An Argentine source told *Science* however, that there was "nothing dramatically different" in the generals' treatment of the universities, which have been under attack for the past 5 or 6 years. "The standard of the universities has completely dropped to zero from 10 years ago, when it was quite good," he says.

Argentina's university system was once the best in Latin America. But the military regime that came to power in 1966 carried out a purge against leftists. When the Peronists returned to power in 1973, they in turn purged conservative and non-Peronist professors. Guerilla groups openly recruited on campus. Written examinations were abolished for many courses and an open admissions policy sent enrollment soaring. Now the boot is on the other foot again. The rector of the University of Buenos Aires, Alberto Ottalagano, is a self-declared fascist who sees the new repression as a religious crusade. "We Christians possess the truth and we do not share it. The rest do not have it and we shall treat them accordingly," he is quoted as saying in the New York Times. Anti-Semitism is again on the upswing.

Treatment of scientists and others has become a matter of increasing disquiet in the United States. The AAAS committee on scientific freedom and responsibility recently wrote to the Inter-American Commission on Human Rights expressing concern that the arrests and dismissals "are seriously affecting the value and quality of the Argentine science community, particularly in the areas of physics, psychology and psychiatry." A New York based group known as the Solidarity Committee with the Argentine People has taken up the cases of Misetich and two other physicists, J. C. Gallardo and Gabriela Carabelli. Carabelli is said to have been abducted by the military from her house shortly after the coup, but the committee recently learned of an official report that she has been found dead.

It is open to question whether action by the United States government can improve the human rights situation in other countries, but Congress is determined to try, and the Carter administration will probably attach greater importance to the issue than its predecessor. Under an amendment introduced by Representative Tom Harkin (D-Iowa), the government must now vote against loans by the Inter-American Development Bank to countries in which there is found to be a systematic violation of human rights. Last summer the U.S. director of the bank voted against a loan to Chile on these grounds.

"The Videla regime has been much more subtle than the Pinochet regime in the way it represses dissent. One thing we can do as private citizens is to encourage Congress to probe into this and to realize that there is no difference at all between Argentina and Chile on this issue," says Eldon Kenworthy. Argentina gets no economic aid from the United States but last year received loans of \$34 million for the purchase of military equipment. No agreement has yet been signed for this year's loan, but the law under which it is authorized now has a tight human rights clause written into it.

Reduction of aid to Argentina may or may not persuade the military rulers to cease their abuses, but it would at least serve to ventilate the issue. Silence is the one reaction that certainly won't help those whose rights are now being violated.—NICHOLAS WADE

The Handicapped: HEW Moving on Civil Rights in Higher Education

The bandwagon is finally beginning to roll on civil rights for handicapped people, 3 years after the passage of the Rehabilitation Act of 1973 which is supposed to do for the mentally and physically handicapped what Title IX of the Education Act Amendments did for women and the Civil Rights Act did for minorities.

The law affects all employers and institutions that accept federal financial assistance, and it has a particularly marked impact on colleges and universities, virtually all of which get federal money in some form or other. The financial repercussions for some may be severe, because in order not to discriminate against the handicapped an institution must not only open its doors but make sure everybody can get through them.

The law is still not being enforced, because it has taken the government so

long to come out with the necessary regulations. The final regulations for section 503 (requiring affirmative action employment practices by federal contractors) came out this year; and the final ones for 504 (which mandates non-discrimination by all recipients of federal financial assistance) are due out within the next month or so.*

The requirements for affirmative action in employment by federal contractors (overseen by the Department of Labor) do not seem to have caused all that

*The first draft of the rules were issued last May, and revised proposals in July. What made HEW speed up was a visit last spring to HEW secretary David Mathews of a delegation headed by Eunice Fiorito, president of the American Coalition of Citizens with Disabilities. The department had no firm timetable for publication of revised proposals says Fiorito, so she descended on Mathews and told him if he didn't act fast the matter would be taken to the press and the Republicans would find themselves embarrassed by demonstrations at their convention in August. According to Fiorito (who is blind), Mathews "was so scared he came out with the regulations in a month."

much trouble for higher education. But, according to a lawyer for the American Council on Education (ACE), a "major stir" has been generated by HEW's sweeping interpretation of section 504, which reads, simply: "No otherwise qualified handicapped individual in the United States . . . shall, solely by reason of his handicap be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

Many colleges and universities are in a dither over what they perceive to be the intolerable expenditures called for and also the unwarranted federal intrusion in academic policies.

The proposed regulations require action on several fronts: barriers to mobility must be removed so handicapped people have access to the same activities and facilities the nonhandicapped do. Admissions tests must be altered where they discriminate against disabilities—such as blindness or lack of motor skills—that are not related to academic ability. Counselors must not steer handicapped students away from curriculum choices on the basis of preconceptions about their capacities. Auxiliary aids, such as tapes for the blind, interpreters for the deaf, and various basic con-

trivances such as jacks for tape recorders, must be provided. Course requirements must be altered where this does not jeopardize the integrity of a person's curriculum—for example, a deaf person majoring in liberal arts could substitute an art appreciation course for a music course.

According to ACE lawyer Sheldon Elliot Steinbach, there has been "as large an unorganized spontaneous response as on any piece of legislation" affecting higher education. Steinbach wrote to HEW protesting that an "extensive regulatory scheme" was unnecessary and would require excessive paperwork and generate the kind of antagonisms that have arisen with other government-ordered nondiscrimination strategies. He suggested that if all institutions of education had to make themselves totally accessible for all kinds of handicapped, it would cost higher education, already financially strapped, \$4.5 billion. The ACE recommended that certain institutions be given the responsibility for the handicapped on a regional basis. Spokesmen for the handicapped were horrified at this idea, which to them spelled the old message of "separate but equal," and the ACE subsequently backed down a bit, still calling for "cooperative institutional arrangements" that would "in toto" provide educational opportunities for handicapped students.

The ACE position is that most institutions are already bending over backwards to accommodate handicapped people, and that those who are qualified are already being absorbed. Steinbach says he would agree with the ultimate goals of the legislation if the timetable (there is a 3-year deadline for architectural accessibility) could be extended indefinitely. But his "gut feeling" is that there are not too many more people out there who would benefit.

There is, indeed, a striking absence of data on the handicapped in higher education—their needs, their numbers, the degree and kinds of discrimination they have suffered, and the number who would show up to take advantage of the new law. The HEW position is that numbers don't matter because this is a question of ensuring people's Constitutional rights.

Many institutions, such as Goucher College, an 850-student, private liberal arts college in Baltimore, support the ACE position and are fearful that stringent enforcement of the regulations could spell financial disaster for them. Certainly the law will be much harder on small private colleges with aged buildings and irregular topography than on

large state institutions that can expect the state to kick in money for the transition

Science talked with representatives of two other institutions who have extremely negative reactions to the proposed regulations. Estelle Fishbein, attorney for Johns Hopkins University, calls them "complex, ambiguous and inflexible," and says they reflect "a very punitive approach towards higher education. . . . This is a terrible step backward because it puts the handicapped in an adversary position to the universities." David B. Frohmmayer, assistant for legal affairs to the president of the University of Oregon, agrees, and says the regulations are 'grotesque intrusions on internal campus governance in the name of principles which have not been clearly defined enough to be administered." The definition of handicapped, for example, is: 'any person who (A) has a physical or mental impairment which substantially limits one or more of such person's major life activities, (B) has a record of such impairment, or (C) is regarded as having such an impairment." This, he says, is "hopelessly subjective and unadministrable" and forces schools into the position of admitting such people as drug and alcohol addicts. So little faith does Frohmmayer have in the rationality of bureaucrats that he can envisage HEW moving in on a university that refused to allow a person who was tone deaf to major in music. The general tenor of objections, as expressed by Frohmmayer, is that the regulations might easily bankrupt an institution; will divert scarce academic resources into more administrative work, and will remove the 'locus of educational decision making to the bowels of some Washington, D.C. bureaucracy.'

Are the Fears Unrealistic?

HEW's Office of Civil Rights (OCR) feels that the cries of alarm are unjustified. Anne Becker, lawyer at the OCR, thinks "there's a lot of hysteria out there" among college administrators still tangling with the demands of Title IX (sex discrimination) who feel that yet another civil rights law is the last straw in governmental interference. She believes the fears are unrealistic. For example, the law does not require another layer of bureaucracy but simply the designation of a person (who can be the same one responsible for the other civil rights laws) to be responsible for carrying out the program. She says the regulations do not compromise academic integrity because the way in which curriculum accommodations are made is left

up to the institutions. And the idea held by many schools—that all their facilities must be made 100 percent accessible to every kind of handicap-is simply "not true." As for auxiliary aids, such as taped books, vocational rehabilitation agencies and private organizations are expected to contribute, as they have been doing all along. And the law does not require a university to supply individualized services or technical aid such as attendants for quadriplegics or special medical devices. As for anticipated costs, Becker says HEW is seeking to get a congressional appropriation to aid schools in making necessary alterations.

Actually, according to those who know about barrier-free architecture (and not many architects do), the costs may not turn out to be as high as some fear. Washington architect William Cochran, who specializes in barrier-free architecture, says the cost of incorporating modifications such as ramps, railings, and nonslip flooring in a building under construction is 0.1 to 0.5 percent of the total building cost (the General Accounting Office says it is 0.1 percent), and 1 percent of the cost of the building if it is already built.

With ingenuity and flexibility, major architectural changes do not have to be made. Water fountains do not have to be lowered for wheelchairs—for example, all that is needed is a paper cup holder next to the fountain. Elevators to a second-floor classroom need not be installed when a class that a handicapped person wants to attend can be moved to the first floor. All living quarters and lavatories do not have to be altered—just a representative sample. Toilets do not have to be lowered because the addition of railings will suffice.

Quite a few schools are perfectly comfortable with the demands of the Rehabilitation Act. Some, particularly in the Midwest, are already well along in making accommodations for the handicapped. Perhaps the most longstanding example is the University of Illinois at Champagne-Urbana which started making changes to accommodate the influx of disabled World War II veterans and now has a special office through which all handicapped students (about 1 percent of the student population) must be channeled. The campus has a special bus service for handicapped, specially equipped first-floor living quarters, total accessibility everywhere, and a wealth of auxiliary services such as readers and book-recording services for the blind.

Although Urbana has given many people from all parts of the country access to higher education, the system

there is being held up as an example of what not to do by the newer breed of what might be called militant handicapped. Jim Gashel of the National Federation for the Blind thinks that the development of special offices for disabled students is a "growing and distressing trend." He says the Urbana system is "very custodial . . . worse than nothing." He says handicapped students resent the fact that they are compelled to fill out special forms that contain all kinds of irrelevant questions such as "neck size." He says special housing for the handicapped is unnecessary and segregationist, and that the university makes things so easy for handicapped students that they don't have to bother to develop their own resourcefulnessand resourcefulness is crucial for them when they get back into the real world.

Gashel represents an extreme view because blind people do indeed require far fewer physical accommodations than those who are wheelchair-bound. Nonetheless, his opinions are echoed by Eric Gentile, an engineer and wheelchair user who runs "programs for handicappers" in the office of the provost at Michigan State University which has 45,000 students, 500 of whom are handicapped. Gentile is the mastermind behind "project access," a ten-phase project, initiated before the passage of the Rehabilitation Act, whose ultimate aim is to make the entire 100-building campus totally accessible to every kind of user. Gentile says his model is totally opposite to the one at Urbana which he characterizes as "the medical model-very prejudicial and segregatory." "Disabled" is a dirty word at MSU because it implies total incapacity. "Handicapper" is preferred because it implies that the individual himself decides whether or not he is handicapped.

Gentile says auxiliary aids are not foisted on anyone, and are supplied only on request. The physical remodeling is done in such a way that the handicapped do not use special entrances and are not relegated to particular housing. Instead of ramps, for example, all buildings are gradually being refitted with railing-free "grade level entrances" that everyone uses. (They are also easier to plow in winter.) The university also "enhances" a random selection of dorm rooms (tubs instead of showers, levers instead of doorknobs and so forth) so the handicapped live with everyone else. Gentile says that although it will cost a half a million dollars a year over the next 10 years to reach phase 10, many changes can be made cheaply, through clever maintenance. Dial phones, for example,

are replaced by touch-tone phones; and whenever a doorknob falls off it is replaced by a lever handle.

Estimates of the number of handicapped in this country vary according to the definition. Perhaps 1 percent of Americans are what might be called severely handicapped: blind, deaf, or significantly orthopedically limited. But that percentage takes a quantum leap when others are taken into account, such

as the elderly, people with heart problems and degenerative diseases, and those with disadvantageous medical histories such as psychiatric hospitalization, cancer, alcoholism and, finally, those temporarily impaired from accidents. It should be remembered that as increasing numbers of adults return to school there will be more students with limited capacities resulting from advancing age.

Briefing

Lewis of NBS Accused of Plagiarism

An official at the National Bureau of Standards (NBS) in charge of aiding industrial innovation has been accused of plagiarizing entire sections of a well-known, 1967 report in a speech given to a small audience in Chile. The official admits he "made a mistake" but denies that the error constituted plagiarism, because "I never intended to benefit from someone else's work."

Jordan D. Lewis, director of the Experimental Technology Incentives Program (ETIP), of NBS, has admitted that the first 51/2 pages of a 30-page keynote address that he gave at a meeting in Santiago last June were "excerpted" without attribution, from a report by a Commerce Department advisory panel headed by Robert Charpie, president of the Cabot Corporation, on ways in which federal action stimulates or discourages innovation. The Charpie report is a centerpiece of the literature on innovation, and some people maintain that the ETIP program, which Lewis heads, is indirectly an outgrowth of the Charpie panel's report.

Lewis admitted his error after Daniel V. De Simone, who was executive secretary for the Charpie panel in 1966 (he is now deputy director of the Office of Technology Assessment), wrote Lewis in November that while he was reading a copy of Lewis' talk, "I found myself in full agreement with your remarks," because, "the principal part of your paper is excerpted from a published volume ... which I spent the greater part of 1966 in writing." Portions of the two texts are almost identical, except for slight word changes to make the text suitable for use in a speech.

In reply, Lewis first apologized and said that his own "ineptitude" rather than "an intent to slight" was the basis of the

error. After offering to send a note correcting the error to anyone De Simone wished, however, Lewis also suggested that he "allow" De Simone "to excerpt, without attribution, any material you wish from the balance of my talk." Lewis withdrew this suggestion after De Simone, in another letter, wrote "it dramatizes your insensitivity to what is involved here."

Now, after a second exchange of letters, the two are still at odds about what constitutes appropriate credit. Lewis proposed adding a footnote and redistributing the text of his talk; the footnote acknowledged the report only as a Commerce Department document. To Science Lewis maintains that that is all he is ethically required to do.

De Simone has objected to the proposed footnote in a letter to Lewis. "It does not say who wrote the volume you plagiarized. For all anyone would know ... the cited reference could have been written by *you*." De Simone told *Science*, "What is wrong with his calling it the Charpie report? That way people would know what was being referred to. The people who labored on it, Bob Charpie, Pete Peterson, myself, and others, were real flesh and blood people. They ought to get credit.

"According to his standard, anybody is entitled to purloin words put together by any advisory panel to a government department and then cite only the big gray bureaucracy."

The tempest goes slightly beyond the Commerce Department's teapot, however, since Lewis had distributed copies of the original talk to a number of government advisers who now are going to get some sort of correction. Then, of course, there is the question of the 30-odd members of Lewis' audience when he gave the speech at the opening of the First Inter-American Conference on the Commercialization of Technology in Santiago last June, to whom amends may also properly be made.—D.S.

At this point no one dares estimate how many handicapped people would come out of the woodwork if all obstacles to their mobility and academic activities were removed. The schools, as Gentile points out, would prefer not to make the necessary improvements until the users actually show up on their doorsteps. But most users will stay away rather than make an assault on an architecturally hostile environment, or one that supplies accessibility only at the cost of stigmatization and loss of dignity.

Enforcement of the rehabilitation act may help bring about a profound shift in attitudes toward the handicapped. The prevailing attitude toward those who have formal contacts—through business, health services provision, education, employment—with handicapped individuals is commonly characterized as "custodial" and "paternalistic." There is a good deal of misdirected good will which results in other people making decisions about what those with disablements can and cannot do.

Although new laws are changing the picture, most handicapped people have been funneled into a system whose purpose is to enable them to become self-sufficient as soon as possible. This prevents their integration into the mainstream and makes it extremely difficult for those wanting to explore their full potentials. Special schools for this and that population of disabled are useful in giving them basic skills to compensate for their limitations, but they also perpetuate segregation.

State vocational agencies, while providing invaluable aid in education and training, will rarely subsidize postgraduate education. Science, for example, is difficult for a handicapped person to get into because of the years of training required, yet this field is particularly appropriate and rewarding for people with physical limitations.

State agencies, eager to get handicapped people off their rolls, will encourage them to go into low-level jobs such as bookkeeping and button-pushing even though these people more than any others have to rely on developing their brains in order to lead full lives.

Most colleges and universities say they will make every effort to accommodate a handicapped person. Yet any handicapped person can come up with disheartening stories of students who are not permitted to try, and to fail, just like everyone else—who are persuaded, for example, to major in English rather than science because the administration fears they will fail, and no one wants to kick out a cripple.

Phyllis Stearner, a biologist at Argonne National Laboratory who is also a cerebral palsy victim, tells of a young man with a congenital deformity of the arms that left him with a total of five fingers. He graduated from college with an A average and was admitted to medical school. After 1 month, she says, "they discouraged him to the point where he dropped out." They wanted him to go into psychiatry; he wanted to be a general practitioner. It was not a question of whether he could perform the necessary manipulations—rather, the school felt, according to Stearner, that "patients wouldn't accept him." and he'd be liable to malpractice suits. This is a classic example of authorities acting in what they perceive to be the best interest of the student while they were, in fact, acting on unproven assumptions and were reinforcing stereotyped attitudes.

Martha Redden, who heads the AAAS project on the handicapped in science, finds a cruel irony in the fact that many handicapped persons—such as disabled veterans—are alive today owing to advances in medicine. Yet the institutions fostering such research are the same ones who, by their attitudes and the inaccessibility of their facilities, are depriving these people of the opportunity to make full use of the very same lives medical science has gone to such lengths to preserve.

It is probably safe to say that most colleges and universities regard the new regulations as unnecessary at best. All, of course, agree with the intent of the rules, but they have been burned by experiences in complying with other civil rights laws where they felt they were acting in good faith and were being pestered by the government with stupid and unreasonable demands. Small, privately funded colleges are obviously going to have a harder time adapting to the architectural requirements than big state universities. But the government doesn't want to put any schools out of business (after all, that would make them completely inaccessible), and if the law is enforced with reasonableness institutions should have no cause to find its demands intolerable.

Whether or not the new law is meaningfully enforced, its passage has encouraged the emergence of the handicapped as a new, nationwide voice. They are angry, and they are adamant. If the government doesn't get moving, as one official said gleefully, HEW may wake up one morning to find itself ringed with an angry mob in wheelchairs.

—Constance Holden

APPOINTMENTS

Ronald Geballe, professor of physics, University of Washington, to dean, Graduate School at the university. . . . William C. Langworthy, chairman of chemistry, California Polytechnic State University, San Luis Obispo, to dean, School of Science and Mathematics at the university. Paul Olum, dean, College of Natural Sciences, University of Texas, Austin, to vice president for academic affairs, University of Oregon. . . . Richard A. Matula, chairman of mechanical engineering and mechanics, Drexel University, to dean, College of Engineering, Louisiana State University. William F. White, professor of educational psychology, University of Georgia, to dean, School of Education, West Chester State College. . . . Sheila A. Ryan, acting dean, College of Nursing, Creighton University, to dean of the college. . . . Charles W. McLarnan, former vice president, Macalester College, to dean, College of Science and Engineering, University of Texas of the Permian Basin. . . . Alan J. Weston, chairman of audiology and speech pathology, Memphis State University, to dean, School of Allied Health Professions, University of Wisconsin, Milwaukee. . . . George E. Sutton, former director of professional services, National Council of Engineering Examiners, to dean, School of Engineering, Youngstown State University. . . . R. Bryan Roberts, professor of anesthesiology, Mount Sinai School of Medicine, City University of New York, to chairman of anesthesiology, Wright State University. . . . George W. Zobrist, professor of electrical engineering, University of South Florida, to chairman of electrical engineering, University of Toledo. . . Dan W. Elliott, professor of surgery, University of Pittsburgh, to chairman of surgery, Wright State University. . . . Frank D. Popp, professor of chemistry, Clarkson College of Technology, to chairman of chemistry, University of Missouri, Kansas City.... Leon I. Mann, co-chairman, obstetrics-gynecology department, State University of New York, Stony Brook, to chairman, obstetrics-gynecology department, University of Vermont. . . . Victor L. Wallace, associate professor of computer science, University of North Carolina, to chairman of computer science, University of Kansas.

Erratum: News and Comment, 19 November, p. 814, incorrectly characterized the Tennessee Valley Authority Act of 1933. The act mentions electric power generation.