Transportation Policy

Robert A. Katzmann

EDITOR'S NOTE

The complex mesh of private and public systems of transportation is an essential component of our societal infrastructure. Usable public and private transportation systems are particularly important for persons with disabilities for whom driving a car may not be a viable option. Exercising the right to pursue employment in a discrimination-free environment and to utilize accessible services is a vacuous opportunity if there is no usable transportation to that job or service.

With a gradual phase-in of accessibility requirements, the Americans with Disabilities Act (ADA) ensures that the building and updating of systems will take place in a manner that renders them accessible and distributes the costs over time. With more than a decade of experience in developing accessible transportation for persons with disabilities (e.g., the Washington, D.C., and San Francisco Metro systems), we have significant experience to build on.

Robert A. Katzmann has contributed one of a handful of comprehensive disability policy studies to the field: Institutional Disability: The Saga of Transportation Policy for the Disabled, *published by the Brookings Institution 1986. In this article he picks up where the Brookings book left off, analyzing both the transportation-related requirements of the ADA and the relevant regulations issued by the Department of Transportation. Katzmann has been associated with the Brookings Institution in Washington, D.C., since 1981 as a research*

associate and senior fellow. He is currently a visiting fellow in the Brookings governmental studies program and is president of the Governance Institute, a nonprofit organization focusing on law and policy making. Fortified by a Ph.D. in government from Harvard University and a J.D. from Yale Law School, Katzmann has written a number of books on regulation, judicial-congressional relations, and court reform.

If persons with disabilities are to be wholly integrated into society—if they are to enter the work force to the fullest extent possible and to enjoy their rights of citizenship more generally—then they must have access to transportation. Yet, a segment of the American population has been thwarted from using transportation because the public and private sectors have not taken their needs into account. Over the last 20 years, society has decided to remedy this circumstance. How and at what level are highly debatable (Berkowitz 1987; Katzmann 1986; Percy 1989; Skotch 1989; Zola 1989). Policy has been far from consistent, moving back and forth between concepts of "effective mobility" and "full accessibility." The former seeks to provide transportation by any presumably practical mode, and would accept special transit service, even if it were not integrated. The latter maintains that each individual has a right to be fully integrated into society, and thus integrated transportation must be available to everyone. With the passage of the Americans with Disabilities Act (ADA), the federal government has moved decisively to support the full-accessibility conception, significantly extending it to both the public and private spheres.[1]

Our discussion will cover the following points: (1) what we know; (2) the requirements of the ADA; (3) the historical regulatory context; (4) DOT regulations regarding the acquisition of vehicles (based on a full review of the regulatory docket); (5) the regulatory challenge; and (6) what research tells us.

WHAT WE KNOW: A SUMMARY

In summarizing "what we know" about transportation policy for persons with disabilities, we could as aptly describe "what we don't know." For the most part, information gathering and rigorous analysis has followed the passage of the ADA rather than preceded it. A recent

Project ACTION study went so far as to claim that, with respect to transportation needs, "there is no solid data base for identifying persons with disabilities" (Project ACTION 1990). However, some comments are in order about the population of persons with disabilities and the views of the community of persons with disabilities, manufacturers, and operators.

POPULATION

The last comprehensive Department of Transportation (DOT) survey of persons with disabilities was undertaken in 1977 (Cannon and Rainbow 1980; U.S. Department of Transportation 1978). It identified a total population of 7.4 million persons over the age of five who live in urban areas and are constrained to some extent from using public transportation. Of that total, 1.4 million were unable to use public transit at all. More recent national surveys, although not specifically dealing with transportation, suggest that the population is higher than the 1977 survey would indicate (National Center for Health Statistics 1984). As it undertakes its regulatory responsibilities consistent with the ADA, DOT, through its consultant, David Lewis, expects to draw upon data prepared for the Canadian Health and Disability Survey (Hickling Consultants 1984; Lewis 1984). That study found that an estimated 0.11 percent of the general population cannot be expected to use an accessible bus, even if access to and from the bus stop were not a problem. Among this group, 0.03 percent could use paratransit without traveling in the company of an attendant, whereas 0.04 percent could only use paratransit if accompanied by an attendant. If each of the 0.04 percent is accompanied by an attendant, the total eligible group is 0.11 percent of the population, according to the study.

VIEWS OF PERSONS WITH DISABILITIES

Nationwide, persons with disabilities are very much concerned about the lack of adequate transportation services. The Harris Survey of Disabled Americans, for example, reported that 28 percent of nonworking people with disabilities asserted that a dearth of accessible or affordable transportation was an important reason why they were not employed (Louis Harris and Associates 1986).

MANUFACTURERS

Anecdotal evidence indicates that, where the incentive exists, usually in the form of governmental requirements, manufacturers can be spurred to develop accessible vehicles. Certainly, over the last several years, there has been a variety of technological advancements. The absence of standards for securement devices, however, has complicated the task for manufacturers seeking to create accessible vehicles.

TRANSIT OPERATORS

Localities vary in the nature and level of transportation services. Some cities, for instance Denver and Seattle, are widely regarded as leaders in providing accessible fixed-route bus services. Nationwide, 35 percent of the national transit fleet was equipped with accessible features in 1990, according to DOT (U.S. Department of Transporation 1990b).

Cost estimates for implementing the transportation requirements of the ADA vary. Nationwide, DOT calculates that the lift-equipped buses will range from $675 million to $735 million over 30 years on a present-value basis (U.S. Department of Transportation 1990a). The American Public Transit Association, representing local mass-transit systems, estimates that the costs of lifts fall somewhere between $10,000 and $15,000 per bus, with an additional $1,000 to $8,000 per year, per bus, in operating and maintenance costs (U.S. Congress 1990). At the same time, various consumer groups assert that the costs are considerably less.

The cost of paratransit varies, depending upon the amount of time in advance services must be reserved (generally referred to as "response time"). DOT estimates that the provision of paratransit services on a 24-hour response-time basis nationwide would cost $1.1 billion.

Many private operators assert that the costs of complying with the ADA, added to other economic woes, could force them to cease operations altogether. Greyhound, for instance, has calculated annual costs stemming from the ADA in the range of between $40,4000,000 and $133,200,000 (U.S. Congress 1990).

Estimates of costs of rail-transit accessibility also differ, ranging from $21,334,057 (ten-year annualized) to $72,669,809 (ten-year realized) (Reuter 1990). Some rail systems, for example, Washington, D.C.'s METRORAIL and San Francisco's BART are already in full compliance with the ADA.

THE HISTORICAL REGULATORY CONTEXT

DOT has, since 1976, promulgated a series of regulations to implement section 504 of the Rehabilitation Act of 1973, section 16 of the Urban Mass Transportation Act (UMTA) of 1970, and related statutes pertaining to transportation for persons with disabilities (Katzmann 1986). Section 504 declared that "no otherwise qualified handicapped individual in the United States . . . shall solely by reason of his handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activities receiving Federal financial assistance."[2] Section 16 of the 1970 UMTA decreed as national policy that "elderly and handicapped persons have the same right as other persons to utilize mass transportation facilities and services, that special efforts shall be made in the planning and design of mass transportation so that the availability to handicapped persons of mass transportation which they can effectively utilize will be assured."[3]

The first set of regulations, embodying the effective mobility approach, required that federally supported local governments make "special efforts" to provide transportation for such persons.[4] A few years later, in 1979, the department changed course, adopting a policy of full accessibility, pursuant to section 504 of the Rehabilitation Act of 1973; regulations would have required the purchase of accessible buses and the retrofitting of rail mass-transit systems.[5] A successful court challenge to those regulations by the transit industry, contending that the department went beyond its authority by imposing "undue financial burdens" on transit authorities, led in 1981 to an interim rule that resurrected the 1977 special-efforts approach.[6] Dissatisfied with the interim rule, Congress added a new section 16(d) to the UMTA Act in 1983, requiring the DOT to issue a new rule setting out minimum service criteria for transportation for persons with disabilities (although the law did not mandate comparable service or equal access to transit for persons with disabilities).[7]

In 1986, the department issued a rule, implementing the statute, consisting of six service criteria to measure adequate service.[8] To resolve the "undue burdens" problem, which led the court to strike down the 1979 section 504 regulations, the regulations included a "cost cap." That is, a transit authority did not have to spend more than 3 percent of its operating budget to satisfy the rule, even if, as a consequence, the transit authority did not completely satisfy all the service criteria.

The United States Court of Appeals for the Third Circuit concluded

in 1989 that, although the department could take costs into consideration in formulating the rule, the 3 percent cost cap was arbitrary.[9] According to court order, the department agreed to issue a final rule, consistent with the Third Circuit opinion, by September 21, 1990.

At the same time that the litigation was winding its way through the courts, disability groups were pressing for passage of what would become the Americans with Disabilities Act. The Bush administration's decision to support those efforts led DOT to broaden its commitment to persons with disabilities. DOT anticipated the ADA when, in response to the Third Circuit opinion, its notice of proposed rule making, on March 26, 1990, stated support for policies requiring all new buses to be accessible, and supplemental paratransit that was comparable to service for the general public for persons who could not use the fixed-route transit service.[10] DOT also announced that it intended to address problems of undue financial burdens of supplemental paratransit.

THE REQUIREMENTS OF THE ADA

With enactment of the ADA, these policy pronouncements became law. Titles II and III of the Act are most concerned with transportation.[11] The Act defines "fixed-route system" as a system of providing public transportation on which a vehicle is operated along a prescribed route according to a fixed schedule; and "demand-responsive system" as any system that is not a fixed-route system.

TITLE II—PUBLIC TRANSPORTATION

Title II provides that "no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity."[12] A "qualified individual with a disability" is defined as "an individual with a disability who, with or without reasonable modifications to rules, policies, or practices, the removal of architectural barriers, or the provision of auxiliary aids and services, meets the essential eligibility requirements for the receipt of services or the participation in programs or activities provided by a public entity."[13] A "public entity" means any state or local government, any instrumentality of a state or local govern-

ment, the National Railroad Passenger Corporation, and any commuter authority (as defined by the Rail Passenger Act). The title also pertains to intercity rail.

Fixed-Route Systems. The Act does not require the retrofitting of existing buses, but does mandate that all new vehicles purchased or leased by a public entity, operating a fixed-route system, be accessible. Moreover, the public entity must make "demonstrated good faith efforts" when purchasing or leasing used vehicles.[14] The law also holds that a public entity operating a fixed-route system, other than a system that solely provides commuter bus service, must offer paratransit and other special transportation services to individuals with disabilities. That level of service must be "comparable to the level of designated public transportation services provided to individuals without disabilities using such a system;" or, in the case of response time, "comparable to the extent practicable, to the level of designated public transportation services provided to individuals without disabilities using such system."[15] Not later than one year after the effective date of the law—July 26, 1991—the Secretary of DOT is to issue final regulations implementing the paratransit section.

Paratransit. Those eligible for paratransit and other special transportation services, to be provided by public entities, are persons who are "unable, as a result of a physical or mental impairment and without the assistance of another individual" (except a wheelchair lift operator or other boarding assistance device) "to board, ride, or disembark from any vehicle on the system which is readily accessible to and usable by individuals with disabilities." Also eligible are individuals for whom accessible fixed-route transit is not being provided, although such service could be used if available; and persons with disabilities who have "specific impairment-related condition[s]" that prevent them from "traveling to a boarding location or from a disembarking location on such a system." Paratransit eligibility criterion also applies under this law to one other individual accompanying the person with the disability, and to other companions, provided that space is available and other people with disabilities are not displaced.[16] Proponents of this last eligibility criterion argued that persons with disabilities must have the opportunity to travel together with friends and business associates in order to achieve integration into society.

In a section entitled "undue financial burden limitation," the legislation provides that when it is demonstrated to the satisfaction of the Secretary that the provision of paratransit and other special transporta-

tion services would impose an undue financial burden on the public entity, then it will "only be required to provide such services to the extent that providing such services would not impose such a burden."[17]

Demand-Responsive Systems. With respect to demand-responsive systems, the ADA declares that it "shall be considered discrimination . . . [for a public entity] to purchase or lease a new vehicle . . . for which a solicitation is made after the 30th day following the effective date [of this law] . . . that is not readily accessible to and usable by individuals with disabilities . . . unless such a system, when viewed in its entirety, provides a level of service to such individuals equivalent to the level of service such system provides to individuals without disabilities."[18]

Bus Lifts. When bus lifts are unavailable for new buses, the Secretary may grant the public entity temporary relief if that entity shows that it made good-faith efforts to locate a qualified manufacturer in sufficient time to comply with the solicitation, and that further delay in purchasing new buses would "significantly impair transportation services in the community served by the public entity."[19]

New Facilities and Alterations. New facilities used in the provision of public transportation must also be accessible. The law further states as a general rule that "[w]here the public entity is undertaking an alteration that affects or could affect usability of or access to an area of the facility containing a primary function, the entity shall also make the alteration in such a manner that, to the maximum extent feasible, the path of travel to the altered area, is readily accessible to and usable by individuals with disabilities . . . where such alterations to the path of travel or the bathrooms, telephones, and drinking fountains serving the altered area are not disproportionate to the overall alterations in terms of cost and scope (as determined under criteria established by the Attorney General)."[20]

Special Rules for Rail Stations and the One-Car-per-Train Rule. "Key" rapid-rail and light-rail stations (with the DOT Secretary determining the criteria for key stations) are to be accessible as soon as practicable, but "in no event later than the last day of the 3-year period" beginning on the effective date of the law. However, with regard to "extraordinarily expensive structural changes," the Secretary may extend the three-year period up to a 30-year period, but by the last day of the 20th year following the date of the Act's passage, "at least $^2/_3$ of such key stations must be readily accessible to and usable by individuals with disabilities."[21] As a general rule, a public entity must provide "at least one vehicle [car] per train that is accessible to individuals with

disabilities . . . as soon as practicable but in no event later than the last day of the 5-year period beginning on the effective date" of the act.[22] No later than one year after the date of the ADA's enactment—July 26, 1991—the Secretary is to issue implementing regulations.

Intercity and Commuter Rail Transit. Some of the requirements for rapid-rail and light-rail transit also apply to intercity and commuter-rail transit—for instance, the one-car-per-train rule and provisions for alterations of primary-function areas. New intercity cars must be "readily accessible to and usable by individuals with disabilities;"[23] purchase or lease of any new rail-passenger car for use in inaccessible intercity-rail transportation for which a solicitation is made 30 days after the effective date of the section shall be considered discrimination. Single-level coaches are to provide a number of spaces to park and secure wheelchairs (to accommodate persons who wish to remain in their wheelchairs) equal to not less than one-half the number of single-level rail-passenger coaches in such train, and space to fold and store wheelchairs (to accommodate individuals who wish to transfer to coach seats) "equal to not less than one-half of the number of single-level rail passenger coaches in such train."[24] These coaches are also required to have a restroom accessible to individuals who are wheelchair users. These provisions must be in place as soon as practicable, but in no event later than five years after the enactment of the ADA.

The law also addresses food service on these intercity and commuter-rail trains. For instance, table service in single-level dining cars shall be provided to a passenger who uses a wheelchair, with appropriate auxiliary aids and services (to ensure equivalent food service to individuals with disabilities), if the car adjacent to the end of the dining car through which a wheelchair may enter is itself accessible to a wheelchair, space to park and secure a wheelchair is available in the dining car at the time such passenger wishes to eat, "or space to store and fold a wheelchair is available in the dining car at the time such passenger wishes to eat (if such passenger wishes to transfer to a dining-car seat)."[25] Unless it is "not practicable," a car that is accessible to wheelchairs should be placed adjacent to the end of a dining car.

The ADA requires a purchaser or leasor of used rail cars to make "demonstrated good faith efforts" in obtaining vehicles that are readily accessible to and usable by individuals with disabilities.[26]

All existing intercity rail stations are to be readily accessible to individuals with disabilities no later than 20 years after the passage of the Act. "Key" commuter rail stations (as designated by the commuter

authority in consultation with individuals with disabilities) are to be accessible no later than three years after the ADA's enactment, although the Secretary of Transportation may extend the deadline "where the raising of the entire passenger platform is the only means available of attaining accessibility or where other extraordinarily expensive structural changes are necessary to attain accessibility."[27] These parts of the law concerned with intercity and commuter rail transit are effective 18 months after the date of the ADA's enactment.

TITLE III—PRIVATE ENTITIES

Title III of the ADA contains sections forbidding discrimination in certain public transportation services provided by private entities: "No individual shall be discriminated against on the basis of disability in the full and equal enjoyment of specified public transportation services provided by a private entity that is primarily engaged in the business of transporting people and whose operations affect commerce."[28] The term "specified public transportation" means "transportation by bus, rail, or any other conveyance (other than by aircraft) that provides the general public with general or special service (including charter service on a regular and continuing basis)."[29]

Discrimination includes the imposition or application of eligibility criteria that screen out or tend to screen out an individual with a disability, "unless such criteria can be shown to be necessary for the provision of the services being offered;" the failure to make reasonable modifications, provide auxiliary aids and services, and remove barriers; and the purchase or lease of a new or remanufcatured rail passenger car that is not accessible to and usable by individuals with disabilities. Moreover, with regard to discrimination, the legislation includes a special rule for vans with a seating capacity of fewer than eight passengers. Such vans need not be accessible if the van is to be used solely in a demand-responsive system, and if the private entity can demonstrate that the system for which the van is being purchased or leased, when viewed in its entirety, provides a level of service to individuals with disabilities equivalent to the level of service provided to the general public.[30] The DOT Secretary is to issue regulations implementing this part of the ADA not later than one year after the date of its enactment.

Over-the-Road Buses. The ADA charges the Office of Technology Assessment (OTA) with undertaking a comprehensive examination of

over-the-road bus service. In conducting the study, OTA is to establish an advisory committee, consisting of private operators and manufacturers of over-the-road buses, persons with disabilities, and technical experts. OTA is also to provide a preliminary draft of the study to the Architectural and Transportation Barriers Compliance Board; any written comments made by the board within 120 days after its receipt of the draft study are to be incorporated as part of OTA's final study. Within 36 months after the ADA's enactment, OTA is to submit the study and recommendations, including options for legislative action, to the president and Congress. Not later than one year after the submission of the study, the Secretary is to issue regulations pertaining to over-the-road bus service. Regulations for "small providers of transportation" (as defined by the DOT secretary) will take effect seven years after the ADA's enactment, and for "other providers of transportation," six years after that date. If the president determines that compliance with the DOT's regulations will result in "a significant reduction" in intercity over-the-road bus service, then the chief executive shall extend the relevant deadlines by one year.[31]

DOT REGULATIONS REGARDING VEHICLE ACQUISTION

Since the passage of the ADA, the Department of Transportation has issued two sets of final regulations. The first directly responds to the 1989 ruling of the U.S. Court of Appeals for the Third Circuit.[32] The second seeks to implement those portions of the ADA of 1990 that require private and public transportation providers to acquire accessible vehicles beginning August 26, 1990.[33]

In the first set of regulations, the DOT deleted the cost cap, which provided that a transit authority did not have to spend more than 3 percent of its operating budget to comply with the 1986 rule, even if, as a result, the transit authority did not fully meet all of the service criteria for transporting persons with disabilities. The effect of the new rule is to require UMTA recipients that have a special service system to meet all service criteria, regardless of the cost. The rule also contains a "maintenance-of-effort" provision, requiring any UMTA grantee that changes the mode of service from special to accessible to maintain at least its current level of special service. This amendment "is intended to prevent a transit authority from eliminating or severely curtailing para-

transit service, only to have to build it up again when the department's rule implementing the ADA's supplemental paratransit requirement goes into effect."[34]

The second set of regulations, issued the same day as the first, is consistent with the ADA's requirements for acquiring accessible vehicles, beginning August 26, 1990. DOT makes it clear that the rules apply to both public and private entities that offer transportation service, whether or not they are primarily engaged in providing those services. A private entity contracting with a public entity "stands in the shoes of the public entity."[35]

As part of its nondiscrimination provisions, DOT rules state that each covered entity shall train and supervise personnel to operate vehicles safely and treat individuals with disabilities in a "courteous and respectful way."[36] Those entities are also charged with ensuring that adequate assistance and information about the service is available to individuals, including those with vision or hearing impairments.

Regulatory sections for the purchase or lease of new vehicles by public entities operating fixed-route systems track the ADA, as already described: After August 25, 1990, any new vehicle that is purchased or leased by public entities has to be accessible. The regulations follow the ADA's requirements for granting a temporary waiver to purchase lift-equipped buses, but adopt language that better fits the relationship among lift manufacturers, bus manufacturers, and the public authority. One of the ADA's statutory conditions for granting a waiver—that a public entity has made good-faith efforts to locate a qualified manufacturer to supply the lifts—assumes a direct relationship between the transit provider and the lift manufacturer. "In fact, it is the bus manufacturer, rather than the transit provider directly, which would have the task of looking for a supplier of lifts to meet the transit provider's specifications."[37]

To ensure that the waiver provision does not create a loophole, the regulations make clear that relief will only apply to a particular procurement, and only on a temporary basis. Vehicles purchased under a waiver must be capable of accepting a lift, and that lift should be installed as soon as it becomes available.[38]

In the case of purchase or lease of used vehicles by public entities operating a fixed-route system, DOT notes the ADA's "demonstrated good-faith efforts" exception to the requirement. Good-faith efforts include specifying accessible vehicles in bid solicitations; engaging in a *national* search for accessible vehicles during which specific inquiries are

made to other transit providers; advertising in trade publications; and contacting trade associations.[39]

With regard to remanufactured vehicles, DOT, interpreting the ADA's "to the maximum extent feasible" proviso, determined that "it shall be considered feasible to remanufacture a bus or other motor vehicle so as to be readily accessible to and usable by individuals with disabilities including individuals who use wheelchairs, unless an engineering analysis demonstrates that including accessibility features required [by the regulations] would have a significant adverse effect on the structural integrity of the vehicle."[40]

In its regulations, DOT also fleshed out the requirements for the purchase or lease of new vehicles by public entities operating a demand-responsive system for the general public. As the department interpreted the ADA, a demand-responsive system was defined as one that a user must request before it is provided. Thus, a vehicle used in "fixed route service (even if as part of a mixed fixed route/demand responsive system) meets the requirements of other sections for the acquisition of fixed route systems."[41] Moreover, the regulations state that a demand-responsive system, "when viewed in its entirety, shall be deemed to provide equivalent service if the service available to individuals with disabilities, including wheelchair users is provided in the most integrated setting feasible and is equivalent to the service provided other individuals with respect to the following service characteristics: (1) Response time; (2) Fares; (3) Geographic area of service; (4) Hours and days of service; (5) Restrictions based on trip purpose; (6) Availability of information and reservations capability; and (7) Any constraints on capacity or service availability."[42]

DOT regulations also specifically cover private entities, including those not "primarily engaged" in the business of transporting people. The "primarily engaged" test, the DOT preamble notes, "distinguishes between entities whose principal business is providing transportation (e.g., a charter bus company) and entities whose provision of transportation is tangential to their main business (e.g., airport shuttles operated by hotels, customer and employee shuttle services operated by private companies or shopping centers, shuttle operations of recreational facilities such as stadiums, ski resorts, zoos, and amusement parks.)"[43]

The section applies different requirements depending upon whether vehicles with a certain seating capacity are involved. A private entity that is not primarily engaged in transporting people, which operates a

fixed-route system and makes a solicitation after August 25, 1990 to purchase or lease a vehicle with a seating capacity of 16 passengers (including the driver), must ensure that the vehicle is readily accessible to and usable by individuals with disabilities. Such an entity is not to purchase a vehicle with a seating capacity of 16 passengers or less (including the driver) unless the system, "when viewed in its entirety, ensures a level of service to individuals with disabilities, including individuals who use wheelchairs, equivalent to the level of service provided to individuals with disabilities."[44]

The criteria for "equivalent service" are the same as those for public entities operating a demand-responsive system, except that for fixed-route service, schedules/headways (that is, the interval between buses on a route) are substituted for response time. Private entities operating a demand-responsive system are held to the same criteria when seeking to purchase or lease a new vehicle with a seating capacity in excess of 16 passengers (including the driver). A private entity that is "primarily engaged" in transporting people and makes a solicitation to purchase or lease a new vehicle ("other than an automobile, a van with a seating capacity of less than eight persons, including the driver, or an over-the road bus")[45] must ensure that the vehicle is readily accessible to and usable by individuals with disabilities. Where that entity operates a demand responsive system, it can purchase a new vehicle that is not readily accessible to and usable by individuals with disabilities, if it offers equivalent service.

DOT's regulations with respect to rapid-and light-rail systems and intercity and commuter rail service[46] closely follow the ADA, as discussed earlier.

THE REGULATORY CHALLENGE

The critical challenge is to ensure that the ADA is implemented in ways that achieve its goals. The focus will continue to be on the regulatory process—mainly DOT—as the legislative framework of the ADA is translated into specific policies (Katzmann 1990).

In determining how best to devise regulations, it would be useful to draw upon rigorous studies about experiences under previous regulations. Although there are a number of surveys and valuable case studies, there are no comprehensive analyses of transportation policy for

persons with disabilities, a situation that DOT is seeking to remedy through its recent commissioning of a study. The task of implementing the ADA is more difficult because of the absence of fundamental information about the population to be served, the needs of particular geographic regions, or the services in those regions. We can, for example, be only highly speculative as to cost. Of course, the nature of costs changes as technological developments make improvements available at a lower price.

Still, we can say a good deal about the challenge ahead and the problems to be confronted. We will discuss some of these problems and in the succeeding section will highlight various research findings that could be helpful in analyzing these issues.

DOT'S ACQUISITION OF VEHICLE RULES

An important unresolved issue is how transit providers should address nonstandard or nontraditional wheelchairs or mobility devices (for instance, three-wheel scooters, unusually heavy electric wheelchairs, and devices with cambered or small wheels). Transit authorities point to a variety of problems: many scooters are not readily securable by some types of securement systems, others lack arm rests to stabilize sideward motion of the occupant; some device/passenger loads are too great for some lifts; various securement systems do not work adequately with light-weight chairs, power wheelchairs that have four small wheels, and small stroller-type chairs used for children with disabilities.

Transit authorities deal with these problems in at least two ways: some have found or devised securement systems (typically four-point belt systems or combined wheel-clamp and belt systems) that can restrain a variety of mobility devices; others either refuse to carry scooters and nonstandard devices or else require the passenger to transfer out of his or her own device to a vehicle seat.

Many persons with disabilities charge that it is discriminatory for transit providers to require securement for mobility device users when they do not make such demands on other persons (for instance, standees, people with grocery carts and packages, infants in strollers).

The ADA mandates that the Architectural and Transportation Barriers Compliance Board (ATBCB) complete standards for lifts by April 1991. Those standards should resolve some of the issues by setting requirements for the dimensions and weight bearing capacity of lifts. Once the lift standard is promulgated, DOT will still have to deter-

mine, as a policy matter, whether transit providers should be required to transport other types of mobility devices, and under what criteria. Other standards may not be ready for some years. While DOT and ATBCB are addressing these issues, they should refer to the work of organizations like the International Standards Organization, Society of Automotive Engineers, and the National Highway Traffic Safety Administration, and study the efforts to develop standards in Australia and a number of European countries. Moreover, further tests of non-standard mobility devices and securement systems need to be done.

In order to address the issue of providing services in a nondiscriminatory manner, we need more data from communities about the training of personnel.

PARATRANSIT

The ADA defines who is eligible for paratransit services, but service criteria for paratransit are still undefined. Some of the criteria of the 1986 rules provide a point of departure: no restrictions or priorities can be based on trip purpose; hours and days of service availability will be the same as on the fixed-route bus system. Two unresolved issues have to do with criteria based on *fare* and *response time*.[47]

At least two approaches might be taken with regard to *fare* criterion. One, following the 1986 rule, would require that fares for supplemental paratransit be comparable to the fares charged a user of the fixed-route system for a trip of similar length at a similar time of day. This approach would not necessarily require equal or equivalent fares. Rather, fares could be different based on the differences between special-service and fixed-route systems. In this formulation, DOT would apply a rule of reason: for example, a $1.50 paratransit fare might be thought comparable to an 80-cent bus fare, but a $20 paratransit fare would not.[48] A second approach would maintain that the fare for paratransit service could not exceed the fare on the fixed-route system for a trip of comparable length at the same time of day.

A variety of approaches might be taken to *response time*. One approach, following the 1986 rules, would mandate a 24-hour response time. Another would be for the department to mandate a shorter response time—for instance, eight or four hours, or a time equivalent to bus headways on the relevant bus route at the requisite time of day. As the supplemental paratransit system develops, response times could shorten over a period of years. DOT has relied on studies indicating

that the costs of providing paratransit may increase significantly as response times fall below 24 hours. DOT estimates, for instance, that requiring response time in 2 hours, rather than 24 hours, could increase annual paratransit costs on average by about 68 percent (over the base cost assumed for the "minimal" system) (U.S. Department of Transportation 1990a).

DEFINING "UNDUE FINANCIAL BURDENS"

A particularly difficult issue has to do with determining what constitutes an "undue financial burden" under the ADA. Some limited guidance comes from *American Public Transit Association v. Lewis*,[49] reviewing DOT's full accessibility regulations under section 504 of the Rehabilitation Act of 1973. In that case, the U.S. Court of Appeals indicated that DOT could not require extensive modifications of existing systems, which imposed heavy financial burdens. At the same time, case law suggests that DOT cannot assume that imposing some financial burden is impermissible.

The department has already indicated that an undue burden waiver would be available only with regard to the *cost* of providing *supplemental paratransit.*[50] The costs of providing other services for persons with disabilities would not be relevant. What constitutes an undue burden is the "magnitude of [the] effect [of its cost] on the recipient's overall operation."[51]

Still unanswered is a determination as to which approach to take in ascertaining an undue burden. One approach could focus on the extent to which a fare increase for the entire transit system would be necessary to cover the costs of supplemental paratransit. Another angle might be how the recipient's overall ridership would be affected by service cutbacks brought on by the paratransit costs. One could also ask the extent to which the recipient's deficit would be increased, on an overall per rider basis, by the cost of paratransit and, if so, by how much. In each case, questions would remain as to what degree of fare increase, deficit increase, or ridership loss should be involved before a burden becomes undue (for instance, 10, 20, or some other percentage). Perhaps one or more of the three approaches (for instance, fare increases and/or ridership loss) would be combined. It might be worth exploring whether it is practicable to construct a formula, using such factors as population, current paratransit service levels, residential patterns, and current level of accessible fixed-route service.

OVER-THE-ROAD BUS SERVICE

The mandate of the Office of Technology Assessment (OTA) with regard to over-the-road bus service is clear. OTA must determine "the access needs of individuals with disabilities to the over-the road buses and over-the-road bus service; and . . . the most cost-effective methods for providing access to over-the-road bus service to individuals with disabilities, particularly individuals who use wheelchairs, through all forms of boarding options."[52] Such a study should include analysis of the population to be served; the regions to be served; the anticipated demand by individuals with disabilities; the current state of accessibility; the effectiveness of various means of providing accessibility; possible design changes that could improve accessibility; and the cost of providing such service, taking into account technological and cost-saving developments. Under the ADA, OTA must also examine the "impact of accessibility requirements on the continuation of over-the-road bus service, with particular consideration of the impact of such requirements on such service to rural communities."[53]

The OTA study is being undertaken in response to the claims of private operators that their current economic situation is dire, that a decision to require full accessibility would be so costly as to force them out of business altogether. If the study results support those claims, then the challenge for decision makers will be a political one: to ensure that buses are fully accessible while providing assistance, through tax and other policies, so that the private operators do not cease to exist because of added costs.

WHAT RESEARCH TELLS US

Although comprehensive analyses of transportation policy for persons with disabilities are virtually nonexistent, a number of studies can provide some guidance to decision makers. What follows is a review of surveys, case studies, and technological research that addresses those problems.

SURVEYS

More than a dozen years have passed since the last federally sponsored comprehensive transportation survey of the *population* of persons with

disabilities, and that was subject to criticism (Cannon and Rainbow 1978; U.S. Department of Transportation 1978). For its forthcoming round of regulatory proceedings, DOT may extrapolate from a 1984 Canadian Health and Disability Survey (Hickling Consultants 1984). To undertake that analysis, DOT has employed David Lewis, the principal author of the 1979 Congressional Budget Office report, which raised questions about the costs of the full accessibility approach (Congressional Budget Office 1979). The 1990 Bureau of the Census survey may also provide some limited information about the population of persons with disabilities.

Perhaps the best *survey of programs* underway in the United States was conducted by Project ACTION of the National Easter Seal Society (Project ACTION 1990 a; b). Project ACTION surveyed 112 selected *bus* transit systems, urban and rural, across the country. A significant finding of the study was that a "substantial" number of systems have already adopted a policy to purchase only accessible buses. At the same time, Project ACTION pointed to a variety of obstacles to effectively providing these services, such as inadequate outreach and marketing programs and the lack of trained personnel to communicate with and assist people with disabilities. Another, more limited, survey of compliance with specialized transit requirements found systems responsive to the law (Walther 1988).

With respect to *rail transit*, a study found that many operating systems have made significant improvements over the past ten years resulting in apparent compliance with the ADA (Reuter 1990). San Francisco's BART system and Washington, D.C.'s METRO system are among those that appear to be in full compliance.

CASE STUDIES

Although communities differ in the kinds and level of services they need to provide, case studies of a particular locality may be illuminating to other cities or townships.

Needs Study. The Toronto Transit Commission undertook a particularly comprehensive analysis of various options, recommending among other things that all new rail stations be made accessible, that 20 key stations be retrofitted, all future buses be equipped with a kneeling feature, and that demand-responsive (24-hour) paratransit be provided (Toronto Transit Commission 1989). One interesting finding was that persons with disabilities in Toronto make half as many trips as the

general population, and, like the general population, prefer the convenience and reliability of door-to-door transportation (automobiles, taxis, vans) (Toronto Transit Commission 1989).

Problems of Coordination. A report of the Legislative Budget and Finance Committee of the Pennsylvania General Assembly documented the problems that can develop when the administration and delivery of services is fragmented (Pennsylvania General Assembly 1990).

Barriers to Transit. A study of the Houston Metro found that the lack of accessible sidewalks imposed barriers to fixed-route transit, regardless of how accessible the buses themselves were (Houston Metro 1989). In contrast, Seattle and Denver have systems whose accessible facilities and sidewalks make them far more attractive to consumers.

Bus-lift Maintenance. Although weather conditions can affect bus lifts, experience shows that preventive service maintenance permits them to operate effectively. A case in point is Denver's Regional Transportation District. Moreover, over time, costs have gone down as operators have learned to anticipate and prevent problems (Project ACTION 1990).

Training. Austin (Texas), Dayton (Ohio) and the state of Oregon have innovative training programs for transit personnel, which focus on attitude and awareness, and offer instruction on how to detect problems of bus lifts (Project ACTION 1990).

TECHNOLOGICAL RESEARCH

A conference at Oregon State University sponsored by the Transportation Research Institute (1990) reported on the important issue of how transit providers should deal with so-called nonstandard or nontraditional wheelchairs or mobility devices. The report documented many devices apart from the standard manual or electric wheelchairs that are unfamiliar to transit operators. Commentators also described the inadequacies of present securement systems.

British Columbia Transit videotaped eight crash test trials in which a relatively small paratransit van was driven into a barrier at 20 miles per hour carrying a scooter ridden by an anthromorphic dummy (British Columbia Transit 1990). Although securement systems generally prevented the scooters from leaving the securement area, the upward and rearward motion of the dummies could have caused death or serious injury to human occupants.

CONCLUSION

In this paper, I have sought to present the statutory requirements of the ADA and the regulatory problems to be confronted. Those challenges are indeed great. However, if one considers the progress (however limited) made over the last 20 years, in spite of an often unclear mandate, then there is perhaps no telling how much can be accomplished with an explicit charge to provide fully accessible transportation for persons with disabilities.

NOTES

1. P.L. 101–136 (1990), 104 Stat. 327 (1990).
2. 87 Stat. 355 (1973).
3. 84 Stat. 962 (1970).
4. 41 Fed. Reg. 18234 (1976).
5. 44 Fed. Reg. 31442 (1979).
6. 46 Fed. Reg. 37489 (1981).
7. 96 Stat. 2154 (1983).
8. 51 Fed. Reg. 18994–19038 (1986).
9. *ADAPT v. Skinner*—F.2d—(3d Cir. 1989).
10. 55 Fed. Reg. 11120 (1990).
11. On the legislative history of the Americans with Disabilities Act with regard to transportation, especially *Americans With Disabilities Act*, Hearings before the Subcommittee on Surface Transportation of the House Committee on Public Works and Transportation, 101 Cong. 1st sess. (1990); *Americans with Disabilities Act*, H. Rep. 101–485, pt. 1, 101 Cong. 2d sess. (1990); *Americans with Disabilities Act*, H. Rep. 101–485, pt. 2, 101 Cong. 2d sess. (1990); *Americans with Disabilities Act*, S. Rep. 101–116, 101 Cong. 1st sess. (1989); and *Americans with Disabilities Act of 1990*, Conference Report to Accompany S. Rep. 993, Joint Explanatory Statement of the Committee of Conference, title II and title III, 101 Cong. 2d sess. (1990).
12. 104 Stat. 337.
13. Id.
14. 104 Stat. 339.
15. 104 Stat. 340.
16. 104 Stat. 340–41.
17. Id.
18. 104 Stat. 342–43.
19. 104 Stat. 343.
20. 100 Stat. 344.
21. Id.
22. 104 Stat. 345.

23. 104 Stat. 347.
24. 104 Stat. 348.
25. 104 Stat. 349.
26. Id.
27. 104 Stat. 351.
28. 104 Stat. 355.
29. 104 Stat. 355.
30. 104 Stat. 356–57.
31. 104 Stat. 360–63.
32. 55 Fed. Reg. 40762 (1990).
33. 55 Fed. Reg. 40764 (1990).
34. 55 Fed. Reg. 40763 (1990).
35. 55 Fed. Reg. 40766 (1990).
36. Id.
37. Id. at 40770.
38. Id. at 40771.
39. Id. at 40770.
40. Id. at 40778.
41. Id. at 40773.
42. Id. at 40778–79.
43. Id. at 40774.
44. Id. at 40779.
45. Id.
46. Id. at 40780–81.
47. Fed. Reg. 11121–22 (1990).
48. Id. at 11121.
49. 556 F. 2d 1271 (D.C. Cir. 1981).
50. Id.
51. Id.
52. 52. 104 Stat. 360 (1990).
53. Id. at 361.

REFERENCES

Berkowitz, E. 1987. *Disabled Policy: American Programs for the Handicapped.* New York: Cambridge University Press.

British Columbia Transit. 1989. *Report on Crash Testing of Securement Systems.* Vancouver: BC Transit.

Cannon, D., and F. Rainbow. 1980. *Full Mobility: Counting the Costs of the Alternatives.* Washington: American Coalition of Citizens with Disabilities.

Congressional Budget Office. 1979. *Urban Transportation for Handicapped Persons: Alternative Federal Approaches.* Washington.

Harris, Louis, and Associates 1986. *ICD Survey of Disabled Americans.* New York.

Hickling Consultants. 1984. *Canadian Health and Disability Survey.* Ottawa: James F. Hickling Management Consultants.

Houston METRO 1989. Analysis of Fixed Route Accessibility and Paratransit Services. Houston. (Unpublished.)

Katzmann, R. 1986. *Institutional Disability: The Saga of Transportation Policy for the Disabled.* Washington: Brookings.

_____. 1990. New Disability Protections Have Method in Murkiness. *Los Angeles Times* (August 7): B7.

Pennsylvania General Assembly, Legislative Budget and Finance Committee. 1990. *Report on a Study of the Need for and Availability of Transportation Services for Persons With Disabilities.* Harrisburg. (Unpublished.)

Lewis, David 1984. *Analysis of the Department of Transportation's Regulations Regarding Transportation of Disabled and Elderly Persons.* Ottawa: James F. Hickling Management Consultants.

National Center for Health Statistics 1984. *Survey of Population of Persons with Disabilities.* Princeton: Mathematica Policy Research.

Percy, S. 1989. *Disability, Civil Rights and Public Policy: The Politics of Implementation.* Montgomery: University of Alabama Press.

Project ACTION 1990a. *Combined Research Results.* Washington: National Easter Seal Society.

_____. 1990b. *Reconnaissance Survey of Selected Transit Agencies.* Washington: National Easter Seal Society.

Reuter, R. 1990. Rail Transportation: Costs of Compliance with the ADA. Baltimore: Access Systems.

Skotch, R. 1989. Politics and Policy in the History of the Disability Rights Movement. *Milbank Quarterly* 67 (part 2): 380–400.

Toronto Transit Commission 1989. *Transit Services for Disabled and Elderly Persons: Choices for the Future.* Toronto:

Transportation Research Institute. *Conference on Securement Devices.* Oregon State University. (Unpublished.)

U.S. Congress. 1990. *Americans with Disabilities Act.* Hearings before the Subcommittee on Surface Transportation of the House Committee on Public Works and Transportation, 101 Cong., 1st sess. Washington.

U.S. Department of Transportation. 1978. *National Survey of Transportation of Handicapped Persons* (Grey Advertising Study). Washington.

_____. 1990a. *Preliminary Regulatory Impact Analysis: The Department of Transportation's Regulation Implementing Section 504 of the Rehabilitation Act of 1973 in the Urban Mass Transit Program.* Washington.

_____. 1990b. *Preliminary Regulatory Cost Analysis: The Department of Transportation's Regulation Implementing ADA Vehicle Accessibility Requirements.* Washington.

Walther, E. 1983. *Case Study Report: Seattle METRO Elderly and Handicapped Service.* Greensboro, N.C.: Transportation Institute, N.C. A&T State University.

_____. 1988. *Section 504: Realized Impact and Projected Impacts.* Greensboro, N.C.: Transportation Institute, N.C. A&T State University.

Zola, I.K. 1989. Toward the Necessary Universalizing of Disability Policy. *Milbank Quarterly* 67 (part 2): 401–28.

ACKNOWLEDGMENTS

I would like to acknowledge Lani Florian for her assistance with this article and Robert Ashby, Donald Trilling, and Nancy Ebersol of the Department of Transportation and Dennis Cannon of the Architectural and Transportation Barriers Compliance Board for discussions about the future of the Americans with Disabilities Act in terms of transportation policy. In addition, David Capozzi of Project Action afforded generous access to his files.