

Since World War II, the government's large and important scientific establishment has had continuing difficulty competing with industry and the universities for the services of talented scientists and engineers. Many groups, both inside and outside the government, have studied this problem and made recommendations. A number of the recommendations have now been adopted, and the government's competitive position is consequently stronger today than at any time in the past 18 years. But, as Table 1 shows, the salaries paid to scientists and engineers at the upper levels of government career service are far below those prevailing at comparable levels in private industry. The discrepancy is even greater in the top policy positions. Ironically, the government is often in the position of reimbursing a contractor for salaries the contractor has paid to scientists and engineers that are very much higher than the salaries the government can pay its own employees. Enactment of pending legislation authorizing higher salaries at the upper levels of government service would improve the government's competitive position.

Table 1.—Comparison of top Government career salaries with those in private business for comparable work

Federal Government :		Corresponding levels in private business
GS-16	\$16,000 to \$18,000-----	\$20,000 to \$30,000
GS-17	\$18,000 to \$20,000-----	\$27,500 to \$37,500
GS-18	\$20,000 -----	\$32,500 to \$45,000

Source: The Competition for Quality, vol. 1 Federal Council for Science and Technology, 1962. (The Federal Government salaries listed here reflect upward revisions enacted since that report.)

Raising salaries is only one of several measures that must be taken if the government is to attract and retain its fair share of the nation's best scientific and engineering talent. Managers of some federal laboratories should strengthen their recruiting programs, particularly at colleges and universities. The government should also take more positive steps to provide scientists and engineers employed in federal laboratories with a wider variety of opportunities for continuing their education and developing their professional competence. These opportunities should include work in private industry, at other government establishments, and at universities, and they should be available to scientists and engineers at reasonable intervals throughout their professional careers.

Federal laboratories and agencies should also encourage their scientists and engineers to participate in activities of professional societies. The personnel of these establishments have not always had the opportunity to participate on study groups and advisory panels, and in scientific missions representing the United States. They should be called upon more than they are now, and their participation should be encouraged by their employers. They have much to contribute.

As part of its study, the Committee had case studies made for it on the utilization of scientific and engineering manpower in the development of two military systems—Titan II and the Naval Tactical Data System. The first such comprehensive studies so far made, they highlighted the superior opportunities for advanced technical study that are given to military officers, in contrast with relatively meager opportunities available for civilian employees.

11. The U.S. Civil Service Commission should take the lead in working with government departments and agencies to improve the working environment of scientists and engineers employed by the federal government. It should also help to foster improved forecasting of their future requirements for scientific and engineering personnel.

Although improved utilization of scientific and engineering manpower is primarily the responsibility of agency and departmental managers, there is need for action that will cut across departmental lines. The Civil Service Commission should assist the individual agencies in their planning of how many scientists and engineers—of what types—the government is likely to require in the future.

The Civil Service Commission should, in addition, carefully review government personnel policies to determine which ones have or can have a significant effect on the environment in which research and development is carried out in government laboratories. Where changes in such policies seem advisable, authority to make them should be promptly sought. At the same time, the commission should aid and encourage agency heads and laboratory directors fully to use all existing authority to improve working environments.