

CHAPTER FIVE

STROLLERS

LITERATURE REVIEW ON STROLLERS AND STROLLER ACCOMMODATION POLICIES

The problem of accommodating strollers has grown as the size of strollers has increased. No longer just small umbrella strollers, which can be folded and hung over the arm, strollers are now multipurpose, with removable baby carriers and attached pouches for diapers, bottles, and other accessories.

Magazine articles and blogs report conflicts between parents with strollers and other passengers. For example, this 2008 posting on a blog dedicated to “The T” light rail system in Boston describes the conflict:

I wavered between who I found more annoying: the woman who brought a ginormous stroller on public transportation or the passengers who steadfastly refused to let her in thus creating a dangerous bottleneck (Ginormous Strollers on T Buses 2008).

One example of the struggle over this issue is an incident in October 2008 that created outrage in Ottawa, Ontario, Canada, when a bus driver refused to allow a young woman onto the bus with a stroller and then drove off with her two-year-old child on board (Drudi 2008). Following the incident, OC Transpo’s staff proposed a series of recommendations that would provide clear rules about the transportation of strollers on the OC Transpo buses. One of the most controversial rules was prohibiting open strollers, except in empty spaces designated for wheelchairs. If there were no empty spaces, the stroller would have to be folded. Upon cries that this rule discriminated against parents and would be a hardship in winter weather, the OC Transpo transit committee agreed to continue to allow open strollers in the aisles, unless the driver found that the open strollers interfered with the safe movement of passengers (Cockburn 2009). OC Transpo adopted a new Co-operative Seating Area. Royal blue decals displaying new, modern graphics depicting people eligible to use Co-operative Seating are placed on the windows in this area. Although wheelchairs are given priority in the United States, Canadian providers may offer priority to persons using wheelchairs and other mobility devices; people with children that may or may not be in strollers; pregnant women; seniors; people with injuries; and people with invisible disabilities. For this particular agency, people who are eligible for priority seating (such as those with disabilities)

will be included in a category within the Co-operative Seating area.

The blue decals will extend strips outward for the length of the Co-operative Seating area depicting other types of people requiring special seating. On the actual seats themselves, a graphic depiction of a person standing next to a seat will be woven in the material to indicate the action that is expected from anyone sitting in those seats. As with “handicap parking” wheelchair symbols, these graphics are likely to encourage people to keep moving back so as to avoid sitting in what would be perceived as a “reserved” seat (Schepers 2009).

Chapter nine contains more information on the agency’s experience and policies.

In another mishap in New York City in 1995, a stroller was caught in the doors of a train. To remedy the problem, newer cars and some older retrofitted cars have door sensors or closed-circuit monitors to alert the driver and prevent such accidents (Alvarez 1995).

The decision about whether to allow boarding of a stroller and whether it must be folded is most often left to the discretion of the driver. For example, the stroller policy at Sioux Area Metro in South Dakota states, if “due to the size of the stroller and/or if the stroller is blocking or narrowing the aisle, the driver may deny the passenger a ride” (Sioux Area Metro 2008).

Victoria Regional Transit System in Victoria, British Columbia, has set clear priorities for the accessible seating area as follows:

1. Customers who use wheelchairs, scooters, or other mobility aids
2. Elderly customers and customers with disability or mobility issues
3. Customers with strollers
4. Luggage (in the case of double deckers).

However, it is still up to the driver to resolve cases of a conflict. The policy directs the driver to inform the customer of the priorities, and if a customer refuses to respect these

Three years later, a young man in his 20s with a disability contacted agency staff regarding his need for a Segway as a mobility device and his interest in taking the Segway on the bus to attend school. Although the agency's policy prohibiting Segways was in place, staff invited the man to demonstrate how he used his Segway. According to the Transit Service Manager, "He went to Metro Transit's garage and demonstrated agility and excellent control of the device. He showed he could maneuver quickly and safely up a ramp and within a bus. He pulled a bungee cord out of his backpack and secured the device in the wheelchair securement area" (Gullickson 4/8/2010).

Impressed by what they saw, staff determined there was no reason to deny access to this man. They made an informal allowance to accommodate him and his Segway on buses. Later the same year, after an insurance company audit of

the system turned up questions about allowing the Segway aboard the vehicle, agency staff invited the insurance company to meet with the man who used the Segway. Following another demonstration of how he boarded and maneuvered on the bus, the insurance company's attorney agreed that the Segway presented no hazard. The insurance company drafted a new Segway policy for use by its transit agency clients, supporting Metro Transit's accommodation of the Segway-using passenger.

Although nobody else has requested to bring a Segway on board Metro Transit buses, the Transit Service Manager notes that Metro Transit will accommodate other persons with disabilities using Segways as a mobility device. The agency had hoped to purchase tie-downs designed for Segways but has been unable to find a manufacturer that produces them.

priorities the driver is to “use discretion as to whether a transit supervisor should be contacted to assist in resolving the issue” (Victoria Regional Transit Commission 2010). Other agencies have adopted policies that relieve the driver of making decisions about strollers. Two examples are Valley Transit in Appleton, Wisconsin, and Link Transit in Washington State, both of which require that the child be removed from the stroller and the stroller be folded before boarding the bus (Valley Transit 2009). In the province of Ontario, Brantford Transit changed its requirement that strollers be folded and now allows open strollers. However, the policy states, “Oversize strollers will not be allowed on the buses. An oversize stroller is anything larger than a single stroller and includes jogging strollers” (Brantford Transit 2010).

Some stroller manufacturers extol the virtues of their single-seat stroller’s ability, at 20 in. wide, to fit easily through doors. This is an important factor on buses, where the aisles are typically 20 to 23 in. wide. Compounding the problem of strollers on buses is the sale of double-seat strollers for parents with a baby and a toddler and even triple-seat strollers that have accompanied the rise of multiple births. For example, a side-by-side stroller can weigh almost 21 lb and have dimensions 39 in. high by 30 in. wide by 31.5 in. deep. A tandem stroller can weigh more than 55 lb with dimensions 52 in. high, 40.25 in. wide, and 25.5 in. deep. Because of the difficulty of maneuvering large strollers and several children, parents have often fought bus operator requirements that the strollers be folded before boarding.

Some operators, such as County Connection and AC Transit in California and Sioux Area Metro in South Dakota, will allow the driver to lower the lift or ramp to board unfolded strollers upon request by the adult passenger. However, Tri Delta Transit in California has gone one step further by removing one set of seats on its 40-ft fixed route buses to create a designated stroller area. “We currently accommodate these passengers by deploying the lift to assist them in boarding the bus,” said Tri Delta Transit Chief Executive Officer Jeanne Krieg. “However, we recognized the difficulty they encounter when required to fold their strollers, and felt there was more we could do to make their experience easier and more enjoyable” (APTA Passenger Transport Archive 2006). Tri Delta buses can also accommodate two additional strollers if the wheelchair area is not occupied.

A 2008 article in the *New York Magazine* evaluated nine strollers priced between \$150 and \$1,000, complete with a “street test” of each (see Figures 19 and 20). Comments on their ease ranged from complimentary (“Buses and subways a snap; stroller is light enough for hip sling. Great for walk-up apartments, public transportation”) to scathing (“On bus ride, hit a passenger in the head with seat and had to ask another rider to fish MetroCard out of pocket. On subway, actually accepted an assist from a pregnant woman,” and for another stroller, “Ran over several feet on subway and bus and found climbing stairs unassisted was next to impossible”) (Penn 2008).

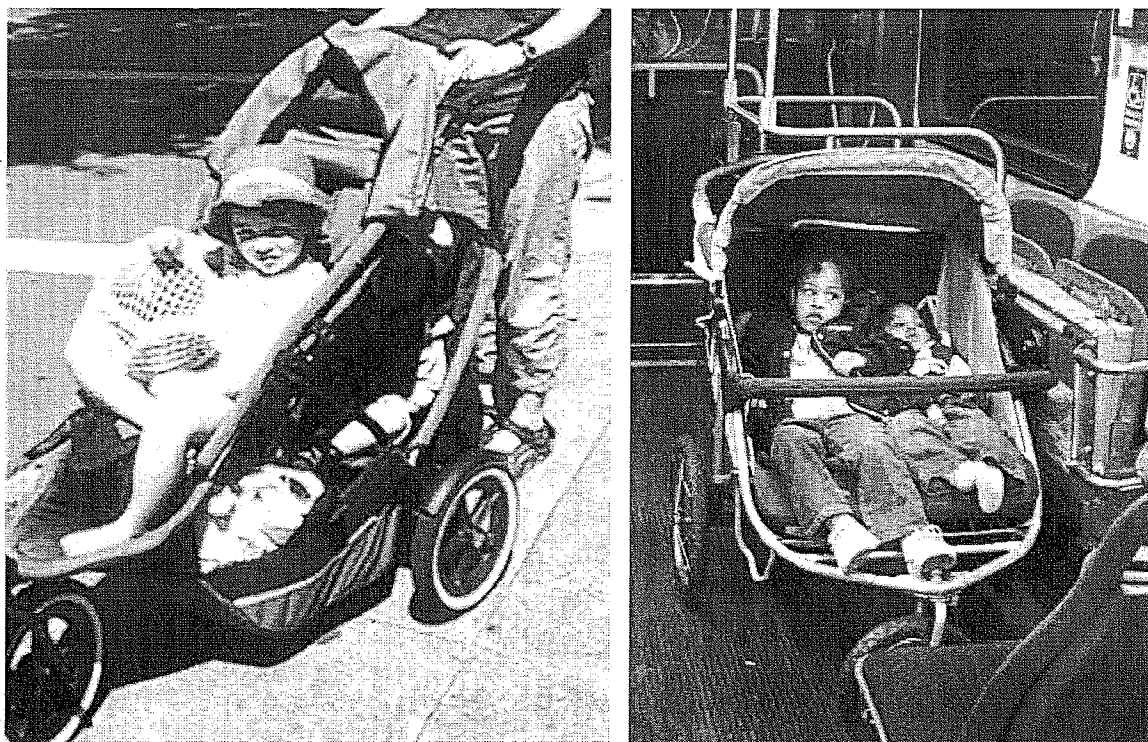


FIGURE 19 Two double strollers: One child positioned above another (left) and a wide stroller for two (right) on a CTA bus in Chicago [courtesy: (left) J. Goldman, Nelson\Nygaard Associates; (right) CTA].

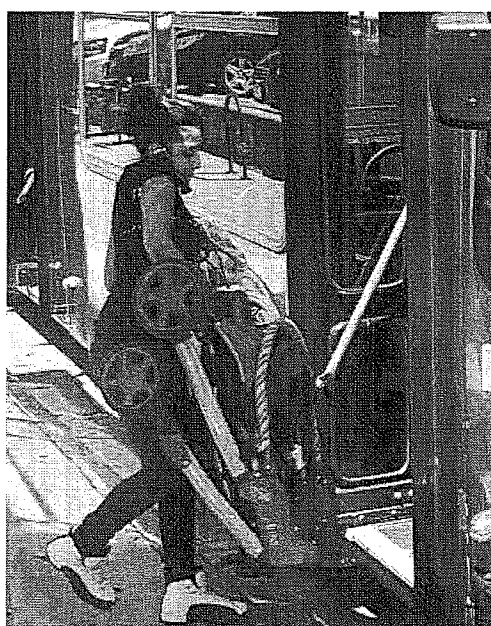
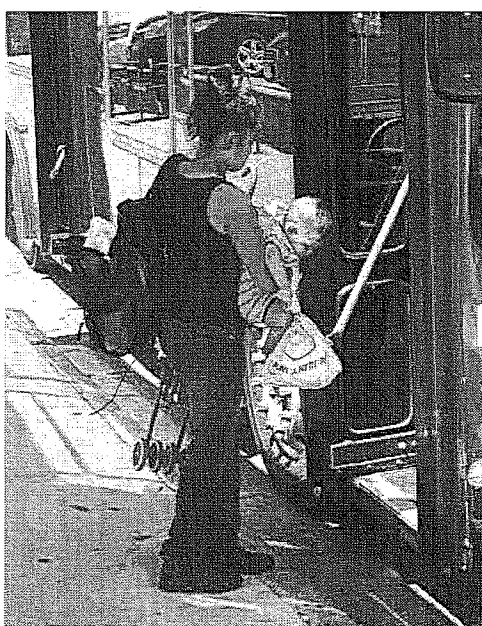
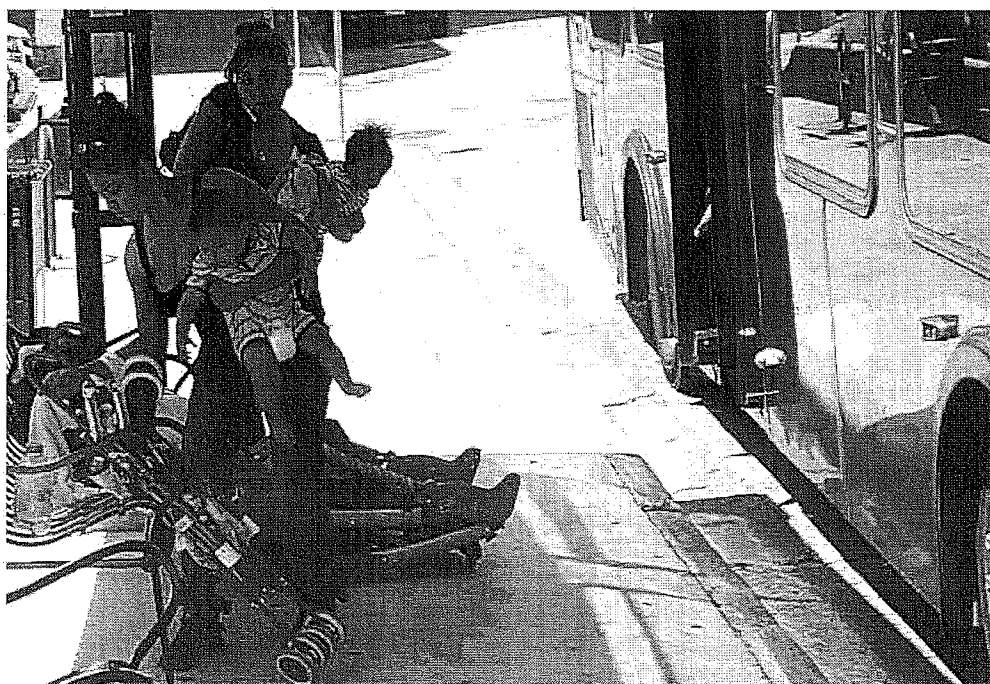


FIGURE 20 Boarding a bus with different types of strollers in Austin, Texas. Two women remove children and fold strollers at a bus stop as they prepare to board a bus. The woman on the left boards with a collapsed umbrella stroller. The woman on the right boards with a larger folded stroller (courtesy: Capital Metro).

In a 2003 TRB report *Use of Rear-Facing Position for Common Wheelchairs on Transit Buses*, the authors found that “Across Europe, the use of urban buses by persons with strollers is greater than the use by persons in wheelchairs” (Rutenberg and Hemily 2003). Research by Geraldine Petterssen in a 2009 article published by the Association for European Transport notes that “Between 35% and 40% of the European Union’s population has reduced mobility” and

included in that definition not only people with disabilities but also older people and those with heavy shopping, bulky luggage, and buggies. Petterssen concluded that “Local bus transport was a lifeline for many parents with young children and accessible buses made it easier to use, reducing isolation and increasing social inclusion” (Petterssen 2009). However, her research found that some of the buses are so well used by buggies that additional parents with strollers cannot board.

In addition, conflicts between buggies and wheelchairs arose for the area designated for these vehicles. As solutions, she cites signage that more clearly denotes what is expected from riders, such as, “Please give up this space for a wheelchair user,” and provision of additional space. Petterssen quotes from the Good Practice Guide published by Bus Users UK as a trend worth emulating:

The tendency by some operators to move away from maximum seating capacity and provide circulating space in the forward part of a bus is welcome, and proper luggage and buggy space, together with obvious and adequate handholds, further assist comfortable movement inside the bus.

Beyond these studies in the European Union, this literature search focused on individual transit operations in Scandinavia to illustrate the variety of approaches for handling strollers. In Scandinavian countries, prams and pushchairs (i.e., baby buggies and strollers) are directed by policy to the bus luggage area, which has room for two prams or two wheelchairs. If the bus does not have such an area or if it is full, the parent and child must wait for the next bus. Most transit operators require that the pram or stroller be braked, but in Trondheim, Norway, the child’s vehicle can be attached to the “mounting strap” (e.g., wheelchair tie-down) if it does not have brakes (Team Trafikk 2010). Many Scandinavian city bus systems do not allow prams and strollers that are used to carry goods or luggage instead of children, although Stockholm, Sweden, specifically allows prams for transporting luggage (Stockholm Public Transport 2010). So too does Aarhus, Denmark; however, in Aarhus, prams with children are free but prams used to carry luggage require a separate ticket (Midttrafik 2010). In Helsinki, Finland, buses and trams are equipped with a special pram button by the door, which when pushed makes the doors stay open longer (Helsinki Region Transport 2010). Oslo, Norway, has removed poles by the middle door on its subway system to provide more room, particularly for entry by “twin carriages” (Ruter 2010).

SURVEY RESULTS

Challenges and Concerns

Strollers are a more contentious issue than wheelchairs and other large mobility aids. Whereas policies addressing the former items are primarily governed by federal regulation (the ADA in the United States) or some provincial laws in Canada, stroller policies have developed in an ad hoc manner and face increased scrutiny. A few agencies did not consider strollers to be an operations concern: one agency that marked “not an issue” clarified its response, stating that “many of our customers use strollers and we are comfortable with the approach we take with respect to strollers, so [we]

do not currently consider this to be an issue.” This agency, however, is more of an exception than the rule: a clear majority of agencies (27 of 42, or 64%) regarded strollers as being somewhat or very much an issue (Figure 21). Where provided, comments to this question addressed standard agency policies, effectiveness metrics, or accommodations for strollers on a transit vehicle.

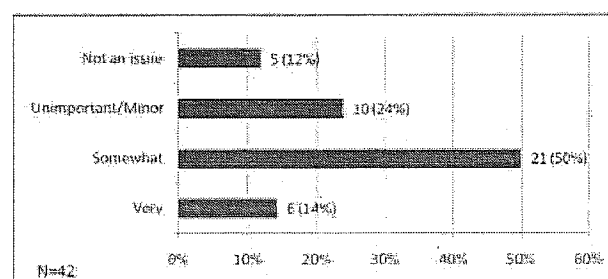


FIGURE 21 Indicate whether bringing strollers on your vehicles is considered an issue/concern/challenge for your agency.

Indeed, the highest-frequency concern among agencies that consider strollers either a very important or somewhat important concern (answered by 25 of 26 agencies, or 93%) was blocking of aisles/egress (Figure 22). As with wheelchairs and other mobility aids, general vehicle capacity and crowding of passengers were also issues, though not to the same extent (56% and 67%, respectively). One of the few agencies that added a comment to this question noted that problems particularly arise with “passengers boarding with stroller[s] that don’t fold.”

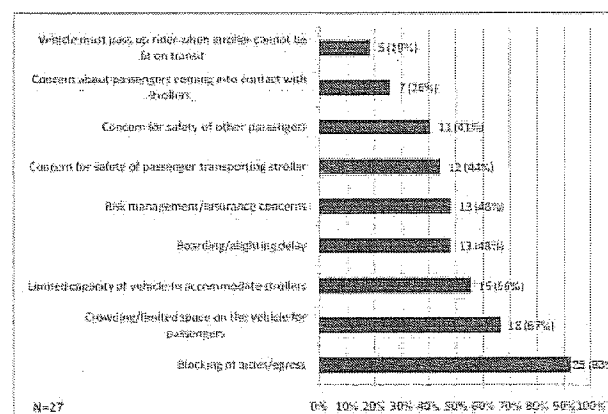


FIGURE 22 If you indicated that strollers are a very important or somewhat important concern, why is it a concern for your agency?

A comment from a medium-sized agency highlights a problem that is not addressed elsewhere: that of language barriers. The agency indicated that a major concern regarding strollers is “communicating with Spanish-speaking moms about correct procedures,” but this could be relevant for populations speaking other languages, as well.

Overview of Agency Policies

Of the 40 agencies responding on this topic, 31 (78%) have a stroller policy in place. The other nine agencies (22%) have no formal policy regarding strollers, although several of them indicated that their agency considered implementing a stroller policy but did not carry it forward owing to monitoring and enforcement concerns or agency boards not supporting staff recommendations. For example, three agencies proposed policies that only folding/collapsible strollers could be brought on board vehicles but did not implement the policies based on the potential inconvenience to passengers (who might need to purchase new strollers for transit rides) or difficulty of ensuring that drivers would enforce the policy.

Although large strollers seem to be a new phenomenon for many transit agencies, several of the agencies surveyed have had stroller policies in place since the 1970s and 1980s. Many of the largest agencies were unaware of when their stroller policy was implemented, suggesting that it they had been in effect for a long time (among the agencies surveyed, the oldest known stroller policy dates from 1976).

Smaller agencies, many of which are newer than the large agencies, have stroller policies that were primarily developed in the 2000s. Many agencies are reviewing their stroller policies, and some agencies, such as OC Transpo, updated their stroller policy as recently as 2010.

Stroller Size Limits and Design Requirements

Most of the policies do not limit the size of strollers, and even those that do have only rough size guidelines, with no agency providing specific measurements/dimensions. Of the 31 agencies with policies in place, four (13%) limit the size of strollers (Table 17). New York MTA's policy states that small folded strollers are permitted, although no specific dimensions are provided. BC Transit's policy limits the size based on whether the stroller can be brought inside the vehicle: it must fit through the entrance, must fit in the securement position, and must not block the aisle.

TABLE 17
THE POLICY LIMITS THE SIZE OF STROLLERS

Yes	13% (4)
No	87% (27)

n = 31.

A majority of the agencies surveyed require that strollers be foldable or collapsible (Table 18). Nineteen of 30 agencies (63%) said that on board their buses, the child must be removed and strollers must be folded.

TABLE 18
DOES THE POLICY REQUIRE THAT STROLLERS BE FOLDABLE/COLLAPSIBLE?

Yes	63% (19)
No	37% (11)

n = 30.

The policies vary with regard to level of comprehensiveness and enforcement. A couple of agencies indicated the requirements are not published but are understood by agency staff. For example, Greater Glens Falls Transit notes that "for practical purposes many strollers need to be folded in order to keep the aisle clear."

TriMet's policy is not explicit, but suggests that strollers "be collapsed if possible, so that aisles and doors are not blocked." Tri Delta Transit, an agency that offers a stroller area on vehicles, noted that strollers do not need to be folded unless the stroller area is full and the wheelchair securement area is also full. Brandon Transit does not explicitly require strollers to be folded but commented that "from time to time, strollers may need to be folded, depending on the capacity of the bus." The primary comment from transit agencies regarding their basis for requiring folding or collapsible strollers is to keep the aisles clear, and according to one agency, strollers "must not present a hazard to other passengers."

As shown in Table 19, 23 of 31 agencies (74%) require that the baby/child be removed from the stroller on buses (four of the agencies that do not require foldable/collapsible strollers nevertheless require strollers to be empty on buses). One transit system manager highlighted the importance of requiring children to be removed from the stroller on the bus by recounting an incident when a child in a stroller hit a bus windshield during an accident.

TABLE 19
DOES THE AGENCY REQUIRE THAT THE BABY/CHILD BE REMOVED FROM THE STROLLER ON THE VEHICLE?

Yes	74% (23)
No	26% (8)

n = 31.

Of the 23 agencies that require a child to be removed from a stroller on a bus, seven (23%) indicated that a child must be seated in the parent's lap. The other 16 agencies either allow the child in a parent's lap or on a seat, or do not specify where the child must be seated. Several agency representatives were asked about safety issues in the development of their stroller policies, but few had any data about specific incidents to provide the basis for agency's requirements about where children could be seated. Although requiring

a child to be removed from the stroller may be the predominant policy, several agencies said enforcement of this policy is a challenge. One representative of a medium-sized agency noted that rules requiring children to be removed from the stroller are listed in the information guide, on the website, and are posted on the buses, but drivers rarely enforce the rule, and “parents removing the child from the stroller is the exception rather than the norm.”

Seven agencies do not require children to be removed from the stroller on a bus. Of these, only two agencies require that children be belted in the stroller and wheels be locked on the stroller.

Of the 12 agencies that operate both rail and bus service, only five indicated that they have the same policies on buses and rail cars. Six agencies that require strollers to be folded/collapsed on buses do not have the same requirements on their rail vehicles. For example, TriMet in Portland requires collapsible strollers to be folded on buses, but children may remain in strollers on rail cars. Likewise, MARTA, WMATA, NJ Transit, Capital Metro, and New York City MTA require strollers to be folded on buses, but do not have the same requirement on their rail vehicles (see Figures 23 and 24).



FIGURE 23 Small umbrella stroller on a New York City MTA subway train (courtesy: J. Goldman, Nelson\Nygaard Associates).



FIGURE 24 Two unfolded strollers on a CTA (Chicago) rail car fill the center aisle (courtesy: CTA).

Space Allocation and Limits on the Number of Strollers

Although no agency has an official policy that limits the number of strollers allowed on a vehicle at one time, five agencies with stroller policies offered the caveat that strollers could be limited depending on the passenger load on a vehicle. No agency limits the hours that strollers may be brought aboard vehicles.

Only two of the 31 agencies have stated limits on the number of strollers allowed on a vehicle when wheelchairs are secured in the vehicle. As a matter of practicality, however, a few agencies acknowledge that they informally limit strollers when wheelchairs are in spaces that could otherwise be used by strollers. Four of the agencies without limits on strollers when wheelchairs are aboard ask that strollers be placed in the wheelchair area on the vehicle.

Agencies were asked whether their policies require or request strollers to be placed in a specific location on the vehicle. Twenty of 31 agencies (65%) indicated strollers must be kept in a specific location (Table 20). Figure 25 shows that the largest group of agencies requires strollers to be kept in the wheelchair area or out of aisles and doorways.

TABLE 20

MUST STROLLERS BE KEPT IN A SPECIFIC LOCATION?

Yes	65% (20)
No	35% (11)

n = 31.

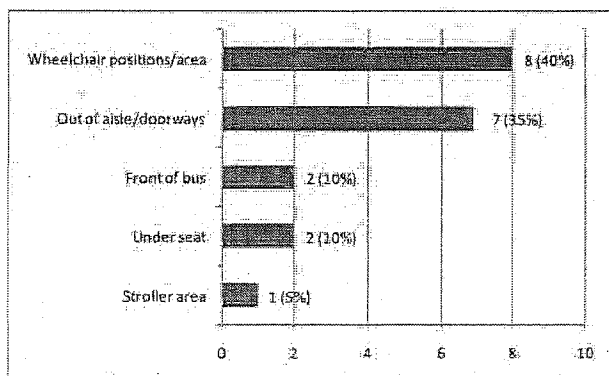


FIGURE 25 Where are strollers required to be placed ($n = 19$)?

None of the agencies charges a fee for strollers, requires stroller inspection or approval, or issues a stroller permit.

Driver Assistance

Only one of the agencies indicated that drivers are requested *not* to provide assistance. Sixteen of the 31 agencies (52%) with a stroller policy in place indicated that their policy does not provide direction regarding driver assistance. One respondent indicated that “most drivers are eager to help, but that they are not required to do so.” One agency stated that “no assistance is required for strollers”; another agency said drivers are “only required to assist with wheelchair strollers.” Twelve of 31 agencies (39%) said that drivers may provide assistance if requested. As shown in Figure 26, where drivers offer assistance, that assistance generally includes extending a ramp or lift or providing help to the passenger boarding or alighting with the stroller.

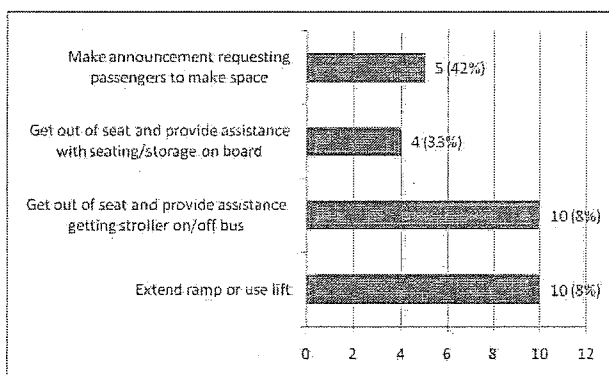


FIGURE 26 Strollers: Which of the following types of assistance may drivers provide (buses) ($n = 12$)?

Stroller Policy Effectiveness

Most agencies responded that their stroller policies are “effective.” Several agencies reported having few problems, and some agencies said they have few strollers. Agencies that indicated challenges with strollers or their stroller policy noted the following are primary problems:

- Drivers are not consistent with regard to enforcement of the policies.
- Most of the conflicts that arise among passengers are the result of inconsistent enforcement by drivers.
- Policies are vague and rely on the operator’s discretion in individual circumstances.

Two medium-sized agencies indicated that “high numbers of strollers on some routes creates delay” and “strollers are a significant source of frustration for both drivers and passengers.”

All agencies, regardless of whether they had a stroller policy in place, were asked whether restrictions regarding strollers were considered but not implemented (Table 21).

TABLE 21
RESTRICTIONS ON STROLLERS CONSIDERED BUT NOT IMPLEMENTED

Yes	18% (7)
No	82% (33)

$n = 40$.

Three of the agencies said that conflicts with wheelchairs were a major concern in considering restrictions on large strollers. In all three cases, the agencies give priority to wheelchairs but allow riders to park strollers in the areas reserved for wheelchairs when space is available. One agency said staff had extensive discussions about alternatives, ranging from strict enforcement of the existing policy to removal of seats for strollers and storage of large objects. Ultimately, the agency plans to require perimeter seating (all seats facing the aisle) when placing its next bus order.

ONE AGENCY’S EXPERIENCE: TRI DELTA TRANSIT, ANTIOCH, CALIFORNIA—CREATING SPACE ON BUSES FOR STROLLERS

Tri Delta Transit’s removal of a two-passenger seat to accommodate strollers on its fixed route buses is a story of detective work to solve a high and growing number of late trips on specific routes and complaints about rude drivers. Tri Delta is officially Eastern Contra Costa Transit Authority, which describes the area in the California county where it is located.

The investigation began with operator reports indicating “many lift deployments” unsupported by the number of paid disabled fares. In addition, the late trips did not match what the staff knew about the time required to board a mobility device. As the chief executive officer (CEO) said in an April 13, 2010, e-mail, “Basically: it just didn’t seem right (sorry—gut instinct isn’t very scientific...).” Staff started spending more time on the offending routes to watch what was happening and noticed a very high number of strollers. The CEO noted,

The issue wasn't getting the strollers on and off the bus—it was our rule that the strollers must be folded and placed out of the aisle. Some of the folding sessions took several minutes, especially if there were multiple children and/or lots of packages. Being a former driver of a double stroller I could completely relate to the issues with being forced to unload and fold (J. Krieg, Tri Delta Transit, personal communication, Apr. 13, 2010).

Operators were getting into arguments with passengers who did not want to take their children out of the stroller to fold it, and mothers with strollers were complaining about rude drivers. There were also language barriers between the drivers and some Hispanic parents. In addition, other passengers who witnessed the stroller-related events complained, as did passengers whose buses were late.

A committee of operators, safety/training, maintenance, planning, and marketing employees met and recommended that strollers could remain unfolded in the wheelchair area as long as there were no wheelchairs on board. If a wheelchair passenger boarded, the stroller had to move. Overall, the CEO reports that this recommendation worked very well. However, a few incidents of disagreements between people in wheelchairs and parents with strollers still did occur.

In 2005, Tri Delta staff decided to remove one two-passenger seat from a fixed route bus and label the area for strollers. After a four-month demonstration period, in March 2006 one seat was unbolted from all 40-ft fixed route buses used on Tri Delta Transit's 14 local routes (Figure 27). A static cling transparent sticker is affixed to the window marking the area for strollers (Figure 28). No seat removal was necessary for the commuter coaches and paratransit vehicles. Although initially there was concern from the committee about decreased seating capacity during crush-load periods, passengers actually have more

room for standing when the bus is crowded and no strollers are on board.



FIGURE 28 Stroller seating area window stickers (courtesy: Tri Delta Transit).

Passenger comments at community meetings have been very positive. Based on feedback, a special stop request button has been added in the stroller area. When the stop request button in this area is activated, the operator can position the bus to safely deploy the mobility lift for the stroller at the next stop. In recognition of this community success story, one of the jurisdictions in the service area has honored Tri Delta Transit with a Transportation Equity and Access to Healthcare award.



FIGURE 27 Stroller seating area on Tri Delta Transit bus (courtesy: Tri Delta Transit).

CHAPTER SIX

BICYCLES

LITERATURE REVIEW ON BICYCLES AND BICYCLE ACCOMMODATION POLICIES

Allowing bicycles on transit extends the feasibility of taking transit by allowing riders to cover “the last mile,” when the bus or train does not come close enough to the origin or destination for a comfortable walk. “Transit is most effective for moderate- and long-distance trips on busy corridors, while cycling is effective for shorter-distance trips with multiple stops. Combining transit and cycling can provide a high level of mobility comparable to automobile travel” (Spindler and Boyle 1999).

The 2006 *TCRP Synthesis 62: Integration of Bicycles and Transit* offers information regarding the history and current practices of bike integration on a variety of transit modes, including bus, rail, vanpool, and ferry. The report, partly based on a survey of 56 North American transit agencies, explores the reasoning, formulation, and implementation of bicycle policies. The section detailing bike-on-bus policies focuses primarily on external bike racks; however, the report notes that, if applicable, onboard bike policy is usually determined by context and driver discretion. For rail, the focus turns to onboard policies, including a series of tables that examine transit agencies’ methods of housing and securing the devices on light rail, heavy rail, and commuter rail vehicles. Table 22 consolidates the bicycle accommodation tables from the synthesis.

Key passages from the document’s Summary follow:

[Buses:]

...The method used by most transit agencies is to mount a bicycle rack on the front of the bus. Front-mounted racks commonly carry two bicycles; however, more agencies are experimenting with racks that can hold three to five bicycles. Customers are responsible for loading and securing their bikes on the racks, and the racks can be folded up against the front of the bus when they are not in use.

Some transit agencies allow bicycles to be taken on board the bus. However, many agencies restrict bicycle access in the bus to prevent overcrowding. These agencies often give bus drivers the discretion to decide whether bicycles are allowed inside the bus. Drivers are more likely to allow bicycles inside the bus when the racks are full, at night, or when service is infrequent (when the bus is the last bus of the evening on a particular route or there is a long wait before the next bus).

Some commuter buses are equipped with extra storage space for luggage and other packages. Several agencies that responded to the survey allow bicycles to be stored in this space, typically located in a compartment below the floor of the bus.

[Rail:]

...One method of accommodation is to require bicyclists to board designated rail cars and remain with their bikes in designated areas. Agencies reported that between 2 and 16 bicycles could be accommodated per train in this manner, depending on restrictions. Some rail cars have special bike racks or hooks where bicyclists can store their bikes.... One responding transit agency provides a designated bicycle car with space for 17 bicycles in each train set (...San Joaquin Regional Rail System...).

It is common for transit agencies to prohibit bicycle access on train cars during peak travel times. This is done to reduce congestion on the train and to reduce friction in boarding and exiting the train (Schneider 2006).

Disputing the prohibition during peak travel times, bicyclist advocates call for a culture of acceptance for all commuters. A survey sponsored by the San Francisco Bicycle Coalition recommends that BART ease or eliminate bike blackout restrictions, communicate existing guidelines/programs more effectively, study the feasibility of a bike car, explore installing bike hooks and priority areas on new cars that BART intends to order, and review the agency’s first-car bike prohibition policy (Vi 2009).

However, even public officials who support bicycle commuters acknowledge the conflict between crowded trains and bicyclists. On a local radio show, New York City Mayor Michael Bloomberg expressed his concern about transporting bikes on the subway during rush hour. Mayor Bloomberg, an avid supporter of mass transit (who also carries a legacy of creating bike-only lanes and signals), prefers, for the sake of user comfort and ease, to keep the subway and bicycle modes separate (Barbaro 2009).

One issue that bus operators have faced is the limit on the number of bicycles they can carry on the front of the bus. Some operators have modified the racks so that the bikes do not block the headlights, according to *TCRP Synthesis 62*, whereas others allow bikes only during daylight hours. In California, AC Transit sponsored successful legislation to extend the maximum rack length from 36 in. to 40 in., which