Wheelchair Accessibility of Public Buildings in Utica, New York

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This survey reviewed 13 public buildings for accessibility to wheelchair-bound consumers in Utica, New York. Buildings were both private and government supported. The scale used was based on the 1971 specifications of the American National Standards Institute. Buildings surveyed represented those built before and after enactment of the Architectural Barriers Act of 1968 and were subject to various regulations or no regulations concerning accessibility. Results revealed a trend of improved accessibility in both privately and publicly supported facilities, with the most accessible buildings having been built since 1980. No facility was found to be 100% in compliance with standards.

Attempts to make public areas accessible to wheelchairs have become increasingly visible, and accessibility seems to have improved over the past few years. Therapists with some knowledge of the needs of handicapped persons, however, know that accessibility to public areas is less than complete. Therapists strive to help patients achieve independence only to release them to a handicapping environment.

The purpose of this study, done in Utica, New York, was to examine objectively the degree of accessibility in public areas and to determine whether the appearance of improvement bears up under close examination. The assumption is that Utica is not atypical in its accommodation to the needs of wheelchair-bound persons.

History of Accessibility Standards

Wheelchair accessibility gained its first national attention and organized sanction in 1961, when the American Standards Association (now the American National Standards Institute, ANSI) published its American Standard Specifications for Making Buildings and Facilities Accessible to, and Usable by, the Physically Handicapped. ANSI revised this set of standards in 1971 and again in 1980. ANSI is a private corporation, not a government agency, and is not empowered to enforce these standards.

In 1968, the Architectural Barriers Act (ABA) (official title: Public Buildings-Handicapped Persons Act of 1968) was passed by Congress and went into effect. One of the provisions of this law was that four federal agencies (the U.S. Postal Service, Department of Defense, Department of Housing and Urban Development, and General Services Administration) develop accessibility standards to be enforced in any building constructed, leased, or altered by these agencies after September 1969, with limited exceptions. Each of these agencies developed its own set of standards, many based on the 1961 ANSI standards, and all four agencies adopted the 1971 ANSI standards revision. The result was, however, that many different sets of regulations existed, and it was difficult to determine which building was subject to which set of regulations. Further, no one was overseeing these efforts. In 1973, as a part of the Rehabilitation Act of 1973, the Architectural and Transportation Barriers Compliance Board (ATBCB) was established. One of the charges for this board was to ensure compliance with standards for accessibility.

In 1976, Congress passed an amendment to the ABA providing that any building or facility built or altered with federal funds (grants or loans) must be accessible (PL 94-541, Title 2) Prior to that time, this requirement applied only if the funding statute for the project provided that accessibility standards could
be imposed (further complicating the problem of determining who was required to comply). Congress further directed the ATBCB in 1978 to develop minimum guidelines and requirements to be used by federal agencies (PL 95–602, Section 118). After several trial drafts, the ATBCB issued its final “Minimum Guidelines and Requirements for Accessible Design” in the August 4, 1982, edition of the Federal Register. These minimum guidelines closely correlated with the ANSI 1980 revision of standards. The General Services Administration, Department of Defense, Department of Housing and Urban Development, and Postal Service (1984) then collaborated to produce the “Uniform Federal Accessibility Standards” (UFAS), which were based on the ATBCB’s guidelines.

The ATBCB receives and processes complaints regarding barriers. Because of the complexity of the regulations and changes in them, determining jurisdiction can be an involved process. Generally, the standards that apply to a facility depend on the date of the design, construction, or alteration of the facility and the agency that provided the funds. Between 1977 and October 1985 the ATBCB received approximately 1,400 complaints regarding barriers. Of these, 17% are still open; most of the open cases were received recently, but they date back as far as 1980. Of the closed cases, 58% were determined not subject to the jurisdiction of the ATBCB and complaint processing was dropped. Five percent were found not to be in violation of the law, and 37% were resolved by corrective action, which was mostly voluntary (S. Thompson-King, ATBCB office in Washington, D.C., personal communication, Oct. 9, 1985).

Many states and local governments have followed the federal lead and developed their own laws and requirements over the years. In 1983, New York State revised its building code to include ANSI standards for accessibility for all new construction of state facilities as well as “reconstruction, rehabilitation, alteration or improvement,” but not repair (New York Uniform Fire Prevention and Building Code, 1984).

### Methodology

#### Instrument

A major problem in designing the survey instrument revolved around the multitude of regulations any given facility could possibly be subject to, and indeed whether a facility was subject to any regulations at all. Because the ANSI standards were the basis for the other guidelines, the 1971 revision of these standards appeared to be an appropriate basis for evaluation. However, items were judged compliant if they conformed to the more recent ATBCB guidelines if those were more lenient. For example, ANSI 71 specifies that handrails in toilet rooms be 33 in. high; the new guidelines say 32 to 34 in. high, giving a reasonable range rather than an absolute number.

The survey form comprised 52 items covering nine areas (see Table 1). After field-testing, certain items were changed to enhance readability.

#### Facilities

A total of 13 buildings and building complexes at nine facilities were surveyed. These facilities represented a cross section of higher education facilities, governmental agencies, and retail business complexes. The governmental buildings included federal, state, and county buildings, and the higher education facilities were both private and state supported. Only areas normally used by the public (consumer), not employee areas, were surveyed, and no housing facilities were assessed. Because the survey involved wheelchair accessibility only, accommodations made for the blind, hearing impaired, or ambulatory disabled were not assessed.

Results are reported according to the date each building was constructed or underwent major alterations to reflect closely the standards that might apply. The chronological categories used were pre-ABA (before 1968), early ABA (prior to the 1976 broadening of scope), and revised ABA (1976–1985). None of the privately supported buildings in the survey were subject to ABA requirements either because they were constructed before the passage of the ABA or because only private funds were used for construction.

#### Scoring

Each building was scored as compliant or noncompliant with the various survey items. Results reflect the percentage of items in compliance, not relative importance or impact of noncompliance. Percentages were calculated on the basis of only those items that applied. For example, specifications regarding parking stipulate that handicapped spaces shall be provided where other parking is provided. If, however, a

![Table 1](http://ajot.aota.org/)

<table>
<thead>
<tr>
<th>Area</th>
<th>Number of Items</th>
<th>%a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking</td>
<td>4</td>
<td>7.6</td>
</tr>
<tr>
<td>Walks</td>
<td>4</td>
<td>7.6</td>
</tr>
<tr>
<td>Ramps, platforms</td>
<td>9</td>
<td>17.3</td>
</tr>
<tr>
<td>Entrances, doors, doorways</td>
<td>4</td>
<td>17.3</td>
</tr>
<tr>
<td>Hallways, floors</td>
<td>9</td>
<td>3.8</td>
</tr>
<tr>
<td>Toilet rooms</td>
<td>2</td>
<td>3.8</td>
</tr>
<tr>
<td>Water fountains</td>
<td>2</td>
<td>3.8</td>
</tr>
<tr>
<td>Public telephones</td>
<td>1</td>
<td>9.6</td>
</tr>
</tbody>
</table>

*a Percentages do not add up to 100% because they were rounded off to the nearest tenth of a percent.*
facility does not provide parking for its patrons, it
does not have to provide parking for its handicapped
patrons, and the survey items regarding parking
would not be applicable.

Results
Results ranged from a low of 55% of items in compli-
ance (a publicly supported building constructed in
1960) to a high of 97% compliance (a publicly sup-
ported building constructed in 1980–1981). The me-
dian percentage of compliance was 77%. Facilities
scoring at or above the median were built as early as
1958, and all but 1 were publicly supported. Four
facilities scoring below the median were privately
supported, and 2 were publicly supported. The mean
compliance of publicly supported facilities was 78%;
mean compliance of privately supported facilities was
75%. Only 3 of the 13 facilities scored above 90%. Of
these, 2 were publicly supported, and 1 was privately
supported; all were constructed in 1980 or later.

Table 2 shows a breakdown of all buildings sur-
veyed and indicates whether they were publicly or
privately funded. Only two buildings were subject to
the regulations under the law (one federal and one
state law). Overall, these facilities show a trend to-
ward increased accessibility in recent years, but 100%
accessibility has not been achieved. Table 3 shows
that the categories of higher education facilities, gov-
ernment buildings, and retail business complexes
exhibit a similar trend.

The survey revealed several frequent deficien-
cies, particularly in the area of toilet rooms (ANSI
terminology). One of the facilities surveyed did not
provide public rest rooms and was therefore not re-
quired to provide accessible rest rooms. Of the re-
mainning 12 facilities, not 1 had a fully accessible toilet
room. One building, a privately funded facility con-
structed in 1980, had a toilet room rated as compliant
with all of the 15 survey items but one. In contrast, 2
buildings (one publicly supported and built in 1969,
the other privately supported and built in 1974) had
completely inaccessible toilet rooms. Mean compli-
cance with the guidelines regarding toilet rooms was
51% (the median was 8 out of 15 items compliant).

Parking was another area in which noncompli-
cance was frequent. Only two buildings had fully com-
pliant parking facilities (both built in 1980 or later).
All others either provided no parking for patrons or
had designated spaces for the handicapped that did
not comply with the guidelines (i.e., they were too
narrow or required travel behind parked cars to reach
walkways, entrances, etc.).

Another frequently violated regulation regards
double-leaf doorways. These are often found at en-
tances to buildings, as fire doors in hallways, and at
entances to large rooms within buildings. Their con-
figuration is such that the two doors open from the
center and have no separating structure between
them. The guidelines specify that one door must
provide 32 inches of clearance when open to allow
wheelchair passage with “a single effort.” Only one
item on the survey pertained to double-leaf doorways,
and 7 of the 13 facilities were scored noncompliant
on it.

Ramps were found to be most often compliant,
except for curb ramps, which frequently were not.
Other areas usually rated as compliant were walks,
hallways, and primary entrances to buildings.

Discussion
In the three buildings scoring above 90% compliance,
the items scored noncompliant were those that appear
to be relatively easy and inexpensive to remedy.
These included the installation height of telephones,
the height of towel and other dispensers in toilet

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>Publicly Supported</th>
<th>Privately Supported</th>
<th>Subject to Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1969</td>
<td>67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1974</td>
<td>77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-ABA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1958</td>
<td>78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1961–1966</td>
<td>67</td>
<td>73</td>
<td></td>
</tr>
<tr>
<td>1969</td>
<td>77</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>ABA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1969</td>
<td>79</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>1974</td>
<td>81</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>Revised ABA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980–1981</td>
<td>93</td>
<td>97</td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td>91</td>
<td>91</td>
<td></td>
</tr>
</tbody>
</table>
rooms, and the labeling of handicapped-accessible facilities. The one notable exception was noncompliant double leaf doorways in one facility.

There is still need for refinement of the regulations. Regulatory agencies have not yet agreed on regulations in a few problem areas, and other areas have had vacillating guidelines. The regulations regarding placement of water fountains have changed so much that it is difficult to determine whether a facility is compliant; the existence of fountains clearly designed for the handicapped makes compliance more obvious, but their absence does not necessarily signal noncompliance.

Regulations regarding elevators have also seen important changes. The 1971 regulations specified width of door, turning radius, and height of controls. Many facilities "complied" by making freight elevators the means of access for the handicapped. This solution proved unsatisfactory because these elevators frequently have heavy manual doors, are often loaded with freight or have freight blocking access, are always inconvenient to public entrances, and are generally not convenient or palatable to the consumer. Newer guidelines and regulations specifically exclude freight elevators as means for providing the handicapped with access to multiple floors. Because the survey used ANSI-71 guidelines, some freight elevators were deemed compliant in this study; however, outcome reports sent to individual facilities pointed out this inadequacy and urged installation of additional elevators (recognizing that this step involves considerable expense). Also, of the nonfreight elevators deemed compliant, not all were freely accessible. Some required that individuals obtain a key to gain access.

One major problem area that is not regulated is the force required to open exterior doors. (This area was not addressed in the ANSI-71 guidelines, was covered in a later guideline, but is again unregulated in the newest set of guidelines, apparently because of energy conservation measures instituted by other federal agencies.) Heavy doors help conserve energy, but make access difficult for handicapped persons. Regulations regarding exterior doors remain "reserved" at this time, though ANSI-80 named 8.5 lb as the recommended maximum if automatic doors with delayed closing are not used. Interior doors are regulated in the newest guidelines, with a 5-lb maximum specified.

Conclusions are difficult to draw with a sample this small. Unfortunately only one building in the survey was very recently built, thereby limiting any conclusions regarding recent trends. It is interesting to note that the one privately funded facility built since 1979 had no legal mandate to achieve accessibility yet compares favorably with facilities constructed with public funds, which by law must comply. The reasons for this finding are open to conjecture. Perhaps public awareness of the needs of the disabled was a factor. A follow-up study surveying recently constructed buildings, both publicly and privately funded, and involving a larger sample, would perhaps shed more light on this finding and reveal whether it is typical.

Implications for Occupational Therapists

In this age of change, when the focus of health care is moving out of the hospital and into the community (Gilfoyle, 1984; Jaffe, 1985a, 1985b), it is becoming increasingly important for occupational therapists to become more aware and outspoken about accessibility. After all, the profession is built on the concept of fostering independence ("Occupational Therapy," 1972). The obligation of occupational therapists goes beyond directly servicing individual patients, expanding into being advocates for the disabled and agents for change (Jaffe 1985a; West, 1968).

In the "Principles of Occupational Therapy Ethics" (1984), item VII provides the following guidelines:

Occupational therapists do not only provide direct service to alleviate specific problems with clients, programs or a community, but in addition, include education of all phases of services which can be provided to the public. This should include education of situations and conditions for which the competency of occupational therapists is recognized to assist in alleviating barriers limiting a person's ability to function socially, emotionally, cognitively or physically. (p. 801)

Further, item XIII indicates that the ability to effect change begins with being informed:

The occupational therapist seeks information about the major health problems and issues to learn their implications for occupational therapy and for one's own services.

Guidelines. The principle is a philosophical statement that encourages occupational therapists to be global in their views of health in relationship to society. (p. 802)

Summary

Overall, buildings constructed following the enactment and subsequent expansion of the Architectural Barriers Act showed a trend of improved accessibility. However, facilities constructed prior to this legislation remain largely inaccessible to the handicapped and are not mandated to remediate this problem except as large-scale renovations are planned. This problem will affect accessibility to the handicapped for many years in the future.

Although publicly funded buildings were slightly more compliant than privately funded facilities, the differences were minimal, and both categories showed positive trends toward improvement. A significant number of facilities had deficiencies in toilet rooms, parking areas, and double leaf doorways. Hall-
ways, walks, ramps, and primary entrances were largely compliant.

Acknowledgments

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References


Rehabilitation, Comprehensive Services, and Developmental Disabilities Amendments of 1978. PL 95–602, Section 118.