Financing People Movers: The Case of Atlantic City

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A range of financing possibilities are available for a proposed people mover in Atlantic City. Unique circumstances exist there that influence the appropriateness of each technique. The financing alternatives include passenger fares, a parking tax, bus management fees, tolls on access roadways, a luxury tax, an employer payroll tax, advertising revenues, value capture, joint development, and turnkey development. Although some of these revenue sources could contribute to any financing package, the analysis shows that fare revenues would cover most capital and operating costs. This ability is due primarily to the high projected ridership that would be virtually guaranteed by a mandatory intercept of all buses and casino employee vehicles at the city periphery and a transfer of passengers to the people mover system. Fare financing would be the most practical and politically feasible financing option and would force casinos and their patrons to pay the costs of alleviating the congestion, pollution, and noise problems they have caused in Atlantic City.

A range of financing possibilities are available for a proposed people mover in Atlantic City. The analysis stems from a Rutgers University study commissioned by the New Jersey Department of Transportation in 1988 to examine the feasibility of an Automated Guideway Transit (AGT) system in Atlantic City (*1*). Following the New Jersey state referendum in 1976 approving legalized gambling in Atlantic City and the subsequent growth of the casino industry, the city experienced rapid change. By 1988, twelve casino hotels were in operation, and two of these had recently completed expansions; another is scheduled to open in 1990. Although the resulting economic growth has created new jobs and expanded Atlantic City's economic base, it has also overburdened the city's infrastructure and exacerbated environmental and social problems.

These adverse impacts have been especially severe for the city's transportation system. With 32 million visitors a year, Atlantic City attracts more tourists than any other city in the country. The ever-increasing number of automobiles and buses on city streets has exacerbated traffic congestion, roadway deterioration, and air pollution. Eighty percent of all vehicular traffic entering Atlantic City is carried by three access routes that provide six lanes inbound and six lanes outbound. Once in Atlantic City—an island city only 5 blocks wide and 48 blocks long—vehicles must traverse narrow, already congested streets to reach their casino destinations. By the late 1980s, traffic volumes had surpassed all official projections. Average traffic in the month of July soars to almost 160,000 vehicles per day. More than 1,200 buses enter Atlantic City every day, making four trips each—the first trip, to drop off passengers at the casino destination; the second trip, to a remote parking lot; the third, to go back to the casino to pick up passengers; and the fourth, to carry the passengers out of the city. In total, therefore, 4,800 casino bus trips are generated in the city every day. The opening of new casinos, the pending development of a new convention center, and the possible expansion of a regional airport all suggest that traffic congestion will increase significantly in the years ahead.

As the number of visitors and volume of traffic increased, Atlantic City commissioned transportation studies and master plans to develop ways of resolving its transportation problems. These studies recommended widening key thoroughfares, eliminating on-street parking, making additional streets one-way, and providing a computerized system for synchronizing the city traffic lights. Because of the large number of vehicles entering the city, longer-term solutions to the city's growing transportation problems were also considered. Construction of a people mover, first proposed in 1978, has often been recommended by the planning and engineering firms hired to study the problem. Although proposals concerning routes, design, and system size have varied, all have seen a people mover as integral to meeting the transportation needs of the city (*2–4*).

The Rutgers University study developed demand and cost estimates for three different route configurations. The first route, the central core configuration, consisted of a simple loop running between an intercept facility, down Missouri or Arkansas Avenue, to the three or four Boardwalk casinos clustered around Convention Hall and back to an intercept facility. The second route, the Boardwalk configuration, extended the central core configuration in a loop down the Boardwalk or Pacific Avenue to serve all of the Boardwalk casinos. The third route, the Marina-Boardwalk configuration, extended the Boardwalk configuration with a loop along Maryland Avenue to the Marina casinos. All three routes assumed a mandatory intercept of casino buses and of casino employees at an intercept facility located at the end of the Atlantic City Expressway just off the island. The financial needs of an Atlantic City people mover would obviously depend on which configuration is actually built.

Funding options available for mass transit and their application to Atlantic City are examined, taking into account the special circumstances in the city that influence the appropriateness of each technique. The advantages and disadvantages of each of the main alternatives are examined. In addition, sample calculations are made of the revenue potential of the leading alternatives. Two basic aspects of transit finance are considered: initial capital funding sources needed to under-

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write the costs of system development (guideway and station construction, vehicle procurement), and subsequent funding sources necessary to meet annual debt service and operating expenses. The final section highlights those financing alternatives that seem most appropriate, taking all of the preceding analysis into account.

GENERAL OVERVIEW OF TRANSIT FINANCE IN THE UNITED STATES

Most conventional transit systems in the United States do not pay their own way. Revenues from passenger fares are so low that they do not contribute at all to the financing of capital costs, and they cover, on average, less than half of operating costs. The remainder of operating revenue—and all of capital investment funds—are derived from government subsidies of various sorts, which amount to over $10 billion per year (*5*). Most of the capital subsidy to transit comes from the federal government, although in recent years these grants have been steadily cut back, and the prospect is for less generous assistance in the future. By far the largest portion of operating subsidies comes from state and local governments, with the federal government contributing less than a sixth of the total, and committed to reducing this percentage even further.

Conventional Financing

The state and local shares of transit financing are funded through a variety of arrangements. About half of these funds are derived from general revenues at either the state or local levels. The remainder is financed by special taxes earmarked exclusively for transit funding. Table 1 presents an overview of the types of taxes dedicated to transit funding and shows the cities and states where they are used. As can be seen, a wide range of taxes and fees are used: gasoline taxes, motor vehicle taxes, retail sales taxes, property taxes, earnings taxes, payroll taxes, parking taxes, bridge and tunnel tolls, and even lotteries. By far the most popular technique is the dedicated retail sales tax. Indeed, roughly half of the largest 20 cities in the United States earmark this tax for mass transit. An extraordinarily important earmarked source of funds in the New Jersey area is roadway tolls; in the Philadelphia and New York metropolitan areas, these toll revenues yield over $200 million in funds for mass transit each year.

Experimental/Innovative Financing

The funding techniques cited above represent the conventional means used to finance transit subsidies in the United States; they account for at least 95 percent of total state and local subsidy funding. However, support has increasingly grown for alternatives to these conventional types of funding through taxes and fees. Instead, it is argued, the private sector should increase its involvement in financing mass transit, particularly to the extent that it also profits from the increased accessibility or mobility resulting from mass transit investments. A few of these experimental financing alternatives, also presented in Table 1, are described in more detail below.

Value Capture

Value capture is not so much private financing as it is the reaping by the public sector of some portion of the profits accruing to the private sector as the result of transit improvements. Land owners and developers, for example, benefit both directly and indirectly from the proximity of their properties to new or improved transit services, especially from high-cost fixed-rail transit systems. Their properties are worth more because of direct proximity to the transit improvements. Because they are among the main beneficiaries, it is argued, they should also contribute to the financing of the system. Three types of value capture can be used to fund a portion of transit costs: special assessment districts, tax increment financing, and impact fees.

A special assessment district involves establishing the projected area of impact around the transit improvement—usually specified as within some given distance from transit stations—and then assessing a special tax on commercial properties within this area. This tax might be a surtax on the basic property tax rate, as in Miami and Los Angeles, or the levy of a special tax, such as the employer payroll tax proposed for financing a downtown people mover in Denver.

Tax increment financing, by contrast, involves neither new taxes nor higher tax rates, but rather the dedication of increased property tax revenues (that result from increased property values due largely to the transit improvement) to be used exclusively for financing a specific project. It requires the establishment of a special district around the transit improvement in which incremental tax revenues are earmarked for transit. This technique was used, for example, to finance a few of the BART rapid transit stations in San Francisco.

A third variation of value capture is the development impact fee. In contrast to other types of value capture, this is a one-time flat charge levied on new developments to finance anticipated transportation investment needs that these developments will cause. It is almost exclusively used for immediate future capital investments. The impact fee—used in Florida—often precedes the transportation investment, whereas the other two value capture options generally generate funds only subsequent to transit construction projects. However, in all types of value capture private developers are basically forced to contribute to the financing of public transportation investments.

Joint Development

Joint development requires considerably more cooperation between the private and public sectors than is generally true of value capture financing. In general, it entails coordinated development both of a transit system and of commercial facilities around it. Examples would be office towers or shopping complexes built over or near transit stations. The nature and extent of the private contribution to financing the transit investment is variable. It can involve a negotiated contribution by the private developer of land or a portion of capital costs; or the leasing of land or air rights; or the payment of special fees for access connections between the commercial project and the transit station. It also can be a genuine joint venture between the transit system and a private developer, where

TABLE 1 STATE AND LOCAL FUNDING OF MASS TRANSIT (*6–8*)

Tax/Fee/Technique	Where Used
Conventional Financing	
Gasoline Taxes	Florida, New Jersey, Northern Virginia, Chicago
Retail Sales Tax	Atlanta, Chicago, Houston, Dallas, Seattle, Los Angeles, San Francisco, San Diego, New Orleans, Kansas City, Denver, Cleveland
Property Tax	Miami, Minneapolis, Boston, San Francisco
Employer Payroll Tax	Portland (Oregon), Eugene (Oregon), Denver
Earnings Tax	Cincinnati
Motor Vehicle Tax	Detroit, Chicago, Seattle
Parking Taxes/Fees	Baltimore, Washington, San Francisco, New York, Pittsburgh
Bridge and Tunnel Tolls	New York, New Jersey, Philadelphia, San Francisco
Lottery	Pennsylvania, Arizona
Experimental/Innovative Financing	
Value Capture	
Special district assessments	Miami, Los Angeles, Denver, San Francisco
Property tax increment	San Francisco
Development impact fees	San Francisco, Florida
Joint Development	
Negotiated private sector investments	Dallas
Leasing land or air rights	Washington, Los Angeles, Denver
Connector fees	Washington, Miami
Joint venture development	Atlanta, Denver, Miami, Dallas-Las Colinas
Vendor Financing	New York
Turnkey Development	Houston
Private Ownership and Operation	Tampa, Las Vegas

the undertaking is truly integrated, and where both sides share in financing the up-front costs as well as the income derived from the project.

Private Ownership, Construction, and Operation

The extreme form of private involvement in transit financing is completely private ownership, construction, and operation. Private firms are responsible for raising capital, designing the projects, contracting for their construction, and managing and financing their operation. Although this alternative may sound appealing, there is a good reason why it is not used in any major transit system. Such totally private ownership and operation is possible only where it is profitable, and there are no major urban transit systems in the United States that even approach profitability. Of course, in the early 20th century, almost all transit systems were privately owned and managed, but by 1990, they are almost all public. The only totally private systems are usually small in scale or built to operate as part of larger, overall private or semipublic developments, such as amusement parks, airports, and zoos.

FINANCING SYSTEM CONSTRUCTION

Because the construction of people mover systems can cost up to several hundred million dollars, they are usually too expensive to be financed out of a state or local government's general fund. Unless most of the initial capital costs can be covered by federal subsidy, these funds are usually borrowed. The total amount of capital needed to build and equip a people mover system depends on the technology selected, length and configuration of routes, number of vehicles, frequency of service, costs of construction, and costs of land and air rights acquisition. The cost estimates for the proposed people mover in Atlantic City range from $135.6 to $529.6 million depending on the system technology and which of the three alternative route configurations is chosen. These estimates do not include land and air rights acquisition costs because Atlantic City would probably either donate air rights and rights-of-way or charge a nominal fee for their use.

Depending on whether system ownership and management are public or private, there are a variety of debt instruments and subsidies available to underwrite the costs of transit system development. Public sector, private sector, and public-private transit agencies have different if sometimes overlapping funding options. These are reviewed below.

With Public Ownership

The availability of tax-exempt debt instruments distinguishes the capital financing options of publicly owned transit systems (*9–11*). Because state and local government-issued bonds and notes are tax exempt, these bonds can be offered at a lower interest rate than would be required of otherwise equivalent taxable corporate bonds and still be marketable. States and local governments have recourse to four basic debt instruments to finance large capital projects. These include general obligation bonds, issued under the full faith and credit and taxing powers of the local government; revenue bonds backed by the net revenues generated by specific projects; special assessment bonds secured by specific levies on property benefiting from the improvements financed by the bond; and special tax bonds secured by sales taxes on specified transactions (e.g., gas, parking, hotel rooms).

General obligation bonds usually pay a lower interest rate than do revenue or special assessment bonds because they are secured by the full taxing power of the local government. Their issuance, however, is often restricted by state regulations. General obligation bonding capacity is usually limited by legislative statute to a fixed proportion of the government's property tax base. Furthermore, in some states, the issuance of general obligation bonds is subject to voter referendum.

In Atlantic City, general obligation bonds are limited to 3.5 percent of the municipality's total equalized real property valuation as averaged over the most recent 3-year period. Because Atlantic City's 1988 equalized property value was $6.6 billion, the city is subject to a total bonding limit of about $160 million, of which about $70 million is already committed to other projects. Only $90 million would be potentially available for financing a people mover. In addition, proposed general obligation bond issues must be presented for discussion at public hearings, although voter approval is not required.

Although revenue, special assessment, and special tax bonds generally require higher interest rates than general obligation bonds, they are usually exempt from debt limitations and voter approval. They can also be issued by agencies that lack taxing authority and are therefore prohibited from issuing general obligation bonds.

In addition to these three types of publicly traded debt issues, local governments may use financing techniques such as lease-purchase agreements and vendor financing. Under a lease-purchase agreement, private investors purchase equipment or property from the manufacturer or developer and lease it to the transit agency. The transit agency agrees to pay the purchase price plus interest (usually tax-free) to the investors over a specified term. Vendor financing is provided by the seller of transit equipment. In addition to the equipment, the vendor provides the transit agency with the loans, loan guarantees, or other financial arrangements that make possible the equipment purchase. When vendors provide financing in addition to equipment, however, they may be entitled to charge a higher price for the equipment than if the financing were obtained from other sources.

Not only is a variety of basic debt instruments available to finance a capital project, but these instruments can be structured an even greater number of ways. Interest rates may be fixed or variable, or a combination of the two; maturation dates can be fixed (term bonds) or variable (serial bonds). Interest payments may even be delayed until bond maturation (zero-coupon bonds). How the debt is financed will ultimately depend on such factors as prevailing interest rates, tax policies, government debt ceilings, bond ratings, and capital availability. An investment banking firm would ultimately have to be hired to determine the specific details of the optimal financing package.

In addition to—or in place of—debt financing, up-front capital funds are often obtained from federal subsidies, usually from UMTA. UMTA, in fact, financed most of the capital costs of the two people mover systems operating in major

urban centers—Detroit and Miami. The Detroit people mover was funded 80 percent with UMTA grants, and the Miami Metromover was built with 75 percent UMTA funding. The Morgantown people mover, one of the nation's earliest automated guideway transit projects, was also funded largely by UMTA.

UMTA currently administers two complementary capital assistance programs for urban mass transit: the Section 9 Block Grant Program, and the Section 3 Discretionary Grant Program. Section 9 provides funding for capital, operating, and planning expenses of urban transit systems. Funds are apportioned to designated urban areas through a complex formula based on demographic variables, service levels, and ridership levels. Section 3 provides supplemental capital assistance for selected major Section 9-funded projects. For fiscal 1989, the Atlantic City urban area was apportioned $803,027 in Section 9 funds. Of this amount, over 95 percent is designated for operating and planning expenses, leaving only $35,318 available for capital assistance. Section 3 appropriations for the entire state of New Jersey in fiscal 1989 are approximately $65 million (UMTA and Atlantic City Urban Area Transportation Council, unpublished data).

Due to the extremely high costs and low ridership of the people mover systems in Detroit, Miami, and Morgantown, UMTA seems unwilling to fund additional downtown people movers (*12*). More important, the Reagan and Bush administrations have been committed to reductions in federal spending for mass transit. Almost all UMTA funds for New Jersey are presently allocated to New Jersey Transit, the main provider of transit services in the state. These funds are dedicated to financing a wide range of capital projects such as train and bus procurement and overhaul, and construction of new bus maintenance facilities. With actual capital expenditures currently totaling more than $200 million, UMTA funds now cover about half of New Jersey Transit's capital budget, and their use is largely restricted to infrastructure improvement projects (New Jersey Transit, unpublished data). Shifting UMTA funds from New Jersey Transit to an Atlantic City people mover system would require politically difficult decisions at the highest levels of state government.

Although the prospects of federal (UMTA) funding of capital or operating expenses are highly unlikely, some UMTA money could perhaps be made available on a one-time basis for start-up planning, design, and engineering work. UMTA's Entrepreneurial Service Program, a part of the administration's Private Initiatives Program, provides one-time start-up funds for privately run transit programs. Another source of UMTA seed money could be the Section 8 Technical Studies Program, a discretionary grant program for planning purposes. A total of about $1 million in Section 8 money is allocated to New Jersey each year, most of which goes to New Jersey Transit (UMTA, unpublished data).

Another potential, but even less promising, source of federal subsidy is FHWA's Federal Aid to Urban Systems (FAUS) program, which is primarily geared to highway improvement programs in urban areas. Federal guidelines permit FAUS money to be used for capital spending on transit systems instead of highway improvements, provided state and federal highway authorities approve such a reallocation. Although possible, this option is rarely used. A total of about $1 million of FAUS money is appropriated to Atlantic County each year. These are actually state funds allocated to the county under the New Jersey's FAUS swap program. In order to reduce federal oversight of local transportation projects, FAUS funds allocated to each urban area are exchanged for the same amount of state funds. The county has earmarked these funds for its Corridor Improvement Program, which matches developer contributions for new traffic signals and other road improvements (Atlantic County, New Jersey Department of Transportation, FHWA, unpublished data).

Regardless of its actual availability, it should be recalled that federal funding comes with many strings attached that affect virtually every aspect of transit design and generally inflate the cost of a transit system. Thus, even if federal funding becomes available, it may be advisable to forego such funding—as have more and more cities—to avoid costly delays reflective of federal influence over design and operating parameters. Delays and other inefficiencies caused by the need to comply with various federal design and construction guidelines, for example, are often cited as reasons for the cost overruns of the Detroit and Miami people mover systems.

Another potential capital funding source may be the New Jersey Transportation Trust Fund. Initiated in 1984 and renewed in 1987, the fund is New Jersey's principal means of financing transportation capital improvements. The trust fund is authorized by the state legislature to appropriate a maximum of $365 million annually to state, county, and local transportation projects. The funds are derived from several sources, including a gasoline tax, truck license fees, and toll road authority contributions, with the balance provided by 10-year bond issues. At present, the $365 million annual spending cap effectively limits fund appropriations to the purpose of maintaining and improving existing transportation systems, thus restricting the opportunity to fund new transportation systems such as a people mover. If, however, the state legislature permitted the $365 million annual spending cap to be lifted, or if it exempted bond issues for self-liquidating investments (such as a people mover) from the annual cap, it might become possible for the trust fund authority to issue the bonds necessary to underwrite the people mover's development. Fare box and other revenues would have to be sufficient to cover necessary debt service costs—and would have to be earmarked for this purpose. Such changes would significantly change the nature of the fund, and they would require approval from the governor and state legislature (New Jersey Transportation Trust Fund authority, New Jersey Department of Transportation, unpublished data).

With Private Ownership

Privately owned and operated transit systems are rarely eligible for federal capital subsidies, except as these are channeled through public transportation agencies. Nor are they entitled to issue low-interest, tax-exempt bonds. They do have available a variety of market-rate debt instruments, which, like state and local government bonds, can be set at a variety of maturation dates and interest rates. Besides publicly traded bonds, private firms can also obtain financing through bank loans or private placements—loans from various pension funds, insurance companies, and other financial institutions with ample capital funds to invest. Unlike public agencies, private entities

also have the option of raising funds through equity (stock) offerings. In addition to common stock, these may include debentures as well as convertible secured equity. In general, private firms rely on a combination of equity and debt to finance major capital investments so as to capture potential tax savings.

With Public-Private Partnerships

When state or local government agencies combine with private companies to develop and operate a transit system, the resulting entity may have access to some of the funding options available to either sector. Through turnkey development arrangements, for example, private developers might qualify for low-interest, tax-exempt financing because system ownership would ultimately revert to the government. Access to state or municipal bond markets can lead to debt service savings of millions of dollars a year. For example, the average interest rate for seasoned AAA-rated municipal or state bonds is presently 7.56 percent, while that for similarly rated corporate bonds is 9.90 percent. At these rates, a 30-year $300 million municipal bond issue would require annual debt service costs of $26.6 million, while an otherwise identical corporate bond issue would incur annual debt service payments of $35 million, 24 percent more (*13*). Other public-private arrangements such as lease-purchase agreements may also permit low-interest financing.

FUNDING OPTIONS FOR ANNUAL DEBT SERVICE AND OPERATING COSTS

Most of the general transit funding alternatives listed earlier are also possible—at least in theory—for people movers as well. There is no reason why a people mover could not be financed with conventional dedicated taxes such as a sales tax, for example. However, most existing people mover systems have not been financed by traditional means. Most significantly, the private role in construction, operation, and financing has been much greater than for other forms of mass transit, with the exception of those systems that are in an urban context, and thus can be designated as downtown people movers—an important exception. Even the urban systems are much less regional in their impacts than conventional transit systems, so that one might expect that the usual regional-wide tax financing would be inappropriate to fund them.

Seventeen currently operating people mover systems in the United States are presented in Table 2. Only two of the systems listed—those in Detroit and Miami—operate in a truly urban context, such as that in Atlantic City. The systems in Tampa and Morgantown are in semi-urban contexts. Tampa's system is simply a short link from the city center to a private development. The Morgantown system links two campuses of the University of West Virginia, one of which is near the center city. Likewise, the Duke University system connects a parking facility with two separate buildings of the university's medical center. Seven of the other systems are for access among airport terminals; three are for transportation within amusement parks; and two are for transportation within zoos.

Fares are not usually used to fund people mover systems. As seen in Table 2, the vast majority of the existing systems charge no fares at all. In the case of airports, the costs for the people mover are considered part of the normal costs of airport operations, with the people mover viewed as a horizontal elevator. The people movers in amusement parks and zoos are financed through general admission prices, with no additional charge for use of the people mover. Likewise, the Duke University system is free. Only the systems in Detroit, Miami, Tampa, and Morgantown charge fares, and these are low: 50¢ in Detroit and Morgantown and only 25¢ in Miami and Tampa. In Miami, passengers can transfer without charge from the Metrorail system, and such free transfers account for most of the people mover's ridership.

An Atlantic City people mover would not be typical of most urban transit systems. It would include a mandatory intercept facility for casino buses and casino employees and thus enjoy a captive market. In addition, there would be a discretionary market of automobile visitors, conventioneers, and casino-to-casino visitors. Moreover, the innate tourist appeal of a people mover system might further promote ridership. Unlike the situation in other cities, fare box revenues would therefore constitute an important source of system finance in Atlantic City. The likely magnitude of fare box revenue is considered later.

People movers are usually financed through means other than fare revenues. In most cases, such as in airports, amusement parks, and zoos, the costs are financed as part of the overall development and operating costs of the responsible public agencies or private firms. Indeed, in most cases, it is impossible to separate out the costs and revenues specifically attributable to the people mover system, as there is no separate accounting for these. An exception is at Walt Disney World, where the cost of maintaining the Monorail is financed out of the general admission revenue, with $2.00 of the ticket price designated to cover people mover operations.

Detroit and Miami used different financing techniques to fund the nonfederal portion of their people mover system capital costs. In Detroit, the state of Michigan financed all 20 percent of the nonfederal share of total capital costs; the city of Detroit, however, furnishes all of the necessary operating subsidy. In neither case was a dedicated tax or any sort of innovative financing technique used. In Miami, the state of Florida and the city of Miami each paid for 12.5 percent of total construction costs, with the remaining 75 percent financed by the federal government, as noted previously. To help raise its portion of the capital subsidy, Miami levied a special-district property tax of 15 cents/ft^2 of leasable commercial floor space in the area served by the people mover system. For its share of the project, the state used accumulated highway toll revenues specially earmarked for this purpose. As in Detroit, the operating subsidy in Miami comes exclusively from the local government; no earmarked taxes are used to finance this contribution.

For the most part, therefore, even downtown people movers have been financed by rather conventional means. Only the Miami system used any of the long list of innovative financing techniques available—namely, the special district assessment—and this funded less than one-seventh of the total capital cost and none of the operating costs. This does not imply that the innovative financing alternatives are not appropriate, but rather, that they have little track record. They may be somewhat undependable revenue sources, and sole reliance on them could be risky.

TABLE 2 FARE STRUCTURES ON SELECTED PEOPLE MOVER SYSTEMS

System	Base Fare	Other Aspects
Detroit, MI (inner city)	50¢	Flat fare[a]
Miami, FL (inner city)	25¢	Flat fare[a,b]
Tampa, FL (Harbour Island access from CBD)	25¢	Flat fare[a]
Morgantown, WV (campus connector)	50¢	Free to UWVA students[c]
Duke University (hospital connector)		Free
Atlanta, GA (airport)		Free
Orlando, FL (airport)		Free
Miami, FL (airport)		Free
Tampa, FL (airport)		Free
Dallas, TX (airport)		Free
Houston, TX (airport)		Free
Seattle, WA (airport)		Free
Busch Gardens (amusement park)		Free[d]
Walt Disney World (amusement park)		Free[e]
Kings Dominion (amusement park)		Free[d]
Minneapolis, MN (Zoo)		Free[d]
Miami, FL (Zoo)		Free[d]

[a]No additional fare charged for longer rides.

[b]Passengers transferring from the feeder line, Metrorail, ride free.

[c]Although no fare is charged to students for individual rides, part of the student fees goes toward financing operating costs.

[d]The fare is included in the general admission price, but it is not possible to determine how much this entails in each case.

[e]$2.00 of the admission price to Walt Disney World is earmarked for the Monorail.

Source: Data compiled from information provided by individual systems.

Criteria for Choosing Financing

Before commencing a detailed analysis of the possible funding sources for the proposed people mover in Atlantic City, the three main criteria of public finance are reviewed. The benefit principle states that a public project should be financed such that the cost is borne primarily by those who benefit most from the project. The second criterion regards the distributional impacts and argues for a financing arrangement that places the least burden on the poor, as they are the least able to afford such costs. This is referred to in economics as the "ability-to-pay principle." The third criterion calls for the so-called "internalization of external costs." If automobile drivers, for example, cause congestion and pollution through their use of automobiles, they should be forced to pay for these external social and environmental costs through charges, tolls, or taxes of some kind. To the extent that public investments are necessary to deal with the negative side-effects of automobile use, such charges should be levied on automobile users.

These criteria begin to form a rationale for choosing a funding package for the people mover in Atlantic City. It may be that political or legal considerations prevent the adoption of the alternative that is optimal from a social, economic, and environmental viewpoint. Nevertheless, it is necessary at least to identify the optimal solutions to the financing problem and thus to see clearly the potential sacrifices made in selecting any given funding option.

Evaluation of the Most Plausible Financing Possibilities

For various reasons, only a subset of the financing techniques presented in Table 1 are likely candidates for adoption in Atlantic City. General increases in the property or sales taxes, for example, would satisfy neither the benefit principle nor the ability-to-pay principle. Nor would they in any way internalize the external costs of congestion or pollution. Moreover, there would be intense political opposition to such taxes for financing the people mover. A tax on all earned income in Atlantic City would be opposed for similar reasons. It would additionally place most of the burden on Atlantic City residents and thus encourage out-migration to the suburbs, discourage development in Atlantic City proper, and certainly exacerbate the congestion problem by generating even more commutation from suburban residences to Atlantic City employment locations. A special gasoline tax or motor vehicle tax for residents and employees in Atlantic City would be futile, because it would be easy to avoid and would force the residents, as customers of local gas stations, to bear most of the burden of financing the people mover. The lottery proceeds in New Jersey are already dedicated to educational uses, and there is little chance that they could be—or even should be—used for financing a people mover. By contrast, the alternatives presented in Table 3 represent more plausible possi-

TABLE 3 ADVANTAGES AND DISADVANTAGES OF ALTERNATIVE FINANCING POSSIBILITIES

Financing Technique	Advantages	Disadvantages
1. Passenger Fares	Would satisfy benefit principle; those riding the people mover system would benefit most directly from it; thus they should help finance it.	Fare collection would delay boarding, thus increasing trip times.
	Would be capable of financing most if not all of the system's annual operating and capital costs.	Installing fare collection equipment would require additional capital expenditures and at least some costs for surveillance to prevent fare evasion.
		Depending on fare level, may be regressive financial burden for low-income Atlantic City residents.
2. Parking Tax	Easy to administer, easy to monitor.	Would result in very uneven burdens for the casinos, depending on number of parking spaces; would perhaps unfairly penalize casinos that have provided much parking for visitors.
	Since car traffic generates much of the congestion and pollution in the city, it should also bear much of the burden of the transport investment needed to alleviate this.	
	Would discourage single-occupant cars from driving into the city—thus favorable impact on travel behavior; would also encourage mass transit use.	Probably need to vary rate of tax by location of parking. This would somewhat complicate the tax.

TABLE 3 (*continued on next page*)

TABLE 3 (*continued*)

Financing Technique	Advantages	Disadvantages
	Not a regressive tax: car owners have a higher average income than those without cars. Would encourage conversion of land being used unproductively as parking to higher-productivity uses. Would also discourage speculation by making land holding in the form of parking more expensive, thus would encourage development.	Not likely to be popular with the Atlantic City business community (including the casinos).
3. *Bus Management Fees*	Since system is primarily for transporting bus passengers, this fee reflects at least somewhat the benefits derived from the new system by the bus companies and riders.	Would yield only a small portion of total cost—even at $20 per bus, it would only cover about 1/6 of total capital costs.
	Current fee ($1) is very low, easy to collect; even at $20 per bus, it would not be more than what the casinos voluntarily give *each* passenger to spend in their casinos.	By increasing the cost of buses, it might slightly discourage transit use, whereas transit use ought to be encouraged.
		Only a portion of the increased revenue would be likely to be allocated to the people mover; ACTA would need to appropriate the rest for other purposes.
4. *Toll on Access Roadways*	Would force those who create congestion and pollution problems to help finance transportation investments needed to alleviate these.	Legal problems in implementation.
		Perhaps practical problems of setting up toll plazas.
	Would discourage unnecessary trips into Atlantic City.	Might slightly discourage some visitors from coming to Atlantic City at all.
	Would encourage ridesharing (carpooling and vanpooling).	Could worsen congestion and air pollution problems on the three major access roads as the tolls impede the flow of traffic.

TABLE 3 (*continued on next page*)

TABLE 3 (*continued*)

Financing Technique	Advantages	Disadvantages
	Would encourage use of people mover from fringe areas to inner city.	Could have effect of increasing traffic on the three minor entranceways to Atlantic City—Brigantine Blvd., Ventnor Ave., and Atlantic Ave.
	Great revenue potential; even at low rate, would almost completely finance people mover system.	
	Of all techniques, corresponds best to the economic principles of optimal pricing and optimal public finance.	
	Has best impact on travel behavior.	
	Favorable equity impact.	
	Many precedents for this earmarking of toll proceeds for mass transit in NJ, NY, PA.	
	Would be easy to exempt Atlantic City residents from tolls; and this exemption would not substantially reduce revenues.	
5. *Luxury Tax*	Would primarily be paid for by casinos and hotels, which generate most of the traffic leading to the congestion and pollution.	Would not generate that much in revenue; would have to be supplemented by other taxes, charges.
	Positive distributional effects: payers have above-average incomes.	Is not much related to travel behavior; does not discourage single-occupant auto use; does not encourage transit use.

TABLE 3 (*continued on next page*)

TABLE 3 (*continued*)

Financing Technique	Advantages	Disadvantages
	Since main purpose of people mover is to transport casino patrons, only fair that casinos should bear most of the financial burden.	Does not affect all generators of traffic; only hotels and casinos affected. Current exclusion of casino complimentaries from base is big loophole leading to lost revenue and distortions in casino policies to minimize tax payments. Current luxury tax proceeds are dedicated to new convention center, and its financing needs far exceed the current revenues generated by the tax. Thus, unlikely that even increases in tax could be earmarked for transit.
6. *Employer Payroll Tax*	Forces casinos and hotels to contribute most of the financing cost of new people mover; fair since they generate most of the traffic leading to the congestion and pollution problems that make the people mover necessary; employers are ultimately responsible for most traffic generation in Atlantic City, whether work trips by employees or trips made by customers. Depending on rate, could raise up to half of total financing needed for the people mover system and would certainly be sufficient to cover operating costs. Would be easy to monitor and collect. Satisfies benefit principle of taxation; those who benefit most from people mover would have to finance it.	Might be regressive if simply per head tax and if employers shift these taxes to the employees in the form of lower wages. Might discourage the expansion of casinos in Atlantic City; might discourage development of new businesses, hotels in Atlantic City and instead encourage them to locate outside Atlantic City. Would require state approval, possibly special legislation; no precedent for this in New Jersey.

TABLE 3 (*continued on next page*)

TABLE 3 (*continued*)

Financing Technique	Advantages	Disadvantages
	Precedents in Portland (OR) and *all* French cities, where entire transit subsidy is financed by such payroll taxes.	
	Would not create any direct financial burden either for Atlantic City or Atlantic County governments.	
7. *Value Capture*	By focusing on the area served by the transport investment, forces those most benefited by it to contribute to its financing.	Would primarily show up in the future; very uncertain exactly how much new development will be induced; thus uncertain how much value can be captured by this financing method. Would be many years until this could make a substantial contribution to financing.
	Especially useful for future expansion of the system and perhaps for financing of operating costs.	
	To the extent that it entails increases in the property tax proceeds (at constant tax rate) that arise from increases in land and property values resulting from the transport investment, this is a way for the public to share in the return and to finance the investment.	Exact determination of district boundaries is certain to be very controversial; they will be difficult to determine objectively.
8. *Joint Development*	Ideal for financing capital costs of stations.	Hard to predict in advance exactly the extent of funding potential; good supplement to other more predictable, more comprehensive funding sources, but a poor base for funding in itself; in other cities, has yielded only a very small percent of total funding requirements.
	Good match between benefits of investments and contributions to financing.	
	Can be used to pay for investments that enhance mutual attractiveness of transport investments and adjacent development;	

TABLE 3 (*continued on next page*)

TABLE 3 (*continued*)

Financing Technique	Advantages	Disadvantages
	encourages better access opportunities and higher land densities around stations; encourages coordination of land-use development with mass transit.	
9. *Turnkey Development*	Eliminates much of public sector interference in projects; increases room for ingenuity, creativity; technological and productivity improvements on the part of private contractors.	Not much track record with this approach; not clear if it will really work.
	By establishing one fixed, overall price for the project, eliminates the risk of cost overruns for the city.	Crucial to find overall contractor with sufficient assets to ensure that he can absorb cost overruns and really guarantee completion of the project at the agreed-on cost.
10. *Private Ownership and Management*	Might lead to higher productivity, more efficiency, lower costs, better service.	Perhaps not enough public sector control of the system.
	Would not strain the administrative, managerial capacity of the existing public bureaucracies in Atlantic City; would insulate the project somewhat from costly, time consuming and distorting political factors that might plague a publicly run system.	Private operator-developer would obviously demand a price for this service, either directly or indirectly; cost may be hidden in form of profits from land-development gains; allows private sector to capture the profits from development potential in Atlantic City.
	Minimizes financial risk to city; risk instead borne by private shareholders.	Essential to choose really reliable, responsible, financially strong firm; otherwise, will not work.

bilities for funding the people mover. The advantages and disadvantages of each alternative are also presented in detail in the table, so that they will be only briefly highlighted here in the text.

Fare Box and Other System-Generated Revenues

Perhaps the most promising revenue source is the fare box. Unlike all other urban transit systems, where fares pay only a portion of total operating costs and none of the capital costs, an Atlantic City people mover could probably be self-financing. Transit ridership is not sensitive to fare levels even on conventional transit systems (*14*). Fare elasticity would be even lower in Atlantic City. With a mandatory casino bus and employee car intercept that is handled efficiently and smoothly, moderate fares would probably not discourage much ridership at all. Furthermore, with possible casino subsidy of the fare, the out-of-pocket cost to the rider could be minimal. Having to pay an extremely high people mover fare might induce some bus visitors to drive to Atlantic City, or not come at all, but it is improbable that moderate fares would have such an effect. Visitors would be more inclined to switch to private transportation modes if the transfer from bus to people mover proved too confusing, fatiguing, or time consuming. High fares, such as $5 a ride, would discourage ridership primarily for discretionary casino-to-casino trips. However, as shown in Table 4, the high projected ridership should be sufficient to keep break-even fares around $1.25 per ride for the Boardwalk and Marina-Boardwalk route configurations and $1.75 for the central core configuration, and still cover most if not all total annual operating and debt service costs. Break-even fares for the smaller central core configuration would be about 50¢ higher because the system would carry only a fraction of all casino bus passengers and would be unable to provide intercasino service.

In addition to its revenue potential, fare box financing would be consistent with the benefit criterion of transit finance that

TABLE 4 PROJECTED ANNUAL RIDERSHIP, COSTS, AND REVENUES BY THE YEAR 2000 (IN MILLIONS)

	Central Core Scenario	Boardwalk Scenario	Marina-Boardwalk Scenario
Total Annual Trips	11.1	39.5	46.9
Total Annual Costs			
Operating and Maintenance	$ 4.3	$10.2	$13.0
Debt Repayment	$15.3	$40.3	$48.6
TOTAL	$19.6	$50.5	$61.6
Annual Fare Box Revenue			
@$1.00 Fare	$11.1	$39.5	$46.9
@$1.25 Fare	$13.9	$49.4	$58.6
@$1.50 Fare	$16.7	$59.3	$70.4
@$1.75 Fare	$19.4	$69.1	$82.1
@$2.00 Fare	$22.2	$79.0	$93.8
Annual Advertising Revenue			
@1.5 cents per passenger	$.17	$ .59	$ .70
@ 2.0 cents per passenger	$.22	$ .79	$ .94
@ 3.0 cents per passenger	$.33	$1.20	$1.40

Note: Calculations assume zero elasticity of demand. To the extent that fare elasticity does exist, these figures overstate actual revenues. Boxed areas indicate approximate break-even costs and revenues.

those using the system should bear most of the cost of financing it. Fares are also the most preferred financing alternative among the 60 Atlantic City stakeholders interviewed for the Rutgers study. More than 90 percent favored using fare box revenues to help finance a people mover system. No other funding option elicited such widespread support.

The people mover system could also generate other revenues besides fares, such as income from advertising. Almost all United States transit systems sell advertising space in their vehicles and stations. Annual advertising revenues vary from just $100,000 in the new MAX light rail system in Portland, Oregon, to more than $1 million in Atlanta's MARTA metro rail system (R. K. Buis, Vice President, AMNI/Winston, Inc.; and John R. Jost, Vice President, Transit Ads, Inc., unpublished data). As these examples indicate, advertising provides a modest supplement to the fare box; by itself, it covers only a small fraction of a system's operating or capital costs. According to a 1985 survey of United States transit systems, average annual transit advertising revenues amount to about 1.5¢ per passenger trip (*15*).

Advertising revenues vary according to the size of the system, the number of passengers carried, the availability of alternative advertising outlets, and the nature of the market (e.g., commuter versus tourist). Assuming advertising in vehicles and stations is permitted, there would almost certainly be a robust advertising market in Atlantic City. As already shown by the numerous casino billboards positioned along the three main Atlantic City access roads as well as the smaller illuminated signs perched atop hundreds of New York City taxicabs, casinos have an avid interest in informing potential visitors of their attractions. With almost 50 million annual riders projected for the Marina-Boardwalk system, a people mover would generate a larger advertising market than any of the three major Atlantic City entranceways. Assuming, for example, an annual rate of 3¢ per passenger trip, a Marina-Boardwalk system could generate $1.4 million in advertising revenue, a minor but certainly not unwelcome annual revenue stream (see Table 4).

State, County, and Local Revenue Sources

Apart from fare box, advertising, and other system-generated revenues, the only other funding sources involve government subsidy. Some portion of annual capital and operating costs could be paid by various taxes and fees.

Parking Stall Tax. A potential funding source for people mover development could be a per-space parking tax levied on all parking spaces in Atlantic City. Unquestionably, this tax would increase the cost of automobile use and would encourage at least some current automobile users to switch to mass transit. The tax could be differentiated so that it would be highest for those parking places nearest the Boardwalk and lower for parking spaces toward the fringes of the city. Such a parking tax would be equitable and would also encourage more environmentally responsible behavior on the part of automobile users. In addition, such a tax would be a strong inducement to use the people mover system instead of driving into the city center. Thus, parking taxes would both finance the people mover system and encourage use of the system. In this respect, the proposed access roadway tolls and parking taxes are unequaled as methods of people mover funding. As presented in Table 5, annual parking tax revenue could range

TABLE 5 REVENUE POTENTIAL OF ALTERNATIVE FUNDING SOURCES

Tax or Fee/Base and Rate	Annual Revenue (in millions)
1. Stall tax on off-street parking[a]	
$ 5/month/space	$ 1.9
$10/month/space	$ 3.8
$15/month/space	$ 5.7
$20/month/space	$ 7.6
$30/month/space	$11.3
$50/month/space	$19.0
2. Increasing bus "management" fees charged by ACTA	
$ 1/bus (current level)	$ 0.4
$ 5/bus	$ 2.0

TABLE 5 (*continued on next page*)

TABLE 5 (*continued*)

Tax or Fee/Base and Rate	Annual Revenue (in millions)
$10/bus	$ 4.0
$20/bus	$ 8.0
3. Imposing one-way in-bound tolls on the three main access roads to Atlantic City[b,c]	
$1 toll per vehicle (excluding buses)	$24.0
$2 toll per vehicle (excluding buses)	$48.0
4. Changes in current luxury tax	
If ad valorem tax:[d]	
Increase rate from 12% to 15%	$ 5.0 (more)
Return of 3% state portion to city	$ 5.0 (more)
Include complimentaries from casinos in tax base	$10.0 (more)
Shift to per-room tax:[e]	
$ 500/room/year	$ 9.0 (total)
$1,000/room/year	$ 18.0 (total)
$2,000/room/year	$36.0 (total)
5. Employer payroll tax [f]	
If head tax on hotel and casino employees:	
$100 per year	$ 5.5
$200 per year	$11.0
$300 per year	$16.5
If ad valorem:	
0.5% of payroll	$ 7.0
1.0% of payroll	$14.0
2.0% of payroll	$28.0
If head tax on all private sector employees:	
$100 per year	$ 6.5
$200 per year	$13.0
$300 per year	$19.5

TABLE 5 (*continued on next page*)

TABLE 5 (*continued*)

Tax or Fee/Base and Rate	Annual Revenue (in millions)
If ad valorem:	
0.5% of payroll	$ 8.0
1.0% of payroll	$16.0
2.0% of payroll	$32.0

[a]This tax could be differentiated by location, with lower taxes levied in fringe areas and higher taxes in central locations. Currently, there are 31,439 spaces.

[b]These calculations assume zero demand elasticity. To the extent that traffic demand is reduced, toll revenues will be less than calculated, but virtually all studies show a very low elasticity for roadway tolls. Thus, proceeds from such a toll in Atlantic City would not be substantially lower than these calculations. Currently, there are about 65 million vehicles entering per year.

[c]Residents of Atlantic City comprise a small portion of total auto drivers on these routes. Exempting them from this toll would not substantially reduce overall revenues.

[d]Currently yields $15 million per year.

[e]Assuming 18,000 hotel rooms.

[f]To be paid by employers in proportion to number of employees or as percent of payroll.

from $1.9 million annually from a $5/month per stall tax, to $19 million annually from a $50/month per stall tax.

Although a parking stall tax would probably not require enabling legislation, it would be opposed strongly by casinos and owners of other off-street parking facilities. Faced with a $25/month tax, for example, a 500-space garage would be assessed a $150,000 annual surcharge. A $50 tax on a 1,000-space facility would cost garage owners $600,000 annually. A parking tax is also not popular among the Atlantic City area government officials and business executives interviewed for the Rutgers study. Opposition is particularly strong within the city government and the casino industry—two strong voices in local decisions. Nevertheless, almost half of all the respondents who voiced opinions on this matter favored a parking stall tax.

Bus Management Fees. Currently the Atlantic County Transportation Authority (ACTA) collects a bus management fee of $1 per casino bus for intercepting them at the city periphery and coordinating their trip further to the individual casinos so as to mitigate traffic congestion. Increasing casino bus management fees above their present level of $1 per bus would not require any additional administrative apparatus, and some might argue that the fee is too low anyway. It has remained unchanged since ACTA was formed almost 10 years ago. Because one of the stated goals of a new people mover system would be to get the buses off the streets of Atlantic City by intercepting them outside the city, it may seem appropriate that bus operators and passengers (or their casino sponsors) should pay to finance the people mover in proportion to the number of buses serviced at the intercept point. The main disadvantage to this option is that it would increase the price of transit travel into Atlantic City but would leave the cost of auto use unchanged. That might encourage a shift from transit to the auto, the worst possible scenario. Moreover, any effort to increase bus management fees is likely to be challenged vigorously by the Atlantic City Bus Operators Association, an organization formed by the major bus companies providing Atlantic City service. Even if an increase were granted, the amount of additional revenue available to meet capital and operating costs would be modest. As shown in Table 5, a $20 bus management fee would generate approximately $8 million a year, just 13 percent of the estimated $61.5 million required to meet a Marina-Boardwalk system's annual debt and operating costs. On the other hand, this amount of revenue could cover more than 60 percent of the system's annual operating and maintenance costs.

Tolls. At least from an economic point of view, one of the most attractive financing possibilities would be a toll on the three approaches to Atlantic City—the Black Horse Pike, the White Horse Pike, and the Atlantic City Expressway. Such a system of tolls would satisfy all the criteria of optimal public finance and would contribute greatly to alleviating the congestion and pollution problems caused by excessive traffic in Atlantic City. Moreover, it would strongly encourage people to park in fringe lots and to take the people mover into the central city. As was the case for parking surcharges, such tolls would not only help finance the people mover, but would also help encourage its use. As shown in Table 5, imposing a $1 toll on the three main access roads to Atlantic City could generate as much as $24 million annually, or 39 percent of the total capital and operating costs of a Marina-Boardwalk people mover system.

There would, however, be some problems with the implementation of a toll system. Allocating Atlantic City Expressway Authority revenues to the people mover would require approval by the governor and legislature. In addition, tolls could worsen traffic congestion and air quality conditions on the outskirts of Atlantic City by impeding the flow of traffic on the three major access roads. Tolls could also induce additional traffic on the three minor approaches to the city—Brigantine Boulevard, Atlantic Avenue, and Ventnor Avenue—thereby increasing congestion and pollution in several residential areas. Another problem concerns the installation of tolls on the White Horse and Black Horse Pikes. Because these roads are maintained with financial assistance from the federal government, federal regulations would require the state to pay back the costs of the previous subsidies if they were to become toll roads. Toll revenues would thus have to be used to reimburse Washington in addition to financing the people mover.

Even if additional tolls were not charged on the city's three major entranceways, it might also be possible for the people mover to receive financial support from the Atlantic City Expressway Authority and perhaps the Garden State Parkway Authority. Such use of highway toll revenues, of course, would require approval from the state government. Even if such approval were granted, the Atlantic City Expressway and Garden State Parkway Authorities would probably be able to furnish only a fraction of the total revenues needed to meet the people mover's annual debt and operating costs.

Luxury Tax Supplement. A supplement to the current luxury tax in Atlantic City might also be a possibility. It would be paid primarily by casino and hotel visitors, and thus would not burden residents. Depending on the amount of the increase and how it is structured, a luxury tax supplement could yield $5 to $21 million in new revenue (see Table 5). Because the proposed people mover system is primarily intended to serve casino and hotel visitors, this form of financing would satisfy the benefit principle of taxation. The main problem is that luxury tax proceeds are currently dedicated to the new convention center; even at the current rate, the luxury tax is not generating enough revenue to finance this project. It is, therefore, unlikely that any increases in this tax would be dedicated to the people mover over the convention center. A luxury tax supplement is also opposed by most of the stakeholders interviewed for this study; three-quarters of the respondents were against the idea.

Employer Payroll Tax. An employer payroll tax would also satisfy the benefit criterion, in that casino and hotel employees would be heavy users of the system. It would thus represent a contribution by their employers for their transportation. There is considerable precedent for earmarked employer payroll taxes to finance mass transit. Portland, Oregon, has used such a tax for over a decade with great success. Moreover, financing for a proposed downtown people mover in Denver included a dedicated employer payroll tax in a special assessment district around the system route. In France, virtually all cities levy an employer payroll tax to support both operating and capital costs of mass transit, and this tax is willingly accepted by employers, who view it as a means of facilitating the transportation of their workers. If such a tax were introduced to Atlantic City, the data presented in Table 5 indicate it could produce $5 to $30 million a year.

To introduce an employer payroll tax in Atlantic City might be difficult, however, because of the need for state approval. Moreover, such a tax might encourage new noncasino development to take place outside Atlantic City proper or the special assessment district—however that is defined—to avoid the tax. An employer payroll tax could thus be at odds with the economic development goals of an Atlantic City people mover.

Experimental or Innovative Financing Options

The various innovative financing options could all be used to some extent in the Atlantic City context—and they should be, where feasible—but it is highly unlikely that they can provide major funding for the system. The value capture options, for example, produce revenues mainly in the future, after the people mover system would be in operation, and the actual amount of such revenues is impossible to predict. Moreover, this technique does not have much track record in the United States; even where it has been used (in San Francisco, for example), it has financed only a small percentage of system costs. Its appropriateness for Atlantic City is also uncertain. A special assessment district stretching along the people mover route, for example, would inevitably fall on what is already the most heavily taxed area in Atlantic City—that between Atlantic Avenue and the Boardwalk. Any effort to further increase property taxes in this section is bound to face stiff opposition from casinos and other property holders.

Likewise, joint development sounds like a good idea, but no system in an urban context—such as Atlantic City—has been financed in this manner to any significant extent. Joint development can certainly provide supplemental revenues and thus reduce the required public financing, but it would be foolhardy to rely solely on this set of options. The one exception to this is the financing of people mover stations by the casinos they will serve. The casinos have indicated that if a system were built, they may not object to financing their own stations, as this enhances their accessibility to the system and gives them a say in station design. The bus intercept facility

might also be a successful candidate for joint development. The large number of casino visitors and employees passing through the facility could encourage associated commercial development.

Fully private ownership, construction, operation, and management would be the most extreme form of private sector participation in the people mover project. In theory, of course, it sounds very attractive, because one assumes that this would minimize the costs to the public. Although the obvious, so-called accounting costs to the public may be minimized by such a funding option, other types of costs may not be adequately taken into account by this method. With total private ownership and control, the city and other government agencies might be constrained in their ability to regulate fares or exercise oversight or control over the system. Public authorities responsible for choosing a financing method should be especially careful about what they are giving up in public control by allowing private firms to design, build, operate, finance, and manage the system. To the extent that vendors may also be interested in land development opportunities around the stations and perhaps the intercept facility, public authorities should be aware of the potential revenue losses that could result from tax abatement or exemption clauses included in the development agreement.

Except for Las Vegas, not a single downtown people mover system has been financed exclusively or even to a significant extent by private ownership. Thus, Atlantic City decision makers must realize that they would be taking somewhat of a risk with this untried method.

CONCLUSIONS

An Atlantic City people mover would probably be an anomaly in urban mass transit. Whereas virtually all urban transit systems operate at a loss and require federal or state subsidies to cover much of their operating costs and all of their capital costs, an Atlantic City people mover could probably support itself through fare revenues. Because of high projected ridership, made possible in part by a mandatory bus and casino employee intercept, fares could probably be kept in the range of $1.50 to $1.75, and yet be sufficient to cover annual debt service and operating costs. Few other urban transit systems in the United States can make similar claims. Of course, it remains to be seen if fare financing would in fact be sufficient to cover all construction and operating costs, but projections suggest this to be the case.

Although fares cover only a small part of the operating budgets and none of the capital costs of United States transit systems, they seem to be the most feasible option for Atlantic City. Federal subsidies, barring a major transportation policy reversal by the Bush administration, are extremely unlikely. The state, county, and local taxes, fees, and other revenue sources reviewed previously could generate varying amounts of revenue, but they would confront intense political opposition in Atlantic City if not at the state level as well. One important consideration in relying on these other revenue sources is that, except for the toll option, the financial burden would be borne primarily by the casinos. Having the casinos finance their own stations, pay special assessment taxes, parking stall taxes, or payroll taxes, as well as subsidize the fares of their employees and perhaps their customers, would in effect shift the system's entire financial burden to this portion of the local economy. Because their patrons would be the main users of the system—and currently cause the congestion and pollution problems the people mover is intended to alleviate—it seems only fair that the casinos and their patrons should bear a substantial portion of the costs.

In evaluating the feasibility of state, county, and local revenue sources for transportation finance, it is essential to remember that even if any of these revenues became available, it is far from certain that they would be allocated in sufficient amounts to a people mover. Unless the people mover can fund itself through fares or other system-generated revenues, it stands as one of numerous proposed capital projects in competition for scarce resources. In Atlantic City alone, convention center construction efforts are dragging for want of adequate support; the upgrading of the Atlantic County International Airport (Pomona) is indefinitely delayed; and funds needed for a new solid waste disposal facility have yet to be found. In the state as a whole, several transportation projects already in the final design phase await funding for implementation. Just maintaining and improving New Jersey's Interstate highway network will take up most of the state's transportation capital budget for years to come. Of the federal transit subsidies still remaining after years of cutbacks, virtually all are already committed to New Jersey Transit. Were the people mover to require state, county, or local subsidies for capital or operating costs, the timing and availability of such assistance would depend on the people mover's priority relative to other proposed and already scheduled capital projects.

As a practical matter, the most feasible alternative for financing the people mover appears to be fare revenues, especially considering the political, fiscal, and economic realities facing Atlantic City and New Jersey. In relying on this mode of transit finance, it is critical to ensure that the mandatory intercept of casino bus passengers and commuters does not deter visitors from using buses to reach Atlantic City. A modal shift from transit to the automobile would greatly exacerbate the very congestion and pollution problems a people mover is intended to mitigate.

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