Science in the News

The Missile Gap; Overhead for Federal Research Grants; Aid to Education and Civil Rights

The dispute over the missile gap, which could have substantial repercussions on national science policies, remains a matter of great confusion. The facts of the matter should become clearer after Senator Russell's Senate Armed Services Committee completes an investigation, scheduled to begin 20 February. (Both Houses of Congress have been pretty thoroughly demobilized until then, as is customary, to give Republican members a chance to get out of Washington and make Lincoln's Birthday speeches.)

Meanwhile there has been no indication of how the new estimates of the existence or nonexistence of a gap are going to affect the Administration's proposals for changes in the defense budget, due by 1 April, nor even of a generally agreed upon interpretation of exactly what Defense Secretary McNamara meant when he set the controversy off with a remark at a background briefing for reporters that the expected missile gap has not developed. Kennedy has been noncommittal, saying only that a study of the situation begun after the election would not be completed until the end of this month.

The term itself is used in two different senses: narrowly, to describe a Soviet lead in intercontinental missiles; more broadly, as a synonym for the deterrent gap, an over-all Soviet lead in strategic position. This gap, it has been feared, would put the Russians in a position to knock out the bulk of the American deterrent force by a surprise first strike, a possibility that has been causing great consternation here.

The existence of a substantial gap would open a hideous, unlikely, but nevertheless rational policy course to the Russians: to attack the United States in the belief that so much of the American retaliatory force could be knocked out in the first strike that the United States could not answer the attack by inflicting unacceptable damage on Russia. Indeed the Russians might calculate that the United States could not answer the attack at all, in the fear that an American retaliation against Russian cities would be suicidal, since the United States would now be defenseless against a second Russian strike at our cities. (The first strike, everyone assumes, would be aimed at missile and bomber bases, rather than at population centers.)

The concern has been not only about the possibility of a surprise attack. It was felt that the mere existence of such a gap, even if the worst was highly unlikely, would be bound to limit American freedom of action generally. It was senseless, Eisenhower's critics argued, to believe that the United States, with a gross national product twice that of Russia's, could not afford to avoid being put in such an unpleasant position.

The danger of a deterrent gap, assuming nothing was done to prevent it, was expected to develop in the early 1960's, when the United States would still be relying heavily on manned bombers, which must necessarily operate from bases which could be easily located and destroyed by a first strike, while the Russians would have an overwhelming lead in missiles. This led to proposals, echoed by Kennedy during the campaign, for crash programs to prevent the gap from developing.

To the extent that the gap has now been discounted there would be a tendency to downgrade the necessity for an airborne alert, for pushing missiles into production before engineers and scientists are satisfied that they will not be obsolete in a very few years, to put overtime crews into the work of hardening and dispersing missile sites.

All of this would be expensive and would be justified primarily to meet a short-term emergency. If a new evaluation makes such measures appear less necessary, somewhat more money would be available for longer range research and development projects. Beyond this, to the extent that increases in defense spending can be less than had been expected, the President will be in a stronger position in asking for more money for domestic programs, including science and education.

This problem of money priorities is not so much a problem within the Administration, which clearly feels the country can afford a federal budget and a tax bite a great deal bigger than it has now, and which, to stimulate the economy, would like substantial federal deficits for the next year or two. The money limitations come in sharply, though, when the Administration has to calculate how much spending it can get Congress to accept.

Everyone agrees that, if a vote were taken today, most of Kennedy's nondefense proposals would be defeated by the House of Representatives. This does not mean they will be defeated when they finally come to a vote, but it does mean that Kennedy will have a hard fight for almost every one of his nondefense proposals. To the extent that he has to ask for major increases in defense spending, the conservatives will be strengthened in their conviction that the country cannot afford major new domestic programs. But, as noted at the beginning, it remains extremely unclear how much of a change in thinking was indicated by the talk of a diminished missile gap that dominated the news last week.

Kennedy Program

The details of Kennedy's programs for science and education have begun to come to light as his special message on health was sent to Congress last Tuesday noon. In addition to the promised increases in the amount of spending, he has included recommendations along the lines of the December Science Advisory Committee report on Basic Research and Higher Education, aimed at providing schools receiving grants with fuller payment for the overhead costs the schools incur in accepting the grants.

In his farewell address Eisenhower warned of the danger of basic research being dominated by the government through its power over grants, but the Eisenhower budget asked for no changes in the grant procedures, which now intensify the federal influence by forcing schools to put their own money

into projects the government chooses to support.

Among the proposals of the Science Advisory Committee report were that the government should pay a share of the salaries of faculty members devoting their time to government projects; that grants should cover the full cost of overhead (rent, building maintenence, secretarial service, etc.) which can be properly charged to the government project; and that government grants to students should be accompanied by grants to the schools they attend, since the student's fees never cover the full cost to the school of the student's education.

The last two of these proposals showed up in the proposals of the health message. Kennedy proposed a scholarship program for medical schools which would grant each school a yearly scholarship fund amounting to $375 per student enrolled. The schools would then award the money among the neediest quarter of its students, with a maximum yearly grant of $2000. But the scholarship fund would be accompanied by a grant to the school itself of $1000 per scholarship student. Thus, following the recommendations of the Advisory Committee, each student scholarship, averaging $1500, would be accompanied by a $1000 grant to the school to help cover the costs the school incurs beyond the fees charged to the student. The message also proposed an expanded grant program to encourage the schools to increase their facilities to accommodate more students.

On the matter of overhead costs on research grants, the health message included a proposal to raise the current 15 percent limit on the proportion of National Institutes of Health grants that can be awarded for overhead. Actual overhead costs run as high as 30 and 40 percent. Kennedy did not propose completely eliminating the restriction, only raising it to an as yet unspecified figure. But a raise from the current 15 percent to perhaps 25 percent might cost the government an extra $50 million a year to maintain the same level of research activity in the NIH program alone, and of course much more if the more liberal grants for overhead were to be made general throughout the government agencies. The message also recommended raising the budget of NIH, again by an unspecified amount, but presumably by enough to allow the institutes to maintain their planned level of project grants despite the extra overhead payments.

This problem comes up in another form in the practice by which some government agencies pay only part of the research costs of projects they choose to support. Here are excerpts from a statement by Father Hesburgh, president of the University of Notre Dame:

"Under present practice, universities are expected voluntarily to offer to contribute to each Atomic Energy Commission sponsored research program. Currently at Notre Dame, our research contribution ranges from 50 percent down to 11 percent of estimated yearly project costs. [In addition] . . . the university dedicates to nuclear research facilities, competent faculty, and promising students—all involving outlays of money and effort not compensated for in research contracts, even where a full overhead rate is allowed. . . . To shift the federal burden for research in the national interest to students, alumni, and benefactors of a private university not only forces compromise in the other educational objectives of the university, but also tends to defeat the public interest in improving higher education."

There is wide agreement with Hesburgh's point of view, as the Science Advisory Committee report suggests. As usual the problem comes down to not what people think should be done, but where to get the money to pay for it. But the small beginnings embodied in the health message suggest that Kennedy plans to move in this direction.

Aid to Education and Civil Rights

The Administration has still given little indication of what it intends to do in the touchy area of civil rights, an area which was tied to the problem of federal support for science and education by the report last month of the Civil Rights Commission recommending that the President cut off federal assistance to segregated public universities.

The most forceful argument of the commission, and there was no dissent, even from southern members, was that, particularly in the South, there is an enormous gap in quality between Negro and white schools which brings to the white schools far heavier support from the federal government and puts the government in the position of using public funds to widen the gap between the opportunities open to students of the two races.

In fiscal 1959, for example, the latest year for which figures are available, the National Science Foundation, the National Institutes of Health, and the Atomic Energy Commission made over $4 million in research grants to 16 white schools in seven southern states, while one grant of $797 went to a Negro school. Over-all, federal support for higher education in these states resulted in about $10 being spent for each white student for $1 spent for a Negro student. The total amount of federal support averaged about $200 per white student, $20 per Negro student.

Kennedy has made strong commitments on civil rights. Last week he appointed a liberal expert on the law of constitutional rights to his White House staff. There is little doubt that the President agrees with the commission's general finding that it would be morally and constitutionally correct for the federal government to cut off all support from public institutions with flagrantly discriminatory admission policies. There is equally little doubt that to do so would kill most of his program for education, for there is no way to win a majority in the House to support these measures without the aid of liberal southerners, none of whom could support the program if the Civil Rights Commission recommendations were in effect.

The situation is clearly understood by conservatives in both parties. It has led to the peculiar tactic, probably to be repeated in the current session of Congress, under which many conservative southerners leave the floor of the House when a segregation rider is proposed for an aid-to-education bill, thus helping to attach the rider, after which liberal southerners are forced to join their conservative colleagues in voting against the measure.

The result of the touchy political situation is that Kennedy seems to be trying to keep the entire area of strong executive action on civil rights reasonably quiet, probably until at least after Congress adjourns, while Charles Halleck, the conservative Republican leader of the House, has lately become the most outspoken supporter of civil rights on Capitol Hill. Congressman Adam Clayton Powell, now chairman of the House Education and Labor Committee, has announced that he probably would not propose his usual rider to the aid-to-education bill, barring aid to segregated schools, which prompted Halleck, always a supporter of the Powell amendment and an opponent of federal aid to education, to announce that he would propose Powell's amendment for him.—H.M.