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Technical Standards for Admission to Medical School:
Deaf Candidates Don't Get No Respect

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Technical Standards for Admission to Medical School: Deaf Candidates Don't Get No Respect

ABSTRACT

Medical schools utilize a set of technical standards used to screen applicants with disabilities, and one of the standards, which deals with communication, requires the applicant to be capable of speech and hearing. To the extent that medical schools exclude an applicant with a hearing impairment on the ground that the applicant cannot hear and speak, such exclusion would be (and should be) a violation of federal law. Schools must engage in an individualized assessment of how a Deaf medical candidate would satisfy the communication standard. The notion of an "undifferentiated graduate," where all graduates qualify for practice in any field of medical practice and research, is outdated. Providing the Deaf candidate with an appropriate auxiliary aid such as a sign language interpreter would not constitute a fundamental alteration of the medical school's program, nor would the interpreter serve as an intermediary substituting his judgment for that of the candidate. This Article is structured as a memorandum of law arguing for a construction of the technical standard of communication that is open to the different ways – via appropriate auxiliary aids – Deaf students communicate. Ends matter, not means.

MEMORANDUM

TO: Harold P. Jamison, Senior Partner

FROM: Michael Schwartz, Of Counsel*

RE: The Feasibility of Challenging the Technical Standard of Communication Used to Screen Deaf Applicants to Medical Schools

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The Problem

Bernard Ray Johnston, a Deaf applicant to medical school, has brought to our firm's attention a technical standard used by medical schools – pertaining to communication – and asks us to look into the feasibility of challenging how a medical school applied such a standard when assessing his candidacy.[1] Mr. Johnston is concerned that medical schools are denying him entry

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* Michael Schwartz is Associate Professor of Law and Director of the Disability Rights Clinic, Office of Clinical Programs, at Syracuse University's College of Law in Syracuse, NY.

[1] "Harold P. Jamison" and "Bernard Ray Johnston" are fictitious names for an equally fictitious senior partner and client, respectively. The problem of the technical standard on communication, however, is real.

solely because he is Deaf and suspects that the schools are interpreting the technical standard for communication as to require speech and hearing.[2]

A review of the technical standards related to communication promulgated by medical schools in the United States shows two approaches: one that references communication in general terms and the other that specifically requires the candidate to hear and speak. With respect to the former, an example is:

> The student must be able to communicate effectively with patients and family, physicians, and other members of the health care team. The communication skills require the ability to assess all the information including the recognition of the significance of non-verbal responses and immediate assessment of information provided to allow for appropriate, well-focused follow-up inquiry. The student must be capable of responsive, empathetic listening to establish rapport in a way that promotes openness on issues of concern and sensitivity to potential cultural differences.
>
> The student must be able to process and communicate information on the patient's status with accuracy in a timely manner to physician colleagues and other members of the health care team. This information then needs to be communicated in a succinct yet comprehensive manner and in settings in which times available is [sic] limited. Written or dictated patient assessments, prescriptions, etc., must be complete and accurate. The appropriate communication may also rely on the student's ability to make a correct judgment in seeking supervision and consultation in a timely manner. [3]

The above language speaks to the medical student's ability to assess, listen, process information, and convey complete and accurate information in a timely manner. It does not describe or dictate how the student is to accomplish this.

By contrast are standards that reference communication in terms of a student's ability to hear and speak:

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[2] I capitalize the letter, "d," in the word, "deaf" or "deafness," to reflect my understanding of deafness not as deficit or loss, but rather as consisting of unique human linguistic and cultural phenomena. The small letter, "d," refers to deafness as a medical condition. Another usage note is that I define "Deaf" as encompassing the wide range of hearing loss, including those who are hard-of-hearing and late-deafened.

[3] *See* http://uwmedicine.washington.edu/Education/MDProgram/Admissions/Essential+Requirements.htm.

> A candidate should be able *to speak, to hear* and to observe patients in order to elicit both verbal and non-verbal information, and must be able to communicate effectively and sensitively with and about patients. Communication therefore includes speech, reading and writing. The candidate must be able to communicate effectively and efficiently in oral and written form with the patient, the patient's family, and all members of the health care team, including referral sources such as agencies and other physicians.[4]

Mr. Johnston contends that the latter approach is discriminatory inasmuch as it screens him out from the application pool on the basis that he cannot hear and speak without giving any consideration to how he might accomplish the same ends as medical students with hearing could, albeit through different means. He asks us if we consider his claim valid for representation.

This Memorandum begins by examining the historical antecedents for the technical standard on communication. It sets forth a number of arguments that the technical standard related to communication at medical schools requiring the ability to hear and speak does not comply with statutory and case law. Moreover, new technologies enable Deaf medical students to adapt to the demands of medical practice, which, in turn, requires medical schools to redefine what it means to communicate as a doctor in order to not only comply with the law, but also align itself with fresh thinking about Deafness and cultural competency in medicine.

Bernard Johnston is not alone. Over eight percent of college freshmen have a disability, but only 0.2% of medical school graduates are individuals with a visible disability.[5] It appears that the presence of a physical disability "creates a strong likelihood for an adverse judgment

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[4] *See* http://www.temple.edu/medicine/education/mdprograms/medical_education/technical_standards.htm. I considered whether to name more schools that require speech and hearing but decided it was not necessary. The focus of the Article is on policies and practices, not personnel or entities, and on institutional behavior, not liability.

[5] Michael J. Reichgott, *The Disabled Student as Undifferentiated Graduate: A Medical School Challenge,* JAMA, 279(1): 79 (Jan. 1998) (students with disabilities account for roughly 0.2% of medical school graduates); C. Henderson, *College Freshmen with Disabilities: A Statistical Profile*, Washington, D.C.: American Council on Education, Health Resource Center; 1992. *See also* M. Moore-West and D. Heath, *The Physically Handicapped Student in Medical School: A Preliminary Study*, Journal of Medical Education, 1982; 57:918-921; S. Wu, P. Tsang, and S. Wainapel, *Physical Disability Among American Medical Students*, American Journal of Physical and Medical Rehabilitation, 1996;75:183-187.

about [the applicant's] acceptability to medical school."[6] Medical schools have traditionally excluded applicants with disabilities, and research suggests that the current "attitudinal environment has not changed."[7]

A Historical Context for the Technical Standard on Communication

Medical schools in the United States employ what are known as technical standards for admission – criteria that an admission committee uses to determine the qualifications of a candidate for the study of medicine.[8] As noted earlier, some schools interpret the communication standard to call for the candidate to hear and speak.[9] This interpretation stems, in part, from the medical establishment's concept of "the undifferentiated graduate" – a norm to which all medical students strive in the practice of medicine.[10] According to this view, a task expected of an "undifferentiated graduate" is to listen to a heartbeat through a stethoscope.[11]

The concept of "the undifferentiated graduate" is rooted in the past. In 1942, the American Medical Association and the Association of American Medical Colleges (hereinafter "AAMC") established the Liaison Committee on Medical Education (hereinafter "LCME") "to

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[6] Michael J. Reichgott, *"Without Handicap": Issues of Medical Schools and Physically Disabled Students,* Academic Medicine, Vol. 71, No. 7 (July 1996), at 728 (concluding that "physical disability of any kind seems to engender an expectation of total incompetence") According to Reichgott, "The medical academic establishment has been intransigent in their unwillingness to consider the admission of physically disabled students..." *Id*. at 725. Meier, *Issues concerning medical school admission for students with disability*, in American Journal of Physical Medicine & Rehab, Vol. 72, at 341-342 (1993).

[7] Reichgott, *"Without Handicap": Issues of Medical Schools and Physically Disabled Students,* Academic Medicine, Vol. 71, No. 7 (July 1996), at 725-726 (similarity in results from 2 surveys done a decade apart suggests the lack of change). Even though Section 504 and the ADA prohibit medical schools from discriminating against qualified candidates with disabilities, these candidates continue to be denied admission. Association of American Medical Colleges, *"Medical Students with Disabilities: A Generation of Practice,"* Report by Jennifer E. Watson and Shannon H. Hutchens (Daniel J. Wilkerson, ed.). Washington, D.C.: 2005, at 15.

[8] CITE. The regulations to Section 504 of the Rehabilitation Act of 1973 do not define the term, "technical standards," but the accompanying analysis defines this term as referring to "all nonacademic admissions criteria that are essential to participation in the program in question." 45 C.F.R. pt. 84, App. A, p. 405 (1978).

[9] CITE.

[10] *See* Michael J. Reichgott, *The Disabled Student as Undifferentiated Graduate: A Medical School Challenge,* JAMA, 279(1): 79 (Jan. 1998).

[11] *Id*. *See* www.amphl.org for a discussion on adaptable stethoscopes for physicians who are Deaf or hard of hearing.

assume accreditation responsibilities previously undertaken separately by these organizations."[12] The LCME's "accreditation of medical schools…assures the public that a school has met national educational standards, that its graduates have completed a rigorous education and achieved the levels of competency necessary for the awarding of the Doctor of Medicine degree, and that the welfare of the patient is protected by compliance with professional norms."[13]

In a 1950 report to the American Surgical Association of the Committee on Undergraduate Medical Education, a group of doctors including the renowned heart surgeon Michael DeBakey examined "the role of the surgeon in undergraduate medical education."[14] According to the report, the aim of medical education is "to give the student a comprehensive concept of man and his diseases and to inculcate those habits of mind which will enable him to enter *without handicap* any one of the fields of medical practice and research."[15] And this new doctor would be an "undifferentiated graduate" – a doctor who would graduate medical school with "general competence."[16] The "without handicap" and "general competence" concepts have been interpreted by many to place "the onus on every individual graduate to be undifferentiated," which means the new doctor has to possess a general set of universal skills that would allow him or her to enter any specialty and acquire competency in that field.[17]

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[12] Report of the AAMC Special Advisory Panel on Technical Standards for Medical School Admission, at 2.

[13] *Id.*

[14] Committee on Undergraduate Medical Education. Report to the American Surgical Association. *Trans. Am. Surg. Assoc.* 1950; 68:523-54.

[15] *Id.* at 524 (emphasis added).

[16] *Id.* at 536. The reference to "general competence" serves as the basis for the idea of the "undifferentiated graduate" – a student who attains the goal of the M.D. degree by performing "the essential functions" of a medical school's curriculum. Michael J. Reichgott, *"Without Handicap": Issues of Medical Schools and Physically Disabled Students,* Academic Medicine, Vol. 71, No. 7 (July 1996), at 725.

[17] Reed VanMatre et. al, *Technical Standards for the Education of Physicians with Physical Disabilities: Perspectives of Medical Students, Residents, and Attending Physicians*, American Journal of Physical Medicine and Rehabilitation, Vol. 83, No. 1 (January 2004). This has been "more inhibitory to disabled applicants." *Id. See also* David Hartman and Cheryl Hartman, *Disabled Students and Medical School Admissions*, Arch. Phys. Med. Rehabil. Vol. 62 (February 1981), 90-91. In a section devoted to "the selection of the student," the authors of the 1950 report agree that if the medical student "has a good grasp of English and can express himself verbally and by written word, so much the better will be his interchange with his teachers, colleagues and patients." *Id.* at 541.

The drive for a "generally competent" doctor "without handicap" morphed into a drive for a doctor without a disability.[18] As Reichgott puts it,

> Schools have responded to the challenge to provide a curriculum leading to "general competence" and to produce "undifferentiated graduates" by requiring that every graduate be "fully qualified to pursue any medical specialty." To be deemed acceptable for admission thus implies that a candidate must be free of any limitation that could possibly compromise his or her ability to perform any or all medical procedures.[19]

It was not until the last 20 years that saw a jump in the number of Deaf doctors.[20] Why would this be so? It is not hard to conjecture that Deaf candidates were marked incompetent and only medical students who could hear and speak in performing medical procedures were admitted to the study of medicine.

In 1973, Congress enacted Section 504 of the Rehabilitation Act, which specifies that "no otherwise qualified handicapped individual, as defined in Section 7(6), shall, solely by reason of his handicap be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving Federal financial assistance."[21] The United States Department of Health, Education and Welfare (hereinafter "HEW") issued implementing regulations in 1977, which stated, with respect to postsecondary education, a

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[18] According to Reichgott, this "weeding out" arises from the premise that the ideal graduate should be prepared "to enter without handicap any one of the fields of medical practice." Every student is expected to acquire the knowledge and skills needed to enter any residency, and if a prospective student cannot become an "undifferentiated graduate," he or she may be denied admission. Michael Reichgott, The Disabled Student as Undifferentiated Graduate: A Medical School Challenge. *Journal of the American Medical Association*. 1998; Vol. 279, No. 1: 79, citing Committee on Undergraduate Medical Education, Report to the American Surgical Association, *Trans Am Surg Assoc*. 1950; 68:523-554. *See also* Association of American Medical Colleges, *Report of the Special Advisory Panel on Technical Standards for Medical School Admissions*, Washington, D.C.: Association of American Medical Colleges: 1979; Association of American Medical Colleges, *Functions and Structure of a Medical School: Standards for Accreditation of Medical Education Programs Leading to the MD Degree*, Washington, D.C.: Association of American Medical Colleges, Liaison Committee on Medical Education; 1997.

[19] Michael J. Reichgott, *"Without Handicap": Issues of Medical Schools and Physically Disabled Students,* Academic Medicine, Vol. 71, No. 7 (July 1996), at 725-726, citing D. Hartman and C. Hartman, *Disabled Students and Medical School Admissions*, Arch. Phys. Med Rehabil. 1981; 62:90-91.

[20] CITE TO WEBSITE.

[21] 29 U.S.C. §794(a) (2002); 34 C.F.R. §104.4(a).

qualified handicapped person is a person with a handicap who meets the academic and technical standards requisite to admission or participation in the recipient's education program or activity.[22] Subsequent regulations require post-secondary educational institutions to provide appropriate accommodations and reasonable modifications for qualified students with disabilities to ensure that their educational requirements "do not discriminate or have the effect of discriminating" against such a student.[23] Since most, if not all, medical schools, both public and private, receive some form of federal financial assistance, they are required to comply with Section 504 and its implementing regulations.[24]

In response to Section 504 and federal regulations, the AAMC in 1979 convened a Special Advisory Panel on Technical Standards for Medical School Admission (hereinafter "Panel"), a group of medical doctors from around the United States, to recommend technical standards that would guide medical schools in selecting candidates for the study of medicine.[25] The Panel issued a report, "Technical Standards for Medical School Admission," in which it

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[22] All government agencies, federally funded projects, K-12 schools, and postsecondary entities (state colleges, universities, and vocational training schools) fall into this category. CITE. A handicapped individual is defined in the regulations as "any person who (i) has a physical or mental impairment which substantially limits one or more major life activities, (ii) has a record of such an impairment, or (iii) is regarded as having such an impairment." CITE. Physical impairment is defined as "any physiological disorder or condition … or anatomical loss affecting … special sense organs [or] respiratory [body systems], including speech organs." CITE The term, "technical standards," is not defined in the regulation, but the accompanying analysis states that it refers to all "nonacademic admissions criteria that are essential to participation in the program in question." CITE.

[23] 34 C.F.R. §104.44(a), (c), & (d) (2004). Prohibited discriminatory acts include denying qualified students with disabilities an opportunity to participate in the medical school's program (34 C.F.R. §104.4[b][1][i]) or utilizing criteria or methods of administration that subject them to discrimination on the basis of disability. 34 C.F.R. §104.4(b)(4).

[24] 29 U.S.C. §794(a) (2002). 34 C.F.R. §104.3(h) (federal financial assistance means "any grant, loan, contract (other than a procurement contract or a contract of insurance or guaranty), or any other arrangement by which the Department of Education provides or otherwise makes available assistance in the form of … funds." *See Guckenberger v. Boston University*, 957 F. Supp. 306 (D. Mass. 1997).

[25] Reed VanMatre et. al, *Technical Standards for the Education of Physicians with Physical Disabilities: Perspectives of Medical Students, Residents, and Attending Physicians*, American Journal of Physical Medicine and Rehabilitation, Vol. 83, No. 1 (January 2004).

reviewed the accreditation process, medical school curricula and the admission of students.[26] With regard to admission of students, the Panel noted,

> Admission decisions should be based not only on satisfactory prior scholastic achievement, but also upon considerations of "personal and emotional characteristics, motivation, industry, resourcefulness and personal health." The LCME will countenance no discrimination on the basis of sex, creed, race or national origin and mandates that students "possess the intelligence, integrity, and personal and emotional characteristics appropriate to the effective physician."[27]

While expressing disapproval of medical schools denying admission to candidates with disabilities solely on the basis of disability, the Panel issued a set of guidelines that "reflect [its] conclusion that there are certain minimum technical standards for physicians that must be examined and enforced in the admissions process."[28] The Panel cautioned that the guidelines were not cleared with HEW for compliance with Section 504 "and cannot guarantee that adherence to them will protect schools from challenge."[29]

To the members of the Panel, holding a medical degree required the physician to "have the knowledge and skills to function in a broad variety of clinical situations and to render a wide spectrum of patient care."[30] Thus, the Panel set forth a vision of the American doctor's capability:

> Candidates for the M.D. degree must have somatic sensation and *the functional use of the senses of vision and hearing*. Candidates' diagnostic skills will also be lessened without the functional use of the senses of equilibrium, smell and taste.

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[26] Association of American Medical Colleges, *Report of the Special Advisory Panel on Technical Standards for Medical School Admission*, Washington, D.C.: AAMC, 1979. *See also* Association of American Medical Colleges, *Functions and Structure of a Medical School: Standards for Accreditation of Medical Education Programs Leading to the MD Degree*, Washington, D.C.: Association of American Medical Colleges, Liaison Committee on Medical Education; 1997.

[27] Association of American Medical Colleges, *Report of the Special Advisory Panel on Technical Standards for Medical School Admission*, Washington, D.C.: AAMC, 1979, at 4. Strangely, even though it was drafted in response to the passage of Section 504, this report does not list disability as a prohibited basis for discrimination.

[28] *Id.* at CITE.

[29] *Id.* at CITE.

[30] *Id.* at 5. This, at the core, is the "undifferentiated graduate" that traditionalists and purists feel each and every doctor must attain to be upon graduation from medical school. To this group, "The M.D. degree is, and must remain, a broad, undifferentiated degree attesting to the acquisition of general knowledge in all fields of medicine and the basic skills requisite for the practice of medicine." *Id.* at 7-8.

> Additionally, they must have sufficient exteroceptive sense (touch, pain and temperature), sufficient proprioceptive sense (position, pressure, movement, stereognosis and vibratory) and sufficient motor function to permit them to carry out the activities described in the sections that follow. They must be able consistently, quickly, and accurately to integrate all information received by whatever sense(s) employed, and they must have the intellectual ability to learn, integrate, analyze and synthesize data.[31]

The Panel went on to describe the five areas of expertise that a candidate for the medical degree must master: observation; communication; motor skills; intellectual-conceptual, integrative and quantitative abilities; and behavioral and social attributes.[32]

With respect to communication,

> A candidate should be able *to speak, to hear* and to observe patients in order to elicit information, describe changes in mood, activity and posture, and perceive nonverbal communications. A candidate must be able to communicate effectively and sensitively with patients. Communication includes not only speech but [also] reading and writing. The candidate must be able to communicate effectively and efficiently in oral and written form with all members of the health care team.[33]

In a section of the report, "Compliance with Section 504," the Panel encouraged medical schools "to look beyond the stereotypes of handicapped individuals and to develop innovative and creative ways of opening the medical school curriculum to competitive, qualified individuals."[34] But the Panel went on to warn medical school admissions officers:

> Schools are cautioned that the integrity of the curriculum must be maintained and that those elements deemed essential to the education of a physician must be preserved. Since the treatment of patients is an essential part of the educational program, schools must at all costs act to protect the health and safety of patients.[35]

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[31] *Id.* (emphasis added)

[32] *Id.* at 5-6.

[33] *Id.* at 5 (emphasis added). The demand for written clarity may strike some as ironic. Doctors are notorious for their poor handwriting, and media accounts are rife with stories of accidental poisoning and death because a pharmacist misread what the doctor wrote on the prescription scrip. *See, e.g.,* http://www.time.com/time/health/article/0,8599,1578074,00.html.

[34] *Id.* at 6.

[35] *Id.* The Panel went on to say, "Individual schools are encouraged to use this report to develop technical standards for use in the admissions process. It is inevitable that adherence to minimum requirements will disqualify some applicants including some who are handicapped. This does not imply, however, that a school has discriminated against these applicants. Since discrimination requires drawing a distinction without justification it follows that making discriminatory judgments on justified grounds is acceptable." *Id.* at 6-7.

In its conclusion, the Panel characterized the M.D. degree as "a broad, undifferentiated degree attesting to the acquisition of general knowledge in all fields of medicine and the basic skills requisite for the practice of medicine."[36] All students of medicine must possess "those intellectual, ethical, *physical* and emotional capabilities required to undertake the full curriculum and to achieve the levels of competence required by the faculty."[37] The physical capability included the ability to work independently, that is, *without the assistance of an intermediary*.[38]

The combined effect of the 1950 American Surgical Association Report and the 1979 AAMC Special Advisory Panel's Report "created an extremely inhospitable environment for admission of the physically disabled to medical school."[39] Because of its focus on the undifferentiated graduate, medical schools became oriented – philosophically and politically – to discriminate against people with disabilities, assuming, without evidentiary support, that they could not become undifferentiated graduates because their disability prevented them from

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[36] *Id.* at 7-8. *See* Michael J. Reichgott, *"Without Handicap": Issues of Medical Schools and Physically Disabled Students,* Academic Medicine, Vol. 71, No. 7 (July 1996), at 725; Reed VanMatre et. al, *Technical Standards for the Education of Physicians with Physical Disabilities: Perspectives of Medical Students, Residents, and Attending Physicians*, American Journal of Physical Medicine and Rehabilitation, Vol. 83, No. 1 (January 2004).

[37] *Id.* at 8 (emphasis added). *Id.* In Appendix B to the Report, the Panel listed a number of questions for an admissions committee to consider in evaluating an application for admission. One of the questions asks, "Does the candidate have sufficient use of the senses of vision and hearing and the somatic sensation necessary to perform a physical examination?" Another question asks, "Can the candidate reasonably be expected to communicate the results of the examination to the patient and to his colleagues with accuracy, clarity and efficiency?"

[38] Michael J. Reichgott, *"Without Handicap": Issues of Medical Schools and Physically Disabled Students,* Academic Medicine, Vol. 71, No. 7 (July 1996), at 725 (emphasis added); *see also* Reed VanMatre et. al, *Technical Standards for the Education of Physicians with Physical Disabilities: Perspectives of Medical Students, Residents, and Attending Physicians*, American Journal of Physical Medicine and Rehabilitation, Vol. 83, No. 1 (January 2004). To the AAMC, technological compensation for a disability was acceptable, but an assistant was not, "since an intermediary might interpose 'someone else's power of selection and observation' on a student's judgment." Michael J. Reichgott. The Disabled Student as Undifferentiated Graduate: A Medical School Challenge. *Journal of the American Medical Association*. 1998; Vol. 279, No. 1: 79. To be sure, the Panel cautioned, "although certain handicaps or combinations of handicaps will prevent some candidates from meeting these minimum technical standards, individual schools should take all necessary steps to prevent unjustified discrimination against the handicapped."

[39] Michael J. Reichgott, *"Without Handicap": Issues of Medical Schools and Physically Disabled Students,* Academic Medicine, Vol. 71, No. 7 (July 1996), at 726.

mastering all the skills required of a physician.[40] Deaf candidates found themselves disqualified from the study of medicine because of the academy's emphasis on speech and hearing.

In 1990, the Americans with Disabilities Act (hereinafter "ADA") became law, intended to supplement Section 504 and offer expanded protection to people with disabilities in post-secondary educational institutions such as medical schools.[41] Generally, the ADA states,

> No individual shall be discriminated against on the basis of disability in the full and equal enjoyment of the goods, services, facilities, privileges, advantages, or accommodations of any place of public accommodation by any person who owns, leases (or leases to), or operates a place of public accommodation.[42]

That means "it shall be discriminatory to subject an individual or class of individuals on the basis of a disability or disabilities of such individual or class, directly, or through contractual, licensing, or other arrangements, to a denial of the opportunity of the individual or class to participate in or benefit from the goods, services, facilities, privileges, advantages, or accommodations of an entity."[43]

The ADA also prohibits an individual or entity, either directly or through contractual or other arrangements, from utilizing standards or criteria or methods of administration that have the effect of discriminating on the basis of disability.[44] Discrimination also includes the failure to make reasonable modifications in policies, practices or procedures.[45]

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[40] Such an orientation did not result from an organized conspiracy by medicine to exclude people on the basis of disability; rather, it reflected the thinking of that age about people's competency.

[41] 42 U.S.C. §12181(7)(J). Medical schools operated by the State fall under Title II of the ADA. 42 U.S.C. §12131(1)(B). Unlike Section 504, ADA coverage is not dependent on the receipt of federal financial assistance; its reach is broader. CITE. *See, e.g.*, *Zukle v. Regents of the Univ. of California*, 166 F.3d 1041, 1045-1046 & n.11 (11th Cir. 1999) (upholding legislative intent by applying case law and regulations from a Section 504 claim to an ADA Title II claim).

[42] 42 U.S.C. §1282(a).

[43] 42 U.S.C. §12182(b)(1)(A)(i).

[44] 42 U.S.C. §12182(b)(1)(D)(i).

[45] 42 U.S.C. §12182(b)(2)(A)(iii). The regulations interpreting Section 504 now include a specific subpart devoted to post-secondary educational institutions like medical schools. 34 C.F.R. §104.41. Medical schools cannot, on the basis of handicap, deny admission to qualified handicapped persons or subject them to discrimination in admission or recruitment. 34 C.F.R. §104.42(a). *See also* 34 C.F.R. §104.43(a). In administering its admissions policies, medical schools cannot "make use of any test or criterion for admission that has a disproportionate, adverse

Under the new statutory scheme, a medical school must review its curricula, develop standards for admission, and apply those admission standards uniformly to all applicants.[46] It must not use eligibility standards or criteria that screen out or tend to screen out qualified applicants with disabilities simply because they are disabled.[47] Medical schools must judge applicants on their ability to complete the school's academic program, without regard to the applicant's disability.[48] The applicant must be qualified to undergo medical training, and in turn, the school must provide appropriate accommodations or make reasonable modifications to its policies, practices and procedures so as to enable the applicant to complete the program.[49]

In response to the passage of the ADA, the AAMC in 1993 published a guideline to help medical schools comply with the law.[50] The guideline stated that it was "incumbent on schools to develop academic standards and procedures for the assessment of these standards which are consistent with the schools' missions and objectives and to develop policies and procedures

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effect on handicapped persons or any class of handicapped persons unless (i) the test or criterion, as used by the recipient, has been validated as a predictor of success in the education program or activity in question and (ii) alternate tests or criteria that have a less disproportionate, adverse effect are not shown by the Assistant Secretary to be available." 34 C.F.R. §104.42(b)(2).

[46] 42 U.S.C. §12182(b)(2)(A)(ii) (discrimination includes "a failure to make reasonable modifications in policies, practices, or procedures…" The Section 504 regulations also mandate a medical school to "make such modifications to its academic requirements as are necessary to ensure that such requirements do not discriminate or have the effect of discriminating, on the basis of handicap, against a qualified handicapped applicant or student." 34 C.F.R. §104.44(a). However, academic requirements that the medical school can demonstrate are essential to the instruction being pursued by such student or to any directly related licensing requirement will not be regarded as discriminatory within the meaning of this section. 34 C.F.R. §104.44(a).

[47] 42 U.S.C. §12182(b)(1)(D)(i). Reichgott, *"Without Handicap": Issues of Medical Schools and Physically Disabled Students*, at 725 (providing a summary of what the law requires). *See also* AAMC, *The Americans With Disabilities Act (ADA) and the Disabled Student in Medical School: Guidelines for Medical Schools*, Washington, D.C.: AAMC (1993); AAMC, *The Disabled Student in Medical School: An Overview of Legal Requirements*, Washington, D.C.: AAMC (1993).

[48] Michael J. Reichgott. The Disabled Student as Undifferentiated Graduate: A Medical School Challenge. *Journal of the American Medical Association*. 1998; Vol. 279, No. 1: 79.

[49] An accommodation or reasonable modification is not required if it would result in a fundamental alteration of the program. CITE to the ADA and Section 504. *See also* Michael J. Reichgott, *"Without Handicap": Issues of Medical Schools and Physically Disabled Students,* Academic Medicine, Vol. 71, No. 7 (July 1996), at 725.

[50] *Americans with Disabilities Act (ADA) and the Disabled Student In Medical School: Guidelines for Medical Schools*, Association of American Medical Colleges, Washington, D.C. (1993).

about disability which are consistent with institutional missions and objectives."[51] Physical disability alone could not preclude a student from consideration for admission, but medical schools would be allowed to publish technical standards for their admission "in accordance with legal requirements."[52]

According to the guideline, "The purpose of the ADA…is to assure a level playing field so that individuals with disabilities can compete with other applicants on the basis of their ability without being eliminated solely because of a disability."[53] Borrowing language from Title I of the ADA, which deals with disability-based employment discrimination, the guideline stressed the importance of defining and applying the criteria for the "essential functions" of the academic program and "reasonable accommodations" that would be needed to accommodate a candidate's disability.[54] School policy should define the "essential functions" of the curriculum, the analysis encompassing both academic and non-academic requirements of the curriculum.[55] In determining academic requirements or standards for the curriculum, it would be important to consider what portions are "essential" to the institution's mission and objectives.[56]

With respect to non-academic requirements, *i.e.*, technical standards (physical, cognitive, and behavioral standards), these standards "should refer to desired <u>ends</u> rather than the <u>means</u> to achieve the standard, since a disabled student may be able to achieve the required end using a "reasonable accommodation."[57] This represented an important acknowledgment that admissions

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51 *Id.* at 2.
52 *Id.* at 3.
53 *Id.*
54 *Id.* at 3-6. Courts are split on the appropriateness of utilizing Title I (employment) language in analyzing Title III (public accommodation) claims. *Compare Gonzalez v. National Board of Medical Examiners*, 225 F.3d 620 (6th Cir. 2000) (analysis of Title III claim under Title I standards inappropriate) *with Bartlett v. New York State Board of Law Examiners*, 2 F.Supp.2d 388 (SDNY 1997) (analysis of Title III claim under Title I standards appropriate).
55 *Id.* at 4.
56 *Id.* at 4-5.
57 *Id.* at 5 (emphasis in original).

officers should look at whether a Deaf candidate can obtain the same information as a hearing one even though the means used to gather that information would differ from the hearing candidate.

The AAMC made another attempt in 1998 to define appropriate technical standards when the organization's Medical School Objectives Project published a report organizing medical education goals and objectives as categories of altruism, knowledge, skills and duty.[58] Under the heading, "Physicians Must Be Skillful," the report echoes the 1979 AAMC report, "requiring that graduates be able to perform a complete physical examination, perform and interpret diagnostic tests, and respond appropriately to immediately life-threatening medical conditions."[59] The report retains an emphasis on physical technical performance, requiring that graduates of medical schools demonstrate their skill in venipuncture, lumbar puncture, and suturing lacerations.[60]

In 2004, the AAMC issued a Handbook for Admissions Officers.[61] To comply with the law, medical schools "must define the minimum essential functions or requirements needed to complete its educational program."[62] Admission committee members have to be familiar with the school's technical standards, which need to be prominently displayed in school publications and

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[58] AAMC, *Learning Objectives for Medical Student Education—Guidelines for Medical Schools: Report 1 of the Medical School Objectives Project* (Jan. 1998).

[59] *Id. See* pp. XX-XX, *supra*. *See also* DeLisa and Thomas, *Physicians with Disabilities and the Physician Workforce: A Need to Reassess Our Policies*, Am. J. Phys. Med. Rehabil., Vol 84, No. 1, *supra*, at 8; *see also* Reed VanMatre et. al, *Technical Standards for the Education of Physicians with Physical Disabilities: Perspectives of Medical Students, Residents, and Attending Physicians*, American Journal of Physical Medicine and Rehabilitation, Vol. 83, No. 1 (January 2004).

[60] AAMC, *Learning Objectives for Medical Student Education—Guidelines for Medical Schools: Report 1 of the Medical School Objectives Project* (Jan. 1998).

[61] Association of American Medical Colleges, Handbook for Admissions Officers (September 2005).

[62] *Id.*

mailings and on the school's Web site, and the admissions officer has to be familiar with relevant case law.[63]

In a section dealing with the ADA, the Handbook defines a reasonable accommodation as *a modification or adjustment "to the environment and/or the manner in which students are required to demonstrate the essential physical and mental abilities, skills, attitudes and behaviors*."[64] A reasonable accommodation includes making an adjustment or modification to examinations, teaching materials, and teaching aids; providing qualified sign language interpreters; and modifying or adjusting equipment and devices.[65] The Handbook then discusses the technical standards for admission and graduation:

> These technical standards should set forth the essential functions that must be performed by medical students and the essential requirements that must be fulfilled to earn the M.D. degree. Many medical schools specify that candidates for the M.D. degree must have abilities and skills in at least five areas: observation, communication, motor coordination, intellectual ability, and behavioral and social attributes.[66]

The ability to hear and speak is not mentioned.

In June 2008, the LCME weighed in, publishing its standards for accreditation of medical education programs leading to the M.D. degree.[67] With respect to the educational objectives of such programs, "there must be specific instruction in communication skills as they relate to

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[63] *Id.*

[64] *Id.* at 40 (emphasis added).

[65] *Id.* at 40-41. The Handbook recognizes a medical school's obligation under the law to provide accommodations to the student with a disability, and to assist the student in performing the essential functions and requirements of a medical student; however, the school is not required to provide an accommodation that would fundamentally alter the nature of the program or pose a direct threat to the health or safety of others. *Id.* at 43. In the event an offer of admission is revoked based on disability, "the medical school will be expected to be able to demonstrate that the decision was based on educationally relevant, necessary, and justifiable grounds." *Id.*

[66] *Id.* at 42. The Handbook recognizes the importance of evaluating the meaning of "essential function": "Each essential function and requirement identified in the technical standards should be the focus of (a) specific attempt(s) at assessment for all enrolled students at some interval(s) during the educational program. To require an applicant for admission to be able to perform a function that is deemed 'essential,' but then never to assess that specific function during the undergraduate medical education program, could legitimately result in questions about how 'essential' that function really is for a graduate physician." *Id.*

[67] Liaison Committee on Medical Education, "Functions and Structure of a Medical School," Washington, D.C.: 2008.

physician responsibilities, including communication with patients, families, colleagues, and other health professionals."[68] This includes "evaluation of problem solving, clinical reasoning, and communication skills."[69] Like the AAMC in its 2004 Handbook, nowhere in these standards requires the medical school candidate be able to hear and speak.[70]

Yet a number a medical schools have interpreted the technical standard related to communication to require speech and hearing. The arguments often marshaled in support of such an interpretation are:

1. The concept of the undifferentiated graduate requires that the doctor be able to perform any medical procedure using his or her hearing, if need be, and that deaf people's inability to hear a heartbeat automatically disqualifies them from the study of medicine;
2. Admitting a Deaf student to a medical school program would constitute a fundamental alteration of the program's course offerings, and so would accommodating the student with interpreters, notetakers, assistive listening devices and computer-aided real-time transcription (CART); and,
3. The sign language interpreter is an intermediary substituting his or her judgment for that of the Deaf student.

Our medical school applicant, Bernard Ray Johnston, asks if we can rebut these arguments.

The Case Law Supports a Focus on the Ends, not the Means

The threshold issue is whether Mr. Johnston is qualified to study medicine. The seminal case is *Davis v. Southeastern Community College*, where the Supreme Court addressed whether Section 504 "forbids professional schools from imposing physical qualifications for admission to their clinical training programs."[71] In *Davis*, a Deaf applicant alleged that a nursing school's

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[68] *Id.* at 9.

[69] *Id.* at 11.

[70] *Id.* at 17. The LCME urges the admissions process and the medical education program to be free of "discrimination on the basis of gender, sexual orientation, age, race, creed, or national origin." *Id.* at 20. Interestingly, there is no mention of disability.

[71] 442 U.S. 397, 400 (1979). The cases arise in three contexts: requests for accommodations in taking examinations, primarily for those with learning disabilities; challenges to dismissal from medical school based on disability; and, challenges to the denial of admission to medical school for applicants with disabilities. *See* DeLisa &

refusal to admit her into its program discriminated against her, and the school responded by pointing to the applicant's hearing impairment, saying it could compromise patient safety.[72] The Court defined an "otherwise qualified person" as "one who is able to meet all of a program's requirements in spite of his handicap,"[73] and held that the nursing school did not have to admit the Deaf student, reasoning that her inability to understand speech without reliance on lip reading would jeopardize patient safety during the clinical phase of the program.[74] To the Court,

> It is undisputed that [Davis] could not participate in Southeastern's nursing program unless the standards were substantially lowered. Section 504 imposes no requirement upon an educational institution to lower or to effect substantial modifications of standards to accommodate a handicapped person.[75]

The nursing school did not have to modify its curriculum to accommodate Davis's hearing impairment because such an modification would fundamentally alter the nursing school's program.[76] The Court's decision in *Southeastern Community College v. Davis* emphasized that a college or university could establish reasonable physical qualifications for admission to a clinical nursing program or related allied health curriculum.

Six years later, the Supreme Court modified *Davis* in *Alexander v. Choate*.[77] There, the Court explained that *Davis* "struck a balance between the statutory rights" of persons with disabilities and "the legitimate interests" of educational institutions in "preserving the integrity of

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Thomas, *Physicians with Disabilities and the Physician Workforce: A Need to Reassess Our Policies*, at 9 (discussing the case law relating to applicants and students with disabilities).

[72] *Davis v. Southeastern Community College,* 442 U.S. at 402.

[73] *Id*. at 406; *Doherty v. Southern College of Optometry*, 862 F.2d 570, 575 (6th Cir. 1988) (quoting *Davis*, 442 U.S. at 406); RUTH COLKER and ADAM A. MILANI, THE LAW OF DISABILITY DISCRIMINATION 355.

[74] *Id*. at 407.

[75] *Id.* at 413. *See also Falcone v. University of Minnesota*, 388 F.3d 656 (8th Cir. 2004) (dismissal of student for failing his medical school clinical rotation upheld on the ground his performance, not his disability, justified the dismissal).

[76] *Id*. at 410-11. *See also Alexander v. Choate*, 467 U.S. 287, 300 n.20 (1985). The Court ignored the requirement that colleges provide interpreter services as an appropriate auxiliary aid and failed to recognize that Deaf students provided with such a service are capable of independent work.

[77] 469 U.S. 287 (1985).

their programs."[78] Although educational institutions are not required to make "fundamental" or "substantial" modifications to accommodate individuals with disabilities, the Court held that *institutions may be required to make "reasonable" accommodations*.[79]

In effect, *Alexander* softened *Davis'* holding that "an otherwise qualified person is one who is able to meet *all* of a program's requirements in spite of his [disability]."[80] *Alexander* instructs courts to question whether an academic institution can provide a reasonable accommodation "to satisfy the legitimate interests" of both the institution and the student.[81] A determination whether an individual is "otherwise qualified" under Section 504 requires consideration of the availability of a reasonable accommodation. If the accommodation requires a fundamental alteration in the essential nature of the program or imposes an undue financial or administrative burden, it is not reasonable, and the applicant is no longer qualified.[82] The determination of whether a "reasonable accommodation" exists is part of the "otherwise qualified inquiry,"[83] and whether a reasonable accommodation exists is an issue of fact.[84]

Two years after *Alexander v. Choate*, the Supreme Court elaborated on the definition of an "otherwise qualified" individual in *School Board of Nassau County v. Arline*:

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[78] *Id*. at 300.

[79] *Id.* (emphasis added). *See, e.g., McGregor v. Louisiana State University Board of Supervisors*, 3 F.3d 850, 860 (5th Cir. 1993) (holding that a requested accommodation for a law student with a disability would require the school to lower its academic standards or "compromise the reasonable policy of its academic program," something not required under Section 504); *Doherty v. Southern College of Optometry*, 862 F.2d 570, 574-75 (6th Cir. 1988) (holding that colleges have a "limited obligation [under the law] to make reasonable accommodations to handicapped individuals," and that, under the circumstances of this case, "[w]aiver of a necessary requirement would have been a substantial rather than merely a reasonable accommodation." *Doherty* involved a student with retinitis pigmentosa and was unable to perform the required procedures to pass a pathology examination required for a fourth-year internship.

[80] *Davis*, 442 U.S. at 406 (emphasis added).

[81] *Alexander v.* Choate, 467 U.S. at 300; *Doherty*, 862 F.2d at 575.

[82] *Ohio Civil Rights Commission v. Case Western Reserve University,* 76 Ohio St.3d 168, 666 N.E.2d 1376 (1996).

[83] *Id.*; *Wynne v. Tufts Univ. School of Medicine*, 932 F.2d 19, 24 (1st Cir. 1991) ("[I]n determining whether an individual meets the 'otherwise qualified' requirement of section 504, it is necessary to look at more than the individual's ability to meet the program's *present* requirements.") (emphasis in original).

[84] *Id.*

> In the employment context, an otherwise qualified person is one who can perform 'the essential functions' of the job in question. When a handicapped person is not able to perform the essential functions of the job, the court must also consider whether any 'reasonable accommodation' by the employer would enable the handicapped person to perform those functions. Accommodation is not reasonable if it either imposes 'undue financial and administrative burdens' on a grantee or requires 'a fundamental alteration in the nature of [the] program.'"[85]

As the *Choate* and *Arline* decisions indicate, Deaf students able to master the course and clinical requirements of a medical school program with the use of a reasonable accommodation cannot be denied admission simply because they are Deaf or do not speak.[86] The medical school is free under *Davis* to insist on the ability to communicate (ends) but *Choate, Arline* and federal statutory law require the medical school to accept a variety of ways in communicating (means).[87]

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[85] 480 U.S. 273, 288 (1987) (citations omitted). Although *Arline* concerned an employment discrimination claim, its central tenets are applicable in the educational context. CITE.

[86] Deaf people who are not oral but sign are perfectly capable of communicating, through sign language interpreters, complex ideas and facts. The proof of the pudding is in the eating: there are several doctors in the Rochester, New York area, including a dentist and a veterinarian, who are Deaf. The author is a Deaf lawyer with 27 years of practice, including active litigation.

[87] Admission decisions must be based on the applicant's intellectual ability and aptitude to satisfy admission standards. In *Pushkin v. Regents of the University of Colorado*, the Tenth Circuit held that a university's psychiatric residency program violated Section 504 by denying admission to an applicant with multiple sclerosis. 658 F.2d 1372, 1376 (10th Cir. 1981). The program had denied plaintiff admission despite the fact that plaintiff met the "requisite academic standards." *Id*. at 1387-88. University officials who interviewed plaintiff believed plaintiff was "angry" because of his disability and therefore would be unable to perform effectively as a psychiatrist; they were concerned that his medication may interfere with his performance, that he would be unable to handle the stress of working as a resident, and that he would miss too much time from work because of his disability. Id. at 1389. The Court refused to defer to the university's determination that plaintiff was not qualified to enter the program because the university's findings were based upon "incorrect assumptions or false factual grounds." Id. at 1383. It was apparent to the Court that the plaintiff was denied admission to the psychiatric residency program solely on the basis of his disability, a clear violation of federal law. Trial testimony established plaintiff's qualifications as an academically prepared, emotionally stable and possessed of physical stamina. *Id*. at 13XX. *But see Ohio Civil Rights Commission v. Case Western Reserve University*, 76 Ohio St.3d 168, 179 (1996) ("considerable judicial deference must be paid to academic decisions made by the institution itself unless it is shown that the standards serve no purpose other than to deny an education to the handicapped"). *See Zukle v. Regents of the Univ. of California*, 166 F.3d 1041, 1048 (9th Cir. 1999) (holding that reasonable deference should be extended to academic decisions on disability issues in higher education institutions). In this case, the Ninth Circuit found that even with accommodations, a plaintiff with a learning disability was not achieving passing grades, and that additional accommodations such as a decelerated program would have resulted in a fundamental alteration of the medical program. 166 F.3d at 1050-51. Robert C. Cloud, *Higher Education Accommodations for Disabled Students*, 147 WELR 391. *See also McGregor v. Louisiana State Univ. Bd. of Supervisors*, 3 F.3d 850, 859 (5th Cir. 1993); *Betts v. Rector and Visitors of Univ. of Virginia*, 939 F.Supp 461, 467-68 (W.D. Va. 1996). The AAMC instructs medical schools that they are not required to waive the essential requirements of its program or its technical standards to accommodate students with disabilities, but must give great care and consideration to the development of technical standards for the educational program, choosing only those skills and abilities that are essential to the completion of the educational program. Association of American Medical Colleges, "Medical Students with Disabilities: A

Moreover, the medical schools must investigate alternative ways of fulfilling a technical standard or requirement; it cannot just state its belief that a person with a disability is unqualified for admission because of the person's disability.[88]

A different way of putting the problem is to understand the law as requiring a medical school as a public accommodation to provide appropriate auxiliary aids for Deaf students. As note on page 19, supra, if a reasonable accommodation exists that would enable a Deaf student to meet all of the program's requirements, the Deaf student is qualified for admission. So medical schools not only cannot rely on the presence of deafness as a reason to turn away a Deaf candidate, they must provide reasonable accommodations if that is what it takes to qualify a person with a disability for entry into the program.[89]

Generation of Practice," Report by Jennifer E. Watson and Shannon H. Hutchens (Daniel J. Wilkerson, ed.). Washington, D.C.: 2005, at 16. The AAMC too recognizes the importance of looking at ends, not means. *See* p. 13, *supra*.

[88] A district court concluded that a university could refuse to modify academic degree requirements – even course requirements problematic for learning disabled students – as long as it diligently assesses the available options and renders a professional academic judgment that a reasonable accommodation is simply not available. *Guckenberger v. Boston University*, 974 F.Supp. 106, 148-49 (D. Mass. 1997). In *Wynne v. Tufts University School of Medicine*, 932 F.2d 19, 27-28 (1st Cir. 1991) (Wynne I), the First Circuit reversed summary judgment for a medical school where the school did not consider providing alternatives to multiple-choice examinations.. There, the plaintiff was diagnosed with dyslexia and demonstrated a serious difficulty with taking multiple-choice exams. *Id*. at 21. While recognizing that courts typically give reasonable deference to an institution's academic judgment, *Id.* at 27, the Court stated that a "conclusory statement" by the dean was not enough to establish that the university had actually considered possible alternatives and those alternatives were insufficient. *Id*. at 27-28. Rather, the school had "a real obligation…to seek suitable means of reasonably accommodating a handicapped person and to submit a factual record indicating that it conscientiously carried out this statutory obligation." *Id*. at 25-26. The Court set aside summary judgment and remanded for further proceedings. *Id*. at 28. Upon remand, Wynne II held that Tufts University had introduced sufficient evidence to meet its burden of proving that the accommodations the plaintiff sought would result in a fundamental alteration to Tufts' medical program. *Wynne v. Tufts University School of Medicine*, 976 F.2d 791, 796 (1st Cir. 1992). Tufts had shown its officials had decided "rationally, if not inevitably, that no further accommodation could be made without imposing an undue (and injurious) hardship on the academic program." *Id*. at 796.

[89] "The presence of a preexisting disability should not *automatically* exclude an individual from any possible career in medicine." Michael J. Reichgott, *"Without Handicap": Issues of Medical Schools and Physically Disabled Students*, Academic Medicine, Vol. 71, No. 7 (July 1996), at 728. Reichgott suggests that we reinterpret the phrase, "without handicap," to mean that medical educators are obligated "to provide all of our students with the broadest possible learning experiences." Id. I suggest the phrase, "without handicap," should be changed to "with or without handicap," indicating that all students, whether disabled or not, are welcome in the field of medicine as long as they possess the qualifications to undergo a training program providing a panoply of learning experiences.

Nor are reasonable accommodations he may need – sign language or oral interpreters, CART, and assistive listening devices – a fundamental alteration of the medical school's program. These services and devices neither add to nor subtract from the academic requirements of the program. They do not affect the content of the course, or change how the course is taught. They do not afford the student with an advantage of any kind over a student who does not have a disability. All they do is enable the student with a disability to access the material and the processes involved in the curricular offerings. The accommodations ensure that the playing field is level for everyone, with or without a disability.[90]

The Concept of the Undifferentiated Graduate Is No Longer Tenable in Today's World of Specialization and Technological Advances

Next, the undifferentiated graduate poses an obstacle for Deaf candidates.[91] The medical profession has seen dramatic changes over the last century, a primary change being the transition from the primary care solo practitioner to teams or networks of specialists taking advantage of the latest technological advances.[92] According to DeLisa and Thomas,

> Nuanced physical examination techniques are being displaced by MRIs and echocardiograms that offer greater precision. Nurse practitioners and physician assistants are playing increasingly important professional and supportive roles within healthcare teams. The medical database is exploding with information defying physicians to keep up, let alone assimilate a morass of complicated and

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[90] Medical schools can develop successful models by encouraging medical students and doctors with disabilities to document their own experiences and strategies. *See, e.g.,* Greg Livadas*, Echoes of caring in 6 Deaf doctors*, in the Rochester Democrat & Chronicle (12/15/04) — discussing the experiences and perspectives of 6 Deaf doctors practicing in Rochester, N.Y. The article estimates there is less than 100 Deaf doctors in U.S. Six of these doctors discuss their experiences with using various devices (*e.g.*, amplified stethoscopes and interpreters who wear clear-faced masks in the operating room)**.** More research is needed on the number of applicants with disabilities who are applying to medical school, their rates of admission, and graduation, and their professional experiences after graduation.

[91] The undifferentiated graduate and the intermediary are medical terms, while fundamental alteration is a legal concept.

[92] D. Newton and M. Grayson, *Trends in Career Choice by United States Medical School Graduates*, Journal of American Medical Association, 2003; 290: 1179-1182; Joel DeLisa and Peter Thomas, *Physicians with Disabilities and the Physician Workforce: A Need to Reassess Our Policies*, American Journal of Physical Medicine and Rehabilitation, 2005; Vol. 84, No. 1: 5-11.

> often contradictory studies in an effort to make evidence-based decisions…Much of this world is being dominated by technology and automation.[93]

Although the core mission of medical education has not changed – the goal is still to train competent and compassionate physicians – the strategies for achieving that mission have dramatically evolved, with "critical thinking and communication skills…receiving greater emphasis" than technical skills and rote memorization.[94] Medical schools need to acknowledge the realities of modern medical practice when determining the "essential functions" of the curriculum.[95] They can – and must – consider the ways in which "competence" can be demonstrated.[96] The idea of the undifferentiated graduate is no longer tenable in a world of specialization and technological advances.

Dr. Michael Reichgott addresses the undifferentiated graduate in two major contexts of medical education: the classroom and clinical training.[97] With regard to the classroom, Reichgott raises the question whether motor and sensory functions are needed to satisfy the basic

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[93] Joel DeLisa and Peter Thomas, *Physicians with Disabilities and the Physician Workforce: A Need to Reassess Our Policies*, American Journal of Physical Medicine and Rehabilitation, *supra,* at 6.

[94] *Id. See also* Commonwealth Fund, Task Force on Academic Health Centers: *Training Tomorrow's Doctors: The Medical Education Mission of Academic Health Centers*, New York: Commonwealth Fund; 2002; L. Kohn, Institute of Medicine (US), Committee on the Roles of Academic Health Centers in the 21st Century: *Academic Health Centers: Leading Change in the 21st Century*, Washington D.C., National Academies Press, 2004.

[95] The "essential functions" of medical school and admission standards should be reevaluated and more specifically defined to reflect the modern medical practice. *See* Michael J. Reichgott, *"Without Handicap": Issues of Medical Schools and Physically Disabled Students*, in Academic Medicine, Vol. 71, No. 7, at 728 (July 1996) (discussing the need to reevaluate the "essential functions" of medical school).

[96] See Reichgott, *"Without Handicap": Issues of Medical Schools and Physically Disabled Students*, at 728.

[97] Michael J. Reichgott, *"Without Handicap: Issues of Medical Schools and Physically Disabled Students*, Academic Medicine, Vol. 71, No. 7 (July 1996), 724-729. According to the AAMC, In order for a student to be denied admission because the student's disability renders the student not otherwise qualified, the functions the student is unable to fulfill must be essential to the training program. Applied to the context of medical education, [*Lane v. Pena*] suggests that, even if it is unlikely that an applicant would be able to sustain a full-time clinical practice upon completion of his or her training, that fact alone is not a basis to deny admission. Association of American Medical Colleges, "Medical Students with Disabilities: A Generation of Practice," Report by Jennifer E. Watson and Shannon H. Hutchens (Daniel J. Wilkerson, ed.). Washington, D.C.: 2005, at 16. *Lane v. Pena* involved the expulsion of a student from the United States Merchant Marine Academy for insulin-dependent diabetes; in view of the dual purpose of the program – a military purpose and a training purpose -the court held that the naval reserve requirement was not essential to the training. The student's inability to obtain a naval reserve commission after completion of the training program did not preclude the student from being qualified to complete the merchant marine academy program. *Lane v. Pena*, 867 F. Supp. 1050 (D.D.C. 1994).

course requirements, and whether there is no accommodation for a "student's physical disability or chronic illness impair cognitive function" that cannot be remedied by an accommodation?[98] With regard to clinical training, including clerkships and rotations, Reichgott notes that the time since the AAMC proposed its technical standards in 1979, "significant advances in diagnostic technology may have changed the importance of assuring that all graduating students be able, themselves, to perform many examination procedures."[99] Regarding physical examination, Reichgott asks:

> Is the hands-on, personal touching experience afforded by the course in physical diagnosis necessary for the effective integration of basic science knowledge and the understanding of pathophysiology? ... Can students learn to conceptualize the significance of liver disease if they have never palpated a liver edge? Can they understand the abnormal dynamics of valvular heart disease if they have never felt an anterior-chest-wall thrill, even though they can put a stethoscope into place using a supportive orthotic device?" Can a disabled student, working in partnership with a fellow student or a trained assistant, master the important concepts and satisfy academic standards?[100]

In clinical rotations, Reichgott continues, "[A]re cognition and observation adequate to gain a sufficiently broad and fundamental understanding of clinical medicine? If a trained assistant does the physical examination and provides data to the student (or resident), does this really impose a negative, "interpreter" effect? What are the legal and ethical implications of inserting an additional person into the student-patient relationship."[101]

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[98] *Id.* at 727.

[99] *Id.* Medical schools must reflect on how technology has changed the importance of the capabilities and experiences necessary to complete the medical school curriculum. For example, a new study of tools used in laparoscopic surgery found that some devices commonly used in that kind of surgery were too big for women's hands, which typically are smaller than men's; the study found that one in four general surgery residents were women. *See* Eric Nagourney, Vital Signs, *Surgical Tools Not Fit for Smaller Hands*, Science Times, New York Times, August 5, 2008, at F6. As Nagourney points out, "Now that more doors are opening for women who want to be surgeons, it may be time to look at the equipment they are given at the operating table." *Id.*

[100] *Id.*

[101] *Id.* at 728.

In response to these questions, Dr. Reed M. VanMatre and his medical colleagues established a study "to assess the general opinions of a medical community regarding physicians with disabilities":

> We were interested in skills related to the essential functions of a medical student and in types of accommodations that are acceptable in performing these functions. The study sought to shed light on several questions that have been posed by others about the process of medical education for students with disabilities and to compare the responses of disabled and nondisabled medical students, residents, and attending physicians with a set of standardized survey items.[102]

A majority of the respondents (69.8%) "disagreed with the concept of the undifferentiated graduate as one who possesses all of the technical skills required to enter any specialty."[103] As one respondent put it, "It is absurd to think that any physician today has a complete set of skills such that he or she can practice medicine independently of many individuals with other skills."[104] Another said, "We are all disabled, just in different ways."[105]

As VanMatre and his colleagues found, "Although technical standards received much of the focus when disabled medical students are discussed, many question the validity of a strong emphasis on technical skills."[106] More important were communication and observation skills – "the ability to communicate with a patient, to elicit a comprehensive history, to observe the patient in the manner necessary to perform a thorough physical exam, and to assimilate this

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[102] Reed VanMatre et. al, *Technical Standards for the Education of Physicians with Physical Disabilities: Perspectives of Medical Students, Residents, and Attending Physicians*, American Journal of Physical Medicine and Rehabilitation, Vol. 83, No. 1 (January 2004). The survey, a one-page cover letter and three-page questionnaire, contained topics such as "the application of technical standards to medical students with disabilities, the concept of the undifferentiated graduate, the relative importance of various classes of skills, acceptable uses of physician extenders in daily practice, and the acceptability of various forms of accommodations." *Id.*

[103] *Id.*

[104] *Id.*

[105] *Id.* Ironically, physicians work with many people with disabilities, but the number of physicians who are themselves disabled is small. Admitting more students with disabilities into medical schools would have two salutary effects: these students would help their "able-bodied" colleagues develop a greater understanding of disability and what it means to live with a disability, and the greater number of doctors with visible disabilities can only provide more options for people with disabilities. *See* David Hartman and Cheryl Hartman, *Disabled Students and Medical School Admissions*, Arch. Phys. Med. Rehabil. Vol. 62 (February 1981), 90-91.

[106] *Id.*

information using knowledge and clinical judgment to provide appropriate medical care."[107] Despite limitations of the study (low response rate, narrow focus on physical disability to the exclusion of learning and psychiatric disabilities), the "survey has illustrated the need for further definition of the skills essential for becoming a physician and how this determination will affect opportunities for people with disabilities and their role in the medical profession."[108] It is not hard to visualize that core technical standards and competencies must keep pace with "diverse specialization, changing practice options, and technological advances."[109]

Van Matre's study found if medical schools conceptualize the undifferentiated graduate as requiring every candidate for the medical degree to be pluripotential, this approach would exclude many students with physical disabilities.[110] As VanMatre puts it, "If … the goal is to offer every medical student a broad and comprehensive exposure to the profession of medicine and sufficient opportunity to differentiate after graduation in any direction they can and will, barriers to performance of one or another essential functions of the physician should not disqualify any one candidate.[111] For medical schools to diversify its student population, it must not only retain flexibility in accommodating students' physical disabilities; it must also rethink its idea of educating physicians for today's specialized world.[112]

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[107] *Id.*

[108] *Id.*

[109] *See, e.g.,* Joel A. DeLisa & Peter Thomas, *Physicians with Disabilities and the Physician Workforce: A Need to Reassess Our Policies*, in American Journal of Physical Med. & Rehab., Vol. 84, No. 1, at 6 (Jan. 2005) (attempts to define core technical standards have not kept up with these changes and have thus "resulted in the inappropriate exclusion of some people with disabilities."). Given the diversity of available specialties, one must wonder whether there should be any mandatory physical technical skills in medical school. *Id.*

[110] Reed VanMatre et. al, *Technical Standards for the Education of Physicians with Physical Disabilities: Perspectives of Medical Students, Residents, and Attending Physicians*, American Journal of Physical Medicine and Rehabilitation, Vol. 83, No. 1 (January 2004).

[111] *Id.*

[112] In 2003, the AAMC produced a publication, titled *Assessing Medical School Admissions Policies: Implications of the U.S. Supreme Court's Affirmative-Action Decisions*, to help medical schools with their efforts to foster diversity within their student bodies and the medical professions. (NOTE: A copy of this publication is in the white binder). This report points to the benefits that flow from diverse student bodies and the significant role diversity plays in education. Mirroring society's gender, racial and ethnic mix "is a means to improve access to

So it is with Deaf students.

A striking range of communication ability exists within the Deaf community. Hearing loss ranges widely, and even some of those labeled profoundly deaf manage to acquire excellent writing and speech skills, including lip-reading. Changes in technology and the acquisition of a good education have enabled more and more young Deaf adults to master the skills offered in a training program like medical school. Deaf people have succeeded far and wide, in law, medicine, teaching, administration and the arts. They have done so because they have had access to improved educational opportunities and programs not available two, three, five decades ago, and because technological adaptations for communication have enabled Deaf people to communicate effectively with hearing people. Thus, the idea that a medical student must have hearing in order to graduate medical school no longer holds any validity.

Note that Van Matre does not talk about the how of communicating. He simply focuses on the end results – communicating with the patient, eliciting a history, conducting a physical exam, and using his or her findings and knowledge to provide appropriate medical care. As he points out, diverging specializations, evolving options for practice, and advances in technology call for a redefinition of a physician's essential skills, and we need to ensure that this redefinition does not exclude deaf candidates simply because they are deaf. There are accommodations that allow a qualified Deaf student to compete along with his or her hearing peers. Thus, a Deaf candidate should not be disqualified because he or she cannot become an undifferentiated graduate based on the ability to hear a stethoscope.

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health care on the part of the underserved—people with disabilities. It is also a way to deliver 'culturally' competent care—in that the disability community has developed a culture during the last several decades that mirrors those of other minority groups." *See, e.g.,* DeLisa & Thomas, *Physicians with Disabilities and the Physician Workforce: A Need to Reassess Our Policies*, at 11.

The undifferentiated graduate requires each applicant for medical school to master a set of skills in order to graduate from medical school and enter a specialty. Because so much of medicine involves communication, admissions committees wonder about the ability of Deaf applicants to hear heart, lung, and bowel sounds; to communicate with others in surgery when everyone is wearing a surgical mask; and to communicate with patients in person and over the telephone.[113] They wonder how these applicants can obtain information presented in the classroom, in laboratories, and in clinical rounds.[114] These are valid questions, but the assumption that the applicant can have no satisfactory answers to these questions cannot stand under our law.[115]

Why is there an assumption that an "able-bodied" doctor would be able to enter any specialty in medicine? Just because the doctor has no visible physical disabilities does not mean he or she may not have certain psychological or emotional traits that would impact on the likelihood of success in a particular field. For example, a medical student who is not comfortable making split-second decisions may not want to enter the field of surgery. Or a student who is not comfortable dealing with people's emotions should be cautious about entering the field of

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[113] *See* www.amphl.org.

[114] *Id*.

[115] The Association of Medical Personnel with Hearing Loss points out "[a]nswers to these tough questions do exist, even for those with a profound hearing loss." *See* www.amphl.org. Strategies for Deaf and hard of hearing medical students in the classroom environment include the following: copying the notes of other students, obtaining the syllabus in advance, using sign language or oral interpreters, and getting CART services. *Id*. CART is the acronym for "computer-aided real-time captioning" or "communication access real-time translation," where a stenographer, usually a court reporter, types the dialogue on a stenographic machine hooked to a computer which transcribes the typing into English that appears on the computer's screen. *See* http://www.captionfirst.com/overview.htm. For clinical rotations that involve case rounds, conferences, and operating rooms, Deaf and hard of hearing students can use sign language or oral interpreters and CART services. There are stethoscopes that display visually the information needed by a physician, pagers, video telephones, dry-erase whiteboards, and see-through masks that enable students to read someone else's lips. *See* http://www.amphl.org/medicine.php. For information on stethoscopes that accommodate a student or doctor's hearing impairment, *see* http://www.amphl.org/stethoscopes.php. Physicians with disabilities generally see their disability as a source of experience and wisdom that helps them better understand and care for their patients. *See* Reed VanMatre et. al, *Technical Standards for the Education of Physicians with Physical Disabilities: Perspectives of Medical Students, Residents, and Attending Physicians*, American Journal of Physical Medicine and Rehabilitation, Vol. 83, No. 1 (January 2004).

psychiatry. Indeed, "less tangible handicaps such as personality traits may be just as limiting as an obvious physical handicap."[116] Instead of defining "an undifferentiated graduate" as someone who proves his ability to enter any specialty, we could define it as someone who would have enough exposure to the panoply of medical practice to know not only his or her own limitations but also what specialty would be the best fit for the person.[117]

A Sign Language Interpreter is Not an Intermediary Substituting His/Her Judgment for That of the Deaf Student

Any perception that a sign language or oral interpreter would act as an intermediary whose judgment stands in for the Deaf or hard of hearing student misconstrues the function of an interpreter. According to the "tenets" of the Registry of Interpreters for the Deaf (hereinafter "RID"), interpreters will "adhere to standards of confidential communication; possess the professional skills and knowledge required for the specific interpreting situation; conduct themselves in a manner appropriate to the specific interpreting situation; demonstrate respect for consumers, colleagues, interns, and students of the profession; maintain ethical business practices; and, engage in professional development.[118]

The RID's Guiding Principles oblige

> [E]very interpreter to exercise judgment, employ critical thinking, apply the benefits of practical experience, and reflect on past actions in the practice of their profession. The guiding principles … represent the concepts of confidentiality, linguistic and professional competence, impartiality, professional growth and development, ethical business practices, and the rights of participants in interpreted situations to informed choice. The driving force … is the notion that the interpreter will do no harm.[119]

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[116] David Hartman and Cheryl Hartman, *Disabled Students and Medical School Admissions*, Arch. Phys. Med. Rehabil. Vol. 62 (February 1981), 90-91.

[117] *Id.*

[118] *See* http://www.rid.org/ethics/code/index.cfm (checked on Tuesday, July 28, 2009).

[119] *Id*.

Most importantly, the interpreter will refrain from providing counsel, advice, or personal opinions.[120]

In addition to preserving the confidentiality of the communications between the Deaf person and the hearing person, the interpreter is expected "to render the message faithfully by conveying the content and spirit of what is being communicated, using language most readily understood by consumers, and correcting errors discreetly and expeditiously.[121]

Like mechanical accommodations, interpreters do not affect the content of the course. They do not change how the course is taught. The interpreter does nothing to alter, affect or abase the judgment of the medical student. He or she does not add to or subtract from the benefits and burdens of the academic program. They do not afford the student with an advantage of any kind over a student who does not have a disability. All they do is enable the student with a disability to access the classroom and the clinical round.

In *The Disabled Student as Undifferentiated Graduate: A Medical School Challenge*, Reichgott describes the role of intermediaries as an asset in modern medical practice:

> In this era of technologic diagnostics and professional assistants, the 'essential functions' of medical education might be restated as acquiring fundamental knowledge; developing communication skills; interpreting data; integrating knowledge to establish clinical judgment; and developing appropriate professional attitudes and behaviors.[122]

To the contrary, interpreters do not acquire fundamental knowledge in medicine, analyze data (other than signing the parties' spoken English), exercise the clinical judgment of a doctor, and develop professional attitudes and behaviors of a physician. In short, all an interpreter does is to facilitate communication between Deaf and hearing people.

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[120] *Id*.

[121] *See* http://www.rid.org/UserFiles/File/pdfs/codeofethics.pdf. This tracks the ADA's definition of a qualified interpreter: one who is able to blah blah blah…CITE.

[122] CITE

Conclusion

The answer to Bernard Ray Johnston's inquiry is clear: screening medical school applicants on the basis of their ability to speak and hear is against the law. That is not to say that every Deaf applicant should be admitted to medical school, "[b]ut the presence of a preexisting disability should not *automatically* exclude an individual from any possible career in medicine."[123] The communication strand of the technical standards should not, and cannot, be construed to warrant rejecting a candidate from admission to medical school simply because he or she cannot hear or speak.

A medical student should be expected to communicate, but the school must be open to differing and divergent ways of communicating. It is acceptable to obtain a heartbeat read-out from an electronic stethoscope as it would be from listening to a manual one. Thus, for a medical school, a prudent course of action to follow would include the following: flexibility in providing appropriate accommodations for students with disabilities,[124] effective counseling for qualified applicants, regardless of physical ability, in achieving the most appropriate medical career,[125] and recognizing how significant technological advances in accommodations available for Deaf and hard of hearing people have enabled them to qualify for the study and practice of medicine.

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[123] Reichgott, *"Without Handicap": Issues of Medical Schools and Physically Disabled Students*, at 728.

[124] Reichgott discusses how medical schools should address "the potential impact of accommodation for disability on the adequacy of the student's learning." Reichgott, *"Without Handicap": Issues of Medical Schools and Physically Disabled Students*, at 727.

[125] Reichgott, *The Disabled Student as Undifferentiated Graduate: A Medical School Challenge,* JAMA, PAGE CITE.

The ADA provides an opportunity to rethink certain applications of these standards.[126] The medical profession, in reconsidering its traditional view of what it takes to be a capable doctor, needs to make efforts to eradicate stereotypes perpetuating the exclusion of students with disabilities from admission to medical schools, including the stereotypical assumptions stemming from the "undifferentiated graduate" concept.[127] It needs to refocus the goals and expectations of medical education so they are consistent with the modern practice of medicine. Thus, for example, medical schools need to answer various questions, including "what it means to be a doctor today, what constitutes good doctoring, and what are the truly non-negotiable elements comprising a basic medical education."[128] It must modify the unnecessarily strict technical standards that currently stand as a major barrier to many applicants and break down barriers and eradicate prejudices by promoting mutual respect between doctors and patients with disabilities.

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[126] Michael J. Reichgott, *The Disabled Student as Undifferentiated Graduate: A Medical School Challenge,* JAMA. For an excellent discussion on the core technical standards and how they need and should be revaluated annually, see Joel DeLisa & Peter Thomas, *Physicians with Disabilities and the Physician Workforce: A Need to Reassess Our Policies*, in American Journal of Physical Medicine & Rehab., Vol. 84, No. 1 (Jan. 2005)(proposes useful recommendations).

[127] *See, e.g.,* Reed M. VanMatre et al, *Technical Standards for the Education of Physicians with Physical Disabilities: Perspectives of Medical Students, Residents, and Attending Physicians*, in American Journal of Physical Medicine & Rehab., Vol. 83:1, at 54-60 (Jan. 2004) (discussing the concept of the "undifferentiated graduate" and the application of technical standards to students with disabilities).

[128] *See* DeLisa & Thomas, *Physicians with Disabilities and the Physician Workforce: A Need to Reassess Our Policies*, at 10.