

Role of the Private Sector in the Delivery of Transportation Services to the Elderly and Handicapped in the United States

SANDRA ROSENBLOOM

In the last 20 years the private sector has become increasingly more involved in formal arrangements with local transit authorities and municipalities in the delivery of elderly and handicapped (E&H) transport in the United States. Today, when there are strong calls to intensify the involvement of the private sector in the delivery of a range of publicly financed services, it might be wise to reflect on the lessons to be learned from two decades of private delivery of public transit and paratransit services to the elderly and handicapped. Reviewed in this paper is the state of the art in the private provision of E&H service in the United States, as a complement to other papers in this Record that report the experiences of several countries with the private delivery of special public transport services. Then, based on this overview, answers are suggested to an important policy question: What is known about the impact of private service delivery on the short- and long-term costs and service characteristics of E&H service? These analyses show that communities often decide on economic grounds to use private providers, but they so constrain private operations or so limit the overall competitive market for institutional reasons that they reduce or even remove the inherent efficiencies of the private market. While decisions not to contract with private providers are often open to political debate, organizational "details," which have such a profound impact on efficiency and performance, are often largely invisible to policy makers.

Analyzed in this paper is the way communities actually organize and structure new and continued private service provision and how these organizational and structural decisions ultimately affect efficiency and effectiveness. The analyses focus only on those communities that have elected to use private providers for all or some of their elderly and handicapped (E&H) services; those communities who have, for their own reasons, chosen direct public service delivery are not evaluated.

The information and data discussed in this paper are part of a 3-year study undertaken by the author. The focus of the study is the role of the private sector in the financing and delivery of several public services including transportation.

In the following section, the paper will describe the general state of the art in private-public partnerships in the provision of E&H service in the United States. The kinds of operational decisions routinely made by public systems that actually have profound impacts on service quality and cost in both the short and long run are emphasized in this paper.

Community and Regional Planning, School of Architecture, Sutton Hall, The University of Texas, Austin, Tex. 78712.

HOW PRIVATE-PUBLIC PARTNERSHIPS OPERATE

Public agencies contracting for service must make a number of important decisions once private provision is chosen. They must decide the type of subsidy mechanism, how the private provider will operate services, how those services are to be priced, how and when services are to be billed to the public agency, and how the consumer will initiate service and verify and pay some part of the fare.

SYSTEM STRUCTURE

Almost all E&H transportation services assume that the public sector will have to subsidize some or all of the users' travel costs. Arguably the most important decision a community makes is whether to pay a subsidy directly to the user—and allow the user to choose among potential service providers—or to provide the subsidies directly to the providers of service, reducing consumer choice. Most formal E&H systems choose to subsidize the private provider directly for losses incurred because users cannot pay full costs.

There are both advantages and disadvantages to user-side subsidies. The most obvious advantage is that such an arrangement supports competition in transport service delivery. The consumer has the ultimate "vote," choosing desired services and rewarding providers who respond accordingly. Although such subsidies create less than a perfect market (because users rarely are allowed to decide between paying for transport and paying for a movie, for example), user-side subsidies allow for consumer evaluation of service provision.

Unfortunately, real user-side subsidies are uncommon. Many communities do not have multiple providers; there simply is no market. Even where there are multiple providers for ambulatory travelers, multiple carriers for those in wheelchairs may be uncommon.

Provider-side subsidies may be a rational response to a limited private market in a community. However, it is unfortunate that user-side subsidies are not more common even in communities with larger markets. By effectively removing the consumer's economic choice, direct-provider subsidies remove one of the safeguards of the free market system—consumer sovereignty.

SERVICE ARRANGEMENTS

The public sector makes another fundamental decision about competition and ultimately service efficiency when choosing both the number of providers and the way those providers are selected. In general, competitively contracting with a larger number of providers ensures cost-effective service because available operators compete over price and create pressure for service innovation as well.

Number of Providers

Cities can choose to give only one contract or multiple contracts; they can choose the provider or providers competitively, through a bidding process, or they can award individual or multiple contracts using noncompetitive methods.

In short, there is a four-way matrix. Austin is a city that competitively awards one contract; Lancaster (Pennsylvania) is a community that competitively awards multiple contracts. Until recently the Twin Cities awarded multiple contracts non-competitively by simply giving a share to every licensed taxi operator; San Antonio is a city awarding one contract non-competitively.

If multiple providers are chosen noncompetitively, the public agency must use some method of dividing riders among participating firms; even in competitive systems, there is sometimes the need to administratively divide trips among successful bidders. Some common methods include individual providers being assigned a given number of trips (Twin Cities), a given geographic area (Houston), or certain types of clients (Pittsburgh).

It is not unusual for the public agency to separate the ambulatory and nonambulatory services and to contract separately for each type of service. In some communities the public agency contracts for one type of E&H service, usually for ambulatory travelers, and itself publicly provides service for those in wheelchairs; Austin and San Antonio are examples. Some communities contract for both services but with different providers; Chicago is an example. Some communities both contract for and directly provide both types of E&H service; until recently the public agency in the Twin Cities contracted for services but also directly provided service in public vehicles.

The reasons for choosing an exclusive provider (with or without competitive contracting) vary but usually depend on institutional rather than economic factors. Some cities have little choice of provider—there simply are not enough firms with the expertise or resources to engage in service contracting (1). Or the private providers that do exist are unwilling to engage in contract activities (2). Sometimes this is true for chaircar (wheelchair) carriers even if multiple providers are available for ambulatory passengers.

Even in cities where willing and able providers exist, many public agencies choose to involve only one provider (or only one for the vast majority of trips) because single contractors are less difficult to control and monitor. Exclusive contracts make it easier to ensure the availability of service, evaluate the provider, and allow the provider to make vehicle investments.

(Taxi operators often talk of “going to the bank” with their signed contract, using it as collateral for vehicle loans.)

Competitive Bid Process

Whether they have multiple or exclusive providers, many E&H systems today do have formalized procurement or bidding processes, at least for initial service contracts. However, the existence of a competitive bidding process can be misleading; the process can be manipulated to limit competition and it may unintentionally do so as well. If a city faces a competitive market but wants only one provider, it is not difficult to structure that process to ensure the desired outcome.

However, cities often unintentionally reduce competition in the way they structure their bids; their requirements may make bidding difficult for potential providers. For example, providers inexperienced in contract service may not be able to serve the entire city, or they may want to take a small contract as a “trial.” If the public agency were willing to divide service by geographic areas, or types of consumers, or limited service hours, for example, several providers might be able to bid.

Even if there is competitive bidding, initially granting an exclusive contract may ensure market dominance. If the largest firm is always awarded the bid, potential competitors will simply never arise. In fact, a number of cities that first awarded E&H service contracts competitively, or at least through a bidding process, did not bother to do so for contract renewals (3).

CONTRACT ARRANGEMENTS

There are two major types of operational arrangements for pricing service delivery, although there are many hybrid arrangements. In the first, the public sector purchases individual trips; in the second, it buys dedicated vehicle and driver services, usually independent of the number of trips actually carried. These models are summarized as follows:

- Subsidy direct to client
 - Direct user-side subsidies, and
 - Client reimbursement.
- Subsidy direct to provider
 - Per trip
 - Flat rate per ride or per trip,
 - Metered trip, and
 - Zone rate.
 - Dedicated service
 - Per vehicle-hour,
 - Per vehicle-mile, and
 - Combination of above.

Per-Trip Arrangements

When paid only for the riders actually carried, the private provider usually continues to provide service to the general or unsubsidized public, mixing the contract trips into the overall scheduling process. Riders are not mixed on board a vehicle at the same time, but the same vehicle and driver provide service to both subsidized and general public riders over a day.

In this arrangement, the provider can often go with its “strength,” that is, providing under contract a service very

similar to the one it has traditionally provided. Providers can often lower their average costs by more fully using all vehicles. In a competitive system some of these savings come back to the public agency in lowered charges.

There are a number of ways to charge the public sector for these services: (a) a flat rate per rider or, less commonly, per vehicle trip; (b) the fare recorded on the taxi meter; and (c) a nonmetered distance- or zone-based fare.

The flat rate is probably the most common; charging a flat price per trip regardless of distance is most appropriate for centrally dispatched systems and least appropriate for nondedicated taxi services (although used by both types of systems). Its use makes the most sense when there are no wide variations in trip lengths and the amount of driver assistance required by the passenger is slight (special assistance takes time).

The flat rate reduces the need for complicated bookkeeping and for client involvement in certifying fares. It also allows the client who shares some of the cost to know what a trip will cost before it is made. And it makes agency budgeting calculations simpler: most systems using this fare-setting procedure establish a maximum weekly or monthly amount that can be paid to the provider.

However, there are many disadvantages to flat rates in practice. Flat rates do not encourage efficiency by either consumer or driver and they can directly and indirectly cause diminished service levels. Consumers have no incentive to make shorter trips; providing long trips often reduces the responsiveness of the system to other travelers. Drivers have real disincentives to making long trips; if they have a choice they may avoid (or even strand) travelers with long or time-consuming trips (such as the nonambulatory requiring substantial assistance).

The metered rate is probably the next most common; it is ultimately fairer since there are not as many cross subsidies between riders (i.e., short trips subsidizing longer trips, etc.). Moreover meter rates may be more conducive to a competitive market by providing incentives to consumers to control trip length and even to group their own trips.

There are some serious problems with meter rates, however. Meter charges are hard to validate administratively because most meters charge for congestion time as well as distance; trips at different times of day can have different meter fares. The more varied traveler trip patterns are, the more difficult administrative verification becomes.

Given the difficulty of administratively verifying meter fares, most systems put a great burden on the client to verify not only that a trip has been made but that the recorded meter fare is correct. It is ironic that most systems are unwilling to allow clients to be real consumers, choosing among providers and services, but they require substantial effort from them in a more difficult situation.

Requiring the rider to validate the meter fare poses two serious problems. First, if the meter is correct, the consumer cannot easily deal with circuitous routing designed to increase the fare. Second, in the majority of situations, the user either is unable to verify the meter amount (and routing) or has no incentive to do so. Verification may be difficult because many systems carry substantial numbers of mentally retarded, blind, or severely handicapped travelers, all of whom would have trouble verifying a meter fare.

Additionally, only two situations provide an incentive for the rider to contest what the driver charges the system: when the

user pays a set percentage of the meter fare or when the user pays the amount over a given maximum. (Even then collusion between driver and rider is possible.) And these cases may put an elderly or handicapped traveler in the position of fighting with an able-bodied driver.

The least common pricing arrangement, the zone rate, is used by several large systems including Houston and Pittsburgh. For some reason it has only been used with large centrally dispatched systems where the fare is often calculated by computer. Its lack of popularity is hard to explain because the zone rate could solve some of the economic and service problems of the first two rate systems. Ideally, the zone rate could be used for all types of systems and would not require central dispatching or computer technology; zone rates were common for taxi services in small cities until recently (and are still used in Washington, D.C.).

With an agreed-upon zone system, a traveler could know what a trip would cost ahead of time and administrative verification would be far easier. Conflicts between driver and client could be easily resolved. Drivers would have far less incentive to avoid taking longer trips and no reason for circuitous routing to increase the fare. Consumers would have an incentive to make shorter trips; those required to make longer trips could be additionally subsidized.

Dedicated Service Arrangements

Per-trip arrangements are the first major service option; at the other extreme is the second major type of arrangement, dedicated service. In this option the private provider sells to the public sector the availability of service to the elderly and handicapped. In general, the private provider gets paid per vehicle-hour or per vehicle-mile of service or some combination of the two. Rarely is the provider paid for the actual number of travelers carried. Since it is even rarer for the provider to continue to use the vehicles or drivers in question for traditional noncontract services, there is little opportunity to increase overall vehicle use or lower average costs.

Dedicated services are required when a large private market does not exist and where service availability must—by law or policy—be guaranteed. Dedicated services are common in rural areas or where private providers are very marginal and may go out of business without such contracts. They are often useful when small providers must buy additional vehicles and are unable or unwilling to do so without a contract guaranteeing vehicle amortization. Not surprisingly, chaircar carriers who must purchase lift-equipped vehicles often have such contracts even in systems which have per-trip contracts with private providers for ambulatory riders.

This model of service delivery can be extremely inefficient and noncompetitive. There are no incentives for providers to increase ridership and some actual disincentives (i.e., they get paid whether or not they expend gasoline and vehicle wear and tear). Such contracts are best only when local market conditions offer no other alternative or political realities require such a decision.

It is technically possible to structure dedicated service contracts with performance incentives that encourage increased ridership or better vehicle use. The operational efficacy of such performance contracts, however, is limited both by the amount

of supervision and monitoring the public sector is willing to do and the amount of control the provider can have over ridership patterns.

SCHEDULING DECISIONS

The public sector often makes significant decisions about system efficiency when it decides how vehicles are to be scheduled and dispatched; whether there is one provider or many, these operational decisions can have profound impact on service and costs.

The public agency could use its contractor(s) to handle all aspects of service, from receiving consumer calls to calculating fares to dispatching vehicles. This is the system used by almost all direct user-side subsidy programs.

However, most public agencies choose to have fairly formal and centralized scheduling and dispatching systems. Even where only one provider is awarded a contract, many public agencies choose to maintain separate scheduling units. These centralized systems usually require the consumer to make an appointment from 2 to 3 days in advance of service (although recent federal policy mandates less reservation time).

Most public agencies use a centralized system because it intuitively appears to offer a large number of advantages and few disadvantages. Yet the impact of this decision is counterintuitive. Operating experience suggests, first, that there are a number of costs to such centralized systems and, second, that many promised benefits simply do not appear.

Most of the advantages of centralized systems are illusory or could be easily achieved less formally. At the same time there are some serious disadvantages that ultimately bear on service delivery. First, almost all centralized systems require substantial reservations, which have a negative impact on service quality; because they are not set up to do "real-time" dispatching, they often cannot handle unscheduled needs—even if they have extra space at the time. Second, there are far fewer opportunities for group trips than intuitively thought; regardless of the reservation requirement, most systems with general E&H ridership rarely achieve more than 1.2 to 1.4 riders per vehicle-hour, a figure close to average taxi occupancy, regardless of how the system is operated.

The reality is that easy trips to group are easy in any system and achieve little from centralized scheduling; difficult trips are difficult in any system. The few systems that have experienced higher operating productivities carry large numbers of riders to congregate activities (e.g., day care for the elderly, sheltered workshops for cerebral palsy victims, etc.). Systems with many travelers who are difficult to group, such as severely handicapped riders making individual trips from highly variable origins and destinations and sometimes requiring significant time to board and deboard, always have low productivity.

Overall, most systems, even those actually computerized, have not achieved remarkable productivities unless (a) they require substantial prereservations, (b) they require clients to be ready for pickup for long periods of time (up to 2 hr in some systems), and (c) the system has many naturally grouped trips. The first two requirements impose significant hardships on many consumers; if other operational systems offer higher efficiencies without such loss of service quality, they should be seriously examined.

Centralized systems also cost a great deal; they can add from 10 to 30 percent to the cost of an individual ride (4). A 1984 study of the centralized system in a large city noted,

Early 1984 data indicate that the direct transportation costs per shared ride taxi passenger is between \$1.35 and \$1.80 less than an exclusive ride fare. In 1983 . . . \$373,000 was required to process requests and share the taxi trips. This cost was about \$2.00 per passenger carried. Thus, it would have been more cost-effective to have paid every rider's exclusive fare than expend the center resources setting up taxi tours. In addition, given the huge volume of taxi trips to be subsidized [the system] could have obtained discounts on the exclusive fares and developed real incentives for the providers themselves to group or share rides when feasible.

Centralized systems are problematic because they are expensive, reduce service levels, and do not increase productivity. Moreover, there is some evidence that they actually reduce productivity by interfering in the way an operator runs his or her traditional business. Because major operating decisions are made by noncompany dispatchers, providers may have no opportunity to increase the use of vehicles and drivers, ultimately lowering average costs.

The irony is that conventional taxi dispatchers can handle between 20 and 25 individual trip calls per hour; they can accommodate clients in "real time" without requiring lengthy reservations, and they can schedule requested trips without more than a 20 to 30 min advance notice. If vehicles are available, multiple dispatchers can be used.

Centralized systems meet a number of institutional goals, if not economic ones, and this explains their popularity. They give public agencies a great deal of control over the few providers involved; there is an intuitive sense of efficiency about centralizing their operations.

Yet taxi operators and other private providers are masters at being responsive to individual market demands; they may not inherently master all economies but there is little evidence that large centralized systems can show productivity or cost advantages over more direct scheduling by the contract providers.

ROLE OF THE CONSUMER

The consumer plays several major roles in most systems, although rarely the valuable role played in a private market. Consumers (or their advocates) initiate service, pay all or part of service costs, verify trips and trip charges, and monitor service performance. Consumers, once certified as eligible for either travel or subsidy, or both, may contact systems in different ways. Generally the trip initiation procedure is a direct function of the model of scheduling chosen by the public sector.

Major methods of consumer service payment are as follows:

- Client uses coupon, which is given to driver
 - Client has paid part of the face value of coupon.
 - Client has not paid part of the face value of coupon.
 - Third party (e.g., social agency) has paid all of the face value of coupon.
 - Third party has paid part of the face value of coupon.

- Client pays percentage of fare to driver
 - Client pays preestablished flat rate.
 - Client pays percentage of meter fare.
 - Client pays percentage of nonmetered zone- or distance-based fare.
 - Client pays only that amount above set maximum.
 - Client pays a preestablished flat rate and the amount above a set maximum or distance-based fare.

Most systems do require some client payment and many use a prepaid coupon system. After being certified as eligible for travel or subsidy (or both) clients may be required to obtain or to buy tickets in advance of travel; they generally pay some percentage of face or fare value for those tickets. In either case, when a trip is concluded, the rider gives the driver the coupon as his or her full or partial share of the fare; additional cash may be required as well. Usually the driver must have this coupon, often signed by the rider, sometimes with additional documentation, to receive reimbursement.

Requiring travelers to obtain tickets or coupons before travel has three major advantages: it allows providers to have some idea of potential demand (from ticket sales), third parties such as churches and social service agencies can pay the user's remaining share, and riders make quasi-economic decisions about services because they are not free.

However, users must pay in advance for service so that emergency responses become problematic and the actual cash outlay may be difficult. Moreover, ticket sales have been a miserable indicator of system demand; a 1981 study found that between 40 and 65 percent of all coupons purchased were never used at all (5). Lastly, these coupons create little incentive for the rider to verify drivers' charges to the system for variable fares unless they pay proportionately.

In some systems the rider does pay a set percentage of the meter fare or of each zone charge; in others the consumer pays one initial rate (commonly \$1.00) and then everything over a given maximum. In Milwaukee, for example, elderly users must pay \$1.00 and then all costs above a \$9 meter fare (unless they are eligible for additional subsidy). Such systems usually require cash transactions although some allow or even require the payment of these partial charges with prepaid coupons or scrip as previously described.

BALANCING THEORETICAL WITH PRAGMATIC ADVANTAGES

Discussions of the theoretical advantages of private-sector service delivery have recently become an active part of public debate (3, 5), many arguing that the private sector is more efficient and cost-effective than government service delivery (6). These arguments seem to have major impact on many policy debates.

However, decision makers have not gone far enough in their theoretical understanding of private markets. Economic theory offers an equally persuasive explanation of why the private sector may not work well—unless it is used in ways that encourage competition and do not interfere with private operations. Just as significantly, theory clearly explains why fraud and poor performance can accompany private-sector involvement.

LOOKING AT THE EVIDENCE

Cost Comparisons

This paper has made the claim that private-sector provision of E&H services might not be more effective than public provision if the operational decisions made in support of institutional goals cause the private sector to operate inefficiently.

If the private sector were always less expensive or more efficient, numbers could be found to support that assertion. In fact, as the following data (7) make clear, direct public provision displays both the highest and lowest costs in a range. There is a great area in the middle of the range where the two sectors overlap.

Provider	1986 Costs per Trip (\$)
Private providers	4.30–27.10
Public providers	3.80–31.40

The cost figures presented here were collected from a total of 70 systems—some from 1978 to 1981 and others from 1985 to 1987; the data shown were inflated to 1986 dollars and were additionally reconstructed to represent underreported cost items, for example, depreciation and missing labor costs. The data had to be recalculated because system-reported data are often incomplete; systems contracting with private operators frequently do not report their own accounting, monitoring, or administrative costs. Public agencies do not account for vehicle depreciation since they rarely pay for their vehicles; the public sector actually undercounts between 15 and 40 percent of their actual service costs. Because these data were not collected during the same period, and because some are almost 10 years old, they can only give a general idea of differences in costs. The preliminary analyses are, however, informative.

Table 1 breaks down costs by service factors; for all types of services there still is considerable overlap between the private and public sectors. It is clear that neither service type nor provider type fully explains variation in service costs. Without further disaggregation of the data, the reasons for these differences remain unclear, but there is some preliminary indication that the organization of the private service has an effect on costs.

TABLE 1 COSTS PER TRIP: TRIP PROVIDER SUBSIDY (7)

	Private Delivery (\$)	Public Delivery (\$)
Ambulatory, congregate	4.20–11.00	3.80–6.90
Ambulatory, independent	6.30–11.00	12.00–18.00
Nonambulatory, congregate	9.90–17.90	14.50–29.00
Nonambulatory, independent	11.10–27.10	14.00–31.40
User-side	5.10–8.40	N.A.

NOTE: All data were reconstructed to take account of all actual cost items and inflation (where appropriate).

The data in Table 1 suggest how dependent on operating characteristics are the cost patterns of a system. Some of these operating characteristics are dictated by the clients and their needs; others are dictated by the public agency, which has chosen only one operator or a centralized dispatching system. The only area in which the private sector consistently displays

costs at the lowest end of the range is for user-side subsidies; here the taxi operator is providing his or her traditional service with a minimum of intervention by the public sector in its operational details.

These data are consistent with the recent work of Teal (8), which found that there were no clear cost differences between private providers awarded competitive contracts and those that were not; the author concluded that the possibility of competition may keep costs down. However, the data can be interpreted to be consistent with the institutional issues raised here; competitive contracts, which consistently favor one operator or are disguised sole-source contracts, would not be appreciably less expensive than openly noncompetitive contracts.

It should be noted that even if the private sector were currently less expensive than public provision, the cost advantage may be short-lived if it is not a result of inherent efficiencies. Some of the current cost advantages enjoyed by private providers are simply a result of lower labor costs and not more efficient management or production; over time, labor costs will rise in any industry which is noncompetitive, particularly one heavily engaged in public-sector contracting. The best that can be hoped for in that situation is that private costs will always stay slightly below the public sector's costs.

Fraud in Service Delivery

Consumers in a free market force the private sector to deliver quality service at competitive prices. In the absence of competition and consumer oversight, these theoretical advantages may diminish or disappear.

Moreover, even when strong competition exists, market activities have sometimes complex and far-reaching implications. Some communities, while recognizing the power of the profit motive in the private sector, often fail to see that they have created strong economic incentives within their service arrangements for either contractors or their individual drivers—in search of profit—to behave in counterproductive or even fraudulent ways.

Two well-publicized cases of fraud are informative—both in detail and in the political impact of the publicity. In Dallas, a number of taxi operators were indicted by the County Grand Jury for fraudulently redeeming client vouchers; the Transit Board immediately began plans to begin public delivery of services.

Yet the voucher system had been established in Dallas in a way that invited fraud; clients were not required to pay for vouchers on receipt although the vouchers meant instant reimbursement of up to \$9 to individual drivers. A market for vouchers arose; one story describes vouchers deposited in church collection plates. Ironically the E&H system required clients to undergo a lengthy eligibility certification process because riders might cheat to obtain low-cost travel, but the private market was seen as policing itself.

The other publicized fraud case occurred in Milwaukee, which has a large user-side subsidy program. A number of drivers submitted charges for trips not made or they inflated individual trips. There was, apparently, substantial collusion between drivers and clients. Again the results were inevitable given the noticeable lack of program monitoring; once a few problems were uncovered there was a solid "paper trail,"

which could easily have been discovered before. However, again, once the decision was made to use the private sector, the public sector abdicated responsibility—and common sense.

Other operational experiences are striking. In systems with payment for no-shows, there are substantially more no-shows reported by drivers. Across the country, in spite of major differences in maximum allowable trip charges, average trip charges are almost always close to the maximum. There can be, of course, innocent explanations for all these situations, but some suspicion lingers.

The private sector will not monitor itself without reason; individual drivers will rarely fail to respond to clear incentives to enrich themselves—if no continuing interest is shown in their behavior. The most deserving client may act together with a driver to defraud the system and increase his or her income. These facts suggest that the cost and service advantages offered by the private sector can be reduced, unless there is meaningful attention to internal incentives to fraud and serious monitoring of driver and operator behavior.

SUMMARY

Two messages stand out in this analysis of the role of the private sector in the delivery of E&H services. First, many communities do not encourage competition in E&H service delivery; their contract award system may directly or indirectly reduce local competition. Second, many communities organize private providers in ways that create private monopolies in place of public transit monopolies or cause private operators to inefficiently use their resources.

These problems arise because of dysfunctional organizational decisions made by public agencies: (a) choosing only one contract provider, (b) maintaining a large centralized scheduling and dispatching system for all providers, and (c) removing rider choice while requiring excessive rider monitoring of driver billing practices.

While some cities make these decisions on an ad hoc basis—not realizing their import—other communities are consciously trying to develop a system that both uses the private sector and requires little public monitoring. Unfortunately, as the author has attempted to show in this paper, cost-effective private service comes only from a competitive private market. Avoidance of fraud or poor performance comes only from active public monitoring of the service delivered by that market. It does not appear possible to achieve the two goals with one simple delivery system.

POLICY RECOMMENDATIONS

Having chosen private-sector delivery of E&H transport services, many public agencies actively reduce competition, either purposely or as the side effect of their other operational choices; the lack of competition reduces incentives for innovation or effective performance by the contract provider. Over the long run, in the absence of a competitive environment, costs may rise substantially.

To avoid these problems and obtain the economic advantages offered by the private sector, communities must carefully structure their E&H transport systems in three important ways:

- They should actively encourage competition by dividing service units if necessary to attract smaller operators, working with inexperienced operators during the bidding process, giving consumers more choice and ultimately more control over service quality, and removing inappropriate bond or insurance requirements in their service bills.

- Communities should effectively use private operators by allowing those operators to do what they demonstrably do best—provide their traditional service, making most (if not all) of their own operating, scheduling, and dispatching decisions. This both avoids inefficiencies introduced by centralized systems and potentially decreases costs by allowing individual providers to optimally organize their own resources.

- Communities must recognize that the profit motive, which causes firms in the presence of competition to provide cost-effective transport service, can also create incentives to poor or even fraudulent performance. Systems must be sure that there are no hidden incentives that cause operators or drivers to act improperly, and they must expend sufficient resources to monitor driver behavior and service performance.

Overall, communities must recognize that every organizational detail has performance implications that often reduce competition and the advantages of private provision. Communities should act to create and foster competitive markets in order to keep long-term costs down and service quality high. To the extent possible, communities should allow consumers more choice while reducing internal incentives to drivers to act in dysfunctional ways.

ACKNOWLEDGMENT

The research for this paper was sponsored by the Mike Hogg Endowment for Urban Governance at the University of Texas at Austin.

REFERENCES

1. R. F. Kirby. Innovations in the Regulation and Operation of Taxicabs. In *Taxicab Innovations: Services and Regulations*, Proc., National Conference on Taxicab Innovations, Kansas City, May 5-6, 1980, Government Printing Office, Washington, D.C., 1981.
2. Proc., Conference on Taxis as Public Transit (G. J. Fielding and R. Teal, eds.). Institute of Transportation Studies, University of California, Irvine, 1978.
3. S. Rosenbloom. The Taxi in the Urban Transport System. In *Urban Transit: The Private Challenge to Public Transportation* (C. Lave, ed.), Ballinger Publishing Co., Cambridge, Mass., 1985, pp. 181-214.
4. S. Rosenbloom, C. Schlessinger, and H. Dittmar. *Ridership Patterns in Transportation Services for the Elderly and Handicapped*. Report DOT-TX-11-011. The Center for Transportation Research, Austin, Tex., 1981.
5. C. Lave. The Private Challenge to Public Transportation: An Overview. In *Urban Transit: The Private Challenge to Public Transportation* (C. Lave, ed.), Ballinger Publishing Co., Cambridge, Mass., 1985, pp. 1-30.
6. E. S. Savas. *Privatizing the Public Sector: How to Shrink Government*. Chatham House Publishers, Inc., Chatham, N.J., 1982.
7. S. Rosenbloom, A. Pio, and J. F. Hickman. *Cost-Effectiveness Measures for Transportation for the Elderly and Handicapped*. DOT-TX-11-0009. The Center for Transportation Research, Austin, Tex., 1979.
8. R. Teal. Transit Contracting—The State of the Industry. *PTI Journal*, Vol. 2, No. 2, May/June 1987, pp. 6-9, 18.

Publication of this paper sponsored by Committee on Paratransit.