spective. Frequently, both in the developed and the undeveloped countries, the organized and heavily capitalized transportation systems are in active opposition to the ones that survive and prosper because they are rambunctious and scrambling and do not always play fair.

Just as it was never implied in this review that the jitney modes should not be regulated at all, neither is it suggested that they are a solution for all urban transportation needs. The heavy rapid rail systems have their own capabilities; regular taxis with premium fares and service have a distinct part to play; and all other modes have at least some useful characteristics. The free-wheeling, privately operated public automobiles, however, can do so much so well that it is not surprising to see that they form the backbone of public transport in many cities of the developing world. Can a greater role be suggested for them also in our cities?

ACKNOWLEDGMENTS

The statistical information in the section on Karachi was assembled by Ismat Kamal, who was in 1973 the Deputy Director of Transportation of the Master Plan Department. The information on St. Lucia was largely abstracted from working memoranda submitted to the U.N. Development Program in the Eastern Caribbean in summer 1976. The views expressed, however, are mine and are not necessarily shared by the United Nations. The information on Egypt was gathered somewhat informally from colleagues who were working on a transportation planning project in Cairo but who were not specifically studying intercity taxis.

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Regulatory Considerations for Alternatives to Conventional Transit Systems

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The case of the Reston Commuter Bus presents an interesting example of intergovernmental confusion and conflict that culminated in a public regulatory commission overuling the policies of a public transit authority. It is an example of a technically and financially sound transportation system being threatened by institutional policies that were, ironically, designed to preserve public transportation.

STARTING THE SERVICE

The Reston Commuter Bus System was started in 1968 by a group of commuters for the simple purpose of getting to work without driving. This was prior to the public acquisition of transit in Washington, D.C., and the privately owned common carrier that had operating rights between Reston and Washington declined to provide regular bus service because it did not appear to be financially justified. The commuters therefore chartered a daily bus and routed it to serve most parts of Reston, run nonstop on the 32-km (20-mile) trip to Washington, and drop off riders at downtown employment centers.

The carrier was pleased with this arrangement since there was no financial risk, and the commuters did their own scheduling and revenue processing. Unlike most public transit in suburban Washington, the system was designed to serve commuters effectively and provide a realistic alternative to driving. The service was successful, more buses were added, and the group of commuters became a corporation. By 1972 the Reston Commuter Bus had attracted more than 1000 people (2000 daily trips).

But while Reston Commuter Bus was a success, transit ridership in the Washington area was declining and public acquisition was imminent. In January 1973 the private carrier that served Reston was condemned and its assets were taken over by the Washington Metropolitan Area Transit Authority (WMATA).

The WMATA inherited the contract between the private carrier and Reston Commuter Bus. Reston generally supported the public takeover and expected a lower price per bus run because WMATA's price would not include a profit factor or depreciation, since the capital costs would be absorbed by WMATA and Fairfax County. Economies of scale were anticipated because WMATA would merge the four Washington area bus companies. Reston simply expected that a public agency would be more responsive to public needs, especially in the case

of Reston Commuter Bus, which had demonstrated how to attract ridership.

In October 1973 WMATA's Board of Directors held public hearings on a new pricing policy for the type of service exemplified by the Reston Commuter Bus. A policy proposal was prepared by WMATA's staff for consideration by the Board of Directors. The policy proposal included a 6 percent profit for WMATA, on the theory that Reston was a specialized service on which WMATA was entitled to make a profit to help offset losses on regular route service. The proposed pricing formula also included a mixed average and incremental cost approach in such a way as to maximize the price. No discount was proposed for services Reston Commuter Bus performed itself and for which WMATA incurred no cost, such as schedule printing, schedule planning, revenue processing, and telephone information service. The policy proposal also labeled the Reston system a form of regular route service, calling it "community-type" regular route transit service "under contract." The terminology is important because WMATA's enabling legislation specified that it had sole responsibility for providing regular route service.

WMATA's board passed the staff's pricing policy but removed the 6 percent profit margin, deciding the service should be provided at cost (that cost to be calculated by WMATA's staff). Cost increases incurred by WMATA were to be passed on to Reston every 6 months. The policy adopted by WMATA's board resulted in a 43 percent increase in the price of service to Reston Commuter Bus. The bus system absorbed the increase through a combination of increased fares and a reduced quality of service. This marked the end of growth in the Reston system. Reston had been put in the classical transit dilemma of rising costs and falling ridership.

Reston Commuter Bus, facing another price increase in 6 months, worked to secure a subsidy from Fairfax County to cover any further price increases. Fairfax County was already subsidizing regular route service provided by WMATA. Reston argued that, if it went out of business, some sort of regular route service would be needed and the county would be obligated to absorb the operating losses associated with that service. Fairfax County agreed, and in November 1974 the Board of Supervisors voted to subsidize part of the next WMATA increase but only temporarily, until WMATA adopted a more reasonable pricing policy or Reston found a suitable private carrier. Ironically, Fairfax had no authority to subsidize Reston Commuter Bus. Virginia had no enabling legislation permitting such an action by a county. The next price increase was 18 percent, bringing the average increase to more than 30 percent a year. The one-way cost per rider went to $1.70, with the rider paying $1.50 and the county $0.20.

SEEKING A NEW CARRIER

In December 1974 Reston Commuter Bus seriously started seeking a private carrier that would be willing to serve Reston and would file an application with the regulatory commission for permission to contract with Reston Commuter Bus. Prior to the public takeover of transit in Washington the commission had regulated all service, both regular route and contract service. With the public takeover, WMATA became both the operator and the regulator of regular route service. Contract service remained under the regulatory powers of the Washington Metropolitan Area Transit Commission (WMATC).

Reston's objective was to qualify a private carrier under the contract service provisions. WMATA's public position was that Reston Commuter Bus was merely a form of regular route service; any private carrier would face stiff opposition from WMATA before both WMATC and the federal court. Finding an interested private carrier under these circumstances was difficult. After several false starts, Reston Commuter Bus found one carrier that seemed both qualified and interested in serving Reston—Colonial Transit. Colonial was already operating more than 100 commuter runs from the remote suburbs into Washington, D.C. Colonial was unaffected by WMATA's takeover of the private companies in Washington because the home side of its commuter operation was outside WMATA's zone. Colonial proposed to provide buses to Reston at only 62 percent of WMATA's price.

Colonial's method of operating commuter transit is very different from conventional city transit operations. Approximately 90 percent of Colonial's drivers are part time and hold full-time jobs in downtown Washington. They drive buses into Washington, drop off riders, park the bus, and go to work. This of course eliminates the costly peaking problem of conventional transit operations. The equipment used by Colonial is older and smaller than that provided by WMATA, but it is also faster and more comfortable for highway running. Reston decided to accept the Colonial proposal.

In April 1975, Colonial Transit filed an application for a certificate of public convenience and necessity to serve Reston Commuter Bus. WMATC scheduled a hearing to accept evidence on the application. Reston Commuter Bus filed a petition in support of Colonial. WMATA filed a protest, as did the Amalgamated Transit Union. Colonial had to demonstrate to WMATC its fitness to provide the service. The company was already operating more than 100 commuter bus runs into Washington, D.C., from outlying suburban counties. The operating rights to provide that service had been granted by the Interstate Commerce Commission. Replacing WMATA in Reston required a one-third expansion of Colonial's fleet. Colonial demonstrated that it had the financial capacity to do this.

Reston Commuter Bus had a somewhat more difficult case to prove to WMATC. Reston had to show there was a public need for Colonial to provide the service because WMATA was not providing and could not provide the service. Reston's primary argument in the case was that rising costs under WMATA service had put the bus system into the classical cycle of fare increases and declining ridership. Reston also cited operational problems in dealing with an organization as large as WMATA. Realizing the public policy implications of switching from a public transit authority to a private carrier, Reston Commuter Bus demonstrated community support for the change. More than 1500 residents of Reston signed a petition supporting Colonial. Also the change to Colonial was endorsed before WMATC by the Fairfax County Board of Supervisors, the Northern Virginia Transportation Commission, the Northern Virginia members of the General Assembly, and the area's members of Congress. Fairfax County declared it would not subsidize Reston's system under WMATA.

Reston Commuter Bus sought the support of the local metropolitan planning organization, the Washington Metropolitan Area Council of Governments (COG). Reston Commuter Bus asked specifically whether a regional approach to public transportation requires a single public carrier or whether a supplemental peak-hour service by private carriers was consistent with COG's regional approach. COG's response was that WMATA must operate all transit.

WMATA, in presenting its case to WMATC, claimed that WMATC had no jurisdiction to grant a certificate to Colonial. WMATA claimed that Reston Commuter Bus

was a regular route service, specifically "community-type regular route service under contract." WMATA claimed that the only difference between this regular route service and other regular route service was the method of payment to WMATA. WMATA also claimed that it, and therefore the taxpayers, would lose approximately $250 000/year if it lost Reston Commuter Bus.

WMATC in its decision held that the Reston Commuter Bus system is inherently different from WMATA's regular route service and that WMATC had jurisdiction to grant a certificate. The Reston system was found to not be regular route service for several reasons:

1. The financial risk of each run is borne by Reston Commuter Bus;
2. Reston Commuter Bus is charged the full cost of service, while regular route service of WMATA is heavily subsidized;
3. Reston Commuter Bus determines the level of service, routes, and schedules; and
4. Reston Commuter Bus is managed by community volunteers.

The certificate of public convenience and necessity was issued in September 1975. The staff of WMATA wanted to appeal the decision to WMATC and then to the federal court. WMATA's board refused to allow an appeal, possibly because the entire matter had become embarrassing.

REFLECTIONS

In reflecting on the Reston Commuter Bus experience, several inferences can be drawn:

1. Regulatory procedures can serve to promote innovative public transportation.
2. Regulatory procedures can serve as a check and balance on transit authorities.
3. Since the justification for WMATA's opposition to Colonial Transit was based on the concept of a regional approach to public transit, this concept (at least in the Washington area) needs to be reexamined.

Case Studies of Taxicab Regulation in the United States

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Municipalities have routinely regulated the operation of taxicabs for decades; the major part of existing regulation evolved prior to and just after World War II (1). Generally only incremental changes in these older regulations have taken place since that time. Traditionally local involvement with the taxi industry involved four key aspects of regulation: control of entry into the market, control of management and ownership, standards for service and vehicles, and fares and charges (2, p. 64).

Many cities are currently taking a hard look at both their existing taxicab regulations and the rationale behind those regulations. The impetus for this recent scrutiny has come from a number of sources. Some cities are involved in comprehensive code revision efforts and are considering revision of the taxi ordinances contained in their codes. Others are reconsidering their regulations because of the accelerated frequency of industry requests for fare increases and demands by the industry to consider regulatory changes in mandated operational characteristics. There is heightened concern about discrepancies in airport service and the increasing activity of social service agencies in the provision of contract transportation. There is also growing recognition that taxis can and do play a significant role in the urban transportation system, a recognition heightened by increasing attention to all paratransit modes on the part of the Urban Mass Transportation Administration (UMTA) and state departments of transportation.

This paper will generally be concerned with the first three traditional aspects of municipal taxi regulation (entry control, ownership, and service standards) and will review the empirical evidence available on the actual relationships among these three variables in operation at the local level.

Control on entry into the local taxi market can involve restrictions on the number of licensed vehicles, restrictions on the number of licensed companies, restrictions on the geographic area of service, or a combination of these three. The overwhelming majority of all American cities practice one or more of these forms of entry control. Early research found that those few cities that did not restrict entry into the local taxi market had significantly more taxis per capita than those that did restrict entry and that the only significant explanatory variable was the lack of entry restriction (3). Later research (4) found that, in the 5-year period from 1963 to 1968, the number of taxis in cities without restrictions rose in direct proportion to the rise in a number of indicators of increased economic activity (retail sales in the central business district, retail sales in the city as a whole, service industry receipts) while the number of taxis in cities that have restrictions was constrained from responding to increases in consumer demand. It was clear from the data that the deciding variable was the prohibition against individual owner-operators.

Atlanta; Washington, D.C.; and Honolulu are considered to have no control on entry. Honolulu does regulate the number of taxis indirectly by restricting the