

cost, it will naturally pay less attention to costs and more attention to speed of accomplishment. On the other hand, where there is no given deadline, the cost-plus-fixed-fee contract may serve to prolong the research and development work and induce the contractor to delay completion.

Consequently, we believe it to be desirable to replace cost-plus-fixed-fee contracting with fixed price contracting wherever that is feasible—as it should be in the procurement of some late-stage development, test work, and services. Where it is judged that cost reimbursement must be retained as the contracting principle, it should be possible in many instances to include an incentive arrangement under which the fee would not be fixed, but would vary according to a predetermined standard which would relate larger fees to lower costs, superior performance, and shorter delivery times. There is ample evidence to prove that if adequate incentives are given by rewards for outstanding performance, both time and money can be saved. Where the nature of the task permits, it may be desirable to include in the contract penalty provisions for inadequate performance.

Finally, if neither fixed-price nor incentive-type contracts are possible, it is still necessary for Government managers to insist on consideration being given to lower cost, as well as better products and shorter delivery times—and to include previous performance as one element in evaluating different contractors and the desirability of awarding them subsequent contracts.

Contract administration

The written contract itself, however well done, is only one aspect of the situation. The administration of a contract requires as much care and effort as the preparation of the contract itself. This is particularly important with respect to changes in system characteristics, for these changes often become the mechanism for justifying cost overruns. Other factors of importance in contract administration are fixing authority and responsibility in both Government and industry, excessive reporting requirements, and an all-too-frequent lack of pre-arranged milestones for auditing purposes.

Reimbursable costs

Concern has been expressed because of significant differences among the various agencies in policies regarding which costs are eligible for reimbursement—notably with respect to some of the indirect costs. These differences are now being reviewed by the Bureau of the Budget with the cooperation of the Department of Defense, the National Aeronautics and Space Administration, the Atomic Energy Commission, and the General Services Administration.

Arrangements with universities

With respect to universities, Government agencies share responsibility for seeing that research and development financed at universities does not weaken these institutions or distort their functions which are so vital to the national interest.

Government agencies use both grants and contracts in financing research at universities, but in our judgment the grant has proved to be a simpler and more desirable device for Federal financing of fundamental research, where it is in the interest of the Government