DISABILITY TRAVEL IN THE UNITED STATES: RECENT RESEARCH AND FINDINGS

Van Horn, Laurel
Open Doors Organization, Chicago, IL, U.S.
laurel@opendoorsnfp.org

SUMMARY

Key Words: accessible travel, disability travel, air travel, accessible tourism, travelers with disabilities, long distance travel

PURPOSE OF THE STUDY

The purpose of this paper is to report and compare the salient findings of recent research on travel by Americans with disabilities. Until 2002, when Open Doors Organization (ODO) sponsored its first nationwide study on travel by adults with disabilities (ODO 2002), conducted by Harris Interactive, there had never been a major, statistically reliable survey on the U.S. disability travel market. No one could say with any assurance what percentage of adults with disabilities were traveling, how frequently, what modes of public transportation they used or how much they spent. This meant that corporations in the travel industry had no data on which to base investment decisions and thus little incentive to do more than the minimum required under Title III of the Americans with Disabilities Act.

In 2002 the Bureau of Transportation Statistics (BTS) carried out its own *Transportation Availability and Use Survey* (BTS 2002 cited in BTS 2003) which explored not only travel by public transportation but also private vehicle. Its sample was divided evenly between disabled and non-disabled respondents of all ages. The motivation was the "critical lack of information...[on] transportation use by people with physical, mental or emotional disabilities," but the goal in this case was "to create an information source for transportation planners and policy makers..." rather than the private sector (BTS 2003, p.3). While it focused primarily on local transportation, the BTS study also covered long distance travel. Findings from this survey have been released in several reports including *Freedom to Travel* (BTS 2003) and *Travel Patterns of Older Americans with Disabilities* (Sweeney 2004).

In 2003, ODO sponsored a second nationwide study which explored in greater depth the barriers facing travelers with disabilities in airports and airplanes as well as hotels and restaurants (ODO 2005). The 2005 study also examined how these travelers planned and booked trips and identified which destinations are most popular.

Further evidence of the difficulties facing air travelers with disabilities was revealed in September 2005 by the first *Annual Report on Disability-Related Air Travel Complaints*, presented to the U.S. Congress by the Secretary of Transportation (DOT 2005). The second such report followed in October 2006 (DOT 2006). These annual reports, mandated under a federal law known as AIR-21, list complaints by both the disability of the complainant and the nature of the service failure. Since the data is reported in the aggregate for 1) all airlines serving the U.S. market, 2) foreign airlines and 3) domestic airlines, as well as for individual carriers,

one can use the reports either to assess the performance of the industry overall or to make an informed decision on which carriers to select or avoid.

Taken together, these studies and reports corroborate and complement each other to provide a detailed portrait of the disability travel market in the US today, including the barriers which may restrict the frequency and types of long distance travel which individuals with disabilities are willing to undertake. Indeed, Open Doors Organization projected that the market could easily double if these problems with service and facilities were resolved (ODO 2002, p.68).

METHODOLOGY AND OBJECTIVES

1. 2002 and 2003 ODO Travel Market Studies

Both studies by the Open Doors Organization were carried out by Harris Interactive using the same methodology for each so as to make trending possible. ODO plans to sponsor its next travel study using identical methodology in 2008, with preliminary qualitative research to be conducted in 2007.

For the 2002 ODO study, the total sample included 1,037 interviews with adults with disabilities: 534 interviews conducted online, using the Harris Poll Online Database, and 503 interviews conducted by telephone, using a prescreened sample of adults with disabilities from the Harris Poll. Interviewing took place between September 23 and October 9, 2002. The interviews were an average of 21 minutes in length, both online and by telephone. To develop the questionnaire, ODO held focus groups within the disability community in Chicago and also conducted telephone interviews with business leaders from across the US (ODO 2002, p.5). Disability was defined as "having blindness, deafness or a condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting or carrying" (ODO 2002, p.5). Respondents were screened based on these criteria using a variation of the 2000 Census question. Fifteen percent of the general adult population (or more than 31 million adults aged 18 and older) defines themselves as having one or more of these characteristics. This data on the incidence of adults with disabilities was obtained through the Harris Poll (the Harris Poll November 2002 cited in ODO 2002) and based on the 209,128,094 people aged 18 years and older in the US population, according to the 2000 US Census. The data was weighted to represent the populations with these disabilities aged 18 and older.

In 2003, the methodology used was identical to that of the earlier study (ODO 2003, p.3). The total sample consisted of 1,373 interviews among adults with disabilities, 871 online and 502 by phone. Interviewing took place between February 8 and 28, 2003. Interviews were an average of 21 minutes in length on the telephone and 16 minutes online. The data was weighted as in 2002, with the data on the incidence of adults with disabilities obtained by the Harris Poll (the Harris Poll November 2003 cited in ODO 2003) and based again on the 2000 US Census.

For the 2002 ODO study, the key objectives were to: 1) "measure general travel behaviors including how often adults with disabilities are traveling, with whom, how much they spend, and on which sources of information they rely to make decisions;" 2) "gauge experiences with airlines, cruise lines, restaurants, and hotels;" 3) "determine how well the needs of adults with disabilities are being met by airlines and hotels;" 4) "quantify the top services/products that would encourage adults with disabilities to fly and stay in hotels more often;" and 5) "estimate

the current and potential economic impact of the disability community" (CTC 2002, p.4).

For the 2005 CTC Study, the key objectives were to 1) "measure general travel behaviors including how often adults with disabilities are traveling, how much money they spend, and which sources of information they rely on to make decisions;" 2) "gauge experiences with airlines, airports, car rental agencies, hotels, and restaurants;" 3) "determine the obstacles that adults with disabilities encounter with airlines, airports, hotels, and restaurants;" 4) "estimate the current and potential economic impact of the disability community;" and 5) "compare 2005 findings to the 2002 study to uncover possible trends and differences over time" (CTC 2005, p.4).

2. BTS 2002 National Transportation Availability and Use Survey

The Bureau of Transportation Statistics study involved 5,019 interviews, 2,321 with individuals who self-identified as having a disability and 2,698 with non-disabled individuals. By surveying equal numbers of persons with and without disabilities, the BTS study sought "to compare the two groups and identify common transportation uses and problems as well as uses and problems unique to each group" (BTS 2003, p.14). Persons of any age, including children, were eligible although proxy interviews were used for those under 16, 16-17 year-olds living with adults, and those unable to complete the interview due to their disability (BTS 2003, p.13). The interviews took place between July 12, 2002 and September 29, 2002 (BTS 2003, p.14).

Because the methodology, sampling and weighting techniques used in the BTS survey are complex, readers are referred to the *Freedom to Travel* report (BTS 2003, p.12-16) for a full description. In brief, a nationally representative set of telephone numbers was first selected through list-assisted random-digit dialing techniques. A two-stage process of computer-assisted telephone interviewing was then used to select and survey the respondents. During the first screener interview, households who had someone with a disability were identified. In the second extended interview, the selected respondent was asked to confirm his or her disability status before answering the survey questions. In order to ensure full access, interviews were also conducted via TTY or TLL and the questionnaire was available by mail and internet.

Survey respondents were asked to "self-identify disability according to several definitions, specifically: the Census 2000 definition, the 1990 Americans with Disabilities Act (ADA) definition, which considers disability as a "physical or mental impairment that substantially limits one or more of the major life activities;" and if a child in the household received "special education services"" (BTS 2003, p.3). However, disability data presented in *Freedom to Travel* (BTS, 2003) and *Travel Patterns of Older Americans with Disabilities* (Sweeney, 2004) are only from respondents who self-identified using the Census 2000disability definition in order to provide comparability with the Census.

Topics covered in the survey included: 1) "frequency of travel outside the home, including trip purpose, mode of transportation, frequency of use of different modes, need for assistance, and satisfaction with transportation services;" 2) "availability of paratransit (curb-to-curb service) and respondent use of paratransit;" 3) "motor vehicle ownership, use and safety issues, including vehicles modified for use by people with disabilities;" and 4) "experiences when using various

modes of travel, including difficulties with public and private transportation" (BTS 2003, p.3). This paper will focus just on topics related to long distance travel and transportation.

3. DOT Annual Reports on Disability Related Air Travel Complaints

In July 8, 2003, the US Department of Transportation published a final rule to implement the requirements of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181), known as AIR-21. The rule requires all air carriers operating to, from or within the United States and using at least one aircraft having a designated seating for more than 60 passengers to report complaints of discrimination or lack of accessibility by passengers with disabilities (DOT 2003, p.1). The Secretary of Transportation, in turn, must issue an annual report to the US Congress summarizing these complaints. Prior to AIR-21, the DOT had access to only those complaints sent directly to them, a fraction of the whole, which made it hard to judge how well the airlines serving the US market were abiding by the Air Carrier Access Act of 1986, which prohibits discriminatory treatment of persons with disabilities in air transportation. To make the reporting process manageable, the airlines must use the DOT's standardized categories for the passenger's type of disability and the nature of their complaint, which each number 13 in all. The aggregate results are presented in the form of grids so that one can match type of disability with nature of complaint (US DOT 2005, 2006).

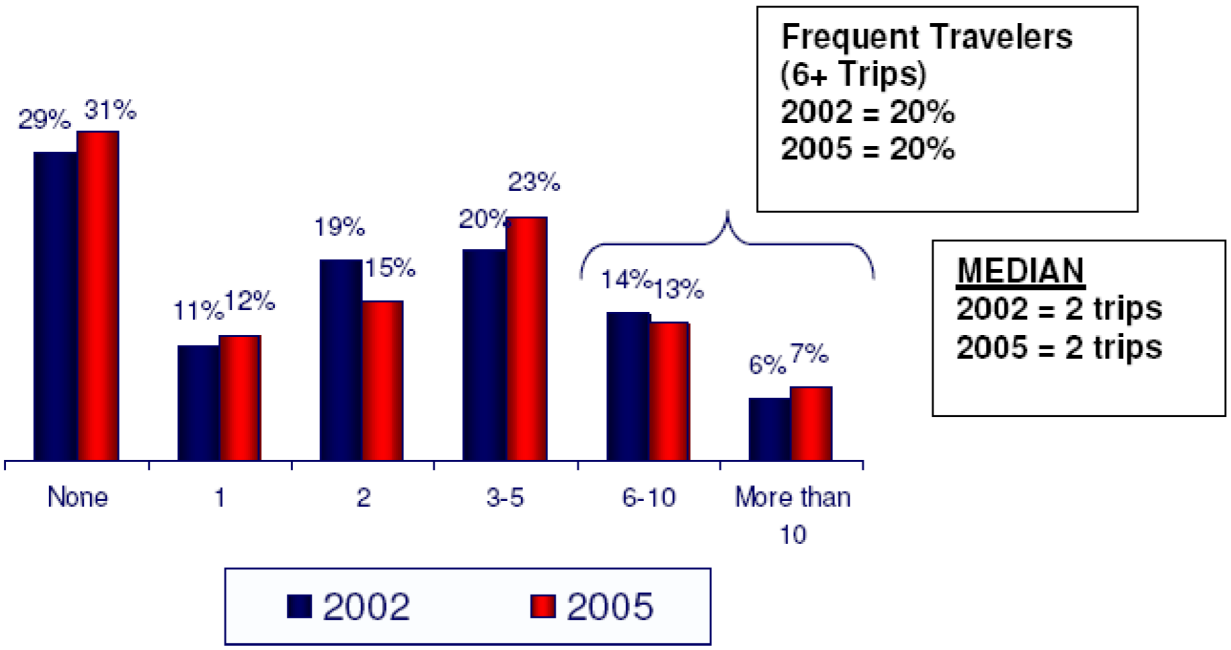
The first report to Congress covers disability-related complaints received by the carriers during the calendar year 2004, with data due to the DOT by January 25, 2005. The second report covers the calendar year 2005, with airline data due by January 30, 2006. In each case, a number of air carriers did not report and are currently under investigation (US DOT 2006, p.4). The US Department of Transportation notes in both *Annual Reports* that it neither audits or verifies the data but simply reports it as received (US DOT 2005, p.3; 2006, p.3).

RESULTS

1. 2002 Open Doors Organization Travel Market Study

The 2002 ODO Study found that 71% of adults with disabilities, or more than 22 million people, travel at least once in a two-year period. This includes 5.6 million business travelers, 21 million pleasure/leisure travelers and 5 million travelers who combine business and pleasure. Overall, adults with disabilities take about 2 trips every 2 years, or approximately 63 million total trips, the majority of which are for pleasure (ODO 2002, p.7). Each trip generally lasts 5 days. There is also a subgroup of more frequent travelers: 20% of all adults with disabilities travel at least 6 times every 2 years (see figure 1). "While traveling, the typical adult with a disability spends $430, which means travel expenditures among the disability population top $27 billion over the course of 2 years" (ODO 2002, p.8). On an annual basis, adults with disabilities spend approximately $13.6 billion on travel.

Figure 1



Total Trips Taken In Past Two Years
[Source: Open Doors Organization, 2005, p.21]]

When planning a trip, the Internet is a key resource for adults with disabilities. Almost half of those who travel (46%) say they consult the Internet for accessibility information. One-third (33%) of those who travel book their trips most frequently online, which appears to be somewhat higher than the general population. According to the Travel Industry Association (TIA), 27% of travelers in 2002 used the Internet for actually booking something related to their travel during the past year (TIA cited in CLC 2002, p.9). Word of mouth is also an extremely important source of information for adults with disabilities: "85% of those who travel say they share their travel experiences with others, indicating a powerful network among travelers with disabilities" (CLC 2002, p.9).

Almost one-third (30%) of adults with disabilities, or 9.4 million air travelers in total, traveled by air in the previous two years. Air travelers typically take 2 flights every two years and spend $349 per flight, which equates to $3.3 billion per year for the entire airline industry. "Air travelers say they would take 2 more flights per year if airlines were to accommodate their needs as a person with a disability. This translates into 18.8 million more flights and means that air spending by the disability community could more than double if airlines were to make necessary accommodations." The top features or services that airlines would need to offer to encourage more frequent travel would be: "1) more accommodating staff, 2) guaranteed preferred seating, and 3) a designated employee at check-in and arrival" (CLC 2002, p.10).

Over a five-year period, 12% of adults with disabilities took a cruise. This appears to be somewhat higher than the general population since, according to the Cruise Lines International

Association (CLIA), only 8% of the U.S. general population took a cruise during the same five-year period (CLIA *2002 Market Profile Study* cited in CLC 2002, p.14). Among adults with disabilities, the repeat business for cruises may be particularly high: 59% of those who took a cruise in the previous five years say they plan to take another cruise within the next five years (CLC 2002, p.14).

2. 2005 Open Doors Organization Travel Market Study

In 2005, the percentage of adults with disabilities traveling and the number of trips taken remained roughly the same as in 2002. Sixty-nine percent of adults with disabilities, or more than 21 million people, traveled at least once in the prior two years. This includes 3.9 million business travelers, 20 million pleasure/leisure travelers and 4.4 million travelers who combine business and pleasure. They take 2 trips every two years, or approximately 63 million total trips, the majority of which are for pleasure (CLC 2005, p.7). As in 2002, there was a subgroup of more frequent travelers in the disability community– 20% of all adults with disabilities travel at least 6 times every 2 years (see figure 1)

The Internet remains an important resource for adults with disabilities. Half of those who travel (51%) use the Internet to book their trips, which once again appears to exceed usage by the general population. "According to the Travel Industry Association, 40% of travelers in 2005 used the Internet for actually booking something related to their travel during the past year" (TIA cited in CLC 2005, p.9). Almost half (43%) of travelers in the CLC sample say they consult the Internet to support their disability-related travel needs. For these travelers, the top ways they use the Internet are: finding and/or booking accessible hotels (57%); finding accessibility information about airlines (47%); and finding accessible activities, tours, and attractions at their destination (47%) (CLC 2005, p.9).

Compared to 2002, the percentage of adults with disabilities traveling by air over the 2-year period stayed at approximately the same level: 31% or 9.6 million air travelers in total. Air travelers typically took 2 flights every two years, as they did in 2002, and they spent $502 on air travel per trip or $2.9 billion per year for the entire airline industry (CLC 2005, p.12). However, the vast majority of air travelers (84%) stated that they "encounter obstacles when dealing with airlines" (CLC 2005, p.12). Topping the list were physical obstacles (67%), with cramped seating areas (52%) being the most common complaint. Problems with service/personnel were also prevalent (60%), with long lines (42%) and problems reserving their preferred seat (20%) predominating. Respondents also reported expense-related obstacles (37%) and difficulties with communication (28%) including difficulty hearing announcements (17%).

Four out of five air travelers (82%) also experience obstacles when they are at the airport, the most common being long distances to or between gates (63%) and long lines (48%). More than one in four (27%) mentioned communication-related obstacles in the airports (CLC 2005, p.13). Despite these obstacles, air travel was by far the most popular form of paid transportation. Only 11% of adults with disabilities had traveled by train or bus, making on average 1 such trip during the two-year period. Twenty percent of adults with disabilities, or 6.2 million people in all, rented a car over the course of two years. Car renters typically rent a car on 1 trip every two years and spend about $40 per day (CLC 2005, p.14).

To encourage destinations, domestic and international, to improve access and marketing to travelers with disabilities, the 2005 OLC Study also asked online respondents to identify which cities and countries they had visited. Most popular in the continental US were New York City (47%), Washington, DC (45%), and Chicago (44%), edging out Orlando, Las Vegas, and Los Angeles (all tied at 42%). Other top ten destinations, in order, were San Francisco, Atlanta, Dallas, and San Diego (OLC 2005, p.8).

Three out of five adults with disabilities (62%) who are online have traveled outside the continental United States at least once in their lifetime, the vast majority (85%) to other North American destinations including Canada (56%) and Mexico (52%). More than two out of five (44%) of those who have traveled outside the continental United States have been to Europe, mostly to Germany (28%), England (26%), and France (25%). Almost one out of three (31%) who have traveled outside the continental United States have visited the Caribbean. In the previous two years, 16% of online adults with disabilities traveled outside the continental United States. "The typical international traveler spent almost $1,600 on this travel, which means current international travel expenditures among the disability population top $7 billion over the course of two years" (OLC 2005, p.8).

Finally, as noted above, the 2005 OLC Study identified a segment of adults with disabilities who may be described as frequent or heavy travelers. One in five (20%) are frequent travelers, making 6 or more trips in a two-year period; 11% are heavy airline users, taking 3 or more flights over two years; 21% are heavy hotel users, staying in hotels 4 or more times in two years; 10% are heavy car renters, renting 2 or more cars in two years; and 7% are heavy international spenders, typically spending more than $1,000 on a trip outside of the continental U.S. in a two-year period (OLC 2005, p.8,35).

3. BTS 2002 National Transportation Availability and Use Survey

According to the *Freedom to Travel* report, the 2002 BTS Survey found that over a one-year period 60% of people with disabilities travel long distance (more than 100 miles one way) versus 76% of those without disabilities (BTS 2003, p.9). Among both groups, the two most frequently used modes of transportation for long-distance travel are personal motor vehicles and commercial airlines. Among long-distance travelers, 31.3% with disabilities had taken a commercial flight, compared to 40% of those without disabilities. Other types of transportation were used much less frequently: only 3% or fewer of both disabled and non-disabled respondents used an intercity bus, private/chartered bus or Amtrak/intercity rail (BTS 2003, p.9).

A significantly higher percentage of air travelers with disabilities experience problems at airports than do their non-disabled counterparts, 33% versus 43%. The most frequently cited problems for both groups are schedules not being kept and restrictive security measures. However, these general issues were mentioned less often by travelers with disabilities than by the non-disabled. One in four travelers with disabilities (25.39%) complained of schedules not being kept compared to more than one in three (37.66%) travelers with no disability. Restrictive security measures bothered one in three (34.12%) travelers with disabilities versus almost one in two (49.13) travelers with no disability (BTS 2003, p.9). Instead, those with disabilities complained more often of staff assistance/poor sensitivity, inadequate seating, too much walking and

unavailable wheelchairs. More travelers with disabilities also experienced problems on airplanes, 32.91% versus 23.61% of those without disabilities. In each case, the biggest grievance was inadequate seating– 68.61% among complainants with disabilities, 52.44% among those without (BTS 2003, p.36-37).

4. DOT 2005 and 2006 Annual Reports on Disability-Related Air Travel Complaints

The Secretary of Transportation's Annual Reports to Congress provide both summary and detailed information on actual complaints filed by travelers with disabilities with the air carriers with whom they traveled. The 2005 Report, which covered the calendar year 2004, included complaint data submitted by 54 U.S. carriers and 97 foreign carriers. In all there were 11,519 complaints, 10,193 to domestic carriers, 1,326 to foreign air carriers (US DOT 2005, p.3). In 2006, 56 U.S. carriers and 100 foreign carriers submitted data for the calendar year 2005. In all there were 13,584 complaints, 12,194 to domestic carriers and 1,390 to foreign carriers (US DOT 2006, p.4). This represents an overall increase of over 17% from the previous year. Both reports note that "approximately 17 million persons with disabilities in the United States travel by air each year and the vast majority of them do not file a disability-related air travel complaint" (US DOT 2005, p.3; 2006, p.4).

In both calendar years, "more than half the complaints reported concerned the failure to provide adequate assistance to persons using wheelchairs" (US DOT 2006, p.4). For all types of disability, failure to provide adequate assistance made up 66.6% of total complaints in 2004 and 65.6% in 2005. Seating accommodations was the second most common problem, making up 11% of total complaints in 2004 and 9.5% in 2005. Damage to assistive devices, mostly wheelchairs, ranked third in both years with complaints in this category rising from 4.7% in 2004 to 6.5% in 2005 (US DOT 2005, 2006). While foreign air carriers have a higher percentage of complaints about wheelchair damage, their level of complaints in this category remained stable at slightly over 15%, while complaints to U.S carriers rose from 3.3% in 2004 to 5.5% in 2005. In general both the disability of complainants and the problems reported were remarkably stable from year to year. In both 2004 and 2005, 68% of those filing complaints with airlines identified themselves as wheelchair users. "Other disabilities" was the second largest category at roughly 19-20%. Complainants with hearing or vision loss or both made up 3% or less of the total (US DOT 2005, 2006).

DISCUSSION

As both the DOT Studies and BTS Survey show, the travel market among Americans with disabilities is sizeable. Although one cannot strictly compare their results since DOT excluded children and persons with mental/cognitive disabilities from its samples, both reveal that the majority of Americans with disabilities are making long distance trips. In the BTS survey, 60% of respondents traveled within a one-year period, while 71% of the DOT respondents in 2002 and 69% in 2005 had traveled over a two-year period, making on average 2 trips. By referencing a two-year period in its surveys, DOT explicitly seeks to include that part of the market that travels less frequently but nonetheless does travel long distance. Respondents taking 1 trip in a two-year period totaled 11% in 2002 and 12% in 2005 (see figure 1).

Among those traveling long distance, 31.49% in the BTS Survey used a commercial airplane (BTS 2003, Table 29, p.350), which equates to 10.2 million air travelers with disabilities per year (not 17 million, as the DOT erroneously reported to Congress. To arrive at this inflated figure, the DOT multiplied 31.49% by the total number of Americans with disabilities (54 million), rather than by the 59.9% (or 32.3 million) who had actually made long distance trips (see US DOT 2005, p.33). DOT's 2002 Study found that 30% of adults with disabilities, or 9.4 million, had flown over a one-year period, making an average of 2 flights each. In DOT's 2005 Study this increased to 31% or 9.6 million. Thus, the DOT and BTS estimates on air travel by persons with disabilities are very similar. So are their figures for long distance travel by bus and train. While BTS reports usage of 3.49% for intercity bus, 4.02% for private or chartered bus and 5.15% for Amtrak/intercity train (figures that may overlap) over a one-year period (BTS 2003, table 28, p.34), DOT in 2005 found bus and train usage together to be 11% over two years. Paid ground transport is clearly a much less favored option compared to both airplanes and personal motor vehicles.

While the BTS and DOT studies both explore the problems facing long distance travelers with disabilities, the overall percentages and specific complaints vary significantly. In the 2005 DOT Study, 84% of air travelers experienced problems with airlines and 82% with airports. By comparison, 33% of air travelers in the BTS Survey experienced problems with airplanes and 55% with airports. As noted above, these percentages were significantly higher than for their non-disabled counterparts. In both DOT and BTS studies, problems with onboard seating topped the list of complaints against airlines. One should note that in the BTS Survey, "schedule not kept" soon enough wound up in the airport rather than airline tally. The issue of long lines, a major complaint among DOT respondents, was not a choice in the BTS Survey (BTS 2003, tables 30-31, p.33-37). On the other hand, DOT did not include general issues affecting all travelers such as delayed flights.

By standardizing the list of disability related complaints along with types of disability, the Secretary of Transportation's *Annual Reports* (US DOT 2005, 2006) make year to year comparisons of this new data a much easier task. Although most air travelers with disabilities do not formally complain about the problems they face, this does not mean that their negative experiences are not affecting future travel plans. By taking the time to complain to the airlines, the travelers represented in these DOT reports signal the extreme seriousness of what happened to them. Long lines, distant gates or narrow aisles may not warrant a formal complaint but missing a flight because a wheelchair assist never came or having ones mobility device damaged certainly do. Not surprisingly, from the two years of data now available, we see that individuals using wheelchairs are the predominant complainants, with "failure to provide assistance" the most common complaint. A recent study by the Office of the Inspector General of the US DOT may point to the main reason behind these service failures: lack of compliance with federal requirements for training employees by both airlines and their contractors (OIG 2006, p.27-39). The Inspector General accordingly calls for both stricter requirements and enforcement.

CONCLUSION

Thanks to the studies referenced, we now know much more about American travelers with disabilities than we did prior to 2002. Rather than just a problem to be faced– although the

above certainly indicates that many problems remain—travelers with disabilities now represent a real economic opportunity for the businesses who serve and market to them. Although the old stereotype was that people with disabilities are too poor or incapacitated to travel, in actuality they represent a broad spectrum of wealth and ability. Yes, many individuals are not traveling long distance and may never leave their homes due to severe disability or poverty. At the other end of the spectrum are a significant number of frequent or heavy travelers making multiple trips per year and even spending heavily overseas. Internet use among travelers with disabilities, both to plan and book travel, may exceed that of the general traveling public. So may the percentage of Americans with disabilities taking cruise vacations. As Baby Boomers age and become more prone to disabling conditions over the next several decades, the need for greater accessibility in travel and tourism will continue to expand. That trend alone should guarantee many more research studies to come, as businesses and governmental authorities dig and yet more insight into this complex and evolving market.

REFERENCES

Bureau of Transportation Statistics, U.S. Department of Transportation, 2002. *Transportation Availability and Use Survey*. [Internet]. Available from: www.bts.gov [cited 31 Jan. 2007].

Bureau of Transportation Statistics, U.S. Department of Transportation, 2003. *Freedom to Travel, BTS03-08*. [Internet]. Available from: www.bts.gov/publications/freedom_to_travel [cited 31 Jan. 2007].

Office of the Inspector General, U.S. Department of Transportation, 2006. *Follow-Up Review: Performance of U.S. Airlines in Implementing Selected Provisions of the Airline Customer Service Commitment*. [Internet]. Available from: http://www.oig.dot.gov/Stream File?file=/data/pdfdocs/ACSfinal11-21signed.pdf [cited 31 Jan. 2007].

Open Doors Organization, 2002. *Research Among Adults With Disabilities: Travel and Hospitality*. Chicago: Open Doors Organization.

Open Doors Organization, 2005. *Research Among Adults With Disabilities: Travel and Hospitality*. Chicago: Open Doors Organization.

Sweeney, Meg, 2004. *Travel Patterns of Older Americans with Disabilities, 2004-001-CAS*. [Internet]. Available from: www.bts.gov/programs/bts_working_papers/2004/paper_01/ [cited 31 Jan. 2007].

U.S. Department of Transportation, 2005. *Annual Report on Disability-Related Air Travel Complaints*. [Internet]. Available from: http://airconsumer.ost.dot.gov/publications/gateway.htm [cited 31 Jan. 2007].

U.S. Department of Transportation, 2006. *Annual Report on Disability-Related Air Travel Complaints*. [Internet]. Available from: http://airconsumer.ost.dot.gov/publications/gateway.htm [cited 31 Jan. 2007].

Paper presented at 11th International Conference on Mobility and Transport for Elderly and Disabled Persons (TRANSED), Montreal, June 18-22, 2007