The recent upsurge of interest in paratransit has raised a number of important federal policy issues and seems likely to raise a great many more in the years immediately ahead. This paper is an exploratory effort to identify several of the most important of these issues and to review significant experience to date. It is organized into 6 sections: definitions, current federal activity, taxis and paratransit, paratransit and conventional transit, labor protection, and summary and conclusion.

DEFINITIONS

Paratransit may be defined as organized ride-sharing activity in the range between (but not including) pickup car pools organized solely at the initiative of the individual members and fixed-route bus service. Its unifying characteristics, then, are (a) some degree of formal organization and (b) flexible routing to serve specific rider origins and destinations rather than simply high-demand "corridors."

The formal organization may be as limited as a car-pool matching service to help potential ride sharers find one another. The flexible routing may simply involve scheduling subscription bus stops at any point on a broadly defined "route" where 3 or 4 riders are willing to aggregate. At the other end of the range, of course, organization may be as formal as that of conventional transit and flexibility may be as complete as that of taxi service. [General agreement on a definition of the term paratransit is still lacking. Some analysts prefer a more inclusive definition than that offered here, one broad enough to include pickup car pools and even rental cars at one end of the spectrum, fixed-route (but irregularly organized) jitney service at the other. Thus, the definition offered here is not intended as authoritative, but simply as a guide to usage in the present paper.]

In short, the term paratransit includes a highly varied assortment of local transportation services, united primarily by the fact that they do not fall neatly into our familiar bimodal image of the urban transportation system. They are neither "public" in the sense of being conventional fixed-route transit services nor "private" in the sense of driver-only automobile travel, of exclusive-ride taxi service, or of car pools organized solely at the initiative of each little group of travelers.

Current law and public policy in the field of urban transportation have been shaped significantly by the familiar bimodal image. Increasingly, however, public officials are seeking, or being asked, to apply them with reference to paratransit. A central objective of this paper is to highlight the most difficult issues that have arisen in the course of this effort at adaptation.
CURRENT FEDERAL ACTIVITY

At least 4 federal agencies—Urban Mass Transportation Administration, Federal Highway Administration, Federal Energy Administration, and Environmental Protection Administration—are currently involved to some degree in the subsidization or promotion of paratransit. This multiplicity of agency involvement suggests both the range of values to which paratransit may be relevant and the difficulty of confining it neatly within existing public policy and administrative categories.

Until 1974, UMTA activity with reference to paratransit has been confined to research and demonstration projects, pursuant to section 6 of the Urban Mass Transportation Act. The first UMTA contract for dial-a-ride research dates to 1968. UMTA supported the Haddonfield demonstration from 1972 to 1974 at a federal cost of $6.4 million. And the largest single demonstration grant in fiscal 1975 ($2.6 million) was for the current dial-a-ride demonstration in Rochester.

UMTA has recently become interested in subscription bus and van demonstrations as well. Its first major grant ($1 million) for a van demonstration has recently been made to Knoxville. At least 2 other subscription van demonstration grants (totaling about $0.8 million) are expected to be made during fiscal 1976.

Special services for the elderly and handicapped have recently emerged as an important UMTA priority under sections 6 and 16b2 of the Urban Mass Transportation Act. Under section 6, it is anticipated that nearly $5 million will be committed for special service demonstration projects during fiscal years 1975 and 1976 (combined). Whereas special service projects in earlier years focused predominantly on the poor, the current emphasis is overwhelmingly on the elderly and handicapped.

Section 16b2, enacted as part of the Federal-Aid Highway Act of 1973, authorizes the use of 2 percent of UMTA's capital assistance spending authority for grants and loans to private, nonprofit entities for equipment to provide "transportation services meeting the special needs of elderly and handicapped persons." The funding level for this program during fiscal 1975 and 1976 is $22 million each year. As of October 1975, nearly 5,000 grant applications had been processed, and 1,034 grants had been approved.

The potential use of operating assistance, authorized by section 5 of the National Mass Transportation Assistance Act of 1974, for paratransit support remains to be seen. As of mid-October 1975, only about 110 of the 279 eligible regions had yet submitted applications. [UMTA officials estimate that the others have been deterred by the local matching requirement (50 percent), by the half-fare requirement for the elderly, by the planning requirements, and by the labor protection provisions of section 13c. The applications are coming in regularly, however, and UMTA expects a very high proportion of the eligible regions to obtain assistance eventually.] Because the allocation of section 5 funds among urban regions is by formula, local officials in quite a few areas are likely to find themselves with greater federal funding eligibility than can be used for existing transit service. Under UMTA regulations, they will be free to contract with taxi companies for shared-ride service and otherwise to initiate paratransit services. UMTA officials report that to date, however, few applications have included paratransit. The exceptions have focused almost entirely on special services for the elderly and handicapped.

FHWA activity in paratransit dates from enactment of the Emergency Highway Energy Conservation Act of 1973 (effective January 2, 1974). This act authorized the use of regularly apportioned Urban Systems, Urban Extension, and Urban Highway Planning funds for car-pool demonstration projects. States receive no additional money under this provision, but they are required to contribute only 10 percent of project cost rather than the normal 30 percent. During 1974, immediately after the Arab oil embargo, there was substantial state-local interest in this program, and roughly $10 million had been programmed for car-pool demonstration projects as of December 31, 1974. More recently, state and local interest has flagged; no projects have been funded during 1975.

FHWA is also responsible for the new Rural Highway Public Transportation Program enacted as section 147 of the Federal-Aid Highway Act of 1973. Congress appropriated $9.65 million for this program in fiscal 1975 and is expected to appropriate
about $20 million for fiscal 1976. The first 45 projects were selected (from more than 350 proposals) in October 1975. Most involved some degree of demand-responsive service, with the range including dial-a-ride, subscription bus, jitney, and taxi services.

FEA's interest in paratransit is focused on van pooling, with car pooling and subscription bus services as collateral but secondary concerns. FEA has concluded (a) that the best opportunities for reducing oil imports during the next decade lie in conservation rather than the implementation of new energy technologies and (b) that commuter ride sharing offers one of the best opportunities available for energy conservation.

FEA has estimated that raising average vehicle occupancy for commutation trips from the current 1.4 to 2.0 would save 350,000 barrels of oil in 1980 and that doubling transit service and ridership would save only 40,000 to 50,000 barrels a day (1). It has concluded, further, that doubling transit ridership would in fact require substantially more than a doubling of service (since the extensions would have to be into lower density areas) and would require vastly increased public subsidy expenditures. By contrast, the ride-sharing strategy would entail little public expense.

If FHWA and FEA are oriented toward marketing and technical assistance, EPA is oriented toward regulation. The Clean Air Act mandates the achievement of specific air quality standards by 1977. In 1973, EPA promulgated transportation control plans for 38 metropolitan areas that it found could not achieve compliance merely by controlling stationary source emissions and benefiting from the cleaner engines on new cars. About 20 of these entailed reductions in miles of motor vehicle travel.

Since 1973, many of the instruments EPA thought were available have fallen by the wayside. Deadlines for more stringent emission standards on new cars have been deferred; high failure rates for the equipment currently mandated have been found; it has been determined that retrofit strategies for which high hopes were held in 1973 do not merit implementation; Congress has forbidden EPA to impose tolls, parking surcharges or any other price disincentives to motor vehicle use; Congress has forbidden EPA to expend funds for the implementation of parking regulatory strategies; and federal appeals courts have handed down contradictory opinions on the question of whether EPA has authority under the Clean Air Act to require any state action whatever. (It is anticipated that a definitive Supreme Court decision on the last issue is 2 years away.)

In consequence of these developments, transportation controls have slipped toward the bottom of EPA's priorities, as may be imagined. At the present time, all transportation control strategies requiring state action (e.g., inspection and maintenance of emission control equipment), vehicle retrofit, parking controls, or surcharges have efficiently been suspended. The main strategy that EPA continues to press, though on a limited scale, is ride sharing.

In Greater Boston, for example, which has 1 of the 7 transportation control plans currently in effect, an earlier plan required large employers to enforce ride sharing and transit use by cutting back their provision of free employee parking by 25 percent. The current plan requires

1. All employers of more than 50 persons to make "good faith" efforts to promote ride sharing and transit use by their employees;
2. All employers of more than 250 persons to provide a car-pool matching service for their employees; and
3. All employers of more than 1,000 persons to set up a van-pool program as well for their employees.

Potential penalties are being played down, and it appears that EPA is unwilling to undertake litigation over noncompliance, but the official EPA posture is that employers who fail to comply are still subject to heavy fines (up to $25,000 a day).

In short, the EPA stick is no longer very frightening, but it can provide a useful mechanism for commanding the attention of employers and public agencies.
TAXIS AND PARATRANSIT

The thorniest single issue posed by the emergence of paratransit is the role of the taxi in the transit field. The issue is not whether the taxi has an important role to play in urban transportation; it clearly does. Nor is the issue whether taxis can perform certain paratransit functions effectively; again, the answer is clearly affirmative. It is rather, first and foremost, whether certain types of taxi service fit within the legal definitions of mass transit and are thereby entitled to certain rights under the mass transit act.

According to industry estimates, the taxi industry nationally carries half as many passengers as all forms of urban transit combined, generates twice as much passenger revenue, and employs 3 times as many people (2, 3). These figures are at substantial variance with some others that are available. For example, the Nationwide Personal Transportation Survey conducted by the Bureau of the Census for FHWA in 1969-1970 reported as follows (4, Appendix C, Tables 1 and 11; 5, pp. 25, 28, 33):

1. Nationally, taxicabs account for 0.3 percent of personal travel, buses other than school buses for 2.7 percent, and rapid transit for 0.7 percent; and
2. In incorporated places, taxicabs account for 0.3 percent, buses other than school buses for 4.0 percent, and rapid transit for 1.1 percent. [These figures do include intercity bus trips (about 10 percent of the national bus total), but they exclude commuter rail trips (roughly half as numerous as intercity bus trips).]

Similarly, whereas the International Taxicab Association (ITA) estimates that taxicab employment on December 31, 1973, was 494,208 (6,467 operators), the Bureau of the Census reported 104,352 employees in 1972 (5,098 reporting units) (2, 3). The census figures exclude counties with under 100 taxicab employees, but this would hardly seem to account for the difference.

The key question, however, is not the number of taxi trips but the nature of taxi service. There is general agreement among federal officials that traditional exclusive-ride taxi service should not be brought within the legal definition of transit. There is fairly widespread consensus, moreover, that group-ride service should not be brought within the definition so long as the decision whether to take on additional passengers is up to the patrons already on board.

The taxi industry appears to have growing interest in more advanced conceptions of shared-ride service; it is already providing a great deal of "contract" or "subscription" group-ride service. It is also under great pressure, as an unsubsidized industry, to increase its revenues without driving off substantial numbers of patrons; it is increasingly concerned about the potential of subsidized paratransit, when operated by others, to drain its revenues (2, Table 2.1; 6, Table II).

National data on the provision of shared-ride service are lacking, but the obvious case that cannot be ignored is Washington, D.C. Taxi drivers in the District of Columbia are now authorized to pick up as many passengers as their cabs can seat, and most of them seem quite energetic about doing so. Are they providing transit service? Should they be entitled to compensation if conventional transit innovations, such as the opening of Metro, drain their revenues? Should taxi employees be entitled to the protection of section 13c of the National Mass Transportation Assistance Act of 1974?

The case is not entirely clear-cut. Washington cabs do provide service "on a regular and continuing basis," as required by section 12c5 of the Urban Mass Transportation Act of 1964. Moreover, the act's definition of mass transit does not even specify that such service must be provided on a group-ride basis. [The entire text of section 12c5 reads as follows: "The term 'mass transportation' means transportation by bus, or rail or other conveyance, publicly or privately owned, which provides to the public general or special service (but not including school buses or charter or sightseeing service) on a regular and continuing basis."] Just as it has seemed commonsensical since 1964 for UMTA to exclude taxis generally from eligibility for protection and assistance under the act (with rare exceptions, as described above), it now seems commonsensical to exclude exclusive-ride taxi service. And UMTA has discretion, of
course, in deciding what to subsidize. But certain other rights under the act are outside UMTA's discretion, and it is these with which we are mainly concerned here.

The basis for continued exclusion of the D.C. cabs would seem to be as follows: (a) The drivers are not obligated to pick up additional passengers beyond the first, and (b) potential riders are not guaranteed service. The first is clearly true, but the economic incentive for drivers to pick up additional passengers going in the same general direction is overwhelming. The second would seem to be no more true of D.C. cab service than of dial-a-ride services that have been implemented to date. If one phones, and cabs are available, one can get service (aside from illegal refusals to go into certain high crime areas). As for street-hail demand (only about 15 percent of estimated demand nationally), it is typically not available at all in dial-a-ride operation.

It is unclear how much "subscription" group-ride service is now provided by taxi companies to employers, social service agencies, groups of commuters, and others. But it is clear that this service is almost universally available on request. Moreover, taxi operators maintain at least some special vehicles for the provision of such services requiring more than a normal-sized taxi. The ITA study (2, Table 5.2) found that the 667 operators surveyed used 343 limousines, 234 minibuses, and 156 regular buses (other than school buses). Needless to say, however, size of vehicle is not the key desideratum.

The economic status of the taxi industry is highly unclear. What is clear, however, is that paratransit can be highly competitive with taxi service. UMTA recognized this in undertaking the Haddonfield dial-a-ride demonstration and agreed to compensate the local taxi company for lost revenue. In El Cajon, California, subsidizing one of the two local taxi operators to provide dial-a-ride service caused the other to withdraw most of his vehicles to another location and reduced the regular taxi business of the subsidized operator by about half (7).

More generally, groups that are potential candidates for special paratransit service constitute a large portion of the taxicab market. Persons over 60 years of age constitute 10 percent of the national population, but they accounted in 1969-1970 for 22 percent of taxi patronage. Persons with family income under $5,000 constituted 16 percent of the population, but accounted for 25 percent of taxi patronage (8, Tables 3.1 and 3.9).

At least some leaders of the taxi industry have become highly alert to the threats and opportunities posed by the growing interest in paratransit. Nowhere has this process proceeded further than in California, where 2 state courts have held in 1975 that dial-a-ride is competitive with taxi service and where taxi operators reportedly maintain a lobbyist in Sacramento to protect their interests.

The California court decisions have been based on the specific enabling statutes of the Santa Clara County and Orange County transit districts. The key provisions, which appear in nearly all of the state's recent transit district statutes, specify that, before the district can establish a service that would compete with service provided by an existing public utility, it must purchase the existing service. (The older transit enabling statutes, such as that of the Alameda-Contra Costa Transit District, created in 1955, do not contain these provisions, and San Mateo County managed to have taxis excluded from protection in its 1974 transit enabling act. Apparently, San Mateo County caught the taxi industry asleep, but the current expectation is that no further exclusions will be authorized by the California legislature.) Santa Clara and Orange Counties both took the position that taxi operations were not "public utilities," but the California courts ruled otherwise. In the Santa Clara case, the court ruled that the companies were entitled to damages as well for the period that the public dial-a-ride service had operated in violation of the statute. An appraisal is currently in progress to determine the amount of damage that they suffered. (The companies claim that their business declined by 30 percent, but Santa Clara officials expect to contest this figure.) As is well-known, Santa Clara County chose to terminate most of its service rather than buy out the taxi companies. Two of the companies are now appealing the superior court decision, however, insisting that the statute provides only for purchase, not damages. They want to be bought out, even now that the dial-a-ride competition has been terminated. [The Orange County decision, handed down in September, did not include an
order for damage payments. It simply gave the county until December to discontinue
dial-a-ride service or to purchase the affected taxi companies. Parenthetically, the
Orange County Transit District enabling act specifies that purchase shall be for a price
not less than each company's average annual gross revenues for the past 3 years. This
provision was inserted at the request of transit companies whose market value was
virtually nil, but whose gross revenues were substantial. Should the county choose
to purchase the taxi companies involved in the current dispute (something that seems
highly unlikely at this writing), this provision would of course vastly inflate their value
as well.]

The California legislature's aim in enacting these anticompetitive provisions was
reportedly to protect existing transit operators. There are 3 operators, for example,
in Santa Clara County. Now that the courts have applied the provisions to taxi compa­
nies, however, and the taxi operators have mobilized politically to protect their vic­
tory in the legislature, it is generally accepted that the taxi companies will henceforth
be covered in California—except where local transit enabling statutes enacted in earlier
years fail to include what have now become the standard protective provisions. Need­
less to say, this is likely to have an extremely chilling effect on the development of
dial-a-ride as a publicly operated service. Whether many transit districts will re­
spond by contracting with taxi companies for the provision of dial-a-ride service re­
 mains to be seen. It is unknown how many other states have competitor protection
provisions in their transit enabling legislation that their courts might interpret sim­
ilarly to those of California.

Federal law clearly does not protect private competitors as strongly as does Cal­
ifornia law. It has been federal policy, however, since the beginning of the transit
program to participate in the cost of buying out private transit companies threatened
by publicly subsidized competition.

Section 3e of the Urban Mass Transportation Act of 1964 provides that federal aid
may not be used to acquire or compete with a "private mass transportation company"
unless

1. The Secretary finds that such assistance is essential to a program . . . for a unified or offi­
cially coordinated urban transportation system as part of the comprehensively planned develop­
ment of the urban area,

2. The Secretary finds that such program, to the maximum extent feasible, provides for the
participation of private mass transportation companies, (and)

3. Just and adequate compensation will be paid to such companies for the acquisition of their
franchises or property to the extent required by applicable State or local law.

The UMTA position, upheld in 1968 by a federal appeals court, has been that this
section does not entitle private companies to utilization, compensation, or taking (9).
It simply requires the secretary to make findings with respect to the adequacy of local
planning and the "feasibility" of making greater use of private operators. At the time
of enactment of this section in 1964, it seems clear that Congress expected public ac­
quissions to be few (10, ch. 2, p. 14). In practice, however, the trend has been over­
whelmingly toward public takeover since 1964. UMTA's official posture has been one
of neutrality as between public takeover and subsidization of private companies, but it
has leaned strongly against proposals that threatened to drain the revenues of private
operations without compensating or acquiring them. UMTA officials believe that this
policy bears significant credit for permitting the rapid growth and widespread accept­
ance of the federal transit program. It is extremely unfair, they emphasize, for
government to upset a competitive balance without providing just compensation to those
harmed.

Except in the Haddonfield demonstration, however, UMTA has interpreted section
3e as applying solely to providers of conventional transit services. Taxi companies
have been explicitly excluded from protection or compensation under the act. This in­
terpretation was highly plausible as long as everyone understood that "transit" meant
fixed-route service and "taxi" meant demand-responsive, flexibly routed, exclusive­
ride service. As transit policy expands to include demand-responsive, flexibly routed
service, and as taxi companies provide (or express a willingness, if permitted by reg­
ulators or given transitlike subsidies or both, to provide) group-ride service, it is
likely to require intensive reconsideration.

This will be increasingly the case as aggrieved taxi operators can point to cases
throughout the country in which transit agencies have contracted with taxi companies
to provide paratransit services. It bears note, finally, that, whereas most disputes
involving competition between conventional transit operators have involved partially
duplicative service on separate (though parallel) routes, taxi and transit companies
typically have franchises that directly overlay one another, i.e., both can plausibly
lay claim to precisely the same turf.

In short, the emergence of paratransit poses the issue of taxi-transit competition
in a direct manner; it brings into question the legal and policy definitions of the term
"transit" that have guided federal policy during the past dozen years; and it raises a
host of extremely difficult questions about how to integrate taxicabs into transit plan­
ning, transit subsidy policy, and publicly subsidized competition.

PARATRANSIT AND CONVENTIONAL TRANSIT

Demand-responsive transit, as a subcategory of paratransit, does not in principle
pose significant challenges to federal policy regarding competition among transit ser­
VICES. Van-pool and special services, however, do pose some intriguing issues, and
it is on these that I shall focus in this section.

Van-pool service in its "pure" form is organized by an employer for his or her own
employees, uses vehicles owned or leased by the employer (generally, with a carrying
capacity of 7 to 15 passengers), and uses drivers who are themselves commuters.
Driver compensation is typically in the form of free-fare commutation, the right to
vehicle use evenings and weekends, and retention of the fares above a specified num­
ber. There is increasing interest, however, in "third-party" van-pool service, orga­
nized by others than employers or organized by one employer (e.g., in an industrial
park) on behalf of many. Insofar as such third-party services partake of the other
van-pool characteristics, they are a cross between van-pool and subscription bus ser­
VICES as generally understood.

The greatest successes of van pooling to date have been to large single-employer
locations relatively poorly served by transit; and the riders have been predominantly
long-distance commuters who were among those working at these locations with the
least opportunity to commute by transit. The potential of van pooling to compete di­
rectly with transit cannot be denied, however, and this potential may have to be ad­
dressed by public policy to the extent that public funds are used for the promotion or
subsidization of van pooling and that third-party van operations are held to be subscrip­
tion transit services, partaking more of the character of regulated common carriers
than of private car pools or of services provided by private employers for their own
employees.

FEA and FHWA officials view ride-sharing options, from car-pooling to third-party
van service, as the most promising low-cost opportunities to reconcile energy conser­
vation and several other public objectives (e.g., pollution control, congestion relief,
greater economy in the transportation system) with the proclivities and life-styles of
the American people. They see potential competition with mass transit as a peripheral
issue and any involvement with local transit agencies as likely to be counter-productive.
Their disposition is to urge elimination of the regulatory impediments to ride sharing
and to confine the public role to one of promotion and technical assistance. They see
no need for direct public subsidy, for ride-sharing costs are low even when vehicle
depreciation is taken into account. The need, they feel, is simply to spark widespread
interest in the idea, to create a favorable climate of opinion among employers and em­
ployees, to show interested providers how to establish van-pool operations, and to
eliminate outmoded regulations.

At UMTA, by contrast there is substantially greater concern about potential com­
petition. Losses of patronage and rapidly growing deficits are the specters constantly
on the transit horizon, and UMTA officials would like to find means of exploiting the full potential of ride sharing without compounding these problems.

UMTA has not been involved to date in regionwide promotions of car pooling and pure van pooling. It has rather focused its attention on third-party ride-sharing arrangements. Here its orientation is toward having public agencies—either transit agencies themselves or other units working in tandem with transit agencies—play the organizing role. UMTA officials view this as desirable both to achieve a comprehensively planned and coordinated urban transportation system and to ensure that direct competition between van-pool and conventional transit services is minimized.

The main van-pool demonstration undertaken by UMTA to date is in Knoxville. It involves organization of the van-pool services by the city of Knoxville. It will include service into the downtown area, but apparently efforts will be made to avoid serving employees who are well-served by existing transit routes. UMTA is currently planning 2 further demonstrations—in Norfolk and Indianapolis—that would entail organization of the van-pool activities directly by the transit operator. In none of these cases does UMTA plan to subsidize the services directly. Federal assistance will be used, rather, to provide "front" money for the purchase of vans and for start-up administrative and planning costs.

Special services for the elderly and handicapped present a somewhat more difficult set of issues, because they clearly require heavy public subsidization and because Congress has already mandated a heavy commitment to them.

Travel data on the handicapped are lacking, but the elderly, it should be noted, do not account for a terribly large percentage of transit patronage—though they themselves are more reliant on transit than younger people. The explanation for this apparent contradiction is that individuals 60 years of age and older account for only 10 percent of all person trips. Thus, despite their relative dependence on transit, they account for only 15 percent of transit trips (4, Appendix C, Table 2). Fifteen percent is far from a negligible proportion, however, and the figure is doubtless much larger in those many urban areas where transit has ceased to serve a major commuter function and is mainly concerned with providing service to transit-dependent groups.

The problem would doubtless be minimized if special services were provided by existing transit operators. Transit operators have never shown much taste for this function, however, and Congress has now directed that the main program of special service assistance—section 16b2—channel its resources to private nonprofit entities. Section 13c labor protection has been suspended with reference to this program, and competitive transit operators probably have little hope in most jurisdictions of securing compensation for lost business. (Though several suits have been threatened, it seems clear that local transit operators have no claims of compensation under federal law. Nor do they have a veto over grant applications, despite the fact that UMTA's guidelines for section 16b2 applications state that they should be accompanied by letters of endorsement from the local transit operators. Where the local transit operator refuses to endorse an application, the state and UMTA remain free to go forward—and they have done so in numerous cases.)

Problems with section 16b2 may be compounded further if the idea of providing special service recipients with taxi vouchers is widely accepted. In Danville, Illinois, where an important demonstration of this concept is scheduled to begin shortly, no regular transit service exists. UMTA hopes to mount a demonstration within the next year or so, however, that would enable recipients to spend their vouchers on either transit or taxi service. A central purpose of such a demonstration would be to determine impacts on the patronage and revenues of each mode.

UMTA's own approach to voucher programs, then, is one of highly cautious interest, restrained by awareness of the competitive issues that remain to be resolved. The idea is highly attractive from a recipient standpoint, however (though most general policy analysts would prefer a simple program of income maintenance to a series of programs distributing vouchers for special purposes, such as food and transportation). Thus, like section 16b2, it might well at some point attract a substantial commitment of public resources, at the urging of groups representing the elderly and handicapped, without positive backing from UMTA or other elements of the traditional transit constituency.
In short, paratransit innovations raise numerous difficult transit policy issues. What types of services should be eligible for public subsidy? What types of public action should be viewed as constituting subsidies (e.g., shared-ride promotional, technical assistance, and start-up assistance activities)? To what extent should the virtues of comprehensive planning and coordination be sought, by comparison with those of the free market? To what extent should government respect the turfs of existing service providers, even at the cost of failing to provide adequately for the mobility of disadvantaged groups? Where government does play a role in generating competition with existing providers, under what circumstances and to what extent should it compensate them?

LABOR PROTECTION

This is not the place for a full review of the legislative and administrative history of section 13c. [An excellent brief study, never published, was conducted in 1971 by Wayne L. Horvitz for the U.S. Department of Labor. Another study was that by Jefferson Associates (10). In addition, several studies are currently in progress under U.S. Department of Transportation contracts.] By way of background to the following discussion of section 13c applications to paratransit, however, the following key points should be borne in mind:

1. The essence of section 13c is that no employee shall have his or her conditions of employment worsened as a result of federal transit assistance. Where, however, such worsening cannot be avoided, affected employees are entitled to compensatory benefits no less than those that have evolved pursuant to section 52f of the Interstate Commerce Act for the protection of railroad employees. The benefits provided by section 52f are among the most generous available in the American economy, but section 13c specifies that they are only a floor. The Secretary of Labor is authorized, as he may deem appropriate, to require more generous protective arrangements.

2. Section 13c was organized labor's price for enactment of the original mass transportation act in 1964. It is abundantly clear from the legislative history that the act could not have passed without it. More recently, the provisions of section 13c have been applied by Congress in the High Speed Ground Transportation Act of 1965, the Rail Passenger Service [Amtrak enabling] Act of 1970, the Juvenile Justice and Delinquency Prevention Act of 1974, and the Nurse Training Act of 1975. In both of the latter "human service" acts, the issue was fear on the part of organized labor that government might support efforts at de-institutionalization. The point to note here is that congressional support for the principle of section 13c—that government money should not be used to harm employees—appears today to be more deeply embedded in the governmental fabric than ever.

3. Responsibility for determining that the provisions of section 13c have been satisfied rests with the Secretary of Labor, not the Secretary of Transportation. The intent of Congress in making this assignment was clearly to ensure that labor relations rather than transportation considerations would predominate in the resolution of difficult cases.

4. Section 13c is silent on the subject of how the "fair and equitable arrangements" required to be certified by the secretary shall be arrived at. Building on the legislative history, however, and on the long administrative history of section 52f, the Department of Labor has sought to base section 13c determinations wherever possible on agreement of the parties. This policy has angered many transit grant applicants, but it does appear to be the most reasonable interpretation of the intent of Congress. The department has been on much less firm ground, however, in its failure to promulgate criteria for section 13c bargaining, because the legislative history seems to be as clear on the expectation of criteria as on the expectation of bargaining.

The Senate Banking and Currency Committee Report on S.6, which became the basis for the mass transportation act, stated with respect to section 13c that
The Committee does not believe that it is feasible to enumerate or set forth in great detail the provisions that may be necessary to assure the fair and equitable treatment of employees in each case. In this respect it is expected that specific conditions normally will be the product of local bargaining and negotiations, subject to the basic standard of fair and equitable treatment. The committee expects that the Secretary of Labor . . . will assume responsibility for developing criteria as to the types of provisions that may be considered as necessary to insure that workers' interests are adequately protected . . . .

In his study for the Department of Labor, Wayne L. Horvitz concluded his review of the legislative history as follows:

The legislative history therefore is replete with emphasis on local bargaining as the desirable basis for reaching agreement on the substantive provisions that must be included in any 13(c) agreements, with the importance of 5(2)(f) as a legislative floor and a mandate to the Secretary of Labor to exercise broad administrative judgment . . . "and to develop criteria as to the types of provisions that may be considered as necessary . . . ."

5. Section 13c applies to "employees affected," not simply to affected transit employees. As a matter of practice, however, the transportation and labor departments have interpreted section 13c as applying only to transit employees.

6. The practical requirements of section 13c have evolved, and become more stringent, over time. In the first year or so of the transit program, the Department of Labor accepted simple applicant certifications that no employees would be adversely affected. Then for a brief period the requirement of bargaining was applied only with reference to the employees of a transit organization receiving the federal aid. During the legislative history of section 13c, however, Secretary of Labor Willard Wirtz had stated that the provision would cover employees of an existing system adversely affected by publicly aided competition. In 1967, the department applied this principle as its condition for approving a state of New Jersey commuter railroad application, and it has been established policy ever since.

The most difficult question to arise since 1967 has yet to be resolved. It is whether, and under what circumstances, taxi employees should be deemed eligible for section 13c coverage. This issue is discussed further below.

7. In order for section 13c to apply, it is necessary only that employees be potentially affected. It is not necessary to show that they will be affected. Indeed, the normal objective of section 13c bargaining is to ensure that they are not affected in practice. Thus, any determination that a new group of employees may potentially be affected by specific types of projects—e.g., taxi employees by paratransit projects—would tend to require their involvement in section 13c bargaining prior to the award of all such project grants.

8. The determination of whether an employee has been adversely affected by a project is a finding of fact, to be made by an arbitrator. The question of whether a given change was caused by the project or by other factors—e.g., changes in general travel patterns, fiscal austerity—frequently admits of no definitive answer. The guiding principles under section 13c, however, are (a) that the burden of proof is on the grant recipient and (b) that the recipient is liable if the project is found to bear any part of the blame. In short, where ambiguity is present, section 13c applies.

9. Transit labor is highly organized and relatively well-compensated. According to the American Public Transit Association (11, Table 11), average annual compensation (excluding fringe benefits) in the industry totaled $12,849 in 1974 (APTA is currently gathering data on fringe benefits for the first time in preparation for the next edition of the Transit Fact Book). Transit earnings are slightly higher than the average for all private sector workers and for all manufacturing workers. They are lower than the average for public utility workers (telephone, electric, gas, sanitation, and water supply). Surprisingly, these relations have not changed significantly during the period since 1948. Considering the economic weakness of transit as an industry, of course, and its 38 percent employment decline since 1950 (versus a 70 percent patronage decline), this maintenance of relative earning position may be viewed as a highly successful performance.
Taxi employees seem to earn about half as much as transit employees on the average. In 1970, for example, at a time when transit wages nationally averaged about $4.90 an hour, a survey (8, Table 1) of 27 taxicab fleet operations revealed that driver commissions average $1.79 an hour. If the commission figure is increased by 15 percent of average total receipts per person hour ($4.13) to include tips (both figures exclude fringe benefits), the taxi earning figure rises to $2.41. [The average annual wage income of transit workers in 1970 was $9,230 (11, Table 11). I have assumed that the average employee worked 220 eight-hour days, plus an average of 1/2 hour overtime for each day worked, for a total of 1,870 hours. Average wage income per hour, based on this admittedly rough estimate, was $4.94. Needless to say, the average base wage was lower than this figure, because some hours were paid at split shift, overtime, holiday, and other increased rates. Taxi commission rates are generally constant, however, no matter how many hours are worked or when they are worked. Thus, the most meaningful comparison is one based on average income per hour worked.]

Let us turn now to a review of section 13c experience with respect specifically to paratransit. Transit labor has consistently supported UMTA's activity in support of the development of demand-responsive transit. In 1969 and 1970, when UMTA's interest in dial-a-ride temporarily flagged, the Amalgamated Transit Union on several occasions publicly urged the UMTA administrator to move full speed ahead. The ATU viewed dial-a-ride as a rare transit innovation that was labor intensive and as one that might (by greatly extending the range of trip types and areas that could feasibly be served by transit) greatly increase transit employment opportunities.

The ATU has not completely soured on dial-a-ride, but its initial enthusiasm has given way to extremely cautious skepticism. Existing transit employers have shown virtually no interest in dial-a-ride, largely because of its extremely high cost (frequently higher than exclusive-ride taxi service) when operated with unionized transit labor. Demand-responsive transit has been developing, therefore, primarily outside the scope of existing transit, using unpaid labor or labor paid at substantially below prevailing transit rates. Union leaders worry that such competition may undermine existing labor standards, may drain patronage from existing transit operations, and may draw public subsidy dollars away from conventional transit.

By contrast, the primary concern of federal officials is what the impact of paratransit development may be on the scope of section 13c coverage—particularly, on the issue of taxi employee coverage. To the extent that UMTA funds are used in support of taxilike operations, or of operations that are clearly competitive with taxi service, the case for exclusion of taxi employees from section 13c protection is weakened. The issue goes well beyond that of how to draw the boundary between transit and nontransit common carrier operations, because the decisive test under section 13c is simply adverse impact, not definition as transit.

UMTA's policy to date has been as follows. It has refused to fund the purchase of taxis, and it has sought to avoid funding paratransit in ways that would raise new issues of labor protection. In both the Haddonfield and Rochester dial-a-ride demonstrations, for example, it has employed unionized transit labor, paid prevailing wage rates, and gone along with existing work rules except as the unions themselves agreed to minor modifications. The Rochester demonstration, run by the regional transit authority with regular transit employees, is considered by organized labor as the very model of how dial-a-ride should operate.

Because of its desire to press ahead with paratransit innovation, however, UMTA has been unable entirely to avoid setting precedents that may contribute in time to the broadening of section 13c coverage. As noted previously, the local taxi company was compensated for lost revenue in the Haddonfield demonstration. Shared-taxi operations are benefiting from UMTA support in the West Virginia and Danville, Illinois, demonstration projects. And the Knoxville van-pool demonstration has produced a new landmark in transit labor protection.

Section 5 and section 16b2 programs also seem destined to involve a great deal of taxilike and taxi-competitive service. UMTA's discretion with respect to what is funded under these programs is far less than in the capital grant program. The funds
are distributed to geographic jurisdictions by formula, and the basic determinations of which services to assist are being made by state and local officials. UMTA can, and will, refuse to approve proposals that violate its definition of "mass transportation," but it cannot avoid addressing the tough questions of where to draw the boundaries if these are thrust up by the states and localities.

As noted previously, the first round of section 5 applications includes several proposals for support of shared-ride taxi service, and the section 16b2 program will predominantly involve demand-responsive services—some of which are likely to prove competitive with existing transit and taxi carriers. Section 13c does not apply to the section 16b2 program, and therefore no specific labor protection precedents will be set in connection with it. All of these programs, however, are establishing new understandings of what transit is. If shared-ride taxi and van operations are eligible for transit subsidization, one cannot plausibly argue that their employees are ineligible for section 13c protection. It is just one small further step to agree that shared-ride operations with heavily subsidized fares are generally competitive in some degree with transit and taxi operations serving the same areas.

Federal officials who think about these matters are as concerned about the difficult new substantive issues that would be posed by extending section 13c coverage to taxi employees as they are about the additional cost that such coverage would entail. The most salient of these issues are as follows.

1. Many taxi drivers are independent contractors. They lease vehicles and pay for dispatching services, but then they keep all the revenues they take in. The trend in the taxi industry is to extend this mode of operation because (a) it eliminates the need to worry about driver cheating, (b) it eliminates the need for certain expenditures (e.g., workmen's compensation), (c) it reduces record-keeping requirements, (d) it may discourage unionization, and (e), even if not, it greatly reduces the number of bargaining issues. Because it enables them to be their own bosses, apparently many drivers like it as well. The problem: There are no section 13c precedents for dealing with such an "employment" arrangement.

2. Many taxi drivers are part-timers who have other jobs, and turnover is high. Thus, there is great uncertainty as to the degree of protection they merit—by comparison with transit and railroad employees who have a career stake in their jobs—and there is bound to be greater difficulty in determining base-period employment circumstances than in cases involving transit employees. On the other hand, parenthetically, it is recognized that some taxi drivers do spend decades at it.

3. A significant proportion of driver earnings are in tips. These may be underreported on income tax forms, but they are likely to be overreported in section 13c complaints.

4. Because taxi earnings are so much lower than transit earnings and because the 2 sets of employees are represented by different unions, prevailing wage rate issues are likely to be exacerbated by the inclusion of taxi employees within the coverage of section 13c, and jurisdictional battles for new paratransit work may be intense.

5. Should it once be established that paratransit is competitive with all or some categories of taxi service, a fresh look might be taken at the impact of conventional transit improvements on taxi patronage. No one knows what such an examination might uncover. It is hard to believe, though, that a project like the Washington, D.C., Metro will not have some impact on the taxi business. The D.C. downtown minibus demonstration of 1963-64, with a 5-cent fare, reportedly produced an 18 percent decline in taxicab volume along the minibus route (12, p. 31). This is not to say, of course, what the impact on taxi patronage was, but it certainly suggests that there was some impact. Under section 13c, it is not essential for employees to show that they will be affected in order to be eligible for pregant guarantees against adverse impact. It is only essential to show that they might conceivably be affected.

In short, any future inclusion of taxi employees under section 13c seems likely to impose vast new complexity on transit program administration.

U.S. Department of Labor officials are concerned, naturally, less with what such
inclusion might do to the transit program than with the question of what their immediate policy should be. An internal department study of taxi-transit relations and of the taxi labor force is currently in progress. Interestingly, there is no indication of taxi union agitation (let alone legal action) to obtain section 13c coverage.

Thus far in this section, we have focused on the potential scope of section 13c coverage. Let us turn now to a review of key substantive issues with respect to paratransit and section 13c.

It seems generally agreed that representatives of organized labor have 3 main objectives in dealing with paratransit. First, they would like existing transit operations to provide the service. Second, they would like the members of existing transit unions to have first bidding rights for any new jobs that are created. Third, whether or not their own members do the work, they want prevailing union rates and work rules to apply, lest the positions of their members be jeopardized by cut-rate local competition.

As noted previously, the easy (which is to say, least controversial) section 13c cases involving paratransit have been those in which (a) all 3, or at least the latter 2, of these objectives were satisfied—most notably, the Haddonfield and Rochester dial-a-ride demonstrations; or (b) no local transit bargaining unit existed—notably, the Danville taxi voucher demonstration. The other cases of federal involvement in paratransit have been dealt with in one or more of the following ways.

1. A "fence" has been established to demarcate noncompetitive jurisdictions for the transit and paratransit modes. In some cases the fence has involved geographic boundaries, in others agreement on the specialized type of paratransit service to be provided. Two recent examples are the DAST project in Delaware and a special service for the handicapped and elderly provided by the Tri-County Metropolitan Transit District of Portland, Oregon.

2. Agreement has been sought on the basis of the paratransit operation paying prevailing union rates. One example is the Ocean County, New Jersey, area, which is attempting to provide new fixed-route and limited demand-responsive service and refuses to pay what the unions representing interstate carriers claim is the prevailing rate. Another example is occurring in Montgomery County, Maryland, where officials refuse to consider high labor rates of the regional transit authority as prevailing. Both situations are deadlocked.

3. The transit bargaining unit has been guaranteed maintenance of its overall employment level during the length of the federally assisted project. The Knoxville vanpooling program negotiated the first section 13c agreement guaranteeing the size of the bargaining unit and guaranteeing to maintain existing levels of transit service for 4 years.

4. Agreement has been reached to defer the key issues to another day. Union officials do not believe van pooling, for example, should be federally funded. However, since it is not a major phenomenon, they have adopted a wait-and-see attitude.

5. After initial federal action deemed to be exempt from section 13c coverage, Congress has amended the law to make section 13c apply to the Model Cities program, which was originally not subject to its requirements. Several Model Cities programs posed a threat to several transit systems, and section 13c restrictions were written into the 1973 amendment to the original enabling legislation.

6. It has been determined that section 13c currently does not apply.

The only such program within UMTA is the section 16b2 program of capital assistance for the provision of special service to the elderly and handicapped. The section 16b2 regulations were not promulgated until early 1975, too late for organized labor to challenge them in Congress during development of the National Mass Transportation Assistance Act of 1974. Labor representatives were angry at the section 13c waiver, particularly because they were not consulted about it in advance. Even they are daunted by the thought of dealing with the great mass of section 16b2 grant applications, however, and they are reluctant to appear before Congress as enemies of the elderly and handicapped. Thus, the current labor posture with respect to section 16b2 is one of watchful waiting.
Outside of UMTA, the Rural Highway Public Transportation Program (in FHWA) and the car-pool and van-pool efforts of FHWA and FEA are beyond the scope of section 13c. For the moment none of these is perceived to involve significant labor protection issues.

SUMMARY AND CONCLUSION

The most significant points that appear to emerge from the preceding analysis are the following.

Current law and public policy in the field of urban transportation have been shaped significantly by a bimodal conception of urban travel arrangements. Paratransit services, though varied themselves, have in common that they do not fit neatly within the traditional categories of "public" versus "private" transportation. Consequently, the emergence of paratransit as an important category of urban travel arrangements poses a host of difficult legal and policy issues.

The thorniest single issue posed by the emergence of paratransit is the role of the taxi in the field of mass transit. The issue is not whether the taxi has an important role in urban transportation, nor whether taxis can perform certain paratransit functions effectively. It is, rather, whether certain types of taxi service fit within the legal definition of mass transit and are thereby entitled to certain rights under federal and state law.

Federal policy has recently been evolving toward the recognition of shared-ride taxi service as eligible for assistance under the Urban Mass Transportation Act. There are still unresolved questions, however, about where to draw the line within the category of shared-ride service. A key issue is the amount of discretion that the driver may have in deciding when to pick up additional passengers.

The taxi industry in fact appears to have growing interest in shared-ride service, and it already provides a great deal of "contract" or "subscription" group-ride service. It is also increasingly concerned about the potential of subsidized paratransit, when operated by others, to drain its revenues.

It seems clear that paratransit can be highly competitive with taxi service. UMTA recognized this in agreeing to compensate the local taxi company for lost business during the Haddonfield dial-a-ride demonstration. In El Cajon, California, subsidized dial-a-ride service operated on contract by a private taxi company appears to have cut deeply into regular taxi business. And 2 California courts have recently held that dial-a-ride service is competitive with taxi service.

In short, the emergence of paratransit raises a host of difficult questions about how to draw the precise boundary between private and mass transportation, about how to integrate taxis into transit planning, about the eligibility of shared-ride taxi service for transit subsidies, and about public policy with respect to the fair treatment of private companies harmed by publicly subsidized competition.

Paratransit also poses significant issues of potential competition with conventional transit. This is particularly so with respect to van-pool and special services.

The greatest successes of van pooling to date have been to large single-employer locations relatively poorly served by transit. The potential of van pooling to compete directly with transit cannot be denied, however, and it may have to be addressed by public policy to the extent (a) that public funds are used for the promotion or subsidization of van pooling and (b) that third-party van operations are held by regulatory bodies to be subscription transit services.

FEA and FHWA officials, on the whole, seem unworried about potential van-pool competition with transit, disinclined to engage in direct public subsidy of van-pool operations, and disposed toward concentrating on promotion and the elimination of regulatory impediments.

UMTA officials, by contrast, are concerned about potential competition with transit and would like to find means of integrating van pooling with transit operations. Whereas FEA and FHWA have concentrated to date on regionwide promotion of car pooling and employer-sponsored van pooling, UMTA has focused in its demonstration planning on
publicly organized van-pool arrangements. Its aims are achievement of a comprehensively planned and coordinated urban transportation system and minimization of direct competition between van-pool and conventional transit services.

Special services for the elderly and handicapped present an even more difficult set of issues because they clearly require heavy subsidization and because Congress has mandated a heavy commitment to them. The major federal program providing assistance for such services, moreover, specifies that service must be provided by private nonprofit entities rather than by transit or other public agencies.

Special services will tend to be demand responsive and to compete at least in some degree with both taxi and conventional transit operations. The problem for conventional transit will be compounded if the idea of providing special service recipients with taxi vouchers catches fire. UMTA has recently awarded a grant to Danville, Illinois, for the provision of such service, but Danville has no conventional transit service. So the toughest issues of transit-taxi competition in the special service arena have not yet had to be faced. They may emerge as quite significant in the relatively near future, however.

Finally, paratransit has come to be widely recognized during the past year as posing the most unsettled issues in the arena of section 13c labor protection.

Existing transit employers have shown virtually no interest in providing dial-a-ride or special services. Demand-responsive transit has been developing, therefore, primarily outside the scope of existing transit, using unpaid labor or labor paid at substantially below prevailing transit rates. Union leaders worry that such competition may undermine existing labor standards, may drain patronage from existing transit operations, and may draw public subsidy dollars away from conventional transit.

By contrast, the primary concern of federal officials is what the effect of paratransit development may be on the scope of section 13c coverage—in particular, on the issue of taxi employee coverage. To the extent that UMTA funds are used in support of taxilike operations, or of operations that are clearly competitive with taxi service, the case for exclusion of taxi employees from section 13c protection is weakened. The issue goes well beyond the question of how to draw the boundary between transit and taxi service because the decisive test under section 13c is simply adverse impact, not definition as transit.

UMTA has sought to avoid funding paratransit in ways that would raise new issues of labor protection. For a variety of reasons, however, it has been unable to do so entirely. Thus, as noted previously, the local taxi company was compensated for its losses to dial-a-ride in Haddonfield. Shared-taxi operations are benefiting from UMTA support in 2 current demonstration projects. And the Knoxville van-pool demonstration has produced a new landmark in section 13c labor protection: guaranteed maintenance of the overall level of transit employment, as opposed to the positions of individual employees.

Section 5 and section 16b2 programs also seem destined to involve a great deal of taxilike and taxi-competitive transit service. UMTA's discretion with respect to what is funded under these programs is far less than in the capital grant program. Though it can and will refuse to fund services that violate its definition of mass transportation, UMTA will have difficulty in these formula programs steering clear of all projects that raise difficult issues of competition.

Employment conditions in the taxi industry are strikingly different from those in the transit industry. Thus, it seems likely that any general extension of section 13c coverage to taxi employees would impose vast new complexity on transit program administration.

In short, paratransit not only poses serious challenges for transit policy makers, but it poses some of them in ways that federal officials may be unable to resolve or avoid by their own actions. Paratransit is not simply a new opportunity; it is also a significant new force. Where it will find its channels in our bimodal framework of urban transportation law, policy, and institutions and what the implications will be for the cost, quality, and range of available urban transportation services are fascinating but currently unanswerable questions. It is essential that they be addressed, however, lest they ultimately be answered by drift rather than by conscious negotiation and choice.
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REFERENCES