A New Look at Urban Transit: Control vs. Market Approaches

John F. Due
University of Illinois at Urbana–Champaign

Abstract

The purpose of this paper is to take a preliminary new look at urban transit with regard to free market vs. government control. There is a sharp division between the free market emphasis in the literature and the government control emphasis in practice, in the United States and elsewhere.

Published: 2003
A NEW LOOK AT URBAN TRANSIT: CONTROL VS. MARKET APPROACHES

John F. Due
Professor of Economics Emeritus
University of Illinois, Urbana-Champaign

The purpose of this paper is to take a preliminary new look at urban transit with regard to free market vs. government control. There is a sharp division between the free market emphasis in the literature and the government control emphasis in practice, in the United States and elsewhere.

THE BROAD FIELD OF PUBLIC UTILITIES

Discussion over the broad scope of governmental role in the transportation and public utilities field has been greatly increased by highly influential persons and groups, such as think tanks and conservative political organizations. The consequence has been virtually complete deregulation of rail freight, truck, and intercity bus transport, as well as commercial aviation, electric power, water, telephone service and other utilities. The general evaluation of this deregulation and transfer from government operation to private ownership has been highly favorable, but there are exceptions. Local telephone service is one of the best examples of partial failure; extensive advertising with offers with little validity, endless efforts by phone calls, often misleading, and other means to get persons to change their local phone company. Rail freight deregulation on the whole is working relatively well, but has given rise to some charges of discrimination; a large carrier will provide lower rates for shipments originating on its lines in its cars than for shipments originating on small connecting railroads, for example. But these are not too significant in the overall picture.

Urban transit, however, is another matter, showing a sharp division between the two groups. Many of the distinguished economists writing in the urban field, follow the lead of John
Meyer (1984), and including other well-known transport economists such as Charles Lave (1951), George Hilton (1985), Clifford Winston (1998), and others. This approach is essentially the application of the Milton Friedman—University of Chicago—philosophy about the appropriate role of government in the economy to the field of urban transit as well as to other utility-type services; it became the basic value judgment of many of the right wing “think tanks” and more right wing elements in the Republican party and others. In policy the United States and the United Kingdom accepted the point of view that the market-dominated economy is always to be preferred, avoiding interference by government in the provision and control of urban transport and virtually anything else. It was also the basic view of the overall moderate Brookings Institute and of the World Bank and to some extent the I.M.F. in their policy work and advice in third world countries. One of the most recent publications is in the Brookings Review, “You Can’t Get From Here to There”, “Failure in U.S. Transportation”, Vol. 17 (Summer 1999), pp. 36-38 and Clifford Winston and Chad Shirley, Alternate Route – Toward Efficient Urban Transportation, (1998). Much of continental Europe and Canada have adopted a more moderate point of view.

**URBAN TRANSIT**

While the stress on the market approach in principle has developed in the urban transit field as in others, in practice the market economy approach has not become significant in practice. The basic question is what has caused the difference. There are several reasons which rest upon unique features of urban transit.

**Changing Features Of Transit Technology**

In the pre-bus era, competition among two or more urban transit entities, the streetcar enterprises, was almost impossible from an economic standpoint because of heavy fixed costs arising from the high investment in rails, switches, power supply, and other aspects relative to revenue. A few cities had more than one street car enterprise; San Francisco was a major
example with a private system, and a municipal system operating in part on the same streets, in part on different ones, but highly competitive. This duplication arose in part out of the need for street car tunnels, while the private company’s inability or unwillingness to finance led to the city undertaking them. In addition, part of the cable car system was a separate company, but not seriously competitive for most traffic.

Relatively small Sacramento had three street car systems arising out of operation of a few local lines by the two interurban systems serving the area, plus the principal local system of Pacific Gas and Electric. But there were few other examples.

**Evolution of Transit Models**

As noted, the typical street car system was regarded as a “natural” monopoly and competition was therefore uneconomic. The trolley bus introduced in some cities, such as Fort Wayne and Salt Lake City (Lave, 44, 1985), was essentially regarded as of the same character because of the substantial investment in the electrical overhead wire system.

The coming of the motor bus, however, soon altered thinking of some persons on the issue of competition, since the bus did not have the fixed costs of the street car and to a lesser extent of the trolley bus. (Simpson, 1994); (Lave, 1985); (Wiseman, 1992); (Winston and Shirley, 1998).

Initially the bus was regarded as basically a supplement to the street car, providing service on routes not warranting the investment necessary for the street cars and serving lower volume areas. But before long the bus came to be seen as a replacement or a competitor of street car lines – a trend frequently supported by city planners and automobile owner groups. Ultimately the bus was seen as offering complete competition against or replacement of the street car. Automobile users saw the elimination of rails from the streets and the use of buses to be desirable. In the last three decades the bus became the favorite of those who stress the market economy, as noted above.
Ironically, the past decade has also seen limited revival of the street car in the forms of light rail, in general using private rights of way. (Simpson, 1994); (Gomez-Ibanez, 1985).

While the coming of widespread bus systems permitted a market-economy approach, this in general has not occurred in the United States; despite acceptance of the market approach in other fields. There are several reasons.

Need for an Integrated System

One major requirement of an urban transit system is an integration of lines. Since any one line can serve only a limited area, provision of multiple, integrated lines is essential for ease and convenience for transfer from one route to another. Schedules and fares must be integrated with coordinated timetables and conformity to the timetable. With several systems, this does not occur automatically.

Related is the so-called peaking problem, which has grown increasingly serious: the concentration of transit use in peak commuting periods. The more severe the peaking, the more expensive it is to provide personnel and equipment without higher costs per passenger mile. The peaking problem has grown more serious as the automobile has been used for non-work commuter traffic and can be managed more economically with one transit enterprise to a much greater extent.

The Return Trip Problem

Another element in the difference between transit and most other utilities is the return trip problem. Traffic flows of transit vehicles and labor differ sharply from most other forms of business activity – including other forms of transport to a degree. In the typical transit pattern, the flow of transit traffic is outbound in the late afternoon, while the inbound flow is in the morning hours, particularly true of work-related commuting but also true of other aspects of transit work such as school and shopping as well. The transit vehicles and the labor to operate them must be brought in from outlying points in the intermediate period to be ready to handle the
reverse flow of traffic. The problem has been lessened to some degree but not eliminated by the
development of considerable reverse commuting. No matter what the solutions are, the basic
problem cannot be avoided. The same issue arises with commuter rail traffic and some freight
traffic but not with most other utilities. Peaking produced a high percentage of empty seats
which is noted by critics of the present system as evidence of inefficiency and thus the need for a
free market when actually it is an inherent problem of urban transit.

Closely related is the frequent need for splitting of a transit line into two, three or more
parts to reach a more scattered population in outlying areas. Various transit systems have used a
number of approaches, such as physical transfer of passengers at a junction or with rail, splitting
the train, some cars going one way, others different ones. Bus systems can use only the former.
All add to costs and lessening convenience to some users.

**Pollution and Congestion**

There are two major concerns about opening service to competing firms. One is
pollution, which duplicating competitive firms are likely to increase. Closely related is the effect
on congestion, which duplicating firms are almost certain to increase – perhaps significantly.
One of the major advantages of urban transit is to reduce the number of vehicles in congested
areas. Also, with duplicating enterprises, it may be more difficult to ensure the availability of
transportation for the elderly, disabled and children, including those using the bus to reach
school. One problem in Jamaica in the Caribbean when the shift was made from controlled to
market operation was that in rush periods bus owner-drivers would not pick up school children
because the fare was lower.

**The Shift To Government Ownership**

The private bus companies found it became increasingly difficult to cover their costs, in
part because the previous financial link of many of the transit firms with the power companies
had been broken by federal legislation. The result was a governmental unit taking over and
operating and controlling the market rather than a market approach. Thus operation by a governmental unit became standard.

In support of this approach there were several advantages. While regarded almost as a necessity – given the financial problems of the industry – there were other arguments in favor of governmental provision – particularly ensuring service for persons who could not afford standard or taxi fare or use of an automobile. Various fare systems were devised to make this possible. Government operation also enabled acquisition of modern equipment and operation of lightly used routes especially in low income areas.

**EVALUATION OF PRIVATE vs PUBLIC OPERATION OF TRANSIT SYSTEMS**

As noted above, initially in the 19th century transit service in the United States was provided by private firms, often affiliated with the electric power systems. With the rise in automobile usage, however, the systems became unprofitable – aggravated by the requirement that the transit companies pave between the rails of the street car lines. By the early sixties, the situation was becoming critical, and the companies sought to sell the systems to governments, primarily the city or a local district.

Funds were provided by Congress for the cities to buy the systems, and after 1970 to subsidize operation to cover deficits. Operation by governmental entities aggravated the financial situation of the companies despite subsidy. In a relatively short period most of the urban systems were in financial difficulty. Shifting from private to city ownership followed rapidly. One major consequence has been that the market-dominant approach sought reprivatization, which has been a common element in the plans for altering urban transit – though some of the advantages of the market approach could be made with publicly owned firms.

The basic argument for privatization of transit system is that private enterprise is more efficient and economically optimal than governments. The basic argument against government
operation is that governments are inherently less efficient in that the profit motive gives them incentive to hold down costs and develop optimal use of inputs.

This argument is not without some merit. But it is greatly exaggerated, and attempts to discredit it take many forms, including use of the derogative term “bloated” with regard to governmental units. Actually most governmental units are under strong pressure to gain efficiency and reduce costs. Persons in charge of governmental units are subject to budget agencies and legislative pressure to hold down costs. They do not always fully succeed, but neither do private firms. It is very difficult to end this argument by any analysis – but it tends to be exaggerated by many critics of governmental operation. It is true that wages paid to government enterprises may be driven above those paid in the private sector but the opposite may also occur.

This argument over relative efficiency in resource use of governmental enterprise vs. private firms is not nearly as clear as many persons believe – proof is very random. Governmental enterprises are in a better position to withstand national unions and declines in business volume for transit systems.

Regardless of the conclusions reached about relative efficiency of public vs. private enterprise, many of the changes proposed to gain greater efficiency in urban transit can be made under either private or public operation of the enterprises. But more optimal behavior is not facilitated by the use of derogatory terminology about either private or public operation.

**Empirical Studies**

As noted above, the transit industry has passed through the pioneer private-sector ownership to primarily public ownership and some pressure to return to private. What can empirical research reveal about relative advantages? This issue is not confined to the transit sector, of course. The widespread assumption is that governments are inherently less efficient than private ownership propelled by market objectives and profit making.
Various studies summarized by Lave concludes that the private sector shows lower cost than comparable government transit enterprises. (Winston-Shirley, 24); (Lave, 220-24). But when the sources of lower cost are analyzed, the primary source of the difference is to be found in labor costs. The private sector can obtain labor of a given type much more cheaply than government. But is this real efficiency? This can be debated endlessly. It is largely a measure of bargaining power: a governmental unit may be forced to pay high wages by the political strength of organized labor whereas this may not occur with private enterprise. A transit strike may have serious political consequences for the group in control. It is not obvious that ability to pay lower wages arising from political power is a true economy. The net conclusion that there is no clear cut answer to the question of whether private or public ownership is preferable.

**The Support For The Market Approach**

In short order, however, the market approach proponents began to take an active role, following the important work of John Meyer and his disciples. But after three decades of arguments to shift to the market approach, the traditional systems remain largely intact in the United States, even more so in continental Europe, less so in the developing world. The market approach would relegate operation to the private sector with unlimited access of new firms, and to sharp reduction in the typical size of the bus, with private ownership almost complete, individual freedom to start up new bus routes, and to change routing and fares and service as desired, and cease operation at will, charging whatever fares the firms thought optimal. Presumably competition would hold fares to cost levels, and insure quality service. Bangkok (Mees, 2000) and Manila are cited by some as models for this form of operation, though there are many objectionable features.

In the typical city in the United States however, little public interest has been shown in this type of change. The reasons why this system of market control has not caught on are numerous. First it is more difficult to ensure transport availability for the lower income groups
and persons who do not have or cannot operate cars. The universality of transport is lost even though basic fares may be somewhat lower. Safety standards may not be maintained; when Barbados in the Caribbean sanctioned some private operation, the buses suffered far more accidents than under the complete control system. Concerns about pollution and congestion are significant.

One other reason for support of urban transport, even by persons who regard it as inefficient, is the fear that congestion will continue to become more severe.

**THE SIZE OF BUSES**

As buses replaced street cars, in general the operation was initially by the same companies, which used vehicles comparable in size to street cars. But the anti-government movement gained some strength, and costs were shown (per passenger mile) to be lower with smaller buses with capacity less than typical street cars, and the free market adherents began to press for the use of smaller vehicles.

The approach had actually been used to some degree by the street car operators in the form of Birney cars (Lave 1951), with four wheels instead of eight, and capacity of one third or less of the standard cars. Smaller cities used them exclusively (e.g., Bakersfield & Kern), larger cities on light traffic and short distance lines (e.g. Oakland). Though used on lighter traffic routes they were not usually favorably received by the patrons and ultimately disappeared from usage. The cartoon equivalent of the Birney car was the “Toonerville Trolley”.

The smaller transit motor vehicles have taken various forms. Some are simply minibuses – small buses built to standard bus design; others, often called jitneys for the fare of 5 cents usually charged, were more like vans used for specialized purposes. Use of these were urged by free-market advocates. There are, however, several objections to the smaller vehicles. To the user they were much less satisfactory than standard buses; while it should be possible to build comfortable vans, such have been rare, and overcrowding is common. They also add to
congestion, as a van takes up almost as much space as a standard bus. They almost certainly add more to pollution than larger vehicles per passenger carried. To the “free market” defenders, it is a mystery why they have not caught on but the dislike appears to extend beyond these objections. There are rather clearly defined reasons users of transit appear to have strong preference for larger standard buses, a factor that the market defenders seem unwilling to grant, instead claiming that the preference for larger buses reflects preferences of labor unions and transit managers. There has been a greater tendency to shift to smaller buses in the U.K. than elsewhere.

Regardless of the size of the vehicle chosen, freedom of entry suffers from two serious related disadvantages – increased pollution and increased congestion. One can of course envision free entry with larger size vehicles lessening both pollution and congestion. The general failure of transit systems and governments to favor smaller vehicles is a preference on the part of users and many nonusers.

**Light Rail**

The term “light rail” at present appears to have no general meaning. In the United States it is confined to surface operated rail lines using lighter rail than traditional street cars; in much of the rest of the world, if used at all, the term refers to virtually any kind of surface rail line except rapid transit. In a sense it does not differ from the traditional street cars, except using somewhat lighter rail and lighter equipment. It has been introduced into several cities. Much of the mileage uses private right of way, some inherited from the old street car routes. The name appears to be a modern version of basically the traditional street car line but with a “modern” touch and new equipment. Many use abandoned or currently operated railway lines; the San Diego system is a good example, but in part light rail uses newly laid rail on city streets as in Sacramento, Salt Lake City and Denver. Portland, Oregon and St. Louis have built extensive new trackage but also use former interurban or main line railroad track.
Premature Abandonment of Physical Facilities

There is some tendency under the market approach to abandon fixed plant facilities, mainly tracks because of losses, and existence of a market for rails and other items. Firms thus have an incentive to sell off physical plant or simply abandon if retention results in higher taxes or other added costs. But conditions may change, and these facilities, if still intact, would have value to the firm in the future. There have been several main line railways in recent years with track that was abandoned, and then at substantial expense placed back into service as market conditions changed. This occurred with one of the two Burlington Northern lines across the Cascades in Washington State. There is substantial duplicating rail mileage in the U.S. abandonment some of which clearly warrants, but not all of it.

A somewhat different situation arose with suburban street car lines, as for example the one extending from St. Louis. These were often relatively light traffic lines. As the street car systems were abandoned, the suburban lines were typically abandoned as well. These rights of way could have been suitable for light rail and even heavier rail operation. They offered the great advantage of being free from congestion and rail intersections. One problem with operation of these lines was the lack of a down town connection.

CONCLUSION

Despite the strong efforts of the “market” or Chicago school approach to urban transport, there has been little change in the nature and control of urban transit systems in actual policy in the United States in recent years. The extensive empirical evidence developed by the free market supporters itself has thus far had little influence on actual policy. The superficial reasons given for this by the free market school – power of labor unions, transit managers, contractors. etc. – are not convincing, thus far at least. The failure to act must obviously rest upon public preference for monopoly systems under government ownership and management and the use of large buses. This seems to mystify some of the top economists in the country but the latter have
thus far not been able to bring about change, and the best explanation is that a majority of transit users and nonusers prefer the present system and are not eager to see, for example, large numbers of minibuses, vans and the like taking over, adding to congestion and pollution and lessening comfort for the transit users. One of the first systematic presentation of this point of view is that by the Australian transport economist Paul Mees, *A Very Public Solution*, Melbourne: Melbourne University Press, 2000. Note also David Lewis and Fred L. Williams, *Policy and Planning as Public Choice, Mass Transit in the United States*, Ashgate (UK), Brookfield, U.S., 1999. In the past few years, opposition to the market-controlled approach has begun to show up in literature, but as illustrated by the Brookings volume, the free market view is still active. Supporters of both sides of the controversy need to build better empirical evidence.
REFERENCES


Preston, John; Helen Lawton Smith and Dana Starkie. Integrated Transport Policy, Ashgate, UK, 2000.

