

which is the acquisition of new or highly specialized equipment and the development of a new area of scientific inquiry.

At the Institute level the expenditure of funds is handled in various ways. Direct research is a line item in most Institute budgets, as is collaborative research (epidemiology, biometry, and research done by contract); expenditures are limited to the particular items, and funds may not be diverted without the consent of DHEW, BoB, and the appropriations subcommittees of the Congress. In some Institutes the Executive Officer, who is responsible for the business operations of the organization, exercises budgetary control for the Scientific Director or his equivalent, but in each case an expenditure plan is developed for each fiscal year. In general, it is not wise to commit the total budget to on-going activities, so the reserve is deliberately created. This varies from Institute to Institute.

One Scientific Director, for example, with a budget of approximately \$5 million, reimburses the NIH for various services such as heat, light, ventilation, procurement of expendable and non-expendable supplies including animals and for various administrative services provided through the NIH management fund. The balance of the budget, expended under Institute control, is divided into personal services and other accounts, and various allocations are made. The Scientific Director also requires an unencumbered account of \$250,000 at the beginning of the fiscal year. This is in part a contingency fund, but in part a control device, because the scientific staff is not expected to buy equipment for their projects that costs more than \$5,000 or to pay for the renovation of existing space. In addition, this particular Institute can expect an annual lapse of 7 percent from its accounts, due primarily to unanticipatable movement of personnel in and out of the organization. This in effect produces an adequate reserve responsive to the changing scene in the laboratories. In addition, the laboratory chiefs, as distinguished from the Scientific Director, build into their budgets such small amounts as \$500 to \$1,000 to allow them to capitalize on unanticipated opportunities as they emerge, without reference to the Scientific Director.

Since this method of budgeting can result in the accumulation of small balances in a number of organizational segments which in the aggregate can be substantial, not only are the laboratory chiefs required to keep an up-to-date record of their obligations, but a quarterly review of each account is made by the office of the Scientific Director and such adjustments are made among allocations to the laboratories as seem desirable.

It should be emphasized that biomedical research today still comes under the heading of "little science," is characterized by a high degree of individual initiative and enterprise, and requires relatively small amounts of money for individual projects. The birth of a new idea that is recognizable to the local scientific community as a new departure in research usually stimulates people with appropriate capabilities to re-think their own objectives. The new departure may require different types of instruments or different starting materials but usually does not demand a sudden increase in the work force. Thus, the availability of small reserves of funds may be highly important.

Criteria used to evaluate the work performed with reserved or contingency funds are the same as those used to evaluate the scientist's other work. Probably these funds yield a greater return in a shorter time because their commitment evidences a priority call upon resources to respond to a need or an opportunity.

Question 9. Several agencies have set up procedures to appraise the performance of contractors that do research and development for them, or that manage agency laboratories. What procedures does HEW use, and what consideration has been given to applying the standards and procedures of these appraisal processes to HEW operated laboratories? To what extent would this be desirable?

Answer. The appraisal of a contractor's capability and performance begins at the time a research project is initiated. After the idea for the project is approved by the scientific directors of the program, the work scope is publicized in the Commerce Business Daily to obtain competition. When a determination is made that an educational institution is best qualified to carry out the project, publicizing in the Commerce Business Daily is not required. When the complexity of the project warrants, contractor briefings are held to assure understanding of the character and objectives of the research involved. Proposals from contractors are reviewed by an ad hoc committee composed of a group of scientists expert in the field of research involved and selection is made of the best qualified contractor. The committee's review may include site visits to inspect the contractors' facilities. The ad hoc committee's actions are reviewed by regularly established contract review committees to evaluate not only the choice of contractor but also the scientific merit of the project. Before the contract is nego-