

Creating Accessible Schools

National Clearinghouse for Educational Facilities

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After three decades of legislation and litigation, America's public schools are opening their doors to children with disabilities. Inclusive schools are becoming the norm, and equal educational opportunity is now the right of every child. Successfully preparing children who are disabled in company with their nondisabled classmates for full participation in American society first requires that we make our schools accessible.

Appreciation of both the context and the complexity of accessibility should inform the efforts of all engaged in the development and operation of our schools. Accessibility's goal is larger than building barrier-free structures, and its achievement is far more challenging than simply adhering to standards and codes. The following discussion, focusing on accessibility as it applies to school facilities, is intended to provide a systematic overview of issues bearing on what is recognized by many as a formidable endeavor.

Historically, the educational experience of children with disabilities was characterized by neglect, inequity, and mistreatment. "Prior to the 1970s, most physically and mentally disabled students were, in fact, excluded from public schools or were not identified as disabled" (Otto 1998, p. 9). Where programs and facilities did exist to serve disabled children, they tended to be centralized and segregated. While the educational advantages of neighborhood schools were touted on behalf of able-bodied students, those with disabilities were often bussed en masse to special schools.

The rationale behind "schools for the handicapped" lay in the contention, often sustained by "expert" opinion, that separate, specialized schools were inherently better suited to disabled children's educational needs than were conventional schools. As a result, public schools throughout the U.S. long remained ill-equipped and generally unprepared to accommodate and educate students with disabilities.

The U.S. Supreme Court's decision in *Brown v. Board of Education* (347 U.S. 483 (1954)) "had far reaching implications for the education of disabled students" and "permeated future legislation and social thinking regarding

Navigation Aides

ABA—Architectural Barriers Act of 1968 (PL 90-480)

Access Board—The U.S. Architectural and Transportation Barriers Compliance Board

ADA—Americans with Disabilities Act of 1990 (PL 101-336)

ADAAG—ADA Accessibility Guidelines for Buildings and Facilities (advisory only)

ADA Standards—ADA Standards for Accessible Design (legally enforceable)

CFR—Code of Federal Regulations

FAPE—"free appropriate public education"

IDEA—Individuals with Disabilities Education Act of 1990 (PL 101-476), an amended and renamed version of the Education for All Handicapped Children Act of 1975 (PL 94-142)

IEP—"individualized education program"

LRE—"least restrictive environment"

MGRAD—Minimum Guidelines and Requirements for Accessible Design (advisory only)

OSEP—Office of Special Education Programs, U.S. Department of Education

PARC—*Pennsylvania Association for Retarded Children v. Pennsylvania* (a court decision)

Section 502, Section 504—sections of Title V of the Rehabilitation Act of 1973 (PL 93-112)

UFAS—Uniform Federal Accessibility Standards (legally enforceable)

the rights of qualified disabled students to have accessible and usable facilities" (Otto p. 10). Conveying a unanimous Court's opinion, Chief Justice Warren's words would serve all children: "We conclude that in the field of public

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education the doctrine of 'separate but equal' has no place. Separate educational facilities are inherently unequal."

In the early 1970s, two Federal District Court decisions, *Pennsylvania Association for Retarded Children v. Pennsylvania* (334 F. Supp. 1247 (E.D. Pa. 1971)) and *Mills v. Board of Education of the District of Columbia* (348 F. Supp. 866 (D. D.C. 1972)), "recognized that children with disabilities are guaranteed an equal opportunity to an education under the Fourteenth Amendment of the U.S. Constitution." These cases "were filed through the efforts of parent advocates and were based on the equal protection arguments used in the landmark desegregation case of *Brown v. Board of Education*." This litigation was instrumental in Congress's enactment of legislation that "provided children and youth with disabilities with a federally protected civil right to a free and appropriate public education for the first time" (Rangel-Diaz 2000, pp. 1–2).

Educational practice under law now requires public school districts to exert deliberate effort to identify and evaluate children with disabilities and to educate them within regular classrooms. The effect on public schools across the U.S. has been profound. Enrollment of children with disabilities rose from 8.3 percent of all children served by public schools in 1977 to 12 percent in 1996 (Kennedy 1999). "Today, 75 percent of America's six million students with disabilities are being educated in the general education classroom" (National Education Association 1997, p. 3).

Exceptions to the legal mandate for primary placements (where students receive 50 percent or more of their instruction) in the regular classroom are permitted only when a child's individual educational needs will clearly be better met in another setting, such as a classroom designated for special education purposes or an external facility. Specialized schools, including carefully designed residential facilities, have continued to play a necessary role, albeit a changing one, in meeting certain of the educational needs of children and youth with disabilities (Forcier 1999). In fact, although the percentage of students requiring special education who are placed in residential schools has remained steady, in some states these schools are experiencing substantial enrollment increases. This may be due both to improvements in the early identification of children with problems and to the recent increase in the number of school-age children in the general population, an increase that will persist well into the coming decade (Souter 1999).

Although not all of the nation's six million K–12 students with disabilities require special education, the National Research Council reports that more than five million of this population do qualify. Of this number needing special education, the Council notes that "more than 90 percent fall into

one of just four categories of disability: speech or language impairment, serious emotional disturbance, mental retardation, and specific learning disability" and that "specific learning disabilities account for more than half of all eligible students" (McDonnell, McLaughlin, and Morison 1997, p. 23). These facts also highlight the necessity of addressing students' cognitive as well as physical accessibility needs; however, cognitive components of accessibility to the curriculum are outside the intended scope of this discussion.

In spite of the influx of students with disabilities into general education classrooms, the General Accounting Office (1995) reports that "no national survey of school accessibility has been done or is being planned" by the Departments of Justice or Education or by the Access Board and that "the biennial school survey by the Department of Education's Office for Civil Rights has not included questions on facilities' accessibility since the late 1970s" (p. 13). A study conducted by the GAO itself disclosed that "schools' physical accessibility varied enormously" (p. 24) and that, although schools in every state reported spending on accessibility during the three years preceding the inquiry, the amounts "varied widely" (p. 16). Of the schools reporting accessibility spending, the average amount per school was \$40,000, with 80 percent of schools spending less (\$8,000 on average) and 20 percent spending more. The 20-percent group, frequently larger schools and those situated in the Northeast, accounted for 84 percent of the total reported spending. The participating schools estimated that during the three-year period following the study, they would need to spend approximately triple what had been spent on accessibility during the preceding three years.

School officials participating in the GAO study said that "they could not make schools accessible because of lack of funding" and that "money spent on accessibility may be 'unreasonable' or at the expense of other areas" (p. 25). In contrast, Ratzka (1991) provides an economist's perspective: "The only way to enforce accessible construction is through state imposed norms as in the case of fire protection. Similar to fire protection, investments in accessibility measures are highly profitable for society. The costs of accessible construction are low in relation to the expected returns" (p. 9).

Apart from the persistent contention that special schools are better suited to disabled children's needs, much of the resistance to placement of students with disabilities into conventional settings has been rooted in the lack-of-funding claim, which the courts have rejected. The community of persons with disabilities has responded by asking, What other group at disadvantage in present-day American society would abide the notion that the rights of its members, especially children, are anything but priceless?

Laws and Enforcement

A succession of federal and state laws now entitles children and youth with disabilities to “free appropriate public education” along with students who are nondisabled. Although these laws may differ in their scope and emphasis and at points may overlap, their common effect with respect to school facilities has been to foster inclusive and normalized educational environments for all.

The Americans with Disabilities Act of 1990, also referred to as the ADA (PL 101-336), is the nation’s best known and most encompassing disability-rights legislation. Well before passage of the ADA, however, educators had become conversant with an evolving legal framework bearing on the rights of students with disabilities. Section 504 of the Rehabilitation Act of 1973 (PL 93-112) and the Education for All Handicapped Children Act of 1975 (PL 94-142), which was amended and renamed the Individuals with Disabilities Education Act (IDEA) of 1990 (PL 101-476), are commonly acknowledged (in conjunction with the PARC and Mills decisions) as having been instrumental in establishing and ensuring disabled children’s educational rights.

The federal courts have upheld this body of legislation as it applies to the schooling of children with disabilities. The U.S. Supreme Court, in *Irving Independent School District v. Tatro* (468 U.S. 883, 893 (1984)), ordered the school district to provide “related services” (not requiring a physician) to a disabled student and ruled that districts cannot refuse to educate a disabled child because of need for such a service. The Court, in *Cedar Rapids Community School District v. Garret* (119 U.S. 992 (1999)), upheld its decision in *Irving* and ordered the district to pay for “related services” that were necessary for a student with quadriplegia to attend school and benefit from education. The Court, in *Honig v. Doe* (484 U.S. 305 (1988)), also ruled that school authorities cannot expel, suspend, or otherwise move a disabled child from the setting agreed upon under the child’s IDEA-based individualized education program without a due process hearing. It would appear that the courts have left little alternative for school authorities but to comply with the various laws’ requirements, including those pertaining to accessibility of educational programs and facilities.

The mandates of federal courts and Congress notwithstanding, children with disabilities and their parent advocates continue to face challenges and obstacles “placed by a recalcitrant system of education that has had a long-standing history of not being held accountable” (Rangel-Diaz p. 1). The results of an analysis of IDEA’s Part B monitoring and compliance conducted by the National Council on Disability (2000) demonstrate the problem: “Federal efforts to enforce the law over several administrations have been

ineffective, inconsistent, and lacking any real teeth” (p. 10). This analysis found that “every state was out of compliance with IDEA requirements to some degree” (pp. 23–24); “in the sampling of states studied, noncompliance persisted over many years” (p. 24); and the “Department of Education has made very limited use of its authority to impose enforcement sanctions such as withholding of funds or referrals to the Department of Justice, despite persistent failures to ensure compliance in many states” (p. 25). The analysis also reported that the Department of Education’s most recent monitoring data (1994–1998) indicated among the states sampled the following rates of failure to ensure compliance with IDEA’s requirements: 80 percent on free appropriate public education, 78 percent on procedural safeguards, 72 percent on placement in the least restrictive environment, 44 percent on the individualized educational program, and 34 percent on evaluation protections (p. 27).

Although the Council’s report credits current Secretary of Education Richard Riley with having been “more aggressive in efforts to monitor compliance and take formal enforcement action involving sanctions than all his predecessors combined, formal enforcement of IDEA has been very limited” (p. 24). The Department of Education’s basic approach to compliance has been nonadversarial and has emphasized collaboration with the states by offering technical assistance and developing corrective action plans or compliance agreements. This approach, commendable in theory, may have contributed to the Department’s apparent failure to develop clear-cut, objective criteria for determining which enforcement options ought to be applied and when to enforce in situations of substantial and persistent noncompliance.

With respect to enforcement of provisions of the ADA that specifically apply to educational facilities, the U.S. Commission on Civil Rights (1998) indicates that the Department of Justice’s Disability Rights Section routinely refers school building complaints to the Department of Education. “However,” the Commission reports, “the Department of Education does not have architects on its staff, and it is so entrenched in Section 504 compliance issues that architectural facilities issues are not a priority” (p. 55).

An Evolving Language

Any discussion of disability-rights legislation necessarily includes a clarification: Section 504 and the ADA differ from IDEA in defining handicap/disability. Section 504 and the ADA employ a relatively broad three-part definition that applies to both children and adults. This definition of a “qualified individual with a disability” refers to a person (1) having a physical or mental impairment that substantially limits one or more of the major life activities, (2) having a

record of such an impairment, or (3) being regarded as having such an impairment. Examples of major life activities include caring for oneself, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working.

Under IDEA an “eligible child with a disability” refers to a child between ages three and twenty-one who falls within one or more specified categories of disability and who needs special education and related services because the disability adversely affects the child’s educational performance. IDEA’s categories of disability are: mental retardation, hearing impairments (including deafness), speech or language impairments, visual impairments (including blindness), serious emotional disturbance, orthopedic impairments, autism, traumatic brain injury, other health impairments, or specific learning disabilities. These definitions, further explicated by implementing regulations, make clear that not all children with disabilities who are “qualified” under Section 504 and the ADA are “eligible” under IDEA.

The above definitions embody contrasting views of disability that have implications for how persons with disabilities are perceived and how their needs are addressed. Under civil rights law, the definition of disability shared by Section 504 and the ADA designates those with disabilities as a protected class or minority, comparable to classes based on sex, race, or ethnicity. This definition reflects a contemporary, socio-political perspective. It holds that many of the problems encountered by persons with disabilities, including inaccessible educational facilities, result from societal barriers and prejudices and are not inevitable consequences of the limitations imposed by the disabilities themselves. Of note, however, is the fact that the protected class formed by this definition of disability is ambiguous and subject to abuse and legal manipulation (Harris 1998).

IDEA’s definition of disability draws upon a more traditional special education model that categorizes disabilities in a manner consistent with a medical diagnostic model. This definition views children with disabilities as comprising separate groups needing distinctly differing services.

A significant change in language over the course of disability-rights legislative history should also be acknowledged: the term “disability” and its variants (which, for consistency, are used throughout this discussion) have supplanted the legally equivalent term “handicap.” The latter term was used in earlier federal legislation, including the Rehabilitation Act of 1973 and the Education for All Handicapped Children Act of 1975. Subsequent legislation, such as IDEA, substituted, for example, the terms “individuals with disabilities” and “child with a disability.”

Congress’s action reflects a changed sensibility within the community of persons with disabilities. Use of the “with a

disability” (people first) construction, in particular, recognizes the fact that disability constitutes only one of many possible characteristics a human being may possess and not his or her primary identity. Those involved with design and operation of school facilities should respect these evolving linguistic conventions but employ them advisedly. (Many disabled people consider excessive or exclusive use of the “with” construction tedious and at risk of political correctness.) Additionally, using disability-related terminology that is technically accurate (e.g., child with autism, student who is deaf), as well as avoiding language that people with disabilities consider patronizing (e.g., “physically challenged”) or disaphobic, is recommended.

504’s Broad Reach

Section 504 of Title V of the Rehabilitation Act, as amended, prohibits discrimination on the basis of disability (“handicap” in the original legislation) and protects the rights of individuals with disabilities in programs and activities, including education, that receive federal financial assistance. The U.S. Department of Education, through its Office for Civil Rights, enforces Section 504 as it applies to programs and activities receiving funding through the Department. This includes public school districts, state and local education agencies, and institutions of higher education (both public and private). Section 504, however, authorizes no federal funding to facilitate compliance by schools or other covered entities. “The best thing about Section 504 is that it is very broad and non-specific—the worst thing about Section 504 is that it is very broad and non-specific” (Wristen 1997, p. 1).

Subpart D of the Department’s regulations implementing Section 504 (34 CFR Part 104.31–39) specifically applies to preschool, elementary, and secondary education. These regulations require every K–12 school district to identify every qualified person with a disability in its jurisdiction and to provide him or her with a free appropriate public education (FAPE), regardless of the nature or severity of the disability. This means that the individual educational needs of every school-age child with a disability within a district must be evaluated and documented and that the needs of every such child—whether or not the child requires special education—must be addressed as adequately as those of the district’s students who are without disabilities. It also means that students with disabilities, to the maximum extent appropriate to their individual needs, must be educated in the same settings as nondisabled students (the most integrated setting).

Subpart C of the Department’s implementing regulations (34 CFR Part 104.21–23), which has now been in force for some twenty years, requires that the covered entity’s

program, when viewed in its entirety, be operated in a manner that is “readily accessible to and usable by individuals with disabilities.” A school district may meet this requirement through such means as home visits, assignment of aids, redesign of equipment, reassignment of classes or services to accessible facilities, delivery of services at alternate accessible sites, alteration of existing facilities, construction of new facilities, or any other methods that result in making the program or activity accessible. The program accessibility requirement exempts only those program actions that would demonstrably result in “a fundamental alteration in the nature of the program or an undue financial or administrative burden.” (The “undue burden” standard is different from both Title I’s “undue hardship” standard and Title II’s “readily achievable” standard.)

Although the regulations do not require extensive retrofitting of existing facilities, it still may prove necessary (as discussed above) for a school district to retrofit various of its existing buildings or areas within such buildings in order to meet Section 504’s program accessibility requirement. Moreover, even though a district may operate an accessible program, construction of new facilities or alterations affecting the usability of existing facilities (renovation, restoration, or remodeling) initiated after 1979 will trigger requirements for the new construction or the altered portions of existing facilities to comply with Section 504’s enforceable accessibility standard, the Uniform Federal Accessibility Standards (UFAS).

Norman (1998) explains that the phrase “readily accessible to and usable by” has been used throughout the legislative history of disability rights to indicate an expectation of a high degree of convenient accessibility and to ensure that accessible facilities do not simply provide accessible elements without regard to their usability. It is not sufficient to provide accessibility features in a new or altered facility if the features themselves or the facility’s routine operations do not permit persons with disabilities to use them. It is unacceptable, for example, to place “accessible” drinking fountains or telephones in locations that cannot be reached by a person using a wheelchair or to provide “accessible” parking areas that are not cleared of snow or “accessible” restrooms and elevators that are kept locked.

A Good IDEA

The Individuals with Disabilities Education Act is a federal grant program that requires any state receiving IDEA funding—all of the states elect to receive such funding—to identify and evaluate all eligible students residing within the state and to provide them with a free appropriate public education in the least restrictive environment (LRE). IDEA also requires

states to have available a continuum of placement options for meeting students’ diverse needs.

The Department of Education’s Office of Special Education Programs (OSEP) oversees IDEA. The various states, in turn, are charged with ensuring that their respective school districts meet IDEA’s requirements, which apply as well to children with disabilities in public charter schools. Certain of the law’s provisions (excluding FAPE) also apply to children who are parentally placed in private schools. IDEA’s requirements are considerably more detailed than those of Section 504 and apply only to disabled children requiring special education and related services.

Because charter school legislation enacted by the states tends to be unspecific about special education, “It is essential that everyone involved with charter schools understand that no exemption from any federal special education law or regulations...can be granted. A state may waive portions of its own state laws and regulations or the requirement to abide by school district regulations, but no waiver is possible from federal requirements pertaining to students with disabilities” (Lang 1997, p. 9). Section 504, IDEA, and Title II of the ADA all apply to public charter schools and to the accessibility of their facilities.

OSEP currently (FY-99) administers \$5.3 billion appropriated by Congress for the various programs authorized under IDEA, of which \$4.1 billion funds the Part B grants to states program. Although the Part B appropriation grew 85 percent between 1996 and 1998 (National Council on Disability, pp. 91–92), the federal government has yet to fulfill its stated commitment under IDEA to pay for 40 percent of the excess cost (exceeding average regular per-student expenditure) of its special education mandate. The total excess cost has been estimated at \$39.4 billion, of which the 40 percent federal share would be \$15.7 billion. Since 1975, the Federal Part B appropriations have ranged from 7 percent to 25 percent of the excess cost.

Regulations implementing Part B of IDEA (34 CFR Part 300 *et seq.*) contain the requirement that every eligible student—those falling within a number of specified categories of disability and needing special education and related services—receive a thorough evaluation that results in development of an individualized education program (IEP). These individualized programs (termed “services plans” for children who are parentally placed in private schools and thereby not covered by FAPE) must focus on meeting students’ unique needs by means of a continuum of placement options and on providing services within the least restrictive environment possible. Such an environment, to the extent that it is educationally appropriate, strives to provide the special education student access to the common curriculum

from within a general education classroom. Development and review of students' IEPs, along with provision of free appropriate public education in the least restrictive environment, not only meets IDEA's basic requirements but also may serve as one means of fulfilling comparable requirements under Section 504 of the Rehabilitation Act and implied obligations under Title II of the ADA.

A Better IDEA

The IDEA Amendments of 1997 (PL 105-17), the most extensive revision of IDEA since its inception, contain "requirements that will strengthen progress toward inclusionary practices" (Moore and Gilbert, 1998, p. 9). The Amendments send "a strong message about the school's responsibility to include students with disabilities in the general education classroom and curriculum, with accommodations when necessary," and about disabled students' right to be involved and progress in the general curriculum, to participate in extracurricular and other nonacademic activities, and to be educated and participate with nondisabled children (Knoblauch and Sorenson 1998). The new IDEA also places increased emphasis on "the involvement of general education teachers in developing the IEP" (Knoblauch 1998). In fact, if a student will not be participating in the regular curriculum and extracurricular activities, the regulations now require an explanation in the student's IEP.

"Like the earlier law, the new IDEA does not use the term inclusion, but rather requires school districts to place students in the Least Restrictive Environment (LRE)" (Moore and Gilbert 1998, p. 4). The purpose of the LRE, functioning in conjunction with a student's IEP, is to ensure that a continuum of educational placement options is made available that—to the maximum extent appropriate—will enable the student to be educated along with nondisabled students.

The IDEA Amendments also encourage inclusion by altering the formula for state funding. Under the previous formula, some states (Vermont in particular) had actually lost federal monies by including children with disabilities in regular classrooms.

The Amendments now permit programs authorized under IDEA to use program funds for acquiring appropriate equipment (including assistive technology), constructing new facilities, or altering existing facilities, if it can be demonstrated to the Secretary of Education that the program would be improved. In this regard, Secretary Riley (1999) has stated: "We have millions of young people with disabilities now attending regular classes, and that is one of the great achievements of American education in the last two decades. At the same time, I know that local officials would

welcome any additional help to cover construction costs associated with IDEA" (p. 6). Section 605(b) further requires that construction of new facilities or alterations of existing facilities comply with enforceable accessibility standards (UFAS or the ADA Standards for Accessible Design), thereby introducing "the entire regulatory impact of ADA into IDEA" (Otto p. 14).

ADA's Broader Reach

The Americans with Disabilities Act prohibits discrimination on the basis of disability and protects the rights of persons with disabilities in programs, activities, and employment, whether or not the covered entities receive federal funding. Titles II and III of the Act have direct bearing on the accessibility of public and private educational facilities respectively.

Subtitle A of Title II extends to public entities (state and local governments and their instrumentalities, including public schools) the same prohibitions against discrimination contained in Section 504 of the Rehabilitation Act. Subtitle A's Subpart A regulations (28 CFR 38.130 *et seq.*) apply to everything that public education engages in, including all services, programs and activities for students. It also applies to anything that is open to students' parents or to the general public.

Although public school transportation is exempt from Title II's Subtitle B provisions pertaining to public transportation, Subtitle A's regulations are applicable to the purchase or lease of new transportation equipment by public schools. Should a student with a disability who is covered under Section 504 or IDEA need accessible transportation in order to ensure a free appropriate public education or to participate in activities under the regular curriculum, the school district must provide it.

Because public schools are federally assisted, they are subject to both Title II and Section 504 regulations. These regulations, as they apply to education and accessibility of educational facilities, are similar and are enforced by the Department of Education's Office for Civil Rights in cooperation with the Department of Justice's Disability Rights Section. Although the Department of Justice has stated that violations of Section 504's and IDEA's FAPE requirements are also violations of Title II, Title II and its implementing regulations do not explicitly require a free appropriate public education.

Subpart A regulations implementing Subtitle A of Title II (28 CFR Part 35) require that the school district's program, when viewed in its entirety, be operated in a manner that is "readily accessible to and usable by individuals with disabilities." The regulations exempt those program actions

that would result in “a fundamental alteration in the nature of the program or an undue financial or administrative burden.”

Also similar to Section 504’s regulations, Subpart A regulations implementing Subtitle A of Title II do not require extensive retrofitting of existing school facilities. Nevertheless, it still may prove necessary for a school district to retrofit various of its existing buildings or areas within such buildings in order to meet Title II’s program accessibility requirement. Moreover, even though a district may operate an accessible program, construction of new facilities or alterations affecting the usability of existing facilities will trigger requirements for compliance with either of Title II’s two enforceable accessibility standards, the Uniform Federal Accessibility Standards or the ADA Standards for Accessible Design.

Title III of the ADA prohibits disability-based discrimination by public accommodations (private entities that own, lease, or operate places of public accommodation). Facilities used by private education (except when affiliated with religious entities) are considered places of public accommodation. Although Title III does not require private schools to provide a free appropriate public education to disabled students, it does require private school facilities to be in compliance with Title III’s enforceable accessibility standard, the ADA Standards for Accessible Design. Private schools that are federally assisted are subject to both Section 504 and Title III requirements, which are enforced cooperatively by the Departments of Education and Justice.

Regulations implementing Title III (28 CFR Part 36), unlike those for Title II and Section 504, do require retrofitting of existing facilities if the necessary alterations for barrier removal are “readily achievable.” Retrofitting is required even if the program can be made accessible without facilities alterations. Readily achievable, which is a less stringent standard than Title II’s “undue burden,” is determined on a case-by-case basis and means easily accomplishable without much difficulty or expense (e.g., installing ramps, making curb cuts, moving furniture). When barrier removal is difficult to accomplish or disproportionate in cost, other safe and readily achievable measures may be taken to bring about accessibility. New construction, “to the extent that it is not structurally impracticable” (a rare occurrence), must meet Title III’s enforceable accessibility standard, the ADA Standards for Accessible Design.

The regulations implementing Section 504 and Title II as they apply to accessibility of public facilities share a common cost-related rationale. In new facilities, compliance with a more stringent standard—full accessibility without exception—is expected because the cost of including accessible features is nominal when compared with overall construction costs. Making accessible alterations to existing

facilities is disproportionately more costly and, therefore, receives somewhat more flexible treatment under the regulations in the form of the program accessibility requirement. Title III regulations as they apply to accessibility of private facilities provide no such flexibility and, as noted above, do require retrofitting of existing facilities.

Any Classroom Any School

Although the definition of disability shared by Section 504 and the ADA differs from that used by IDEA, all three laws clearly mandate that disabled students—to the maximum extent appropriate to the individual student’s needs—be educated alongside nondisabled students. Although educators in general endorse this requirement, they disagree over its implementation, particularly in relation to the concept of inclusion. Their varied perspectives have direct implications for the design and use of school facilities.

Moore and Gilbert assert that the terms popularly associated with IDEA’s least restrictive environment provision—mainstreaming, integration, and inclusion—are not synonymous and represent substantially different approaches to the placement of children with special education needs. “Mainstreaming brought students with special education needs into general classrooms only when they didn’t need specially designed instruction when they could keep up with the ‘mainstream.’ Integration presumes that ‘segregation’ exists and students are with their peers without disabilities part-time. In reality, students who were integrated part-time were not truly a part of the class.... Inclusion...means that general education classes are structured to meet the needs of all the students in the class. This is accomplished through educational strategies designed for a diverse student population and collaboration between educators so that specially designed instruction and supplementary aids and services are provided to all students as needed for effective learning” (p. 6). Moore and Gilbert emphasize: “Special education is not a place. It is specialized instruction and supplementary aids and services provided to students with disabilities who need specialized instruction” (p. 5).

According to Burnette (1996), “The concept of inclusion is controversial. Some advocates call for ‘full inclusion,’ that is, placing all students with disabilities in general education classes. Others take a more moderate approach by supporting the creation of inclusive schools that welcome students with disabilities while holding that for some students, general education placement may not be the best educational option” (pp. 2–3).

McLeskey and Waldron (1996) conclude that the concept of full inclusion “implies that the purpose of inclusion is to include all students for all of the school day in every school setting, preschool through high school.” They add that the “movement for full inclusion has been criticized for concentrating on the ‘place’ in which students are educated at the expense of their individual needs and the quality of the education they receive.” They also suggest that “a better guiding theme for developing inclusive school programs is the concept of normalization,” which essentially means that “schools should prepare students with disabilities to live their lives as independently as possible, in as typical a setting as possible” (pp. 9–10).

Moore and Gilbert state: “Even though the majority of the research available today supports inclusive education, there is a handful of studies that take an alternative position. For the most part, these studies report situations in which students are placed in general education classrooms without proper supports or they are in regular classrooms but not receiving special education, as defined by law. Such studies should definitely raise concerns” (p. 29). Moore and Gilbert also report that studies on inclusion “lend support to the contention that, for successful inclusion to occur, the general education classroom needs to be a place where a range of student abilities is supported and accepted” (p. 8).

Writing on behalf of the Department of Education, Heumann and Hehir (1994) note that “IDEA does not use the term inclusion” and that the Department “has not defined that term” (p. 5). They go on to explain: “In implementing IDEA’s LRE provision, the regular classroom in the school the student would attend if not disabled is the first placement option considered for each disabled student before a more restrictive placement is considered. If the IEP of a student with a disability can be implemented satisfactorily with the provision of supplementary aids and services in the regular classroom in the school the student would attend if not disabled, that placement is the LRE placement for that student. However, if the student’s IEP cannot be implemented satisfactorily in that environment, even with the provision of supplementary aids and services, the regular classroom in the school the student would attend if not disabled is not the LRE placement for that student” (pp. 4–5).

The essential point is that IDEA’s least restrictive environment provision, conceptualized as inclusion by educators, cannot be applied to the placement of any child covered under the law separate from the context provided by the child’s individualized education program. Although IDEA’s strong presumption is for placement in a general education classroom, the student’s IEP ultimately controls the placement decision.

Exceptions to primary placements in general education classrooms require demonstration by the school district that the individual student’s educational needs cannot be met satisfactorily in this environment, even with the support of supplementary aids and services. IDEA’s regulations acknowledge that for certain students with disabilities, meeting individual needs and ensuring equality of opportunity may necessitate specially designed instruction and related services provided in locales and settings apart from the conventional classroom. These may include separate classrooms designated for special education purposes, students’ homes, special schools, treatment centers, correctional facilities, or other private or public institutions. In these circumstances, services and facilities for disabled students must be of comparable quality to those provided in the regular educational environment.

Although controversy over the concept of inclusion persists, IDEA’s least restrictive environment provision has been clearly articulated by the Department of Education and undergirded by court decisions. The LRE is the law, and educators and school facilities designers should continue to incorporate this fact into their thinking and practice. Conceivably, any regular classroom in any neighborhood school (not exempted as an existing facility) could constitute the LRE placement for one or more children with disabilities and would need to be accessible and readily adaptable.

Anchoring Accessibility

The U.S. Architectural and Transportation Barriers Compliance Board, commonly referred to as the Access Board, has overseen development and promulgation of accessibility guidelines since its establishment under Section 502 of the Rehabilitation Act of 1973, as amended. The Board’s articulations of the basics of architectural, transportation, and telecommunications accessibility have been updated continually and, as necessary, extended. The Board’s guidelines, which are advisory only, serve as the basis for enforceable standards that are the responsibility of the various federal departments and agencies. Two of these guidelines, MGRAD and ADAAG, form the basis of enforceable standards that apply to accessibility of school facilities.

MGRAD, the Minimum Guidelines and Requirements for Accessible Design, was published in final form by the Access Board in 1982 (36 CFR Part 1190). The principal standard-setting federal agencies adopted MGRAD in 1984 as the Uniform Federal Accessibility Standards. UFAS is the enforceable standard (41 CFR Part 101-19.6, Appendix A) under the Architectural Barriers Act (ABA) of 1968 (PL 90-480) for facilities owned, leased, constructed, or funded by the federal government. UFAS is also the enforceable

standard under Section 504 of the Rehabilitation Act of 1973 and (until the Department of Justice adopts a Title II standard) one of the two currently enforceable standards under Title II of the ADA.

ADAAG, the ADA Accessibility Guidelines for Buildings and Facilities, was developed concomitantly with passage of the ADA and was published by the Access Board in 1991 (36 CFR Part 1191, Appendix A). The Department of Justice adopted this initial version of ADAAG (Sections 1–9) as the ADA Standards for Accessible Design (28 CFR Part 36, Appendix A) and incorporated these Standards into its regulations implementing Title III. When adopting ADAAG, however, the Department did not consistently substitute the term “standards” for “guidelines” in the regulations, leading to some confusion. Simply put, ADAAG (last published in 1998) constitutes an evolving set of advisory guidelines, whereas the ADAAG-based ADA Standards (adopted in 1990) are an (as yet) unchanged part of the enforceable requirements of the ADA itself.

ADAAG’s format is modeled on UFAS, as are its scoping requirements (the type and number of elements to which the guidelines apply). ADAAG’s technical requirements for building and site elements are based on the American National Standards Institute’s A117.1-1980 standard for accessibility. The ANSI standard, which is reviewed every five years, was first released in 1961 to assist entities outside government in voluntarily making their facilities accessible.

In November 1999, the Access Board proposed for comment updated guidelines for facilities, both public and private, covered under the Americans with Disabilities Act and the Architectural Barriers Act. The proposal revises the substance and format of MGRAD and ADAAG (the existing ABA and ADA accessibility guidelines) and addresses differences between them. It contains separate scoping requirements sections for facilities covered under each law and a common technical requirements section. The Board’s intention, in addition to improving access requirements, is to increase the uniformity of federal design specifications and to reconcile differences with national consensus standards. It is emphasized, however, that publication of new ABA/ADA guidelines by the Access Board does not mean that they have been adopted (or even will be adopted) by the various federal departments and agencies as enforceable standards.

Although in January 1998 the Access Board published final supplements to ADAAG, the Department of Justice has yet to adopt either the initial (1991) ADAAG or this updated (1998) ADAAG as the enforceable standard under Title II’s implementing regulations. As already noted, until a Title II standard is designated by the Department, the ADA permits public entities, including public schools, to use either UFAS

or the ADA Standards (excluding the latter’s elevator exemption for certain smaller buildings). It does not, however, permit mixing of the two sets of standards in any single facility or project. Public entities must be in compliance for new construction and alterations of facilities initiated after January 1992. (The ADA Standards are generally recommended for new school construction.)

Under Title III’s regulations, the ADA Standards are the enforceable design standards for private entities, including private schools. As places of public accommodation providing programs and services, private schools are limited to the ADA Standards and must be in compliance for new construction and alterations of facilities intended for first occupancy after January 1993.

Although UFAS and the ADA Standards in their current forms differ in a number of respects, neither enforceable standard is generally regarded as the more stringent. For example, the ADA Standards permit exemptions for “structural impracticability” in new construction and for “technical infeasibility” in alterations. UFAS contains no exemptions in new construction but does permit exemptions for “structural impracticability” in alterations. Structural impracticability under the ADA Standards means “those rare circumstances where the unique characteristics of terrain prevent the incorporation of accessibility features,” whereas under UFAS it means “where removal of a load-bearing structural member is involved or where the result would be an increased cost of 50 percent or more of the value of the element involved.” Technical infeasibility under the ADA Standards means “where application of the standards would involve removal of a load-bearing structural member or where existing physical or site restraints prevent compliance” without cost being a factor.

The ADAAG-based ADA Standards explicitly permit “equivalent facilitation” (Section 2.2), allowing case-by-case exceptions that provide “substantially equivalent or greater accessibility.” Norman notes that equivalent facilitation “applies to the entire Guidelines” and is intended “to provide flexibility to design for unique and special circumstances and to facilitate the application of new technologies.” “For example,” Norman adds, “the use of automatic door openers for double leaf doors and audible signage for individuals with vision impairments may be appropriate, but the use of a portable ramp is not considered equivalent facilitation” (p. 9). Although UFAS contains no statement on equivalent facilitation, both Section 504 and Title II regulations allow departures from the UFAS standard where it is “clearly evident that equivalent access” is provided.

Educators and school designers had long been aware that facilities designed in strict conformance with either UFAS or the ADA Standards (standards based on adult dimensions

and anthropometrics) would actually fail to meet certain accessibility needs of children with disabilities. In 1986, the Access Board issued Recommendations for Accessibility Guidelines to Serve Physically Handicapped Children in Elementary Schools. The Recommendations, which are intended to assist the states in designing and building accessible schools for grades 1–6, include proposed modifications and additions to UFAS.

Under the ADA Standards, which currently remain without standards for children's facilities, designers have relied on the leeway afforded by equivalent facilitation to address disabled children's specific needs. The 1992 findings of an extensive study commissioned by the Access Board and conducted by North Carolina State University's Center for Accessible Housing provided the basis for updating and adding children's accessibility guidelines. In 1998, the Access Board published the ADAAG Building Elements Designed for Children's Use, which contains carefully circumscribed design specifications (applicable to children age twelve and under) that are discretionary alternatives to ADAAG's adult-based requirements. This addition to ADAAG is pending adoption by the Department of Justice and, is, therefore, advisory and not yet enforceable under the ADA Standards. Other anticipated additions to ADAAG relevant to children, including guidelines for classroom acoustics (a matter of wide interest and concern) and for accessible play areas, are in various stages of the Access Board's discussion and development process.

For the Creative and Watchful Only

The federal laws, regulations, and standards that have bearing on school accessibility are voluminous and complex. They are augmented by abundant enforceable legislation at the state level that is often more stringent than the federal requirements. Apprehending these arcane legalities in the abstract, however, is far easier than bringing about actual accessibility for children who have widely varying needs that must be met within increasingly inclusive school environments.

The experts have well-founded opinions. Commenting on descriptions of "handicapping conditions" used in PL 94-142, Abend, Bednar, Froehlinger, and Stenzler (1979) explain: "Stating these handicapping categories oversimplifies the situation. Handicapped children present an infinite combination of abilities and disabilities, necessitating a variety of service needs" (p. 2). Duke and Griesdorn (1998) observe: "When schools are built, they are built to accommodate educational programs that meet existing expectations.... Nowhere have expectations changed more dramatically than in the area of special education. Many of the

space limitations faced by Virginia's schools can be traced to federal legislation regarding the education of special needs students" (p. 7). Rydeen (1999) contends that the building codes and planning standards themselves can create problems: "Stating that a school building should not exceed a predetermined total area per student, or that a specific classroom should be a certain size, makes the task more difficult. Ultimately, compromises are made because of total size and budget limitations that are detrimental to the final project" (p. 58). According to Otto, "The scope of possible architectural and building renovations that are required to implement 504 and ADA is staggering.... A creative mind and watchful eye are advisable when confronting the potential vagaries of the ADA and Section 504" (p. 12).

Otto emphasizes that "it is a major error to associate the concept of program accessibility solely with individuals with mobility impairments" (p. 12). In fact, early efforts toward barrier-free design, which had concentrated on removing physical barriers and creating special design features for mobility-impaired persons, may have overlooked wider accessibility needs. A truly comprehensive approach to accessibility must address not only the barrier-removal needs of America's estimated one million persons who use wheelchairs but also the assorted accessibility needs of another fifty million or so persons with disabilities—including four million with serious visual impairments and twenty-four million with hearing impairments (U.S. Department of Education, Office for Civil Rights 1997). In K–12 educational contexts in particular, simply removing physical barriers is by no means equivalent to providing an accessible program within an inclusive environment.

Bar and Galluzzo (1999) believe that universal design represents "a more comprehensive view of human needs and abilities" than does barrier-free design (p. 2). They suggest that universal design "incorporates the general principles of its predecessor, barrier-free design" but "is not based on the assumption that wheelchair-accessible facilities are also accessible to individuals with other disabilities—for some people, barrier-free features can even be hazardous" (pp. 1–2). People with visual impairments, for example, are all too familiar with the "drop off" hazard presented by well-intended but poorly designed curb ramps.

The term universal design was coined by the late architect Ronald Mace to describe efforts to develop "products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design" (Connell *et al.* 1997, p. 1). Mace and his colleagues have articulated seven principles of universal design: (1) equitable use, (2) flexibility in use, (3) simple and intuitive use, (4) perceptible information, (5) tolerance for error, (6) low physical effort, and (7) size and space for

approach and use. Bar and Galluzzo list four goals of universal design that overlap Mace's explanations of the above principles: (1) accommodate human movement characteristics, (2) ensure safety, (3) provide adaptability, and (4) be affordable and cost-effective. Although Bar and Galluzzo assert that its "comprehensive approach makes universal design particularly relevant in the design and management of educational settings" (p. 1), many educators and school facilities designers view universal design as a worthy but often unachievable goal.

The message for educators and facilities designers is that making new or existing public school facilities accessible remains a formidable undertaking. Routinely proffered "solutions" to facilities accessibility, such as barrier-free design or universal design, are not likely to accommodate satisfactorily the spectrum of need presented by the diverse population of children with disabilities or to compensate fully for insufficient space allotment, inadequate funding, or inconsistency between educational practice and evolving law. Identification of accessibility's best practices—the consensus of research-based expertise with emphasis on creative problem solving—is arguably the necessary and superior alternative. Application of accessibility's best practices to facilities design is key to enabling all who use our schools to function with ease, safety, independence, and dignity.

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Note: Within the text, page numbers referencing sources available online represent electronic pagination and may differ from pagination in print versions of these documents.

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