ABSTRACT AND SUMMARY

There is always a conflict between the interests of consumers and producers. It can be stated in over-simplified terms as follows. The consumer wishes to obtain the most within the constraints of the available income. At the same time, the producer wishes to obtain the most in income for each unit of production. Competition, which operates through the market, forces producers to compete with one another for the business of customers, which lowers prices, to the general advantage of the consumer. Producer interests prevail in monopolistic (and oligopolistic) situations, which is why governments tend to regulate monopolies. Governments, however, have been less inclined to regulate their own internal monopolies, partly because of the belief they are not driven by the same profit motive that impels private monopolies to force prices higher. And, while the same profit motive does not operate in government, another profit motive does, and one that may sometimes impose even higher prices that would occur in a non-regulated private monopoly. The difference is that the monopoly premiums are buried in higher than market payroll (wage and employee benefit) costs, which trade unions are able to obtain in the non-regulated, non-competitive environment. Monopoly premiums are also hidden in staff sizes, as managers perceive their career advancement to be enhanced by larger bureaucracies and as trade unions seek work practices that make production more expensive (less productive).

These inherent costs of government monopoly have brought about a world-wide trend toward competition in urban transport. Public transport monopolies around the world have tended to deliver less than would have been provided at market rates. Yet, the necessity of subsidy, at least in the West, made it difficult to rely upon an unregulated public transport system. The exception is the United Kingdom outside London, where public transport was deregulated (New Zealand implemented a similar regime, but most services are competitively tendered. The term “deregulation” is often used to describe the reform of public transport in Scandinavia, however this is a misnomer. The reform was competitive tendering). There is still controversy as to the effectiveness of this approach. Surely costs have declined, though approximately at the same rate as in London, where competitive tendering was implemented. However, ridership fell even more rapidly than before. In the current environment, it is unlikely that deregulation of public transport will be implemented elsewhere, if
private market, and instead many jurisdictions implemented competitive tendering of services, which allowed competition for the market, under fixed term contracts that were re-competed at their expiration. Generally, the results have been favorable, with substantial cost savings in places as far apart as London, Stockholm, Copenhagen, Florence, Washington, Denver, Johannesburg, Florence, Adelaide, Perth, Auckland and Melbourne.²

At the same time, there has been an international interest in using the competitive sector to develop public transport infrastructure. In some cases, major projects have been developed with little or no government subsidy, as in the case of Eurotunnel and the Heathrow Express. In other cases, government subsidy has been provided, but competitive development (and sometimes operation) has been viewed as a method for more effectively delivering needed infrastructure.

THE UNITED STATES: BACKGROUND

This paper reviews the trend toward and extent of competitive participation in public transport in the United States. Having perhaps the world’s leading reputation for relying on free markets, it might be expected that the United States has been a leader among nations implementing competitive approaches to public transport operations and investment. On the contrary, progress in the United States (US) has been slower than virtually any other high-income world nation, except for perhaps Canada. This paper will review the US experience and make tentative suggestions for why progress has been so limited.

COMPETITION IN US: PUBLIC TRANSPORT OPERATIONS

Increased motorization and the resulting traffic congestion³ has led policymakers to adopt strategies intended to attract personal vehicle drivers to public transport and to increase dependence on public transport. The United States is no different, having more than tripled expenditures on public transport since 1970. By the early 1980s, however, it had become clear that the desired results were not being achieved, as unit costs consumed most of the new funding.

As a result, attention was turned to cost control measures,⁴ the most promising of which was competitive participation in public transport service delivery. With respect to

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³ Air pollution is becoming less of a factor because of the substantial progress being made with on-vehicle technology. Both air pollution per capita and gross air pollution levels have fallen in the United States (www.demographia.com/db-airpollu1970.htm).
⁴ In the United States, most attention is paid to operating costs, with little attention paid to capital costs. All of the costs referenced in this section are for operating costs, exclusive of capital (depreciation) and financing costs. The U.S. is unique in this regard, a circumstance that arises out of the fact that most capital
operations, the emphasis was on competitive tendering of public transport,\(^5\) whereby public authorities would continue to determine the services to be operated, the service standards and the fare structures, but many of the services themselves would be provided by competitively selected private providers.\(^6\) An aggressive program to encourage such private provision was initiated by the Urban Mass Transportation Administration (now the Federal Transit Administration) under Administrator Ralph Stanley, during the presidency of Ronald Reagan.

By 1970, the government takeover of private urban transport systems had been virtually completed, with policy and service having been transferred to government owned monopolies. Like the founders of London Transport before, US public transport officials believed that public ownership would lead to stable or even lower unit costs, ensuring the public of greater return on its funding in the future. This was not to be, as monopoly led to higher unit costs, with trade unions successfully seeking much more lucrative labor contracts, while managers and policy boards\(^7\) lacked serious incentives to resist.

US public transport competitive tendering began with the paratransit (door to door) services added during the 1960s and 1970s. These services were principally designed for senior citizens and the disabled. The quickest way to start these services was to seek competitive bids from the private sector. At the same time, the services remained small in comparison to the bus and rail services that constituted much of public transport, so there was little resistance from the trade unions. Generally, the situation remains the same today, with 69 percent of paratransit services provided through competitive mechanisms.\(^8\) In the meantime, however, federal legislation (the Americans with Disabilities Act) established a requirement that comparable accessible services be provided throughout the service area by public transport authorities receiving federal funding. In addition to requiring virtually all bus and rail services to be accessible to the disabled, additional paratransit services are required within public transport service areas for those unable to use the accessible bus and rail services. In 2001, paratransit vehicle miles represented 17 percent of public transport service, having nearly tripled since 1990. Today, paratransit vehicles travel nearly as far each year as the nation’s metros (though metros carry more than 60 times as many person miles).\(^9\)

\(^5\) In the New York city area there is a remnant of private, franchised bus operators who provide service into the Manhattan business district without operating subsidy (some subsidies are provided for acquisition of vehicles). There are approximately 1,300 buses carrying more than 200,000 riders daily in 2001.

\(^6\) Private, profitable providers also continue to exist to in some parts of the high income world. There are a number of unsubsidized private regional rail and bus operators in Japan. More than 80 percent of public transport ridership in Tokyo-Yokohama and Osaka-Kobe-Kyoto is on unsubsidized private suburban railway companies, a larger volume in each case than all of the public transport systems in the United States combined (calculated from *Millennium Cities Database*).

\(^7\) In some cases, laws require a public transport board member to be a representative of trade unions. There have been suspicions among board members that trade union oriented board members have provided unions with information on agency negotiating strategy during collective negotiations.

\(^8\) Calculated from National Transit Database for 2001.

\(^9\) Calculated from National Transit Database for 2001.
Overall, 9.2 percent of public transit bus service is competitively tendered in the United States.\(^{10}\) Most systems that are fully competitively tendered are in smaller areas, outside major metropolitan areas, though the greatest amount of service is in large metropolitan areas. Some of the more significant cases are outlined below. There is no competitive tendering of metro or light rail service (Figure 1). However, there are proposals to competitively tender the Minneapolis-St. Paul light rail system, which is under construction. In addition, approximately 30 percent of the nation’s dedicated school bus service is operated by private companies, though not all competitively tendered (and data is limited).\(^ {11}\)

![Figure 1](image)

**San Diego:** Competitive tendering of conventional public transport service began most significantly in San Diego, where local general purpose governments received funding from the state of California and had contracted with a public monopoly, San Diego Transit, for their services. In 1979, San Diego Transit signed a collective agreement granting bus drivers an hourly wage of $10.00 --- the highest in the nation at that point. This led some local governments to withdraw support from San Diego Transit and to competitively tender for their bus services. Thus, San Diego began competitively tendering more than five years before London Regional Transport.\(^ {12}\) Unlike London, however, the conversion of bus service to competitive tendering was not completed. In the late 1980s, the California legislature placed authority for public transport policy in the pre-existing Metropolitan Transit Development Board (MTDB), which had built the nation’s first new light rail line in thirty years, and done so within financial projections.

\(^{10}\) Calculated from National Transit Database for 2001.

\(^{11}\) School buses are by far the largest public transport system in the United States. There have been estimates as high as 90 billion person miles per year, which would convert to 500 million person miles per school day. By comparison, public transport carries approximately 180 million person miles per day.

\(^{12}\) Often public transport boards have trade union officials as board members, which creates a serious conflict of interests.
The former public transport monopoly, San Diego Transit, became a subsidiary of MTDB, and MTDB coordinated the activities of agencies administering competitively tendered services (including itself). The collective agreement for San Diego Transit trade unions was signed by San Diego Transit, not MTDB. This separation of policy from operations preserved considerable authority for MTDB to implement competitive tendering programs because its non-San Diego Transit services were funded without funding. In 2002, with considerable support from public transport trade unions, the California legislature combined San Diego Transit into MTDB, recombining public transport policy and operations. This is likely to slow what had been a slow, but methodical conversion of services to competitive tendering.

By 2001, 40 percent of bus services were competitively tendered. Operating costs per mile of the competitive services were 33 percent below former monopoly San Diego Transit. Costs were 42 percent lower than North County Transit (NCT), an agency outside MTDB jurisdiction in the same county. NCT is a relatively young public transport agency, yet has developed costs higher than that of much older San Diego Transit, which has been operating in a competitive environment (Figure 2). Overall (competitive and monopoly) bus costs per mile had declined 30 percent (constant prices), demonstrating that the threat of competition had influenced monopoly costs toward market costs.\textsuperscript{13} By contrast, over the same period, US public transport operating costs per mile rose 3.7 percent.\textsuperscript{14} A new suburban rail line was established in the 1990s (“Coaster”) and its services are competitively tendered.

\begin{figure}[h]
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\includegraphics[width=0.7\textwidth]{San_Diego_Bus_COMP.jpg}
\caption{San Diego Bus Competitive Tendering}
\end{figure}

\textbf{San Francisco:} A number of public transport agencies competitively tender service in the San Francisco Bay area (15 percent of service). The largest contract is administered

\textsuperscript{13} Calculated from San Diego Metropolitan Transit Board data.
\textsuperscript{14} Calculated from National Transit Database and American Public Transit Association data.
by San Mateo County Transit, with services operating into downtown San Francisco. This may be the only competitively tendered articulated bus service in the nation. Competitively tendered costs are 44 percent lower than public monopoly costs (Figure 3). One agency, Santa Clara Transit, like North County Transit in San Diego, is relatively young (approximately 25 years), yet has operating costs per vehicle hour higher than any other major agency in the country, including some that have operated service for a century.

![San Francisco Bus Competitive Tendering](image)

**Figure 3**

**Dallas-Fort Worth:** The largest individual competitively tendered operation in the nation is in Dallas, under the administration of DART (Dallas Area Rapid Transit). This express and suburban connector system was established in the mid 1980s, but may face serious cutbacks. There are indications that the transit agency is considering cancellation of many of the tendered services to balance its budget. Today, 34 percent of public transport service is competitively tendered in the Dallas-Fort Worth area. Competitively tendered services are 42 percent less costly than the in-house services of DART (Figure 4).

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15 Reduction of bus services has happened in other places where aggressive rail construction programs are underway. In addition to Dallas, this has happened or is being threatened in Los Angeles, Santa Clara County (San Jose in the San Francisco Bay Area), St. Louis and Buffalo.
Minneapolis-St. Paul: In 1983, the Minnesota legislature established a “separation of policy from operations” public transport governance structure in Minneapolis-St. Paul. The Regional Transit Board (RTB) was prohibited from operating service itself, and instead was to regulate the services and performance of the large monopoly bus operator, the Metropolitan Transit Commission (MTC), and coordinate the activities of municipal governments, itself and other agencies that were competitively tendering public transport services. The collective agreement with the Metropolitan Transit Commission trade unions were signed by the Metropolitan Transit Commission, not the Regional Transit Board. This gave the policy board considerable freedom to implement expansions of competitively tendered services without violating the labor provisions of federal public transport law. RTB began to transfer MTC services to competitive operation. In response, the trade unions lobbied to abolish the RTB, which occurred less than a decade after its creation. All public transport operations were placed under the regional planning organization, the Metropolitan Council. This recombined policy and operations, and collective agreements were again signed by the organization that controlled local, state and federal subsidies. The remaining services constitute 17 percent of Minneapolis-St. Paul bus service, and costs are 30 percent below the in-house costs of the former MTC (Figure 5).
Los Angeles: In 1977, the California legislature created the Los Angeles County Transportation Commission (LACTC), to oversee public transport policy and to control all federal, state and local subsidies. LACTC was not permitted to directly operate services. At that time, virtually all services in the county (the nation’s largest, with nearly 10 million residents), were provided by the Southern California Rapid Transit District (SCRTD) and eight smaller municipal operators. Collective agreements continued to be signed by the individual operators, rather than LACTC. This approach established a “separation of policy from operations” organizational structure for Los Angeles County.

In a 1979 revision of the law that had established the Los Angeles County Transportation Commission, the California legislature permitted the establishment of “local transportation zones.” This authority was used by LACTC to develop a process whereby local or regional communities could establish new public transport districts and competitively tender services that had been previously provided by public monopolies. As a result, the “Foothill Transit Zone” was established in the late 1980s, assuming much of the service formerly provided by the monopoly Southern California Rapid Transit District (SCRTD) in the San Gabriel Valley. Early reports indicated cost reductions of more than 40 percent. By 2001, the Foothill Transit Zone, which competitively tenders all of its services, was operating more than 230 buses (more than double the original service level) and was among the nation’s 40 largest bus operators. Shortly after the Foothill Transit Zone was established, there were proposals for additional zones.

16 This was a product of the Service Coordination Committee of LACTC, which the author chaired at the time. Much of the consultant assistance in the development of this process was provided by Subhash Mundle, then working for Booz-Allen-Hamilton, who co-authored a Thredbo 5 paper on competitive tendering in Denver.
18 National Transit Database.
However, court actions and legislative changes (both at the behest of trade unions) made establishment of new zones much more difficult and expensive.\textsuperscript{19}

At the same time, LACTC had been authorized to collect a new regional public transport tax, 25 percent of which was returned to the more than 80 municipalities and the county (administering areas outside the municipalities) on a population formula basis for the purpose of expanding public transport services. As a result of this “local return” program a number of new local public transport systems were established. The largest program was in the city of Los Angeles, which assumed responsibility (also in the late 1980s) for many express bus services previously provided by SCRTD and now competitively tenders more than 200 buses. Early reports indicated cost savings of more than 40 percent.\textsuperscript{20}

In the early 1990s, the state legislature combined LACTC and SCRTD into the Los Angeles County Metropolitan Transportation Authority (LACMTA), largely at the urging of local political officials, who felt that the two agencies were too costly and were duplicating efforts. In fact, significant cost escalation, both in operations and capital projects followed the combination, which ended “separation of policy” from operations in Los Angeles.

Today nearly 900 buses are competitively tendered in the Los Angeles metropolitan area, approximately 23 percent of the total service. Competitively tendered services are 46 percent less costly than the in-house bus services of LACMTA. The competitively tendered services are 30 percent less costly than the in-house services operated by other public transport agencies and the municipal operators (Figure 6). Moreover, a new suburban rail system was established in the early 1990s, and all of its services are competitively tendered.

However, unlike San Diego and London, the local monopoly operators were never challenged and costs have continued to escalate.\textsuperscript{21} Had the same cost performance been achieved at SCRTD\textsuperscript{22} as in San Diego, costs for the same level of service would have been 30 percent lower in 2001, a reduction of $4.3 billion in operating costs from 1980 to 2001 (inflation adjusted).\textsuperscript{23} In Los Angeles, most service is immune to the cost containing influence of competition.

\textsuperscript{19} For example, any new zone would have to require contractors to assume the collective agreement that had been in place for the service. This would be required even if it began with a new work force and former workers were found other jobs or paid redundancy.
\textsuperscript{21} The trade union action to limit transportation zone authority began in the late 1980s.
\textsuperscript{22} Now called the Los Angeles County Metropolitan Transportation Authority, a merger of the Los Angeles County Transportation Commission and the Southern California Rapid Transit District.
\textsuperscript{23} \texttt{www.publicpurpose.com/ut-sdla2001.htm}
Denver: In 1988, the Colorado legislature enacted the nation’s only mandatory competitive tendering law with respect to any public service, which was sponsored by State Senator Terry Considine and State Representative Bill Owens. The act required Denver’s public transport authority, the Regional Transportation District (RTD), to competitively tender 20 percent of its bus service within an 18-month period. This was accomplished, and despite continuing to pay redundant workers to avoid federal sanctions (below), cost savings were achieved almost immediately. Unlike most large competitive tendering projects, however, the tendering authority was also a competing operator. As a result, there was considerable internal opposition to competitive tendering and various efforts to encourage repeal of the mandate. For example, in 1994, RTD management provided an analysis to the state legislature indicating that its internal costs were now little more than competitive costs. The analysis was invalid, however, because the RTD cost figure did not include capital costs, while the competitive data did. The effort was unsuccessful, however, because new management took control soon afterward and corrected the financial irregularities.

However, the fact that the tendering authority is also the operator has been the source of great difficulties. Considerable efforts have been expended by the impacted national trade union to demonstrate that savings have not been achieved. These cost analyses have been generally unorthodox and incomplete. A Thredbo 5 paper estimated cost savings at $88 million over the first 11 years, more than RTD’s spent to built its first light rail line,

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24 This act was drafted by the author for the sponsors, State Senator Terry Considine and State Representative Bill Owens (now governor of Colorado).
26 www.publicpurpose.com/ut-denbs.htm
which opened in 1994. In 2001, competitively tendered services cost 45 percent less per vehicle hour than service provided internally by the public transport agency (Figure 7). In 1999, the state legislature expanded the competitive tendering mandate to 35 percent, which has been implemented. There have, however, been difficulties. The most significant was when a private operator was awarded a large contract in 1999 at costs that were unsustainably low. New tenders were issued, and the mandatory competitive tendering program was increased to 50 percent by the state legislature in 2003. Both of the recent competitive tendering expansions were signed into law by Governor Bill Owens, who had been one of the sponsors of the original 20 percent legislation in 1988.

Las Vegas: Las Vegas represents the only major US metropolitan area in which there has been a full conversion to competitive tendering. This was possible because as late as the early 1990s, there had been no public transport system in Las Vegas. Some services were provided by a franchised private operator principally in the casino corridor ("Las Vegas Strip"), without public subsidy. Clark County established a public transport system and determined to competitively tender the service. The system has grown at a rate unprecedented in the United States. The former private operator served 10 million trips in its final year of operation. Today, Citizens Area Transit, the competitively tendered service, carries approximately 50 million passengers per year. From 1990 to 2000, the US Census reported that the Las Vegas metropolitan area had experienced by far the greatest

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28 Wendell Cox, Janet Kraus and Subhash Mundle, Competitive Tendering of Transit Services: Denver Experience, Fifth International Conference on Competition and Ownership in Land Passenger Transport (Leeds), 1997.
30 The new mandate includes paratransit services. The previous 35 percent mandate included only buses.
increase in public transport work trip market share, 100 percent. This was a particularly significant development, since Las Vegas was also the fastest growing major metropolitan area in the nation. Moreover, costs have been comparatively low. In 2001, operating costs per vehicle hour were 41 percent below average for public transport authorities operating more than 1,000,000 hours, and 11 percent below second ranking San Antonio (Figure 8).  

![Las Vegas Competitive Tendering](image)

**Figure 8**

**Seattle:** For approximately 15 years, the northern suburban public transport agency in Seattle (Snohomish County) has competitively tendered an express bus network that principally feeds downtown Seattle. This service had previously been provided by the Seattle public transport agency under a negotiated contract. Nearly 100 buses are operated, at costs 41 percent below that of the agency’s in house service and 38 percent below the cost of the Seattle public transport agency service (Figure 9).

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31 Public transport’s share is still small, however, at 4.0 percent. Second ranked Sacramento gained 13 percent. Public transport’s share declined in 40 of the 49 metropolitan areas over 1,000,000 population.

32 Calculated from National Transit Database.
Boston (Bus): In 1993, Massachusetts Governor William Weld (Republican Party) sought to begin competitively tendering bus service in Boston. A contract representing more than 20 percent of the bus service was tendered. This tender was unique, being the first time in the United States that a genuine public transport tender called for the new operator to assume the wage and benefit agreement already in place with the public authority. The winning operator’s bid still would have saved more than 15 percent. Nonetheless, the proposal was strongly opposed by the trade unions, which managed to lobby a law through the state legislature that created nearly insurmountable barriers for tender award; With more than two thirds of both houses of the legislature controlled by trade union supported Democratic Party the bill became law over the objection of the Governor. The project was eventually abandoned.

Boston (Suburban Rail): In 1999, the Massachusetts Bay Transportation Authority (MBTA) decided to competitively tender its suburban rail system. This is the nation’s third largest regional rail system, following New York and Chicago, larger than both Philadelphia and Canada’s largest system, in Toronto. The incumbent operator was Amtrak, the nation’s federally owned intercity passenger rail utility. The low tender was 40 percent below the Amtrak tender, and MBTA announced its intention to make the tender award. Amtrak management and its trade unions mounted a strategy in Washington to stop the tender award, which ended when the federal government threatened to withhold further funding to MBTA unless Amtrak were granted the contract.\(^{33}\) The contract was awarded to Amtrak.

In 2001, MBTA announced to the industry that it would again seek competitive bids for its suburban rail service. At about the same time, the Amtrak Reform Council made its statutorily required finding to the effect that Amtrak would not meet its congressionally

\(^{33}\) Two other operators had submitted tenders lower than Amtrak.
mandated goal of operating cost self-sufficiency by December 2002. Amtrak was facing a serious financial problem and indicated that it would not tender for the service. There were three tenders, from Stagecoach-Herzog, Guilford Rail (US) and Connex-Bombardier (France-Canada). The Connex group won the tender and began service on July 1, 2003. No cost comparison information is available at this point.

**Other Suburban Rail:** The historic San Francisco to San Jose “Peninsula” service is also competitively tendered, having been awarded to Amtrak in 2001. This service has now been competitively tendered twice since it was assumed from the former operator, the Southern Pacific [freight] Railroad. Two other firms submitted tenders.

New regional rail systems have also been competitively tendered in Los Angeles, San Diego, Dallas-Fort Worth, San Francisco (Altamont) and Miami-Fort Lauderdale. Other new systems, in Seattle and Washington, DC have used non-competitive contracts with Amtrak and freight rail companies. There are indications that the Virginia Railway Express system in Washington, DC and the Maryland state system in the Washington-Baltimore area may consider competitive tendering in the future.

Perhaps because new regional rail systems do not directly threaten the work already done by trade union members, it seems likely that most will be competitively tendered.

**COMPETITION IN PUBLIC TRANSPORT INVESTMENT**

Federal, state and local governments make available large amounts of funding for capital development. In 2001, for example, public transport capital expenditures were approximately $11 billion, one-third of the nearly $33.5 billion in total expenditures. As would be expected in a monopolistic environment, public transport authorities have spent more than would be expected if market disciplines were operating. Over-designed facilities, such as new headquarters buildings and operating facilities have often been built. In an environment of federal funding and federal regulation, buses and other transit vehicles have escalated in cost well ahead of inflation. The greatest escalation has occurred with respect to public transport systems. Almost without exception, major metropolitan areas have sought to develop expensive new rail systems --- some rapid (metro and suburban rail) and some not, as in the case of light rail. At the same time areas have generally not implemented much less costly bus rapid transit systems. John Kain led a team of Harvard researchers who concluded that the capital and operating cost per passenger mile of bus rapid transit systems was one-fifth that of rail systems. But, as in the case of public transport operations, special interests have captured public transport system development. Firms that specialize in building rail systems, cars and components have lobbied to support building unnecessarily expensive urban rail systems. As a result of these factors, capital expenditures have escalated much more than operating

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34 Now a part of the Union Pacific Railroad.
35 The nation’s intercity passenger rail operator.
expenditures since 1970 --- an increase of nearly 17 times per passenger mile (1,700 percent), inflation adjusted.\textsuperscript{37}

In 1989, the US Department of Transportation published research by Don Pickrell that found large cost escalation for public transport rail projects and overestimation of use.\textsuperscript{38} Similar research has recently been the result of two books, by Altshuler and Luberoff\textsuperscript{39} and by Flyvbjerg, Bruzilis and Rothengatter.\textsuperscript{40} An earlier paper by Flyvbjerg, Skamris-Holm and Buhl found that average cost escalation on road projects in North America was 8.4 percent, while average cost escalation in urban rail projects was 40.8 percent (Figure 10).\textsuperscript{41} It is possible that this difference is related to the procurement methods generally used. There is a much smaller market of suppliers to build urban rail projects, which tend to be managed as large, single projects. Roads, however, tend to be procured in relatively short segments, with a more competitive market of smaller highway builders (more than 12,000)\textsuperscript{42} not in a position to influence costs upward.\textsuperscript{43}

Another inherent market difference is the fact that the firms that build urban rail systems also plan them and, at least according to Flyvbjerg and associates, may engage in manipulation of project prices to ensure that they are built, “low-balling” early project estimates, and reaping monopoly profits as costs are driven up during project implementation. Often the costs proposed at the point local officials make their decision are much lower than later emerge. In addition, the rail firms are often involved in consulting reports that propose rail systems as preferred alternatives, which gives them the inherent incentive to estimate costs overly conservatively, to keep marginal projects alive. Professor Flyvbjerg and his associates have noted that this “low ball” bidding is often the result of “lying” that promoters think is necessary to get the projects approved.\textsuperscript{44} Project cost and political manipulation of this sort is generally not possible in the road building industry, because of the dispersed nature of the supplier market (the large number of contractors). The problem is that in the United States and elsewhere, the incentives of politics are such that the officials who determined to proceed with a project

\textsuperscript{37} Estimated from American Public Transit Association data and National Transit Database. By contracts, transit operating costs increased slightly less than 100 percent per passenger mile, inflation adjusted.


\textsuperscript{41} Bengt Flyvbjerg, Mette Skamris Holm and Soren Buhl, \textit{Underestimating Costs in Public Works Projects: Error or Lie?}, APA Journal (American Planning Association), summer 2002.

\textsuperscript{42} U.S. Economic Census, 1997.

\textsuperscript{43} A significant exception is the Boston Central Artery Project, which includes placing a downtown motorway underground and building tunnels to Logan International Airport. This project was procured in a manner similar to an urban rail project, rather than a highway project. Flyvbjerg (2003) places the cost overrun at 196 percent, while data in Alshuler indicates a cost overrun at nearly 300 percent. A Massachusetts Inspector General report found that project managers and public officials had engaged in the type of behavior noted by Flyvbjerg (2002).

\textsuperscript{44} Flyvbjerg et al note that the same situation occurs in highway and high speed rail construction, but that it is the worst in urban rail.
are unlikely to seek its cancellation when costs escalate, out of fear of electoral loss in the future.  

Further, public transport vendors and rail developers are among the strongest financial supporters of tax referenda to built urban rail systems. For example, in the 1992 Salt Lake City light rail referendum, public transport consultants and vendors were provided nearly 80 percent of the campaign support, and overall more than 50 percent of the donations came from public transport vendors and consulting firms located outside the state (Figure 11). From the perspective of the rail developers, this is a rational strategy. If, for example, bus based strategies were selected instead, there would be a much larger market of potential builders (above).

![Figure 10](Image)

Cost Escalation in North America
ROAD AND URBAN RAIL PROJECTS

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Urban Rail | Roads
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45 The author has “first-hand” experience with this. In 1981, the Los Angeles County Transportation Commission (of which he was a member) approved building the “Blue Line” light rail line from Los Angeles to Long Beach. The cost was projected at $140 million, and would not have been approved if it had been materially higher. Through the years more money became available and there were frequent cost increases. Once, however, the project received political approval, virtually no elected official suggested cancellation. By the time the line opened, the cost had escalated 150 percent.

46 [www.publicpurpose.com/ut-slicelect.htm](http://www.publicpurpose.com/ut-slicelect.htm) Proponents spent 55 times as much as opponents. The referendum was rejected, 58 percent to 42 percent.
There has been some interest in attempting to use “design-build-operate” mechanisms to keep cost escalation under control. But there has been little progress. The most significant case was the Hudson-Bergen light rail line in New York’s New Jersey suburbs. By the time the first segment had opened, the line had more than doubled in cost per mile, while ridership was less than one-half of projection. 47 Similar cost escalation may have occurred in the San Juan (Puerto Rico) “Tren Urbano” project (with an opening date already nearly three years behind forecast), where the addition of two stations to a line with 14 added nearly one-third to the cost. 48

Thus, the apparent international success of competitive participation in public transport infrastructure development has not been replicated in the United States. There seems little reason to believe that it will be, since virtually no effort is being implemented to adopt the necessary economic safeguards.

There are hopeful signs, however, in the form of much less costly public transport infrastructure improvements. The rising cost of urban rail systems has resulted in greater interest in rapid busway systems. A new, very inexpensive surface rapid bus system has been established in Los Angeles, largely due to the efforts of former Mayor Richard Riordan, who visited Brazil and was impressed with the systems there. The ridership on a single Bogota surface bus system demonstrates the large capacity of such systems (more than 350,000 daily). The much more comprehensive Porto Allegre system carries more than 1.7 million daily passengers, less than the New York metro, but double that of the second most patronized metro in the United States (Washington metro) and the Toronto metro. Atlanta is beginning a similar system and another is in planning in Houston and the East Bay area (AC Transit) of the San Francisco Bay Area.

47 www.publicpurpose.com/ut-hudsonb.htm
48 Calculated from Federal Transit Administration “New Starts” reports.
IMPACT OF COMPETITION

Competition has had a significant impact in reducing costs and enabling service expansion, ridership increases and funding for new capital projects in the areas where it has been materially implemented.

But, there has been little impact in the larger portion of the nation in which competitive incentives have been used less. U.S. public transport productivity has continued to decline, as overall expenditures have rose 208 percent from 1970 to 2000, while person miles increased only 10 percent (Figure 12). Overall expenditures increased 169 percent per person mile. From 1970 to 2000, public transport delivered approximately $0.05 in new value (new passenger miles) per new $1.00 (inflation adjusted) of government expenditure (Figure 13)
Public transport has become considerably less productive, at the same time that private passenger transport industries have become more productive, due principally to the influence of market forces through deregulation (Figure 14). U.S. government has also failed to enact serious productivity reform with respect to Amtrak, the nation’s federally owned intercity rail passenger utility. These two cases, Amtrak and public transport, may be indicative of the difficulty governments face when reforming their own enterprises.

49 The author was a member of the Amtrak Reform Council (from 1999 to 2002) which was required to monitor Amtrak performance and report to the Congress by 2002.

50 A principal reason is that special interests, especially trade unions, have much more
But it is not just compared to the private sector that public transport’s productivity has fallen. Public transport’s cost escalation has been more than 1.5 times that of public education, a function that the nation, states and local governments have purposefully spent considerably more money over the past 30 years and nearly three times the expenditure escalation of all levels of government combined. Public transport’s expenditure escalation rivals that of health care, a sector for which U.S. cost escalation is internationally notorious (Figure 15).

Public transport’s expenditure escalation contrasts with road expenditures, which (all levels of government combined) have declined per person mile (Figure 16). Public transport’s costs per person mile have risen to the point that they are now three times the full cost (including all cost of vehicle ownership, operation and road infrastructure) per person mile of automobiles (Figure 17). This has induced some researchers to suggest that the public transport subsidies now targeted to the small percentage of households without automobiles (10 percent in 2000) would be better spent in providing vouchers for automobile ownership and operation.


52 The US Department of Transportation Nationwide Personal Transportation Survey found in 1995 that nearly 70 percent of public transport riders do not have a personal vehicle available for their trip.

ASSESSMENT

Despite the significant potential for improving public transport through competitive incentives in the United States, the political has proven most difficult. Some of the barriers are outlined below.

- **Federalization of Public Transport Policy**: Public transport policy in the United States has been federalized. The central government not only provides a large share of the funding, but it also mandates various requirements, the most
important of which is an up to six-year redundancy payment of wages and benefits for any worker losing a position due to an economy or efficiency. At the same time, the U.S. Department of Labor has generally administered this provision of law so favorably toward trade unions that public transport authorities are very reluctant to even consider improvements that would invoke the redundancy provisions. Federalization of policy has thus limited regional and local innovation and flexibility.\(^{54}\) In a number of nations, public transport policy is being decentralized (such as in Germany and France). But there is an initiative to federalize public transport policy in Canada, which could hinder public transport performance there as it has in the United States. There is reason to believe that Canada’s more localized public transport funding and administration system has assisted in the more favorable performance relative to that of the United States.\(^{55}\)

- **A Too Pure Approach?** It is possible that the manner of competitive tendering implementation was too theoretically “pure” and might have been more successful if a more “European” approach had been used. The US approach was to allow the market to establish working conditions and collective agreements, at the same time that the individual interests of public transport workers were financially guaranteed by federal law. In Europe (outside the United Kingdom), many competitive tendering conversions have required new operators to assume the former work force, wages and collective agreements, which kept costs higher than market. However, it seems unlikely that this less strident approach would have made much difference. For example, when a “European” approach was used in Boston for competitive tendering of bus service, it evoked a political response that terminated the program. And now, the Bush administration is seeking to expand competitive tendering of federal government services under what is called the “A-76” process, which requires continuation of union and employee rights. Nonetheless, federal employee unions have worked hard to obtain prohibitions against the program, from a Congress controlled by the President’s own Republican Party.\(^{56}\)

- **The US Constitutional and Political System:** The US separation of powers system may be more susceptible to long term public interest control than the Westminster style parliamentary systems that predominate in much of the rest of the developed world. There is no formal coordination of party policy or candidate selection. As a result, members of Congress and state legislatures are free to vote as they like (or as they are inclined to depending upon local or special interest influence), and may “cross the line” to support policies generally consistent with that of the political opposition. Because members of both houses of Congress are

\(^{54}\) This type of federalization of regional and local policy is virtually the opposite of European “subsidiarity.” It might be argued that elevating policy control to a more remote level of government works to the advantage of special interests because there are greater economies of scale for political influence (lobbying).


\(^{56}\) A party that has for decades been perceived generally as opposed to much of the agenda of trade unions.
popularly elected in party primary elections, instead through a process under the control of the parliamentary party, there is likely to be a greater loyalty to local issues than to national party issues. Members of Congress often make it a high priority to “bring money home” to the local constituency, which tends to dilute ideological divides. As a result, it can be typical for a conservative Republican member of Congress who supports stringent fiscal discipline to champion funding for a local expensive and comparatively inefficient rail project.

On issues seen as threatening to trade unions, Democratic Party representatives tend to rarely “cross the line,” because of their heavy reliance on their campaign donations and campaign volunteers. Trade unions may be the most coordinated lobbying force in the United States, by virtue of the fact that much of their political policy is jointly determined and coordinated by a single organization, the AFL-CIO. Business and industry are by no means as coordinated in their lobbying coordination and their positions are often more diverse. One result of this situation is a strong congressional opposition to public transport reform issues that would facilitate competitive tendering. Moreover, Republican members of Congress can sometimes support trade union issues, and a number voted to preserve the special public transport labor protections the last time they were challenged.

In the decentralized US governance system, it is difficult for a President to coordinate, much less lead policy, even where both houses of Congress are controlled by the same party. A similar situation exists in states, where state legislatures are independent of state Governors, and policy coordination is difficult. This system, both at the federal and state level, favors continuation of the status quo. Thus, a Conservative government may take power in the United Kingdom intent upon reducing the power of trade unions and succeed (as occurred in the 1980s), or a Labor government may take power and implement an aggressive social democratic agenda (as occurred in the 1940s). On the other hand, in the dynamics of American politics, where legislators must be much more attentive to local political considerations, prevents not only resolute actions, but often even the advocacy of such measures. Thus, except in the case national emergencies or their equivalent, political change in the United States is much slower. Parliamentary government appears to empower the political structure to challenge strong political interests more successfully (this, of course requires governments prepared to do so, as in the case of the Atlee and Thatcher governments in the UK).

- The Role of Special Interests: Similarly, the susceptibility of the US system to moneyed special interest control is evident in public transport capital development policy. Public transport is a nearly $35 billion industry that has emerged as a formidable special interest in its own right. There is also a community of interest with the small number of firms specializing in developing urban rail projects.

57 One such case was the Great Depression, when President Roosevelt often enjoyed near parliamentary power in implementing his programs.
Public transport managers often have two potential directions with respect to career advancement --- they can take a job at a large public transport authority, or they can take employment at one of the firms specializing in rail development. The rail companies lobby local public transport and general government officials, often convincing them that building urban rail systems will reduce traffic congestion. They are supported by an environmental lobby and local rail advocacy groups, which the rail firms sometimes support financially (political “front” groups). These organizations are important in generating support for rail proposals with elected officials and local interests.

- A Competitive Environment: Related to the political factors above is the fact that it has been very difficult to establish and maintain a competitive environment in U.S. passenger transport. Ideally, this is accomplished by separating policy from operations, so that the public agency administering competitive tendering is not permitted to directly operate service itself. This removes the potential for a conflict of interest in which an operator that serves in a policy function either does not pursue competitive tendering, or competes unfairly. Separation of policy from operations has become the norm elsewhere in the high-income world where competitive tendering has been established. Such a structure was established in Minneapolis–St. Paul and Los Angeles but was abandoned due to pressure from trade unions and others. San Diego managed to maintain such a competitive environment the longest, but recently even that separation of policy from operations structure was legislated away. Denver, where legislation requires competitive tendering, does not have such a separation and the service has been able to survive largely because of a legislature and Governor philosophically committed to the concept (as the trade unions have used power to limit competitive tendering, Colorado political interests have used political power to maintain and extend competitive tendering). Without separation of policy from operations, the established, high cost public transport agencies are not placed in a competitive situation and competitive tendering are likely to have only limited, if any, downward influence on their costs.

Conclusion: Demonstrating a classic “public choice” situation, the dispersed interest of the public in obtaining the most transit service for the funding provided has, at least to this point, proven an insufficient match for the more concentrated interest of trade unions and public transport suppliers, especially those that develop urban rail systems. Meanwhile, as this political dynamic has been developing over the past 30 years, public transport’s share of urban trips has declined nearly 50 percent.

58 Planning reports usually predict little or no impact on traffic congestion even in the corridors in which rail is proposed.
59 [www.publicpurpose.com/ut-usptshare45.htm](http://www.publicpurpose.com/ut-usptshare45.htm)