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Schedule Jockeying and Route Swamping: 
A Property Right Interpretation of British Bus Deregulation

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December 1995

UCTC No. 302
The University of California Transportation Center
University of California at Berkeley
Abstract: The experience of British bus deregulation has resulted in less on-the-road competition than anticipated, and a high degree of industry concentration. We argue that the specific form of deregulation in Britain has created a property rights problem in the cultivation of passenger congregations at the curb. The result has been schedule jockeying and route swamping. From a property rights perspective, the disappointing results can be seen as a commons problem. A nuanced approach to property right at bus stops, permitting scheduled service to appropriate its investment in cultivating passenger congregations, and allowing freewheeling jitneys to compete on the route, could bring the benefits that many had expected from deregulation.

Acknowledgments: The authors would like to thank Ken Small, Charles Lave, Binyam Reja, James Nolan, Pia Koskenoja, and Teri Moore for valuable comments. For financial support, the authors thank the California Department of Transportation (contract RTA-65V450) and the University of California Transportation Center.
"The functioning of a competition...depends, above all, on the existence of an appropriate legal system, a legal system designed both to preserve competition and to make it operate as beneficially as possible."

-- Frederich Hayek, *The Road to Serfdom* (1944, 38)
Introduction

During the 1980s, in one of the most significant events in transportation policy making, Britain privatized and deregulated almost all bus services, except in London. Government officials and scholars alike have anticipated, debated, scrutinized, and reviewed the results to a remarkable and exemplary degree. Prior to deregulation, opponents of deregulation focused on issues of integrated planning, coordinated systems, and economies of density in arguing for the retention of some degree of central planning (Gwilliam, Nash, and Mackie, 1985a, 1985b; Savage, 1986). Supporters of deregulation discounted these arguments and invoked basic market principles, maintaining that free enterprise can do for bus transport what it does for other services (Beesley and Glaister, 1985a and 1985b). As it happens, the deregulated bus industry evolved in ways that surprised both camps. There have been reduced load factors, little fare competition, little on-the-road competition, and considerable market concentration.

We submit that both camps in the debate have neglected the wisdom of the opening quote from Hayek. By focusing on property rights, we can understand why the deregulation experience has been lackluster, and how it might be reformed to deliver better results. We advance the theory that the provision of a fixed-route service entails investment in the generation of passenger congregations. This investment is appropriated by picking up the passengers. The appropriability of the generation of passenger congregations is a question of property rights, rather like patent rights for an invention. It is not issues of density economies, integration, and so on, that lie at the heart of Britain’s deregulation experience, but rather the property rights that secure the ability to appropriate congregating passenger.
## Predictions Regarding Bus Deregulation

<table>
<thead>
<tr>
<th>Subject</th>
<th>Against Deregulation</th>
<th>For Deregulation</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competition</td>
<td>Deregulation will not lead to a contestable market since there are sunk costs for new operators and incumbent operators have an advantage over new entrants.</td>
<td>Deregulation will lead to a contestable market as new operators are free to enter and the law ensures they will be able to compete on equal terms.</td>
<td>Some on-the-road competition occurs, but contestability limited by schedule jockeying, 42 day wait period, and sunk costs.</td>
</tr>
<tr>
<td>Costs</td>
<td>There is some scope for cost savings, but deregulation is not necessary to achieve them. Under deregulation, most of the savings will be realized by cutting wages, to the detriment of bus employees.</td>
<td>Competition will lead to cost savings of up to 30%. While wages will probably be cut, the industry will employ more people.</td>
<td>Operating costs fell by 40 percent per bus-kilometer. Cost savings were achieved by cutting wages and employment.</td>
</tr>
<tr>
<td>Fares</td>
<td>Due to the elimination of cross-subsidy, fares will rise on many routes.</td>
<td>Competitive pressure will force fares down on many routes.</td>
<td>Fares increased 17 percent between 1987 and 1994.</td>
</tr>
<tr>
<td>Congestion</td>
<td>Congestion will be a problem as number of buses increases.</td>
<td>Congestion problems will be limited and local, and the law makes provisions for alleviating problems that arise.</td>
<td>No evidence of any significant congestion problems associated with buses.</td>
</tr>
<tr>
<td>Service</td>
<td>-Due to elimination of cross-subsidy, service levels will fall for late nights, weekends, and in peripheral locations.</td>
<td>-Local government can maintain service levels by competitively tendered contract.</td>
<td>Service levels, as measured by bus-kilometers, rose by 17 percent after deregulation. Some reductions in weekend and late-night service occurred.</td>
</tr>
<tr>
<td>Innovation</td>
<td>Innovation is sufficient in a regulated environment.</td>
<td>Deregulation will lead to greater innovation and responsiveness to customers.</td>
<td>Significant successful innovation has occurred, particularly the widespread use of minibuses.</td>
</tr>
<tr>
<td>Patronage</td>
<td>Higher fares, reduced service, unreliability and instability will lead to a decline in patronage.</td>
<td>Lower fares and improved service will increase patronage on some routes.</td>
<td>Patronage fell precisely the amount that would be expected taking into account the long term ridership trend and the increase in fares.</td>
</tr>
<tr>
<td>Integration</td>
<td>Operators will have no incentive to integrate services. This will reduce service quality and access.</td>
<td>Operators will have an incentive to integrate services if passengers want it.</td>
<td>Inter-operator trips more expensive and difficult than before, but still a small share of all trips.</td>
</tr>
<tr>
<td>Safety</td>
<td>Safety will decline as congestion increases, vehicles deteriorate, and staff training falls off.</td>
<td>Existing regulations provide for adequate safety enforcement.</td>
<td>No decrease in industry safety, despite increase in bus age and decrease in maintenance staff.</td>
</tr>
<tr>
<td>Costs of regulation</td>
<td>“Capture” of regulatory bodies is not a problem, nor are the costs of administering a competitive contract system</td>
<td>The administrative costs of regulation are high, as are those of a competitive contract system. Capture of regulatory bodies is a constant risk with regulation.</td>
<td>Government expenditures on the bus industry fell by over 50 percent, or nearly £250 million.</td>
</tr>
</tbody>
</table>

Table 1

Predictions and Outcomes of Bus Privatization and Deregulation in Britain
Background to Deregulation and Privatization in Britain

Britain had a competitive and expanding private bus industry until 1930. That year, the British government passed the Road Traffic Act, imposing a system of regulation that converted the bus industry into segmented local monopolies. By the early 1980s, buses carried one-fifth the share of travelers they carried at their peak (Banister 1985, 99). The government decided that public spending on bus transit must be reduced drastically, and in 1984 it published a White Paper calling for privatization and competition.¹

The White Paper anticipated that privatization and competition would result in lower fares, lower costs of operation, better service, increased patronage, and new operators. It also advised that some "socially necessary" services might still require subsidy, but that these services be provided privately under competitively tendered contracts. The government would mainly enforce adherence to registered routes and safety regulations.

[Table 1 here]

These proposals sparked heated debate. A series of articles, pro and con, appeared in Transport Reviews in 1985 and captured the debate particularly well.² Table 1, following Beesley and Glaister (1985b) and Mackie, Preston, and Nash (1995), summarizes the predictions from both camps. Opponents of deregulation believed that a gradual approach, retaining a degree of central planning, was better than a precipitous one. They argued that competitive contracting for bus services, by creating competition for the market rather than in the market, would capture most of the benefits and none of the disorder of full deregulation. Retaining some central control would allow authorities to avoid "bad" outcomes, and to use bus services as a policy tool for various social ends. The supporters of deregulation argued that the supposed "disorder of
deregulation” was simply planner’s angst over loss of control, and that only full deregulation would permit the industry to cope with declining patronage and subsidies. They recognized that profound change in the industry would be required, which would not likely come from continued central planning. They also pointed out that the regulator, lacking local knowledge, has great difficulty in identifying good and bad outcomes, whereas profits in a competitive market give entrepreneurs clear feedback on their decisions.

The 1985 Transport Act deregulated the British bus industry everywhere except London.3 (In London competition is required only as competitive contracting; there is no on-the-road competition.) Outside of London, publicly owned bus companies have been reorganized as private corporations. The Act requires operators to register the commencement of, or changes to, bus service at least 42 days in advance. The only grounds for local government refusal to allow a service is serious safety or traffic congestion problems. Besides privately registered routes, local authorities can supplement services by putting unserved routes out for competitive tender.

Some Basic Results: Costs, Public Funding, Service Changes, and Innovation

The last column in Table 1 summarizes the outcomes of privatization. As both sides predicted, privatization unequivocally lowered the operating costs of the industry. By 1993 the industry overall had reduced costs per bus-kilometer by around 40 percent (White 1995, 194; Mackie, Preston, and Nash 1995, 238). Firms realized cost reductions mainly by reducing wages and employment, and increasing productivity (White 1995, 194; Mackie, Preston, and Nash 1995, 238; Banister and Pickup 1990, 80). Many new bus drivers were willing to work for wages below what the public transit union had been demanding. As a Public Choice analysis would anticipate,
former public firms found plenty of "deadwood" in their supervisory staff, and also discovered that they could maintain the buses adequately with far fewer maintenance workers than had been on the public payroll. These changes had no effect on the safety of the industry (Savage 1993, 153; White 1995, 190). As a result, by 1994, total employment in the industry had declined 15 percent, but labor productivity had risen by 42 percent.

Privatization massively reduced public expenditure on the bus industry. By 1991 public support of the industry had fallen by over 50 percent--by almost £250 million. (White 1992, 50) The cut in subsidies meant that even though costs had fallen dramatically, fares had to increase. Expanding service levels (meaning more bus kilometers) on new and marginal routes also demanded higher fares. These service level increases surprised many observers, and were most welcome by passengers, most of whom had less distance to travel to the nearest bus stop. In addition, "the need to change buses for a given sample of origins and destinations was reduced" (Banister and Pickup 1990, 74).

The quest for profits galvanized the bus industry to adopt a number of innovations, the most significant being the introduction of minibuses (Gomez-Ibanez and Meyer 1990, 15; Banister and Pickup 1990, 73; Mackie, Preston, and Nash 1995, 234). The minibus enabled firms to increase service levels, and to increase productivity and reduce operating costs. Studies such as Bly and Oldfield (1986), had suggested the potential of minibuses, but only the competitive pressure of deregulation moved bus firms to adopt them.


to some
changes in the industry which were not predicted beforehand. The two most important and unexpected changes in the industry were how competition evolved, and the steady tendency towards concentration into fewer and fewer firms. The literature does not offer a complete explanation for these developments, nor does it discuss alternative forms of deregulation aside from competitive contracting. We argue that both changes can be largely explained by the form of deregulation that Britain chose.

On-the-road competition was initially strong, but it has tapered off to a level that is more than was expected by opponents of deregulation, but less than expected by supporters (Dodgson 1991, 125, Hibbs 1993, 52). Participants in the debate over privatization, however, focused less on actual competition on-the-road than on the question of contestability, or the ability of potential entry to discipline incumbent firms. The simple picture of contestability envisions potential entrants disciplining incumbents by being ready to make superior service/price offers to consumers, who in that event opt for the entrant rather than the incumbent.

There are a number of indications that contestability has been somewhat effective in the privatized British bus market. Direct competition on many routes, and the use of defensive measures by incumbent firms to fend off competition, indicate that entry has true potential, and influences the incumbent (Banister and Pickup 1990, 72; Gomez-Ibanez and Meyer 1990, 11). There is a steady, if small, flow of new entrants into the market (Banister and Pickup 1990, 72; Mackie, Preston, and Nash 1995, 241). Both White (1992, 51) and Gomez-Ibanez and Meyer (1990, 17) show that the profits of bus firms were quite small in the first two years after deregulation. One might expect that if the market were not very contestable, incumbents would enjoy some monopoly power, and higher profits.
Mackie, Preston, and Nash (1995, 232) and Dodgson and Katsoulacos (1991,265-6) argue that since direct competition in the bus market is not widespread and constant, contestability has been imperfect. They suggest that contestability is constrained by the sunk costs of establishing a scheduled service, and the "economies of experience" held by incumbent operators. Another constraint of contestability, which they do not mention, is the ability of an incumbent firm to react quickly to a competitive challenge. Contestability theory suggests that if an incumbent firm can quickly and easily reduce its fares when a competitor challenges it, would-be entrants might be reluctant to enter, even in a market with high fares (Bailey 1981; Bailey and Friedlander 1982). The challenger can no longer expect to grab market share by offering a lower price, and the incumbent has the advantage of experience, reputation, and, in most cases, size.

In fact, it has been very rare in the British experience for firms to compete by offering lower fares (Dodgson and Katsoulacos 1991, 271-2). Rather, real bus fares increased 17 percent between 1987 to 1994 (White 1995, 198). Instead of competing by offering lower fares, firms chose to offer more frequent service than their competitors. Free competition does not necessarily generate price cutting, as has been found in deregulated taxi markets (Frankena and Paulter, 1986; Teal and Berghund, 1987). It seems that information and coordination problems between drivers and potential riders may push transit markets toward a single, or focal, rate of fare.

While the two sides debate whether or not the privatized bus market is contestable, we doubt whether the simple notion of contestability really applies. People do not necessarily make a clear choice between the incumbent and the entrant; rather they merely go to the bus stop to catch the first bus that comes by.
While a clear picture of competition in the bus industry is difficult to draw, it is easier to see the increasing concentration in the industry. Mergers between large incumbent firms and small rival firms have been common, as are mergers between firms that do not directly compete against each other (Mackie, Preston, and Nash 1995, 235; Savage 1993, 147). Many of the latter mergers have been in the form of holding companies, with their subsidiaries often geographically dispersed (Gomez-Ibanez and Meyer 1990, 12-13).

The result has been a clear trend towards oligopolistic and even monopolistic operations in the industry, another important unexpected outcome of deregulation (Banister and Pickup 1990, 81; Savage 1993, 147). In many counties just a few firms control over 80 percent of the market (Banister and Pickup 1990, 81). Small operators have been progressively squeezed out of the competitive market, while finding more success in the tendered contract market.

The literature offers a plethora of explanations for this development. Hibbs (1991a, 4) suggests economies of scope and management efficiencies. Mackie, Preston, and Nash, (1995, 235-36) and White (1995, 202-3) point to financial advantages of larger firms, managerial economies of scale, and purchasing power. Gomez-Ibanez and Meyer (1990, 12-13) argue that holding companies offer many advantages, including very low costs and the ability to move vehicles and managers from subsidiary to subsidiary as market conditions dictate. They add that firms with large networks have a distinct advantage in the growing use of single-rate unlimited-travel fare cards. Nash (1988, 110) indicates that larger firms enjoy considerable economies of scope in scheduling buses and avoiding long layovers between runs. Finally, Dodgson and Katsoulacos (1991, 267) advance the notion that to some extent the managers of formerly public firms may have retained their old habits of output maximization, even though they are
inappropriate for the new goal of profit maximization. The issue of integration calls to mind yet another explanation. Dodgson (1991, 124) and Nash (1988) point out that there has been a steady decline in inter-operator ticket availability. White (1992, 56) mentions one case where the removal of schedule coordination and inter-operator ticketing led to a 20 percent reduction in ridership.4

Schedule Jockeying and Route Swamping

The literature provides detailed reports of the outcomes of deregulation, but makes little endeavor to explain it, and overlooks the very fundamental issue of being able to appropriate one’s investment in generating passenger congregations at the curb. The disappointing lack of competition in service quality and fares and the increase in industry concentration makes sense when we think of firms seeking to secure their claim to waiting passengers.

Under the British reforms, registering a scheduled service does not secure one a right to the congregating passengers at the curb. Interloping by unscheduled carriers is not permitted, but an entering firm can interlope, in a manner of speaking, by registering his own scheduled service just minutes before the scheduled service of another. The law does not proscribe this, and local authorities are obliged to allow it. Many British bus operators avail themselves of this strategy, which we call schedule jockeying (Dodgson 1993, 126; Savage 1991, 146; Gomez-Ibanez and Meyer 1990, 13). Since there is no window of security for the established firm from the schedules of competitors, congregations of passengers waiting at the curb can be snatched up by competitors offering comparable fares. Incumbent bus companies, however, quickly learned to monitor the registration of new services by competitors using this strategy, and often promptly
respond in kind. The 42-day registration period makes it easy for firms to see each other’s changes in service and to respond, in a potentially endlessly regressive. Dodgson and Katsoloucos (1991, 269) describe a typical conflict between an incumbent bus firm, Little Gem, and an entrant firm, Bee Line:

[Bee Line] started operating in South Manchester with a fleet of minibuses which soon totalled 225 vehicles. The entrant charged the same fare scale as [the incumbent]. [The incumbent’s] response was to match the entrant’s services with its own fleet of minibuses operating along very similar routes.

In the face of this prospect of mutually destructive battle, the incumbent has often responded simply by scheduling service so frequently that the challenger cannot expect to get enough riders to make a go of it. This practice, known as route-swamping, has been very common (Dodgson 1991, 126; Dodgson and Katsoloucos 1991, 269; Savage 1993, 146; Gomez-Ibanez and Meyer 1990, 13). Incumbent firms have an investment in the passengers waiting at the curb; it is the service they have been providing which draws the passengers out. Faced with interlopers engaged in schedule jockeying, route swamping is simply a means of protecting their investment. Route swamping has a twofold strategic quality: it not only drives out the current challenger, it also demonstrates a willingness to use route-swamping and thus discourages future challenges. Larger incumbent firms were known to maintain “fighting fleets” which were “available immediately to meet any competitive challenge” (Dodgson and Katsoloucos 1991, 270). The ability of incumbent firms to quickly and easily change their schedules in reaction to
entry, by virtue of the 42 day registration period, constrains contestability in the same way that easy and quick adjustment of prices does in standard contestability theory.

The British form of deregulation has created an environment where an incumbent firm’s ability to retain access to waiting passengers, and make worthwhile efforts to attract them out to the curb, depends on its ability to respond to a schedule jockeying entrant. Under current rules, registering a schedule affords the firm no right other than to operate as registered. A competitor can use schedule jockeying to snatch away the waiting passengers that the incumbent firm’s investment has brought to the curb. If the incumbent firm engages in schedule jockeying in response, the tit-for-tat conflict settles into a war of attrition between the two companies. The resulting chaos in service schedules may drive off many riders. The incumbent firm can avoid an ugly war of attrition by simply swamping the route with service. No other reasonable defensive measures are available. Waiting time so dominates passengers travel decisions that any reputation and amenity advantages an incumbent may offer are not likely to keep waiting travelers from taking the first bus to arrive (Weismann, 1981; Wachs, 1992; Dobson and Nicolaidis, 1974).

There are two indications that the incumbent’s strategy has been somewhat successful. First, while total patronage of buses has declined, the change is in line with what one would expect from the fare increase and the secular trend of bus ridership (Dodgson 1991, 123; Gomez-Ibanez and Meyer 1990, 17; White 1992, 48). Second, as White (1992, 47) points out, bus-kilometers increased 17 percent between 1986 and 1991. Much of this expansion was probably due to route swamping, and it is reasonable to assume that it means more frequent or more extensive service, which is attractive to riders.
If we accept that the ability to swamp a route is necessary to combat schedule jockeying, it is easy to see advantages in larger firms with broader networks. As Gomez-Ibanez and Meyer (1990, 13) point out, a larger company has more supervisors, drivers and buses at its disposal, which they can shift about to swamp a route where a competitor has commenced schedule jockeying. A larger firm will also have greater financial flexibility to support a route swamping strategy (Dodgson and Katsoulacos 1991, 267). Indeed, the very largeness of the firm presents a formidable warning, signaling to potential entrants that entry can and will be met by swamping.

*Curb Rights:* "to make [competition] operate as beneficially as possible."

The issue of schedule jockeying and other forms of interloping on scheduled service is like the problem of invention and imitation. Setting up scheduled service entails certain fixed costs: planning out routes and schedules, disseminating information, providing benches and shelters, and running the service before ridership has developed. The tangible achievement of this fixed cost is bringing passengers to congregate at designated sidewalk areas, just as the tangible achievement of an inventor's experiments or tinkering is a new device or process. If the provider cannot appropriate his investment, whether in creating passenger congregations or inventing a new device, because interlopers carry off the patrons or imitators copy the invention, then he will not invest in the first place. These situations call for a system of property rights.

With scheduled service, what is needed is a system of property rights, or *curb rights*, that guarantees some exclusivity to those who successfully cultivate passenger congregations. It would have to include a *temporal* element as well as the right to stop at the curb, which would eliminate the possibility of schedule jockeying. If a challenger could not schedule service within,
### Spatial Demarcation Rights

#### Temporal Demarcation of Curb Rights

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<tr>
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<th>1</th>
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<tr>
<td>A</td>
<td>A</td>
<td>Commons</td>
<td>A</td>
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<tr>
<td>B</td>
<td>B</td>
<td>Commons</td>
<td>B</td>
<td>Commons</td>
</tr>
</tbody>
</table>

- **8:00 am** to **8:15 am** and **3:00 pm** to **3:30 pm**

- **8:00 am** to **8:15 am** are **PEAK**
- **3:00 pm** to **3:30 pm** are **OFF-PEAK**

A denotes a curb right held by Company A
B denotes a curb right held by Company B

---

**Figure 1**

Property Right Assignments to Curb Zones
say, 15 minutes of an incumbent's schedule, he would have to offer lower fares or better service
to attract customers to come out for his buses at its scheduled times. This is the type of
competition that was sought by privatization.

There is no specific system of curb rights that is necessarily best for all transit conditions.
An important part of our idea is that each case is unique, and that local officials ought to use their
knowledge of local conditions to create a suitable curb rights system. A simple case would permit
both scheduled and unscheduled service providers. Figure 1 is a schematic diagram showing curb
rights as they are demarcated in both space and time. Consider first just the spatial component,
where exclusionary zones are separated by a distance. Focus your attention exclusively on the
column at the 8:00 hour. This column shows four curb zones. When we speak of "curb zones" or
"curb rights," it should be understood that we mean not only the curb, but also adjoining space on
the sidewalk and road -- in other words, a complete bus stop. The column shows how Company
A is granted two exclusionary curb zones where no other operators are allowed to pick up
passengers. Think of each exclusionary zone as being 200 feet in length, with the bus-stop
situated at the mid-point. Company A has every incentive to invest in creating passenger
congregations at its bus-stops. It would establish a route and schedule, and be free from
interloping. Yet along the same route jitney competition would operate, picking up passengers at
non-exclusive zones, or commons. At the commons, passengers have an alternative to Company
A, since most anyone may stop and offer service (including Company A).

[Figure 1 here.]

The notion of exclusionary zones may also be defined according to time intervals.
Consider now the two peak-period columns, at 8:00 and 8:15. These illustrates the idea that curb
zones may be exclusive for Company A during fifteen minute intervals, but then they become the "property" of Company B. In other respects, the system operates as it does with physical separation of curb rights. Of course, the question of enforcement is a critical concern in either case, though perhaps more difficult in the case of rights separated by time. We are optimistic, however, that various techniques, such as time-stamped video, are available to holders of curb rights to prove violations. There seems to be no serious problem in Britain at present with illegal interloping at bus stops.

This principle of exclusionary intervals speaks to the central failing of the British experience of bus deregulation: schedule jockeying and route swamping, which disrupted service and diminished competitiveness in the industry. With sufficient curb rights, incumbent firms would no longer have need nor the ability to engage in route swamping. Like an inventor enjoying a degree of patent protection, they would be able to recoup the value of any investment they make in drawing customers to the curb. Perhaps this incentive would enable bus firms to halt, or even reverse the loss of patronage.

The forces discussed in the literature that work towards greater concentration in the British bus industry would be undermined, if not eliminated, by a system of curb rights. The incentives to absorb small rivals firms to prevent their interloping would be removed, and firms would no longer need to maintain large capital and labor stocks to use in route swamping. What is more, in markets where a second provider of scheduled service might not be economically viable, the presence, or even the potential, of unscheduled service--jitneys--picking up passengers at commons zones puts market discipline on the incumbent. In essence, unscheduled service enhances both on-the-road competition and contestability.
Jitneys: A Crucial Service Made Possible by Curb Rights

British bus deregulation applies only to scheduled services, and does not permit unscheduled services, such as jitneys. By "jitneys," we mean vehicles which follow a fixed route at least loosely and a schedule at *most* loosely, and picks up and discharges per request. The legal proscription, along with the law-abiding nature of British citizens, ensures that there have been no freewheeling jitney activity, and no interloping as seen in many less developed countries (Grava, 1980; Roth and Shephard, 1984; Takyi, 1990). Takyi (1990 171) describes the jitney's appeal to riders:

They charge relatively low fares and provide wide coverage across a city, often serving poor areas that get no other service. Their operations are flexible so they can add service at peak times and quickly cover new neighborhoods. Their small size and cheap labor enables them to profitably provide frequent service in smaller neighborhoods and along narrow streets, as well as work the main thoroughfares. With fewer passengers, they often make fewer stops and faster time.

In most less-developed countries, and in a few cities in the United States, jitneys compete with scheduled bus services, interlope on their routes, and incur the wrath of the authorities. Many of the jitneys travel bus routes and pick up customers waiting at bus stops. Besides taking customers from scheduled services, jitneys develop new markets of their own. In some areas they have a clear market advantage over scheduled services. In the experience with jitneys in the
United States in 1914-16, jitneys served many who did not otherwise use the streetcars (Eckert & Hilton 1972, 296; Rosenbloom 1972, 5).

Studies by the Urban Mobility Corporation of jitney riders in Miami estimate that only about 22 percent of the jitney riders are would-be riders of the public bus system. By barring jitney services, Britain has forsaken a vibrant source of transit entrepreneurship and has missed an opportunity to improve mobility for many potential riders.

Conclusion

In the words of Gomez-Ibanez and Meyer (1990, 18), “The clearest winners from the combined package of deregulation and subsidy cuts are British taxpayers.” Even opponents of deregulation agree that there were considerable benefits to deregulating scheduled bus service in Britain. Most bus firms certainly benefited. The gain or loss to bus riders is hard to determine. Many may have lost from the fare increases or lost service, but many also gained from increased and more convenient service. A privatization scheme that created better curb rights would induce more on-the-road competition, including both scheduled service and jitneys, while avoiding schedule jockeying and route swamping.

As Gomez-Ibanez and Meyer (1990, 19) argue, there is still a significant role for government to play in ensuring competition in the privatized industry. The importance of curb rights reinforces the point. It would still be incumbent upon the government to establish curb rights, and to enforce them, even if only through the civil court system. But the animation of the market would reside in the efforts of the bus firms, jitney operators, and other entrepreneurs. Privatization has already fostered the enterprising spirit, forcing the managers of formerly public
bus companies to develop their analytic and innovative abilities (Hibbs 1991b, 205). Improving the competitive environment with a proper system of curb rights would expand and clarify the scope of the invisible hand.

ENDNOTES

1. For the history leading up to the 1985 Transport Act, see Bannister, 1985; Savage, 1993; and Hibbs, 1993.


4. Indeed, many trips using more than one carrier are more expensive than the same length trip on one carrier. Hibbs (1991a, 5) argues, however, that only a small number of trips involve a change of carrier. Yet, if firms really are unable to negotiate inter-operable ticket agreements, and this reduces ridership, there is an incentive for them to expand their network to minimize the inconvenience to riders.

5. For a more complete discussion of enforcement, see Klein, Moore and Reja, 1995.
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