

CAROL KAUFMAN-SCARBOROUGH AND
STACEY MENZEL BAKER

Do People with Disabilities Believe the ADA Has Served Their Consumer Interests?

In recent years, numerous changes in the retail sector have been made to create accessibility for people with disabilities and to establish compliance with the Americans with Disabilities Act (ADA). This paper examines the responses of 1,000 people with disabilities taken from the 1998 National Organization on Disability/Harris Survey of Americans with Disabilities. These data enable us to examine whether the consumer interests of people with disabilities have been served by this legislation from the perspective of the people whom the law was designed to protect. The findings indicate that (1) respondents who are aware of the ADA are significantly more likely than those unaware of the ADA to believe that things have gotten better since the enactment of the ADA; however, a clear majority of those who are aware still believe that the ADA has made no difference; (2) respondents believe perceived access is related to disabilities and to environmental factors; (3) respondents who perceive fewer access problems spend more time in the marketplace; and (4) greater life satisfaction is related to greater perceptions of marketplace access and more frequent participation in the marketplace. In general, the results show that respondents believe their consumer interests have been served by the ADA, but the results also show there is more to be done.

Practically speaking, one in five shoppers in a store, one in five persons on a retailer's Web site, and one in five customers in a restaurant could potentially have a disability, whether visible or invisible to the observer. That is, statistics tell us that one in every five consumers has a disability of some kind, making people with disabilities the single largest minority group in the United States at nearly 50 million (Waldrop and Stern 2003). Such estimates of the population with disabilities vary given the lack of definitional exactness as to precisely what qualifies as a disability. In addition, it is not clear how many persons who actually have a disability

Carol Kaufman-Scarborough is an associate professor of marketing at Rutgers University School of Business, Camden, NJ (c Kaufman@camden.rutgers.edu). Stacey Menzel Baker is an assistant professor of marketing in the Department of Management & Marketing, College of Business Administration, University of Wyoming, Laramie, WY (smbaker@uwyo.edu).

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prefer to remain “invisible” in society and do not want to define themselves as “disabled”; thus, the actual total is unclear. Classifications attempt to include mental, mobility, and speech limitations; deafness; and visual impairments.

The Americans with Disabilities Act (ADA) was signed into law on July 26, 1990, promising equal opportunities for people with disabilities in a variety of venues around which daily activities revolve. The ADA originated in the civil rights era as disability activists were inspired by the women’s movement and by the African American struggle (see Baker and Kaufman-Scarborough 2001 for a retrospective and background on the ADA). In the 14 years since the ADA was enacted, considerable improvements have been made in accessibility and awareness of the rights of citizens with disabilities, but progress has been uneven and incomplete (Baker and Kaufman-Scarborough 2001; Burnett and Paul 1996; Lotito, Alvarez, and Pimentel 1992).

Title III of the ADA promises accessibility for consumers with disabilities in commercial venues, including various retail businesses, such as hotels, restaurants, movie theaters, and grocery stores. Its domain includes a wide range of institutions that provide many of life’s necessities. Modifications of existing buildings as well as newly constructed buildings are required so that they are accessible to persons with disabilities under the ADA. Basically, consumers with disabilities must be enabled to experience “reasonable access” in commercial venues. However, definitions of reasonable access have not been straightforward since people with disabilities are found to experience accessibility in different ways across specific types of retail settings (Baker, Stephens, and Hill 2001). For instance, some consumers with visual impairments may define access in a restaurant as having large print or Braille menus. Such accommodations might be meaningless to a patron with a hearing impairment who instead may seek interpreters or clear signage.

In the consumer context, reasonable access can be more generally defined in terms of the assistance, construction, or personnel that ensure people with disabilities can meet their consumer needs, including equivalent access to entrance, product information, salesperson assistance, and so forth. Fundamentally, the ADA requires that (1) businesses may not deny services on the basis of a disability, (2) public facilities provide alternative forms of communications such as information in Braille, (3) physical facilities be designed in a way that allows people with disabilities to enter and participate in the venue’s services, and (4) alternative delivery be provided when removal of barriers is not feasible (Baker and Kaufman-Scarborough 2001; Stephens and Bergman 1995).

The ADA requirements are written from the perspective of the provider's responsibilities so that the meaning of reasonable access can be determined. However, reasonable access also must be considered in terms of the attitudes and behaviors of people with disabilities by asking questions such as the following: Do customers with disabilities perceive their access is important and anticipated in advance? Can they actually patronize the businesses that they desire and carry out typical consumer behaviors? Do they perceive improvements in their access over time? Our goal is to focus on the consumer perspective in examining how actual persons with disabilities perceive accessibility in commercial venues.

The purpose of this paper is to examine whether people with disabilities perceive the ADA serves their interests and improves marketplace accessibility. This paper contributes to research on consumer interests because it examines the perceptions and behaviors of the actual consumers who the ADA was designed to protect. Further, it assesses the perceived impact that a particular piece of legislation has on people's everyday lives in the marketplace. The paper begins by describing three underlying theoretical approaches to disabilities study. After the 1998 National Organization on Disability (NOD)/Harris Survey of Americans with Disabilities is explained, the results of the national survey are presented. We conclude with a discussion of the findings in terms of how best to serve the interests of consumers with disabilities.

CONCEPTUAL FRAMEWORKS

Disabilities studies and legal development have been characterized as proceeding from one of two theoretical approaches: the medical model and the social model (Humphrey 2000; Oliver 1990; Paar and Butler 1999). Each approach focuses on *changing* something so that people with disabilities can become assimilated into society. Quite simply, the medical model seeks to rehabilitate the individual, whereas the social model seeks to reconfigure the environment. A third framework, representing consumer marketplace response, alternatively conceptualizes what consumers perceive in terms of independence and dependence and how they choose their marketplace responses. Each of these models will be briefly reviewed for applicability and subsequently used in the development of the propositions that guide our investigation.

The Medical Model

The medical model considers a person's disability as the cause of his/her limitations. Sometimes called the "disease" model, the focus is on the

illnesses, congenital defects, acquired injuries, or other conditions that limit individuals' activities, defining them as different from nondisabled people. The standards of disability, however, are often defined by societies themselves and may differ considerably from country to country (Ingstad and Whyte 1995). In essence, the disability itself is thought to prevent the person from participating in everyday life (Johnston 1996; Llewellyn and Hogan 2000; Oliver 1990).

The model assumes that people with disabilities must be "fixed" or learn to adapt for themselves to become a part of mainstream society. Effort is concentrated on returning or restoring the individual to normalcy by way of medical treatment or use of various assistive aids. If appropriate solutions are not found, the individual may be isolated from society. If a solution cannot be found, the disability itself is what prevents an individual from enjoying full participation in a society full of able-bodied persons (Chouinard 1997). Research that follows this approach would be expected to ask respondents whether their disability prevented them from participating in various consumer activities. This type of approach has been criticized for framing consumers as "disempowered victims" with "resource deficits" and failing to recognize the "resource assets" that consumers bring to consumption situations (Lee, Ozanne, and Hill 1999, 230).

The Social Model

Another perspective argues that society places various social restrictions on those with physical as well as mental and invisible handicaps such as epilepsy and attention-deficit disorder. Rather than blaming people for their personal characteristics, the social model considers society and its structure as the focal point for analysis (Oliver 1990). Within this perspective, consumers with disabilities are eligible (and able) to participate fully as active members of society. However, environmental factors such as limited mass transit "create" disabilities for consumers who are unable to drive, while similar consumers with ample mass transit can function independently and may not feel disabled at all.

Societies are disabled when they construct buildings, design transportation systems, and arrange workplaces that fundamentally are designed for "able-bodied" persons only. In essence, "ableist" design creates barriers that limit access to many parts of a society (Oliver 1990). For example, when educational programs in architecture, transportation and urban planning, and ergonomics do not assume the presence of consumers with disabilities as a given, they continue to adhere to traditions that were based on access for nondisabled persons only (Imrie 1999, 2000; Paar and Butler

1999). As a result, building plans do not begin with maximizing accessibility, but instead are designed to meet the minimum standards mandated by law. In many cases, such systems are adapted only after people with disabilities request the ability to participate and use specific facilities (Kaufman-Scarborough 2001). When conceptualized in this way, the problem becomes a "collective responsibility of the society as a whole" to redress the balance and provide access via changes in society (Llewellyn and Hogan 2000, 159).

The basic tenet of the social model is that the environment is flexible and can be changed, reconstructed, or adapted to fit the needs of individuals. People who subscribe to this model believe policymakers have the responsibility to examine the social environment to identify and eliminate barriers that create a "disabling environment." The ADA is thought to both correct the inadequacies of existing construction and require that new construction provide maximum access. It follows that since the marketplace is flexible, it can be adjusted, reconstructed, or redesigned based upon the specific access needs of people with disabilities. Thus, indicators tend to measure whether society provides certain types of access, whether certain locations have been designed to be accessible, and whether society views participation by people with disabilities as the norm.

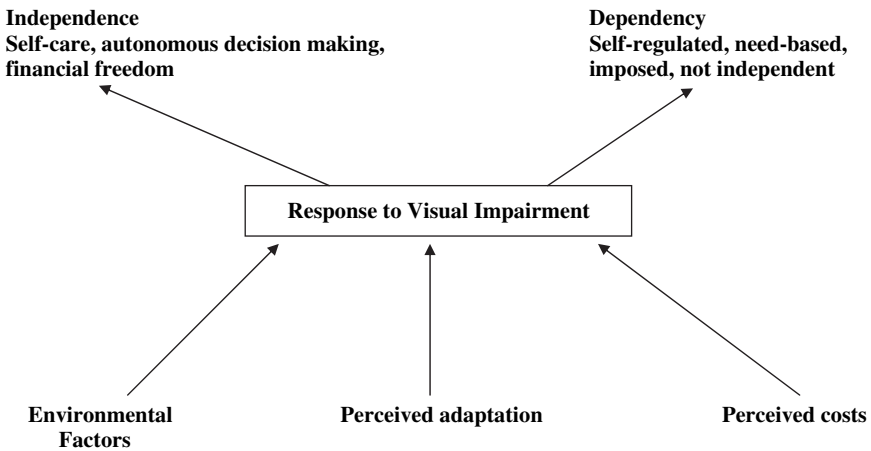
The Consumer Marketplace Response Model

Both the medical and the social models come from literatures in sociology, disabilities studies, and environmental planning. Some researchers have argued that these models are incomplete and should instead incorporate the interaction of the person, his/her body, and the environmental space he/she encounters (Freund 2001; Humphrey 2000; Llewellyn and Hogan 2000). Others argue that, even though the models are incomplete, each approach can inform us about various parts of the experiences of people with disabilities (Kaufman-Scarborough 2001; Llewellyn and Hogan 2000).

The consumer marketplace response model offered by Baker, Stephens, and Hill (2001) from their analysis of the experiences of consumers with visual impairments suggests that both the characteristics of the environment and the characteristics of the person should be taken into account. Their model focuses squarely on the manifestations of dependency and independence in the marketplace as responses by the consumer to factors in the environment, their perceived adaptation skills, and the perceived costs of asking for and receiving assistance, when needed. The original model is shown in Figure 1.

The original model was conceptualized specifically in terms of consumers with visual impairments. In this paper, we extend the model to

FIGURE 1

Model of Consumer Marketplace Response (Baker, Stephens, and Hill 2001)

(1) include consumers with any type of disability and (2) specify how aspects of both the medical and social models are inherent in this marketplace response model.

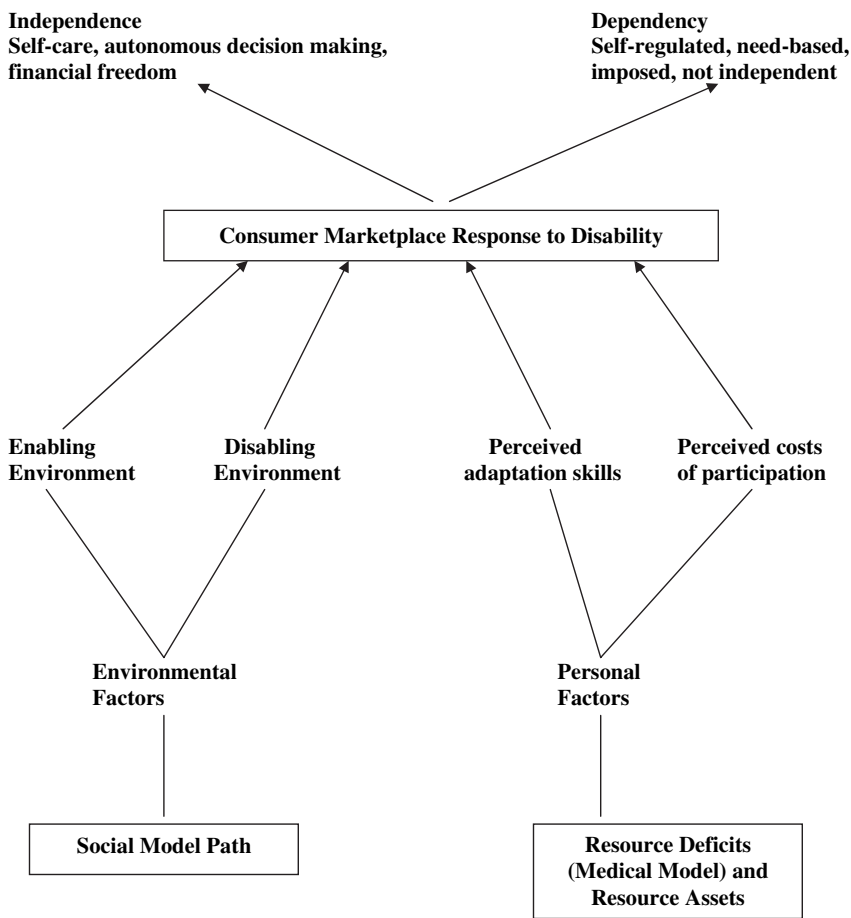
Figure 2 illustrates that based on a person's perceptions of an environment as enabling or disabling, individuals with disabilities will formulate responses to their disabilities based on the access or barriers they perceive. For example, if a person with a visual impairment perceives an environment that is disabling to his/her specific impairment, then he/she may use strategies to maximize his/her abilities to function in that environment, or may adopt a role of dependence, perhaps due to the disabling nature of the environment.

PROBLEM STATEMENT

As noted previously, the intent of this paper is to examine the perceptions of a national sample of people with disabilities regarding the effectiveness of the ADA and overall marketplace accessibility for people with disabilities. In keeping with this purpose, we have four primary research questions with related propositions. The models of disability study guide us in the development of these propositions.

First, do consumers who are aware of the ADA actually perceive there have been improvements in their lives since the enactment of the ADA? The ADA has been a major force in the disabilities rights movement since its enactment in 1990. Its advocates have championed its legislation, and numerous legal cases have developed from its mandate. Given the duration

FIGURE 2
Model of Consumer Marketplace Response (adapted from Baker, Stephens, and Hill 2001)



of and reach by the ADA, we anticipate that consumers with disabilities will report knowledge of the ADA and the conviction that it has improved their lives. Using a social model perspective, we suggest that consumers with disabilities who are aware of the ADA will notice when improvements to the external environment have been made, decreasing external barriers to participation.

P1: Consumers who are aware of the ADA are more likely to perceive positive changes for Americans with disabilities in the past 10 years than people who are not aware of the ADA.

- P2: Consumers who are aware of the ADA are more likely to perceive positive changes for Americans with disabilities in (1) public transportation, (2) public facilities, theaters, and stores, (3) public attitudes toward the disabled, (4) media portrayal, and (5) advertising inclusion than people who are not aware of the ADA.

Second, what does the term “marketplace accessibility” mean to consumers with disabilities? What do they expect to find in the marketplace? Do they expect to find a disabling or an enabling environment? The ADA lacks definitional exactness, partly because of the term *marketplace accessibility*. This is not surprising given that people vary greatly in their preferences and styles of asking for and/or accepting accommodations (Baker, Stephens, and Hill 2001). In addition, people vary based on the limitations due to their specific disability, the effort needed to gain access, and their abilities to adapt to constraints (Kaufman-Scarborough 1999). The language of the ADA and court cases based upon it suggest that reasonable access means the right to receive a service, the right of access, and the right to effective forms of communication. But what does it mean from the perception of consumers with disabilities?

Attributions for access (or lack thereof) are inherent in any definition of reasonable access. Recall that the medical model views the disability as something that needs to be cured or fixed; otherwise it prevents the individual from participation in society. Conversely, the social model places responsibility on limitations in the environment. If the social model holds true, people with disabilities are expected to attribute lack of access to the limitations in the environment. We believe that access will be viewed from both perspectives, as individuals assess the environment, their own personal skills, and their potential costs, as indicated in the consumer response model.

- P3: Following the medical model, consumers with disabilities are likely to perceive that their disabilities prevent marketplace access. The costs of participation may be too great or they may not be able to acquire the needed adaptation skills.
- P4: Following the social model, consumers with disabilities are likely to perceive that improvements in public facilities and attitudes can increase marketplace access. They may evaluate the environment in terms of what it needs so that they can be independent rather than dependent.

Third, what determines the extent of marketplace interaction for consumers with disabilities? It seems likely that when people with disabilities

perceive they have equal access to the marketplace, they will interact more frequently with the marketplace. Conversely, when they perceive problems with transportation, negative attitudes on disability, lack of financial resources, or high costs in obtaining adequate assistance, they are likely to interact less frequently with the marketplace. Applying the consumer marketplace response model, they consider both their assessment of the environment plus their personal abilities to adapt and their costs of doing so.

- P5: The greater the problems consumers perceive with accessibility, the less time that consumers with disabilities spend in the marketplace. The costs are simply too great.
- P5a: The greater the problems consumers perceive with transportation, the less time that consumers with disabilities spend in the marketplace. Transportation may simply be seen as too difficult.
- P5b: The greater the perception of negative attitudes on disability, the less time consumers with disabilities spend in the marketplace. The social costs of participation are too great.
- P5c: The greater the perception of not having enough money, the less time consumers with disabilities spend in the marketplace. The monetary costs of participation are too great.
- P5d: The greater the perception of not having adequate assistance (high costs), the less time consumers with disabilities spend in the marketplace. The costs of asking for and receiving assistance are too great.

Finally, how does the awareness of the ADA, the perception of marketplace accessibility, the extent of marketplace interaction, and the attribution for access relate to a disabled consumer's satisfaction with life? Proponents of the ADA, specifically Title III, strongly believed that the passage of the ADA would lead to inclusion of consumers with disabilities into everyday activities of life, including participation in the marketplace. However, case studies tell us that such is not always the case. While inclusion is believed to increase one's satisfaction with life, the exclusion that is thought to remain is likely to increase dissatisfaction.

- P6: Consumers with disabilities who are aware of the ADA will report a higher level of life satisfaction than those who are not aware of the ADA. They are likely to be aware that the environment can be changed in order to enable their independence.
- P7: The more access to the marketplace that consumers with disabilities perceive, the more satisfied they are with life.
- P8: The more consumers with disabilities interact with the marketplace, the more satisfied they are with life.

- P9: The greater the assessment that one's disability is the preventative factor in participation, the less satisfied one is with life.

METHODOLOGY

Research Database

NOD was founded in 1982 as an organization promoting "the full and equal participation and contribution" of U.S. people with disabilities in all aspects of their lives. The NOD has commissioned several comprehensive surveys of the participation of people with disabilities in American life and provides a unique and reliable source of information about persons with disabilities. The data set used in this paper, the 1998 NOD/Harris Survey of Americans with Disabilities, was designed and administered by Louis Harris & Associates, Inc. It was gathered "to provide the highest quality data regarding the attitudes and experiences of disabled persons ... so that policy makers, leaders of the disability movement, and those working with people with disabilities can use it as a guide to improve the quality of life of persons with disabilities" (Lang and Kuhn 1999).¹

In 1998, the Harris telephone research center interviewed 1,000 noninstitutionalized persons with disabilities aged 16 and over. The user's report describes the database as addressing disabled persons' self-perceptions; how their lives have changed in the past decade; their experiences with employment, education, and social life; their thoughts on increasing their participation in the mainstream of American society; and the impact of their disability on the quality of their lives. Many of the issues covered represent the respondents' lives as consumers and enable us, for the first time, to present a unique look at the perceptions of a national sample of people with disabilities on issues that the ADA is thought to advance and regulate. As the report notes, the survey provides a baseline for improvement and identifies participation gaps.

Research Approach and Sample Characteristics

The interviews, which lasted approximately 25 minutes, incorporated a series of closed-end survey items about each person's disability, their employment experiences, their frequencies and difficulties of accessing public facilities, and various demographic characteristics. Two-thirds of the sample were women (604 respondents) and one-third were men (396 persons). Ages ranged from 16 to 95 years. The vast majority of

respondents were white (83.6%), and slightly less than half were married. A wide range of specific impairment types was used to describe the participants' disabilities. Only 5.4% were born with their disability, while 11.6% acquired it during childhood or adolescence. The majority of the sample acquired their disabilities at some point in their adult life, either as young adults (26.2%), in middle age (29.8%), or after age 55 (26.5%). The respondents also varied greatly in the level of reported severity of their disability and their active participation in society.

Approach to Analysis: Key Measures and Limitations in the Database

In mining the database, we first inventoried measures that were thought to follow a logical sequence for the meaning of consumer access: having access to marketplace institutions, the respondents' frequency of use of those institutions, and the severity of problems they encountered. The Harris researchers had selected a mixed set of marketplace venues that represent activities and errands in which people typically might engage, regardless of their specific demographic characteristics. These include going to the supermarket, restaurants, movies, entertainment, the mall, or department store and using public transportation. The data provide a unique opportunity to capture the perceptions of people with disabilities regarding the marketplace, completely apart from a particular case, lawsuit, or case study of a specific disability. Unfortunately, the levels of importance of these activities were not included for each individual, so that personal preferences cannot be reflected in computing a weighted measure. In addition, there are many more types of activities that were not included in the database that may be more important to the participants than marketplace variables such as these.

The data set deliberately goes beyond mere frequency reports of access: it also represents the psychological feelings of consumers with disabilities about the access that they experience. Feelings and psychological well-being have been a striking omission from many studies on ADA effectiveness, and the NOD data provide an in-depth assessment of how consumers with disabilities feel in relation to specific elements of the marketplace. Respondents were asked to evaluate whether conditions had improved over the past four years in areas such as public transportation, public facilities/theaters/stores, public attitudes toward the disabled, and portrayals of disabled persons in the media and advertising. They were asked to indicate their awareness of the ADA's contributions, the improvements they perceived over time, and their overall life satisfaction.

The respondents were asked to indicate various types of information regarding their disability(ies), the age of onset of each disability, and level

of severity of the most limiting disability. Data on various types of impairment were gathered as medical diagnoses, covering over 30 categories, ranging from arthritis and asthma to multiple sclerosis, cancer, and brain injuries. However, despite the richness of the data, we were unable to examine participants' responses in terms of their specific disabilities. There were too few persons in each specific disability category to support our analysis within disabilities, in part because many respondents noted more than one disability. While we did consider age of onset and level of severity as variables related to our investigation, our analysis found that these particular variables were not significantly related to our variables of interest. Instead, our analysis focused on finding the answers to the key research questions and propositions outlined above. Though many variables we examine have only one indicator and are given in closed-end responses, these results provide interesting insight into consumers' perceptions of marketplace access several years after the ADA was enacted.

FINDINGS

Link between ADA Awareness and Its Perceived Effectiveness

One might expect that the majority of consumers with disabilities are well aware of the ADA and actively follow the well-publicized effects of its passage. However, this is not apparently the case, as seen in Table 1. Of the 1,000 respondents in the sample, slightly more than half (54.3%) reported knowing about "a law" regarding disabilities that was passed within the past 10 years. Approximately that same number could identify it as the ADA. Interestingly, only 32% of those who were aware of the ADA felt that it had made a difference in their lives, while over 60% of those aware of the law believed that it had made no difference.

Propositions 1 and 2 are formulated to address whether consumers who are aware of the ADA feel that it has improved their lives in specific ways (see Table 1, bottom). The sample was divided into three self-reported "knowledge" groups: those with no knowledge of the ADA, those who know about the ADA, and those who know about the ADA but do not know its specifics. First, we propose that consumers who are aware of the ADA are more likely to perceive positive changes for people with disabilities throughout the past 10 years. Cross-tabulation demonstrates that knowledge of the ADA does indicate a difference in perceptions of change ($\chi^2 = 64.34, p = .00$). Only 10.2% of persons who had no knowledge thought that things were much better for disabled Americans versus 26.2% of those who knew of the ADA and 19.0% of those who did not

TABLE 1
Consumer Awareness and Effectiveness of Disabilities Laws

	Number (Percent)				
	Yes	No	Don't know	Refused	Total
Know any laws passed in past 10 years for disabled protection	543 (54.3)	267 (26.7)	189 (18.9)	1 (.1)	1,000 (100)
Heard, read about ADA	531 (53.1)	460 (46.0)	9 (.9)		1,000 (100)
	Make better	Make worse	No difference	Don't know	Total
Of those who heard, read about the ADA, think ADA made a difference in life	170 (32.0)	6 (1.1)	326 (61.4)	29 (2.9)	531 (100)

Test of P1 and P2: ADA Knowledge and Assessment of Change		
	No knowledge of ADA, knowledge of ADA, and knowledge/no specifics on ADA	
	Chi-square	Significance
Positive changes for disabled in past 10 years	64.34	.00
Improvements in marketing-related areas:		
Public transportation	17.72	.00
Public facilities/theaters/stores	21.54	.00
Public attitudes toward disabled	33.75	.00
Media portrayal of the disabled	27.43	.00
Including disabled in advertising	13.98	.01

know the specifics of the law. Similarly, almost half of those with no knowledge of the ADA thought that there was either no change or things had gotten worse, as opposed to about 25.0% of those who knew of the ADA and 27.0% of those without specific knowledge. We might surmise that knowledge of the ADA “primes” consumers with disabilities to anticipate and recognize positive changes.

Next, Proposition 2 investigates whether consumers in the three knowledge groups differ in their perception of positive changes they perceive within media portrayal, advertising inclusion, public transportation, public facilities, and public attitudes toward people with disabilities. Results again indicate that respondents who are aware of the ADA are more likely to perceive positive improvements in public transportation ($\chi^2 = 17.72$, $p = .00$), public facilities, theaters, and stores ($\chi^2 = 21.54$, $p = .00$), public

attitudes toward people with disabilities ($\chi^2 = 33.75, p = .00$), portrayal of disabled persons in the media ($\chi^2 = 27.43, p = .00$), and inclusion of disabled in advertising ($\chi^2 = 13.98, p = .01$), demonstrating that differences in specific perceptions of change are not due to chance, but instead are related to knowledge of the ADA. The specific chi-square values are presented in the lower portion of Table 1.

Marketplace Accessibility: Complementary Perspectives

As anticipated, respondents indicated feelings of exclusion from various activities due to personal factors in addition to feeling that access has been enhanced through improvements in environmental factors. Tables 2 and 3 present overall summaries of the selected marketplace-related personal and environmental variables used in our analysis.

What Do Disabilities Prevent Consumers from Doing?

Respondents were asked whether their disabilities prevented them from access to a set of specific public facilities. A substantial proportion

TABLE 2
Consumers' Perception of Whether Disabilities Prevent Participation in Specific Activities

		Number (Percent)				
		Prevents	Does not prevent	Don't know	Refused	Total
Disabilities prevent consumers from:						
Going out/cultural events/socializing	705 (70.5)	292 (29.2)	1 (.1)	2 (.2)		1,000 (100)
		Made more	No	Don't		
		Prevented	difficult	know	Refused	Total
Going to entertainment places	132 (13.2)	422 (42.2)	438 (43.8)	5 (.5)	3 (.3)	1,000 (100)
Using public transportation	145 (14.5)	241 (24.1)	537 (53.7)	58 (5.8)	19 (1.9)	1,000 (100)
Test of P3: Correlation of Activity Prevention and Problems with Marketplace Access						
		Pearson correlation			Significance	
Disability prevents respondent from:						
Going to entertainment places			.26			.00
Using public transportation			.28			.00
Prevention index (PREVENT) ^a			.32			.00

^aLinear sum of going to entertainment places plus using public transportation.

TABLE 3
Perceived Improvements in the Consumer Marketplace

	Number (Percent)				
	Better	Worse	No change	Don't know	Refused
The past four years got:					
Public transportation	588 (58.8)	104 (10.4)	93 (9.3)	207 (20.7)	8 (.8)
Public facilities/theaters/stores	747 (74.7)	65 (6.5)	102 (10.2)	78 (7.8)	8 (.8)
Public attitudes toward disabled	626 (62.6)	132 (13.2)	121 (12.1)	112 (11.2)	9 (.9)
Media portrayal of the disabled	606 (60.6)	152 (15.2)	91 (9.1)	135 (13.5)	16 (1.6)
Including disabled in advertising	562 (56.2)	117 (11.7)	104 (10.4)	206 (20.6)	11 (1.1)

Test of P4: Correlation between Social Improvement Variables and Problems with Marketplace Access

	Pearson correlation	Significance
Public transportation	-.20	.00
Public facilities/theaters/stores	-.19	.00
Public attitudes toward disabled	-.14	.00
Media portrayal of the disabled	-.17	.00
Including disabled in advertising	-.17	.00
Improvement index (IMPROVE) ^a	-.23	.00

^aLinear sum of perceptions of improvement in five specific venues listed above.

indicated that their disabilities prevented them from access to going out/cultural/socializing (70.5%), going to entertainment places (13.2%), and using public transportation (14.5%). Furthermore, many respondents indicated that their disabilities “made” it more difficult to gain access to entertainment (42.2%) and transportation (24.1%) (Table 2, top). Other indicators, not reported in the table, asked the respondents to evaluate access to public facilities. Within those variables, only 10% reported that poor access was a major problem and 20.7% reported it as a minor problem. Overall, the vast majority (67.6%) reported that access was not a problem. While it is impossible to give a specific reason for this discrepancy, we might surmise that respondents were more deliberate in their assessment of prevention when specific activities were considered.

Proposition 3 attempts to unfold an underlying relationship: when consumers feel that their disability prevents participation in specific activities, do they also perceive less overall accessibility in the marketplace as a whole? To investigate these relationships, three variables were selected. Two are situation specific: one’s disability prevents one from (1) going to entertainment places and (2) using public transportation. The individual variable scores ranged from 1 (no effect) to 2 (made more difficult) to 3 (prevented), so a higher score meant that the respondent felt more restricted from the activity. To moderate the effect of specific situations, a new index

variable was created that sums perceptions of prevention across two market-related activities, going to entertainment places and use of public transportation. It was thought that a general index might capture the respondent's overall perceptions of feeling that his/her disability prevents him/her from doing many different things. The index "PREVENT" ranges from scores of 2 through 6, where a "2" indicates no effect and a "6" indicates prevention from both activities.

Perceptions of less access are positively related to situation-specific variables including (1) disability prevents one from going to entertainment places ($r = .26, p = .00$) and (2) disability prevents one from using public transportation ($r = .28, p = .00$). In addition, less accessibility is positively correlated with general feelings of prevention ($r = .32, p = .00$). In other words, the more one believes a disability prevents access to specific parts of the marketplace, the less overall access to the marketplace one perceives he/she has (Table 2).

Do Consumers with Disabilities Feel that the Marketing Environment Has Improved?

The study participants were asked to comment on whether access to specific public accommodations, public attitudes, and portrayals of disabled persons had improved over the past four years. These questions were specifically founded on the respondents' feelings that society had responded by making deliberate changes that improved access. The responses, given at the top of Table 3, indicate better opportunities/conditions in public transportation (58.8%) and public facilities/theaters/stores (74.7%). Moreover, over half felt public attitudes toward people with disabilities had improved, and people with disabilities were portrayed more positively in the media and included more often in advertising.

Proposition 4 considers whether perceptions of improvements in public facilities and attitudes toward people with disabilities lead to overall greater perceptions of accessibility. This latter variable was phrased so that respondents were asked to indicate whether "poor access to public facilities" was (1) not a problem, (2) a minor problem, or (3) a major problem. In this instance, we expected and found a negative correlation between the perception that overall public facility access is a problem and perceptions of improvements in various venues. Similar to our analysis for Proposition 3, we investigated both situation-specific improvement variables as described above as well as created a general index of "improvement in the marketplace." This latter index IMPROVE was created by summing the five specific perceptions of improvement in public transportation,

public facilities, attitudes toward the disabled, media portrayals of disabled persons, and inclusion of the disabled in advertising, rated as (1) worse, (2) no change, and (3) better. The index, which ranged in value from 5 to 25, moderated the importance of situation-specific perceptions and provided an indicator of the respondent's overall perceptions of improvements in marketplace accessibility over the past four years. A low score on IMPROVE indicates that the individual views some or all of the variables as having gotten worse, while a high score is indicative of perceived improvements in several areas. The media variables are important since consumers often respond to the media by looking for persons similar to themselves in the messages (Mills and Jellison 1969; Sirgy 1982). Consumers with disabilities sometimes report finding "themselves" absent from prime-time television shows, commercials, and print ads.

Our proposition suggests that both situation-specific and general perceptions of improvements will be inversely correlated with perceptions of the magnitude of access problems. This expectation was confirmed, with significant inverse correlations found and presented in the lower half of Table 3. Specifically, access problems are negatively correlated with improvements in public transportation ($r = -.20, p = .00$), improvements in public facilities, theaters, and stores ($r = -.19, p = .00$), improvements in public attitudes toward the disabled ($r = -.14, p = .00$), improvements in the portrayal of people with disabilities in the media ($r = -.17, p = .00$), and improvements in inclusion of people with disabilities in advertising ($r = -.17, p = .00$). In addition, the overall improvement index is negatively related to problems with access ($r = -.23, p = .00$). Overall, these results suggest that perceived improvements in the environment lead to greater perceptions of access among consumers. In addition, in the tests of Propositions 3 and 4, the more general indices of feelings of prevention and perceptions of improvement yielded stronger correlations with overall perceptions of accessibility.

Link between Extent of Marketplace Interaction and Perceived Access

As shown in Table 4, the respondents varied greatly in their participation as consumers in market-related activities. Many respondents described a fairly active life with supermarket, restaurant, and mall/department store visits more than twice a week. The top half of the table examines these three activities that are fairly common consumer behaviors. The study sample varied considerably in their self-reported frequencies of shopping and eating out. Some respondents apparently never go to such places, while many go several times a week. For instance, note that in Table 4, there

TABLE 4
Market Activity Variables

	Number (Percent of 1,000 Respondents)								
	>twice/wk	twice/wk	once/wk	2-3 times/mo	once/mo	<once/mo	never	dk	refused
How often do you go to:									
Supermarket/food store	139 (13.9)	152 (15.2)	267 (26.7)	174 (17.4)	107 (10.7)	46 (4.6)	113 (11.3)	1 (1)	1 (1)
Go to restaurant	91 (9.1)	81 (8.1)	148 (14.8)	187 (18.7)	189 (18.9)	177 (17.7)	120 (12.0)	4 (4)	3 (3)
Go to mall/department store	31 (3.1)	43 (4.3)	100 (10.0)	179 (17.9)	246 (24.6)	225 (22.5)	173 (17.3)	2 (2)	1 (1)
	none	once	2-3 times	4-5 times	6-10 times	11-20 times	more than 20 times	dk	refused
Movies	553 (55.3)	117 (11.7)	128 (12.8)	75 (7.5)	53 (5.3)	41 (4.1)	33 (3.3)	0 (0)	0 (0)
Live music performances	749 (74.9)	91 (9.1)	98 (9.8)	28 (2.8)	19 (1.9)	7 (.7)	6 (.6)	2 (2)	0 (0)
Sports events	739 (73.9)	72 (7.2)	83 (8.3)	24 (2.4)	26 (2.6)	22 (2.2)	32 (3.2)	1 (1)	1 (1)
Hobby-related events	632 (63.2)	75 (7.5)	128 (12.8)	43 (4.3)	37 (3.7)	39 (3.9)	42 (4.2)	3 (3)	1 (1)

dk = Don't know.

are between 10% and 20% of the sample who never go to the supermarket, a restaurant, or a mall/department store. As a result, they do not participate in the marketplace in ways that many people, including researchers, may take for granted.

The second part of Table 4 captures activities that are related to an individual's specific interests, such as movies, music, sports, and hobbies, and are not likely to be as strong an indicator of overall societal access. Participation is much more likely to be related to the preference for these activities, moderated by the accessibility to the activity venues.

Proposition 5 and its subpropositions investigate whether relationships exist between consumers' extent of marketplace interaction and perceptions of access problems, feelings of being prevented from participating, negative attitudes, and lack of resources or assistance. That is, we investigate reactions to perceived environmental barriers, perceived personal abilities to participate in the market, and the costs of that participation in terms of needing money, help, and assistance.

Proposition 5, which is our most general proposition, suggests that people who perceive greater problems with accessibility are likely to be less active in the marketplace. The expectation was confirmed through chi-square analysis, given in Table 5 ($\chi^2 = 36.43, p = .00$). Not surprisingly, those respondents who reported that access was a major problem also were categorized in the "least active" quartile of market interaction. Persons who were "active" and "most active" were more likely to indicate minor or no problems with access. Interestingly, however, 20% of the respondents who fell within the "least active" group also indicated that their level of access was not a problem. Thus, there are other variables that contribute to the marketplace interaction level of consumers with disabilities.

Propositions 5a through 5d attempt to examine some of the specific variables that might affect a person's likelihood of marketplace participation. Specifically, this series of cross-tabulation analyses attempts to identify

TABLE 5
Test of Propositions 5 through 5d: The Greater the Barriers, the Lesser the Level of Marketplace Interaction

	Chi-square	Significance
Level of access problems	36.43	.00
Public transportation problems	100.17	.00
Negative attitudes on disabilities	20.00	.003
Not enough money	30.12	.00
Need others' help	55.22	.00
Not having adequate assistance	2.55	.47

whether perceived transportation problems, negative attitudes on disability, not having enough money, not having adequate assistance, and needing help in the marketplace are related to respondents' reported levels of marketplace interaction. As anticipated, persons who were least active perceived that public transportation prevented their participation ($\chi^2 = 100.17, p = .00$), and also perceived major problems with negative attitudes toward disabilities ($\chi^2 = 20.00, p = .003$). Not surprisingly, not having enough money is related to lower levels of activity ($\chi^2 = 30.12, p = .00$), as does needing the help of others ($\chi^2 = 55.22, p = .00$). Interestingly, whether or not the person gets the help he/she needs apparently does not make a significant difference on level of activity in the marketplace ($\chi^2 = 2.55, p = .47$). This result indicates that other variables besides needed assistance contribute to the marketplace interactions of consumers with disabilities.

Life Satisfaction of Consumers with Disabilities

If the ADA has had the level of impact its supporters anticipated, then we would anticipate that awareness of the ADA and perceptions of various aspects of accessibility would contribute to the satisfaction that is experienced by some persons in the sample. Propositions 6 through 9 examine these connections.

While ideally one might expect that awareness of the ADA contributes to the well-being that people with disabilities feel in their everyday lives, the data do not support this contention, described in Proposition 6 ($\chi^2 = 1.82, p = .77$). The level of life satisfaction of the respondents does not vary with their awareness of the ADA. Instead, their level of satisfaction and dissatisfaction varies throughout the sample regardless of ADA familiarity (Table 6).

As set forth in Proposition 7, poor access to public facilities has a significant impact on life satisfaction ($\chi^2 = 32.59, p = .00$). Respondents who perceive access as a "major problem" constitute a much higher proportion of consumers who are very dissatisfied with life than those who view access

TABLE 6
Test of Propositions 6 through 9

	Chi-square	Significance	Finding
Is level of consumer life satisfaction related to:			
Proposition 6: awareness of ADA	1.82	.77	No relationship
Proposition 7: poor access to public facilities	32.59	.00	Relationship
Proposition 8: level of marketplace interaction	48.24	.00	Relationship
Proposition 9: prevention from activities	87.99	.00	Relationship

as a minor problem or no problem at all. This result is as we anticipated since perception of public access can greatly shape a person's ability to participate in the activities he/she values.

Similar findings support Proposition 8, which suggests that the more one interacts with the marketplace, the more satisfied one is with life ($\chi^2 = 48.24$, $p = .00$). Forty percent of persons who are most active are also those who are very satisfied with life, in contrast to the 4.2% who report that they are very dissatisfied. Comparably, over 40% of the persons who are very dissatisfied also are classified in our "least active" group. Ideally, participation in one's society would be expected to provide benefits and self-esteem.

Finally, when the sample is classified into four quartiles of feelings of prevention from participation, a significant relationship emerges with life satisfaction ($\chi^2 = 87.99$, $p = .00$). Supporting Proposition 9, a higher proportion of disabled persons who are dissatisfied with their lives also report feeling prevented from participating in activities, whereas those who are satisfied feel that they can participate.

LISTENING TO THE CONSUMERS' VOICES: HAS THE ADA MADE A DIFFERENCE?

The results indicate that consumers with disabilities believe the ADA has served their consumer interests in a variety of ways since its enactment, including increased access to commercial venues, improvements in public transportation, theaters, stores, public attitudes toward the disabled, media portrayals, and inclusion of disabled people in advertising. However, the results also demonstrate gaps that need to be addressed if the ADA is to create the benefits proponents envision for people with disabilities.

Assessment of ADA Awareness

Only a little more than half of this sample knew about "any" laws passed in the past 10 years for disabled protection, suggesting there is a significant need to increase awareness for the protection guaranteed by Title III in the marketplace. Further, we found respondents who are aware of the ADA are significantly more likely than those unaware of the ADA to believe that things have gotten better since the enactment of the ADA, but a clear majority of those who are aware still believe that the ADA has made no difference. Perhaps persons who are aware of the ADA are likely to identify places and situations where the ADA has not been effective. They may be helpful in diagnosing and arguing for further change. Furthermore, the different

pattern of results between people who are aware and those who are not aware may suggest that those who are aware are primed for the “ideal standard” and they have changed their reference point for what is and should be expected.

The measures of ADA awareness/knowledge collected by the NOD can serve as a baseline for continued assessment. In some instances, ADA knowledge is related to respondents’ perceptions of accessibility. In other instances, it has no effect. However, measures of ADA awareness must be more fully developed so that researchers can better understand what respondents mean by their awareness. Does it mean that respondents simply have “heard of the law”? Does it mean that they are familiar with its specific goals and stipulations? Does it mean they know about the aspects of the ADA that relate to their specific disability? What “awareness” means to these consumers is not clear in this database.

Given that our data were collected in 1998, it would be interesting to determine whether knowledge of the ADA has increased over the years. In addition, it would be valuable to examine whether awareness and satisfaction with the ADA has increased among persons with a specific disability and among persons of a certain education or income level, or whether perhaps a specific geographical region has effectively increased awareness.

Assessment of Perceptions of Accessibility

The data empirically verify elements of the consumer response model. The respondents recognize that at least part of the issue in marketplace access is their disabilities, and the other part is environmental factors, which in this case include improvements in transportation, stores, and so forth. Interestingly, nonstructural aspects of daily life also are related to perceptions of accessibility. When the respondents perceive they are “visible” in the media and in advertising, perceived problems with accessibility are reduced, yielding more accessibility overall. When consumers with disabilities see themselves portrayed realistically in the media and in advertising, they are likely to perceive a greater level of acceptance in society. Access may begin with “widening the door,” but it does not end there.

As discussed earlier, accessibility means different things to different people, especially when moderated by their specific disabilities (Baker, Stephens, and Hill 2001). To some, accessibility is thought to mean access to the full range of activities that nondisabled customers can pursue. To others, it may include access to a limited set of activities that provide the basics of the intended activity and may supplement the activity with another equivalent form of the benefits provided.

Future research that develops a causal model to simultaneously examine the environmental and personal factors considered in the consumer response model is clearly warranted. Such a model would allow researchers to determine how consumers perceive access to the marketplace, fundamentally testing the effectiveness of the ADA. This secondary database does not allow for such rigorous testing. However, the conceptual framework of the consumer response model, which takes into account medical and social model perspectives as well as consumers' resource assets, provides the foundation for such an inquiry. Also, additional survey items that consider the resource assets of consumers (e.g., adaptation skills and instruments) should be included.

Assessment of Determinants of Marketplace Interactions

This study shows that when people perceive greater access problems, they interact less in the marketplace. Some access problems may be structural, such as public transportation difficulties, and others may be situational, such as not having enough money. Additionally, they may result from the felt prejudice of negative attitudes toward disabilities. Thus, correctable barriers are of many types. Once the physical structure has been assessed, comparable time should be spent on examining the felt psychological environment as well.

The marketplace interaction variables were quite limited in the NOD data and could be considerably enriched through the incorporation of a broader, less personal interest-specific set of activities. While knowledge of hobby and sport activity participation is useful, much greater insights could be gleaned by broadening the set of market-related questions, such as incorporating specific venues like clothing and shoe stores. In addition, going to the mall/department store combines two different types of possible destinations that should be analyzed separately. Individuals may go to a mall to socialize with little intention of shopping, which may be quite different from their intent of shopping in a department store. The addition of service-related venues, ranging from hotels and other overnight accommodations to medical care facilities and businesses such as accounting and financial investment, could assist in determining if specific venues exhibit higher incidence of access problems (promises) than others.

Assessment of Impact on Life Satisfaction

People who advocate for consumer interests are powerfully motivated to increase the general well-being of consumers. Many variables in people's

lives contribute to their perceptions of well-being and life satisfaction; however, nondisabled persons probably will not be impacted by the same set of variables as disabled persons. Our results show that people with disabilities who perceive greater access to the marketplace are more satisfied with life and that the more consumers with disabilities interact in the marketplace, the more satisfied they are with life.

Importantly, the results also show that the greater the perceptions of one's disability as a preventative factor in participation, the less satisfied one is with life. This indicates the value behind efforts designed to empower consumers with disabilities by offering services that assist them in developing consumer skills and by creating environments that enable them to experience full participation in society. That is, consumer interests are served by providing assistance to individuals (when requested) and by implementing protection efforts.

If changeable causes of life dissatisfaction can be identified, correctable measures may be able to address some of the problems that are encountered by people with disabilities. For instance, knowing which activities a consumer feels prevented from participating in may stimulate research into what can be done to alleviate those feelings of restriction.

CONCLUSIONS

American culture values individualism and independence (Hofstede 1980), and these values often underlie policies designed to serve the consumer interests (e.g., civil rights legislation, including the ADA). This study specifically examines the perspectives of the people whom the ADA was designed to protect, by assessing their perceptions of individual agency as well as collective acceptability (via perceived accessibility to the marketplace). The answers to serving the interests of consumers with disabilities are certainly not easy, since there are problems with identification, as well as adaptations that are necessary from both the persons and the environment. The answers will not come from placing blame on the disability or on the environment. In that regard, the consumer response model seems to provide a viable avenue for future inquiries that evaluate the interests of consumers with disabilities.

It has been 14 years since the ADA was enacted into law. In general, the consumer interests of people with disabilities have been served by the ADA, but there is more to be done. The results and recommendations in this paper provide specific information on areas of concern and recommendations for improvement. Our findings do not indicate that the legislation is necessarily flawed and provide support for many proponents'

beliefs that access to public facilities has a significant impact on life satisfaction. However, our findings do indicate that the *implementation* of the ADA is incomplete, especially in educating consumers with disabilities about their consumer rights. Specific social marketing efforts should be focused on educating people with disabilities about the ADA, not only so they can be advocates for themselves, but also so they can ensure they are receiving adequate protection in the marketplace. Perhaps specific disability support groups could develop educational programs for their members so that comprehension of the ADA can be increased. Moreover, state agencies and nonprofit groups must receive funding to ensure that consumers who want assistance can have it, including consumer education on how to articulate their accommodation needs. Furthermore, links at different consumer interest groups' Web sites (e.g., the American Federation of the Blind or the National Federation of the Blind) could assist members in increasing their awareness of their consumer rights. This type of information would also be beneficial to retailers so that they can understand how best to meet the needs and respond to requests of consumers with disabilities, including specific types of disabilities.

We have only investigated the relationship between barriers to participation in the marketplace (personal and environmental) and perceptions of accessibility and life satisfaction. If a disability prevents a person from interacting in the marketplace, this may pale in comparison to a disability preventing him/her from participating in a variety of interpersonal and self-development activities and other aspects of life. These issues certainly are also worthy of future investigation.

ENDNOTES

1. The data used in this paper were made available by the Research Archive on Disability in the United States (RADIUS), Sociometrics Corporation, Los Altos, CA. Funding support for preparing the revised documentation for public distribution was provided by a contract (N44-HD-4-3211) between the National Center for Medical Rehabilitation Research, National Institute of Child Health and Human Development, and Sociometrics Corporation. The original investigators, funding agency, and RADIUS are not responsible for the analyses or interpretations presented here.

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