and Elizabeth M. Boswell, research assistant, written at the request of the subcommittee for its staff study on "Scientific-Technical Advice for Congress: Needs and Sources." Shad is widely known on Capitol Hill and "downtown" in the agencies as a seasoned and knowledgeable consultant and staff man in his area. His list of qualifications for recruits would probably accord closely with one that might be drawn up by legislators and their staffs, who tend to be generalists themselves and to feel most at ease with other generalists.

Recruiting of people with respectable scientific or technical backgrounds who are also sensitive to the requirements of Congress and interested in public-policy aspects of technical questions is obviously not easy. And this is proved by the difficulties of both the Library of Congress and congressional committees in recent years in recruiting technically trained staff members.

Some things have been happening, however, which may ease the problem. The recent federal pay raise is no bagatelle. The new LRS division in science and technology, for instance, has been authorized one position at the equivalent of the annual pay of the top civil service General Schedule (GS) salary of $24,500; two GS 17's at pay ranging in five increments from $21,445 to $24,445; a GS 15 at $16,460 to $21,590; a GS 11 in the $8000 to $11,000 range; and a GS 9 in the $7500 to $9500 range.

Interest in questions of science and public policy is obviously increasing in the universities and in the scientific community. At the same time, both in Congress and the Library, work in the science and policy area is being given more emphasis, and this may well serve as a recruiting incentive.

The Library of Congress reportedly has been having better luck recently in attracting applicants for science and technology jobs than it has had for several years. Both the Library and the congressional committees, incidentally, report that it is somewhat easier to find engineers than hard scientists.

Ultimately, of course, the effectiveness of the new division and its style of operation will depend on the people it employs, the direction it gets from Wenk, and the relationship it develops with Congress, particularly with the chairmen of the science committees and their staffs.

Last week the new division and Wenk were welcomed in speeches on the floor of the House and Senate by two legislators who will probably figure prominently in the division's future—Senator Clinton P. Anderson (D–N.M.), chairman of the Senate Aeronautical and Space Sciences Committee, and Congressman George P. Miller (D–Calif.), chairman of the House Science and Astronautics Committee.

This endorsement by Anderson and Miller serves to reinforce a growing impression that Congress will follow an evolutionary course in improving its apparatus for science advice, in effect ordering more of the same by continuing to strengthen the staffs of science committees, making greater use of panels of outside consultants, and requiring new service from the old LRS.—JOHN WALSH

Electron Microscopes: Duty on Foreign Models Restored by House; Action in Senate Is Uncertain

After receiving no attention for over 18 months, a bill to restore the tariff on imported electron microscopes was unexpectedly passed by the House of Representatives on 17 August.

It was another step in the on-again, off-again tariff history of these costly research instruments (*Science*, 8 Mar. 1963). Before 1961, electron microscopes were formally subject to duty. Commercial institutions purchasing foreign models always paid the tariff, but friendly congressmen frequently interceded on behalf of universities or research institutions in their districts, introducing special bills to win exemptions for particular purchases. As a result of this arrangement, both the Treasury Department and the Ways and Means Committee—the tariff-writing committee of the House—were annually confronted with a large number of bills requesting tariff exemption, each requiring separate action. In 1961, acting under the belief that the foreign imports were not competitive with domestically produced models—and on a desire to rid itself of a tiresome nuisance—the Ways and Means Committee voted that all electron microscopes imported by nonprofit institutions should be duty-free.

Subsequently, the Radio Corporation of America, the only domestic manufacturer of the class of microscopes most commonly used in research, began a campaign to have the tariff reinstated. RCA claimed that removal of the tariff had placed it in an unfavorable competitive position with foreign manufacturers, and that its sales were declining. The company also claimed that since its instruments were the equivalent of those produced abroad, the principal effect of the tariff removal had been to enable American institutions to purchase substantially identical instruments at lower foreign prices.

NIH representatives and other scientists had earlier gone on record opposing RCA's claim that the instruments were identical. No one suggested that the RCA product was inferior, but the general feeling in the scientific community appeared to be that each microscope had its own distinctive features, and that certain functions were better performed by foreign microscopes than by RCA's. Several scientists felt that since researchers would continue to seek out the foreign equipment best suited to their own needs, the tariff would simply penalize their institutions without benefiting RCA. Those opposed to the tariff also argued that the competition between foreign and domestic manufacturers of electron microscopes acted as a stimulus for both, and that this interplay would be curtailed by a protectionist tariff.

Table 1. Prices of domestic and imported electron microscopes.

Instrument	Price with duty	Price without duty	Actual dollar reduction passed along to non profit organization	Actual price reduction (in %) passed along to nonprofit organization
RCA EMU-3G (domestic)	$36,725	$36,725		
Siemens & Halske (Germany)	38,632	31,720	$6,912	17.9
Hitachi HU-11 (Japan)	36,500	31,000	5,500	15.1
Phillips EM-200 (Holland)	45,100*	41,000	4,100	9.1 †
J. O. E. L. JEM-6A (Japan)	33,247	28,402	4,845	14.6
AEI EM-6 (England)	43,000*	37,500*	5,500	12.7

* Estimated. † Phillips claims that it imports its microscopes in a partially disassembled state, therefore its instruments were subject to only 10 percent customs prior to removal of the tariff. (Source, *Congressional Record*, 13 August 1964).

RCA's position was supported by the late Representative William Green, Jr., (D–Pa.), whose Philadelphia constituency bordered on the Camden, N.J., plant where RCA production of electron microscopes is concentrated. Largely through Green's efforts, the Ways and Means Committee, in February 1963, voted to restore the tariff. Somewhat unexpectedly, the commitee's action was opposed by Representative Abner Sibal (R–Conn.), whose district is also the home of the Perkin-Elmer Corporaton. Among the activities of Perkin-Elmer is the importation for domestic sale of the Japanese electron microscope the Hitachi HU-11, and Perkin-Elmer lobbied extensively against the RCA-favored bill.

Sibal's opposition combined with the general lack of a sense of urgency to produce a long delay between the committee's approval of the bill and consideration of the bill by the whole House. In December 1963 Representative Green died and the issue was even quieter than before until it was brought up again last month by Representative William Cahill (R–N.J.), who represents Camden, and Green's son, also named William, who was elected last April to fill his father's unexpired term. After apologizing for launching his career with "a matter so uncolorful," Green said, "This bill is no more or less important than the continued production of electron microscopes in this country." The main theme of Green's remarks was that if the foreign microscopes continued to be imported duty-free by nonprofit organizations, "it will ultimately force American manufacturers of this most important scientific item to discontinue production."

The extent of the real threat to RCA, the nation's 24th largest corporation, is difficult to measure. Figures about the actual numbers of electron microscopes sold in this country appear to be regarded as commercial secrets and are not available, but the market is known to be a restricted one. In 1962, for example, (the last year for which an estimate is available from industy sources) the number of microscopes sold is estimated to have been 226 and there is no reason to think the market has expanded dramatically since then. Somewhere in the vicinity of 75 percent of all sales are thought to be to nonprofit institutions. In 1962 the largest share of the market went to Hitachi, with RCA a close second, selling an estimated 80 instruments. Electron microscopes probably accounted for somewhat less than $3 million of RCA's 1962 sales of $1.75 billion. According to RCA's congressional defenders, the corporation's sales dropped 25 percent in 1963 as its foreign competitors pressed their price advantage in attracting the nonprofit purchasers.

Just what the "price advantage" is is made obscure by the fact that RCA's price rose considerably sometime in the last year, apparently because of improvements in the instrument's design. Another complication is that since the instruments do not have identical features, their prices are not strictly comparable. Nonetheless, according to the figures supplied by Representative Cahill (see Table 1), RCA's current price is $36,725. But a year and a half ago it was listed as $29,030. If RCA was substantially underselling foreign competitors even when their instruments were not taxed, it is difficult to attribute the company's sales decline to the tariff removal alone. Even at the higher prices listed in the chart, RCA still undersells the manufacturers of two of the nontaxed imported microscopes; the other imported instruments are considerably less costly. The theory that the price tag is what governs sales of electron microscopes makes it difficult to explain, for example, why Phillips is still in business.

While there may be a few small institutions which will not be able to purchase the foreign microscopes made more costly by the tariff, the majority will undoubtedly continue to select their instruments on the basis of factors other than cost. For the most part they will be free to do so because a substantial portion of the funds used by nonprofit institutions for the purchase of electron microscopes comes, directly or indirectly, from federal grants. By passing the tariff bill, Congress would thus be committing itself to raising, perhaps by several hundred thousand dollars, the cost of the federal investment in science. If, for example, the government paid the bills for 110 microscopes imported by nonprofit institutions in 1965, at an average tariff of $5000 apiece, the added cost would be $550,000.

At the moment, the tariff bill (H.R. 2874) has an uncertain future. The bill has been referred to the Senate Finance Committee, but whether the committee will find time to consider it, in the press of end-of-the-session business, is unclear. If it does, it appears likely that the departments of State, Defense, Labor, and Health, Education, and Welfare, as well as private firms connected with importation of the foreign microscopes, will seek an opportunity to file objections. Once before, however, at the close of the 87th Congress, the bill passed the House and died in the Senate without a hearing, and there is a good chance that this will occur again.—ELINOR LANGER

Congress Plays Geography: PHS Health Center Delayed Again as Maryland Site Is Firmly Excluded

Slowly, and with a certain originality, the Congress is inching its way toward the solution of the troublesome problem of where to locate the proposed Environmental Health Center.

This year the House Appropriations Committee disallowed the request of the Public Health Service for $1.5 million for planning, complaining that 4 years after its first request the PHS was still "not able to tell the Committee where the facility or facilities would be located," and that "the Committee was presented with a considerable amount of confused and indecisive information." The Senate Appropriations Committee was more benevolent, and voted to restore the funds, a decision narrowly sustained by the Senate vote of 40 to 35.

The Senate was partly influenced by Robert Byrd (D–W.Va.), floor manager of the bill, who after several years as the chief antagonist of the PHS's view that the Center had to be located in the Washington area, suddenly withdrew his opposition. Byrd said he had come to feel that further delay in building the facility would be detrimental to the health of the American people.

Byrd's decision, which meant, in effect, his acceptance of the Beltsville, Maryland, site that the PHS has been pushing, was of little use. Last week, in the House-Senate conference to adjust differences between the two appropriations bills, the House conferees agreed to restore part of the funds ($1 million), but with the stipulation that the Center be located outside a 50-mile radius centering on Washington. This excludes Beltsville, a Washington satellite, although it puts Senator Byrd's favorite site—Martinsburg, West Virginia—back in the race.

It thus appears that the PHS will have another year in which to agonize, and that the competition—which includes energetic pressure from representatives of West Virginia, Ohio, and North Carolina and only slightly less