not really surprising, for at the moment Eisenhower is a captain with no lieutenants. Like an advertising man who wants to sell some toothpaste, a politician who wants to sell an idea has to keep repeating it over and over again, and see to it that the same idea is echoed over and over again by his followers. But there is no one to pick up Eisenhower's lead, either among other major political figures or in the mass-circulation press, for there is no significant faction in American politics that shares his view that the Administration has no better reason for supporting the space program than as an excuse to spend money.

What public discussion there has been on the space program has not been on the overall question of whether too much emphasis is being put on the whole business, but on matters of detail, such as the technical question of how to get to the moon most efficiently and the administrative question of how to deal with the sometimes conflicting jurisdictional claims of the civilian Space Agency and the Air Force.

On getting to the moon, Von Braun's longstanding advocacy of the rendezvous technique has been gaining ground. Rendezvous involves launching the final moon rocket and the passenger capsule in two or more segments, having them join together while in orbit, and from orbit launch themselves toward the moon. The alternative is to use one very large rocket to send the vehicle directly to the moon. A decision has been made to push about equally in both directions for the time being. Until now the major emphasis has been on the direct approach and the necessary development of a big rocket to carry it out.

On the jurisdictional question, the Air Force has been pushing hard for a greater role in the space effort. So far it has been getting no noticeable support from the Department of Defense, but a good deal of support from Lyndon Johnson, whose duties as vice president include the chairmanship of the Space Council. The details of the coming federal budget will give an idea of what success, if any, the Air Force has had in pressing its view that no useful line can be drawn between the military and civilian space programs, and therefore that nothing should be considered automatically unsuitable for development by the Air Force. The civilian Space Agency, of course, takes a different view of the situation.—H.M.

Overhead Costs: Intangibles Make It Difficult To Compute Cost of University Research

Officials of the University of Chicago reacted angrily last week to a report that the university may turn a profit under a new federal contract for operation of Argonne National Laboratory.

The possibility was stated in a New York *Times* report which revealed that the Atomic Energy Commission had agreed to give the university a "management allowance," in lieu of the overhead allowance provided for in the expiring contract. Under the old contract, the university received about $500,000 annually for the indirect, or overhead, costs incurred in operating the $50-million-a-year laboratory. The university has repeatedly complained, as have almost all institutions doing research for the government, that this overhead allowance is niggardly and fails to reflect a considerable portion of the "hidden" costs of research.

In negotiations for the new contract, the University of Chicago sought an overhead allowance of $1.6 million. This figure, according to university officials, was based on the general expansion of university activities since the contract was last under review, and on the university's contention that the AEC had been fairly miserly last time in its interpretation of indirect costs related to Argonne National Laboratory.

The AEC's accountants, however, saw justification for an increase of only $100,000 in the current allowance. The university then proposed that point-by-point accounting be abandoned, and that the university be given a lump allowance of $1.2 million. This proposal was accepted by the AEC, reportedly by a 3 to 2 vote of the commissioners. The attendant news report stated that the AEC "has adopted a policy opening the door for universities to make a profit on their management of the commission's national laboratories." To this, university officials reply that even the increased sum is inadequate and that the suggestion of profit is preposterous. They also point out that the University of Chicago is by no means the pioneer in receiving a management allowance from the AEC. In past years, this provision has been written into AEC contracts with the University of California, which operates Los Alamos Scientific Laboratory and the Lawrence Radiation Laboratory, and Associated Universities, Inc., which operates Brookhaven National Laboratory.

The differing points of view on overhead costs illuminate the fact that this computation is probably as much an affair of the heart as it is of the accountant's tape. Underlying the issue, in this and similar cases, are conflicting concepts of the nature of university research. Government budget officers, interested in making their funds go as far as possible, tend to view university research as something that, financially, at least, can be isolated from the overall university environment. University budget officials, seeking to make their funds go as far as possible, take a broader view of just how much indirect support the university environment affords specific research efforts.

The uncertainties of what constitutes justifiable overhead costs are matched by the uncertainties of what criteria should be applied in computing them. In theory, the basic document is an equally damned and praised Bureau of the Budget publication which recommends, but does not require, the application of certain standards. Standing aloof from the bureau's recommendations are the Department of Health, Education, and Welfare and the National Science Foundation. Health, Education, and Welfare limits its overhead costs on grants and contracts to 15 percent, a figure which is widely considered to be inadequate, but which strikes the fancy of Representative Fogarty, chairman of the appropriations subcommittee that passes on HEW funds. The National Science Foundation pays 20 percent, but there are indications that NSF is coming to the conclusion that this figure is too low, and it may provide for an increase in the near future.

Just what other departments and agencies pay is not easily arrived at. One government official who is familiar with the practices of a number of federal agencies contends that, for a given piece of research, a university could find itself receiving over 70 percent in overhead costs from the Department of Defense, 20 percent from NSF, and 15 percent from HEW.

The Bureau of the Budget guidelines are looked upon by many university officials as completely to their liking, and their fervent wish is that budget officers would take the guidelines to heart. In the 22 pages of specifications for computing costs, sufficient latitude is present to justify a happy agreement

between any generous government budget officer and any straitened university counterpart. The difficulty is that the two come to the bargaining table with differing interests. Not so pleased with the Bureau of the Budget guidelines are the budget officers of a number of universities, especially smaller ones, who look upon the document as an accountant's nightmare.

On the generally recognized indirect costs such as heat, light, janitorial service, and procurement of help, there is little disagreement. From there on, however, the possible interpretations lead some government budget officials to the conclusion that the universities are seeking to milk them, and university officials to the conclusion that some government officials are ignorant of what makes a university tick.

In the University of Chicago negotiations with the AEC, one matter of contention was the question of how much the AEC should pay in indirect costs for the support which the university library provides for Argonne Laboratory, which is some 35 miles away from the campus. It was the AEC's contention that the university library is of little significance in the operation of the laboratory, which has its own local library facilities. This interpretation of the library's relationship to Argonne sends despair through university officials, who find it difficult to convince cost accountants that a university cannot be dissected.

On an even more subtle point, the intangible, unascertainable support that one element of a university lends to another simply through the informal personal relationships that develop among its people, there is no convincing the cost accountants.

"How," asked one official, "can you explain the value that's derived from having people on a physics project in a position where they can consult with people in the mathematics department? There's no dollars-and-cents value that can be assigned to that. But it's indirect support, if anything is indirect support. When pennies are pinched on the work that a university does for the government, the result is belt tightening that can subtly affect the government work."

In support of their case for the intangible benefits that research derives from a university environment, university officials point out that profit-making firms holding government contracts frequently develop formal as well as informal relationships with nearby universities. The benefits flow both ways, of course, and defy cost analysis, but they support the contention that the presence of the campus is a plus for the researcher carrying out a specific government project.

Some government officials feel that universities tend to exaggerate the overhead expense involved in carrying out federally financed research projects, especially at large-scale research facilities, such as the AEC's national laboratories. These, they point out, are frequently located some distance from the main campus, and they have developed into largely self-contained units that require little support from the parent institution. In regard to on-campus, small-scale research projects, those skeptical of the universities' pleas argue that government money has brought unparalleled prosperity into university science. Like Representative Fogarty, who is skeptical of the claim that HEW's 15 percent limit is inadequate, they say that they do not notice any significant number of universities declining the opportunity to undertake government work, despite the size of the overhead allowance.

The question of a fair allowance draws various figures. Fogarty's committee was told last spring that a limited survey of small institutions placed their average overhead costs at 42 percent; larger institutions reported theirs at 34 percent. The National Science Foundation is preparing a study that is expected to offer a broader consensus.

In the meantime, the views of the universities are being coordinated and pushed for the first time in Washington through the Committee on Governmental Relations of the National Federation of College and University Business Officers. This organization is trying to get across a message that so far has received little attention. Although the Administration has paid lip service to the universities' pleas, the case for enlarging HEW's 15-percent overhead allowance got lost on the crowded and noisy route between the White House and Capitol Hill. The funds sought by the Administration for the HEW overhead increase were paltry in relation to overall research expenditures. And in the Senate-House conference on the measure, the Senators who had backed an increase showed no willingness to fight for their point. A more forceful presentation of the universities' case might have made a difference in the outcome.—D.S.G.

Civil Defense: The Confusion Will Not Be Easily Dissipated

The Administration's desire to chart a civil defense program for the nation was bogged down this week in the vast uncertainties that bedevil any attempt to foresee and prepare for the havoc of a nuclear attack.

One element of the program—a survey of existing structures that would offer fallout protection—was reported to be moving along; but in its insistence on individual and family efforts for survival, the Administration found that it had sown considerable confusion. The details on just what each household should do in behalf of its own survival have not yet been put forth by the Administration. Into the breach has stepped an array of experts with advice ranging from nothing to prescriptions for elaborate shelters. *Life* magazine reports that 97 out of every 100 persons can be saved through proper preparation; Tom T. Stonier of the Rockefeller Institute, reporting on behalf of the Scientists' Committee for Radiation Information, estimated that the fire storm produced by a 20-megaton blast at New York's Columbus Circle would kill 6 million of the city's 8 million residents. Additional lives, he said, would be lost in the city's suburbs.

While the debate is being carried on by nongovernmental parties, the Administration's civil defense planners are cautiously picking their way toward what will be the "official" government policy on civil defense. Their difficulties are illustrated by the fact that a civil defense booklet which is to be sent to every family has now been in preparation for about 3 months; until recently, it was expected that it would be completed this month, but in the Office of Emergency Planning it is now estimated that the publication will not be ready until December, possibly later. OEP officials say that before the booklet is sent to every household in the United States, it will probably be subjected to a pilot testing, which may well result in further changes and delays.

Regardless of the date of distribution, it is unlikely that widespread harmony will be achieved by any official design for coping with the unknown. From some critics of the Administration's slowness has come the happy thought that a few well-chosen statements would end public confusion