The Challenges Of Wheelchair Securement: Searching For Solutions

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ABSTRACT

The Americans with Disabilities Act of 1990 (ADA) transportation requirements ushered in a new era of public transportation accessibility for persons with disabilities. This groundbreaking civil rights initiative has given persons with disabilities the same mobility opportunities as others by requiring accessible fixed route transportation, as well as complementary paratransit services for individuals who are unable to use available fixed route services. Among other accessibility mandates, the ADA transportation requirements provide specifications for ensuring that mobility aid devices that meet the definition of “common wheelchair” are properly secured in public transportation vehicles. Although the ADA establishes requirements for the securement of mobility devices, many transit agencies still experience a variety of challenges related to safe and effective securement.

As part of the Center for Urban Transportation Research’s (CUTR) National Center for Transit Research (NCTR) program, 270 agencies were surveyed about their securement policies, difficulties, and strategies to assess the scope and magnitude of securement issues currently facing transit agencies and paratransit providers in the United States. Survey respondents provided detailed information about the most commonly used mobility devices and securement equipment, existing securement policies, operator and passenger complaints, securement challenges and strategies, and securement equipment- and/or procedure-related injuries or incidents. While the results of the survey provide confirmation of the ongoing dilemmas posed by securing “non-common wheelchairs” on transit vehicles, “common wheelchairs” have also proven to be a major issue in safe securement. Specifically, the survey results indicate that certain types of “common wheelchairs”, such as scooters, cannot be adequately secured with currently available securement equipment. The survey findings validate and provide support for initiatives that identify securement solutions that address the needs of both providers and passengers.

BACKGROUND

Accessibility standards established by the Americans with Disabilities Act of 1990 (ADA) include provisions that mandate that mobility aid devices (e.g. wheelchairs) be properly and safely secured in public transportation vehicles. The transportation regulations specify that at least two mobility aid securement locations and equipment be provided on vehicles over 22 feet long, and one device and location in smaller vehicles. In addition to providing guidance on the placement of securement locations, the regulations also define load requirements of the securement equipment. Finally, the securement devices used in public transportation vehicles must secure “common wheelchairs.” The ADA defines a “common wheelchair” as a mobility device that does not exceed 30 inches in width and 48 inches in length and weighs no more than 600 pounds when occupied. Although the ADA establishes requirements for the securement of common wheelchairs, many transit agencies still experience a variety of challenges related to the safe and effective securement of certain types of mobility aid devices.

In the decade following the passage of the ADA, agencies and passengers have worked diligently to achieve greater understanding in order to facilitate full compliance with the legislative requirements of the ADA. This has involved clarification of Federal Transit Administration (FTA) policy and requirements, as well as the identification of salient issues. In terms of securement, these issues may be understood from the perspective of passengers, agencies, operators, and the transit industry.

Policy-Related Securement Issues

The Federal Transit Administration’s Office of Civil Rights (TCR) monitors the implementation of and compliance with the ADA transportation regulations by investigating complaints and conducting reviews. Transit agencies and providers look to TCR for interpretive guidance on issues related to the ADA, including current policy related to the securement of mobility aid devices.
The inquiries and complaints received by the TCR indicate that public transportation providers and passengers do not have a clear understanding of ADA mandates. This lack of understanding includes issues related to wheelchair securement. While the focus of individual inquiries and complaints vary, the most common securement themes relate to trip denial, improper securement, and whether or not passengers must be secured at all. Securement issues related to trip denial or refusal include the use of mobility aids that do not meet the ADA definition of “common wheelchair” (e.g., oversized wheelchairs or excessive weight), the lack of securement devices installed on vehicles, the inability to secure certain types of mobility devices, and/or malfunctioning devices. In another issue, passengers may not feel that they are being secured properly due to lack of operator training or lack of confidence in the securement equipment being used. Agencies also have concerns about securing mobility aid devices that meet the definition of a common wheelchair, but lack traditional securement points. Finally, there has been confusion over FTA policy regarding the securement requirements. TCR has recently attempted to address this issue by providing formal interpretation that allows fixed-route operators and paratransit providers the discretion to make wheelchair securement on buses either mandatory or optional (1). According to TCR interpretive guidance, if a transit provider requires that a passenger using a mobility aid device be secured, it must state so in a formal, written policy. Otherwise, a passenger using a mobility aid device may elect to not have his or her wheelchair secured.

Passenger-Related Securement Issues

The issues introduced above also highlight many of the issues that passengers have with securement policies and procedures. Particularly, some passengers who use mobility devices are frustrated that transit agencies may require that their devices be secured when using public transit. They resist the securement of their mobility devices because this is not required of other passengers. An additional concern expressed by passengers who use mobility devices relates to potential damage to mobility devices caused by improper securement. Related passenger concerns include inadequate operator training and the lack of available securement options that allow passengers to secure their own devices without the assistance of operators.

Transit Provider Concerns and Issues

Transit providers and operators also have identified issues with securement policy and procedures. Of primary concern to agencies are securement issues related to safety and liability. Many of these concerns have been already alluded to in this paper, specifically in relation to requiring (or not) the securement of mobility devices on transit vehicles and the occurrence of incidents and/or accidents resulting from improper securement or malfunctioning securement equipment. Transit agencies are also faced with the challenge of identifying securement systems that effectively secure a wide variety of mobility devices in a reasonable amount of time. This has been particularly prominent in discussions related to the securement of motorized three- and four-wheeled scooters.

Transit agencies and vehicle operators alike have raised the issue of the amount of time required to secure mobility devices. While the time required to secure common wheelchairs on transit vehicles is a factor of both the types of mobility devices and securement equipment in use, it is also affected by the quality and extent of training provided to vehicle operators. As stated previously, some passengers would prefer that their mobility device not be secured at all and/or dislike operator-assisted securement. Such resistance may make it difficult for operators to follow agency securement policies.

Transit Industry Concerns and Issues

In recent years, the transit industry, as a whole, has begun to address the various issues that have been raised with regard to the securement of mobility devices on transit vehicles. In particular, the industry has concerns about the wide variety of mobility aid devices used by passengers. This presents a dilemma for the transit industry in terms of finding or developing effective and feasible means of safely securing each type of mobility device. To date, the efforts to address these concerns have taken a two-pronged approach: first, developing universal standards for securement devices and second, developing standards for the mobility aid devices used as seats in motor vehicles. Many in the transit industry feel that until these issues are resolved, the safe securement of mobility aid devices on transit vehicles will continue to be a challenge.

In an effort to further outline the scope and magnitude of the securement issues facing transit agencies and paratransit providers in the United States, CUTR developed and conducted a securement device options and strategies survey to provide a synthesis of how transit and paratransit providers are dealing with securement issues and the strategies adopted to overcome challenges presented by the securement of mobility aid devices on transit vehicles. The survey was distributed to 49 Florida Community Transportation Coordinators (CTCs), 129 paratransit
providers under contract to Florida’s CTCs, 22 Florida transit properties, and 70 non-Florida transit properties. A total of 270 agencies were surveyed and 95 responses were received, representing a 35 percent response rate.

**MOBILITY DEVICE SECUREMENT CHALLENGES**

One of the primary goals of the Securement Device Options and Strategies Survey was to collect information on the variety of securement experiences and issues facing transit and paratransit agencies. Survey participants were queried about the types of mobility aids most commonly used by passengers and any existing policies related to the use and/or accommodation of mobility devices that do not meet the definition of a “common wheelchair.”

**Mobility Device Options Vary Greatly**

One of the major barriers to safely securing wheelchairs on transit buses is identifying securement devices that work on the numerous types of mobility devices that are available. Survey responses suggest that, while manual wheelchairs remain the most often used mobility device, many passengers also often use power wheelchairs and scooters. The responses also suggest that there are other atypical mobility aid devices, including those that are beyond the size suggested in the ADA regulations, being used on occasion by passengers.

In fact, the results suggest that the majority of public transportation providers have passengers that do indeed use mobility aid devices that do not fit the ADA definition. The ADA defines a “common wheelchair” as a mobility device that is not longer than 30 inches in width, 48 inches in height, and weighs no more than 600 pounds when occupied. Many respondents also provided additional commentary with regard to the use of mobility aid devices that do not fit the definition of “common wheelchair.” Most of the comments involved the use of chairs that exceed the dimensions established by the ADA. Several of the responding transit and paratransit providers acknowledged that, in addition to larger wheelchair sizes, they are faced with securing mobility devices that exceed allowable weight limits due to use by obese passengers. While three- and four-wheel scooters generally do not exceed the dimensions of a “common wheelchair” established by the ADA, several of the respondents to this question listed these devices as examples of “non-common wheelchairs.” These responses suggest that some confusion still exists over whether or not scooters are considered “common wheelchairs” and further illustrates the need for policy clarification. Overall, devices larger or heavier than the “common wheelchair” were most commonly identified as making the mobility device securement process difficult or altogether impossible.

**Securement Device Options**

Respondents to the survey provided information about the types of securement systems currently utilized by their agency. Not surprisingly, a majority of agencies reported use of tie-down/belt systems and wheel-lock securement devices, two of the most widely available wheelchair securement options in the United States. Nearly all of the responding agencies (94 percent) indicated that they use tie-down/belt systems – either alone or in combination with another type of securement device. The next most popular securement device is the wheel-lock device. Nearly 42 percent of the respondents indicated that their agencies rely on wheel-lock devices.

**Advantages of Various Securement Devices**

The respondents also identified advantages and disadvantages of the securement systems most used by their agencies. In all, 31 percent of respondents identified the flexibility of the securement system or the ability to secure a wide variety of mobility aid devices as the main advantage to using the current system installed in agency vehicles. Another 31 percent of the responses identified safety as the main advantage to using a particular securement device. Responses emphasizing safety included better or increased securement and/or increased passenger feelings of security or safety. The majority of these responses were reported with regard to the tie-down/belt securement system.

Eighteen percent of survey respondents cited the securement system’s ease of use as a main advantage. Thirteen of these responses related specifically to the use of the tie-down/belt system. One response cited ease of use with regard to the use of wheel-lock devices, and another respondent did so with regard to the combined use of the tie-down/belt system and the wheel-lock device.

Another ten percent of respondents cited the speed with which mobility devices can be secured with a particular securement system as a main advantage. Other advantages identified include uniformity of securement and ease for drivers, customer preference and sense of security, reduced damage to mobility devices, reliability, durability, and compliance with ADA requirements.
Disadvantages of Various Securement Devices

Respondents provided feedback related to disadvantages associated with the securement system most often utilized by their agency. As with the question related to securement system advantages, responses refer almost exclusively to the use of the tie-down/belt system. The amount of time required to secure a mobility device was specifically identified by 27 percent of respondents as the main disadvantage in using the system currently installed in agency vehicles. Ten percent of respondents identified inadequate securement of mobility aid devices as a disadvantage of using a particular securement system. Specifically, many of these respondents noted that their securement devices do not work well with some of the newer wheelchairs, and scooters, in particular. Nearly all of the respondents who cited difficulty with securing scooters with their devices most often use tie-down/belt systems. Only one of these respondents reported using wheel-lock devices most often.

Other disadvantages identified by respondents include the possibility of passenger injury, damage to mobility aid devices, maintenance problems, possibility of driver/operator injuries, inability to secure a wide variety of devices, the need for additional training of drivers/operators, and driver/operator difficulties encountered during securement. In addition, the need for operators to have close contact with passengers in mobility devices was also cited as a disadvantage.

Concern About Time Required to Secure

As discussed previously, many respondents indicated that the amount of time required to secure mobility aid devices is of concern to agencies. This issue is also commonly discussed in the transit industry in relation to challenges presented by wheelchair securement. Agency responses related to the average amount of time required to secure mobility aid devices in transit and paratransit vehicles provide insight into the basis of this concern. When queried about the approximate time required to secure mobility aid devices in agency vehicles, nearly half of respondents (46 percent) indicated that it takes between three and five minutes to secure mobility devices. Thirty percent of respondents reported that between one and three minutes are required to complete wheelchair securement. Another ten percent of respondents indicated that securement takes more than 5 minutes. The finding that 56 percent of respondents require from three minutes to more than 5 minutes to complete wheelchair securement suggests that the process, as it currently exists for most agencies, may have a negative impact on agency on-time performance.

Securement Difficulties Are Not Reserved for the Non-Common Wheelchairs

While most of the respondents acknowledged having difficulty securing non-common wheelchairs on their vehicles, responses to several of the open-ended questions included in the survey suggest that many agencies are also experiencing securement difficulties in relation to some “common wheelchairs” used by passengers. In a follow-up effort to the original survey, the 95 original survey respondents were contacted and asked to identify any difficulties they have experienced in relation to securing “common wheelchairs” and the strategies they have employed to overcome these challenges. Fifty-three percent of the original survey participants responded to these follow-up questions. Over half (52 percent) of the follow-up respondents indicated that their agencies do have difficulty securing some “common wheelchairs.” Each of the agencies that acknowledged difficulty with securing some common wheelchairs also provided additional comments about the issue and elaborated on the strategies that they have used to accommodate common wheelchairs that are difficult to secure.

Scooters Cause a Dilemma For Many Agencies

Most of the respondents suggested that scooters, although meeting the definition of a “common wheelchair,” are the most difficult type of device to secure in agency vehicles. In addition, respondents identified “oversized” and electric devices, as well as “Geri-chairs” (reclining-type devices) as “common wheelchairs” that are difficult to secure. The remaining respondents who reported securement difficulties associated with “common wheelchairs” did not identify the specific types of devices that pose problems.

As suggested above, nearly half of the respondents to the follow-up questions (46 percent) reported that their operators encounter difficulties when attempting to secure three- and four-wheel scooters. Many expressed the concern that the scooters are difficult to secure because there are limited areas on these mobility devices to which tie-down straps may be effectively attached. Others noted that the scooters are quite unstable when used by occupants as seats on transit vehicles. One respondent suggested, “The current system for securing some scooters is not fail-safe. Due to the design of scooters (three wheels, low wheels, and high center of gravity), there is an inherent tipping hazard...
at normal operations speed.” Several survey participants also expressed frustration with having little-to-no guidance from manufacturers on the securement of three- and four-wheel scooters. One stated that the “manufacturer can’t even suggest how to tie them down.”

**Securement-Related Injuries**

Because all transportation agencies place a high premium on the safety of their passengers and operators, respondents were also asked to describe any driver, attendant, or passenger injuries occurring in the previous three years that have been associated with vehicle securement equipment or agency securement policies and/or procedures. A full 45 percent of survey respondents indicated that there had been injuries reported in relation to the securement of mobility aid devices during the identified period of time. Eighty-eight percent of those who reported that there had been driver, attendant, or passenger injuries associated with securement in the past three years provided additional commentary regarding such incidents. Thirty-three percent of these respondents noted that problems related to securement most often resulted from improper securement by drivers or attendants. Twenty-three percent of respondents referred to the tipping over of mobility aid devices, in some cases resulting in passengers being thrown to or sliding to the floor. The majority of comments related to the tipping of devices again emphasized scooters as the most problematic of mobility aid devices in terms of securement. These respondents expressed the feeling that such devices could not be properly secured and were prone to tipping during vehicle transport. Five respondents noted that injuries had occurred on their vehicles when mobility devices either were not secured at all, passengers were not restrained, or passengers released their restraints or mobility device securement devices before the vehicle had come to a complete stop. Two final comments regarding incidents were related to improper securement of an unoccupied mobility device that shifted during transport and injured a nearby passenger, as well as the collapse of mobility devices that are not sturdily constructed.

Some of the respondents also described the injuries that were a result of the incidents or accidents. Specific injuries reported were most often identified as being minor ones, such as bumps on the passenger’s head or body, sprains, and/or cuts and scrapes. One respondent indicated that “an extremely fragile” passenger suffered broken bones, “both in the securement process and as a result of vehicle operation.” Although a singular response, it indicates the number of concerns operators and attendants must consider in the securement of passengers with disabilities.

Finally, the responses received indicate that vehicle operators are also susceptible to securement-related injuries. Sixteen percent of respondents reported driver injuries sustained as a result of securing mobility devices. These injuries were most often characterized as back strains, arm and shoulder injuries, carpel tunnel syndrome, and cuts, scrapes, or bruises. Five percent of respondents indicated that they were not aware of any reported injuries sustained by drivers, attendants, or passengers.

Many survey respondents reported concerns related to improper mobility device securement, including passenger injuries that have resulted from faulty securement. These findings highlight the importance of driver training related to mobility device securement.

**MOBILITY DEVICE SECUREMENT STRATEGIES**

Another goal of the survey was to identify which strategies were being implemented by transit and paratransit agencies in their quests to accommodate the growing number of mobility device types being used by passengers. Agencies were asked to provide information on the strategies developed and applied to alleviate securement challenges and/or problems presented by both non-common and common wheelchairs. The responses provided to these and other questions related to the accommodation of mobility devices on transit and paratransit vehicles illustrate the variety of securement issues still plaguing agencies, as well as many creative solutions that have been developed to ensure that, whenever possible, transportation services are provided to all passengers with disabilities who desire to use public transportation.

**Strategies for Overcoming Securement Difficulties Related to the Use of Non-Common Wheelchairs**

Most of the responding agencies acknowledged having a policy that stresses accommodation of all passengers with disabilities. Several of these respondents employ policies that allow for the accommodation of any device, regardless of size, as long as it safely fits on the wheelchair lift.

Further, the majority of operators appear to respond to passengers using non-common wheelchairs by allowing boarding and attempting to secure the mobility device to the best of their ability. Respondents described strategies that have been developed by agencies in order to accommodate mobility aid devices that do not meet the definition of “common wheelchair.” One of the most common strategies identified by respondents was to refer passengers in such
devices to paratransit service providers. A smaller group of respondents indicated that in the event of a situation in which a device could not be properly secured, the operator is required to call the dispatch for advice or to request a vehicle that is better able to accommodate the device. Many of the respondents again indicated that operators generally try to accommodate all passengers in agency vehicles. For instance, several respondents said that they are able to provide common wheelchairs on some of their vehicles to which passengers may transfer from their non-common devices. Others stated that they request that passengers transfer to a vehicle seat. Two respondents suggested that they send their most experienced drivers and most accommodating vehicles when transporting passengers with mobility devices that are known to be difficult to secure. One respondent also reported funding “wheelchair modifications” in an effort to make mobility devices more compatible with the securement equipment used on the vehicle fleet.

A strategy identified by a smaller group of respondents was active discouragement of non-standard device use by passengers with disabilities. One respondent indicated that, although their agency currently attempts to accommodate all passengers, it expects to soon begin an educational campaign of “common wheelchair” usage by passengers and the enforcement of a new boarding policy that would exclude non-standard devices. Several respondents said that operations managers or other supervisors often evaluate their agency’s ability to accommodate such devices at pre-trip meetings with passengers or during the ADA eligibility process.

Other respondents utilize strategies that focus on combining multiple types of securement devices, such as tie-down belt systems and wheel-lock devices. On the other hand, several respondents have upgraded or plan to upgrade their securement equipment to better accommodate a wider variety of mobility devices. Three respondents indicated that their agencies recently upgraded securement systems in the entire fleet in order to address the increase in passenger use of devices exceeding standard wheelchair dimensions. Four respondents did not provide specific indications of strategies for accommodation of such mobility devices; instead, reiterating agency policies stipulating that all devices must be secured and that only those devices that can be secured will be transported. Finally, two respondents reported that, in an effort to accommodate all mobility devices, if passengers so request, the mobility devices would not be secured at all.

Strategies for Overcoming Securement Difficulties Related to the Use of Common Wheelchairs

The follow-up survey questions also asked respondents to describe the strategies most often used to address the securement of “difficult common wheelchairs.” In response, fifteen percent of the agencies reported that they recommend that passengers transfer from mobility devices that are difficult to secure to transit vehicle seats. This appears consistent with the strategy used by many agencies when faced with securing a device that does not meet the definition of a “common wheelchair.” Nearly all of the responding agencies emphasized that while transferring to a seat is strongly recommended, it is never required of a passenger. However, one agency did state that if a passenger who is using a “common wheelchair” that is too difficult to secure with available equipment refuses to transfer to a vehicle seat, the passenger is denied the trip because “[the agency’s] policy is not to transport if they can’t or won’t transfer,” despite ADA regulations that state that an agency may not require passengers to transfer to a seat. This respondent further explained that scooters, in particular, are dangerous and reported that the agency is convinced that the passenger is not safe if they cannot ensure the securement of the device they are using as a seat during transport. Although not in the context of responding to a passenger’s refusal to transfer from a mobility device to a seat, another agency reporting having a policy stating that, due to safety reasons, if a mobility device cannot be properly secured, the passenger cannot be transported on agency vehicles. However, it is important to emphasize that the majority of the responses received indicate that most agencies feel compelled to do their best to secure all devices, whether the devices to be secured are considered “common” or not.

Using another popular strategy, 15 percent of the respondents participate in a “chair-marking” program, which consists of the distribution of stickers to passengers to apply to their mobility devices in order to identify optimal securement locations to assist vehicle operators. The premise behind this program is that passengers know best how to secure their own devices. Several of those agencies not specifically reporting use of a chair-marking program did, however, state that they instruct their operators to ask passengers to identify the best securement locations on their particular mobility devices. There were also two respondents who reported that their agencies distribute tie-down straps to passengers so that they might permanently attach them to their mobility devices. This is another method of encouraging the user’s assistance in establishing the best practice for securing their particular mobility device.
Other strategies identified through the results of the follow-up questions included: securing to their best ability, providing additional securement training to vehicle operators, referring passengers to paratransit service, dispatching an alternative vehicle, and deploying new securement methods. As mentioned previously, most of the respondents implied that their vehicle operators secure mobility devices to the best of their ability. Twenty-eight percent of follow-up respondents who reported encountering difficulties in relation to securing some common wheelchairs specifically identified securing the devices to the best of their ability. Interestingly, one respondent indicated that their short-term policy is to do their best and in the long run a supervisor will communicate with the passenger to find a solution. This respondent further stated, “it is our policy that the wheelchair will be secured, (so) it is up to us to find a way to secure the chair.”

Nearly one-quarter of the respondents (24 percent) who reported difficulties with securing some “common wheelchairs” also said that they provide additional training opportunities for their operators in the area of mobility aid securement. As an example of the training opportunities available, one agency said that it houses a training bus at the garage with varied mobility devices onboard so that operators can practice securing some of the more difficult devices. According to several respondents, training is the best mechanism for ensuring that the operators are confident in their abilities when securing mobility devices on transit vehicles.

Finally, some of the respondents said that they are contemplating the use of different securement devices or methods, such as the “Cleveland Clinic motorized belt securement” device and securing passengers in the rear-facing position, rather the current forward-facing position.

Overall, it appears clear that many public transit agencies are experiencing difficulties associated with securing “common wheelchairs,” as well as “non-common wheelchairs.” The strategies employed by these agencies to overcome securement challenges associated with the use of “common” devices that are of unusual shapes and sizes, lack securement points, and/or are not of adequate strength are similar to the strategies adopted in relation to “non-common wheelchairs.” It appears that, in general, agencies want to accommodate all passengers and are employing several practices that allow them to do so. Toward this end, several respondents suggested that in the future the most effective strategies will involve standardizing “securement belts and floor anchors,” installing interfaces on new mobility devices to be used with docking systems, and requiring wheelchair manufacturers to identify tie-down points on wheelchairs that will afford the safest securement on transit vehicles.

The range in responses to questions related to the accommodation of common and non-common wheelchairs illustrate a continuum of sorts upon which agency policies and strategies may fall. This continuum may be seen as ranging from strict adherence to a policy of accommodating only “common wheelchairs” on one end, and efforts to accommodate any mobility device encountered on a route, on the other. While there was a clear split evident in the responses to these questions, in general, agencies appear to fall somewhere between these two extremes, suggesting that they reserve some flexibility in responding to passengers with disabilities who use mobility aid devices. However, one might surmise that this flexibility emerges out of a lack of standardization and/or guidance with regard to adherence to ADA requirements.

CONCLUSION

The results of Securement Device Options and Strategies Survey provide insight into the perceptions, difficulties, and strategies related to the securement of mobility devices on transit and paratransit vehicles in Florida and throughout the United States. The discussion of the findings presented herein provide confirmation that the securement concerns or issues described in the introductory sections of this report are, in fact, still prevalent and growing in scope.

It is clear that, while the ADA transportation regulations require devices to be used with docking systems, and requiring wheelchair securement equipment in public transportation vehicles was, in part, designed to ensure that persons using mobility aid devices are afforded full accessibility to transit services, several factors appear to be contributing to incomplete fulfillment of this goal. The results of the survey reiterate that policy, passenger, transit provider, operator, and industry issues continue to exist and will not be resolved through inaction. The most common themes that have been noted herein are related to misinterpretation and/or misunderstanding of the ADA wheelchair securement regulations and policies, the pressing need to accommodate a growing variety of “common” and “non-common” mobility devices, and issues related to the development and implementation of standards for mobility devices that will be transported on transit vehicles. In addition, the survey results have illustrated the range of strategies that are being
employed by transportation providers to address some of these issues and overcome securement challenges so that passengers who use mobility devices are afforded the maximum mobility options possible. It is heartening to see that the spirit of the Americans with Disabilities Act of 1990 is, for the most part, guiding the actions and policies of public transportation providers.

However, the survey results also raise a number of important questions that still require resolution, such as: Is the number of passengers with disabilities who are being denied transportation service increasing? If so, this emerging reality strongly suggests that agencies will need to make additional accommodations within their fleets in the very near future to support the growing number of mobility aid devices in use that have dimensions exceeding the ADA standard. However, as the results have shown, even some agencies that are considered 100 percent accessible to persons with disabilities by ADA standards are unable to accommodate many commonly used mobility aid devices. Scooters, in particular, present tremendous challenges to the securement process and are generally not considered safe for use as passenger seats on moving transit vehicles by many of the survey respondents. How should agencies respond to scooter usage on their vehicles? Because these mobility devices typically meet the dimensions of a “common wheelchair,” public transportation providers are required to accommodate them, despite the fact that these devices often cannot be adequately secured with ADA-compliant securement equipment. Should the FTA reevaluate their position on mobility device securement given the difference in the dynamics of scooters and other types of “common wheelchairs”?

Further, how might agencies resolve the conflict presented by a policy that seeks to accommodate every passenger using a mobility device, and passengers who use mobility devices that far exceed “common wheelchair” dimensions? Several survey respondents expressed the opinion that these and other issues will continue to challenge the industry until mobility device manufacturers are required to address some of the more common accommodation issues. Specific suggestions provided include outfitting mobility devices intended for use on transit vehicles with connectors that would allow standard securement devices to be effective; requiring manufacturers to identify the best securement points on mobility devices; and requiring manufacturers and distributors to identify those devices that should not be used as a seat on a transit vehicle. Although the findings of this survey reveal that many specific securement challenges exist for which there are no easy answers, it is clear that most public transportation providers are embracing the intent of the ADA – equal access to available mobility opportunities for all people. With this goal as a guiding force, there is no challenge that cannot be overcome through the continued dogged dedication and creative thinking that was clearly expressed by survey participants.

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ENDNOTES