

require crew participation can probably be performed on flights from Kennedy that use high-inclination orbits, he adds. "The only reason that the Vandenburg complex will be activated is because it was promised . . . as a symbol of the military's commitment to the shuttle. It's just nuts. The country needs that money for other things."

Air Force spokesman Miles Wiley says that mothballing the shuttle complex at Vandenburg was considered but rejected in the aftermath of the shuttle disaster last January. "In the early planning, every conceivable option was looked at," he says. "This one is no longer under consideration. We plan to do a mission out of Vandenburg." But congressional sources say that the Air Force's decision was based in part on the availability of the shuttle within 18 months. After that point, the sources say, the economics begin to shift in the other direction. Wiley denies this, but acknowledges that "we'll have to wait and see if the delay exceeds the baseline from which we're working at this point."

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All of these issues will supposedly be settled by a report of the White House Senior Interagency Group on Space, expected to go to the President in the next few weeks. Although most issues remain hotly disputed, both inside and outside the government, there appears to be a growing consensus on three points. First, the government's decision in the late 1970's to pile both military and civilian satellites into the shuttle payload bay was potentially disastrous, and may eventually cause more than simple economic harm. Secondly, a decision several years ago to order CELV's from the firm that manufactures Titan 34D's, Martin Marietta, on the grounds that it would lower the technical risks, may turn out to have the opposite effect, given the similarity in the design of the two rockets and considerable uncertainty about the cause of the latest explosion. Third, a decision to abandon the shuttle complex at Vandenburg will have serious consequences for the military and civilian space programs, both politically and economically. With everything blowing up on launch, many in the space community believe it is time to reevaluate their standing assumptions. ■ R. JEFFREY SMITH

Briefing:

University Presidents Predict Harm from Uncoordinated Deficit Reduction Policies . . .

In the effort to reduce the federal deficit, a variety of Administration proposals and pending congressional action will converge to do great damage to the health of the nation's large research universities. Possible changes in tax policy, a cap on indirect costs, a reduction in student aid, and Gramm-Rudman cuts in research funds all taken together pose a very real threat, according to members of the Association of American Universities (AAU). Speaking at their annual meeting in Washington, a group of university presidents reviewed the scope of the impending threat as they see it.

Harvard president Derek Bok cited proposed changes in tax law. Currently, he said, all charitable contributions to universities are fully tax deductible. But a House-passed tax reform bill (H.R. 3838) would introduce taxes on "appreciated property." A gift of appreciated property is, for example, a stock that was purchased for \$10 a share but now is worth \$100 a share. Under the House provision, an individual would be subject to personal taxation on the appreciated portion of the gift. To date, the Senate's draft tax bill would retain current law, allowing a donor a deduction for the full value of the gift.

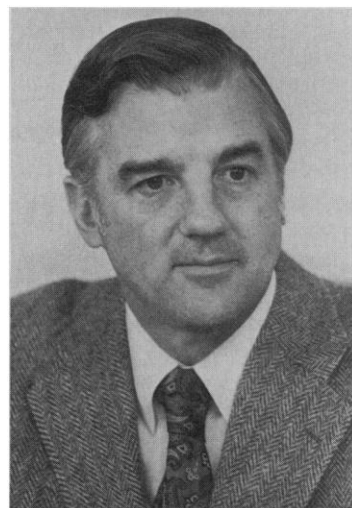
A second provision in the House bill that would affect universities adversely, Bok noted, is a cap on the amount of tax-exempt bonds that are issued primarily to get capital investment to support construction. This provision is particularly disagreeable, Bok pointed out, because it "unfairly" affects a relatively small number of private institutions that rely on tax-exempt bond issues to finance new buildings, new equipment, and renovation. An AAU statement on this issue says the \$150-million cap "would be the first major federal legislative proposal to apply to independent but not to public institutions. . . ."

A third "negative" proposal in H.R. 3838 would eliminate present tax advantages that govern TIAA-CREF, the retirement plan most universities offer. The pension system's tax exemption would be rescinded and the maximum amount a faculty member could add to his pension fund through salary reduction would be reduced from \$30,000 to \$7000 per year. The additional amount one could contribute would be further reduced for people who put \$2000 a year in

an IRA (independent retirement account). The Senate version retains present tax status.

Fourth on the AAU list of negative changes in tax law is a proposal to tax student aid. Both House and Senate measures contain provisions to tax scholarships and fellowships.

Peter Magrath, president of the University of Missouri, predicts that the substantial reductions in student aid proposed by the Reagan Administration, coupled with scholarship taxation, will simply drive more talented American students out of graduate education. During the coming decades, the nation will need more, not fewer, Ph.D.'s to fill the ranks of college teachers and university researchers, he observed, noting that measures antithetical to this need are not in the national interest.



Derek Bok *Proposed tax changes would hit private colleges.*

As the university presidents gear up to fight these tax changes, they are also continuing a hard battle against the White House Office of Management and Budget that wants to cap administrative overhead on research grants rates in fiscal year 1987 at 20% of direct costs. On a number of campuses, research faculty support such a cap, believing it will leave more money to pay the direct costs of scientific research, but university presidents argue that they need the money to pay for a variety of things vital to the research environment. Calling indirect costs "one of the more arcane subjects in the Western world," Stanford president Donald Kennedy said there is no way most private schools can make up the \$100 million to \$300 million that will be lost if the government refuses to pay the full cost of federally sponsored research by paying both direct and indirect costs.

Summarizing the universities' concerns,

AAU president Robert Rosenzweig says that "budget, tax policy, accounting rules, and a reduction in student aid, all emanating from different sources, converge to work against these institutions of higher learning." Further, he notes, "Congress is not designed to handle this sort of issue," where policy coordination is key. Says Magrath, what we have here is "a silent crisis." ■

BARBARA J. CULLITON

... But They Endorse The Supercollider

The annual spring meeting of the Association of American Universities (AAU) appears to have been dominated by discussion of the grim financial prospects facing higher education (see above). However, the members of the association, which consists of the presidents of some 50 of the nation's leading research universities, took the unusual step of endorsing the most expensive basic research project ever proposed, the Superconducting Super Collider (SSC).

The meeting approved a letter urging Secretary of Energy John Herrington to back the project. It was hand delivered to him on 22 April by David Gardner, president of the University of California. Herrington must decide this summer whether to seek funds to begin construction of the SSC in fiscal year 1988. A decision to go ahead would require White House approval in the fall and a budget proposal would go to Congress in January 1987.

The letter noted that "budgetary restraints threaten the vitality of a number of critical areas of science," including high energy physics. "The SSC project is undeniably expensive," the letter stated, "But failure to proceed would also be very expensive. . . . Beyond the loss of potential technological benefits, failure to build the SSC would inevitably diminish our scientific and technical advantage in the rest of the world."

The letter goes on to urge that "the SSC must not be funded at the expense of other or related disciplines." This addresses the fears of many scientists that the SSC's \$6-billion construction cost could squeeze out other science programs at a time of overall budget constraints. AAU president Robert Rosenzweig says the AAU members do not view the SSC "as a substitute for anything." If they did, he said, "there would have been a different response."

Rosenzweig says the AAU does not intend to make construction of the SSC a top legislative priority. "We have said what we are going to say on it," he said. ■

COLIN NORMAN

Days May Be Numbered For Polygraphs in the Private Sector

"It either works or it's broken. It's a simple, medical machine." So testified renowned criminal lawyer F. Lee Bailey at a recent hearing on polygraphs conducted by the Senate Committee on Labor and Human Resources.

But Bailey's is a minority opinion. The legislative noose appears to be tightening on the use of polygraphs in the private sector. On 12 March, the House of Representatives passed H.R. 1524, which would outlaw their use for employee screening or testing. Exceptions are made for federal and local governments, security services, companies dealing with controlled substances, public utilities, child care centers, and nursing homes. The Senate companion bill, S. 1815, sponsored by Orrin Hatch (R-UT) and Edward M. Kennedy (D-MA), exempts only government use.

Federal legislation to restrict polygraph use has been in the works for a long time, with about 40 bills having been introduced

"THERE IS THAT ONE SMALL PROBLEM"



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in the past 12 years. Strong bipartisan support has been developing since 1983, when the Office of Technology Assessment released a report saying that the technology was valuable for criminal investigations, but it is virtually worthless as a screening device.

The American Polygraph Association has been lobbying hard for substitute bills that

would tighten standards for the conduct of examinations and the training of polygraphers. The Reagan Administration strongly opposes "federalizing the law in this area." (Thirty-two states now have laws restricting polygraph use.) But the purport of most of the testimony at the hearing was that polygraph use outside law enforcement and national security areas is not justified on scientific, constitutional, or practical grounds.

The overwhelming majority of the estimated 2 million polygraph tests conducted each year are conducted by private business, with 80% of these for the purpose of screening employees. Many jewelers, bankers, and retailers with high employee turnover claim that the availability of polygraphs can radically cut internal thefts, which are estimated to amount to anywhere from \$5 billion to \$40 billion a year. But several witnesses countered that polygraphs are often used as a "quick fix" to substitute for careful background checks and better auditing procedures.

There do not seem to be convincing data to support some of the sweeping claims of polygraph advocates. Psychologist Leonard Saxe of Boston University said there are only a handful of published field studies, which show far less validity for polygraphs than do laboratory studies. He said that if rigorous standards, such as those of the American Psychological Association, were applied to polygraphers, "I have no doubt that polygraph tests would be relegated to the same historical position as sensory tests that were once thought to be indicative of intelligence."

Psychologist David Raskin of the University of Utah said "there is not a single scientific study which demonstrates any reasonable degree of accuracy for general employment screening tests." He also noted that "the vast majority of major successful companies do not use polygraphs." Indeed, a statement submitted by the International Brotherhood of Electrical Workers said that a survey of 33 large electric utilities (a category proposed for exemption), 15 of which had licensed nuclear plants, showed that only 5 used polygraphs.

Polygraphs have suffered much adverse publicity of late, including the outraged reaction by Secretary of State George Shultz to the Administration's decision last November to authorize expanded testing in federal agencies. An Associated Press poll conducted in March revealed that, while two-thirds of the respondents said they would be willing to take a polygraph test for employment, only half that number thought employers should have the right to administer such tests. ■ CONSTANCE HOLDEN