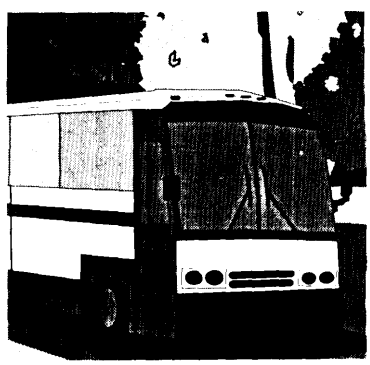
Executive Summary

A milestone for American society, the **1990 Americans** with Disabilities Act (ADA) responds to the needs of those with disabilities, and makes clear that inconvenience or uncertainty of demand for accessibility cannot obstruct rights of employment, commerce, and transportation. Although the act carries with it considerable costs of implementation, it reflects a national consensus that the benefits are worth the costs.

In congressional debate over the ADA, particular difficulty developed around the issue of access for individuals with disabilities to transportation on buses with a high passenger deck, otherwise known as over-the-road buses (OTRBs). OTRBs are most often used in scheduled service that takes passengers from city to city, or on local and regional tours and charter trips. Uncertain about the feasibility and cost of OTRB accessibility technologies, Congress was concerned that the burden of implementing the ADA might cripple an already struggling industry, and thus cause the loss of intercity, charter, and tour bus service for many citizens. To ensure that regulations issued by the U.S. Department of Transportation (DOT) would be based on accurate, objective information, and fully reflect the needs of both the bus industry and the disability community, Congress directed the Office of Technology Assessment (OTA) to study this issue, with emphasis on the demand for accessible OTRB service, current and potential technologies, costs of implementation, and impacts on the industry.



There are no simple answers to the issue of access to OTRBs. OTA identified a number of positive factors, however, that could lead to workable solutions. A variety of technologies are now available and more are under development. Even more important are the desire by the industry to provide accessible service, the

willingness by disability communities to be part of a good-faith process that may take years to reach full accessibility, and the growing understanding by all participants that implementation of the ADA will mean devising specific strategies over time to meet specific needs,

HOW MIGHT ACCESSIBLE SERVICE BE IMPLEMENTED?

Within 1 year of the release of this study, DOT must issue regulations to inform OTRB operators of their compliance obligations under the ADA. These regulations take effect for large operators in July 1996 and for small operators in July 1997, although the President may delay implementation for up to 1 year. The conclusions of this OTA study, provided to Congress and DOT, can inform and support DOT in this regulatory process.

What Is an Accessible OTRB?

OTA defines an accessible OTRB as one that allows persons with disabilities to board and, where applicable, remain with their wheelchair or other mobility aid while riding, with only minimal assistance from bus company personnel. Accessible OTRBs have:

- Access to level-change devices, including lifts or ramps. An OTRB without an onboard level-change device is accessible only if it operates primarily at stops equipped with level-change devices.
- A sufficiently wide door to accommodate persons with mobility impairments.
- Two wheelchair tie-downs to secure wheelchairs and their users.
- Movable arm rests on *some* aisle seats.
- A means to communicate with persons who have sensory and cognitive impairments, both on and off the bus.
- An accessible restroom or operational provisions for use of accessible restroom facilities.
- Personnel trained in both equipment use and people skills (already a requirement under DOT regulations).

The ADA specifies that accessibility is phased in as OTRBs are purchased or leased by private transportation providers; no retrofitting of vehicles is required. Since the lifetime of an OTRB can exceed 20 years, operators may take that long or longer to turn over their fleets and complete the phase in of accessible OTRBs. Several variables will affect the process:

- OTRB service providers may choose between vehicle-based and station-based level-change devices as best suits their service patterns. However, more complicated regulatory strategies will be required for the station-based lift approach, because a bus without a level-change device onboard is only accessible when it is at a station with a level-change device.
- Available technologies can provide reliable access. Over time, design and production will lead to technological improvements and reduced costs. New designs are under development.
- The area in which technology is least able to offer help at present is that of accessible onboard restrooms. However, access to restrooms is an important aspect of accessible service, and OTRB operators who choose not to equip vehicles with accessible restrooms must respond to this need in some way, presumably with suitably frequent stops at accessible facilities.
- The ADA imposes different standards on “freed-route” and ‘‘demand-responsive’ transportation services. OTRBs in fixed-route service follow set schedules; demand-responsive charter and tour services do not. All OTRBs purchased or leased for fixed-route service must be accessible, but demand-responsive OTRB systems can meet ADA standards by providing enough accessible OTRBs to accommodate the demand.
- Reservation systems can hasten the implementation of accessible service before OTRB systems are fully accessible, by allowing

passengers to notify companies of special needs and by providing advance notice to make accessible equipment available. However, the ADA forbids the use of reservation systems primarily for persons with disabilities; reservation systems must serve all riders.

- Companies without a reservation system can begin compliance by publishing schedules with designations of routes and times that are served by accessible vehicles, and, for the routes and times that are not accessible, the company can specify that persons call, for example, 24 hours in advance if, and only if, they need boarding assistance.

Persons with disabilities and other passengers face a phase in of full accessibility that could last as long as 20 years, Thus, for a number of years, carrying of riders with mobility impairments will still be used as a method of boarding assistance, creating problems for both the riders and OTRB personnel. Accessibility costs that are passed on through increased fares could marginally reduce ridership by those now using OTRBs. However, the demand for OTRB service by persons with disabilities will most likely increase as systems become truly accessible and the population ages.

WHAT MIGHT THE IMPACTS BE?

The impacts of the ADA cannot be predicted with any certainty. OTA estimates the most likely impacts as follows:

OTRB **operators** providing fixed-route service will face capital and operating costs in implementing the ADA. Since many OTRB operators are experiencing financial difficulties, already they are concerned about these costs. Some fixed-route providers have said that they may reduce service, and it is conceivable that some companies already in financial trouble could choose to end service. Charter and tour operators of OTRBs have somewhat simpler requirements than fixed-route providers under the ADA, and, as their general financial situation is often stronger than that of fixed-route OTRB operators, the cost impact should be less.

Rural communities could experience reduction in service, but it is not possible to predict whether this will actually happen. Given the proprietary nature of company data and the decline of rural service over the decades before the passage of the ADA, it may be impossible to isolate the effect of ADA compliance on rural service-even after the fact—but OTA expects the effect to be marginal.

How Much Will It Cost?

- OTA calculates that the additional cost for one new OTRB to be outfitted with accessibility technologies and operated over its entire lifetime (of roughly 20 years) ranges from $18,000 to $40,000, or approximately 1 percent of the total lifetime capital and operating costs. These estimates follow critical financial assumptions made by OTA and, as with all estimates of future cost, there is a high degree of uncertainty.
- Most operators will not purchase accessible vehicles until sometime after the ADA regulations go into effect in 1996-97, so they will not begin to incur these costs for some time. As operators turn over their fleet, the cost of implementing accessible service will rise and approach approximately 1 percent of the *total* operating costs only when the fleet becomes fully accessible.
- Choice in purchasing station-based or onboard level-change devices is an important factor in minimizing costs. For example, operators in urbanized areas with many express buses are likely to benefit from station-based technologies, whereas operators in rural areas with many stops will most likely prefer OTRBs with onboard level-change devices.

WHAT CAN CONGRESS DO?

The language of the ADA does not open the door for additional financial assistance for implementation of the law, and implementation will proceed regardless of government financial assistance. OTA notes, however, that in the case of OTRB transportation operators, Congress may wish to consider four arguments for government assistance:

- First, the fixed-route bus industry has been operating under tough financial conditions for some time due to competition from other modes of transportation. Consequently, fixed-route service now covers a much smaller passenger base (shrinking from 130 million passengers in 1971 to 37 million in 1990) and decreasing numbers of points served (from 17,000 in 1968 to 5,700 in 1991). Thus, Congress may wish to subsidize this industry, not due to accessibility requirements imposed by the ADA, but from the larger perspective that OTRB transportation is an essential service for some segments of the U.S. population, especially those with low incomes and those living in rural areas.
- Second, carefully crafted financial incentives could encourage transportation providers to purchase accessible OTRBs earlier rather than later, thus hastening accessibility.
- Third, OTA estimates the implementation costs of the ADA for freed-route operators to be less than $10 million dollars annually.
- Finally, engineering and product development funding could make more cost-effective accessibility devices available at a much earlier date.

Presently, the Federal Government assists OTRB operators with limited funding under the Federal Transit Act FTA) and with several small tax breaks. Options for the support of accessibility technologies include augmenting FTA funding, authorizing a new financial assistance program specifically targeted to accessibility equipment, and supporting the development of new accessibility technologies.