# Background Paper 81-9

## PUBLIC MASS TRANSIT OPTIONS

# Public Mass Transit Options

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#### PUBLIC MASS TRANSIT OPTIONS

Ι

### INTRODUCTION

Increasing attention to developing and improving public mass transit systems has been the result of several factors. First, as energy becomes more scarce and expensive transportation costs increase. Public transportation offers the opportunity to conserve energy through moving more people per unit of fuel consumed. Second, increased population has led to increased traffic and congestion in metropolitan areas. There are environmental side effects, particularly on air quality from engine emissions. Public transportation systems can also serve to alleviate this growing problem. Finally, federal funding programs and unsatisfactory local service have contributed to the impetus for local action in developing and improving public mass transit systems.

II

### NEVADA STATUTORY PROVISIONS RELATED TO REGIONAL TRANSIT

Several statutory provisions in Nevada Revised Statutes (NRS) relate to the development and operation of public transit systems in Nevada. NRS 277.110 authorizes public agencies, including counties and incorporated cities, to enter into cooperative agreements for the joint exercise of any power, privilege or authority which any of the participating public agencies could exercise alone. Through this authority, cities and counties could organize a regional transit system jointly. The provisions of NRS 268.008 permit cities to acquire, own and operate a public transit system both within and without their corporate boundaries. Counties are authorized in NRS 244.415 to contribute financial support or cooperate in any public benefit program in which their participation is considered essential to the public benefit being made available. Finally, regional transportation commissions may be established to provide bus transportation according to NRS (Publicly owned and operated systems are also exempt from public service commission regulation.)

#### III

### FEDERAL SUPPORT

Federal assistance to transit began in 1965 with the implementation of the Urban Mass Transportation Act (UMTA) of 1964. Both capital subsidies (up to 80 percent of capital costs) and operating subsidies (up to 50 percent of operating deficits) may be provided by the Federal Government. Capital assistance is provided for in Section 3 of UMTA. Section 5 of the Federal-Aid Highway Act of 1973 allocates additional funds for both capital and operating costs.

The impact of the spending cuts proposed by the Reagan administration is not likely to be large in terms of Nevada. The cuts target mass transit subsidies for construction of new subways. 1 Cuts are also expected in subsidies and routes for Amtrak and Conrail, 2 but other federal urban mass transit subsidies, including for bus systems, are expected to be continued.

IV

### SHORT-RANGE TRANSIT PLANS IN NEVADA

## Reno/Washoe County<sup>3</sup>

Initial public transit planning efforts began in March 1977 with the publication of the first Transit Development Program (TDP) by the Regional Street and Highway Commission of Washoe County. The Regional Transit Commission was formed in May 1978 through an Interlocal Cooperative Agreement executed by the cities of Reno and Sparks and Washoe County; officially it became an active special purpose unit of government on June 23, 1978. The commission

Gail Gregg. "'Let Us Act Together,' Reagan Exhorts Congress," Congressional Quarterly 39(8), pp. 334-335, February 21, 1981.

Judy Sarasohn. "Cuts in Subsidies and Routes Expected for Amtrak, Conrail," Congressional Quarterly 39(7), p. 304, February 14, 1981.

Regional Street and Highway Commission of Washoe County, Reno-Sparks Urbanized Area Short Range Transit Plan 1980-1984, Regional Street and Highway Commission of Washoe County, Reno, Nevada, pp. 1-3 and 143-162, 1979.

decided to build a new system from the ground up rather than attempt to acquire the assets of the financially troubled private owner Nevada Transit Company (NTC).

Work began immediately on specific plans to assemble the system through a joint effort between Regional Transit Commission staff, the general manager, UMTA and a management firm's central staff. Within 60 days, the new public transit system known as Citifare was presented to the residents of the Reno metropolitan area. The Nevada Transit Company went out of business, and in September 1978 the public became the operator of transit in Reno.

The most recent short-range transit plan update defined the 5 year Citifare and Elderport service development program for the period between 1980 and 1984. The initial portions of this document were devoted to an analysis of system progress to date.

The capital acquisition program for the years 1980 to 1984 called for purchasing a considerable amount of new equipment and replacing old equipment, including 43 new lift equipped transit coaches to replace nine coaches close to 20 years old. Capital improvement also called for installation of radio communications, fareboxes and revenue processing equipment, a spare engine and a transmission, new maintenance facilities and equipment, office equipment and furniture, 300 bus stop signs annually, and a storage facility with administrative office space.

The combined Regional Transit Commission capital and operating budget for fiscal years 1980 through 1984 totals \$15,510,059 consisting of \$7,700,865 in operating expenses and \$7,809,194 in capital expenditures. The Urban Mass Transportation Act is to provide \$6,579,475 for capital expenses and \$1,488,943 for operating expenses. Local matching funds will have to make up the balance of the projected capital expenses; farebox and advertising revenues are expected to provide the balance of the projected operating expenses.

### Carson City4

The initiation of the Carson City Short-Range Transit Study occurred subsequent to the Carson City supervisors' 1978 request of the state planning coordinator for such a study. Since the department received UMTA planning funds, the study was managed by the department. Completed in November 1979, the study concluded that some of the existing transportation problems could be reduced and generally mobility in Carson City could be improved.

The study recommended a modified route deviation system for The system would require two 25 to 30 Carson City. passenger buses operating 14 hours per day with no Sunday service. A third bus would be operating during peak periods. School children would gradually be phased into the system accompanied by school system subsidies. Required equipment would include three radio equipped buses, three bus stop shelters, 50 signs and miscellaneous printing and Personnel requirements would begin with six supplies. drivers, two shift supervisors, one clerical person, one diesel mechanic, and one manager; staff additions within 5 years would be another mechanic and four more drivers. Basic fare would be 50 cents.

Consideration of several sources of financing was recommended. The three major sources of financing recommended were motor vehicle license tax, transient occupancy tax, and bonding. Other tax sources could be assessed and legislation could create new or shift existing tax revenues to transit. Federal funding is also an option, however, local funding was recommended for capital and operating costs.

## Clark County<sup>5</sup>

The Clark County Transportation Study Policy Committee had its Short-Range Transit Development Plan updated in 1979 by

ANevada department of transportation, Carson City Short Range Transit Study-Executive Summary, Carson City, Nevada, pp. 10-15, November 1979.

<sup>5</sup>ATE Management and Service Company, Inc., Short Range Transit Development Plan, Clark County, Nevada, Executive Summary, Clark County Transportation Study Policy Committee, Las Vegas, Nevada, pp. 2-6, July 1979.

ATE Management and Service Company, Inc. Among the study findings regarding service and management, numerous service deficiencies were noted. In particular, a number of residential areas and community and business facilities where demand exists are excluded from transit service. Expansion of the current system was found to be essential to improve transit service.

The current transit operator, Las Vegas Transit System (LVTS), shares management, garage and office facilities with Gray Line Tours of Southern Nevada. Both LVTS and Gray Line Tours are wholly owned subsidiaries of the First Gray Line West Corporation of Los Angeles. The management staff divides its time between Gray Line Tours and the public transit company while drivers, maintenance and office employees are generally placed in two distinct groups.

Out of the update findings came several recommendations regarding service, capital and equipment improvements, operational improvement, transit ownership and management, and funding. Service recommendations included division of many existing routes into two separate routes and addition of several new routes over the next 5 years. Capital and equipment improvement proposals included the purchase of 58 vehicles over the next 5 years; installation of radio equipment and upgraded and registering fare boxes; development of a relocated downtown loading/transfer terminal; addition of 60 shelters and 65 benches; and upgrading garage tools and maintenance areas.

Six specific operational improvements were also recommended. First, the recordkeeping procedure should be revised to keep personnel and operational records current. Second, onstreet supervision and service quality checks should be increased, and an on-going study of the operator-to-work ratio should be maintained. Third, the bus interiors should be kept in better repair and certain physical improvements in the maintenance/storage area should be completed. Fourth, cash handling and monitoring should improve with the addition of registering fare boxes. Fifth, a "no parking" regulation should be instituted and enforced at all bus stop locations. Finally, time points along routes should be established generally no less than 5 minutes and no greater than 10 minutes apart.

With regard to transit ownership and management, the updated plan recommended that development of a "purchase of service agreement" between the Regional Transportation Commission, representing the local public, and Las Vegas Transit System, the operator. The commission would be responsible for obtaining and managing public funds for operating and capital assistance as well as planning, monitoring and evaluating the transit product on an on-going basis.

A net operating deficit was projected over the next 5 years (through 1984) due to inflation of labor and materials costs and also due to scheduled increase in miles of operation. The implementation of the plan would depend on substantial funding commitments from both federal and local sources. Of the total projected cost of \$24,061,481 over 5 years, UMTA Section 3 funds could provide \$10,753,079 for capital improvement projects, and UMTA Section 5 funds could provide \$5,310,065 for operating expenses. The remaining \$7,998,337 in matching fund requirements and nonfederally funded costs would have to come from the general funds of Las Vegas, North Las Vegas, Clark County, and surrounding communities. State funds were also noted as another potential source of financial support.

Although a light rail system has been given some conconsideration in Clark County, 6 the Short-Range Transit Development Plan made no provision for such a system.

V

## STATE AID FOR TRANSIT7

A number of states have moved to assist local communities to support their transit systems. As of 1975, some 32 state budgets were providing assistance for transit totaling more than \$900 million. Seven states with large cities accounted for more than 90 percent of total state appropriations, but 17 budgets

See, for example, An Architectural Evaluation of Competing PRT Systems for Las Vegas, by James McDaniel, Bendix Transportation Systems, February 1974.

<sup>7</sup>Institute of Public Administration, Financing Transit:
Alternatives for Local Government-Executive Summary, U.S.
Department of Transportation, Urban Mass Transportation
Administration, Washington, D.C., pp. 13-17, July 1979.

provided more than \$1 million for capital or operating assistance, or both. (Details of state financing are shown in Table I, and, for the home states of, respectively, the 25 and 18 largest urban areas, in Tables II and III in the following section).

The form of state assistance varies widely among the states, being shaped by state traditions and political configurations, and to some extent by economic circumstances. Three main sourcesof assistance are employed by three corresponding groups of states.

### Types of Programs

The first group, which includes most major urban states of the Northeast, provides substantial support from state general funds. The second type finances transit assistance by special taxes, either highway user or other special levies. The third type puts responsibility on localities by giving them power to impose special taxes earmarked for transit. Two states in the third group, Ohio and Washington, give their localities a choice of taxes. One state, Michigan, imposes a special tax for transit and gives its major metropolitan areas the power to impose other taxes. Maryland makes transit grants from a consolidated transportation trust fund, which receives both highway user taxes and a portion of the state corporate income tax.

### Distribution of Funds

States also vary as to formulas used for distributing grants to local transit systems. The most common procedure is to share with local transit districts the residual costs of programs receiving federal assistance, with the state providing 50 percent or more of the local share. Some states assist only projects and communities eligible for federal assistance; others apply their matching formulas to all communities, subject to overall budget constraints. Where given, assistance to large metropolitan areas is usually negotiated rather than being determined by formula.

Three states--Connecticut, Rhode Island, and Maryland--assist transit by owning and operating systems. New Jersey has gone in the opposite direction; it grants subsidies for commuter rail service through contracts with carriers (which were private lines

TABLE I
TRANSIT ALLOCATIONS IN STATE BUDGETS

	Expenditure Category (Millions of Dollars)				
State	Capital	Operating	Planning	Total	
Maryland	129.3	50.3	1.9	181.5	
Illinois	40.0	113.0	.7	153.7	
New York	100.0	45.9	.4	146.4	
New Jersey	32.0	72.0	.8	104.8	
California	а	a	a	95.0ª	
Pennsylvania	15.0	74.0 <sup>b</sup>	1.0	90.0	
Massachusetts	17.0	48.0		65.0	
Michigan	13.0	11.0	.5	24.5	
Virginia	3.6		.2	3.8	
Connecticut	.8	15.1	.2	16.1	
Florida	7.0		.7	7.7	
Washington	6.0			6.0	
Rhode Island		2.4	f	2.4	
Wisconsin		1.0	.4	1.4°	
Tennessee	1.0		.6	1.6	
Delaware	.4	.8	.1	1.2	
Nebraska		1.0	f	1.0	
15 others <sup>d</sup>	1.6	.6	.8	3.0	
Total	366.7°	435.1°	8.3°	905.1	

a. Total figure is for 1973-74; breakdown not available. Of the total, over \$90 million represents state collection of a locally imposed sales tax.

Source: A Survey of State Involvement in Mass Transportation, Division of Mass Transportation, North Carolina Department of Transportation, 1975.

b. Excludes reimbursement for senior citizen fare reduction, from state lottery proceeds.

c. Budget figures include federal grants; state funds are estimated at 20% of total.

d. Ten of these states made grants only for planning.

e. California omitted.

f. Less than \$50,000.

TABLE II

STATE-LOCAL FUNDING SOURCES FOR TRANSIT OPERATING DEFICITS
IN 25 LARGEST U.S. URBAN AREAS, 1976

Amount of State-Local	Percentage of State-Local Funding			ng
Funding (Millions of Dollars	State Govern- ment	Regional and Local Taxes	Motor Vehicle Tolls	Others
California	· · · · · · · · · · · · · · · · · · ·		***************************************	- · · · · · · · · · · · · · · · · · · ·
Los Angeles		100		
San Diego9	_	100		4.0
San Francisco115	_	96	_	4*
Colorado Denver		100		
Florida		100		
Miami 8	_	100	_	
Georgia				
Atlanta	b	100	-	
Illinois				
Chicago	15	81	4112566	4*
Louisiana				0.4c
New Orleans		6		94°
Baltimore9	100	******		
Massachusetts	100			
Boston	53	47	_	
Michigan				
Detroit	47	53	_	
Minnesota				
Twin Cities	64	36	_	
Missouri		100		
Kansas City		100 100		
New York	<del></del>	100		
Buffalo 4	50	50		
New York City	29	50	21	
Ohio				
Cincinnati	_	100	<del></del>	
Cleveland	2	98	<del></del>	
Oregon Portland12		100		
Pennsylvania		100		
Philadelphia 82	68 <sup>d</sup>	32 <sup>d</sup>		
Pittsburgh	76	24		
Гехаs				
Dallas		100	_	
Houston9	-	100	<del></del>	
Washington Seattle31	39	60		
Visconsin	<i>37</i>	w	<del></del>	
Milwaukee	57	43	*****	

NOTES: a. Cross-subsidy to rail commuter service from rail freight.

SOURCE: Pucher, John, Transit Operating Subsidies in the 26 Largest U.S. Metropolitan Areas. (Mimeograph, January 1978). Metropolitan Transportation Commission, Berkeley, California.

b. Less than 1%.

c. Cross-subsidy from electric utility.

d. Data are for 1975.

### TABLE III

### TAXES EARMARKED OR MANDATED FOR TRANSIT— PERCENTAGE OF STATE-LOCAL TRANSIT CONTRIBUTION IN 18 LARGEST URBAN AREAS

	State Tax		Local Tax		General Fund & Other	
	Highway		Highway			
	User	Gener <b>al</b>	User	General	State	Local
California						
Los Angeles				S- 73		27
San Diego				S- 83		17
San Francisco				S- 35)		
				P- 23)		
Colorado						
Denver				S- 75)		
		•		P- 25)		
Florida						
Miami			MF-99			1
Georgia						
Atlanta				S-100		
Illinois						
Chicago	F- 16		R- 12)	S- 70		
· ·			MF- 2)			
Louisiana			·			
New Orleans				U- 94		6
Maryland						
Baltimore	F-100					
Massachusetts						
Boston		C-53		P- 47		
Michigan						
Detroit	MF-46					54
Minnesota						
Twin Cities				P- 36	64	
Missouri						
Kansas City				S- 87		13
St. Louis				S-100		
Ohio		~-				
Cincinnati				E- 99		1
Cleveland				S- 98	2	_
Washington				_		
Seattle	VE-39			S- 60		
Wisconsin	. 1. 37			5 00		
Milwaukee				P- 43	57	
MIIIWaukee	<del>,</del>	<del></del>		1 - 47	· · · · · · · · · · · · · · · · · · ·	

LEGEND:

C—General Fund (formerly cigarette tax)
E—Earnings Tax
F—Highway or Consolidated Transportation Fund

MF-Motor Fuel Tax

VE-Motor Vehicle Excise (personal property tax)

P-Property Tax

S-Sales Tax

U-Utilities Charge

R-Vehicle Registration Tax

SOURCE: A Survey of State Involvement in Mass Transportation, Division of Mass Transportation, North Carolina Department of Transportation, 1975.

when the subsidy program was initiated but have been taken over by Conrail, a federal corporation), and subsidies to private bus lines.

In addition to capital and operating assistance, states, through their transportation departments, provide assistance for planning, research and development, and technical assistance for tasks such as preparing federal grant applications. A number of states also provide assistance for special transportation services for the elderly and handicapped.

#### Tax Revenue Sources

A number of specific taxes might be levied to generate revenues. Benefit-related taxes and charges broadly include taxing increases in real estate values, charges on motor vehicle users, and charges related to employment (employer payroll tax). Value increases might be on land, new construction, or already-existing improvements. Value increase levies can be made through general real estate taxes, conventional special benefit assessments, tax increment financing (TIF), or a true value increment tax (VIT). Revenues from motor vehicle users can be collected as taxes on motor fuels and motor vehicles; parking charges; and bridge, tunnel and highway tolls.

A second broad category of revenue sources is general taxes and charges as well as borrowing. Specific levies can be on property, retail sales, personal income and payroll, and use of transportation. Borrowing options include general obligation bonds, revenue bonds, and intermediate obligations backed by a limited tax or other nonfare source.

### Financing Local Transit System Deficits

Tables II and III show state-local transit system operating deficits. According to Table II, the proportion of state-local contributions supplied by state governments runs the gamut from zero or near zero (for 14 of the 25 states) to 100 percent for one area, Baltimore, where the state government operates the transit system.

In 18 of the 25 urban areas, earmarked or mandated taxes made up all or a major portion of transit deficits. The sales tax is the predominant earmarked revenue source. Earmarked local sales taxes were used in 10 of the 25 cities, where they accounted for

65 percent of state-local contributions to transit deficits (in 1976). They made up more than 60 percent of the total state-local contributions of Los Angeles, San Diego, Denver, Atlanta, Chicago, Kansas City, St. Louis, and Seattle. The property tax provided substantial transit assistance in five areas: Boston, the Twin Cities, Milwaukee, San Francisco, and Denver (which has since suspended the transit property tax). A number of cities made substantial contributions from general funds, which in most cases are fueled mainly by property taxes. These include, in addition to the areas listed in the last column of Table II, New York, Buffalo, Dallas, and Houston. (Houston adopted a l percent transit tax in 1978.)

VI

#### SUGGESTED READING

(These and other publications pertaining to public mass transit options are available in the research division library.)

Clark County Transportation Study Policy Committee. Short Range Transit Development Plan-Clark County, Nevada, Executive Summary, prepared by ATE Management and Service Company, Inc., Cincinnati, Ohio, July 1979.

Gibson, Steve. "Transportation 1990: Toll roads? Transit incentives? Electrified freeways? Trucks in diamond lanes?" California Journal, November 1980, pp. 417-420.

Indiana Legislative Council. Mass Transportation Study Commission Report, Indiana Legislative Council, Indianapolis, 1975.

Improving Transportation in Rural America, The White House, Washington, D.C., June 1979.

Institute of Public Administration. <u>Financing Transit:</u> Alternatives for Local Government, U.S. Department of Transportation, Urban Mass Transportation Administration, Washington, D.C., July 1979.

Nevada Department of Highways. <u>Transportation Systems</u>
Project Selection and Funding. State of Nevada Department of Highways Planning, Survey, and Program and Project Management Divisions, May 1978.

Nevada Department of Transportation. <u>Carson City Short</u> Range Transit Study, Carson City, Nevada, November 1979.

Nevada Department of Transportation. <u>Statewide</u>
<u>Transportation Planning Program Work Plan</u>, State of Nevada
Department of Transportation Planning Division, Carson City,
Nevada, May 1980.

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1980-1984, Regional Street and Highway Commission of Washoe
County, Reno, Nevada, 1979.

Regional Street and Highway Commission of Washoe County. 1978 Transit Development Program, Regional Street and Highway Commission of Washoe County, Reno, Nevada, 1978.

Roberts, James R. <u>Financing of Mass Transportation</u>
Operations, Research Report No. 135, Legislative Research
Commission, Frankfort, Kentucky, September 1977.

State of New Jersey. <u>Bus Transportation: State-Local Roles and Responsibilities</u>, State of New Jersey County and Municipal Government Study Commission, Trenton, New Jersey, May 1977.

Washoe County Metropolitan Planning Organization. <u>Washoe County Overall Work Program</u>, for Washoe County Area Transportation Study, Reno, Nevada, 1979.