guaranteed)	0.1	3.0	16.7	29.9
Natural resources	2.9	2.3	16.0	12.4
Subtotal (budgeted outlays)	39.0	49.8	99.8	132.1
Budgeted USDA outlays	174.9	91.0	103.2	165.2
Guaranteed USDA loans	3.3	11.9	56.4	74.9
COMMUNITY DEVELOPMENT				
Development grants	13.8	1.1	2.8	2.0
Development loans (budgeted)	7.0	7.2	17.2	18.6
Development loans (guaranteed)	1.8	13.0	10.5	8.0
Housing loans (budgeted)	0.0	0.0	0.8	0.9
Housing loans (guaranteed)	93.3	47.5	53.2	49.5
Health service construction	3.4	3.0	0.3	1.9
Transportation programs	27.9	28.0	8.6	24.9
Urban renewal	13.1	24.7	3.7	3.5
Subtotal (budgeted outlays)	65.2	64.1	33.4	51.8
Subtotal (guaranteed loans)	95.1	60.5	63.8	57.4
HUMAN RESOURCE DEVELOPMENT				
Elementary & secondary education	19.8	10.1	12.2	15.6
Handicapped education	0.7	0.5	0.1	0.0
Higher education	3.6	3.8	2.8	1.2
Educational loans (budgeted)	2.3	5.1	3.4	0.6
Educational loans (guaranteed)	0.4	0.2	0.2	0.2
Research grants & fellowships	10.7	29.7	2.0	0.3
Vocational rehabilitation	2.0	3.6	4.8	8.0
Health services	24.0	33.9	1.7	8.3

TABLE 7. CONTINUED

Program Group	Per Capita Income, 1969			
	Greater than $2,900	$2,601 to $2,900	$2,301 to $2,600	Less than $2,300
HUMAN RESOURCE DEVELOPMENT (CONT.)				
Social Security and retirement	$ 296.8	$ 400.1	$ 413.9	$428.6
Welfare programs	21.5	62.1	42.2	77.5
Employment opportunities	18.1	19.1	10.2	5.6
Food distribution (budgeted)	11.2	34.1	5.1	19.1
Food distribution (donations)	1.8	3.5	8.5	13.3
Subtotal (budgeted outlays)	410.5	602.1	498.3	564.7
Budgeted HEW outlays	340.9	461.1	417.2	490.4
OTHER				
Defense payrolls	56.5	145.7	273.3	7.1
Defense contracts	56.8	899.5	63.7	52.2
AEC, NASA	60.1	89.2	0.1	0.0
Census and Postal Service	38.5	90.4	38.2	37.8
Interest on the public debt	39.9	38.6	39.2	38.1
Revenue sharing	37.0	20.1	15.5	18.3
Tennessee Valley Authority	8.2	56.6	0.0	0.0
Environmental Protection Agency	5.7	1.8	7.9	6.5
Subtotal (budgeted outlays)	302.8	1,341.8	437.8	160.1
TOTALS				
Total (budgeted outlays)	1,090.0	2,191.8	1,124.5	995.1
Total (guaranteed loans)	106.0	77.5	91.9	101.5
NUMBER OF COUNTIES	7	16	34	58

other county groups. Total budgeted Community Development outlays were forty percent below the statewide average for the $2,301 to $2,600 income group and close to average for the other three groups. Community Development loans were rather uniformly distributed with only the greater than $2,900 group receiving an above average amount. Social security and welfare outlays were generally greater in poorer counties. Per capita food donations varied inversely with per capita income.

The income categories for Pulaski County, St. Louis City, and Cole County can be identified readily by examining the defense payroll, defense contracts, and revenue sharing lines in the Other category.

Total budgeted outlays were substantially above average for the $2,601 to $2,900 income group and below average for the other county groups. The $2,601 to $2,900 group received about twenty percent less per capita in guaranteed loans than the statewide average. Per capita outlays for other groups were close to the state average.

Regional Planning Districts

Table 8 presents per capita outlays by major program category and Regional Planning District. Because of the relatively large number of districts, only outlays by program category are presented.

The pattern of per capita outlays for budgeted Agriculture and Natural Resources programs is consistent with the location of the best agricultural areas within the state. Northwest Missouri, Missouri Valley, and Bootheel districts had the largest outlays. East-West Gateway, Lake of the Ozarks, and Lake's Country had the smallest.

Agricultural Loans followed a somewhat different pattern. Statewide, these loans were about one-eighth as large as the budgeted Agriculture and Natural Resource outlays. This ratio was approximately realized for the Bootheel, Kaysinger Basin, Mid-Missouri and Missouri Valley districts. Substantially higher than usual loan to budgeted ratios were realized for South Central Ozarks, Green Hills, Lake of the Ozarks, and Northeast Missouri districts. Lake's Country, Mark Twain, Ozark Foothills, Ozark Gateway and Show-Me districts had moderately higher ratios.

Very low per capita budgeted Community Development outlays were observed for the Ozark Foothills, Ozark Gateway, Lake of the Ozarks, Northeast Missouri, Show-Me, and Bootheel districts. Extremely high outlays occurred in Northwest Missouri. Substantial per capita outlays were also observed for Mid-Missouri and Green Hills districts.

Statewide, Community Development loans were about 1.3 times as large as budgeted outlays. By district, the ratio of these outlays varied from over 3.7 for Show-Me and Ozark Gateway districts to .18 for Northwest Missouri.

TABLE 8. PER CAPITA FEDERAL OUTLAYS BY MAJOR PROGRAM CATEGORIES AND REGIONAL PLANNING DISTRICTS, FISCAL YEAR 1973, MISSOURI

Program Category[a]	Regional Planning Districts					
	A-B-C-D	Boonslick	Bootheel	East-West Gateway	Green Hills	Kansas City Metropolitan
ANR (B)	$ 74.6	$ 134.4	$ 236.2	$ 11.8	$ 180.1	$ 69.6
ANR (I)	4.3	8.8	33.9	0.0	73.1	0.3
CD (B)	85.2	103.7	25.2	34.1	160.7	85.9
CD (I)	54.9	80.0	46.9	60.0	79.4	127.6
HRD (B)	558.7	481.0	592.1	462.4	586.8	445.2
HRD (D)	3.1	6.8	12.5	2.0	9.4	2.0
OTHER (B)	155.1	121.4	134.7	937.4	118.5	513.8
TOTAL (B)	933.6	883.9	1,213.8	1,555.8	1,093.4	1,631.5
TOTAL (I)	68.2	115.5	102.6	73.0	159.7	139.7
NO. CO.	4	3	6	5	9	5

Program Category[a]	Regional Planning Districts					
	Kaysinger Basin	Lake's Country	Lake of the Ozarks	Mark Twain	Meramec	Mid-Missouri
ANR (B)	$ 134.4	$ 34.5	$ 20.2	$ 145.9	$ 125.9	$ 129.9
ANR (I)	17.1	6.8	7.9	32.3	4.7	13.0
CD (B)	34.0	43.7	21.0	62.7	35.9	177.8
CD (I)	60.1	68.7	56.2	53.6	55.5	54.8
HRD (B)	587.4	525.8	363.3	537.6	549.3	764.6
HRD (D)	13.2	6.4	8.1	7.9	8.5	7.6
OTHER (B)	313.9	128.5	1,671.7	137.0	123.4	344.1
TOTAL (B)	1,121.0	824.5	2,112.5	933.6	906.0	1,551.9
TOTAL (I)	96.9	90.0	73.0	91.7	74.7	72.7
NO. CO.	7	10	5	8	6	8

TABLE 8. CONTINUED

Program Category[a]	Regional Planning Districts					
	Missouri Valley	Northeast Missouri	Northwest Missouri	Ozark Foothills	Ozark Gateway	Show-Me
ANR (B)	$ 319.5	$ 198.3	$ 402.3	$ 78.6	$ 42.5	$ 96.5
ANR (I)	36.5	57.8	35.8	15.9	8.7	16.9
CD (B)	44.0	22.1	324.6	13.7	20.7	22.8
CD (I)	75.9	74.8	59.8	31.3	77.8	85.1
HRD (B)	528.2	588.2	497.2	686.3	509.4	451.4
HRD (D)	8.7	4.5	6.3	26.8	10.7	6.4
OTHER (B)	109.8	174.9	135.2	118.4	229.4	525.2
TOTAL (B)	1,048.1	1,027.2	1,402.4	946.3	863.6	1,147.8
TOTAL (I)	117.3	151.2	100.2	71.5	99.7	105.4
NO. CO.	3	5	5	5	4	3

Program Category[a]	Regional Planning Districts	
	South Central Ozarks	Southeast Missouri
ANR (B)	$ 58.3	$ 45.1
ANR (I)	29.3	3.8
CD (B)	40.2	36.2
CD (I)	55.3	123.1
HRD (B)	552.9	482.7
HRD (D)	14.9	12.1
OTHER (B)	221.3	134.4
TOTAL (B)	918.9	751.9
TOTAL (I)	91.1	140.8
NO. CO.	7	7

TABLE 8. CONTINUED

[a]The abbreviations used to identify major program categories are:

ANR (B)	Budgeted Agriculture and Natural Resources Outlays
ANR (I)	Guaranteed and Insured Agriculture and Natural Resources (Agriculture and Farm) Loans
CD (B)	Budgeted Community Development Outlays
CD (I)	Guaranteed Community Development Loans
HRD (B)	Budgeted Human Resource Development Outlays
HRD (D)	Human Resource Development (Food Distribution) Donations
OTHER (B)	Budgeted Outlays for the Other Category
TOTAL (B)	Total Budgeted Federal Outlays
TOTAL (I)	Total Guaranteed and Insured Loans
NO. CO.	Number of Counties in this Subgroup

Budgeted Human Resource Development outlays exhibited little variation. The Mid-Missouri, Ozark Foothills, Bootheel, Northeast Missouri, Kaysinger, and Green Hills districts received the greatest per capita outlays. The Lake of the Ozarks district received the least.

Donations (food distribution) associated with the Human Resource Development category were highest on a per capita basis for the Ozark Foothills, Central Ozarks, Kaysinger Basin, Bootheel and Southeast Missouri districts. They were lowest for the East-West Gateway and Kansas City Metropolitan districts.

Total budgeted outlays per capita were largest for the Lake of the Ozarks district. For this district, a substantial portion of these outlays was from outlays in the Other category. Fort Leonard Wood is located in the district. Per capita outlays were smallest for the Southeast Missouri district. Several other districts had per capita outlays at least 30 percent lower than the statewide average. These include Lake's Country, Ozark Gateway, Boonslick, Meramec, South Central Ozarks, Mark Twain, ABCD and Ozark Foothills.

COMPARISONS WITH EARLIER STUDIES

Missouri-Illinois Comparisons

The existence of a similar report for the state of Illinois [2] allows a partial comparison of the results for the two states. Several factors combine to limit the degree of comparability somewhat. First, the Illinois report was based on fiscal year 1970 data while this report is based on 1973 data. Second, even though program group descriptions from the Illinois report were used as guides in forming the program groups for this study, it is inevitable that some differences exist. If nothing else, it is likely that a few program titles have been added or deleted from the federal budget between 1970 and 1973. Finally, the distributions of outlays in the two states are influenced by factors other than the variables used in describing the patterns of outlays. In neither study has it been claimed that these variables cause the observed outlay patterns or even that they are perfect proxies for those factors which do.

Although this does not reflect a difference in outlays directly, it is worth noting that Missouri counties have different distributions with respect to the variables used to classify counties. At the risk of over-simplifying the matter, Missouri tends to have a larger proportion of its counties classified in what might be considered less developed categories. Missouri has more highly urban counties, fewer urban and densely settled rural counties and many more rural counties without urban population. It has a somewhat larger proportion of nonmetropolitan counties. It has a few more rapidly growing counties, about two-thirds as many counties with moderate population loss, and about twice as many which experienced rapid population losses. Missouri has fewer counties with principal cities of 25,000 persons or more

and over three times as many with principal cities smaller than 2,500 persons. Perhaps the most noticeable difference relates to per capita income. Illinois had 36 counties with per capita incomes larger than $2,900 and only eight with $2,300 or less. Missouri had only seven with per capita incomes larger than $2,900 and 58 with per capita incomes no greater than $2,300.

Absolute and even per capita amounts may be the least comparable items between the two states. Nonetheless, some differences are rather striking. Total budgeted federal outlays per capita were almost twice as large for Missouri as for Illinois. (Illinois had total per capita outlays of $701 in 1970 while Missouri had about $1,377. Even if Illinois per capita outlays grew at the same rate as the national average, they still would have been only about $900 in 1973.) Insured loans were larger by about the same ratio. Similar results were observed for each of the various program category subtotals.

For the outlay patterns themselves, both similarities and differences can be found for the Missouri and Illinois outlays. When examining per capita outlay data by urban-rural orientation, Leuthold and Karr /2/ noted that Agriculture and Natural Resource outlays increased steadily with rural orientation. Generally the same tendency was observed for budgeted outlays in this category in Missouri but the pattern was not as clear.

In Illinois, Community Development outlays tended to be larger for more rural counties. In Missouri, they were largest for the urban county group. As in Illinois, Missouri Human Resource Development outlays equaled nearly 40 percent of all federal outlays within the state. Social security, other retirement programs and welfare outlays in Missouri were 82 percent of human resource development outlays. This was slightly larger than the 75 percent observed in Illinois. As in Illinois, human resource development outlays were relatively constant by urban-rural orientation except for the most rural county group. Relatively speaking, the most rural counties had lower outlays in this category than in Illinois. In Missouri, the three most rural county groups had larger per capita welfare outlays than the others whereas in Illinois, only the most rural county group had larger welfare outlays and the difference between it and other county groups was greater.

As in Illinois, Missouri's two most rural county groups had the largest per capita social security and retirement outlays. In Illinois, defense outlays were concentrated in the more urban counties. The presence of Fort Leonard Wood contributed to a different pattern in Missouri. In both states, interest on the public debt was remarkably constant across county groups. In Illinois, insured loans were concentrated in the more urban counties but in Missouri these outlays were relatively evenly distributed, on a per capita basis, across county groups.

Total outlays in Illinois were about the same for SMSA counties and other counties. In Missouri, SMSA's received about $400 more per capita. Other conclusions drawn about the outlays by metropolitan status for Illinois are valid for Missouri as well.

These include the conclusion that non-SMSA's got more for human resource development, community development, and agriculture and natural resources. As in Illinois, combined Defense, AEC, and NASA outlays per capita were over three times as large for SMSA counties.

When examined by rate of population change category, human resource development outlays in Illinois consistently increased as the rate of population growth decreased. This occurred in Missouri as well although the ratio of outlays at the extremes was not as large. As in Illinois, agriculture and natural resource outlays were considerably larger for decreasing population county groups than for increasing population county groups. Community development outlays were also considerably higher for decreasing population groups than for increasing population groups. The same sort of result was observed in Missouri but the difference was smaller.

In Illinois, the largest total per capita federal outlays occurred for a $3,201 to $3,500 income group and the smallest occurred for an adjacent $2,901 to $3,200 income group. In Missouri, the largest occurred for the $2,601 to $2,900 income group. In neither state were per capita income and total outlays consistently related. In Illinois, Human Resource Development outlays tended to be smaller for larger income levels. This tendency was observed to some degree in Missouri as well but it was not as pronounced. Furthermore, the largest outlays were for the county group in the $2,601 to $2,900 income range. As in Illinois, low income counties got larger welfare and retirement outlays on a per capita basis. In both states, outlays for agriculture and natural resources generally declined with income increases. Similar conclusions can be reached for the two states about community development, defense, AEC, and NASA outlays by per capita income category.

Missouri-United States Comparisons

Readily available data permit four comparisons of nationwide outlays with those in Missouri.

First, it is possible to compare per capita outlays for major program categories during fiscal year 1973. This comparison is slightly limited by uncertainties about which specific programs should be included in each program category when computing nationwide outlays. Two approaches were taken. National per capita outlays were initially computed for the set of programs (in each category) having outlays in Missouri during fiscal year 1973. To the extent that some specific programs were regional in nature, this tended to result in underestimation of nationwide per capita outlays for each category. The fact that the number of programs funded nationally was larger than the number of programs funded in Missouri suggests the existence of some regionalism of programs. To at least partially compensate for the underestimation, additional programs were included in each category. The programs added were those which would have originally been included if they had been funded in Missouri.

Table 9 presents nationwide per capita outlays by program group. The addition of some programs not funded in Missouri increased the per capita outlays significantly for a few program groups but overall the changes were small. It should be remembered that any errors are likely to be errors of omission. Therefore, the actual national per capita outlays may be somewhat larger.

Budgeted outlays per person in the Agriculture and Natural Resources category were about 40 percent larger in Missouri than nationwide. Per capita budgeted USDA outlays were nearly 75 percent larger in Missouri.

Budgeted Community Development outlays were about 15 percent larger nationally than in Missouri on a per capita basis while Community Development loans were over 25 percent larger nationally.

Human Resource Development outlays per capita were almost identical in the U.S. and Missouri. The same conclusion is valid for total outlays by the Department of Health, Education, and Welfare.

Per capita outlays in the Other category were about 15 percent larger in Missouri than nationally.

Total per capita outlays within Missouri were about $1,377 versus about $1,283, nationwide. (In both cases, 1970 population was used in computing per capita outlays.) Total insured loans were over 20 percent larger nationally than in Missouri.

Second, it is possible to compare the relative outlays by program category and urban-rural orientation for Missouri and the U.S. This and subsequent comparisons were limited to relative outlays for two reasons. The latest available nationwide tables (of the sort needed for this comparison) were for fiscal year 1970 outlays. The definitions of the various major program categories were also somewhat different. These definitions were reasonably consistent for Agriculture and Natural Resources, Community Development, and Human Resource Development. They were somewhat different for the Other category and for total outlays. The total outlay definition used to analyze outlays nationally was merely the sum of the outlays for the four major program categories. In this study, total outlays included all budgeted outlays.

For the Agriculture and Natural Resources category, two differences are readily noted. Nationally, rural counties with no urban population got relatively (and absolutely) much larger per capita outlays. For the other five county groups, the rankings of outlays were similar nationally and within Missouri but the range was greater nationally.

It was noted earlier in this report that Community Development outlays are not very predictably associated with any of the county grouping schemes used. Thus it should come as no surprise that there is virtually no relation between Community Development

TABLE 9. NATIONWIDE PER CAPITA OUTLAYS BY PROGRAM GROUP, FISCAL YEAR 1973

Program Group	Programs Funded In Missouri	Programs Funded In U.S.
AGRICULTURE AND NATURAL RESOURCES		
Agricultural programs	$ 23.1	$ 23.5
Conservation programs	0.2	0.3
Administrative services	3.2	3.3
Agricultural loans (budgeted)	8.2	8.2
Agricultural loans (guaranteed)	6.8	6.9
Natural resources	8.6	11.2
Subtotal (budgeted outlays)	43.2	46.4
Budgeted USDA outlays	80.0	80.0
Guaranteed USDA loans	20.4	20.4
COMMUNITY DEVELOPMENT		
Development grants	6.3	6.5
Development loans (budgeted)	11.3	11.7
Development loans (guaranteed)	5.2	5.2
Housing loans (budgeted)	0.4	0.5
Housing loans (guaranteed)	90.6	90.8
Health service construction	1.5	1.5
Transportation programs	33.0	33.9
Urban renewal	12.0	12.0
Subtotal (budgeted outlays)	64.6	66.2
Subtotal (guaranteed loans)	95.8	96.0
HUMAN RESOURCE DEVELOPMENT		
Elementary & secondary education	18.6	18.8
Handicapped education	0.5	0.6
Higher education	3.6	3.6
Educational loans (budgeted)	2.9	2.9
Educational loans (guaranteed)	0.8	0.8
Research grants & fellowships	13.8	14.0
Vocational rehabilitation	3.7	3.7
Health services	19.3	19.6
Social Security and retirement	343.1	343.2
Welfare programs	66.2	66.2
Employment opportunities	14.9	15.0
Food distribution (budgeted)	16.0	16.0
Food distribution (donations)	3.1	3.1
Subtotal (budgeted outlays)	502.7	503.7
Budgeted HEW outlays	413.5	413.5
OTHER		
Defense payrolls	125.1	125.1
Defense contracts	176.7	176.7
AEC, NASA	28.6	28.6
Census and Postal Service	46.1	46.1
Interest on the public debt	81.6	81.6
Revenue sharing	32.6	32.6
Tennessee Valley Authority	5.4	5.4
Environmental Protection Agency	9.7	9.7
Subtotal (budgeted outlays)	505.8	505.8

TABLE 9. CONTINUED

Program Group	Programs Funded In Missouri	Programs Funded In U.S.
TOTALS		
Total (budgeted outlays)	$1,282.5	$1,282.5
Total (guaranteed loans)	117.3	117.3

outlays within Missouri and the U.S. when these outlays are examined by urban-rural orientation.

As in Missouri, nationwide outlays in the Human Resource Development category were relatively uniformly distributed across orientation groups.

A third comparison involves relative outlays by program category and metropolitan status.

Both Missouri and the U.S. had smaller per capita Agriculture and Natural Resources outlays in SMSA counties but the difference between non-SMSA and SMSA counties was greater nationally.

Nationwide, SMSA counties received about 40 percent more Community Development outlays per capita. By contrast, Missouri's SMSA counties received about 24 percent less on a per capita basis than the non-SMSA counties did.

Nationally, Human Resource Development outlays per capita were even more uniformly distributed between SMSA and non-SMSA counties than in Missouri.

Fourth, it is possible to compare relative outlays by program category and rate of population growth. This comparison is subject to one limitation in addition to those noted above. This additional limitation is a difference in the definition of county groups. The two groups which lost population in the 1960's were defined in the same way but the national study used the national growth rate (13.3 percent) as the dividing line between the slow and rapid growing county groups. Leuthold and Karr used the Illinois growth rate of 10.2 percent to divide these county groups. In the current study 10.0 percent (there were no counties with 10.1 or 10.2 percent growth rates in Missouri) was used to distinguish between these two county groups.

This fourth comparison yields conclusions consistent with the first three. The rankings (across county groups) of Agriculture and Natural Resources outlays followed a similar pattern in Missouri and the U.S. but the differences between county groups were greater nationally. In Missouri, outlays for the two county groups losing population were about the same. Nationally, rapidly losing counties had per capita outlays almost four times as large as moderate loss counties.

Community Development outlays had no clear pattern either in Missouri or nationally. The rank ordering (by county groups) of the outlays was exactly reversed in these two geographic entities. By contrast, the patterns of relative Human Resource Development outlays were almost identical.

Additional Information

It is hoped that the data included in this report will be more than adequate for most readers. If not, it may be possible

to provide additional information. Two specific types of additional information are described below.

As an aid in preparing this report, it was necessary to prepare a list of the individual program titles associated with various program groups. A copy of this list may be obtained by writing to the author at 207 Mumford Hall, Department of Agricultural Economics, University of Missouri-Columbia, Columbia, Missouri 65211.

Prior to preparing this and other reports based on the fiscal 1973 outlays data, it was necessary to write a computer program which is capable of computing (per capita or total) outlays for almost any conceivable combination of program and county groups. This computer program will soon be used to analyze fiscal 1977 outlays. Anyone interested in either additional information about 1973 outlays or information about 1977 outlays, is invited to contact the author.

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