

and state assistance will, to some extent, reflect these differences. Relatively minor differences in the local cost of particular programs should not dominate decision making, and seemingly artificial differences in incentives from federal and state sources should be removed (e.g., the gradual closing of the gap between transit and highway matching shares). In summary, the only solution to local revenue shortfalls must include (a) program prioritization, (b) greater stress on cost-effective program selection, and (c) the careful development of financial schemes that follow some of the general guidelines that this paper has briefly reviewed.

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Transit Financing Trends in Large U.S. Metropolitan Areas: 1973-1978

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From 1970 to 1978, total government subsidization of transit in the United States increased almost tenfold, from only \$540 million to \$5264 million. This burgeoning aid program has prompted significant changes in the nature of government assistance. There has been a marked shift among government levels in the responsibility for transit financing, and new tax mechanisms have been adopted, particularly at the local and regional levels, to raise additional transit funds. This paper documents these transit financing trends in detail and explores briefly the potentially significant impact of these trends on the overall equity, efficiency, and political feasibility of transit financing. On the basis of operating subsidy data collected from transit agencies in each of the 26 largest U.S. metropolitan areas and capital subsidy data for all urban

areas provided by the U.S. Department of Transportation, two main conclusions were reached. First, the responsibility for transit financing has shifted to higher levels of government so that, in 1978, the federal government contributed 52 percent of the total subsidy. Second, there has been a very strong trend toward the use of uniform-rate regional taxes specifically earmarked for transit subsidization.

Government financial assistance to mass transit in the United States has increased dramatically since 1970, when capital and operating subsidies combined

amounted to only \$540 million. By 1978 the total subsidy had grown to \$5264 million, an almost tenfold increase in only eight years (see Table 1). This burgeoning of transit subsidization has prompted significant changes in the nature of government assistance. There has been a marked shift among government levels in the responsibility for transit financing, and new tax mechanisms have been adopted (particularly at the local and regional levels) to raise additional transit funds.

These shifts in financing arrangements have had important consequences for both the efficiency and the equity of the transit financing process. The incidence of tax burdens, for example, varies substantially by type of tax and by the level of government at which the tax is levied. Thus, shifts in these two variables may have considerably altered the distribution of the overall burden of transit taxation among socioeconomic groups and geographic regions. Moreover, shifts in funding responsibilities and tax mechanisms may have affected incentives for cost control by local transit agencies and thereby the efficiency of transit operations and overall subsidy requirements. Another efficiency impact may arise from the effect of funding arrangements on the feasibility of comprehensive, long-range transit planning. The possibility of such planning, for example, is certainly enhanced by the earmarking of dependable and growing revenue sources specifically for transit subsidization. Finally, the nature of transit funding can substantially influence the

political feasibility of raising any given amount of transit subsidy and, as a consequence, may significantly affect the magnitude of the subsidy program as a whole.

These considerations of equity, efficiency, and political acceptability of transit financing arrangements are of primary importance. Before such impacts can be analyzed, however, it is necessary to establish quantitatively the actual patterns of financing and how these have changed over time. Such are the purposes of this paper: first, to document recent trends in the division of government responsibility for transit financing and shifts in the types of funding mechanisms employed and, second, to examine variations in transit financing arrangements among U.S. metropolitan areas and different regions of the country.

Because detailed data could not be obtained from all U.S. transit agencies, this report focuses on the financing of transit operations in the 26 largest metropolitan areas. These account for about 75 percent of all transit riders in the United States and for almost 90 percent of the total nationwide transit subsidy. Transit funding arrangements may be considerably different in smaller metropolitan areas, but clearly the national impact of these is overwhelmed by the far greater magnitude of subsidization in the very large urban areas to be examined here.

OPERATING SUBSIDIES

As shown in Table 2, transit operating subsidies in the largest U.S. metropolitan areas increased dramatically from 1973 to 1978. In 1973, the aggregate subsidy in the 26 largest areas was \$829 million, compared with \$2389 in 1978, which represents almost a threefold increase during the period and an average annual rate of growth of 24 percent.

Funding increased at every level of government to help cover the burgeoning transit deficit, but the extent of subsidy growth varied considerably. Federal funding, for example, increased by \$567 million above the 1973 level, and the proportion of the total deficit covered by federal assistance increased from 0 to 24 percent. Regional funding also grew rapidly, although not quite as dramatically. The absolute amount of the increase

Table 1. The growth of transit capital subsidies relative to the growth in transit operating subsidies.

Year	Subsidy (\$000 000s)		Year	Subsidy (\$000 000s)	
	Capital	Operating		Capital	Operating
1965	76	12	1972	765	605
1966	159	44	1973	1611	871
1967	181	79	1974	1607	1533
1968	183	190	1975	1735	2028
1969	223	260	1976	1940	2183
1970	200	341	1977	2290	2238
1971	427	485	1978	2609	2655

Note: Subsidy figures include commuter rail.

Table 2. Sources of transit operating subsidies for 26 large metropolitan areas, aggregate 1973-1978 data.

Type of Funding	1973 ^a		1974		1975		1976		1977		1978	
	Amount (\$000 000s)	%	Amount (\$000 000s)	%	Amount (\$000 000s)	%	Amount (\$000 000s)	%	Amount (\$000 000s)	%	Amount (\$000 000s)	%
Federal	0	0	42.2	3.5	282.3	16.7	422.5	21.5	477.0	22.8	566.8	23.7
State	186.7	22.5	357.2	29.2	435.9	25.7	419.6	21.4	391.1	18.7	432.7	18.1
Regional ^b	224.2	27.0	310.5	25.4	476.3	28.1	565.7	28.8	639.0	30.5	732.5	30.7
Local	283.4	34.2	394.0	32.2	372.0	21.9	397.8	20.2	406.9	19.4	472.3	19.8
Total government aid	694.3	83.7	1103.9	90.3	1563.5	92.4	1805.8	91.9	1914.1	91.4	2204.5	92.3
Bridge and tunnel tolls and cross-subsidies from airport and marine operations	120.0	14.5	99.2	8.1	106.6	6.3	133.2	6.8	160.5	7.7	168.5	7.1
Cross-subsidies from utility operations	10.6	1.3	13.9	1.1	10.9	0.6	11.2	0.6	11.8	0.6	7.1	0.3
Cross-subsidies from freight operations	4.5	0.5	5.7	0.5	11.2	0.7	15.2	0.8	8.8	0.4	9.3	0.4
Total from other sources	135.1	16.3	118.8	9.7	128.6	7.6	159.6	8.1	181.1	8.6	184.9	7.7
Total transit subsidy	829.4		1222.7		1694.9		1965.3		2095.1		2389.4	

^aThe data for 1973 exclude San Francisco, Washington, and Denver because it was not possible to obtain consistent 1973 financing statistics for these areas.

^bFunding was classified as regional if an explicit (or nearly so) metropolitanwide financing mechanism existed. Uniform county taxes were also classified as regional, provided the county was large enough to include most of the metropolitan area.

Table 3. Sources of transit operating subsidies for 26 large metropolitan areas, 1978 data aggregated by region.

Type of Funding	Region									
	Northeast ^a		Great Lakes ^b		Interior River ^c		South ^d		West ^e	
	Amount (\$000 000s)	Percent	Amount (\$000 000s)	Percent	Amount (\$000 000s)	Percent	Amount (\$000 000s)	Percent	Amount (\$000 000s)	Percent
Federal	294.3	22.4	102.8	26.7	47.7	33.6	27.8	25.6	94.2	21.4
State	355.7	27.1	37.8	9.8	37.1	26.1	1.6	1.5	1.0	0.1
Regional ^f	148.3	11.3	238.0	61.9	43.3	30.5	44.2	40.7	259.0	58.8
Local	356.7	27.1	5.7	1.5	13.8	9.7	27.9	25.7	68.2	15.5
Total government aid	1155.0	87.9	384.2	100	141.9	100	101.5	93.4	421.9	95.8
Bridge and tunnel tolls and cross-subsidies from airport and marine operations	159.4	12.1	0		0		0		9.1	2.1
Cross-subsidies from utility operations	0		0		0		7.1	6.5	0	
Freight cross-subsidies	0		0		0		0		9.3	2.1
Total other sources	159.4	12.1	0		0		7.1	6.5	18.4	4.2
Total	1314.4		384.2		141.9		108.7		440.3	

^aIncludes Boston, New York, Philadelphia, Baltimore, and Washington.

^bIncludes Buffalo, Cleveland, Detroit, Chicago, and Milwaukee.

^cIncludes Kansas City, St. Louis, Pittsburgh, Cincinnati, and Minneapolis-St. Paul.

^dIncludes Miami, Houston, Dallas, Atlanta, and New Orleans.

^eIncludes Los Angeles, San Diego, San Francisco, Denver, Seattle, and Portland.

^fFunding was classified as regional if an explicit (or nearly so) metropolitanwide financing mechanism existed.

Table 4. State and federal assistance as a percentage of total operating subsidy in each urban area, 1978 data.

City	Assistance (%)		
	Federal	State	Total
Baltimore	50.0	50.0	100.0
Milwaukee	56.6 ^a	28.9	85.5
Pittsburgh	32.4	51.6	84.0
Philadelphia	37.7	44.0	81.7
Buffalo	58.5 ^a	20.8	79.3
Detroit	48.5	24.0	72.5
Minneapolis	25.2	40.3	65.5
Boston	13.4	49.4	62.8
New Orleans	53.5 ^a	8.3	61.8
Cincinnati	37.8	17.1	54.9
Dallas	45.5	0	45.5
Kansas City	44.3	0	44.3
Los Angeles	42.9	0.2	43.1
New York	21.7	21.3	43.0
Miami	39.5	0	39.5
St. Louis	37.1	0	37.0
San Diego	31.2	0	31.2
Chicago	20.1	8.4	28.5
Washington	17.4	6.0	23.4
Cleveland	18.6	1.0	19.6
Portland, OR	19.5	0	19.5
San Francisco	14.5	0	14.5
Atlanta	13.8	0	13.8
Seattle	7.9	0.6	8.5
Denver	8.3	0	8.3
Houston	0	0	0

^aIndicated percentages exceed the statutory maximum of 50 percent federal operating assistance due to the peculiar timing of Section 5 grants in these areas and the accounting procedures used by individual transit agencies.

in regional funding was only slightly less than the federal increase (\$508 million), and this raised the regionally funded proportion of the total deficit from 27 to 31 percent. In contrast, the state and local portions of the total operating subsidy in these 26 areas actually decreased. The local contribution, for example, fell from 34 percent of the total in 1973 to only 20 percent in 1978 although the local subsidy grew by \$189 million. The state proportion of funding fell from 23 to 18 percent despite a more than doubling in the amount

of that subsidy, from \$187 million in 1973 to \$433 million in 1978.

By 1978, regional funding had become the single most important source of operating subsidies (31 percent of the total), federal funding the next most important (24 percent), followed by local funding (20 percent) and state funding (18 percent). This situation represents a striking contrast to the 1973 financing arrangement, where federal assistance was nonexistent and local aid was the most important. Thus, as the overall burden of operating subsidization has grown in the United States, the responsibility for financing transit has shifted to higher levels of government.

Table 2 also documents the decline in nongovernmental funding sources (such as the proceeds from bridge and tunnel tolls), which accounted for most of these funds. Overall, nongovernmental funding increased by \$50 million, but its proportion of total operating subsidy funding fell from 16 to only 8 percent.

Disaggregation of the nationwide totals of Table 2 reveals substantial variation in funding arrangements by region of the country. Regional funding, for example, is much more important in the West and the Great Lakes regions, where it accounts for about 60 percent of the total operating subsidy, than elsewhere (see Table 3). Regional funding is least significant in the Northeast, where it accounts for only 11 percent of the total. The relative importance of state funding also varies substantially. State aid was extensive in the Great Lakes region and the Northeast but insignificant in the South and the West. Local operating assistance was most substantial in the Northeast and the South and least substantial in the Great Lakes area.

The differential regional reliance on nongovernmental funding is also noteworthy. Roughly 86 percent of these funds were found in the Northeast in the form of proceeds from bridge and tunnel tolls. Other regions either did not rely on such funding sources or only covered a very small percentage of their operating deficits in this manner.

Of course, there is also significant variation in transit financing arrangements among individual

cities. Table 4 documents the striking differences among urban areas in the percentage of their transit operating subsidies that are derived from federal and state sources. At one extreme is Baltimore, which receives all of its funding from either the state of Maryland or the federal government. At the other extreme is Houston, which in 1978 received no federal or state operating funds at all. Some cities that receive very generous state funding (such as Boston) suffer from proportions of federal funding that are far below average. Conversely, some cities that receive very generous federal funding (such as New Orleans, Dallas, and Kansas City) receive little or no state assistance. On the basis of Table 4, one may conclude that urban areas differ greatly in the extent to which they have been able to shift the burden of transit subsidization from the local and regional levels to the state and federal levels. Such differences may have had important consequences for the equity and efficiency of the transit financing arrangements in each area. Whatever the precise impacts may have been, the tremendous variation in funding responsibility among government levels suggests correspondingly significant variation among cities in the ultimate equity and efficiency impacts.

This intercity variation that arises from differential governmental division of funding responsibility is compounded by variations among cities in the specific types of tax mechanisms employed, the geographic scope of their coverage, and particular provisions with respect to the definition of the tax base. Regionwide, uniform sales taxes, for example, are the primary means of financing in Chicago, Cleveland, St. Louis, Los Angeles, Atlanta, Denver, and San Diego, where regional transportation agencies are responsible for coordinating transit services in their areas and have been delegated the authority to levy a percentage of the general sales tax specifically for transit funding. Regional transit agencies have also been important in coordinating the operations and financing of transit services in Boston, Philadelphia, Minneapolis, Milwaukee, Buffalo, and Miami, although uniform regional taxes have not been specifically earmarked for the subsidization of transit in these metropolitan areas. Except in Minneapolis, which has a general-purpose regional property tax, the transit authority assigns to each locality a percentage of the total regional transit deficit.

Other differences in specific subsidy mechanisms are also considerable. New Orleans, for example, is unique among large U.S. cities in that a large proportion of its transit deficit is financed from the profits of the utility company that runs the city's transit service. In the New York area, more than \$130 million/year is transferred from the surplus toll revenues of bridge and tunnel authorities to offset transit deficits. (New York accounts for more than 95 percent of nationwide toll revenues used for this purpose.) Much of the Massachusetts subsidy to Boston-area transit is derived from the cigarette tax, and gasoline and motor vehicle excise taxes are a significant source of regional subsidy funds in Chicago, Seattle, and Detroit and the sole source of state subsidy to transit in the Miami area. Cincinnati relies heavily on a citywide employee payroll tax (or earnings tax); Portland also uses a payroll tax, but it is regionwide and is paid by the employer rather than the employee. Reduced fares for senior citizens in Philadelphia are subsidized by the proceeds of the state lottery. The Metropolitan Transportation Authority (MTA) of New York finances part of its commuter rail operations from the

proceeds of a mortgage-recording tax levied in counties served by its lines.

A perusal of Table 5 will reveal more examples of differences among urban areas in the types of tax mechanisms employed. Clearly, however, even on the basis of the few examples cited above, there is considerable variation in the types of mechanisms used to raise funds specifically for transit subsidies. Moreover, even the subsidy funds derived from general revenues at either the state or local level are indirectly supported by tax mixes that differ greatly from one state to another and among cities as well (1, Table 47; 2, Table 12).

The aggregate distribution of operating subsidy funds by level of government and by tax type for the 26 largest U.S. metropolitan areas is displayed in Table 6 (1, Table 47). The figures indicate that 34 percent of the total government operating subsidy is derived from sales taxes, 27 percent from individual income or payroll taxes, 22 percent from property taxes, 6 percent from corporation profits taxes, and 6 percent from excise taxes on gasoline and motor vehicles. Roughly 6 percent of the total government operating subsidy funds could not be identified by specific tax type.

CAPITAL SUBSIDIES

Detailed statistics were not collected on the financing of capital subsidies in each of the 26 largest metropolitan areas. There are two reasons for this:

1. It is difficult to ensure consistent amortization of capital subsidy funding statistics across different urban areas, and variations may significantly alter the patterns of variation in financing indicated by the reported data; and
2. The state and local portion of capital funding is so small relative to the federal contribution that differences in state and local financing arrangements are far less consequential in aggregate than is the case for operating subsidies.

The steadily increasing federal contribution to operating subsidization has been preceded by a corresponding (albeit discontinuous) increase in the federal share of capital funding. Initiated in 1964, federal capital assistance grew from only \$51 million in that year to \$133 million in 1970 and \$956 million in 1974, the first year in which federal operating subsidies were granted. Since 1974, federal capital funding has more than doubled to reach \$2100 million in 1978. In addition to the increased total amount of federal contribution, various legislation has set the federal matching percentage at successively higher statutory levels. From 1964 until 1974, the federal share of capital projects was discretionary but could not exceed two-thirds. Since then, most project grants have entailed 80 percent federal funding, so that state, local, and regional governments pay only one-fifth of transit capital costs, in contrast to the three-quarters share of operating subsidy costs they bear.

CONCLUSION

The rapid growth in the nation's transit subsidy program has had profound impacts on the nature and composition of transit financing. Two trends have been most prominent:

1. A marked shift toward the use of regional taxes dedicated to transit subsidization and

Table 5. Transit-operating-subsidy funding sources for 26 large U.S. metropolitan areas.

Area	Funding Source	Amount (\$000s)					
		1973	1974	1975	1976	1977	1978
New York	Federal-UMTA	0	25 000	185 563	174 129	161 887	184 695
	New York State	0	123 500	149 200	114 700	91 370	91 608
	New Jersey	22 249	38 834	55 220	55 695	65 147	76 430
	Connecticut	2 971	7 612	9 075	9 559	9 303	12 859
	New York City ^a	173 000	247 470	234 355	241 407	245 582	275 997
	MTA assessments to local governments						
	Mortgage-recording tax	13 311	11 047	7 208	8 257	10 042	12 519
	Station assessments	19 690	17 767	21 848	36 133	27 998	23 303
	Local share of commuter rail operating assistance program	0	20 000	15 000	20 000	20 300	20 000
	Bridge and tunnel tolls-Triborough and Port Authority ^b	120 036	95 254	101 728	129 787	146 236	152 251
Total	352 257	586 484	779 197	789 667	777 865	849 932	
Boston	Federal-UMTA	0	6 241	11 173	16 869	22 200	26 628
	Massachusetts ^c	54 925	58 920	73 474	77 938	84 765	98 243
	Local cities and towns-property tax	52 342	64 220	64 703	68 920	78 975	74 049
Total	107 267	129 381	149 350	163 727	185 940	198 920	
Philadelphia	Federal-UMTA	0	2 293	15 959	33 403	38 884	52 043
	Pennsylvania	46 568	56 043	56 317	61 282	61 315	60 761
	Local counties including Philadelphia	11 668	16 008	19 305	22 775	21 902	18 385
	Bridge tolls-Port Authority ^d	0	3	701	566	7 097	6 901
Total	58 236	74 347	92 282	118 026	129 198	138 090	
Baltimore	Federal-UMTA	0	0	4 254	7 338	10 349	12 539
	Maryland-primarily gasoline tax, motor vehicle fees, and excise taxes	2 789	6 723	9 027	9 310	10 349	12 539
Total	2 789	6 723	13 281	16 648	20 698	25 078	
Washington, DC	Federal-UMTA	0	0	6 893	11 489	15 612	18 404
	District of Columbia and counties in Virginia and Maryland		17 312	35 089	45 846	57 614	80 708
	Virginia		400	0	0	0	0
	Maryland		0	3 000	4 000	5 437	6 379
Total		17 712	44 982	61 335	78 663	105 491	
Buffalo	Federal-UMTA	0	0	370	2 532	3 348	4 989
	New York State	0	1 180	1 770	1 770	1 770	1 770
	Erie and Niagara Counties	0	1 180	1 770	1 770	1 770	1 770
Total	0	2 360	3 910	6 072	6 888	8 529	
Cleveland	Federal-UMTA	0	600	3 439	6 903	11 647	11 233
	Ohio	0	130	151	615	577	600
	Cuyahoga County-sales tax	0	0	5 857	37 759	44 044	48 531
	Cleveland	0	730	0	0	0	0
Total	0	1 460	9 447	45 277	56 268	60 364	
Detroit	Federal-UMTA	0	6 470	10 715	18 530	25 623	29 999
	Michigan-gasoline tax	5 958	5 504	7 655	6 937	8 996	14 830
	Regional tax on vehicle registrations and title transfers	0	0	0	0	2 057	13 553
	Detroit	9 387	10 056	7 723	8 110	0	2 700
Total	15 345	22 030	26 093	33 577	37 521	61 842	
Chicago	Federal-UMTA	0	0	0	49 358	49 598	49 290
	Illinois						
	Operating assistance-gasoline tax	24 600	27 536	0	0	0	0
	Reduced-fare reimbursement ^e	10 877	19 188	21 023	20 324	20 001	20 556
	Regional transportation sales tax	0	34 228	89 186	89 305	98 838	110 595
	Regional motor vehicle registration fee	0	0	24 049	15 714	15 602	16 162
	Public transportation tax-regional 5 percent tax on motor fuels	0	0	0	0	0	43 536
	Cook County-gasoline tax	5 000	1 000	1 000	1 000	2 000	2 000
	Chicago-gasoline tax	7 300	700	700	1 500	3 000	3 000
	Suburban towns	92	302	227	80		
Rail freight cross-subsidy ^f			3 145	6 057			
Total	47 869	82 954	139 330	183 338	189 039	245 139	
Milwaukee	Federal-UMTA	0	0	1 454	3 624	5 457	7 240
	Wisconsin	0	0	1 255	1 979	2 198	3 703
	Milwaukee County-property tax	0	0	577	1 476	1 832	1 852
Total	0	0	3 286	7 078	9 487	12 795	
Pittsburgh	Federal-UMTA	0	0	7 168	7 335	9 200	13 000
	Pennsylvania	13 290	15 113	22 118	18 012	19 800	20 700
	Allegheny County	4 932	3 635	5 946	5 700	6 400	6 400
Total	18 222	18 748	34 425	31 047	35 400	40 100	
Cincinnati	Federal-UMTA ^g	1 186	1 616	2 750	4 356	4 936	5 611
	Ohio	0	0	0	0	0	3 546
	Hamilton County	60	72	72	72	72	72
	Cincinnati-earnings tax	1 803	5 449	5 790	7 397	8 082	6 632
Total	3 049	7 137	8 612	11 825	13 090	14 861	
St. Louis	Federal-UMTA	0	0	0	7 876	6 828	14 782
	Illinois	627	15	0	0	0	0
	Illinois Downstate Transportation Fund (sales tax)	0	0	3 332	2 832	3 989	4 913
	Regional transportation sales tax	0	11 785	14 723	13 050	19 681	20 102
	St. Louis City and County	1 976	0	0	0	0	0
	Total	2 603	11 801	18 065	23 758	30 498	39 797

Table 5. Continued.

Area	Funding Source	Amount (\$000s)					
		1973	1974	1975	1976	1977	1978
Minneapolis-St. Paul	Federal-UMTA	0	0	8 907	0	8 628	8 628
	Minnesota	0	3 980	3 211	16 309	10 841	13 816
	Regional property tax	6 713	7 641	6 548	9 019	11 202	11 829
	Total	6 713	11 621	18 666	25 328	30 671	34 273
Kansas City	Federal-UMTA	0	0	1 536	2 801	4 991	5 692
	Kansas City-sales tax	3 515	5 727	7 403	8 869	5 893	6 296
	Other local governments	149	592	770	1 245	804	859
	Total	3 664	6 317	9 709	12 915	11 688	12 847
Atlanta	Federal-UMTA	0	0	2 419	3 346	4 098	4 977
	Regional transit district-sales tax ^h	17 572	20 971	23 142	26 014	28 594	30 971
	Total	17 572	20 971	25 561	29 360	32 692	35 948
Miami	Federal-UMTA	0	0	3 932	6 000	8 074	8 641
	Florida-gasoline tax	0	0	0	84	26	0
	Dade County-property tax	3 688	5 425	4 600	7 957	11 046	13 220
	Total	3 688	5 425	8 532	14 142	19 146	21 861
New Orleans	Federal-UMTA	0	0	0	0	3 192	10 265
	Louisiana	0	0	0	0	0	1 592
	Local-New Orleans and Jefferson Parish	0	0	366	653	0	340
	Cross-subsidy from utility operations ⁱ	10 596	13 877	10 858	11 192	11 803	7 106
	Total	10 596	13 877	11 224	11 845	14 995	19 263
Houston	Houston ^j	0	1 044	4 561	8 993	14 066	23 247
Dallas	Federal-UMTA	0	0	1 500	2 191	3 197	3 579
	Dallas	0	1 704	2 728	3 968	3 566	4 294
	Total	0	1 704	4 228	5 159	6 763	7 873
Denver	Regional sales tax	0	5 429	12 329	13 638	32 967	36 629
	Federal	0	0	0	0	0	3 050
	Local governments-property tax	0	0	0	4 578	0	0
	Total	0	5 429	12 329	18 216	32 967	39 679
San Diego	Federal-UMTA	0	0	0	5 076	6 891	5 965
	Regional sales tax-local transportation fund (LTF) ^k	0	0	4 953	7 287	8 032	10 181
	San Diego	4 654	6 507	3 654	1 548	2 122	2 969
	Other cities	0	0	21	21	17	21
	Total	4 654	6 507	8 628	13 932	17 062	19 136
Los Angeles	Federal-UMTA	0	0	16 500	28 506	44 524	49 458
	Los Angeles County	727	6 380	13 639	21 772	4 536	5 200
	Regional sales tax-LTF ^k	32 027	41 172	51 919	59 904	65 619	60 373
	California	0	0	0	0	1 171	235
	Total	32 754	47 552	82 058	110 182	115 850	115 266
San Francisco	Federal-UMTA	0	0	4 629	11 815	22 763	26 904
	Regional transportation sales tax-LTF ^k	0	9 916	11 361	13 823	27 593	37 989
	San Francisco ^l	0	36 133	31 680	38 156	47 280	48 907
	Oakland and suburban counties ^m	0	20 098	17 461	20 807	18 919	15 913
	Bay Area Rapid Transit (BART)	0	0	0	0	0	0
	District property tax	0	0	4 410	5 029	5 170	22 610
	District sales tax ⁿ	0	0	4 000	21 021	28 700	19 548
	Sales-tax revenue bonds ^o	0	0	20 000	5 195	0	0
	Bridge tolls ^p	0	2 962	4 125	2 799	7 142	9 106
	Cross-subsidy from rail freight profits-Southern Pacific	4 503	5 702	8 021	9 187	8 800	9 300
	Total ^q	4 503	75 811	105 687	127 832	166 367	190 277
Portland, OR	Federal-UMTA	0	0	1 660	2 767	5 063	4 833
	Regional employer payroll tax	8 395	7 334	9 009	12 418	16 084	19 985
	Total	8 395	7 334	10 669	15 185	21 147	24 818
Seattle	Federal-UMTA	0	21	111	5 990	0	4 038
	Regional motor vehicle excise tax ^r	3 000	4 512	5 121	12 044	21 809	18 529
	Regional sales tax-King County	12 530	15 077	16 620	18 410	22 133	27 909
	State business tax exemption	188	195	240	254	273	300
	Seattle and other local governments	91	134	113	114	253	367
	Total	15 809	19 939	22 205	36 812	44 468	51 143

Note: The amounts in the table represent the total subsidy for all transit modes, including commuter rail.

^aThe figures for New York City include compensation for transit police service (about \$120 million annually) and support for reduced fares for school children, elderly, and handicapped (about \$80 million annually). They do not incorporate the city's expenses in repaying the transit debt (about \$170 million each year).

^bAbout \$38 million in operating subsidy is provided by the bridge and tunnel tolls of the Port Authority of New York and New Jersey to support the Port Authority Trans-Hudson rail rapid transit lines. About \$115 million/year of the proceeds of the tolls of the Triborough Bridge and Tunnel Authority is transferred directly to the New York City Transit Authority and the MTA to cover operating losses.

^cAbout \$17 million of each year's state contribution is derived from cigarette taxes; the remainder comes from general revenues.

^dThe Port Authority uses its toll revenues to support the operations of the Lindenwold High-Speed rail rapid transit line between Philadelphia and its New Jersey suburbs.

^eThis subsidy covers the cost of reduced fares for the elderly, the handicapped, and school children on the Chicago Transit Authority.

^fThis amount is equal to the difference between the operating loss attributable to provision of commuter rail service and the payments received.

^gThe federal subsidy figures for 1973 and 1974 almost certainly include capital subsidies.

^hThe total proceeds of the regional transit sales tax far exceeded the amounts shown, but a considerable portion is used for capital improvements. The operating portion, that shown, was set equal to the difference between the total operating deficit and the federal operating assistance.

ⁱThe Public Service Company of New Orleans (the gas and electric firm for the region) provides transit service and covers the loss from its profits on utility operations.

^jThese are federal revenue-sharing funds but are classified as a local subsidy because, unlike UMTA Section 5 subsidies, the use of these for support of transit precludes their use for nontransit city expenditures, which in effect thus requires that this amount be raised from other city taxes.

^kThe regional transportation sales tax is collected by California in the particular city's metropolitan region and returned to the region for transportation uses.

^lFor support of the San Francisco Municipal Railway (Muni).

^mFor support of AC Transit and Golden Gate Transit.

ⁿThis is a transactions and use tax originally intended for capital subsidy only but currently used for operations.

^oThe amounts shown were spent exclusively for operations.

^pThe figures only include Golden Gate Bridge toll proceeds used to subsidize bus and ferry transit to Marin and Sonoma Counties.

^qThe 1973 total does not include BART sales or property taxes.

^rNot all of the proceeds of this tax are used for operating purposes.

Table 6. Tax revenue sources for government operating subsidies to transit, aggregate 1978 data for 26 largest U.S. metropolitan areas.

Level of Government	Type of Tax ^a	Amount (\$000 000s)	Percent
Federal ^b	Individual income tax	364.5	64.3
	Corporation profits tax	127.5	22.5
	Sales tax	53.3	9.4
	Other	21.0	3.7
	Total	566.3	
State	Income tax	130.5	30.2
	Sales tax	188.1	43.5
	Gasoline tax and motor vehicle excise tax	27.4	6.3
	Property tax	3.7	0.9
	Other	83.0	19.2
Local and regional	Total	432.7	
	Income tax	109.0	9.0
	Sales tax	507.6	42.1
	Gasoline tax and motor vehicle excise tax	96.8	8.0
	Property tax	475.6	39.5
Total government subsidy ^c	Other	16.2	1.3
	Total	1205.2	
	Income tax	604.0	27.4
	Corporation profits tax	127.5	5.8
	Sales tax	749.0	34.0
	Gasoline tax and motor vehicle excise tax	124.2	5.6
	Property tax	479.3	21.7
	Other	120.2	5.5
	Total	2204.2	

^aWhere taxes were not specifically earmarked for transit subsidization, the operating subsidy in each metropolitan area was distributed according to the composition of local general revenues in each specific area. The same procedure was followed at the state level. The state and local figures do not indicate any allowance for the federal contribution to general fund coffers via revenue-sharing grants. These accounted for about 4 percent of state and local revenues. Ultimately, therefore, federal taxes accounted for an even higher proportion of total operating subsidies than shown in the table, and state and local taxes accounted for a lower percentage than indicated.

^bNo federal taxes are specifically earmarked for transit; therefore, amounts of specific taxes under this category reflect the composition of general revenues only.

^cThis total excludes about \$400 million in operating subsidies to transit in smaller urban areas and also excludes about \$185 million in nongovernment operating subsidies (such as bridge and tunnel tolls) in the larger areas.

2. A dramatic increase in the federal role in transit financing.

Prior to 1965, there was no federal role, and even as late as 1970, the federal contribution was overwhelmed by state, regional, and local contributions. By 1978, however, the federal government actually funded a greater percentage of the total operating and capital subsidy in the United States than all other government levels combined (52 percent). It is somewhat ironic that in the United States, with its strong tradition of decentralized government, the federal role in transit financing is significantly greater than the corresponding role of national governments in most Western European countries, even with their long traditions of very centralized government structures (3).

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Alternatives Analysis in the Financing of Multijurisdictional Public Transportation Services

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The challenge of welding several independent and geographically distinct political jurisdictions into a single transportation service has been beyond the grasp of many U.S. cities. The rewards of such a feat are tempting—a widespread regional network of coordinated transportation service, an end to misaligned bus routes based on town boundaries rather than travel needs, and the economic advantage of spreading overhead costs such as the outlays for trans-

it management and vehicle maintenance. Additional advantages include increased ability to attract federal dollars and a broader base for marketing of transportation services. Private bankrupt transit properties can be rescued and rationalized when several jurisdictions pool their financial resources. These benefits are offset, however, by the inherent problem of the public systems' requirement for public funding, and the subsidy must somehow be apportioned