



RE-INVENTING MASS TRANSIT:
MOVING INTO THE MILLENNIUM

*Selected papers from an international
conference organized by the
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**Rethinking Transit in the 21st Century:
Tapping the Private Sector to Increase Efficiency
And Create Opportunity**

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The papers in this volume are from an international conference, *Re-inventing Mass Transit: Moving into the Millennium*, sponsored by the Regional Transportation Authority (RTA) and held in Chicago on May 20-21, 1999. The conference and this volume are part of an ongoing effort to better inform the dialogue and bring Chicago and other cities into the global conversation about how the private sector can help improve and sustain a vital public service. I believe that we can make privatization work in Chicago, and work well, in part by learning from what other cities have accomplished.

We are at a critical point in the future of the transit industry. On the one hand, we live in an era of finite resources with stiff competition for all sorts of uses. Governments are re-evaluating their priorities and making hard choices, as shown by the decision by the federal government to phase out operating subsidies for transit. Yet at the same time, economic growth is bringing more and more customers on board transit systems. This juncture of circumstances forces us to look beyond the traditional, self-defeating downward spiral of higher fares and less service to consider new ways of providing more, better, and more efficient service to our customers.

We hope that transit systems will not cut service or raise fares above the level of inflation until they can tell every taxpayer and rider they serve that they are among the most efficiently-run properties of their type in the world. Although few of our systems are at that point today, we can get there by learning, and applying, the lessons of competitive tendering for service provision. In other words, the time has come for us to completely reinvent the way we do business.

The Benefits of Competitive Contracting

Competition serves a dual purpose when applied to service delivery. First, proper use of franchising and outsourcing of transit operations will reduce unit costs for riders and taxpayers, thus increasing the value we receive from fares and subsidies. This increase in value will lead to greater flexibility in providing service and, we hope, to more and better service as well. Second, and just as crucially, these cost reductions may be able to provide a stream of income that can be bonded out to provide sorely needed capital dollars to maintain and improve the systems.

Competitive contracting does not mean a decline in service, or service quality. On the contrary, it provides an opportunity to offer customers more service for the same budget. Public authorities can establish minimum levels of service and ask bidders if they can do better than that. They can then weigh any additional service being proposed into their evaluations of which bids offer the greatest benefit.

The experiences of agencies across the country and across the world show that privatization encourages market responsiveness. Successful transit contracting tends to bring about high levels of management accountability, customer focus, and market responsiveness. Privatized operations in San Diego, Los Angeles, Las Vegas, London, Stockholm, and Buenos

Aires have cut costs between twenty and forty percent on a unit basis, while increasing ridership substantially.

We believe that it is possible to enjoy a coordinated, planned, fare-integrated transit system, while harnessing the profit motive of the private sector to help deliver maximum service of high quality for less cost. And we have planned the conference and this volume to share with you practical, hands-on experience from cities that have done it.

Breaking the Downward Spiral

We all know the downward spiral in which transit systems find themselves, across the US and across the world. Unmet capital needs lead to declining ridership, which causes increased costs, which leads to higher fares, resulting in fewer riders, and so on.

The challenges are familiar to all of us, but to draw on Chicago's experience, the Chicago Transit Authority (CTA) has lost one-third of its ridership in the last decade. Meanwhile, its costs have increased by a third, it still operates basically the same route structure, and it faces more than two billion dollars of unfunded capital needs in the next five years. The recent Illinois FIRST program may take care of much, though not all, of that shortfall. Each of these, individually, is a potential catastrophe. Taken together, they amount to a continuing crisis of the system's viability. Because of transit's importance to our regional economy, it is a crisis that affects our very economic competitiveness. If the CTA was removed from the transportation mix of the region, the effect on congestion and mobility would be unthinkable. Any business person will tell you that mobility is crucial to a company's success. Therefore, the viability of the CTA is an economic issue, not an ideological one. That means we must seek the most practical solution, wherever it may be found.

As an agency, the RTA vouches for the financial soundness of the CTA, Metra, and Pace to the millions of taxpayers and riders whose money makes possible the operation of this vast, twenty-two billion dollar public asset. We have forced acknowledgment of our capital shortfall and led the charge for new capital funds at the state and federal levels. Under our enabling legislation, the RTA is required to ensure adequate public transportation. So it was in order to fulfill our mandate that I first raised the privatization issue several years ago. Since then, I have sought to stimulate public debate on whether some form of privatization would be beneficial for the CTA.

The Experience Elsewhere

The record of successful transit privatization continues to grow, and a clear pattern is emerging. Unit costs normally fall between twenty and forty percent. Ridership typically increases. New sources of capital are found. From the privatization of bus operations in London, to the creation of a privately-operated, medium-sized suburban Los Angeles property known as Foothill Transit, encouraging examples abound in and around big cities. There are far too many successes for us to ignore them any longer.

Because of competitive contracting, San Diego's unit costs have dropped thirty percent since 1979; London's have dropped more than forty percent since 1985; Denver's have dropped almost twenty percent in the last ten years; Copenhagen's have dropped more than twenty percent in the same period; Las Vegas' unit costs are about forty percent below the U.S. average; Stockholm's unit costs have dropped twenty-five percent; and in Buenos Aires the operating subsidy for the entire subway system has been recouped.

As transit people, we have to be interested in the balance sheet, but we want more than just financial results. If people are not riding, then society is not getting the benefits of less congestion and better air quality. Competitive contracting has equally impressive results on this score, as well. Las Vegas saw ridership triple and service levels increase by two hundred and forty-three percent. Denver's service was increased by seventeen and a half percent. Indianapolis' service increased thirty-eight percent. London has begun to reverse a thirty year decline in ridership. Stockholm's ridership is up more than ten percent. Buenos Aires has seen subway ridership increase seventy-five percent. And Copenhagen has reversed its ridership decline.

These success stories involve large systems with complex operations and strong union contracts. As a result, the burden of proof in this debate has shifted. The remaining opponents of competitive contracting must explain how "business as usual" will deliver the increased ridership, revenues, and capital we need. No longer can private operation be dismissed as unworkable. We know from experience that privatization can help turn a troubled system around, if we do it right.

Principles for Competitive Contracting

So, now the debate is over *how* to privatize, not *whether*. The question is no longer *if*, but *when* a system moves toward competitive contracting. Accordingly, I offer some principles for how to proceed, in the hopes of hastening when we actually do it. I envision a totally new type of agency which puts increasing numbers of bus routes out to bid at a variety of garages. Contractors would have to meet minimum service requirements on the routes put out to bid, in order to protect customers as well as taxpayers.

The new agency would maintain strict oversight of contractor performance, as well as in-house responsibilities for advertising, sales, marketing, service planning, finance, capital and other such functions. The actual operation of bus routes, and eventually the rail system as well, would be performed by both public and private business associations.

With that in mind, here are eight principles for Chicago and any other city examining competitive contracting. My first principle is: **We must learn from the rest of the world.** We must learn from each of the cities I have mentioned and others where competitive contracting has been implemented. We must apply the lessons learned from each city, and avoid any problems that have been encountered. And that is why we organized the conference and published this volume, to learn from one another, and to learn from the rest of the world.

Armed with an understanding of transit advances on a worldwide scale, **my second principle is that only creative and bold thinking can produce the benefits we need.** We are limited only by our lack of vision. Old answers do not work. We must be open to fundamental change. This open-minded attitude will increase the likelihood that new services, such as jitneys, guaranteed rides home, deviating bus routes, dial-a-ride, and shuttles, will better meet riders' needs.

Third, privatization must be implemented without layoffs. If the number of employees is to be reduced, it must be done through attrition and early retirement incentives. Contractors should be encouraged to hire from union ranks. Stockholm has achieved significant financial savings and efficiency gains from competitive contracting, despite a requirement that contractors keep all transit workers already on the payroll, and hire them at wages no lower than those they were already receiving. Stockholm shows that competitive contracting can be implemented without making employees worse off financially. In 1995, we conducted public hearings on competitive contracting of CTA bus services. One thing we learned is that all

successful privatization efforts have taken place in a climate of union representation and involvement.

That leads to my fourth principle. **Union members and leaders must be allowed to compete on a level playing field.** In Indianapolis, privatization of the city's bus services resulted in a number of operations being awarded to unions through competitive bidding. London Transport also encouraged their workers to compete directly with private contractors in the bidding process. And therein lies an interesting story. At first, nearly fifty percent of London's bus operating contracts were won by public units that were subsidiaries of London Transport. But, as service competition became more firmly established, cost analysis showed that the London Transport subsidiaries were losing their ability to compete. This finding, in turn, spurred a reorganization of the public services. It resulted in the division of those services into eleven firms that were gradually sold to private investors. The most exciting point from the London experience is that the investors included both management and employee. So London and Indianapolis demonstrate that the experience of union members and leaders make them valuable partners in privatization efforts.

We have an opportunity right now in Chicago. Many of the CTA's senior employees took early retirement in 1996. Chicago can reclaim their knowledge and experience as new private service providers. There is a lot of scope for employee-run organizations and stock option programs to transform employees into managers and owners with a very direct stake in transit operations. There is a lot of opportunity in transit privatization, and a lot of opportunity to go around.

Fifth, privatization must be accomplished through transparent competition. This is a vital key to the credibility of all privatization efforts. To give you an example, the Chicago Public Schools ended their school bus provider monopoly in 1978. Chicago's school children are now carried by a variety of carriers, many of which are minority owned. Competition for these contracts is intense, and has improved service and increased accountability. This shows what open competition can accomplish.

Sixth, the contractor and the agency must share in the risks and the financial rewards. Privatization will not work under traditional agency-vendor relationships. There must be incentives for both the service provider and the agency. For instance, in London's first round, there were no shared incentives between vendors and the agency. Some early results reflected this. The relationships were re-worked so that the carriers shared revenue from increased ridership. That gave them an incentive to improve service, which advanced the public goal of increasing ridership.

At the same time, contracts must establish minimum standards to weed out unqualified vendors. The contracts must also spell out who is accountable for what, and how disagreements are to be resolved. In San Diego, minimum standards have been set for transit contracts. They evolved over time, as experience made it clear what financial resources and experience were needed for a successful transit contractor.

Seventh, the system must provide adequate potential benefit to justify private capital investment. Federal and state governments are and must remain the leaders in funding the capital needs of mass transit. The RTA will continue to press its case for filling the large and growing capital need of Chicago's system. But, in this particular initiative, we must devise a system which justifies some degree of private capital investment, as in Buenos Aires, where contractors are staking their money today, confident that it will pay off in terms of increased ridership tomorrow. Think of it, private investment in our public infrastructure.

Principle eight, the most self-evident: **Privatization must be a win-win proposition . . .** for **transit employees** and union members, for transit **customers**, for **taxpayers**, even for **motorists** who rarely use the system, in short, for **everyone**. Our challenge in Chicago and in many other cities is to design a transition to competitively contracted operations, with flexibility as to the methods, combined with vigilance as to the goal of cost savings and maintaining high standards of service. Privatization will work to the extent that everyone sees a benefit.

In Conclusion

Every city I have mentioned worked to preserve jobs while putting service out to bid. This is a vital part of their successes. But, just as important, the process of privatization forces transit systems to increase their customer focus. Instead of concerning themselves with moving vehicles, they become enablers of the mass transit needs of the general public, in other words, true mobility authorities.

In this new, more cost- and customer-conscious position, these mobility authorities tend to pay more attention to their market, their selling proposition, and the quality of service delivered in their name. Overall, this has resulted in service improvements, ridership increases, greater revenues and, in some cases, additional investment in the system.

Privatization harnesses competition to create operating efficiencies and savings, which can be used to fund capital and / or service improvements. These improvements, coupled with major new capital funding, bring better service, and increased ridership and revenues. This is the upward spiral others are on. We can put it into place here and elsewhere. It is where we need to be, as transit properties, as oversight agencies, as cities, and as regions. But we must do more than just talk:

- We must **remove contractual barriers** to privatization;
- We must learn the **best practices** of similar properties;
- We must decide **how to apply** those lessons to our own cities;
- We must **maximize competition** and ensure that public agencies do what they do best: **Oversee policy**;
- And we must allow new providers to **flourish** and do what the private sector does best: **Operate efficiently**.

But what about the past? Critics say: “The private system failed. That is why we have public agencies today.” Yes, the private systems did fail, and that is why we have public agencies running our systems. But before we rush to the defense of what we have today, let us take a closer look at what failed, and why. Private operation itself was not the reason for those failures. Transit systems were expected not only to be financially self-supporting, but also to pay local taxes, some of which ended up subsidizing the automobile in the form of extensive street improvements.

Private operators were franchised under city and state law, and they were not exposed to market forces through competitive contracting. The rise of purchasing power in the postwar economy, and government policies such as Federal Housing Administration mortgages for new single-family homes and the interstate highway system spurred suburban development and the creation of the automobile-dependent society, and the highway lobby fought transit at every turn.

But times have changed since then. Government is now a partner, along with transit customers, as a source of funds for the capital and operating needs of today’s systems. By contrast, the private carriers of half a century ago were required to meet all their needs from the farebox. Today, congestion is a three billion dollar drain on our productivity every year. People

are moving back to the city for the first time in decades, welfare recipients are getting jobs and need a ride to work, and the growing number of senior citizens represents a potential avalanche of demand for transit over the next fifteen to thirty years.

Regional mobility will always be the ultimate determinant of economic viability. That is why we must do more than just preserve our transit systems the way they are. We must reinvent them, both through competitive contracting and a parallel revolution in back office business practices.

Competitive contracting will put us on an upward spiral that will propel transit into a future where its viability is unquestioned, its efficiency is a model, and its responsiveness to riders is demonstrated every day by solid and, we hope, growing ridership.

We have no time to waste. As they say in the television commercial, ***“just do it.”***

Can Privatization Solve All of Chicago's Public Transportation Problems?

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In the past fifteen years, private operation of urban transit services has been transformed from being a radical Thatcherite or Pinochet-era experiment to almost the norm. Today the cutting edge is the introduction of competition into rail services. Private operation of urban bus services has become passé and is no longer the subject of academic interest and debate. However, there is an exception – the major cities in the United States. This is quite curious given the traditional American preference for private enterprise, as witnessed by the private rather than public ownership of utility companies.

In Chicago there has been a reluctance to consider privatization due to memories of the poor financial performance of the predecessors of the Chicago Transit Authority (CTA), including the financial collapse of Samuel Insull's empire, and the dubious-if-colorful dealings of Charles Yerkes. Indeed it is possible to argue that the most successful period for transit service in Chicago was the first seventeen years of the CTA's existence. Under the leadership of General Manager Walter McCarter and Chairmen Harrington, Budd and Gunlock, the CTA existed as an unsubsidized municipal corporation that was repaying its revenue bonds and financing rolling stock purchases. However, after 1964 things went horribly wrong. In many ways the objectives of privatization are to reverse some of the bad things that happened.

What is Privatization?

Privatization can take many forms, ranging from the transfer of a public monopoly to private ownership to complete deregulation with no controls on entry, prices, and levels of service. For more than fifteen years I have advocated a middle ground, an approach which has come to be known as competitive contracting (Savage, 1985, 1993). This is particularly applicable to bus services. Under this system, monopoly rights to operate individual routes for a period of three to five years are put out to bid. Depending on the type of contract used, firms bid on the basis of the cost or the amount of the subsidy required to provide service. Typically the public authority specifies the level of service to be provided, the fares to be charged, and arranges for the marketing of the network of services and the sale of system-wide passes. The best known example of such a system is London.

I would also advocate that the existing CTA bus operating division be broken up into smaller units, and sold to the private sector, although I would be open to retaining some in-house capability to protect against the forming of private cartels that drive up contract prices. These ex-CTA companies would then compete against each other and against existing private sector firms to win the contracts. The CTA would continue to exist, but as a marketing and procurement organization.

While these proposals may sound very radical to a Chicago audience, they would be regarded as rather conservative by worldwide standards. Many advocate total freedom in deciding on what services to offer and what fares to charge. I personally believe that competitive contracting promises greater long-term benefit than complete deregulation for three reasons.

First, riders prefer integrated ticketing and easy transfer between bus routes and between bus and rail. It would be impossible to maintain such a coordinated system in a deregulated

environment. One of the CTA's major accomplishments was forming a single, more user-friendly system out of disjointed streetcar, rapid transit, and bus companies. It is notable that in the early decades of the twentieth century, there was an active "one city, one fare" campaign to require transfer tickets that would be accepted by all operators. This was only achieved in 1943 during a period when the legislation to form the CTA was being drafted and debated.

Second, riders prefer a predictable system. Riders make long-term decisions on residential locations and workplaces based on a known system of public transportation. The upheaval of complete deregulation, with unpredictable entry and exit by different companies on different routes, combined with unpredictable fares, would encourage people to use automobiles. There is evidence that this has occurred in the wake of deregulation in British cities outside London.

Third, a rolling program of relatively small bundles of work coming up for bid encourages small firms to compete for contracts. In London there is still active competition when contracts come up for bids, whereas in the rest of the country which was completely deregulated, large holding companies have emerged that dominate areas and can stifle potential competitors.

Of course, there is a downside of competitive contracting compared with complete deregulation. It is possible, at least in the short term, that the lack of on-the-road competition may not be as effective at eradicating cost inefficiencies. It is also possible that the full entrepreneurial spirit in providing innovative service patterns and methods of operation will be lost. A competitive contracting system is still one where public-sector planners determine what services will be offered.

Despite these disadvantages, my opinion is that on balance competitive contracting brings about greater net social benefits than full deregulation. But is it a panacea? In the remainder of this paper I explore whether privatization can cure all of the ills of transit in Chicago. I will argue that it will be an effective tool for removing cost inefficiencies, but its effects on providing innovative services and appropriate fares and service levels are more questionable.

Privatization Can Help: Removing Cost Inefficiencies

Without doubt the major attraction of privatization is the prospect of reduced operating costs, with the hope that more and better services can be provided with the same budget. There is ample evidence that considerable inefficiency has crept into the CTA. This can be shown by a few graphs dealing with the labor market. This is not to say that inefficiencies have not developed elsewhere. It is commonly argued that suppliers of capital equipment have also earned excess profits, known as "economic rents," in recent decades. Nevertheless labor represents three-quarters of all operating costs and should be a focus of attention.

Figure 1 shows the hourly wages for bus drivers (bold dashed line) and the labor cost per employee (bold solid line) for the CTA. These data have been corrected for inflation and expressed as an index with the value in 1948 set as one hundred. The latter data include overtime payments as well as other employer-paid fringe benefits. These data are compared with a similar index of the United States average hourly wage that is shown as the narrow dashed line. The national data show a declining trend since the early 1970s which has caused considerable discussion among macroeconomists. It is argued that this is due to a myriad of factors: the move from heavy industry to service occupations; the increased proportion of salaries based on commissions; the rise of part-time work; the entry of women into the labor force; and a geographic redistribution of jobs to the southern United States where wages and the cost of living are lower. Consequently, Robert Gordon at Northwestern University has calculated a modification to these

data that is based on the labor share of the national income accounts. This is shown as a narrow solid line. This line includes all payments to labor, including employer-paid fringe benefits, and is therefore comparable to the bold solid line for the CTA.

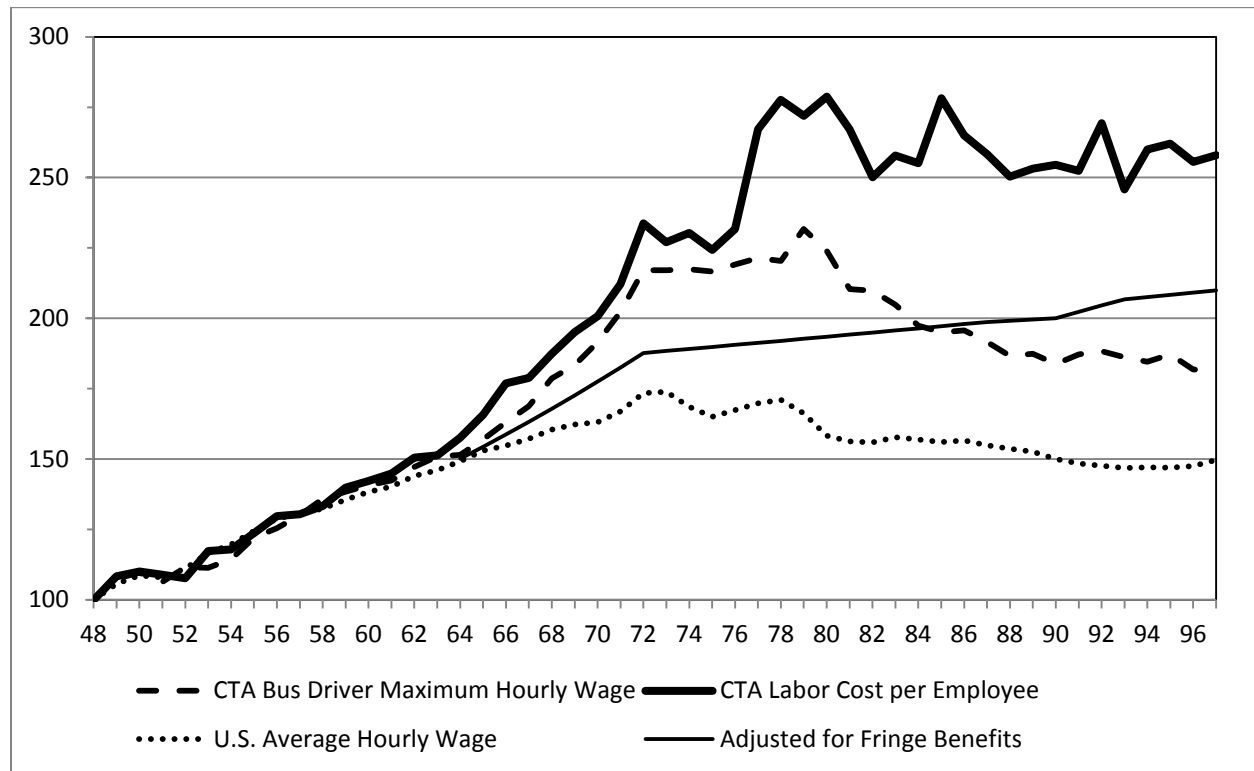


FIGURE 1: Indices of CTA and National Hourly Wages and Cost per Employee in 1997 dollars with 1948=100

One will note that until the early 1960s these series moved in concert with each other. Then throughout the 1960s CTA costs started to diverge from the United States average. This was fueled by the Cost of Living Adjustment (COLA) clauses in the labor agreement that automatically compensated employees for inflation. These adjustments were in addition to regular negotiated raises. While these clauses had been in the labor agreement since the mid-1950s, they became significant with the emergence of rampant Vietnam-era inflation. It must be said, though, that there is evidence that wages had been too low in the early years of the CTA. The 1971 CTA Annual Report remarks that it was the first year since 1950 that the agency could fill its full complement of bus drivers.

Then in the 1970s, the continued increase in labor costs came from an increase in fringe benefits rather than wages. In particular, sickness benefits were increased significantly. The mark up of fringe benefits over wages, which was around twenty percent in 1960 increased to forty-six percent by 1980. Throughout the 1970s, management believed, correctly, that subsidies would increase to fund the expanding wage bill, and hence had no incentive to keep costs in check.

The turning point came with the political reaction to the December 1979 transit workers strike, and the capping of subsidies following the potential insolvency of the Regional Transportation Authority in 1981. Since 1980, the CTA management has managed to keep labor costs in check. Hourly wages have fallen in real terms. Nevertheless, one could still argue that

CTA labor costs per employee are twenty-three percent above those that would apply if the CTA had followed trends in the economy as a whole.

Figure 2 summarizes these developments in a visual form. The solid line is the ratio of the CTA labor cost per employee to national average earnings and is measured on the left-hand axis. This is the ratio of the bold solid line to the narrow solid line in Figure 1. The dashed line in Figure 2, which is measured on the right-hand axis, shows CTA operating subsidies in constant 1997 dollars. It is quite remarkable how the relative earnings of CTA employees increased rapidly after the establishment of subsidies and continued to increase until subsidies were effectively capped in 1980.

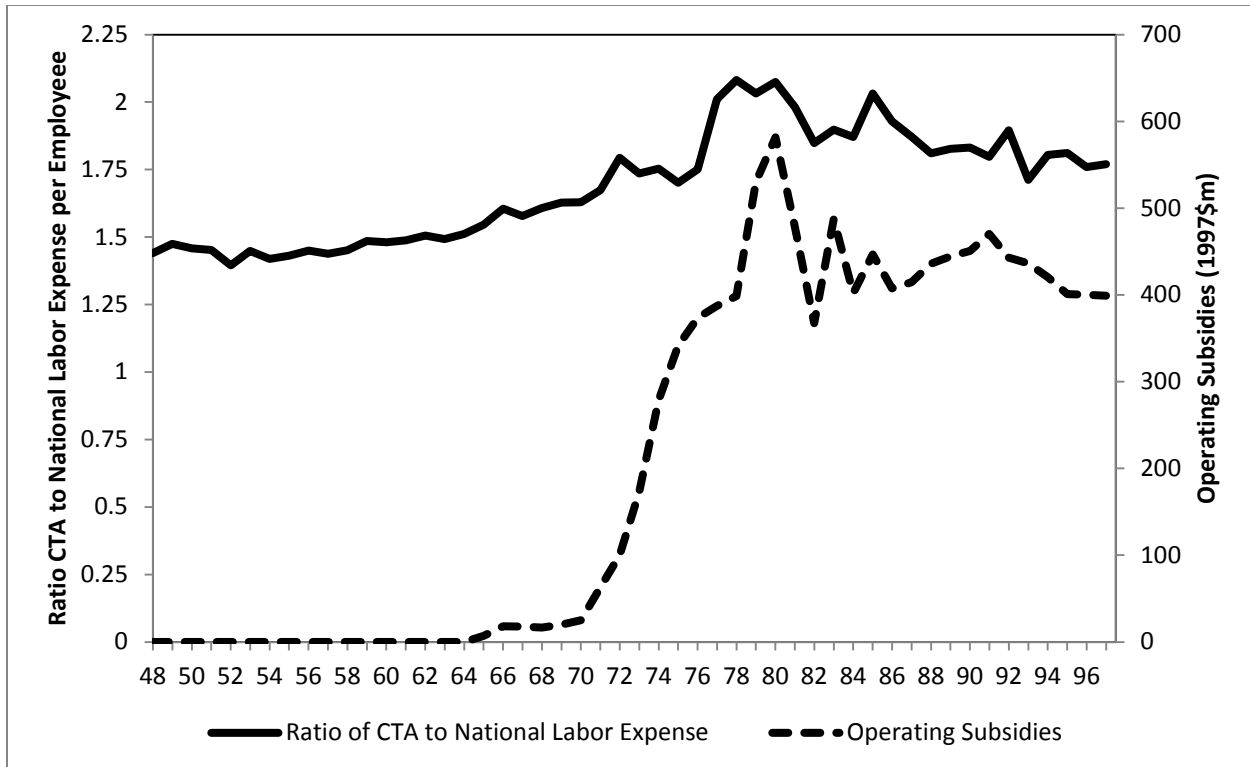


FIGURE 2: Ratio of CTA to National Labor Cost versus Operating Subsidies

Inefficiencies have not only arisen in terms of payments to labor. There are also scheduling rules and employment protection that have resulted in excess employment of labor. Figure 3 shows employment and service output as indices, with the value in 1948 set to one hundred. Prior to 1980, employment is measured as a head count whereas since then it is measured as “full-time equivalent” employees which permits measurement of the introduction of some part-time labor in recent years.

As Figure 3 shows, employment fell in the early years of the CTA as two-person streetcars were replaced by one-person operated motor and trolley buses. In addition, poorly used rail stations were closed, and new cars removed the need to have a conductor in each car. These efficiencies were achieved by 1964. Yet the number of employees remained largely unchanged for the next thirty years, despite a forty percent reduction in bus mileage and a fifteen percent increase in rail car mileage. It is only very recently that further reductions took place as the CTA introduced one-person train operation and automated ticketing.

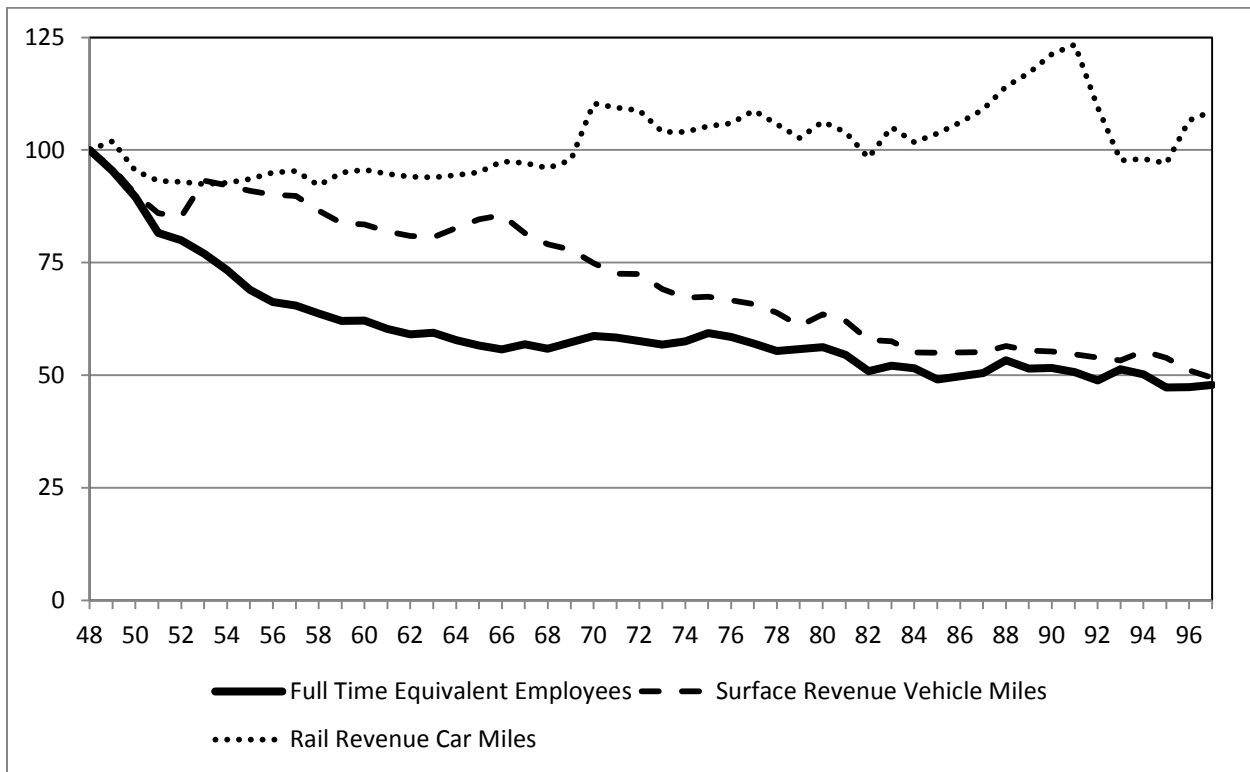


FIGURE 3: Indices of CTA Employment and Service Levels with 1948=100

Experience elsewhere in the world suggests that cost efficiencies from privatization have come both from wage reductions and from increased flexibility in the use of labor. In Britain in the early years of deregulation, the wages of bus drivers declined by fifteen percent in real terms compared with other blue-collar workers, and the number of vehicle-miles per employee increased by a quarter (White, 1990).

One can draw a number of conclusions. First, there is ample evidence of the potential for reductions in operating costs. Second, privatization has reduced costs in other settings. Third, it will take a dramatic change such as privatization to bring cost reduction about. Today's inflated cost conditions date from the late 1960s and 1970s, rather than from the management that has been in place since 1980. As transit workers have enjoyed these economic rents for so long, it will be difficult to take them away.

Undoubtedly transit workers will be made worse off under competitive contracting. While cities such as Stockholm and Copenhagen required successful bidders to hire the existing workforce with no reduction in wages, competitive pressure may slow subsequent wage increases, diminish fringe benefits, and permit more flexible scheduling of duties. Consequently, there will ultimately be a transfer of benefits from employees to transit users or to people to pay sales taxes to support the CTA. While it is hard not to feel sympathy for people doing a difficult urban job, it is also hard to justify why they should earn more than they would elsewhere in the labor market, especially when one considers who is paying for these rents. The rents earned by labor since the 1960s have come at the expense of poorer people who bear the brunt of a regressive sales tax, and transit users, many of whom come from poorer sections of society, who pay higher fares or receive less frequent service than they would otherwise.

Privatization May Help: Innovative Service

For the past five decades, since the modernization of the late 1940s, the CTA has operated a basically similar service using similarly sized vehicles on its surface system. During this time, auto ownership has increased, the city has suffered from migration of population to the suburbs, and the locations of jobs, retail activity and leisure attractions have changed. Serious questions can be raised about the desirability of retaining the grid system of operation and using large vehicles on increasingly infrequent headways in the off-peak in the lower density parts of the city.

A feature of deregulation and privatization in other parts of the world has been the introduction of smaller vehicles operating more frequently. This was certainly a feature of privatization in Britain. Even though, the size of the small vehicles used in Britain has increased over the past ten years, there is still potential for Chicago to learn important lessons. Evidence has shown that the largest benefits have occurred in the off-peak and in low-housing-density markets where previously there was quite infrequent service (every fifteen to thirty minutes). White and Turner (1987) concluded that service-frequency elasticities as low as 0.4 could justify provision of higher frequency service using smaller vehicles.

The effect that privatization will have on innovative service provision and also on the structure of existing routes is debatable. To some extent the radical changes may cause planners to question some long-standing assumptions. In addition, private bidders may have innovative ideas for service provision and be freed of labor constraints that fossilize operating practices and traditional methods of service delivery. A lot will depend on the nature of the contracting process. The public authority will need to “think outside the box” and allow for some feedback in the bidding process for the firms to suggest alternative methods of service provision, while at the same time having enough uniformity in the bidding process so that informed comparisons can be made between the various bids. The fact that individual routes come up for rebidding every three to five years may lead to routine reviews of service delivery. To help encourage comprehensive and innovative proposals, the public authority may have to arrange for groups of neighboring routes to be put out to bid at the same time to allow for the possibility of substantial revisions of services at some point in the future.

Privatization Can Help: Balancing Fares and Service Levels

There is a third potential problem of transit provision that is less obvious than cost inefficiencies and inappropriate service delivery. This is whether the transit authority has the correct “balance” between fares and levels of service. The underlying economics of this issue are somewhat complicated but make intuitive sense. As a prelude to discussion of this topic, one should look at trends in demand, fares and service levels.

Figure 4 shows fares, in constant 1997 dollars. The thicker line shows the base one-ride cash fare, while the narrower line is the average fare paid per passenger when allowance is made for transfers, reduced fare passengers and monthly pass holders. There has been a gradual increase in real fares since 1980, which followed a period in the 1970s when actual fares were held constant despite high inflation. Despite the recent increases, real fares are still lower than when the CTA was trying to avoid bankruptcy in the late 1960s.

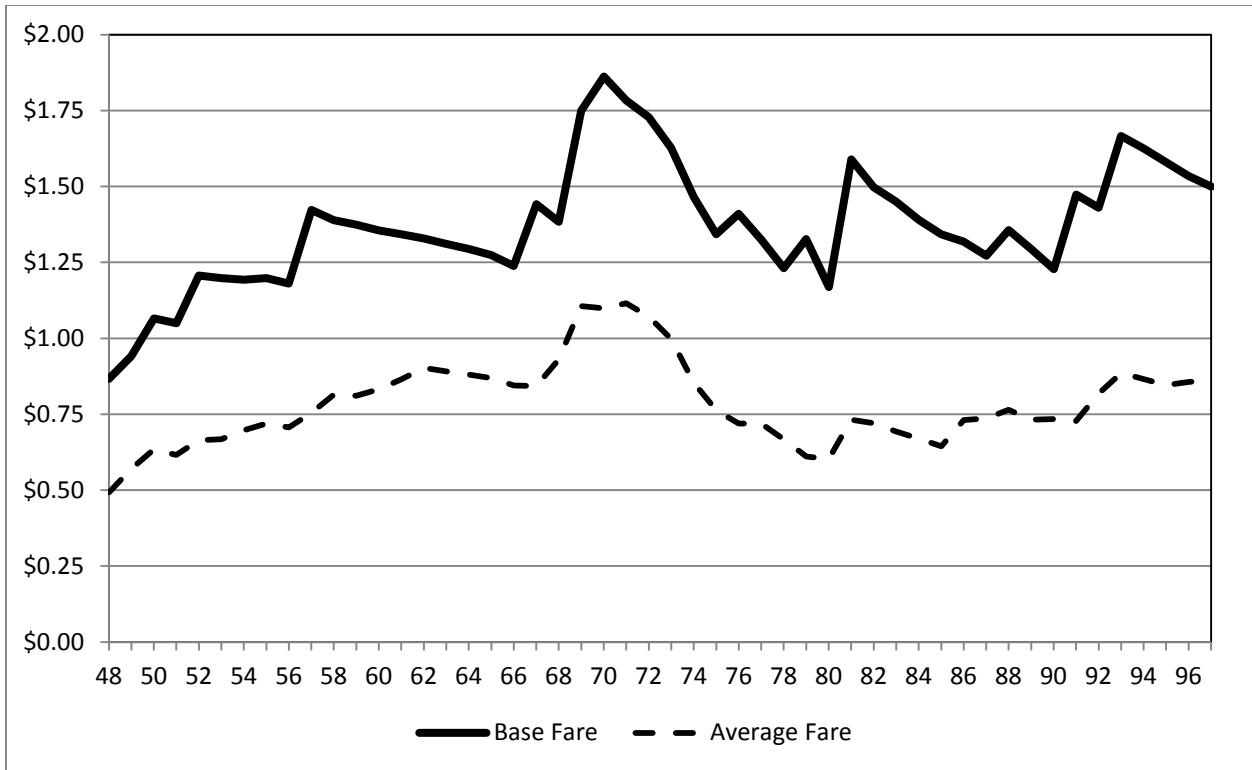


FIGURE 4: Fares in 1997 Dollars

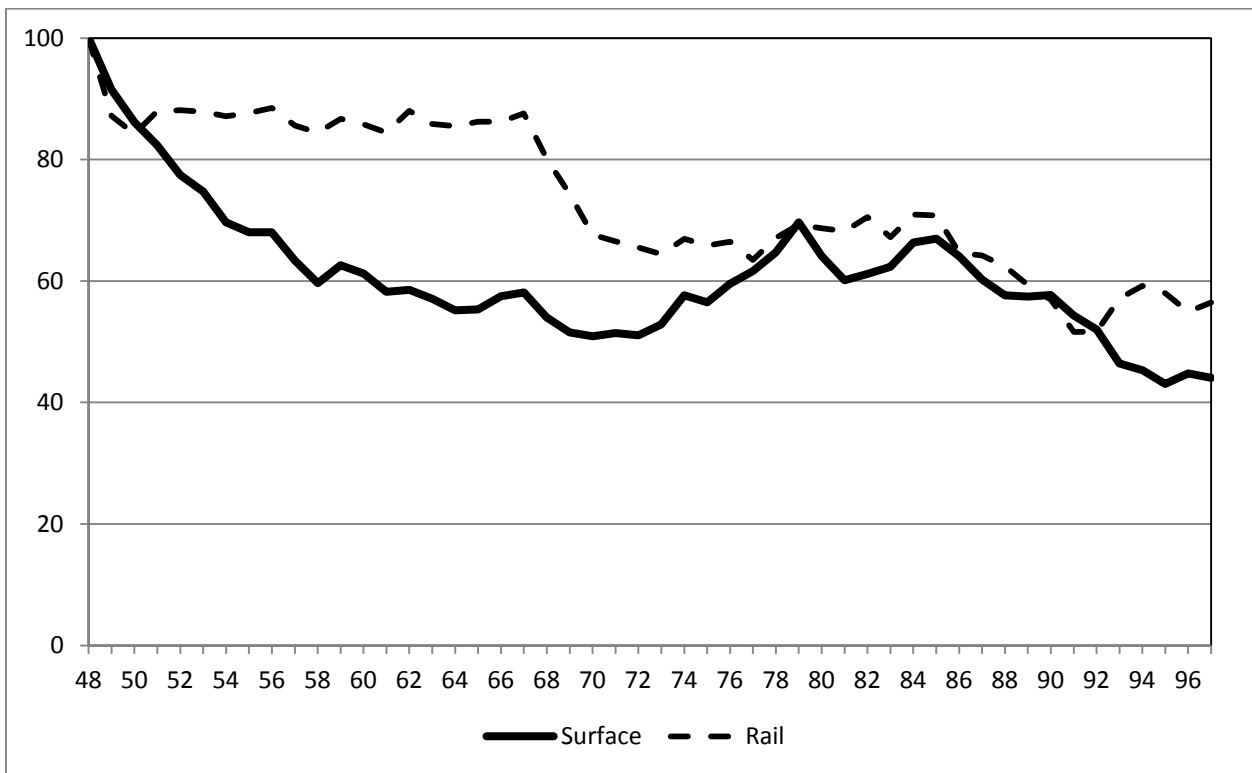


FIGURE 5: Indices of Unlinked Trips to Vehicle Miles by Mode with 1948=100

Figure 5 shows the levels of demand for the bus and rail systems relative to the levels of service provided. The indices shown are the ratio of unlinked passenger trips to vehicle miles (on the bus system) and car miles (on the rail system). Both are shown as an index with the 1948 value set to one hundred. For both rail and bus, the decline in demand has not been matched by a commensurate decrease in the level of service. This is especially noticeable on the bus system since 1990, where despite a ten percent service reduction, there has been a loss of almost a third of the ridership. In contrast, service realignments in the early 1990s have allowed the rail system to stabilize average loads.

Bearing these figures in mind, we now turn to the underlying economic theory. Transportation firms are unusual in that they can choose both their price (fare) and the level of output (vehicle-miles). This contrasts with many manufacturing firms who can only choose one of these variables with the other being determined in the marketplace.

For a given level of subsidy, transit firms can either provide a high level of service at a high price, or a lower level of service at a lower price. The combinations of service level and fares that can be produced for a given level of subsidy are shown as the curved line in Figure 6. These combinations are based on existing CTA cost and demand conditions. But where should the transit authority choose to be along this line? It is reasonable to suggest that the objective of the transit agency is to maximize public benefits for a given level of subsidy. Clearly, riders prefer high levels of service and low fares. Therefore from their point of view, they prefer points that are toward the bottom right-hand corner of the diagram. Hence there will be a point on this curve, marked by the square, where the benefits to riders are maximized given the amount of subsidy available. Economists refer to this point as being where fares and service levels are “balanced.” If they are unbalanced, riders can be made better off by lowering fares and increasing service levels, or vice-versa, while keeping the overall level of subsidy constant.

A recent research project, using CTA data for 1994, investigated how well CTA fares and service levels were balanced (Savage and Schupp, 1997). That project investigated the costs and benefits of using subsidies either to reduce transit fares or to increase levels of service. The model considered benefits to riders in the form of monetary savings (if fares are reduced) and waiting time savings (if frequencies are increased), plus benefits of reduced congestion to road users in peak periods if people are attracted out of their automobiles onto transit. The model was estimated separately for CTA bus and rail operations, and for four time periods: weekday peak (6am-9am, 3pm-6pm), weekday off-peak, Saturdays and Sundays.

The model was rerun for this paper to calculate the benefits per dollar of subsidy used to finance a tenth-of-one-percent change in fares and service levels. These are shown in Table 1. If fares and service levels were balanced, not only between themselves but also across the different time periods, then the benefits per dollar of subsidy should be identical in all cells of Table 1. This is clearly not the case. For both modes and in all time periods, the benefits of subsidizing fares are greater than the benefits of subsidizing increased service levels.

The implication is that social benefits can be increased without the need for additional subsidies simply by reducing service levels and using the money saved to reduce fares. In terms of Figure 6, we are currently on the portion of the curve above and to the right of the point indicated by the square where fares and service levels are balanced. This point is represented by the circle. This finding is consistent with the research of John Dodgson (1987) who looked at bus and rail service in eight Australian cities, and to some extent the research of Stephen Glaister (1987), who looked at service in six major British cities.

TABLE 1: Benefits per Dollar of Subsidy

	Weekdays		Weekends	
	Peak	Off-Peak	Saturday	Sunday
Bus				
Fares Decrease	\$1.42	\$1.90	\$1.90	\$1.92
Service Increase	\$0.24	\$1.23	\$1.38	\$1.27
Rail				
Fares Decrease	\$1.27	\$1.19	\$1.19	\$1.19
Service Increase	\$0.37	\$1.06	\$0.85	\$0.59

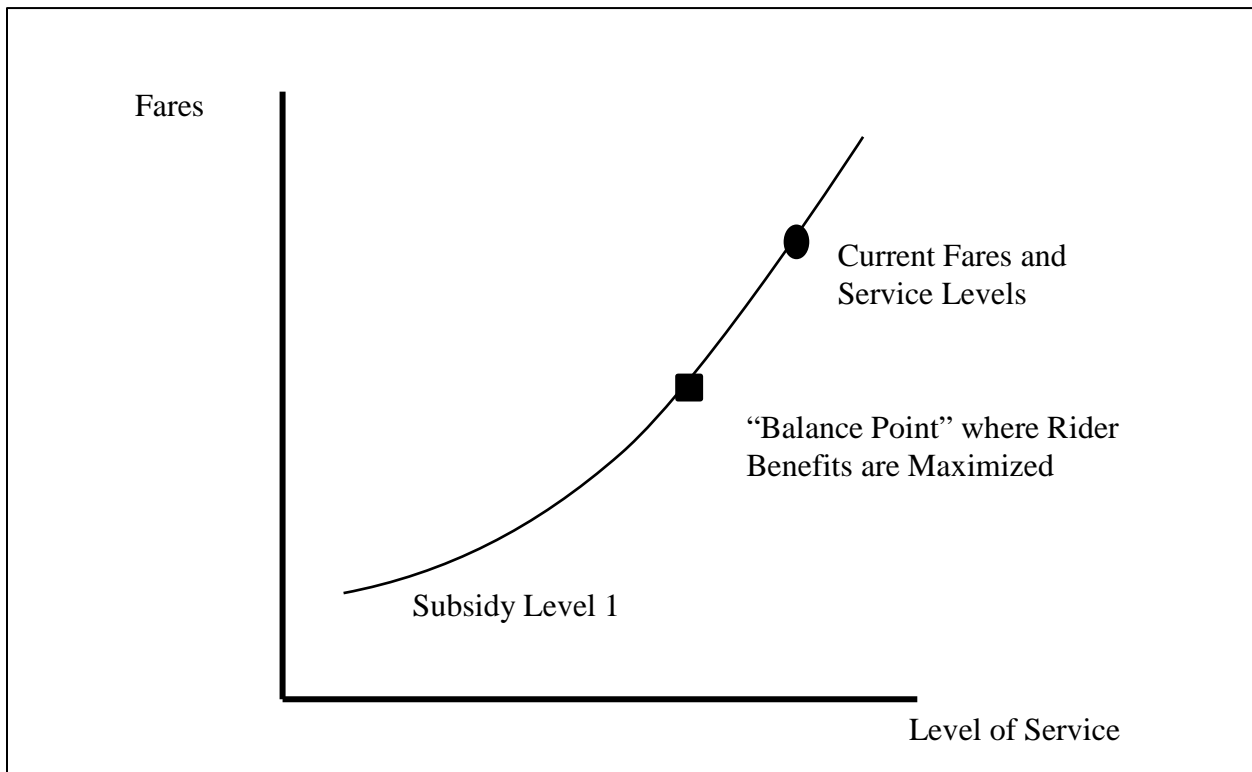


FIGURE 6: Choice of Fares and Level of Service for a Given Level of Subsidy

The reasons for the current imbalance can be discerned from Figures 4 and 5. Since 1990 there has been a considerable decline in the demand for bus service. It is clear that the CTA has tried to maintain bus service levels in the face of falling demand, and has increased fares in real terms to correct any resulting budget deficit. Service cuts provoke very vocal opposition from staff and specific groups of riders. The opposition to fare changes is a lot more diffuse, and hence less politically effective. By ducking service cuts and opting instead for higher fares, the CTA has actually made the citizens of Chicago worse off rather than better off.

Interestingly, cost reductions brought about by privatization can help to bring fares and service levels back into balance. Under competitive contracting, the benefits of using subsidies to increase service levels will be much greater because more service can be obtained per dollar of subsidy. The benefits of using subsidies to change fares, while keeping service levels constant, are unaffected by changes in operating costs.

Table 2 shows the revised benefits per dollar of subsidy if operating costs are reduced by twenty percent, which is a quite conservative estimate. Now fares and service levels are much more in balance, with the exception of peak service and Sunday rail service. Indeed, in some cases the balance of service levels and fares have reversed themselves. For example, on Saturdays on the bus system it may make sense to increase fares so as to fund increased service levels. This is a remarkable by-product of the cost reduction associated with privatization. The reason why we have come into balance without actually changing the mix of fares and service levels is that the line showing possible combinations of fares and service levels in Figure 6 is dependent on operating cost. If costs fall, the amount of service that can be produced for a given level of fares and subsidy will be much greater. Another way of thinking about this is that the revenue generated from a fare increase can purchase more service than would have been possible if costs were higher. This means the line connecting the possible combinations will become much flatter. Consequently, the point on that curve that maximizes social benefits will change. The calculations in Table 2 suggest that this new balance point will be much closer to the current combinations of fares and frequencies.

TABLE 2: Benefits per Dollar of Subsidy with 20% Cost Reduction

	Weekdays		Weekends	
	Peak	Off-Peak	Saturday	Sunday
Bus				
Fares Decrease	\$1.42	\$1.90	\$1.90	\$1.92
Service Increase	\$0.30	\$1.81	\$2.08	\$1.88
Rail				
Fares Decrease	\$1.27	\$1.19	\$1.19	\$1.19
Service Increase	\$0.47	\$1.38	\$1.09	\$0.75

This is illustrated in Figure 7, which builds on Figure 6. If operating costs are reduced, the line showing possible combinations of fares and service levels for subsidy level 1 becomes much flatter and is shown as the lower dashed line. Clearly if operating costs are reduced, then more service can be produced at lower fares with the existing level of subsidy. Put another way, if the current levels of service are maintained and fares do not change, the subsidy requirement will fall. The upper dashed line shows the combinations of fares and service levels that can be produced with this lower level of subsidy. Because this line is much flatter, the current combination is much closer to the new balance point, which is indicated by the square on the upper dashed line.

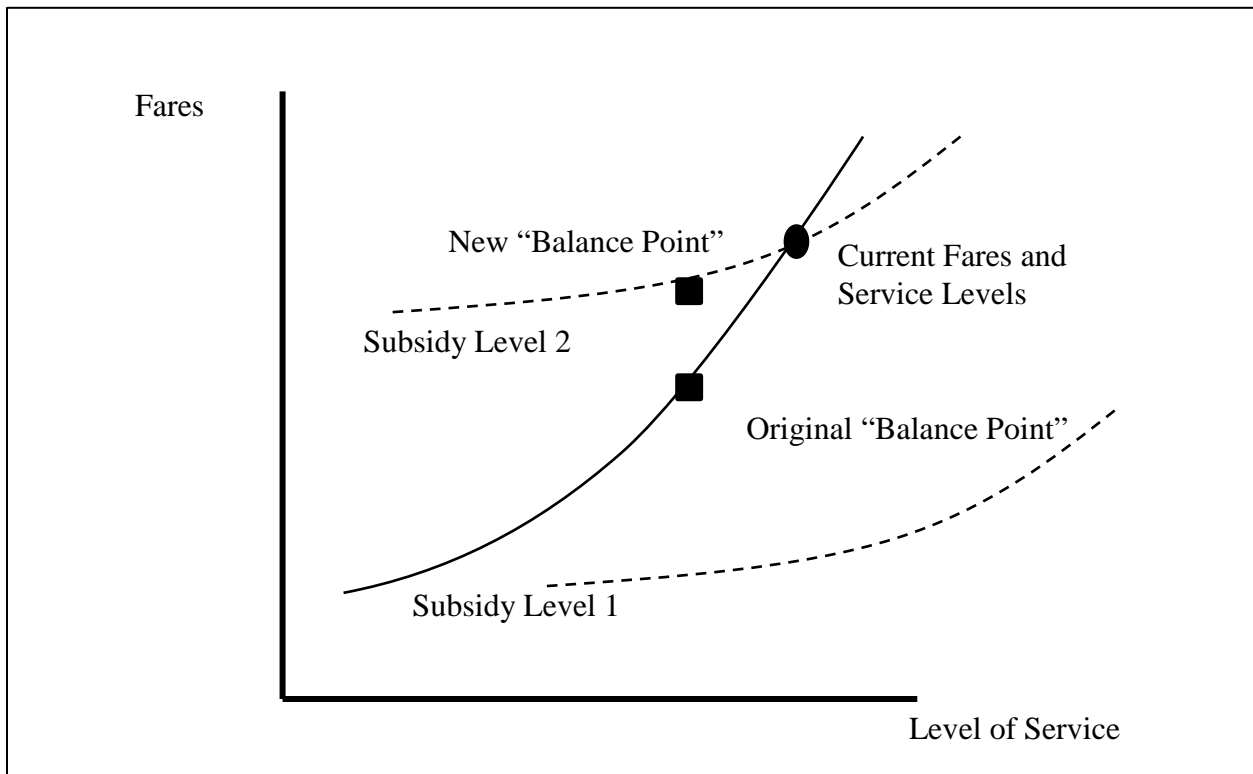


FIGURE 7: Balance of Fares and Service Levels after Cost reduction

Privatization May Help: More Service and Lower Fares

An obvious implication of cost reduction is indicated in Figure 7. If there continues to be similar fares and service levels in Chicago, then smaller subsidies will be required to support public transportation. But what will happen to the public money that would become available if subsidy requirements fall? Obviously some of this reduction will be needed to meet the elimination of all federal operating subsidies and to erase the deficits that have occurred at times in the 1990s when there were lower than anticipated passenger revenues.

Some of the operating cost savings will be needed to fund new buses. If bidders are required to supply their own vehicles, the capital cost of rolling stock would be borne by private bus companies and would be reflected in their bids, rather than appearing as a “free gift” from the federal or state governments in the CTA’s capital budget. Despite the capital funding in the 1999 Illinois FIRST state infrastructure program, there are still partially unfunded rail system capital needs, such as the rebuilding of the Ravenswood and Douglas lines, that could be funded from any operating cost reductions.

It is clearly a political decision how the reductions in operating support are used: to reduce the sales tax burden, to fund the capital program, to allow lower fares and greater levels of service, or some combination of the three. However, the model can help inform the debate. Table 2 indicates the value of social benefits than can be achieved with each dollar of subsidy after operating costs are reduced. Except for subsidies to service levels in the peaks, these values are greater than a dollar, indicating potential net social benefit.

However, the true comparison is with \$1.26, which is the cost of the dollar of subsidy plus the excess burden of raising that dollar by a sales tax (Jorgenson and Yun, 1991). Raising tax rates will increase the cost of goods and services and produce a deadweight loss because some consumers will no longer purchase the taxed goods. This “shadow value (or excess burden) of public funds” should not be confused with the costs of solely administering raising tax dollars.

Therefore, one should only consider spending some of the subsidy funds saved when the benefit amount in Table 2 is larger than \$1.26. One could therefore justify lower bus fares, additional bus service outside peak periods, and enhanced weekday off-peak rail service.

Privatization May Not Help: The Structure of Fares and Services

Table 2 shows the poor value for money from supporting enhanced service levels during weekday peak periods. Even with unit cost reduction from competitive contracting, there are strong indications that peak services levels should be reduced. To some extent this is a feature of the very peaked provision of service with peak-to-base ratios of 1.7 to one on the bus system and 2.7 to one on the rail system. Some people may argue that it is impossible to reduce peak service without leaving people behind at stops. It is true that the CTA does operate at “crush loads” for short periods at certain parts of its system, and people will not be able to board the first bus or train that arrives if service is reduced. However, that situation does not occur on all parts of the CTA system. Even if one assumes that there are no riders traveling in the reverse direction to the peak flow, which is clearly not true, there is currently an average of twenty-eight people on each bus, and seventy people per train car during the peak periods.

It is somewhat debatable whether privatization will induce planners to deal with the excess supply in the peak period. Recent attempts by the CTA to stem its budget deficit have focused on trimming off-peak service. Yet, as is clear from Table 2, the off-peak periods generate far higher net social benefits per marginal unit of service primarily because this service is relatively inexpensive to provide. Recent political decisions for reducing service have focused on the wrong area. Judging from Table 2, the only off-peak service that should be investigated for possible reduction is Sunday rail service.

Another striking result from Table 2 is that while rail fares are “acceptable” in that the marginal benefit of using subsidies to reduce fares is close to the excess burden of raising the subsidy, bus fares could be reduced, especially during off-peak and weekend periods. The reason that bus fares have a high return to subsidy is because of the current CTA fare policy. The CTA charges a flat fare that is the same on both modes, despite the fact that bus journeys are more sensitive to price and have considerably shorter average journey lengths (just over two miles, compared with six miles on the rail system). In addition, people wishing to transfer between buses have to purchase a transfer, while transfer between rapid transit lines is free. Clearly, there is considerable evidence to suggest that the CTA should charge differential fares between bus and rail, especially in the off peak. Again, this is a policy option that would lead to real benefits for riders, yet may not be directly influenced by privatization.

In Conclusion

There is ample evidence that considerable cost inefficiencies were introduced into CTA operations in the late 1960s and 1970s. Competitive contracting has shown itself to be an effective method to reduce inefficiencies elsewhere in the world. As a consequence there will be a more socially beneficial balance between fares and service levels. Furthermore, lower

operating costs will reduce the current need for operating subsidies, thus allowing reduced sales tax levies and/or improved transit service. This paper has indicated some areas where there would be very high social benefits from reinvesting some of the subsidy monies that are saved.

However, privatization is not a complete panacea for all of transit's ills. There are open questions as to the appropriate methods of service provision in lower density parts of the city, whether all of the additional capacity provided in the peak is justified, and whether there should be differential fares between the bus and rail system and between different times of day. These are also pressing policy issues for transit, and ones that are not directly tied to the privatization debate.

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Competitive Contracting: A Resource for Chicago Transit Operations

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There is growing interest in competitive contracting for transit operations in cities around the world, including Chicago. Since 1995, the Regional Transportation Authority (RTA) has been promoting competitive contracting as the only way to spare riders from further fare increases and service cuts. In August 1996, former Chicago Transit Authority (CTA) president David Mosena recognized the need to examine innovative service delivery options when he said that “We have to recreate the CTA from the ground up ... question every assumption ... [and] scrutinize every route.” Demonstrating this interest in new solutions, the CTA actively participated in a study of opportunities for the outsourcing of various functions. This was the first study ever carried out under the joint guidance of the RTA, the CTA, and the CTA’s unions (RTA, 1997).

Since then, interest has grown in private-public partnerships to leverage more value from limited transit budgets. In a May 3, 1998 editorial, the *Chicago Tribune* supported outsourcing for regular CTA operations. RTA Chairman Thomas J. McCracken, Jr. followed up the *Tribune*’s editorial by outlining eight principles for making competitive contracting work to the benefit of transit customers, taxpayers, and transit workers alike (see the paper by Chairman McCracken in this volume).

Bringing Private Capital into the System

This paper is primarily concerned with *competitive contracting*, which consists of inviting bids from private companies, labor unions, other employee groups, and even business units within a transit authority itself for the right to operate specific routes for a given number of years. Particularly under Mayor Daley since 1989, the City of Chicago has turned to contracting for a variety of public services. Although public transportation is not yet among the services being outsourced, competitive contracting at the CTA certainly fits in with the overall agenda at City Hall. Other cities in the United States and abroad have found ways to make contracting work for their transit operations. In cities where competitive contracting has been implemented, it has achieved savings of twenty or twenty-five percent, even in unionized systems. Competitive contracting is a carefully managed form of competition whereby transit providers compete not *in* the market, but instead *for* the market, that is, for the right to serve the public.

While competitive contracting for operations is the most obvious way to bring private capital into a new partnership with the CTA, there are various other means of tapping the private sector to help stretch tight budgets. In some instances, government authorities seeking new or renewed infrastructure have turned to *long-term franchises* for entire lines. This is a commonly-used approach for major toll highway projects in developing nations, and sometimes for rail transit as well. When New Jersey Transit opens its Waterfront light rail line across the Hudson River from New York City in March 2000, it will be pioneering the use of *design-build-operate-maintain* (DBOM) contracts in the United States, which has advantages over traditional agency-vendor relationships in terms of cost containment, quality control, and accountability. Under a partnership between NJ Transit and a consortium led by Raytheon, the consortium will be responsible for the engineering and construction of all phases of a new light rail line, including procurement and maintenance of cars.

The consortium will also maintain and operate the line for fifteen years, after which point the responsibility will pass to NJ Transit. As this is a fixed-price contract, the consortium cannot pass any added costs onto NJ Transit, except labor costs which are linked to the Consumer Price Index (Duffy, 1998). Thus, if the consortium does the work properly from the outset, the less money it must spend to rectify any errors. Long-term franchising also works for older rail lines. Buenos Aires awarded ten or twenty-year franchises for its subway and commuter lines through competitive bidding on a least-subsidy-required basis. Even with the much-needed Illinois FIRST money to help renew Chicago's aging rail transit lines, we should be examining all possible options for obtaining the best value for investment in transit.

Private capital can also team up with the CTA in *joint development*, a particularly intensive form of Transit-Oriented Development, which is another RTA initiative. This is where real estate development is coordinated with the location of transit stations so as to enable customers to reach offices and stores directly from the stations. Washington, Toronto, and Montreal have all had great success with joint development at subway stations (Allen, 1986). Montreal and Toronto passengers may leave the subway and walk directly into downtown department stores, all the while remaining in a pleasant, well-designed underground environment. Although newer and more architecturally distinguished systems tend to be the leaders in joint development, established systems in New York and Philadelphia have seen joint development with specific projects. Even in Cleveland, which is not normally thought of as a major rail transit center, the Tower City station offers direct access to that city's largest downtown shopping mall.

There are some examples of joint development in Chicago. Part of the rebuilt Clark-Lake "L" station was incorporated into a commercial office building, and at McCormick Place an extension of the convention center has been built directly above the Metra Electric station. The CTA could explore joint development in conjunction with the rebuilding of the Brown Line Ravenswood elevated, and at any other stations where promising opportunities present themselves. Not only do real estate developers benefit from the greater accessibility of their investment as a result of joint development, but transit operators gain new sources of ridership. This is truly a partnership where developers, transit providers, and riders all come out ahead.

There are also *other forms of innovative partnerships*. The recent sale-leaseback of the CTA's Green Line is another way that the public transit can bring the financial community on board as a partner. Private investors can help with other aspects of system operations in addition to operating bus routes or rail lines. London Transport and a consortium including Cubic Corporation have signed a seventeen-year contract worth about \$1.6 billion (*Railway Gazette International*, 1998). Under the agreement, the consortium will install new automatic fare collection equipment at all London Underground stations and on all of London's 5,800 buses. The new equipment will give London Transport the ability to use contactless "smart cards," replacing the magnetic "swipe" tickets now in use. The contractor will finance the installation and assume responsibility for its performance, with payments being based on ridership levels and supplemented by bonuses and penalties triggered by good and poor performance, respectively. Once the contract period is over (by which time the hardware will be nearing the end of its useful service life), ownership of the fare collection equipment will pass to London Transport.

What Competitive Contracting Is—and Isn't

The remainder of the paper deals with competitive contracting of transit operations. There are considerable benefits from contracting, especially improved and increased service to the traveling public. Nevertheless, some myths about competitive contracting need to be cleared up.

First, competitive contracting is *not a sale*. There is no question of returning to the days before the CTA, when private companies owned and operated all of Chicago's transit fleet with no public agency to supervise, subsidize, and coordinate their operations. The RTA does not support an outright sale of major public assets, although there is potential benefit in long-term franchising, with ownership of all physical improvements made by the contractor (stations, track, rolling stock, yards, etc.) shifting to public ownership at the end of the contract.

Competitive contracting is *not a surrender of public control*. Under competitive contracting, in contrast to a sale, the agency stays in control by monitoring the contractor's performance. Often, the agency imposes penalty charges for delays or canceled runs, and rewards superior performance with bonus payments (as Metra does with the Union Pacific and Burlington Northern & Santa Fe commuter railroads). Professional oversight from the public sector is crucial to making competitive contracting work. The oversight function must be built into the budget, not tacked on as an afterthought. Accountability is too important to be contracted out to the lowest bidder.

Competitive contracting is *not union busting*. Although private industry has sometimes used outsourcing to circumvent or undermine the negotiating power of organized labor, the RTA neither wishes to nor has the legal authority to do so. The RTA argues that the greatest threat to the job security of unionized CTA employees is the specter of layoffs resulting from declining ridership and future budget cuts. The RTA has pledged that there will be no layoffs as a result of privatization. This principle is also part of the RTA's enabling legislation. The Regional Transportation Authority Act provides that the RTA "shall insure that every employee of the Authority or of a service board shall receive fair and equitable protection against actions of the Authority which shall not be less than those established pursuant to Section 13 (c) of the [Federal Transit Act], as amended" (Chapter 70 ILCS 3615/1.01 Illinois Compiled Statutes Annotated (Section 2.16, Employee Protection)).

Private transit management firms are accustomed to working in a unionized environment, as in Indianapolis and Phoenix. Although competitive contracting does encourage wage restraint, there is no question of throwing out a tradition of collective bargaining in Chicago's transit industry that dates back to the early twentieth century. In large urban settings, transit privatization more commonly seeks to gain greater value from existing subsidies than to cut back substantially on transit operating budgets.

Structuring Competitive Contracting

Competitive contracting can be structured in many ways. Design of a system should be based on a consideration of the following issues:

- Should the public authority seek the most advantageous bid for providing a given level of service, or the most and/or best service for a given level of subsidy (as many transit professionals advise)?
- How many routes should be included in each contract, so as to ensure that smaller firms have a chance to bid?
- Should the public authority spell out in the bid documents what routes and services are to be operated, or should bidders be invited to submit their own service proposals?
- What tradeoffs should be made between bringing in experienced firms that can be trusted to run the services well, and attracting smaller, new entrepreneurs who may have more innovative ideas but are not as heavily capitalized?

- Should there be a prequalification phase, aimed at screening out firms which should not be entrusted with an operating contract?
- Does the contractor or the public agency supply the buses and/or trains? If contractors supply their own vehicles, how much discretion should they have in deciding about specifications (bus size, seating capacity, et cetera)? If contractors are required to supply their own buses, this can limit the participation of smaller firms.

All of these choices should be made with an eye toward creating the maximum benefit for riders, taxpayers, and transit employees. Considering how much is at stake, the customers' interests suggest the need for an orderly transition. Thus, it might make sense to start by implementing operating contracts on routes based at one or more outer bus garages on the CTA system. Once competitive contracting is yielding clear benefits on local services in the city's neighborhoods, the next step would be to seek bids for the operation of crosstown routes. Only then should there be competitive contracting for routes serving the Loop. The RTA recognizes that quality of service is not always compatible with the lowest possible cost, and we believe that responsible transit policies place customers first.

On the "L," the same logic suggests that the CTA should be able to show that contracted operations are working on the smaller services before soliciting bids for running the longer, busier, and more complex lines. Given their small size, the Yellow (Skokie Swift) and Purple (Evanston) lines would be logical choices to initiate privatization for "L" operations. Contracts for the Orange (Midway), Brown (Ravenswood), and Green (Lake-Englewood-East 63rd Street) lines might follow. Only after privatization has been shown to yield benefits elsewhere on the "L" should the CTA move toward competitive bidding on the busy Blue (Congress-Douglas-O'Hare) and Red (Howard-Dan Ryan) lines. Despite these caveats, the RTA anticipates that on both the buses and the "L," customers will welcome the arrival of competitive contracting on the busiest routes once they have experienced improvements in service quality as a result of privatization on other parts of the system.

How Others Have Done it

A variety of cities have found ways to make competitive contracting work. We now look at some of their experiences. Like Chicago ten years earlier, the transit system of *Indianapolis* experienced a cash flow crisis in 1992. The financial crisis forced service cuts and the laying off of transit workers. To spare customers and employees from further cutbacks, the region's political leaders decided on a new, more cost-effective approach. The system contracted out some of its routes in 1995, and followed this up a year later with the bold step of placing the entire transit system out for bidding in a single package. The existing management and workforce won the contract. While no transit workers were laid off, the cost of providing service fell by two million dollars or about twenty percent (see the paper by Roland Mross in this volume).

Las Vegas' private transit company was sustained for many years with the help of out-of-town visitors riding the bus to get around, along with the local Gray Line sightseeing franchise (Strauss, 1978). But the need for subsidies eventually caught up with the company, leading to a nonbinding referendum in 1989 in favor of a regionally-controlled system (Rooney, 1993). Civic leaders put together a funding package for a new Citizens Area Transit (CAT) system, which took over from the private company in 1993 under the terms of a competitively-bid service contract (McKane, 1995). The contractor provides a full turnkey service for CAT management, employing all operating and maintenance staff.

Like Las Vegas, *Phoenix* has always kept the provision of transit operations in the private sector, even though overall transit policy and management are firmly under the control of regional officials. When the private system announced its intention to leave the business in 1971, the City of Phoenix initiated public subsidies, but retained Phoenix Transit as the operator. Changing federal regulations caused Phoenix officials to put the transit contract up for competitive bidding starting in 1989, but there was only one bidder due to labor protection issues (Henke, 1994). As with Las Vegas, the contract covers all aspects of operation and maintenance for the entire system.

All transit in the *Denver* area is under the management of the Regional Transit District (RTD). In 1988, the Colorado legislature, concerned with rising subsidy costs, mandated that the RTD contract out twenty percent of its operations (increased to thirty-five percent in 1999). The Colorado law protected the RTD's hourly employees from being laid off due to privatization. Under the Denver system, contractors keep the fares from the lines they operate, thus introducing a certain element of risk but also giving the companies an interest in the health of their routes. The first routes were put out to bid in 1989, and the auditor monitoring the results in 1990 estimated savings of twenty-seven percent (Love, 1991). The Colorado legislature also ordered the RTD to monitor the performance of the privatized lines so that the results could be evaluated. Consequently, researchers have had an ongoing controlled experiment, making it possible to compare results between the publicly and privately-operated components of Denver's bus system. Competitive contracting has given Denver's transit customers and taxpayers improved service and/or more value for their money by virtually all indicators (Peskin et al., 1992, 1993). The savings from the use of contractors has helped pay for the local share of building Denver's new light rail line.

As befits a sprawling, multifaceted metropolis, privatization in *Los Angeles* has been implemented on a case-by-case basis rather than through a comprehensive effort, as in Denver or London. One of the earlier services to be contracted out was the DASH (Downtown Area Short Hop) shuttle, in the mid-1980s. A private contractor won the bid for the city-funded service, which had been run by the regional operator. Competitive contracting has also allowed the Los Angeles Department of Transportation to leverage more value from its subsidy for its Commuter Express services, which serve several communities built to suburban patterns of population density but located within the city limits (Hebert, 1986; Wolinsky, 1989).

Another development has been in the Foothill Transit Zone of the San Gabriel valley. Foothill Transit, which contracts its operations under two separate bid awards, was established in 1988 on a provisional basis to take over lightly-used suburban routes which the regional operator sought to discontinue for budgetary reasons. Although it could not afford to run all the routes in the Foothill Transit Zone, the dominant regional system was not supportive of the new operation, and transit unions sued to block Foothill from taking over services (even though the routes would otherwise have been eliminated). A court decision in early 1993 finally settled matters in favor of Foothill (*Los Angeles Times*, 1992). Like the dominant regional system, Foothill Transit is unionized. Nevertheless, Foothill is able to recruit drivers at lower wage rates (up to \$11 an hour as opposed to \$19 at the regional operator), largely because Foothill's suburban routes are not as difficult for drivers as many busier urban routes are. In contrast to the regional system, there are no limits on the use of part-time drivers at Foothill, which also has more flexible work rules. Foothill also has a zero-tolerance policy on graffiti, and maintains its buses well, which contributes to high customer satisfaction. Analysis suggests cost savings in a range between twenty-four and forty-three percent, depending on the assumptions used (Wolinsky, 1992, 1995; O'Leary, 1993).

Another city where competitive contracting has been used to help stretch existing subsidy budgets further is *San Diego*, where privatized operations started in 1980 and has now reached

thirty-five percent of the system (Cox, 1996). One contractor has been brought in to provide express bus service on new high occupancy vehicle lanes on a major freeway on routes and schedules specified by San Diego Transit.

In *London*, 1982 elections to the regional council brought in an administration strongly opposed to the national government's policies. Disputes over transit policy led Britain's national government to transfer London Transport (LT) from local to national control (Garbutt, 1985; Fairhurst, 1988). The national government also moved to increase the value leveraged from existing subsidies through competitive contracting for bus operations. London Transport became a supervisory agency like the RTA, overseeing two operating subsidiaries, London Underground and London Buses, and also administering competitive contracts for bus operation.

The introduction of contracting has been a gradual process lasting fifteen years. Initially it was felt that contracting "should comprise fairly small contracts with limited commercial risk" (Bayliss, 1987). Using three-year contracts for individual routes, LT steadily expanded the reach of competitive bidding. Initially, contracts were of a "gross cost" type, where the contracting operator was reimbursed for the cost for running the service, while LT kept all the farebox revenue. This led to problems of old and unsatisfactory vehicles being used by some operators in order to submit low bids. Service improved after LT moved to "net cost" contracts, which gave contractors a stake in the farebox revenue. LT's contracts include financial penalties for failure to run service, stay on schedule, or collect fares properly, and several contracts have been terminated for poor performance (Higginson, 1991). Occasionally, firms have submitted an unrealistically low bid to gain a contract, only to find that they cannot afford to continue operations, requiring LT to intervene and award the contract on a temporary basis to another provider. LT also has the right to refuse to award a contract to a low bidder when LT doubts that bidder's ability to meet the service requirements (Kennedy, 1995a,b).

In the mid-1980s, LT's own internal bus operating subsidiary was split into divisions with separate managements. These divisions then competed with each other, and with private firms, for contracts. Finally, between 1992 and 1994, LT's bus divisions were privatized. Some were purchased in management buyouts and others were sold to large British and French conglomerates. Today, LT no longer owns any of the world famous "red buses." However, the former operating subsidiaries of LT and all other companies providing service in Central London are required to adopt a paint scheme that is at least eighty percent red. This should help alleviate confusion on the part of visitors to London, and reassure Londoners themselves that LT is in charge of contract oversight.

Public reaction suggests that on balance, London has found a formula that works for taxpayers and for commuters. The creation of a new Greater London Authority in 2000 to regionalize a variety of government functions (including transit) means that London Transport will pass back to local control. The likelihood is that Greater London's elected officials will retain a system that has been shown to produce results on an affordable budget.

In *Stockholm* during the early 1970s, several city and suburban transit providers were merged into a unified system, Storstockholms Lokaltrafik (SL). Until the early 1990s, SL's consolidated system followed a low-fare policy, in the belief that low fares would maximize ridership. Although SL was able to maximize market share this way (carrying seventy percent of rush hour trips to and from the city center), this came at a high cost, with the farebox recovery ratio falling to only one third by 1990.

In order to control costs while still maintaining a high quality of service, SL set up several business units in 1991, and moved toward competitive contracting of both bus and rail operations (Axén, 1991). Stockholm's business units are comparable in their function to Chicago's service

boards, except that they are all under SL's board of directors. In that regard they are more like the New York MTA's operating agencies, which have separate management but are all accountable to the directors of the parent organization. SL uses five-year contracts, and certain limited extensions of the contract length are possible. The transit authority sets routes, schedules, and fares, and keeps the revenues collected. The bus routes are contracted out in large bundles, with the result that only the larger, more well-known, securely-capitalized firms have been able to win contracts. Some of the contracts (including all of the contracts for subway operations) have been won by SL's own business units, which have brought their costs down to levels competitive with private companies. By 1997, after five years of competitive contracting, Stockholm was enjoying twenty-five percent savings compared with the situation prior to the outsourcing (Petersen, 1998). It is notable that these savings have taken place in a setting where organized labor is stronger and more politically influential than in the United States.

Since 1990, *Copenhagen's* regional transit system, Hovedstadsomradets Trafikselskab (HT), has bid out all of its routes. Unlike Stockholm, which bids out its routes in packages, Copenhagen's bus routes are put out to bid individually. In 1995 HT transformed its own bus operating division into an independent limited company, which was recently purchased by a large British bus company. Copenhagen's contracted buses are painted in the same familiar yellow as those traditionally operated by HT, and carry HT's corporate symbol (Timoleon, 1994). Like Stockholm, Copenhagen has required contractors to hire the existing work force and pay the same wages as before, preferring to focus on the quality and efficiency of service. As Johannes Sloth reports elsewhere in this volume, the cost per bus hour has fallen by twenty percent, and the number of riders has increased.

In *Sydney*, Australia's largest metropolis, the entire basis on which bus operations are allocated among different providers has been overhauled in a way that encourages service innovation while minimizing disruption to existing arrangements. Private buses have long operated in Sydney's suburbs without the benefit of subsidies, with subsidized public sector operations concentrated in and around the central city. Until 1990 private buses were franchised with exclusive rights within specified suburban areas, but Sydney now has a system of competitive franchises which uses the possibility of competitive contracting as a means of motivating established transit providers. Established operators, including those in the public sector, have been offered new five-year contracts for the areas they already serve, but if they are unable or unwilling to meet public agency requirements, the contract for their zone is then awarded on a competitive basis. Sydney's "contract regions" range from around ten to eighty buses, which are seen as being large enough to provide a solid revenue basis for operators without being so huge as to exclude all but the biggest firms (Battellino and Smith, 1993). The Sydney approach gives incumbent operators a decided advantage over other providers seeking entry, but it also forces those incumbents that stay in the market to meet high standards or risk being removed. In most contract regions, the incumbents (including the State Transit Authority) have met the new challenges of competitive franchising. Even though few transit providers have been replaced within their previous service areas, they have responded to the challenge of potential competition by introducing lower-cost minibuses and flex-route operations in order to attract more riders within constrained budgets.

Buenos Aires, Argentina's capital city, has had completely privatized bus service since the early 1960s. Individual proprietors own the buses, and have grouped themselves into route-based "component companies" which in turn negotiate with the government about fares and services (Martinez et al., 1996). Argentina's railroads and the city's subways, both nationalized in 1948, were suffering from decades of neglect, and fare evasion was rampant on Buenos Aires' commuter

trains. By the early 1990s, the government had reached the point of being unable to finance the continuing deficits and enormous capital backlog of Buenos Aires' aging commuter rail and subway lines. As with New York's subways in the early 1980s, it became clear that only drastic action could stem the decline and turn the system around. The government turned to privatization as the only way to save Buenos Aires' rail transit lines from further decline and eventual collapse. Fortunately, public officials understood that in order for privatization to succeed, it was vital for the government to oversee the operating contracts and plan for tomorrow's needs.

One of the partners in Metrovías, the contractor with the winning bid for the subways, is the Burlington Northern & Santa Fe Railway, a household name for thousands of Chicagoland commuter railroad customers (Pipan, 1994). As described in the paper by José Barbero in this volume, Metrovías has invested money in the system, including buying second hand Tokyo subway cars to reequip one of the city's five lines. In addition, the consortia operating most of the city's commuter railroads have made investments in the existing cars, tracks, and stations.

In another example of private capital coming on board the system, a long-abandoned electrified commuter railroad branch was reopened. Even though the area suffered from widespread road congestion, the national railways had no money to reopen service. Then a private consortium stepped in, built new tracks, and inaugurated light rail service in 1995. The consortium also rehabilitated several historic British-built brick depots en route, and converted them to new, commercial uses, thus helping to create travel demand and supporting the Transit-Oriented Development concept (*Railway Gazette International*, 1995).

Issues to Be Addressed

In designing a process for competitive contracting that meets the needs of Chicago's customers, transit officials will need to address the concerns of CTA employees and insist on service that is user-friendly. Only an open, honest discussion of the issues surrounding competitive contracting will bring about the best arrangements. Chicago, with its long and proud history of comprehensive, coordinated transit, must insist that privatization be done well, and done right.

The first are *labor and legislative issues*. One of the greatest perceived stumbling blocks to privatization is Section 13(c) of the Federal Transit Act. Although Section 13(c) has a complex history with various judicial interpretations, its basic thrust is to ensure that transit workers are not laid off or otherwise made worse off as a consequence of projects funded with federal money. Collective bargaining units affected, or potentially affected, by a project must sign off on the project before federal funding can be delivered. To make matters even more complex, the U.S. Department of Labor (not the Department of Transportation) is the certifying body under Section 13(c) (Transportation, Research Board, 1995). The discretion given to unions in the 13(c) certification process is broad (and, in the eyes of some transit managers, invites unions to seek virtual veto power over transit authorities seeking federal funds). Nevertheless, the grounds on which labor can sustain objections under Section 13(c) are somewhat better defined. Some of the difficulties of the Section 13(c) process can be reduced if management addresses labor's concerns in the collective bargaining process and designs the overall setup in such a way as to rely on attrition and early retirement buyouts rather than layoffs to reduce the number of employees (Tristano, 1998). As an example of how labor protection issues should be addressed, the Colorado law mandating privatization of twenty percent of Denver's transit system explicitly safeguarded the system's hourly employees against layoffs resulting from competitive contracting.

The RTA's principles for privatization, as articulated in May 1998, include the same stipulation that privatization must be accomplished without layoffs.

It is vitally important that *buses operated under contract be as indistinguishable as possible from those on non-privatized routes*. Navigating a big city transit system is difficult enough for many users without the additional challenge of trying to figure out how buses with a variety of paint schemes fit into the overall system. One Chicagoland transit operation adheres to the logic used for privatized buses in Copenhagen and central London for its own contracted service. Metra recognizes that its service mark is an important identifying label, a sign of quality with widespread and positive brand recognition. The Metra symbol is widely used wherever Chicago's commuter trains run, regardless of who owns the track and supplies the crews. Indeed, Metra's purchase-of-service contracts with the Union Pacific and the Burlington Northern & Santa Fe specify that Metra has the right to use its own symbols and paint scheme on all commuter rail equipment operated under these contracts, and at all stations these trains serve. This logic suggests that the CTA would likewise use its insignia on all outsourced operations to present itself in a unified manner to its customers.

Accountability is essential. It is vital to make sure that the structure of competitive contracting can be explained to the public in clear, simple terms, because few voters are likely to be enthusiastic about a setup they cannot understand. Competitive contracting is not yet a familiar concept in the Chicago transportation community, but it fits right in with privatization of a variety of public services under Mayor Daley's administration. Furthermore, it fits right in with the shared mission of CTA Chairman Valerie Jarrett and President Frank Kruesi of helping to turn the CTA around.

In Conclusion

Chicago enjoys an enormous pool of talent and knowledge about transit, and much of this wealth has already been assembled at existing organizations. The experience of other cities across the country and around the world with competitive contracting shows us what elements can be adapted to our needs, and what mistakes we need to avoid. With our can-do spirit and our proud history of making no little plans, we have the opportunity today to learn from the rest of the world and make competitive contracting in mass transit work better in Chicago than anywhere else.

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Success Stories - Indianapolis

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Stephen Goldsmith was elected Mayor of Indianapolis in 1992. From the inception of his administration, Mayor Goldsmith created a “small government prescription” for the problems that Indianapolis faced. This prescription has reduced the City’s operating expenses, cut the municipal bureaucracy by a quarter, reduced red tape, balanced the budget, cut property taxes, put more police officers on the streets, and invested more than \$700 million in the largest infrastructure improvement program in the City’s history. The local economy is enjoying seven years of record-setting investment and new jobs.

Under Mayor Goldsmith’s administration, the City has been widely recognized for leadership in almost every area of municipal governance, from neighborhood empowerment to economic development to making government efficient and competitive. The effort to reinvent and re-engineer the City continues under Mayor Goldsmith’s second term. There are four principles on which the Mayor has based his small government prescription.

First, people governed least are governed best. Government exists to serve. It should provide only those services that the people cannot obtain for themselves through the marketplace.

Second, government should be a rudder, not an engine. Government should be not so much an administrator as it should be a facilitator. It should identify needs the marketplace cannot fulfill, then empower people and families to fill those needs. Government should create an atmosphere in which businesses can thrive, but it cannot replace the marketplace.

Third, people know better than government how to spend their money. Maximizing the choices people have in the free market and maximizing the amount of money people keep for themselves is the best way to guarantee health, happiness and security.

Fourth, government should be measured by the same way every other enterprise is measured: by its results. The measurement should not be in terms of programs funded or salaries paid, but rather in terms of neighborhoods protected and workers trained.

Government is a monopoly which cannot go out of business. Mayor Goldsmith believes the way to cut municipal expenses without reducing the quality of essential services is through competition. Competition does not necessarily mean “privatization.” In Indianapolis, the Mayor prefers to use the term “marketization,” to indicate that competition in the marketplace, and not privatization *per se* produces value for customers. To the extent that services are moved into the marketplace, or markets are created for their delivery, efficiency and service quality are improved and costs are reduced.

In Indianapolis, City workers compete with the private sector to provide municipal services. The competition is used as a basis for determining if the private sector can provide services more efficiently than the public sector. The City workers are not the reason for inefficiencies. Rather, restrictions in the system trap good people in a bad environment. The Indianapolis experience suggests that changing the system usually liberates city employees to compete effectively with the private sector.

How Competition Works

Not every government service is eligible for competition. To determine if competition is needed and will work, the Administration provides a “core service analysis.” Services that are directly related to government’s core mission, like police protection, are distinguished from those that are ancillary to government’s central policy concerns, such as microfilming or printing. Competition is more likely to be successful when the service is not part of government’s core mission.

If government determines that competition is desirable, the Administration assesses whether it is feasible by performing the “Yellow Pages” test. If the Yellow Pages telephone directory shows several firms offering services that the City is also providing, then competition is deemed feasible. The presence of private service providers also indicates that the market has established performance standards that can be written into contracts.

The core service analysis and the “Yellow Pages” test result in focusing resources on activities that government does well and delegating to contractors those activities that are better performed privately. For instance, early on, workers and management both agreed to get out of the business of laying concrete, putting up roadside fences, and, in select cases, picking up litter, because they realized they could not be competitive in those areas.

These decisions allow workers and management to concentrate on work in which they can outperform the private sector. There are a number of case studies which illustrate areas in which Indianapolis government was competitive with the private sector in the provision of services, such as trash collection. In other areas like printing and copying, services are much better performed in the private sector. City workers have won a quarter of the bids and split responsibilities with the private sector in another twenty percent of services subject to competition. City workers tend to win bids when the service is labor intensive, and private contractors tend to win when the service is technological or capital intensive.

Competition has given the city a more creative spirit. It has increased communication, made management better, has empowered a number of workers, created incentives rather than threats, and provided a sincere attempt for management and workers to be real partners. The City’s efforts have been well recognized and have won accolades from around the country.

Indianapolis Experience with Public Transportation

The population of the City of Indianapolis is around 800,000, with a metropolitan area of around 1,250,000. The City has been under a unified form of government for twenty-five years, so that the municipal boundaries for many government services are the same as the County boundaries. Public transportation services are provided throughout the County but not beyond the county limits.

Until 1992, public transit was a monopoly, performed by a public corporation. The Indianapolis Public Transportation Corporation (IPTC) was created in 1965 under a state law which gave the governing authority to a board of directors, appointed jointly by the Mayor and City-County Council. The Board was given independent taxing and budgetary authority. The taxing authority is based on property tax levies. The City-County Council has no legal authority over the Corporation’s budget but the Board is required to inform the Council of its taxing and budget decisions. The fixed-route transit service which the Corporation provided was marketed under the name of *Metro*.

Until 1992, IPTC provided fixed-route service on a basic radial configuration, with almost all trips oriented to the downtown area. Approximately forty express and regular services were provided to the general population. Between 1985 and 1992, IPTC lost forty percent of its ridership. It went from a peak of fifteen million trips per year to about nine million per year. This was despite considerable investments to completely replace the bus fleet with new equipment. Costs for providing fixed route service rose, as did maintenance and administrative expenses. IPTC had one of the highest costs per vehicle hour in the country while at the same time providing fewer routes and less convenient service than comparable transit systems.

To cover increasing deficits, IPTC had increased its property tax levy. The subsidies provided by local property taxes increased from approximately \$1.2 million in 1982 to \$6.4 million in 1992. This was in addition to the subsidies that IPTC received from state and federal sources. By 1992, IPTC was in a crisis. The Corporation had no financial controls or performance measurement standards. Ridership had fallen precipitously, while no real efforts had been made to comply with the Americans with Disabilities Act.

Immediate measures were taken to stop the financial hemorrhage. Most of IPTC's senior staff were replaced, along with many Board members. To help reduce the budget deficit, most express routes were eliminated. Financial controls and preventive maintenance programs were implemented. In 1993, IPTC had realized a one million dollar budget surplus through these cost-saving measures, without raising taxes. Those savings were used to begin funding the system's compliance with the Americans with Disabilities Act. At this time, several policies were announced to reverse the downward trends of the previous decade. First, the revamped IPTC Board of Directors agreed to a freeze on property taxes. Second, the transit system would be rebuilt, starting with a focus on the most reliable transit markets, those people who depend on transit. And third, the redesigned transit system would be customer focused, efficient, reliable and safe.

Competitively Contracting for Paratransit Service

With the strong urging of the Mayor, it was decided to place the redesigned transit service within the competitive marketplace, following the same approach used with other government services. Competitive bidding was first introduced to the procurement of the paratransit system for disabled riders, which is known as *Open Door*. With assistance from the disabled community, a request for proposal for providing services was drafted. The responses were also reviewed in cooperation with the disabled community and a recommendation made to the IPTC Board.

The Amalgamated Transit Union (ATU), representing the existing public-sector bus drivers, initially agreed to the bidding process and submitted a proposal. Their bid cut their hourly rate in half to be competitive. When the contract was awarded to a private company, the local ATU filed a grievance pursuant to the labor protection provisions, Section 13(c), of the Federal Transit Act. The Union subsequently dropped their grievance and agreed to explore some of the issues raised at the next round of contract negotiations. As a result of the competitive contract, IPTC was able to more than double the amount of *Open Door* service for the same budget.

Competitively Contracting for Fixed Route Service

In April 1993, the Federal Transit Administration sponsored a transit charette in Indianapolis. The two-day event was intensive and included a diverse group of transit experts

from around the country. Suggestions were made after a thorough examination of the transit system and interviews with both riders and providers. The results of the charette suggested Indianapolis needed a mobility management function. Subsequently, the City commissioned a strategic plan for transit. The plan made numerous specific recommendations regarding the delivery of transit services, and also recommended the creation of a mobility management function.

With the Mayor's urging, a transit advisory council was created in 1994 to continue citizen input into the redesign of the transit system. In 1995, the advisory council presented a list of recommendations to the Mayor. The recommendations included several new routes, customer service improvements, and guidelines from the riders' perspective on the qualities that a mobility manager should possess.

At the same time, IPTC was facing another budget crisis because of reduced federal operating subsidies and the expanded provision of *Open Door* paratransit service. Faced with the alternatives of reducing service or increasing taxes, which it had pledged two years earlier not to do, the IPTC Board decided that there were ten regular-service routes that could be placed into the competitive arena. IPTC avoided the provisions of Section 13(c) of the Federal Transit Act because driver attrition meant that these services could be contracted without loss of jobs. These routes were offered to bid and a private contractor won the bid and was awarded the contract. The outcome was three million dollars in savings over four years.

When IPTC's remaining nineteen routes were open to bid, and proposals accepted for new crosstown routes, six private companies and the employees of IPTC submitted bids. IPTC's employees won the competition to serve all their existing routes. No employees were laid off, although fifty-five employees accepted early retirement. To make a competitive proposal, IPTC employees reduced the cost of providing service by two million dollars, a reduction of more than twenty percent. Employees agreed to freeze their wages for three years in return for performance-based incentive pay. They also agreed to increase their own contributions to health insurance.

The results are impressive. Riders now have more routes to choose from and fares have not increased. The volume of service is thirty percent higher than it was before competitive contracting. Ridership has been stabilized and a balanced budget has been in place since 1993. Despite these gains, IPTC had reached a point where further reforms were increasingly difficult, if not impossible to accomplish.

City Takes Responsibility for Service Planning

In 1995, with the Mayor's urging, the Indiana General Assembly changed the way the state's public transit funding is delivered. New legislation gave the City control over the state funds formerly channeled to IPTC. The funds now come directly to the City, and currently total approximately \$8½ million out of a total budget of around \$30 million.

The change in funding was very significant. Because the City controls some of the transit funding, it now has a direct influence over way the transit service is delivered. In effect, the City assumed the responsibility for deciding which routes would be continued and where service would be improved. Because the state funds do not carry any federal requirements, the City is free to seek competitive bids for all routes that its funds support, because Section 13(c) of the Federal Transit Act does not apply.

In response to riders' concerns over service changes, the City announced that no one would lose a ride, that a mobility manager would be instituted to oversee the service, and that the amount

of service that had been offered would be increased. In 1996, the City used some of the state money to create and staff an Office of Mobility Management. The Office was given the responsibilities of marketing, public information, long range planning, scheduling, service analysis, and quality control. To avoid duplication of effort, these functions were moved from IPTC to the Office of Mobility Management. Consequently, IPTC became purely an operating company providing services specified by the City. The separation of planning from operations is significant in that it allows operational experts, whether public or private, to focus on service delivery. The result is improved service, more efficiency, and reduced costs.

With the objective of expanding service through a more competitive process, the City needed an identity for the transit system separate from IPTC or any other operator. The name *IndyGo* was selected, and now all vehicles, bus stops, shelters and advertising carry that logo regardless of the service provider. To attract customers, riders should see a uniform and seamless system, and should not have to worry about whose vehicles is on which routes.

Results of Competition

The new system has brought about profound changes that benefit bus passengers. The Mobility Manager has a listing of all bus routes and times, has doubled the telephone lines for citizen inquiries, added automated 24-hour phone lines, expanded information hours to include Saturday, and opened a downtown transit information center. With the biggest overhaul of the transit system in twenty years, the mobility office has created a new routing system that provides more crosstown service and connections to major employers. The downtown loop has been streamlined, more transfer points established, and changes that drivers and riders have been requesting for years have been implemented.

Ridership has been stabilized and there are signs that it is starting a steady rise again. Adjusting for the adverse effects of a major snowstorm in January 1999, ridership is up by nine percent compared with 1998. But trying to recapture six million lost riders in Indianapolis is a monumental challenge. Local expressways are not overly congested, and downtown parking is cheap and plentiful. Customers of the downtown mall can park for one dollar. Free street parking is usually available in the evenings for such events as going to the symphony. The population is well spread out throughout the metropolitan area, and the road system functions quite well. Despite an increase in auto ownership, Indianapolis ranked a modest fortieth among seventy major metropolitan areas in terms of congestion as evaluated by a 1998 Texas Transportation Institute study.

For the first time in eight years, the transit fare structure was completely overhauled. The goal of the overhaul was to simplify the structure and make it easier for everyone to understand and use. New bus shelters are being built, and a transit image campaign is under way. The entire bus fleet is being replaced with new, and in some cases, smaller vehicles. Controlling the costs of the paratransit service, however, remains a challenge. Service expansions to meet the Americans with Disabilities Act have increased the cost of the *Open Door* from \$600,000 four years ago to more than four million dollars currently.

Focusing on Transit Improvements

While traffic delays in Indianapolis still fall short of the national average, they are still a cause of concern. The City is about a third of the way through a major investment study on the most congested corridor. The study is looking at both transit and highway improvements. A

regional grouping of local governments is cooperating for the first time on a land use and transportation plan for the entire metropolitan area. This study is looking at how rapid growth affects development and transportation. Another study is looking at a metropolitan transit service plan. Also, a group of local business people is seriously considering a downtown light rail system.

All of this has brought increased attention on transit by the citizens in Indianapolis. With the attention comes opportunity. To the extent that competition to provide the most rides for the least cost is resulting in more and better service, public transit in Indianapolis can provide a meaningful alternative to the automobile.

In Summary

Competitive contracting in Indianapolis has been a prescriptive theme of Mayor Goldsmith for all city services since 1992, and transit contracting has been developed within this larger framework. The results are impressive, with ridership increasing for the first time in years. In 1999, after adjusting for the effects of a major snowstorm, ridership is nine percent higher than the previous year and revenue has increased by six percent. Operating costs have fallen by twenty percent. Competitive contracting has saved the transit system more than four million dollars since 1995. Most of these cost savings have been plowed back into expanding the *Open Door* paratransit service, which otherwise would have been funded from increased taxes or higher fares.

Success Stories - Copenhagen

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Managing Director
Copenhagen Transport

Greater Copenhagen is a region of 1,200 square miles including downtown Copenhagen, its suburbs, neighboring cities and rural areas. It encompasses fifty individual municipalities and five counties with a combined population of 1.8 million.

Public transportation has a twenty-two percent market share during peak hours and a fifteen percent share outside of peak hours. Competition from the bicycle is strong, especially in the city. Almost 260 million passengers go by bus each year, and another hundred million travel by train. On major routes, twenty-four hour service is offered, and door-to-door service is available for more than thirteen thousand disabled people, at any time, every day of the year.

The Origins of Outsourcing

During the 1970s and 1980s public transportation was organized in a traditional way. Copenhagen Transport, known by its Danish initials HT, not only planned the services but was also the main operator. HT provided more than eighty percent of the total bus-miles operated. The remainder was, for historical reasons, produced by some twenty small private operators. Each of these operators was reimbursed for their costs of operation, using “gross cost contracts,” with all revenue passing to HT. There was no competition between HT and the private operators.

During the 1980s costs increased and the quality of service was low. Strikes by employees were frequent and service was unreliable, especially on the routes operated by HT directly. The number of passengers declined, and there was a loss of goodwill. To make up for the lost revenue and higher costs, HT had to make extraordinary fare increases and cuts in service levels in order to balance its budget. The usual public transportation negative spiral had started.

Dissatisfaction with these events led the Danish parliament in 1990 to pass a bill which forced HT to bid out at least forty-five percent of its operations by 1994. However, the board of HT decided to go further than this, and on January 1, 1995 transformed its operating division into an independent limited company, which was recently sold to the large British bus company Arriva. Therefore, since 1995 all of the service are outsourced and are operated by companies completely independent of HT.

Therefore, today HT operates in a similar fashion to the Regional Transportation Authority in Chicago. Its primary task is planning, buying, developing, and marketing transit services. HT has a board of five elected officials, one from each county in the Copenhagen region. Subsidy funds are received from each of the counties and represent about thirty-five percent of operating costs. HT has 270 employees and a budget of almost US\$300 million.

How the Bidding Works

HT buys services using competitive bidding. Bids are sought for the operation of individual routes rather than for large areas of the city. The operator who makes the most financially favorable bid wins a contract to provide service on that route for a period of four to six years. At the end of the contract period, the services are then put up for bid again, and it is possible that a new operator may take over. HT’s bid documents include the following:

- the proposed timetable;
- vehicle design specifications, including standing and seating capacity, floor height, accessibility for wheelchairs and strollers, ergonomics of the driver’s seat, emissions standards, and maximum age of the bus;
- requirements for driver training;
- a requirement that driver pay and other terms of employment must correspond to the existing agreements for organized labor when the services used to be provided directly by HT; and
- according to European Union regulations for the transfer of business, the drivers and all technical staff must be re-employed by the winning operator, if the present operator loses the contract.

Bids are expressed in terms of the cost of providing a vehicle-hour of service. All income from fares accrues directly to HT. Therefore, the payment to the operator is independent of the ridership and revenue, and is based solely on the bid and the number of vehicle-hours operated. For example, if the winning bid is 400 Danish Kroner and the route requires 500 vehicle-hours a day then the operator receives a daily payment of 200,000 kroner (400 kroner multiplied by 500 vehicle hours).

If the operator does not meet the requirements of the contract, it must pay a fine, which is calculated on a progressive scale. The total fine for a breach of contract is deducted from the monthly payment by HT. Similarly, the operator may achieve a bonus if it performs satisfactorily. Customer satisfaction analysis are made regularly, and they form the basis for bonus payments, which are made twice a year. The maximum bonus is six percent of the basic payment.

Results of Outsourcing

The consequences of the outsourcing can be seen by a comparison of key indicators in 1990 and 1999 in Table 1. The total cost savings as a result of the outsourcing are difficult to estimate. It is impossible to know what would have happened if the competitive bidding process had not been started. However, the cost per vehicle-hour has fallen by twenty percent in the past decade. In 1990, the first year of competitive bidding when ten percent of operations were contracted out, the cost savings were moderate. However, the savings reached over US\$50 million a year in 1998, by which point all operations had been put out to bid. It is estimated that total cost savings over the period 1990-99 came to US\$257 million.

Table 1: Effects of Outsourcing

	1990	1999
Ridership	234 million	256 million
Bus-hours provided	3,576 million	4,092 million
% operated directly by HT	82%	0%
Cost per bus-hour	US\$64	US\$52
Number of contractors	16	9
Number of buses	1,197	1,146
Average age of buses	8.3 years	5.8 years
Number of drivers	4,200	3,700

What Happened to the Savings?

The majority of the savings were plowed back into improving public transportation as the following achievements show:

- Service levels have been increased by approximately nine percent, at an additional annual cost of US\$20 million.
- Investments were made in a better bus fleet. Buses are bought and paid for by the operators, but HT can now afford to tighten the environmental requirements of the bus fleet. Almost a quarter of the fleet (250 vehicles) now uses LPG as fuel.
- Between US\$7 million and US\$11 million have been invested each year in new bus stops, terminals, improved customer information and a better highway infrastructure making streets more passable for buses.
- The services for those with disabilities has been expanded and the number of customers has tripled since 1990.
- HT's cash reserves have increased by approximately US\$42 million.
- The taxpayers' contribution to the operation of public transportation has been reduced by more than US\$18 million a year compared with 1990.

As a result of competitive contracting, public transportation in Copenhagen has received a much-needed vitamin injection. Improved service levels, quality, information and marketing have transformed many years of constant decline in the number of customers into an actual increase.

Winners and Losers

When the effects of outsourcing are disaggregated into the effects on specific interested parties, a more varied picture emerges. **Customers** have gained because there has been an improvement in both the quantity and quality of service provided. The **taxpayers and other citizens** have gained because they contribute less to the operations of public transportation, and the environmental impact of the buses has been reduced by fifty percent.

The **operators** have undergone a very difficult process, which has turned the business upside down. Fierce price competition between operators has meant that the profitability of the contracting companies has been very low. The number of operators has been reduced to less than half of that of 1990, and only two of the initial private operators in the Greater Copenhagen area remain in business. Profits were not large enough for the businesses to survive in the long run. However, changes are underway. Large British and French companies have been purchasing small Danish operators, and the increased internationalization and possible oligopolistic conditions may lead to increased bid prices. Indeed, bids rose by about five percent in the last round of contracts.

Because of the sharp price competition, **drivers** have lost out. With payrolls representing two-thirds of the total business expenses, an efficient workforce is a precondition for a successful competitive operator. Although operators are not allowed to reduce wages and working conditions below the levels that existed prior to the outsourcing, the operators have introduced cuts in sensitive areas such as staff benefits and training. This has obviously made it more difficult to recruit new drivers.

The **transportation authority** (HT) has enjoyed considerable economic benefits, which have been passed along to its customers and to society at large in the form of more and better service.

Changes in Responsibilities

Outsourcing the provision of service has resulted in big changes in the way public transportation agencies work. The tasks are now clearly divided. The transportation authority, HT, is now able to concentrate fully on four main activities:

- Planning public transportation in interaction with other authorities in the region, and in a way that is more closely coordinated with trains, bicycles and cars.
- Ensuring that both HT and its contractors are customer oriented. Knowledge of customers' requirements and systematic surveys of customers' opinions were practically nonexistent before 1990. Today, HT has a marketing department which is engaged solely in finding out what its customers want.
- Being good buyers. HT makes great efforts to specify the requirements for operators in the bid documents. It tries to choose the best operator, and monitors after the contract is awarded to ensure that a high-quality product is delivered. These procedures are constantly being improved.
- Developing new products and services inspired by customers' reactions, experience from abroad, and the opportunities brought about by new technology, such as the Internet, to communicate with both customers and operators.

In contrast, the operators are fully occupied with running a business successfully. The best and most profitable operators are able to make the right bids, based on a precise knowledge of their cost structure, and be good managers. Two-thirds of the costs in the bus transportation business are payroll costs. Successful operators have competent teams of managers who are able to motivate their workforce.

The clear division of tasks between the operators and the transportation authority, and the distinct skills required by both types of organizations, have contributed to professionalizing and developing the business faster than the industry was used to before 1990.

Future Threats and Challenges

So far, outsourcing has proved a success. The process has taken public transportation through a necessary process of improving efficiency, with savings, improved service and investment in its wake. The clear division of responsibility between the transit authority and the operators has contributed to innovation and development in the business.

But HT must never rest. Conditions keep changing, requiring a proactive attitude. The change of some conditions may turn out to be problematic for HT, and also for public transportation in general. The increasing internationalization of service providers may lead to monopolistic or oligopolistic conditions and higher contract prices. On the other hand, experience from other countries may also result in a faster professionalization of the business.

HT also wants to improve the nature of the contracts with operators to ensure that the operator is given proper incentives and is adequately rewarded for achieving HT's goals of more satisfied customers.

There are currently problems in recruiting bus drivers. The bus driver's job has always been regarded by the public as stressful and unattractive. The sharp price competition between operators and the consequent lower staff benefits reinforce this notion, as does increased traffic congestion in the city. Working conditions have deteriorated in recent years. As good drivers

are vital to customers' perception of public transportation, something must be done to improve the image of the driver's job and to recruit suitable employees.

In Conclusion

In Copenhagen the outsourcing policy has proved to be successful in terms of efficiency and quality for the customers. But it has not been without its challenges. Copenhagen Transport is still facing new problems, and we do not know exactly where the future will lead us. However, HT has passed the point of no return, and can never return to the inefficient organizational structure of the 1980s.

Success Stories - Buenos Aires

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The metropolitan region of Buenos Aires, Argentina, contains more than twelve million people, a third of the population of the entire country, who generate more than twenty million trips per day. The urban transportation system developed to satisfy this demand includes thirteen thousand buses, five hundred miles of commuter rail lines, twenty-five miles of subway lines, forty thousand taxis and three million private cars.

During the past decade, the Argentine economy grew at a fast pace, following the stabilization of the currency in 1991 and the consequent control of inflation. Between 1991 and 1998, economic growth averaged 4½% per annum. This growth has led to significant increases and changes in mobility, though it is difficult to assess the changes for a lack of adequate information. The last comprehensive travel survey was conducted in 1972. While there is information on changes in public transportation ridership, there is no systematic information on private car use and urban freight movements. A metropolitan transportation study, including a complete household survey, is scheduled to start in 1999.

There are also changes in industrial production, land use and lifestyles that have increased the number of trips per day and their length. The ratio of working people to the total population has increased as women entered the workforce, and urban sprawl has changed travel patterns. However the most major change in the past decade has occurred because increases in incomes, economic stability, and improvements in financial conditions have increased motorization. The annual rate of growth in vehicle sales, which had only been a modest 1½% between 1980 and 1991, rose to more than 5% between 1991 and 1998. The number of vehicles in Argentina has risen from four million in 1980 to six-and-a-half million today.

Because the increased motorization was not matched with major highway construction, congestion increased. Buses services, which are the most important public transportation mode and which have been privately operated since the 1960s, became less attractive because their operating speed declined. In addition, most new car owners started to use their cars instead of the bus. To compensate for the loss of traffic, the private bus operators obtained permission to raise their fares, which reduced demand even further. At the same time, subway and commuter train services started a successful concessioning process, which is described in detail later. The concessioning resulted in services that became increasingly attractive to riders. They were faster, cheaper and more reliable than buses.

Based on what limited information is available, mode split for 1991 and 1998 is roughly estimated in Table 1. In the seven years, buses lost three million daily riders, and their market share declined by a third from sixty-three percent to forty-two percent. Much of this loss was due to an increased market share by the automobile. However, buses lost significant patronage to commuter railroads, the subway, and the development of popular limousine services (locally known as *remises*). There are now seventy-five thousand *remises* operating in the city. In addition charter buses and vans connect distant suburbs to downtown. Some of these services are illegal.

TABLE 1: Mode Split (excluding walking, bicycles, motorcycles)

	1991	1998
Private Auto	25%	34%
Bus	63%	42%
Commuter Railroad	5%	9%
Subway	3%	5%
Taxi	4%	5%
Limousine	0.5%	5%
Total Trips per day (millions)	18.0	19.4

The load factor on the buses, measured by the ratio of passenger-miles to vehicle-miles, has fallen from just less than three in 1987 to about two in 1998. This has caused a deep financial crisis for the bus operators. This has become a serious public policy issue, as buses reach poorer areas which are not served by the subway and the commuter railroads. A complete route restructuring may be necessary to solve the crisis.

Increasing road traffic and the consequent congestion have contributed to poor performance of the road network in some places and at some times of the day, and raised concerns about the environmental consequences. The fragmented institutional organization for urban transportation planning and management is at the root of most of the problems. The federal government, the City of Buenos Aires, and the Province of Buenos Aires and its municipalities are responsible for different parts of the regional transportation system. This lack of coordination is one of the reasons why such a large metropolitan region did not produce any master plan for meeting the growing travel demands, or even collect the basic information necessary to produce such a plan.

The Concessioning of the Mass Transit System

One of the distinctive characteristics of Buenos Aires in the past five years has been the strong recovery of mass transit and the commuter railroads. This is the direct result of a decision by the federal government in 1991 to franchise the publicly-owned railroad system. The government decided to do this because the railroads were suffering from increasing deficits, a lack of investment, and a severe deterioration in service quality.

Intercity lines were concessioned to freight operators, and commuter lines were separated from the national railroad company and then turned over in concession to private passenger operators. A similar approach was taken to the Buenos Aires subway. The concession period was originally set for twenty years for the Urquiza commuter line and the subway system, and ten years for the other commuter lines. When inviting private companies to bid, the government required bids that established subsidy requirements or the payment of a fee, if a profit was earned, for providing a scheduled set of services at prices set by the government. In addition, the companies had to submit a capital budget for a set of projects which were designed to make up for years of neglect, and restore the operating capacity of the system.

The concessionaires retain all revenues from ticket sales, collect commercially-determined rents from vendors who operate shops on railroad property, and can sell advertising space. Basic fares were pegged at the levels prevailing at the time the concession started, subject to adjustment to reflect inflation, and can only be increased in real terms if the concessionaire improves service quality. Tokens to ride the subway currently cost US\$0.60. The original contracts specified a set of on-time performance indices which are computed daily. If monthly values are less than a

certain threshold, penalties are imposed. However, if annual values are above a certain threshold, the concessionaire is given the right to increase real fares. The concessionaire retains all additional revenues gained from a fare increase.

The bids by the potential concessionaires set out an annual schedule for the amount of subsidy required from government, and/or the fee that the concessionaire would pay if they felt they could earn a profit given the existing fares. In the early 1990s most lines had operating costs in excess of farebox revenues. However, the subsidy was expected to fall over time, and eventually a profit would be earned. The concessionaire would then have to share this profit with the government by paying a fee. For example, Metrovías, the private company that was the successful bidder to operate and manage the subway and the Urquiza commuter railroad concession, submitted the subsidy/fee schedule shown in Figure 1.

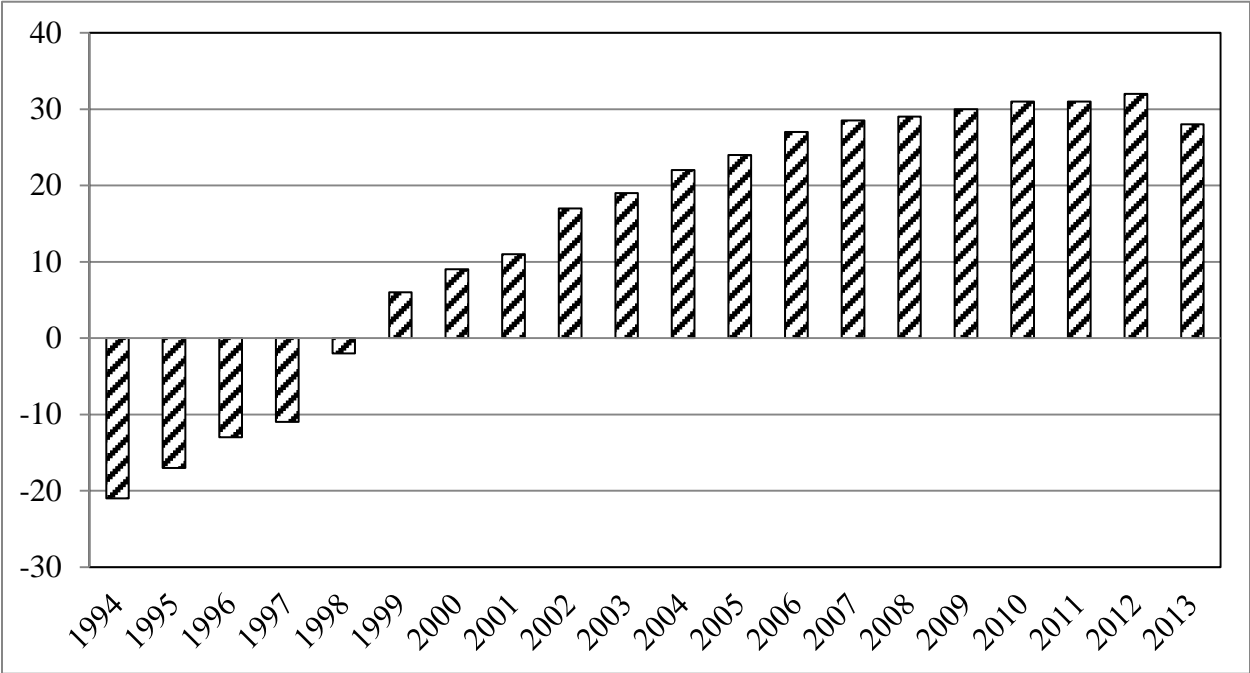


Figure 1: Metrovías Annual Subsidy (-) or Fee (+) in US\$ millions

In addition to submitting a schedule of operating subsidies and/or fees, the bidders also had to submit a budget encompassing both capital projects required by the government, and other improvements offered by the concessionaire. The Buenos Aires subway is quite old, having been built between 1913 and the late 1940s. The system had accumulated a large amount of deferred maintenance, as it was allowed to deteriorate almost continuously during the previous twenty-five years. Therefore, the projects required by the government were intended to replace of old, worn-out track, signaling systems, power substations, and rolling stock. In their winning bid, Metrovías quoted a price of US\$400 million for capital projects on the subway and US\$36 million for the Urquiza railroad, both in 1992 prices. The government allowed an additional fifteen percent on top of these amounts to fund projects suggested by the concessionaire and approved by the government.

The Results of Concessioning

The concessions took effect in January 1994. After five years of private operation, the subways and commuter railroads have improved substantially. For instance, on the subway system, ridership has increased by seventy-five percent. As shown in Figure 2, this has almost reversed the fifty percent reduction in ridership experienced between 1970 and 1993. To meet this increased demand, the number of car-miles operated has increased by sixty-four percent, and the peak vehicle requirement has doubled from 188 cars in 1994 to 370. Peak period headways were reduced by two minutes. Reliability has improved. Delays have fallen from two minutes per thousand car-miles to half a minute per thousand car-miles.

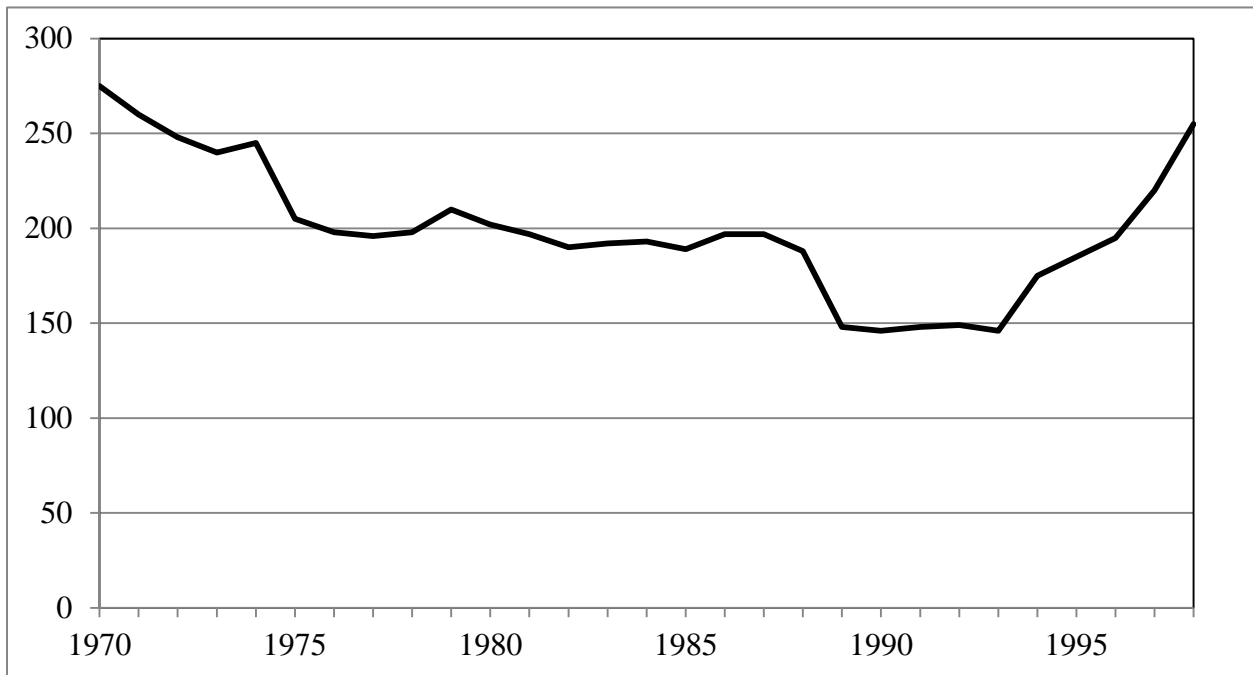


Figure 2: Subway Annual Ridership in millions

On the commuter railroads, the number of paid passengers has almost doubled in five years. This figure includes new passengers as well as those who previously used to evade the fare. (Fare evasion was rampant under the previous regime.) Ridership on the modern fifteen-mile electric Urquiza line, concessioned to Metrovías, has increased from sixteen million per year in 1993 to twenty-five million in 1998. On-time performance has increased from ninety-two to ninety-nine percent, and the percent of trains operated has increased from ninety-five to ninety-eight percent.

The reaction of passengers has been very positive. Starting soon after the takeover, outside consultants were hired to conduct surveys of subway riders. In June 1994, forty-six percent of riders said that the service was good or very good. That proportion increased to eighty-six percent in July 1996, and in April 1997 was up to ninety percent. But according to the last survey carried out in October 1998, the percentage had fallen to eight-one percent, reflecting the congestion caused by the increased demand on two of the busiest lines.

The operating subsidy required by Metrovías has fallen from more than twenty million dollars in 1994 to less than two million in 1998. At that time, farebox revenue represented

ninety-eight percent of operating costs. Starting in 1999, Metrovías is scheduled to make an operating profit.

The capital program that was mandated in the bidding process has been executed. More than US\$150 million of government money has been spent in the past five years. Track has been completely renewed on two subway lines, more than fifty escalators have been replaced, several power substations renewed, investments made in modern signaling and communications equipment, and a new control center has been established. In addition, Metrovías has made US\$80 million of additional investments from its own resources and at its own commercial risk. These funds have been used to refurbish rolling stock, purchase used rolling stock from Japan, purchase track maintenance equipment, and upgrade workshops and stations. The improvements in the station environment allowed Metrovías to increase the rents charged for stores and advertising.

Contract Renegotiation after Five Years

After five years, the concessioning program has been a strong success. Private operation has dramatically improved service quality and quantity. Because of these improvements coupled with the effects of traffic congestion and a strong economy, ridership is substantially higher than was expected when bidding was conducted in 1991. The original capital program, which had been aimed at replacing deteriorated equipment, became inadequate to meet the new demand. As a consequence, a renegotiation was necessary between the concessionaires and the government, in order to increase the system's capacity and improve the level of service.

The executive branch of the federal government initiated the renegotiation after a presidential decree set the objectives and the limits of the renegotiation. The federal congress established an *ad hoc* commission to negotiate with the concessionaires. The concessionaires then put forward their proposals which were negotiated with the federal and local governments, and presented in constitutionally-mandated public hearings. When an agreement was reached, it was made an addendum to the original contract, and subject to final approval by the congressional commission and presidential decree.

For the subway, the renegotiated contract incorporates a larger investment program, including renewal of part of the fleet and improvements to accessibility for the disabled. The additional investment will be funded by an increase in real fares and with part of the fee that Metrovías would have otherwise paid to the government. It is estimated that about two-fifths will come from the former and three-fifths from the latter. The new capital program will increase capacity by a third and substantially improve comfort and reliability; the renewal of rolling stock will be the key, representing half of the total investment. One subway line will be extended one-and-a-half miles into the central business district. At other stations ventilation will be improved, and additional entrances provided from the street to reduce crowding during peak hours. Fiber-optic communications will be installed, and automatic train operation will be introduced on two lines.

Future Trends

It is expected that motorization will continue to increase. Currently, less than two-fifths of households in the region own cars. The auto ownership rate is only 220 per thousand inhabitants in Buenos Aires, compared with 560 per thousand in the United States. There is a great potential for expansion of the vehicle fleet. The rate will depend on the growth in national

income and the distribution of that income. Further motorization will generate more congestion, encouraging more people to move to distant suburbs to avoid it, and jobs will follow them. It is possible that urban density will decline. Taken together, this will worsen the crisis that already exists for the buses.

With more congested streets and longer commutes, it is expected that the subway and the commuter railroads will see increased demand. With the planned increase in capacity and improvements in quality of service, it is expected that they will capture one and a half million new passengers per day. This will save the riders time and reduce highway congestion in some of the most critically congested corridors at peak times.

A wider use of technology could help mitigate, but not solve, the congestion crisis. Traffic engineering is very poor in Argentina. There is plenty of room for increasing capacity from the existing network and reducing noise and emissions by using modern technology, traffic control and improved highway geometry.

Influential politicians are also seeing the need for changes in the organizational structure to improve inter-jurisdictional cooperation in transportation planning. A master plan is currently being prepared with World Bank support to produce basic information, and establish planning models.

In Conclusion

Some conclusions can be drawn from the recent experience in Buenos Aires. The concessioning process has been a strong success. The private operators have dramatically improved service quality and quantity. Due to these factors, traffic congestion, and economic growth, demand has been much higher than originally expected, and the original capital program became clearly insufficient to produce the increases needed in capacity. The concessionaires and the government negotiated adjustments to the original contracts to incorporate projects to increase system capacity, which will be paid for mostly by the users of the system.

Even with the extensive private operation in Buenos Aires, with the buses privately operated since the 1960s and the subways and railroads operated by private concessionaires, there is still a critical role for the public sector. There exists an obvious need for centralized strategic transportation planning in the Buenos Aires region. Issues of congestion, noise, pollution and sprawl call for public policy and planning. The public sector is responsible for a significant portion of the funding of investments, although the private sector can share in providing some of the capital. Finally, the public sector has an important role in regulating and controlling the private operators to make sure that their interests are aligned with those of the public.

A final lesson learned is that public-private partnerships need flexible agreements. Unpredictable changes in demand, technology and other features of urban life mean that one should be prepared to renegotiate concession contracts after several years if circumstances change.

Designing a Cost-Effective and Politically Acceptable Competitive Contracting Process for Transit

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The increasing use of competitive contracting for transit operations around the world is leading to a growing interest in the United States. American transit managers have long operated their systems as unified, monopoly providers, first in the private enterprise era and more recently in the public sector. The need to produce more service with fewer resources, however, is making competitive contracting a more realistic option, despite the relative paucity of domestic examples on which transit managers can draw.

The progress of competitive contracting in the United States has been slow and uneven, but there is movement in that direction. Four-fifths of all demand-responsive services are provided privately, as measured by expense in 1997. However, for fixed-route bus service, the figure was only eight percent, most of which probably involves competitive contracting as opposed to exclusive franchising (found mostly in New York City and New Jersey.) Exclusive franchising differs from competitive contracting in that operators hold rights to serve territories on an indefinite basis. Under competitive contracting, authorities award the right to provide transit service to the company that proposes to do so on terms that are most advantageous to the public sector and for a fixed period of time, and the services are put out to bid again once the contract expires.

Rapid transit and light rail service is provided exclusively by public sector operators in the United States, but the purchased transportation figure for commuter rail in 1997 was twelve percent. Part of this amount is subject to competitive bidding, as in Boston, but much of the purchased transportation in American commuter rail is bought directly from the host railroads, as Metra does in Chicago with Burlington Northern Santa Fe and Union Pacific.

Obstacles to Competitive Contracting

Institutional rigidities and political realities are such that it is difficult, though by no means impossible, for transit authorities to contract competitively for services already in existence. Due to a variety of factors, it is easier for authorities to use competitive contracting for new services than to put existing routes out for bid. On the other hand, external intervention, such as the Colorado legislature mandating competitive contracting in Denver, is able to overcome the managerial and policy inertia that perpetuates public agency operation of most service.

Although there is growing interest in privatization, as evidenced by the conference that led to this volume, the public monopoly paradigm has so far remained stable in the United States. Most of the time, there is little reason for transit authorities to invest their limited political capital in the risky process of seeking fundamental change, especially in the absence of support for such change from federal and state governments. State government intervention is still unlikely, absent a financial crisis, as organized labor is able to discourage privatization initiatives under more conventional circumstances. The highly ideological nature of the privatization debate, which is typically carried out in a confrontational manner, further acts as a deterrent to agencies seeking capital grants for new equipment and facilities, particularly when they face an uncertain funding environment for operations.

Strategies

Given all these hindrances to managers and board officials seeking more cost-effective ways to provide service, how should policy-makers and transit agencies proceed? There are no miracle cures on the horizon, but the following strategies may allow transit authorities to show the benefits of competitive procurement for operations.

Develop incremental proposals and articulate them in a non-confrontational manner. For instance, instead of trying to bring competitive contracting to the entire system, experiment with small-scale demonstrations. Riders and public officials may be more tolerant of the risks perceived as part of any change in the way of doing business if competitive contracting is attempted in a limited, outer zone. Public receptiveness may increase yet further if the proposals involve marginal routes where service is threatened by budget cutbacks.

Transit authorities might consider **incorporating competitive contracting into their contingency planning for financial crises**. In Boston, one such crisis in 1980 led to a new management rights law, which restored to management some of the normal prerogatives of managers in other industries but had been bargained away by their predecessors. Having a thumbnail plan for competitive contracting in reserve for a financial crisis may help to ensure that services are put out for bidding rather than discontinued.

Explore the **provision of new minibus or van routes**. If a transit authority is soliciting bids for operation of some of its services, it may be an opportunity to look beyond the standard forty-foot transit bus running on a long-established route. Particularly along routes serving the less densely-populated outer areas, the use of smaller vehicles can go along with the introduction of dial-a-ride and other flexible services. Such an approach may result in the traveling public in these areas receiving more service for less operating subsidy than before.

The Transportation Research Board and particularly the Transit Cooperative Research Program could **gather a database on the results of innovations in transit organization and provision**. Examples of areas that could be investigated include competitive contracting, the separation of policy and operations, and any initiatives, whether successful, unsuccessful, or in progress, along with any results from these initiatives.

To the extent that this can be accomplished without legislation, authorities concerned with the long-term stability of transit could seek to **divide themselves into separate policy (contract-overseeing) and business (i.e., operating) units**. London offers an illustrative example of a process known as corporatization. Starting in the mid-1980s, London's bus operating divisions were reconstituted as autonomous enterprises, first run on behalf of the London Transport and subsequently spun off to the private sector, some in the form of management and employee buyouts of the enterprise assets.

Fundamentals

When designing a competitive contracting process, one obvious imperative is to maximize competition. In order to maximize competition among qualified providers, which may include unions and autonomous transit authority business units, the agency must understand what motivates contractors, what concerns them, and what will encourage them to respond when a package of services is put out to bid. The agency must consider who bears what risks, and how firms will adjust their bids in response to different levels of perceived risk to contractors from

different institutional arrangements. Penalties and incentives can motivate contractors in a way that contracts with a single, fixed price cannot.

The agency must consider the fixed and variable costs that bidders will face. Analysis of the public sector's own financial data can help give planners a feel for what these different costs are. Contracts should be structured in such a way as to allocate resources rather than misallocate them. The contract must spell out what services are to be operated for how long, and under what circumstances the contract can be renewed, extended, or renegotiated. Performance standards must be clearly spelled out, or there may be enormous potential for mistrust and misunderstanding on both sides.

Contract length and the extent of service to be provided can have a large impact on who bids on what. Another important consideration is who provides what assets and performs maintenance. If a contractor is to maintain agency-owned equipment, there must be standards and incentives in place to ensure that the contractor does not neglect the agency's assets or allow them to wear out prematurely. In particular, an important point for the agency to decide is whether it will furnish the buses itself, or require the firm to provide them. London requires contractors to bring in their own buses, a *modus operandi* which requires that there be a strong second-hand market in transit buses. If such a market for used transit vehicles does not exist, and there is not such a market for Chicago's uniquely-dimensioned elevated cars, then the agency should figure on supplying the equipment.

One source of guidance that transit agencies can use is their already-extensive experience with paratransit contracts. For purchased transportation, contracts can be on a cost-plus, gross cost, or net cost basis. Under a cost-plus arrangement, the agency agrees to pay the contractor the actual costs of providing the service plus an agreed-upon profit margin. For a cost-plus contract to work satisfactorily, there must be a relationship of trust between the agency and the operator. Problems are also likely to arise if the operator does not feel motivated to provide good service.

In the balancing of opportunity versus risk, agencies may want to consider different approaches to the farebox revenue. The simplest type of contract is the gross-cost contract, whereby firms bid on the basis of cost, with the agency retaining all of the revenue collected from customers, and assuming all the risk from any future decreases in ridership. This may be appropriate in certain situations, such as where most riders use systemwide passes, or where it is otherwise difficult to attribute revenue-miles traveled to a particular route or operator. In a gross cost contract, the agency pays a certain amount of money to the contractor, who bears the risk of cost increases but also has the opportunity to enjoy the profits from any efficiency gains. Most contracts include performance standards, but these provisions are not always strictly enforced in the interests of avoiding an adversarial relationship with the agency's own contracted providers.

Finally, under net cost arrangements, the contractor is allowed to keep some or all of the fares, thus motivating operators to do a good job by increasing their risk and their opportunity to enjoy profits. Too much revenue risk may scare off some contractors, but it can also encourage better performance. Initially, London Transport retained all the monies collected from passenger fares, but the arrangements were later changed to give the contractor a share of the revenue stream. The problem was that several operators were using old, breakdown-prone buses in the interest of minimizing their out-of-pocket costs. It was felt that under the original arrangement, there was little incentive for the operator to ensure that all scheduled trips were completed on time, or even made at all! Once the operators had a direct stake in the satisfaction of the customers they carried, they found it was in their interests to pay closer attention to service quality and reliability.

On a worldwide scale, competitive contracting is on the increase. Competitive contracting, if done with a proper understanding of the needs and concerns of customers and

contractors, can result in more cost-effective delivery of services at a level of service that meets the needs of the traveling public. There should be a positive future for contracting that conforms to good practice and is designed in a way that permits subsequent revisions in light of experience.

Implications for Management

The foregoing considerations suggest that an optimum strategy for the future will be not based on caution, for a passive approach in the face of increasing financial pressure is likely to lead to a long term industry decline. Rather, transit systems need to undertake a sustained and comprehensive effort to make competitive contracting serve the interests of all of the parties involved.

Clearly, if competitive contracting is done in such a way that makes high quality a precondition, there can be benefits to transit customers, transportation agencies, and the taxpaying public. What is less apparent, though, is how long-term benefits may be demonstrated to labor.

Privatization is sometimes painted as opposed to the interests of labor, but this need not necessarily be the case. A well-thought-out process can write fairness into the contract, as Denver and Copenhagen have done with regard to wages and a guarantee against layoffs. Since the proper object of competitive contracting is to provide high-quality service for the lowest overall cost to the public, a strategy based on minimizing wage costs would eventually show itself to be counterproductive. In the long run, the transit-riding public would more than pay for any financial savings of a low-wage policy through such undesirable effects as decreasing workforce quality and deteriorating labor relations.

In a pragmatic sense, there is a very real benefit to seeking a win-win approach toward competitive contracting, as opposed to an attempt to create winners and losers. There is a need to seek what economists term a Pareto optimum, whereby all parties gain benefits without worsening the well-being of any participant to the transaction. The reason for this is that if any competitive contracting initiative would worsen the direct economic well-being of transit workers, or threaten their job security, they would seek to block further efforts in the political arena. The positive social impacts of a well-functioning, user-friendly transit system are potentially so great that management would be ill-advised to place short-range considerations before the long-term financial and institutional stability of transit.

What does this imply for transit management? For one thing, there is no “one-size-fits-all” formula for competitive contracting. Transit managers and other decision makers must assess the situation and work within the budgetary and political realities of City Hall, the suburban counties, and Springfield. The Chicago approach will be different from the strategies taken in Denver, London, or Copenhagen. There may even be a need to adopt more than one approach within the Chicago system, according to the needs of different local communities in the service area.

But there is one constant that cuts across geography, nationality, and culture, and that is the fact that systems work better when people are working together for a shared set of goals than when they are fighting one another. Transit managers often complain about the requirements of Section 13(c) of the Federal Transit Act, and it is easy to forget that Congress enacted Section 13(c) in recognition of the reality that labor is an important player.

However challenging this may be, the transit industry needs to incorporate labor into the process from the outset. Stability can be very valuable to labor, and this needs to be recognized on both sides of the bargaining table. There would be few more effective ways to undermine political support for transit than to have adversarial labor relations, leading to transit strikes

causing serious economic disruption to the city. Therefore, finding a way for management and labor to get along better may be crucial to the survival of transit, all the more so since suburbanization has already weakened transit's traditional coalition.

As the franchising of rail transit in Buenos Aires has shown, it is possible to contract out for quality, not just for price. In Chicago, private railroads own many of the tracks where Metra operates, yet Metra is able to buy high-quality service, not just minimal service at a low price, and this high-quality service helps build the coalition for transit. The long-term aim of the leadership of forward-looking transit agencies should be to minimize the overall cost to society of transportation, not just to minimize the amount of money in the transit budget.

When management lacks full control of the factors needed to make competitive contracting work, it is much more productive to build up trust over time with the public, with elected officials, and even with labor than it is to take a confrontational approach. In a sense, cities like Chicago today are at a disadvantage to the extent that there is no immediate crisis to draw attention to the transit system. What happened in New York by the early 1980s, when a once-great system reached the brink of collapse and had to be rescued at staggering cost, should be a warning to more fortunate cities such as Chicago. For the sake of all of the partners in the transit industry - management, labor, and riders who depend on the bus and train - the transit industry needs to find new ways to make transit work for all of the stakeholders. If handled properly, competitive contracting can be part of a winning strategy for all concerned.