4. Informal Public Transport in the United States

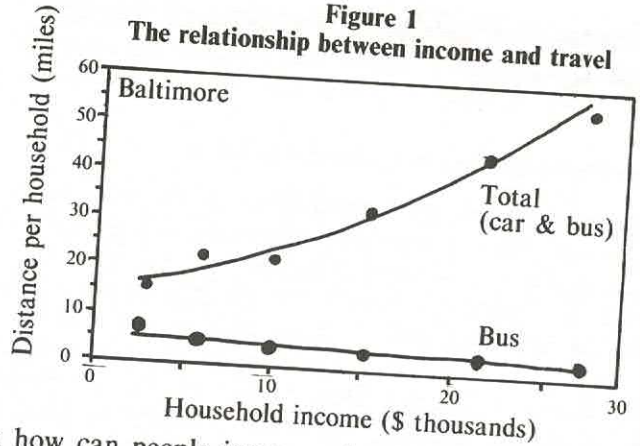
Requirements of US urban transport users

Of all major countries, the United States is the most dependent on the private car. Its city administrations are also perhaps the most concerned to discover ways of alleviating inner city traffic congestion and to find adequate substitutes for private car travel. More research has been devoted to these ends in the US in the past decade than anywhere else. The results of demonstration programmes financed by the Department of Transportation have contributed to the growing American realization that informal public transport has a major role to fulfil in the total transit supply.

Before considering the possibilities of 'informal' public transport services in the UK, it is instructive to describe some of the characteristics of travel in US cities and to ask why more than ninety per cent of motorized trips there are made by private automobile rather than by public transport. Commentators frequently attribute the flight from conventional transit to some irrational 'love affair with the automobile' and suggest that, if only Americans behaved sensibly, they would switch from private to public transport, at least for the journey to work.

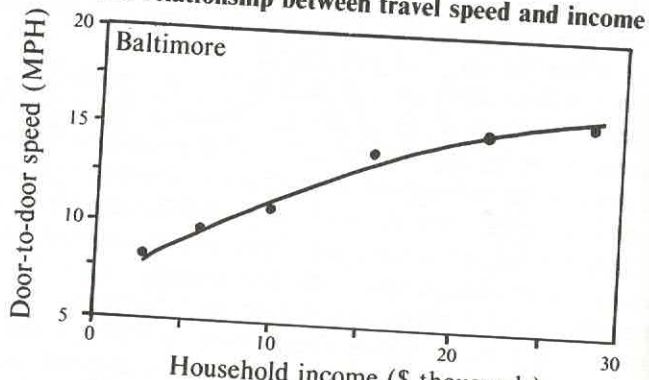
This view is superficial and misleading. As in the UK, people are prepared to travel in order to increase the opportunities available to them: ie, opportunities to live in pleasant surroundings, to work for desirable employers, to shop in desirable places, to be entertained, to meet friends, and to be educated. As people get richer, they do not, as a rule, use their wealth to rearrange their activities so as to reduce travel; on the contrary, in the US, as in other societies, travel tends to increase with income. This may be illustrated by Figure 1, which shows how, in 1977, average daily travel distance per household in Baltimore increased as income increased. The increase in total distance travelled was due both to increases in average trip lengths and to increases in the numbers of trips per household.

Figure 1
The relationship between income and travel



But how can people increase the distances they travel? O way would be to spend more of their time in travel. But, as peop grow richer, their time becomes more valuable and they tend spend less, rather than more, time on travel. People constrained a shortage of time — as most of us are — can increase their trav only by travelling faster. And, indeed, the Baltimore data (Figu 2) show that travel speeds there increased with income.

Figure 2
The relationship between travel speed and income



This was due, of course, to the higher automobile ownersh associated with increasing income; and Figure 1 shows clearly th the increased travel per household was, on average, due increased travel by automobile, not by bus.

Rising demand for door-to-door travel

It is to be expected, then, that as incomes rise in the future, as they are most likely to do, people will tend to seek faster modes of travel to enable them to make the most of the spatial opportunities available to them. Speed is, of course, recognized to be the main factor in the choice of travel modes not only in the US, but in Britain and all over the world. It follows, therefore, that the surest way to enable public transport to compete with the private car is to raise its door-to-door speed.

This may be illustrated by the case of New York, London, and other cities having mass transit systems on their own rights-of-way, which can travel relatively quickly irrespective of congestion on the streets. In such cities, mass transport patronage has held up through the years despite the atrocious discomfort of peak-hour travel. Many people will put up with uncomfortable travel if it gives them the chance of staying in bed a few minutes longer or living in more congenial surroundings.

A second key characteristic of American urban dwellers is their desire to live at low density. Technological improvements and the decline of large industrial concerns in Britain are leading to similar shifts away from crowded cities. Some planners disapprove of low-density living and refer to it disparagingly as 'sprawl'. Despite a significant movement of the childless and the unmarried to city centres, the mainstream of American population movement is still from city centres to suburbs, and from high-density areas (in the Northeast) to low-density ones (in the South and West). But suburban living cannot be served efficiently by fixed-route bus or rail lines: fast door-to-door service in low-density neighbourhoods can be provided only by a transport mode flexible enough to arrive quickly close to people's homes in response to their needs.

Given, then, the desire of city dwellers for transport that is both *fast* and *flexible*, how would they choose to travel? Private transport has obvious advantages, but it also has disadvantages: it is expensive if it cannot be shared, and it is not available to some classes of travellers such as the very young, the very old, the infirm, and those not licensed to drive. What are the alternatives? Bicycles can be used for some trips, and walking for others, but many journeys require motorized public transport. Taxis are estimated to account for about forty per cent of all the trips

provided by public transport in the US, but they are expensive if used in the dominant single occupancy mode. How can speedy and flexible public transport be provided economically? One approach is to provide speedy public transport by dedicating to it a reserved right-of-way. This is the prime advantage of the railway and of the 'busway'. But since railway trains cannot provide service away from their track, they cannot satisfy the requirements of both speed and flexibility except in very special situations, eg, journeys that start and finish in the vicinity of the same railway line. Reserved busways, or bus lanes on highways, are better suited to accommodate flexible public transport services, as they can provide uninterrupted runs over long distances by vehicles that can pick up and set down passengers close to the origins and destinations of their journeys. Such busways, or bus lanes, can accommodate full-sized buses, minibuses, vanpools and even carpools.

The expense of private transport and that of rapid transit systems on their own rights-of-way have been mentioned. Experience has shown, however, that Americans are not deterred by expensive transport services; on the contrary, many seem to be put off by low-cost services, such as those provided by the conventional bus, believing that the low cost must be an indication of poor quality. But high-quality bus services can be successful. An express bus operation with premium fares has been operating in New York City since 1968; its success has spawned more than thirty additional public and private express routes.

So what would be the most desirable form of public transport for low-density American cities, or the British commuters living in outlying villages, irrespective of cost? The answer might well be shared taxis or minibuses, collecting people from a group of pick-up places close to one another, and travelling non-stop to another group of destinations. Indeed, unless travellers can park at their destinations, a shared taxi or minibus might even provide faster service than a private car. For example, travellers from the bedroom community of Reston travel by a minibus 'subscription service' to government offices in the centre of Washington in fifty minutes; travel by bus would take them sixty minutes and by private car forty-five minutes (possibly more, depending on the time spent in parking). Thus, while the minibus may not always be quite as fast as the private car, it is considerably faster than

conventional transit and it is also cheaper. An unsubsidized daily return trip in the case of Reston costs a rider $61 a month compared to $90 by the heavily subsidized conventional bus, and over $200 by private car if all costs (including parking) are taken into account.

EXISTING FREE-ENTERPRISE URBAN TRANSPORT IN THE US

But if small, informal, self-financing systems can really work, why are they not provided by free enterprise? The answer is simple but not satisfying. Such services *were* provided in the first quarter of the century, but many were outlawed in the 1920s and are generally still illegal in US cities. There is evidence, however, that a new trend is starting and some free-enterprise unsubsidized public transport services, in addition to shared-use taxi cabs, can be identified in the US today.

Shared taxis

Shared taxi services are formally licensed in only a tiny fraction of the 3,360 incorporated US communities with a population of over 5,000 which are known to be served by taxi cabs. Shared services are run in Albuquerque (New Mexico), Chapel Hill (North Carolina), Daytona Beach (Florida), Denver (Colorado), Indianapolis (Indiana), Little Rock (Arkansas), Los Angeles (California), Miami (Florida), Meriden (Connecticut), Montgomery (Alabama), Minneapolis (Minnesota), Norfolk (Virginia), Phoenix (Arizona), Pittsburgh (Pennsylvania), Portland (Oregon), Red Bank (New Jersey), Seattle (Washington), Washington (DC) and Westport (Connecticut). Little Rock has had a successful shared taxi system for decades. In Washington DC, taxis occupied by one or more passengers often stop to pick up other passengers going in the same direction. The licensing authority for the Washington DC area has specified permissible fares for shared taxis, but these are not widely known to travellers and, in general, each occupant of a shared cab pays the full, single-occupancy, rate.

Illegal shared services are provided in New York and many other cities, large and small. The *New York Times* reported that

in Chicago, scores of illegal jitneys can be seen daily: 'They travel along King Street, stopping at street corners or in mid-block to pick up housewives with shopping bags, youths, and other people. For a quarter, they ride a few blocks through the black South Side'. In small holiday resorts, illegal shared rides are the only mode of transport available to enable low-income hotel workers to get to work.

All of these services are financially viable in the sense that the full costs are paid by the riders, with no subsidy. But there are also many shared taxi systems in which the taxis are employed by public agencies on a contract basis as an alternative that requires less subsidy than conventional transit on the less-travelled routes.

Fare arrangements for shared taxis

Shared taxi services have enormous potential to benefit both the taxi industry and taxi users, but it is difficult to envisage much progress in this direction without the development of contractual arrangements that would benefit both sides. It seems reasonable that a fare system for shared-taxi riding should have the following characteristics:

(a) fares should be easily calculated, preferably in advance, and be readily understood by passengers, drivers, companies, and regulators;
(b) shared-ride fares should offer reductions for passengers as well as increased revenues for companies and for drivers;
(c) the option for exclusive riding, at exclusive ride fares, should be available to passengers;
(d) cross-subsidizing some trips from revenues received from others should be minimized.

It is possible that a taxi meter will be devised that can offer a fare structure that will meet these requirements. However, it has been argued convincingly that a meter is unlikely to fit the bill, as it cannot properly account for the route deviations that are associated with shared riding. Some of the schemes put forward do not use meters but rather zone systems as the basis for fares. At least three schemes are available.

The Meriden flat fare system is used by the Meriden Yellow Cab Company, which sees shared-taxi riding as a major growth

area for the future. The management tried a zonal system which was found to be too complicated, and so replaced it with a flat fare of US$1.70 for journeys within an area of twenty-two square miles. Customers telephone their requirements in advance and the dispatchers make up taxi-loads at the flat fare. The customer still has the option to pay by the meter for exclusive use.

Urban Institute grid structure. This is a system whereby the driver and passenger agree on the smallest number of contiguous half-mile squares between pick-up point and destination. The idea is that the first square should be at a fixed charge with a smaller increment for subsequent squares. It envisages possible changes of rate between individual hirings and shared hirings and at different times of the day. Systems of this sort work satisfactorily in Little Rock (Arkansas), Montgomery (Alabama), and Minneapolis (Minnesota).

The ride shared vehicle paratransit (RSVP) system. The People's Cab Company of Pittsburgh, owned by the Center for Entrepreneurial Development, a non-profit corporation affiliated with Carnegie-Mellon University, introduced the RSVP system to deal with shared rides. The RSVP can be regarded as the ultimate in zone systems, in that fares are calculated by computer on a point-to-point basis using the geographical data stored within it. Taxi drivers radio the origins and destinations of proposed trips to the computer and receive in response the appropriate fare. Customers agreeing to that fare are not charged extra for the route deviations that inevitably occur when rides are shared; each traveller pays for travel only from the trip origin to the destination. For shared riding, fares are discounted at an agreed rate, which in the summer of 1981 was ten per cent.

The International Taxicab Association (ITA), representing operators in both the US and Canada, encourages the adoption of shared ride systems in all localities where they are not already present. An ITA policy statement and representative share ride ordinances are reproduced in the Appendices.

Contract services

In principle, there is nothing to stop any public agency, such as a transit commission, from inviting private firms to bid for the right

to provide certain services. If the services are known to be unprofitable, the invitation would be on a least-subsidy basis, ie, asking tenderers how much they would expect to be paid in order to guarantee a service at agreed times and frequencies. This kind of operation has been organized in a particularly effective manner in Knoxville (Tennessee), where a Transportation Broker Office was set up for the purpose of seeking out transport suppliers and inducing them to provide services specified by major employers, hospitals, and social service agencies in the Knoxville area.

Some transportation authorities have started to contract with private operators to replace services operated by the public agencies themselves. For example, the Tidewater Transportation District Commission (TTDC), which is responsible for public transportation in the Norfolk area, recently substituted privately-contracted taxis for poorly supported bus services.

Other cities in which taxis are substituting for buses include Arabi (Louisiana), Westport (Connecticut), and Chapel Hill (North Carolina). In California, over fifty publicly-supported community transit services, some for the general public, some restricted to the elderly and handicapped, are operated by taxi firms under contract to public agencies.

Subscription services

Subscription services involve a group of passengers contracting (subscribing) for the supply of a bus or minibus on a regular basis for journeys to and from work. The driver is either supplied by the vehicle contractor or provided by the travellers. One of the largest and oldest subscription bus operations is COM-BUS, which was established in 1967 in California to enable employees of the McDonnell-Douglas Corporation to reach a plant fifty miles away from their homes. As in some other cases, the services were started by a group of travellers after the local transit agency refused to provide service with its own vehicles. Similar services exist all over the US. They are characterized by comfort (eg, seats for all), reliability, and higher door-to-door speeds than can be provided by ordinary public transit. These services generally operate without subsidy, except for free parking facilities granted by employers. The fare charged on the Reston subscription service referred to

earlier approximates five cents per mile, which covers all costs including a profit to the bus operator.

The disadvantage of subscription services is their schedule inflexibility, though even this can be overcome if the service is large enough to support a group of vehicles running at different times. The time advantage over conventional transit arises from not having to stop over the long-haul segment of the journey. This makes subscription services particularly popular for long-distance commuting.

Commuter van pools

Van pools, like subscription services, involve a group of eight to twelve employees contracting to travel in a minibus to and from work on a regular basis. They differ from subscription services in that the vehicles generally belong to, or are leased by, employers, and in that drivers are members of the van pooling group and drive at no charge. Typically, the drivers are remunerated by being allowed to travel free and to have the use of the minibuses for evenings and weekends either free or at nominal rates.

The first van pool system to achieve national fame was the one introduced in 1973 by the 3M Company in St. Paul (Minnesota). The 3M van pool programme was an attempt to prove that the total number of automobiles used for the work trip could be reduced significantly, thereby alleviating congestion and reducing the demand for parking. Environmental considerations such as energy savings and air pollution were also concerns, though not major objectives of the programme. At first, six van pools, each consisting of a 'pool co-ordinator' and a minimum of eight paying passengers (at least one of whom was a back-up driver), were formed. The passengers paid on a monthly basis for a reserved seat. In selling the service, emphasis was placed on its exclusive nature and on its comfort and door-to-door service. The pool co-ordinator was compensated with a free ride, personal use of the vehicle, and the revenue from all passenger fares over the minimum of eight. The back-up driver was paid by the co-ordinator when he drove, and was also allowed occasional personal use of the vehicle. Within a short period it was evident that the van pool concept was very successful and popular with the participants. Extreme interest

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was generated among other 3M employees as well as in other industries. Long waiting lists of employees and self-formed groups waiting for additional vehicles began to appear. In July 1973, the 3M management decided to expand the programme, which now includes 150 car pools. The company did not desire to profit from the operation of the programme, nor did it wish to have the programme regarded as a subsidy to those participating. The monthly fare structure was therefore determined on the basis that all costs, including the purchase cost of the vehicle depreciated over a four year period, would be covered. A typical cost schedule for a van pool is shown in Table 5.

TABLE 5
Commute-A-Van Calculations (1981)

A. FIXED COSTS		
Cost of Vehicle		$11,000.00
Immediate Depreciation		200.00
Cost for Depreciation Purposes		10,800.00
Monthly charges		
1. Depreciation over 60 months		180.00
2. Insurance		27.00
3. One-Time Fixed Costs—First Year		
Sales Tax	$440	
Tires	200	
License	43	
4. One-Time Fixed Costs—2nd-5th Years		
License (Average)	120	
5. Total One-Time Fixed Costs—60 Months		13.38
6. Total Monthly Cost for 60 Months		220.38
7. Estimated Value of Vehicle after 60 Months is $1,800, or by month		30.00
8. Monthly Fixed Cost to be Received by User Income (6 minus 7) is $2,284.56/year of		190.38
9. Yearly Fixed Cost Used for Fare Calculation Purposes		2,286.00
TOTAL MONTHLY COST PER VEHICLE		190.50
B. OPERATING COSTS		**Cost per mile**
1. Gasoline at $1.39 (9 mpg)		$.155
2. Oil Change, Filter & Lube at 5,000 mile intervals ($22.00 each)		.005
3. Maintenance		.055
4. Tires (Cost for Life of Vehicle)		.015
5. Total Operating Costs		.230

One of Manila's gaudy *jeepneys*

Above: Standard production minibuses are already used by schools, associations, and commuters in the UK

Right: Privately-operated minibus and three-wheeler in

Above: One of Hong Kong's public light buses in action
Below: This vehicle would be used in a proposed jitney service for London

Success. Van pooling expanded rapidly in the 1970s. In 1976, the National Association of Van Pool Operators (NAVPO) was founded to represent the large corporate van pool sponsors. The NAVPO membership has doubled every year since its foundation in 1976, and its executive director predicted that the number of employer-sponsored van pools could jump from the 1981 figure of about 12,000 to as many as 100,000 by 1985 and to 500,000 by 1990. It is noteworthy that van pooling in the US is growing at a much faster rate than car pooling, which has grown only by a modest ten per cent since 1970. In addition to the corporate van pools represented in the NAVPO, there is also significant growth among independent owner-operated van pools. For example, the New Jersey DOT's Office of Ride-Sharing estimates that for every one of the 1,500 employer-sponsored van pools operating in New Jersey there are as many as four independent van pools on the road.

The success of van pools is undoubtedly due to their ability to offer users a combination of speed, comfort and economy. The speed is a reflection of the door-to-door service. The comfort is related to the quality of the vehicles used. These are often equipped with carpets, air-conditioning, bucket seats, and tape recorders with individual earphones (the latter probably particularly valuable in giving riders the option of not having to converse with their neighbours). Some van pools offer additional luxuries such as newspapers, beer, and card games. Commuters who normally would drive to work say they can save between $1 and $3 a day in travel expenses by van pooling. It reduces stress on individuals and wear and tear on autos, and it lowers the expenses of parking and fuel. On average, each van pool reduces by eight the number of cars in rush hour traffic and it gets about 150-passenger miles to the gallon. Some van poolers report lower insurance rates on their own cars because they ride van pools to work.

Companies say van pools boost employee morale, reduce absenteeism, and broaden the territory from which they can attract workers. They also help solve the costly problem of providing individual parking spaces for employees. The Tennessee Valley Authority, which operates 375 vans, needed to include fewer parking facilities than usual when it built its new Knoxville headquarters in 1976, the estimated saving being $5 million.

Because van pooling employees arrive and leave on a precise schedule, efficiency is improved and overtime kept to a minimum. The essential business gets done during core hours.

Costs. Congressional Budget Office figures published by the Highway Users Federation put the average cost per passenger-mile for a ten-mile, one-way commuting trip in a large metropolitan area at 5.7¢ for a ten-member van pool, compared to 23.1¢ for a bus and 29.7¢ – 36.1¢ for rail transit. A typical van pool commuting from New Jersey to the Rockefeller Center costs each member $45 per month, or 4.2¢ per passenger-mile, which includes more than $100 per month for a parking space in the Rockefeller Center. The alternative, by bus or subway, would cost passengers at least $80 per month, despite substantial taxpayer subsidies of the public systems, and would take more time. The Department of Transportation notes that in 1979, membership in a van pool saved each commuter who previously drove to work in his own car an average $883 a year.

New Jersey is by no means unique in the number of its van pools. Houston, which claims to be the 'van pool capital of the nation', has about 1,500 van pools, and the mode is also growing rapidly in California and elsewhere. Some of the vehicles used for van pooling are owned by transit agencies (as in Seattle) or by private organizations set up specifically to promote van pooling (*Commuter-Computer* in Los Angeles, *RIDES* in San Francisco and *Vango* in Baltimore). And many vehicles are provided — at a profit — by private companies such as Hertz and the Chrysler Corporation. Hertz even provides a corporate 'turnkey' programme that furnishes the required vans, maintenance, forms, insurance, and a hotline to a company trouble-shooter in charge of the account. Over 500 vans in twenty-four companies are already a part of the arrangement. Van pool loans, offered at below market rates and requiring no down-payment, are also available from a number of banks throughout the country.

Jitneys

The use of five-seat or six-seat passenger vehicles for public transport was known in western American cities by 1910. Typically, Model T Fords would cruise along the route of a downtown trolley line picking up passengers and delivering them as close to

their destination as the driver deemed possible without a major diversion of the other passengers. These vehicles were called jitneys, because the charge was a jitney (5¢) per ride. The term is said to originate from the French *jeton* or token.

The jitney movement spread rapidly. By 1915 their number was estimated to have reached 62,000, and in the same year a trade magazine, *The Jitney Bus*, was founded. Some of the operators were full-timers while others were men who simply displayed on their vehicles their places of work when they left home and picked up anyone willing to pay for a ride along the way. Some men drove as jitney operators for an hour or two before or after work. The 1914 recession attracted many men into the jitney business, particularly those who had bought automobiles but found themselves short of the means to pay for them.

Attack by vested interests. The jitneys had an immediate effect on the revenues of the franchised services, which promptly lobbied to regulate the innovation out of existence. They were largely successful, so that, by 1919, most of the jitney services were driven out of business by local ordinances, such as those requiring the operators to obtain franchises or to post viability bonds. Other regulations, such as those requiring jitney operators to offer their services for a minimum number of hours each day or to specify in advance their precise routes and time schedules, eliminated the jitneys' competitive advantages in providing flexible, specialized services, particularly in the peak periods.

The attitude of the franchised operators can be illustrated by a consultant's report on the St. Louis Service Cars, an association of jitney operators that was formed in the 1920s and continued until 1965. In 1957 W. C. Gilman reported that, on the routes on which they competed, the Service Cars accounted for seventy per cent of all public trips and about fifty per cent of peak-hour trips. He also reported that they charged the same fare as the franchised streetcars, guaranteed seats to all who could get on them, ran more frequently than the streetcars, and, because of fewer intermediate stops and the ability to dodge traffic, usually made better time despite the streetcars' right-of-way over portions of the routes. However, Mr. Gilman recommended against continuation of the Service Cars, arguing that:

'although the Service Cars offer a more frequent service than

could be given a similar passenger volume by either streetcars or buses, this is not sufficient justification for their parasitical activity. Operation of this type of transit service has a capacity of only eight persons as compared to the fifty or more seats in a transit vehicle. Since individually-operated vehicles cannot be expected to exchange transfers, general coverage of the city by Service Cars, instead of transit, would require about half of the riders to pay two fares. Competitive services of this character should not be permitted. They can survive only in areas where there is heavy transit riding, and these are the areas in which an area-wide transit system needs all of the business to average out the thin areas in which non-compensatory service is being operated.'

Invalidity of criticisms

The criticisms that small-capacity vehicles are extremely wasteful of street space and that the operators of large transit vehicles have to be protected to 'average out the thin areas' can be heard even today and are as invalid now as they were when Gilman uttered them. The low priority given to service frequency by a transport expert seems strange, and the use of the term 'parasitical' to describe a service provided in the market by willing sellers to willing buyers reflects the heat of the dispute. The battle was eventually won by the franchised operators — not by their providing better service than the jitneys, but by their successful promotion of restrictive legislation. It must, however, be admitted that the jitneys were associated with an increase in minor accidents in virtually every city, and that bumps involving jitneys competing for passengers at the kerbs were common. Jitneys were also subjected to the remarkable charge of being used for abduction, robbery, and rape both by drivers and by passengers who commandeered the vehicles, although it is difficult to see why a jitney should be more suited to these activities than the private cars and taxis they replace. Yet, these accusations and problems inevitably helped the political opponents of the jitneys to bring them down.

The victory of the buses and streetcars was almost complete, although some jitney services have continued to operate to this day; but it was only temporary. By the 1970s, the streetcars and many bus lines were in turn defeated by the private automobile

and the suburbanization that it brought about. Tracks were torn up and rights-of-way dismantled to provide more street space for the private car.

In 1976, George Hilton commented:

> 'Had the jitneys been allowed to survive, they probably would have driven the electric streetcars out of existence, except on the most heavily-travelled routes, by the mid-1920s. The urban transportation system in our major cities would consist mainly of competitive owner-operated vehicles. These would range from private automobiles registered as common carriers through specialized vehicles like Volkswagen micro-buses and American van vehicles run by full-time operators to a smaller number of forty- to fifty-passenger diesel buses like those that currently operate in the industry. Jitneys would operate without restriction as to route, schedule, or fare. They could accordingly operate faster because of free choice of route and, being in the main smaller, they would be able to operate longer distances without stopping. Judging from the tolerated jitney service on the Martin Luther King Drive in Chicago, they could apparently provide a higher standard of service than such entities as the Chicago Transit Authority for about sixty per cent of the cost and still yield a profit.'

The road back may indeed have started. A jitney service — provided by fifteen-passenger minibuses labelled 'JITNEY' and operated by the Yellow Cab Company in Indianapolis — went into service in May 1981. The owner of the company, Richard Hunt, had to spend eighteen months and $30,000 in legal fees to obtain the permit to run the service, which receives no subsidy. The main opposition was put up by the local transit authority which was receiving massive capital and operating subsidies. On the other hand, San Diego, which favours competition and has deregulated entry into the transport field, now sports a fleet of twenty-five jitneys. Only time will tell if jitney services will be reincarnated in the US as a viable, self-financing method of public transport.

Route associations

The existence of route associations in Buenos Aires, Calcutta, and Manila was noted in Chapter 2. Such associations also exist in the

US, the biggest and best-developed concentration probably being in New Jersey, where bus operation has a long tradition; some of the companies are linked to railways and streetcars that operated at the turn of the century. The early part of the century saw the development of many jitney services, from which some of the services operating today can be traced.

Around forty per cent of the 3,000 buses in New Jersey that provide services within cities and between them are still privately run. Most of the existing companies are small, with many buses driven by their owners. In order to provide services over a route, some of the operators are grouped in associations of different kinds. The only things they have in common are that schedules are co-ordinated and that each member of every association must operate profitably and be financially independent. They manage to stay solvent for the same reasons of private initiative that are at work everywhere from Argentina to Zaire, even though their fares are at least ten per cent lower than the state-owned New Jersey Transit buses.

Some of the associations, such as Lafayette Greenville, Montgomery West Side, Central Avenue, and Bergen Avenue, share not only the routes, but also the revenues. This discourages the members from competing for the most profitable routes. There are, however, associations of operators who share routes without pooling the receipts. In the case of the Springfield Avenue Bus Association, each operator retains the revenues collected on his buses. The associations operate on a co-ordinated schedule. Many of the operators provide commuter service to New York, with the inter-state revenues occasionally making up for losses incurred on intra-state runs. The private buses can be seen streaming into the Port Authority bus terminal along the exclusive busway provided by the Authority for use during the morning rush-hour period.

Buses are regulated in New Jersey: to be allowed to provide services, an operator has to show that he has safe equipment and competent drivers. In order to join an association, a newcomer would have to bargain with it, either buying the share of an existing member or meeting other conditions set by the association. If a company or association wishes to serve a completely new route, permission has to be obtained from the licensing authority, which, before granting permission, may take into account objec-

tions from other operators. The heavily-subsidized New Jersey Transit, which is currently running $50 million a year in the red, often objects to competition from non-subsidized independents who wish to run at their own risk and expense.

In testimony before the Senate Subcommittee on Intergovernmental Relations in July 1981, C. Kenneth Orski, former Associate Administrator of the Urban Mass Transportation Administration, affirmed that:

> 'transit is in trouble because it has failed to respond to the changing demands of the marketplace. It follows that its future viability hinges less on what the federal government is going to do than on what happens at the local level. For if public transportation is to regain some of its lost appeal and utility and becomes once again economically viable, it must be significantly restructured, both in terms of the type of service it should provide and in terms of who should provide it and who should pay for it.
>
> 'We stand, I believe, on the brink of a major re-orientation in the way we think about local transportation. Fiscal pressures confronting local government, combined with sharply escalating operating costs and a climate of public disenchantment with regular transit's performance, are prompting local communities to reassess the effectiveness of their current transportation services and to search for more effective and economical alternatives.
>
> 'The search is leading them away from large, monopolistic, centrally-managed service delivery systems toward approaches characterized by decentralized operation, service diversity, competition, and a sense of shared public/private responsibility for service provision. In sum, we are witnessing nothing less than fundamental rethinking of the basic premises of public transportation. And while the final outcome of this process cannot yet be foreseen, there is sufficient evidence to suggest that it will lead to a major restructuring and redefinition of America's local transportation.'

It is difficult to better either the diagnosis or the prescription for improvement.

5. The UK Debate: Some Objections and Answers

Although free-enterprise public transport has proved itself able to provide high-quality services at low cost and without subsidy in both developing and industrial countries, most cities in the UK cling to the idea of the slower, more costly, franchised services that provide 'planned' services by large fleets of vehicles operating along fixed routes. Why should this be?

There are, perhaps, two principal reasons for the resistance to any change. In the first place, it is natural that local authorities will tend to support the existing services, even in the face of powerful and effective criticism, because the authorities themselves have invested time and energy in their development. Few authorities would be prepared to accept that the transport services they have struggled to provide, or that their massive capital expenditures on new systems and equipment, are inherently mistaken in concept. Even fewer are likely to understand how a planned and integrated transport system can be replaced by the spontaneous order generated by the actions of thousands of individual operators, or how the flexibility of such operators would actually bring about a more integrated system that better served the public's needs without requiring a subsidy. And of course, those who have an interest in defending the existing transport system have the vast resources of the authority's budget itself to promote their cause; while the providers of informal public transport exist only in potential, and would in any event lack the means to win an argument on such uneven financial ground. Thus, the political factors are stacked on the side of the traditional public transport systems.

In the second place, the resistance to change stems from a universal feature of the economics of orthodox public transport systems which presents an obstacle that few local authorities can see a way round. This is the requirement that operators of conventional public transport networks should provide a range of services, some low-cost and some high-cost, throughout the areas designated by their franchise, so that rural or outlying areas should enjoy a full public transport system, and so that travel should be

available well outside peak hours. Although the costs of providing these services vary widely, fares tend to be uniform over the system, often for reasons of political policy, so that there are large variations in the profitability of the different routes or services. The present system is almost founded on the principle of cross-subsidy: that is, that the more profitable elements are supposed to support the desirable but less profitable ones. And this makes operators resist the prospect of competition on the grounds that competitors would 'cream off' the more profitable services and leave the franchised operators with the obligation to provide those that show the biggest losses.

This objection naturally prompts us to enquire whether conventional transport systems would, as a matter of empirical fact, be able to compete with informal ones, and whether the stimulus of competition might not make improvements in the conventional systems as well as their competitors. And certainly, it requires us to say what would happen to travellers on 'weak' public transport routes if the franchised operators were left with insufficient resources to cross-subsidize them. Accordingly, some further discussion of this point is needed.

The 'creaming off' argument

Despite its initial attractiveness, the argument that competition will lead to an undesirable 'creaming off' of the most profitable services is in fact one of the hollowest and most easily overcome.

Peak hour services. Consider, for example, the provision of services at peak hours. Competition can be expected to be drawn to these times, when there are large numbers of potential customers in need of transport. But such competition can be expected to *reduce the costs* of an orthodox public transport system, rather than to rob it of vital revenue. The reason is that a city bus company, for example, is obliged to provide extra buses and manpower to handle the peak-hour traffic, even though both buses and men may be idle for the rest of the day. In some cases, it may be possible to hire drivers, conductors, inspectors, and administrators on a part-time basis so that they are used only at the peak times: but union practices conspire against this. And in any event, the idle or under-used buses represent a large capital outlay that is wasted.

Competition at peak hours, therefore, could be used to absorb the excess demand, and would allow orthodox bus companies to make important savings on under-used men and equipment. Without this costly burden, they would probably be left with *more* resources to use on supporting the unprofitable segments of the network. The so-called 'creaming off' seems in this case to be wholly desirable.

Indeed, as Gilbert Walker pointed out many years ago, in public transport the 'cream' is at the bottom of the bottle — there is no money to be made from carrying peak services if the size of the peak-period fleet greatly exceeds the off-peak requirements.

The classic case in support of peak hour competition may be read in the experience and attitude of the Kowloon Motor Bus Company, one of the world's largest, most efficient, and profitable transit companies. Privately owned and managed (although a publicly quoted company), KMB, alone of Hong Kong's major transport lobbies, kept silent when 3,600 fourteen-seater minibuses were licensed in three months in 1969. They discerned precisely the effect that competition would have. Realizing that it was effectively released from its franchise obligations, the company welcomed peak-hour competition. Being cheaper (half the fare on average) than minibuses, KMB still carried over eighty per cent of its former passengers and was able to concentrate upon the provision of new and extremely profitable middle-distance services with limited stops.

Competition on profitable routes. Franchised operators long complained that competition on profitable routes would not benefit the public, because it would cut into company revenues and necessitate a review of rural and other unprofitable services provided for 'social' or political reasons. But in practice, deregulation of profitable services has actually led to the obvious public benefits of lower fares, more frequent services, and improved passenger comfort.

Until October 1980, the British National Bus Company (NBC) was given substantial protection against competition on its main inter-urban routes and, in exchange, had to provide a service to low-density rural areas. Legislation passed in 1980 abolished both the protection and the obligations, and the NBC was left to do its best in a competitive market. NBC officials were concerned

about the people in rural areas who, it was believed, would lose their public transport (though legislation was also passed to enable local needs to be met by local informal services), but had no fears with regard to their ability to maintain service on main routes. Competition on these routes did in fact appear and resulted in dramatic fare reductions — fifty per cent in some cases — but the company appears to have had no difficulty in maintaining its share of profitable routes. Its total volume on long distance routes increased from eight or nine million trips a year to twelve million, with massive increases in service on certain routes, notably those from London to the Midlands and the Northwest. For example, a half-hourly service was provided on the 100-mile London-Birmingham route, whereas before deregulation there were journeys only every two or three hours.

Improvements in the quality of inter-city services have been as marked as the improvements in their quantity. Competing companies now offer such refinements as video films, stewardess services, lavatories, reclining seats, hot and cold drinks, airline-style snacks, and many others.

Gains from competition in rural services. If profitable routes can be improved and expanded, at lower fares, by the introduction of competition, we should begin to ask whether it might also bring marginal routes into profitability with similar fare reductions, and whether it might also bring improvements to high-cost rural and other 'social' services. There is strong evidence that it will.

When the deregulation of the US airline industry was mooted in the 1970s, there was widespread fear that outlying districts would lose their air services completely as airlines flocked towards the more lucrative routes. In fact, however, precisely the opposite happened, and isolated communities now generally enjoy very much better and more frequent services, and many have needed to expand their airport facilities. Competition on the main routes was certainly fierce, with all kinds of special discounts, vouchers, and other offers to attract new customers: but such routes were naturally the preserve of the larger airlines. Even more spectacular was the growth of small airlines, who had been discriminated against under regulation, but who were particularly suited to provide new or improved services to isolated places or on less busy routes; and it was these services that improved most.

It is quite likely that the encouragement of open competition would lead to equally spectacular improvements in the provision of overground transport to rural communities in Britain. Existing franchising arrangements tend to favour large transport organizations that might be appropriate for busy routes but are not necessarily well-equipped to provide services for rural areas. For example, it is an obvious waste of capital for a large, fifty-eight-seater bus to spend time going round a number of villages to pick up only a few people, filling up only when it reaches the edge of the city: and yet this is a common sight. It may be that smaller, free-enterprise buses, circulating round the villages and dropping off shoppers or commuters at the edge of the city where they can transfer to larger vehicles, may be much cheaper and perhaps more frequent because of the much lower overhead costs that such a system entails.

Or again, there may be many other, even cheaper, mechanisms that competition might discover, such as computer-controlled dispatching of custom buses, shared minicab operations, post-buses, and others. It is impossible to predict what human ingenuity might come up with, if allowed, to solve the need for cheap rural transport: so it is impossible to say just how low rural transport costs could be made, until that ingenuity is allowed the free rein of open competition.

In summary, it seems quite reasonable to argue that rural services in Britain, long ossified under the hand of large transport undertakings that are ill-equipped to provide them, would actually be the greatest beneficiaries of greater competition, not its first victims.

Providing unprofitable services

Nervous transport authorities, of course, may not share this faith, and will naturally demand some solution in the case of those services that are deemed important but which have no prospect of being provided profitably. These may not just be rural routes, but Sunday services, 'night-owl' services, school buses, and transport for the sick and the disabled or poor.

The obvious unprofitability of these and other such services does not, however, demand a publicly-operated transport system as

the only way of providing them. Free enterprise systems can easily be used, and all the benefits of competition brought to bear upon them, with a little ingenuity. There already exist two principal methods of ensuring that these services are provided in a competitive environment.

User subsidies. If a community feels that certain groups should travel without having to pay the full cost, they can be given special tickets or vouchers at reduced rates. In many EEC countries the full machinery already exists for recognizing those specially deserving of cheap travel or even separate free travel. Old age pensioners, the disabled, the mentally handicapped, and others presently either use public transport at reduced rates or free of charge, and the special needs of schoolchildren are similarly recognized and provided. There is no reason why informal, privately operated, public transport cannot carry these same special categories of traveller on the basis of specific subsidy.

In many cities in the United States, tokens are issued to schoolchildren, the aged, and the handicapped, enabling rides to be purchased at a fraction of the normal fare. It is particularly relevant to the introduction of informal public transport that many taxi companies in the US accept scrip purchased and distributed to the needy by local authorities, as well as half-price travel coupons (with city authorities making good the other half).

In Britain too, token systems already exist, and it seems reasonable to require all informal transport operators, as a condition of their licensing, to accept tokens in lieu of the normal fare. Thus, the local authority would decide what categories of individuals it deemed worthy of subsidy, and would identify them; it would mint or purchase transport tokens and distribute them to the individuals identified; these individuals could then spend the tokens as all or part of the fare with any approved carrier (public, informal, or perhaps even ordinary taxis); the operator would then take the tokens to the local authority, who would exchange them for cash according to their face value.

To the authority, the token system would enable transport services to be subsidized according to very precise targeting criteria. Present cross-subsidies provide cheaper travel not only for the poor widow in an isolated village, for example, but for the company director and his family who live next door, which seems

quite unjustifiable. Tokens put the help where it is really needed and therefore represent much more effective public help than the blanket support of particular transport routes. To the recipient, the tokens can be used as cash up to the whole fare, or can be added to if desired, giving maximum flexibility. To the operator, the tokens are as good as cash and are accepted as such, making attractive the provision of services on weaker routes that would otherwise be impossible.

Contract services. Another method by which private enterprise can be used to provide unprofitable services is to contract out required services to the operators of taxis, shared taxis, minibuses and private buses. This practice is already widely employed in the EEC by local government, health, and education authorities. Contracting with private operators is normally cheaper than using publicly-operated services.

Conclusion on the provision of unprofitable services

The main opposition to unregulated, free-enterprise public transport has always come from the established franchised services because operators of such services have traditionally assumed that competition would make their tasks more difficult. This fear might be justified if the franchised services had to continue the provision of unprofitable operations, while losing the low-cost, profitable ones to competitors free to take the 'cream' of the traffic available. We contend that if franchised services were to lose their protection from competition, they should also be relieved of the obligation to provide high-cost, loss-incurring services (for which other subsidy arrangments should be made, such as the token or contract arrangements described above).

However, it is by no means clear that a number of services presently regarded as inherently unprofitable would necessarily remain so once the ingenuity of competing transport undertakings was applied to the problem.

The shortcomings of cross-subsidies

Both of the methods described above — user-side subsidies and contract services — involve subsidies paid directly by a community

to meet certain social costs. If the elected representatives of a community decide that certain travellers need financial help, it is only proper that they vote funds accordingly. It is, however, quite another matter to finance such services through *cross-subsidization* which involves the provision of some services at excessive profits so that others may be provided at a loss. This practice can be criticized on the following grounds:

(a) it is undemocratic, in that it gives powers of taxation and subsidy to bodies that are not elected and not equipped to decide who should be forced to give how much and to whom;
(b) it prevents the full and rational development of services that earn surpluses because the extra revenues are used to maintain unprofitable services;
(c) it discourages public transport operators from assessing the expenses and revenues of *individual* service elements, with a view to changing the fares when called for, expanding profitable services and dropping unprofitable routes and schedules, in that it allows them to look only at their *total* expenses and revenues; and
(d) it is an inefficient way of helping those in need, in that many who get the benefits do not really require them.

For these reasons, cross-subsidization cannot be recommended as a method of financing unprofitable services. It cannot survive under competitive conditions, and its demise would do more good than harm to the public transport industry.

Co-ordination of services

An objection that is frequently raised by existing transport undertakings in the UK is that a transport system must be planned centrally in order to ensure adequate and integrated services for a city and its environs. Competition is therefore to be resisted because it cannot be co-ordinated into an overall, integrated system, and because competition on routes where there is insufficient demand to justify more than one operator is simply wasteful.

This objection, however, misses the crucial point that it is not necessary to have central planning in order for a service to be provided efficiently, cheaply, and in a co-ordinated manner. The

provision of food through a variety of grocery shops, supermarkets, delicatessens, cafes, and restaurants is not under the control of any government planning authority; the free market mechanism brings this perishable commodity to consumers according to their different and diverse needs, at the times and places they want, in infinite variety, and at competitive prices. The complex network of producers, processors, and retailers has grown up quite spontaneously to meet the needs of the public, wherever they may live and whatever their needs.

Informal public transport can be expected to produce a similar kind of spontaneous and unplanned order that is in fact more responsive to the needs of the travelling public than the present centralized systems. One city transport manager, for example, estimated that it takes up to eighteen months for a large UK franchise operator to make a timetabling change: a phenomenon that has left the residents of new housing estates without services and has led to the waste of buses on old routes for which there is now no demand. The private jitney or minibus operator could hardly enjoy such luxury: competitors would be actively seeking out the new custom and adjusting the overall pattern of their services in order to satisfy total demand to the maximum. The unplanned order of such a competitive network can therefore be expected to be in fact superior to any system that can be planned from a central point.

Integration. It is intuitively supposed that only central planning of a transport system can produce the desired integration of different services (with, for example, bus, train, and underground routes intersecting at convenient places and timetables allowing easy transfer from one mode to the other). In fact, however, informal public transport is likely to be *more* able to produce an integrated system precisely *because* it is flexible and does not have to be planned.

The transport of commuters to and from railway stations is an obvious area in which informal public transport methods could bring benefits in the United Kingdom. At present, commuters living in outlying villages tend to drive to the nearest or most convenient station, requiring expensive parking arrangements and imposing significant costs. A van pool arrangment, picking up commuters from their doorsteps, taking them to the station, and

depositing them back in the evening, could prove highly attractive. An alternative might be the shared cab or bus arrangement, whereby the driver waits at the station, chalks up the destination of the first passenger arriving from the train, and sets off when he has found several who wish to travel in the same direction. This simple system is in common practice abroad, and such door-to-door informal systems are likely to be faster and therefore more attractive to travellers than the attempts of existing franchised operators to provide integrated commuter links on the basis of large buses.

Jitneys, sherut, dolmus, and other forms of informal public transport are in fact particularly suited to provide the feeder services to rail and other main transport links, since they have the flexibility to satisfy a varied and changing demand that more rigid bus routes are unable to serve.

Overloading. Existing operators also tend to fear competition because it is supposed that the lack of central planning will lead to an excess of competition on some routes, with a pointless struggle between two operators for demand that is only sufficient for one.

The case of the National Bus Company, however, shows the deficiency of this thinking. If competition can make a service more responsive, cheaper, quicker, and more comfortable than at present, then there may well be a substantial increase in demand. The superior services which have already emerged as a result of intercity competition have led to significant increases in ridership on some routes, and there is no reason to suppose that this pattern should not fit generally to transport services, particularly where these have lain ossified by monopoly provision for many years.

Costs of travel

Some existing operators suppose that travel by informal public transport, relying as it does on smaller vehicles, must be more costly to the travelling public. This is not so.

In the first place, informal public transport is typified by a much higher utilization rate, which reduces the cost per person carried; there is no point in having unfilled seats, even if they are cheap. Secondly, smaller vehicles can be bought 'off the peg', and so their costs are actually kept down by mass production. As we

have seen, smaller vehicles can be very significantly cheaper, per seat, than larger ones. Thirdly, the low capital cost means that large numbers of individuals can afford to start informal public transport services, which leads to active competition and further keeps down the costs to the traveller. Fourthly, when a small vehicle is not being used for public transport, it can be applied to other uses: for example, it may be used as a minibus during peak periods and a delivery van at other times of day. Owners naturally have an incentive to ensure that their capital equipment is used to the fullest extent. Since small buses are much better suited to contract hire, their off-peak uses are much more varied — adding to their profitability.

A nonmonetary cost that passengers face, but which is equally important, is waiting time. Small numbers of larger buses mean longer waits for passengers; while the larger numbers of smaller vehicles can significantly reduce it. But although it is difficult to measure in economic terms, waiting time is a significant cost, and informal transport undoubtedly has the edge in reducing it.

Congestion

If one of the main attractions of informal public transport is its improved frequency, the prospect of congestion must be dealt with. Objectors argue that large numbers of public transport vehicles, stopping and starting at irregular intervals, will add to the congestion in city streets.

Curiously, the opposite is probably true. As we have seen, informal van pool systems, whereby commuters travel in groups using a single vehicle, can take eight or more cars off the road during the rush hours and still deliver commuters to their doorsteps at lower cost and in almost the same time as a private car. This reduction in traffic occurs at precisely the most busy time, so that such types of arrangement must certainly be welcomed.

Consider also the congestion caused by the conventional bus. It has to stop at a large number of fixed places on the route, sometimes only a few hundred yards apart. At peak periods, there may be large numbers of passengers getting on and off at each stop, so that its waiting time at each stop may be quite lengthy. It is large, and cannot weave its way through the traffic, nor can

other traffic easily get around it when stopped. The conventional bus actually causes a significant degree of congestion per passenger carried.

Since the shared cab, the jitney, or the minibus carries fewer passengers, it does not have to stop anything like as frequently. It is smaller, and so can weave through traffic more efficiently, and causes less obstruction to others. A shared cab, since it is not bound to follow a particular route, can switch to less congested roads if necessary. All of these considerations suggest that informal public transport, despite the higher number of vehicles involved, actually produces less congestion than the conventional large buses.

In Hong Kong the legalization of minibuses was accompanied by considerable protest. Not the least vocal were motorists who objected to minibuses stopping 'just anywhere' and monopolizing the kerbside-lane. Studies were carried out by the Transport and Traffic Study Unit which demonstrated that the minibus, in terms of its use of the road, was no more than the equivalent of 1.33 standard passenger cars. This is a significant figure. Translated, for example, into London terms it indicates that the introduction of, say, 10,000 minibuses onto London's road system would be the equivalent of adding 13,300 more private cars. Since, in 1980, some 211,000 people arrived between 7 a.m. and 10 a.m. each day in central London in 137,600 private cars, there is no statistical case for selecting this type of informal public transport as bogeyman. And if each minibus takes more than 1.33 cars off the road, as can be expected, the result is a net gain.

Safety and maintenance

The supposition that private owners or drivers will skimp on the safety and maintenance of their vehicles is occasionally produced as an argument against IPT in the UK, although it is not persuasive.

There are already rigorous regulations governing the operation of passenger service vehicles and minibuses; taxis are also regulated by standards imposed by the police and local authorities, and regular servicing and checking is expected. Airlines, where safety is obviously crucial and competition is strong, similarly have to

meet accepted operational standards. There is no difficulty in applying the same kinds of safety codes to any type of informal public transport.

Conclusion

The main difficulties facing the adoption of IPT in the United Kingdom, therefore, seem to be the desire of local authorities to 'plan' the whole transport network without interference, and the lack of glamour associated with small-scale alternatives. The fact that not even the wisest soul could predict with any precision what a community's transport needs are likely to be in, say, five years' time, and that a great deal of exhaustive planning and expensive capital is likely to be wasted, is rarely conceded. Instead, extensive regulations protect the existing operators and political empires choke off the threat of competition.

A typical reaction to the proposed introduction of large-scale informal public transport into, say, a British city is that it spells undisciplined piracy. As we have seen, the authorities in those cities where IPT is indispensable as a major carrier are often reluctant to admit its virtues. IPT is rarely glamorous, depends to a minimum on publicity and normally consists of a large number of small units. Its operation is indeed so understandable to the public, so close to just driving a car that it can expect no plaudits. It does not even make headlines by becoming massively insolvent or by a proneness to labour problems.

We have seen that some cities in the United States have begun to allow the emergence of high quality passenger transport services operating privately and without subsidy. In Britain, some van pooling arrangements are already emerging in response to cuts in public sector commuter services. Questions are continuing about the adequacy of commuter services into the London metropolis. Important moves have already been taken to deregulate the inter-urban and rural bus industry. But still the development of new alternatives is held in check by old institutions and regulations.

If informal public transport is to emerge and put itself to the test, practical steps need to be taken quickly to end monopoly public transport and to permit the small operator to enter the urban transport market. It is to these practical proposals that we must now turn.

6. Implementation of the Idea in the United Kingdom

Overview of informal public transport

A considerable range of IPT systems has been identified as operating on a large scale in most of the world's developing countries and on a smaller scale in some urban districts of the industrialized West. The scope of these systems, their successes, and the attitudes commonly adopted towards them have been outlined. In addition we have put forward a 'state of the art' survey of opinions and experiments in the USA. Out of all this evidence, a strong case emerges for small-unit, unsubsidized, and privately organized passenger transport systems to be permitted to compete freely with large, publicly owned companies.

It is not suggested that the abolition of monopoly franchises would suddenly enable all public transport to be provided at a profit by small operators. In some cases, IPT may win only a supporting role to large city transit organizations. In others, IPT alone may grow to meet all requirements.

One conclusion firmly and fairly drawn from a survey of IPT and of franchised monopolies is that the contribution of the former cannot be ignored and should be deliberately fostered. How can this be done?

It is of little use postulating a change of attitude in general terms as the main pre-requisite for implementing major changes in the supply of public transport. Positive action will be required in order to facilitate improvement in three main areas:

* at the central level: deregulation and simplification of existing rules to encourage the entry of private operators into public transport;
* at the regional level: the reorganization of the Area Traffic Commissioners' powers, procedure, and requirements; and
* at central *and* local level: the abolition of generalized subsidy support for public sector transport and its replacement by specific subsidies to all deserving users of services whether publicly or privately operated.

Deregulation and simplification

At present the Road Traffic Act 1980, the Transport Acts of 1968, 1978, and 1980, and related legislation such as the Public Passenger Vehicles Regulations 1981 and the Transport (London) Act 1969, are a deterrent to private operators wishing to supply public transport. This is no accident of legal drafting. The intention of postwar traffic and transport legislation has been to concentrate the ordering of urban (and rural) public transport in the hands of monopoly institutions under the control of local government bodies. The powers given to councils that control Greater London and the major conurbations are particularly strong. For example, until the amendment of the Traffic Act in 1980, which permitted a right of appeal to the Minister against decisions by the London Transport Executive, that body was the unchallengeable final arbiter of the supply of public transport in London.

It cannot be a mistake in economic terms to remove restrictions on entry to the public transport market and to simplify whatever necessary regulations must apply to protect passengers. Every shared public passenger vehicle which operates profitably in open competition benefits the community. Such a vehicle must be more economical in the use of road, fuel, and passengers' money then personal vehicular transport. The axiom loses force only when the alternative to public transport is walking or cycling. Some will object that unified control and 'integration' are overriding arguments in favour of the monopoly provision of transport. But control and integration can be achieved in a number of ways, not least as functions of a strong and imaginative transport authority independent of operators and of politics. It is more logical and more positive to devote planning efforts to the optimum use of urban road-space rather than the restriction of those who wish to provide public transport from private resources which cost the public nothing but competitive fares.

The central role

At the central level there is a strong case for removing quantitative restrictions on entry to the public transport industry — by this we mean the legal inhibitions which are now exercised to prevent new operators from competing in a market which is adjudged to be fully served by existing operators.

Private operators may in fact have to be *encouraged* to enter the market for the provision of public transport, since there is a shortage of practical expertise in operating private stage-carriage services in both urban and rural conditions: a man would have to be over sixty years of age to have had managerial experience in running such services for profit in Britain. A new generation of operators has to be developed which will undertake the provision of comprehensive systems of Private Transport on the basis of competitive operating permits.

Any municipally owned operations should, we believe, go into competition with the private sector. Initially at least, their historic capital infrastructure (depots, workshops etc) must be ignored as arguments for their continuance as monopolies: new private operators should not be bound to accept the operational pattern or infrastructural commitment already established.

Transitional arrangements

A transport authority has one overriding responsibility — to ensure that the whole community has adequate access to dependable public transport at the lowest cost compatible with the dependability. Because of the prevailing lack of experience of privately operated mass transport systems in Britain, a trial or transitional period is inevitable, during which private franchises, of the type requested by AMOS in London, are proved in operation.

Limited franchises. With proof that private stage-carriage services can work on a large scale, an authority may realistically exercise its planning and monitoring functions in several ways. It can simply define the public transport need in gross terms using existing public sector data as a statement of minimum demand, and permit open competition to fill the demand provided that safety and continuity of service are assured. In practice, however, an authority is more likely to find that the offer of public transport services is increased, genuine competition introduced, and the continuity of cheap, high-standard services assured, if it proceeds by the way of limited franchises. How can these be devised and monitored?

As a starting point, it is suggested that competition should be recognized as occurring naturally between radial routes entering

or crossing central business districts (CBD). Competition will be limited or nonexistent in the provision of routes that do not touch the CBD. The expertise of the authority will be shown in grouping radial routes to the CBD with transverse suburban or even semi-rural routes into packages acceptable for competitive bidding. The authority may include in a package routes which are not contiguous so that there will be competition between the operators of different packages — at least along the confluent segments of major transport corridors.

All bids for these packages of routes must be made on a profit-making basis. Existing subsidized operators would bid in the same way. It is at the bidding stage that the competitive operator shows his expertise. He has to make the whole package pay its way. Some routes will return a substantial profit on high frequency services; others will require either higher fares or support from the more profitable routes. The efficient operator will ensure that his total fleet of vehicles, whether driven by his employees or by co-operating owner-drivers under his management, operates profitably. This may entail some degree of revenue equalization between the routes which, while not adversely affecting quality of service, will minimize the disparity of revenue between routes.

The authority evaluates competitive bids on the basis of the following criteria:

* quality of service, including frequency, capacity, journey-speed, and comfort;
* reliability, including management and maintenance arrangements;
* the level of fares offered;
* the level of specific subsidy (if any) requested in respect of defined low-density services or of certain categories of passenger such as the elderly, schoolchildren, and the handicapped;
* stopping arrangements;
* safety;
* compatibility with other modes of transport and with other operators; and
* the level of operational data supplied to the authority.

Transferring manpower. It may well be that existing transport structures are in fact best suited for the provision of certain services. Where it is felt that a measure of competition could bring benefits, however, there are various measures which a local authority or franchised operator can take in order to transfer existing employees away from the traditional style of operation and into informal public transport systems.

For example, an operator or a local authority might encourage its employees to form route associations to run smaller public transport vehicles over routes they presently cover in larger buses. The move from orthodox to new modes of transport can in this way be achieved with minimal disruption to the existing workforce: instead of being employed drivers of large buses, they become self-employed providers of smaller vehicles, working in association with their colleagues.

There may also be a role for the local authority in helping with the finance for potential informal public transport operators to purchase their own vehicles. Local banks can be brought in to advance the capital, perhaps with a loan guaranteed by the local authority.

Route associations formed in this manner should, of course, be free to bid (if necessary on a lowest-subsidy tender basis) to run rural, late-night, and other services that are normally thought of as being unprofitable but necessary. Eventually, the subsidy on marginal services may become unnecessary as the gains from competition show themselves, or as a system of transport tokens to the needy replaces the present blanket subsidies on unprofitable routes.

Plainly, these and other measures can be made to ease the existing transport system, and its workforce, towards the new concept with the minimum of hardship (indeed, with potential profit) to the existing employees.

Greater representation. These procedures and criteria imply the divorce of the transport authority from the operation of transport services. If for any reason this divorce is not effected, then the membership of the authority must include representatives of the private transport sector and independent transport experts. If contention were built into the authority in this way it might obviate the present cumbersome, expensive, and time-consuming tradition of the public inquiry.

Currently, all significant private proposals to operate public transport in the UK are automatically contested by the municipal operators, the National Bus Company, and British Rail. The recent AMOS application to operate 400 sixteen-seat buses on four cross-London routes admirably illustrates the obstacle course which the prospective private operator must negotiate. The proposal was presented in October 1982, and the applicant agreed to a public hearing arranged by London Transport (the principal opponent and sole arbiter) in March 1983. At the hearing, conducted by an inspector who had recently turned down a similar provincial application, the opposition to AMOS employed a full muster of in-house executives and five professional counsel to achieve the expected rejection of the application. Exercising its right of appeal to the Secretary of State, AMOS was granted a fresh public hearing in October 1983. The hearing lasted a full month and (March 1984) the appeal is still *sub judice*. Disregarding the attendant publicity because of the obvious exemplary importance of the AMOS case, the time-scale is typical of British private-sector applications. An intending operator must expect to wait some eighteen months for a final decision on an application which is resisted by a public-sector operator.

There have been several examples of an application being finally approved by the Minister of Transport, only to find that the original impetus and financial backing for the application have been dissipated with the lapse of time and that implementation is no longer possible.

Regional requirements and area traffic commissioners

In rural areas, although the population affected is small, there is often a complete absence of public transport. Many people, having no access to personal transport, have almost no opportunity to travel. Again, the private operator has to be encouraged to enter this market. It is not so obviously attractive and profitable as the urban sector, but the experience of the National Bus Company's rural subsidiaries indicates that smaller, individually-operated vehicles could provide more extensive and profitable services with little or no subsidy support.

It is important not to assume the inevitability of subsidy for rural services. NBC operates in many rural areas with unsuitably

large and expensive vehicles yet with only small deficits. The extension of the AMOS concept, with leasing associates operating small buses within a tight local management framework, could provide a solution to the overall problem of rural transport.

The governmental controlling agency in the smaller cities and in rural Britain is likely to remain the area traffic commissioner. His functional brief has to change in line with that of the transport authorities discussed above. The inhibitory aspects of the traffic commissioner's role should disappear, being replaced by expertise in stimulating local private initiative. The policy of the Department of Transport should aim to promote the formulation of private proposals for transport services on a nationwide basis. Only if this does not happen is there any need for the deliberate and expert franchising exercise essential to larger conurbations. In this context, there has to be co-operation between the traffic commissioner's office and the elected local government in the area. General agreement will be needed to ensure that subsidizing operational deficits is considered only *after* the evaluation of private sector and public sector proposals.

If the area traffic commissioners cannot become expert in the way described, they might be required to surrender their public transport licensing function to local transport licensing boards which could operate in much the same way as liquor licensing boards. A press announcement of the intention to operate a public transport service should be regarded as adequate public notice, and the licence granted unless the character or operational record of the applicant is of proven unsuitability. In this case the role of the area traffic commissioner, in conjunction with the Department of Transport's inspectorate, is reduced to ensuring that operators provide proper management and equipment in the interests of public safety.

The sharing of taxis

Many US cities permit the shared occupancy of taxis subject to the consent of the original hirer. British law does not permit this and the taxi continues to be regarded as a particularly privileged form of personal transport. Ultimately, road-use pricing should take care of the problem: in the interim, simple regulations are

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required to permit the sharing of taxis and (in Greater London) the use of ordinary saloon cars as licensed taxicabs, provided that safety standards can be met.

Fares

Across the whole public transport industry, the removal of restrictions on entry will make it unnecessary for an authority to fix fare levels. The pressure of competition will take care of that problem. The law merely has to ensure that the public knows the tariffs and is not overcharged through ignorance.

Subsidies

The illogicality of internal cross-subsidization and general subsidies to cover operational deficits in public transport has been described. So far from regretting their dependence on subsidies, the majority of British municipal transport operations deplore the low level of state and local rate support in comparison with their continental European counterparts. Recent experience in London shows the wild policy swings that are possible when large subsidies are at stake. Defective legislation and political changes led to fare-slashing and rate increases in 1981, followed by a fare increase and rate reduction in 1982. Finally (with the legal position still unclear), a new fare reduction and unprecedented rate increase occurred in 1983.

The recent attempt by a private bus operator to compete with Cardiff's city buses was a failure for the principal reason that the city was able to cut fares (increase the subsidy) on the threatened routes. It seems, therefore, that the selective subsidization of bus operations has to be discontinued if the full benefits of private enterprise in public transport are to be realized. If subsidies are to continue, they should be given to all services — not just to those operated by the public sector — and are perhaps best given in the form of aid to needy individuals, not blanket subsidies to operators.

Conclusion

If public transport is to be opened up to private enterprise, it will require imagination and determination of an exceptional degree.

Taking public transport out of its protective and inhibiting wraps is not for the faint-hearted.

For it to succeed, a much more energetic approach by private transport interests will be required. There is little large-scale transport management experience in the private sector in Britain, and planners, consultants, and government officers will have to readjust to private enterprise after thirty years of public ownership.

Transportation is the nervous system of our civilization. Without it, we are paralysed. The ownership of private cars has risen as the standard of living has improved and as people have grown steadily more alienated by urban transport systems that have become ossified through long monopoly. But because it is impossible for urban road systems to accommodate this new personal mobility in acceptable conditions, we have to devise means to move people more efficiently and economically. The sensitive integration of informal and conventional transport systems in a deregulated environment, where the market is allowed to respond to the needs of the travelling public with a bare minimum of assistance and supervision by central and local government, will go a long way towards meeting this objective.

APPENDIX 1

Shared ride policy statement by the International Taxicab Association

To conserve energy, increase productivity, and provide an alternative to the exclusive ride taxi service, the International Taxicab Association hereby states its approval and encouragement of the adoption of shared ride taxi principles to all localities where they are not already present.

The ITA proposes a massive effort, both to comply with the federal requirements of having shared ride service available as a precursor of reduced fuel taxes, but also as a recognition of the fact that there are a significant number of potential customers that may be priced out of the traditional exclusive ride taxicab market.

In many locations, regulatory change is required in order to allow taxicab operators to provide these alternative services as part of public transportation and a concerted effort of the members of ITA to move for these changes is also hereby acknowledged, and encouraged.

Basic principles of shared ride

No shared ride customer shall be charged more than an exclusive ride customer for the same trip. The shared ride trip may be provided at a reduced level of service in terms of the total trip time as measured in terms of possible time delays in either access of trip deviation.

All shared ride operations shall emphasize door-to-door, individualized service and security and safety efforts. Extra training of personnel in providing for customer safeguards should accompany each new shared ride service to offset any potential increase in in-vehicle crime or public harassment that might accompany a change to shared ride service.

Each ITA member or group of members who accomplishes the change into a working shared ride regulatory environment shall assist neighbouring taxi and paratransit companies by providing information and encouragement to neighbouring communities also attempting to change to shared ride service. Extra effort shall be undertaken on the part of each shared ride operator to document improvements of efficiency and to make the public aware of the goals of increased productivity.

APPENDIX 2

Ordinances

Extract from Chapter 28 of Chicago Municipal Code, as amended on December 20, 1979

28-29. Not more than six passengers shall be accepted for transport at one time on any trip in a taxicab: provided that additional passengers under the age of twelve years accompanied by an adult passenger shall be accepted if the taxicab has seating capacity for them.

28-29.1. Group, shared or multiple riding is prohibited in taxicabs except as follows:

(a) The passenger first hiring the taxicab may direct that he be carried exclusively or as part of a group, multiple or shared ride;

(b) The Commissioner, by regulation or rule, may designate certain places where group riding (more than one person entering at the same point and disembarking at one point) or multiple riding (more than one person entering the taxicab at the same point and disembarking at more than one point) is permissible at all times or at certain specified times and may specify the manner of charging for such trips;

(c) The Commissioner, by regulation or rule, may designate certain specified times when group, multiple or shared riding (more than one person entering the taxicab at one or more points and disembarking at one or more points) is permissible and may specify the manner of charging for such trips;

(d) The Commissioner, by regulation or rule, may designate that group riding, multiple riding or shared riding is permissible in the transportation of passengers with an affinity among them, which affinity shall be as defined in such regulation or rule, and may specify the manner of charging for such trips.

Extract from Taxicab Ordinance for the City of Knoxville, Tennessee, adopted March 22, 1977

39-600. *Ride Sharing.* It shall be the public policy to encourage and permit ride sharing to increase taxicab efficiency and to reduce the cost of taxicab operations in terms of the cost per passenger.

However, the route of the taxicab shall not deviate into more than one additional zone for the purpose of picking up a subsequent passenger. Also, a passenger shall not be required to pay an additional fare resulting from the deviation of the taxicab into an additional zone for the purpose of picking up a subsequent passenger.

39-601. *Public Contract Services.* Holders of certificates of public convenience and necessity to whom contracts for service have been awarded by the Department of Public Transportation Services shall perform such work as specified in such contracts including but not limited to feeder service to and from fixed route buses either publicly or privately owned, feeder service to or from commuter buses either publicly or privately owned, services for the elderly and the handicapped and services for social agencies.

Ride sharing and/or group riding within the limits of the taxicab, as set forth in the certificate of convenience and necessity, shall be allowed in contract services without permission of any of the passengers.

No charges shall be made to passengers for contract service except as provided for in the contract with the City for such services.

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Index

Amman 23
Argentina 60
Australia 35–37, 38, 40

Baltimore 45–46, 56
Bangkok 35, 40
Belfast 27
Black taxis 27–28
Buenos Aires 2, 7, 13, 15–16, 39, 42, 59

Caguas 29
Cairo 2, 22, 23
Calcutta 2, 16–17, 42, 59
Caracas 32
Car pools 48, 54, 55
Chicago 50, 59, 85
Colectivo 13–14
COM-BUS 52
Contract services 6, 24, 50
Cross subsidization 4, 50, 63, 68, 69, 82

Dolmus 2, 21–22, 26, 71

Empresa 15–16

Fare fixing 8, 11, 24, 27, 42, 64, 73
Fine grid scheme 51
Flat Fare system 50

Grava, Sigurd 32, 42, 44

Hilton, George 59
Hong Kong 1, 3, 7, 9, 10, 13, 42, 64, 73

Insurance 54–56
Israel 23, 32
Istanbul 2, 21–22, 42

Jeepneys 2, 18–20
Jitneys 6, 22–23, 32, 50, 56–60, 70–71, 73

Khartoum 32
Kingstown 30–31
Knoxville (TN) 52, 55, 85
Kuala Lumpur 1, 3, 11–14, 19

London 7, 22, 44, 47

Manila 2, 18, 20, 42, 59
Matatu 3, 25
Maxicabs 10–11
Meriden (CT) 49, 50–51
Minibus 1–3, 6, 8–14, 17, 21–26, 30–37, 48, 52–53, 64, 68, 70–73

Nairobi 3, 25–26, 43
New Jersey 6, 49, 55, 60–61
New York 7, 22, 47–49, 60
Norfolk (VA) 49

Orski, Kenneth 61

Pak pais 9
Part-time 26, 34, 63
Passenger miles 16, 55, 56
Phoenix (AZ) 5, 49
Pittsburgh (PA) 49, 51
Por puestos 32
Public light buses 9–12
Publicos 3, 28–30
Puerto Rico 3, 28–29, 37

Ride shared vehicle paratransit 51, 84
Route associations 2–3, 6, 15–17, 33, 41–43, 59, 79

Saint Louis (MO) 57
Saint Paul (MN) 53–54
San Diego 59
San Juan 29–37
school buses 2, 24–25, 66
Service Cars 57, 58
Shared taxis 3, 6–8, 21–22, 27–28, 48–50, 68, 70, 73, 81, 84
Sherut 23, 71
Singapore 2, 24, 32
Subscription services 6, 48, 52–53

Thailand 35
Transportation broker 52

United Kingdom 6–8, 27, 30, 34, 40–41, 44, 62–83
United States 33, 45–61, 67, 75
User-side subsidies 67–68

Van pools 6, 48, 53–56, 70, 72, 74

Washington (DC) 7, 33, 42, 48, 49
Weak routes 5, 63

Zaire 40, 60

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VES
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