NOMINATION

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COMMITTEE ON LABOR AND PUBLIC WELFARE UNITED STATES SENATE

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SECOND SESSION

ON

DR. JEROME B. WIESNER TO BE DIRECTOR, OFFICE OF SCIENCE AND TECHNOLOGY

JULY 17, 1962

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NOMINATION OF DR. JEROME B. WIESNER

TUESDAY, JULY 17, 1962

U.S. SENATE,
COMMITTEE ON LABOR AND PUBLIC WELFARE,
Washington, D.C.

The committee met, pursuant to notice, at 10:30 a.m., in room 4232, New Senate Office Building, Senator Lister Hill, chairman, presiding.

Present: Senators Hill, chairman (presiding), Morse, Yarborough, Clark, Randolph, Williams of New Jersey, Burdick, Smith of Massachusetts, Pell, Javits, and Tower.

Committee staff members present: John S. Forsythe, general counsel; Robert W. Barclay, professional staff member; Michael J. Bernstein, minority counsel; and Raymond D. Hurley, minority associate counsel.

The CHAIRMAN. The committee will kindly come to order.

Senator Smith, we are happy to have you here as a member of the committee this morning. We will be glad to hear from you and to have you present the witness to us.

STATEMENT OF HON. BENJAMIN A. SMITH II, A U.S. SENATOR FROM THE STATE OF MASSACHUSETTS

Senator SMITH. Thank you, Mr. Chairman and members of the committee. It is a distinct privilege I have this morning to present to the committee Dr. Jerome B. Wiesner, for confirmation to the new office of Director of the Office of Science and Technology.

Dr. Wiesner is one of my constituents in Massachusetts, a man of whom we are very proud, an able scientist, and a man who has been working with the President here in this administration during the last year and a half. I am sure that he brings to this position a great wealth of ability. I wish that more scientific people of his caliber would come into the Government service.

I am very happy to present him to you, Mr. Chairman and members of the committee, this morning.

The CHAIRMAN. Thank you. We appreciate that statement very much. Dr. Wiesner, will you tell us just what is the nature of the new office that has been created by the President, and then add anything that you might wish?

STATEMENT OF DR. JEROME B. WIESNER, NOMINEE TO BE DIRECTOR, OFFICE OF SCIENCE AND TECHNOLOGY

Dr. WIESNER. Mr. Chairman and members of the committee, the office for which I have been nominated was created as a successor to the previous office, and represents a step in the evolution of the development of governmental scientific activities, an evolution begun by the creation of the position of Special Assistant for Science and Technology in the White House. That position, which I am sure you are all aware, was created in 1957 when the Nation became aware of the fact that we had to accelerate our scientific and technical programs and to improve and increase the technical education activities in the country.

The initial efforts of the Office of the Special Assistant for Science and Technology were devoted largely to the problem of providing policy assistance to the President; to provide guidance in areas in which technology impinged on national policy. However, slowly through the years, as the office matured, it was recognized that a need existed for an evaluation and coordination of responsibility for science in the Government. Slowly the Office of the Special Assistant has assumed responsibility for this activity as well.

There have come to be two quite distinct scientific activities carried out in the White House both by my predecessors and my group.

One of these is of a confidential nature, that is, giving policy assistance to the President when scientific matters are involved.

The second is of a general surveillance and evaluation nature to provide some overall coordination and judgment concerning the very large and rapidly growing scientific programs in the Government.

About 2 years ago a subcommittee of the Senate Committee on Government Operations, headed by Senator Jackson, made a study of the management aspects of the research and development activities of the Federal Government and concluded that there was a rather serious need for more intensive and extensive coordination to avoid overlap and duplication. He also saw needs in the training of scientists and engineers and so on. As a result of his study, the subcommittee recommended that the group that I now head carry out this task in a more thorough fashion.

He, also, felt that there would be a considerable advantage in having the group that provided such evaluation and coordination accessible to the Congress, and that this was possible for such information was not of the same confidential nature to the President as giving policy assistance and advice on security matters. Consequently he recommended that a permanent Office of Science and Technology be set up to do this in the Executive Office of the President, rather than in the White House itself.

These recommendations were made at approximately the same time that I became the President's Special Assistant for Science and Technology. These proposals and others were studied by the Science Advisory Committee and discussed with the President and members of the White House staff. During this session we submitted to the Congress the Reorganization Act creating the new office. Early in July we transferred to the new office the entire staff that had been in the

White House. I have been Acting Director and will become the Director if you confirm me.

I will have a deputy who has not yet been chosen.

As to my qualifications I have been working as a scientist and engineer since 1937–38, when I graduated from the University of Michigan, where I studied mathematics, electrical engineering, and physics.

My principal activities have been in electronics and the communications field. About one-third of my activities during my active professional life have been associated with military technology problems. I worked at the Massachusetts Institute of Technology Radiation Laboratory during the war on radar developments. Following that I worked at Los Alamos Laboratory on nuclear weapon development. Subsequent to that I worked on air defense problems. I was also a member of the so-called Van Neumann Committee that started the ballistic missile development program in this country.

My own research has been in the field of communications systems, and computer applications in that field.

I have been on the staff of MIT since 1942 except for excursions from MIT for the Government work primarily here in Washington.

I taught at MIT during most of that period. For a period of time I was also head of the Department of Electrical Engineering. For the past decade I was also director of the Research Laboratory for Electronics at MIT.

I am now open for questions.

The CHAIRMAN. Without objection, we will place your biographical sketch in the record at this point.

(The biographical sketch follows:)

BIOGRAPHICAL SKETCH OF DR. JEROME B. WIESNER

Dr. Jerome B. Wiesner, the President's Special Assistant for Science and Technology, was born in Detroit, Mich., on May 30, 1915. He is married to the former Laya L. Wainger, and they have four children, three boys and one girl.

Dr. Wiesner received his B.S. in electrical engineering from the University of Michigan at Ann Arbor in 1937; his M.S. in 1938; and his Ph. D. in 1950.

Upon graduation from the University of Michigan, Dr. Wiesner joined the staff there and remained in Ann Arbor for 2 years. In 1940 he was appointed Chief Engineer of the Library of Congress in Washington, D.C., and while there he developed the recording and acoustical laboratory and did some record preservation work. In 1942 he joined the staff of the Massachusetts Institute of Technology, Cambridge, Mass., where he stayed until 1945 when he went to work at Los Alamos, N. Mex., with the University of California's Los Alamos Laboratory. In 1946 Dr. Wiesner returned to MIT and in 1952 he became director of its Research Laboratory of Electronics. In January 1961 President Kennedy appointed Dr. Wiesner his Special Assistant for Science and Technology. Dr. Wiesner also serves as the Chairman of the President's Science Advisory Committee and of the Federal Council for Science and Technology.

Dr. Wiesner has done research on scatter communications techniques and radar problems. While at MIT he assisted in the establishment of the Lincoln Laboratory which worked on development of the radar, computer, and communications systems for the continental air defense system. Prior to coming to Washington as special assistant, he served on numerous advisory committees to the Department of Defense and the White House on scientific and technical matters. In 1958 he was staff director of the Conference of Experts on Methods of Preventing Surprise Attack which met in Geneva, Switzerland. He is a member of various technical societies such as the Institute of Radio Engineers, the American Academy of Arts and Sciences, the National Academy of Sciences, the Acoustical Society of America, etc. Dr. Wiesner has published numerous technical papers in the Journal of Applied Physics, Scientific American, Proceedings of the Institute of Radio Engineers, Science, Physical Review, etc. He has been

awarded honorary degrees from the Polytechnic Institute of Brooklyn (1961), the Lowell Technological Institute (1962), and the University of Michigan (1962).

The CHAIRMAN. Are there any questions?

Senator CLARK. I share Senator Smith's high regard for the nominee. I think the Government of the United States is most fortunate in Dr. Wiesner being willing not only to continue with his confidential guidance job to the President but, also, to take on this job.

I would like to get your views on a policy matter with which you will have to cope. I am referring to the impact of government research and development contracts on the enonomic life of various communities in the United States. It seems to me to be quite significant. The location of the research and development activities in various parts of the country is of keen interest to communities anxious to seek and acquire new industries and new jobs, and to the universities desirous of obtaining additional research grants from the Federal Government. Because most research and development work initially went to Cambridge, Mass., and to California, it has tended to give those two areas the lion's share of the research and development grants. You will be the coordinator of many of those contracts from now on, although there are, of course, many which will continue to be administered by the National Science Foundation.

We are making strenuous efforts to get additional research contracts in Pennsylvania. So is the State of Michigan, and so are several other States.

Our argument must be that it is wise to diffuse to a substantially greater extent then at present the geographical distribution of these different scientific activities. It may well be that in making our application for greater research grants we will not be able to show, in the first instance, that we are as fully equipped with top-flight scientific and research people as institutions that already have the experience in dealing with these contracts. Nevertheless, some us feel that in terms of long-range public policy it will be wise not to conduct these activities so as to be unduly concentrated in any particular area.

I wonder if you would comment on that problem.

Dr. WIESNER. You have touched upon one aspect of the problem that we have been concerned about, and that is the issue of the technological growth of the Nation, the fact that our economic growth and development is linked and will be increasingly linked to the technical innovations of research and development, so that we must be concerned about the concentration of such technical resources. To put it conversely, I would say that one really has to be concerned about the technically underdeveloped areas of the country. I do think that we must take some rather specific steps in some parts of the country to do something about this.

Some of the Government agencies have taken this problem into account when they have made decisions concerning the location of new research and development facilities. We can do this even more. And we should do it even more.

I and my advisers have spent much time studying this problem. We have become firmly convinced that the growth of technical industry in an area requires the existence of adequate academic facilities. It is very difficult to maintain or build technical competence in an

area that does not have a good scientific educational base. And so while I think the Federal Government can do its part in attempting to diffuse the development and research resources, I think that the local communities have a very important responsibility to create the proper kind of scientific and academic environment. Many parts of the country have undertaken to do this.

The Federal Government can help by its granting procedures. However, we have to be very careful in the use of this technique. I think it would be a serious mistake for the Federal institutions that make the grants for research and development to weigh too heavily considerations other than technical competence. I think that we might want to provide additional funds, supplementary funds, for area development, but I think that if a large proportion of the resources of the Nation to be spent on research and development and engineering were allocated on a basis other than the qualification of the institutions and the industries to do the best possible job, we would risk having serious deterioration in our work.

So what I would suggest is that in the field of research and the field of scientific education we consider the special provision of additional resources for these development problems, rather than to try to change the basis on which research activities are allotted.

Senator CLARK. I would like to make one more statement and ask you to comment on it. It occurs to me that this is like the question of which came first, the chicken or the egg. There are a couple of institutions where there is great emphasis on research and development in certain fields. Naturally, they try to become perfectionists in those areas, and people seek appointment in those institutions where that exists. The end result is to make it even more difficult for the third, fourth, and fifth centers of learning to acquire the required excellence and ability. And I take it that you agree that in these fields that is in short supply and will, probably, be in short supply for the foreseeable future.

This poses a dilemma as to whether we are going to concentrate on the existing areas of excellence, even though there may be other possibilities. Perhaps I am exaggerating, but for the present purposes let us assume that California and Massachusetts have a near monopoly of technical knowledge in certain fields. Is it not a legitimate goal of prime national policy to spread this technical knowledge about among the people?

Dr. WIESNER. I think that, first of all, there are some very good areas.

There are also some areas of the country that used to be outstanding; for example, the Midwest where I came from. I think there has been a scientific decline there during the past decade or two, because of too large a concentration on the consumer goods industry. I know, for example, of a Midwest college that produced 150 Ph. D.'s during the last decade in a specialized field and only one of them remained in the Midwest, probably because there were few research opportunities in the area as challenging as those on the west and east coasts. It is a very real problem. I think it is a problem that the Federal Government should help to correct. I am confident that we will try. However, it does require very active support and participation of the local groups. I would call your attention to what has recently

been done in Texas where the initiative came initially from the citizens who recognized the need for academic facilities and provided them.

Senator CLARK. Thank you.

The CHAIRMAN. Are there any further questions?

Senator JAVITS. Dr. Wiesner, I am delighted to have you here, and to say that your qualifications for the task for which you have been nominated have been well covered, and I have no doubt that the Senate will confirm you and I will cheerfully join in this action.

I did want to ask about the much bruited argument about whether we are graduating enough engineers. That is a curbstone opinion, I know. I trust that you will explain it for us. In a great many of the things we do in the field of education, scholarships versus loans in which we are engaged in conference on the higher education bill, and in many other matters the general idea is inherent in everything we do that we are not graduating enough engineers—we are not giving enough of our meritorious young people the opportunity for professional training in these hard, cold war times. And I was wondering if you did have any general views—I know that they cannot be pointed specifically at a particular degree, at doctorates or anything like that, but anything that you could tell us I think would be helpful in setting the general tone on this subject.

Dr. WIESNER. I left a meeting of the President's Science Advisory Committee to meet with you. There was a very heated discussion on just this subject. We have had a panel working for the last several months, trying to understand this situation. There is no simple answer to this question because we are trying to predict the future. Also the problems are not the same in all fields: that is, in the field of medicine, the field of physics, the field of mathematics, and in the field of engineering. And the problems—and the answers—are somewhat different.

A related question is whether we are using our manpower effectively. Sixty or seventy percent of the technical people in this country work for the Government, directly or indirectly, and the efficiency and the effectiveness with which we use these people make a very great difference.

I can make some general comments which I might not like to be confronted with several months from now, for we are still trying to understand the problem.

At the moment our general feeling is that there is no shortage of scientific manpower or at least no large and general shortage. There is a very great shortage of the more highly trained people, people with advanced degrees.

Therefore we believe that the Nation must make a major effort to increase the percentage of students who study for advanced degrees. We also see serious problems, though, in maintaining the growth in the technical fields, for we must almost double the number of working scientists and engineers in the decade if we want to continue our past rate of growth. These numbers have doubled each 12 years for the past 40 or 50 years, but doubling was not so difficult when the numbers were small. I believe that the Federal Government will have to help in a large way, particularly in increasing the quality, that is, in increasing the number of college-trained people with ad-

vanced degrees. But I would not want to make specific recommendations on this, because we are still in the middle of our studies.

Senator JAVITS. In the order of magnitude, say that we double the number of our personnel in the next 12 years, what is the order of magnitude—what is it now and what will it be?

Dr. WIESNER. When I said that we would have to double it, I make the assumption that we want to continue the present rate of growth in our economy in the next decade. The number of scientists and engineers together today is something over 1 million, so we will need to go to 2 million. I think that we ought to recognize that the quality of the labor force is increasing at every level. As a matter of fact, the Bureau of Labor Statistics figures show that our greatest unemployment is in the totally unskilled labor force. We should look forward with a great deal of enthusiasm to increasing the quality of the work force.

Senator JAVITS. Do you have any ideas as to incentives which could be given, perhaps of a nonacademic character? For example, we hear so much about the fact that in the Soviet Union a scientist gets the Order of Lenin, that he gets a dacha and he might get a car, when nobody else gets one, that he gets preferred tickets to the opera. Is there anything that we can do like that in our country; for example, to be very practical about it, I have a bill pending before another committee to give a civilian award, a medal—is there anything like that, that we can do—give a tax-free amount up to $10,000, which is a British custom, which has been going on for a century—I am not saying that we should do that—but what is the extent we could go to add something? It struck me that we must find ways and means of adding other things, whether it is in the higher reaches of science and technology, or in the general run of sciences and technologies that we have today.

Dr. WIESNER. First of all, I think that most American scientists would feel that it should not take special bribes to get people into the field, but I do think that there are many things that we can do.

First of all, as some of you are aware, I feel that one of the most serious problems that the Nation faces is in our ability to attract scientists and engineers into government. I spent a considerable amount of time trying to persuade people to come into Government employment. We have, probably, a half dozen high-level technical positions in government unfilled today. In some cases I have talked to dozens of people to attempt to fill them. This is a very serious matter, because, as I said before, the Federal Government is responsible to a very large extent for the scientific activities of the country.

Unless we can have in our Government, in our laboratories and in the administration of research, people of outstanding caliber, people who are as good as the people they are trying to supervise, we cannot and will not make effective use of our resources.

Here, I think that pay is the primary problem. The Federal pay scale has not kept pace with the industrial scale. I am told by my legal friends that a similar problem exists in attracting lawyers into the Federal Government.

While I think that we have to be concerned about how to attract people into the field of science, by methods such as you have proposed, through recognition by scholarships and awards, I think that we should provide similar incentives for nontechnical people, too.

Senator JAVITS. Could you give us an order of magnitude—what is the order of magnitude in salary necessary to attract them?

Dr. WIESNER. It is really hard to say; the President's prepared pay legislation was an attempt to meet the need. Studies made by the Bureau of Labor Statistics, the Science Foundation, and other groups show that to put the Federal pay scale on the same basis as a selected group of large industries, would necessitate having the top research directors, the laboratory directors, and other equivalent scientific people in government, making a top salary of about $35,000. There are now a few people who make $21,000. For most, the top is $19,000. This would require a big step. Incidentally, the Government is competing with institutions that it largely finances.

Senator JAVITS. May I ask one other question?

The CHAIRMAN. Yes.

Senator JAVITS. One of our colleagues had a proposition on which he did not get many votes, but he was interested in having appointed a special commission for space techniques, connected with the space appropriation, which would deal with the proper husbanding of scientific manpower to see that it was properly distributed, that one company did not raid another or that one Government agency did not raid another Government agency, and so on. Do you have any comments whatever upon any difficulty in that field? For example, the most obvious question would be the losing of a top-level scientific brain abroad to the newly prosperous European Economic Community. Are we in other ways not adequately looking after the husbanding of manpower that we do have in this country?

Dr. WIESNER. First, to answer your question about the loss abroad, I think, that the movement of technical manpower is still in our direction.

Senator JAVITS. It is in this direction?

Dr. WIESNER. It is in this direction, yes. As a matter of fact, the European countries are quite concerned about the amount of recruiting that has been done by American industry abroad.

There is a need to reduce—I do not want to call them abuses—a certain amount of motion in that connection. It is my own impression that the people change jobs more frequently than is desirable from the point of view of a productive career.

The National Academy of Sciences is planning to study the question of the use of technical manpower. They believe that this is a very serious problem. It involves many policies related to the question you raised earlier regarding Federal policies and procedures. I do think it is a field in which we will have to be extremely careful. There is a reluctance to impose too much direction in the areas where there is Government financing of the work. However, there appears to be many opportunities to increase the effectiveness and productivity of our technical manpower resources.

Senator JAVITS. Thank you.

The CHAIRMAN. Are there any other questions?

Senator TOWER. I would like to know what your opinion is of the proposition that there should be a Department of Science of Cabinet status.

Dr. WIESNER. I really am of two minds regarding a Department of Science. I think that some of the proponents of a Department of Science feel that a Department of Science would provide coordination, that is, a pulling together of the scientific program of the Government and an avoidance of duplication. I do not believe that complete coordination is possible, because we have a number of government departments with unique missions engaged in research. If we took the research and development out of the agencies they would not be able to carry forward their job. On the other hand, there are a number of independent activities in the Federal Government which are located where they are only for historical reasons.

It might be that a collective, what you might call a department of science, would make them more effective. On the other hand, this would be true of only a small part of the total Federal research and development effort.

Furthermore, if you made the head of such an agency a member of the Cabinet you would still not have solved the evaluation and coordination problem because anyone who had the responsibility for the department of science would be in competition with all of the other departments that had scientific programs, particularly for funds; and he could not very well provide objective advice to the President regarding the relative quality of his own programs. While I think there is some justification for the proposition that we bring related activities together, I would be very much against putting them all in one agency. Nor am I at all certain that it would make any substantial improvement in our management of the scientific programs to have the head of that department a member of the Cabinet.

Senator TOWER. Is there not the fact that the establishment of such, in it there is some fear that it would be arbitrary and not scientific?

Dr. WIESNER. I think you can find every conceivable viewpoint among scientists. I know people who believe there should be a Department of Science. There are other people who feel as I do that it would have a limited use. There are also people who are much opposed to it. Also, there has been a proposal that there should be a Cabinet officer without portfolio.

My own view of the problem is that we should try to get the very best people into the agencies to have more unusually able people. That is what we need more than anything else, and if we succeed in finding them, many problems we are now worried about will disappear.

Senator TOWER. What would be your idea about the possibility of creating a Science Advisory Commission, made up of representatives of scientific institutions, that would advise the Members of Congress and its appropriate committees on scientific matters?

Dr. WIESNER. I do think that Congress could profit from some additional advice on technical problems. As you know, during the last year the National Academy of Sciences has set up a Committee for Governmental Relations and one of their principal motivations was to provide the kind of assistance you are talking about.

I do not know whether there should be a single advisory committee to the Congress, or whether the various independent congressional committees should have advisory committees of their own, but I do

think that Congress could use help in its effort to evaluate scientific programs and to secure a proper perspective on them.

This problem is complicated by the many committees of Congress, much the same problem as in the executive branch. This is because scientific programs are a relatively new development but the departments have existed for a long time. Similarly we often find many committees of Congress concerned with a single field of science. You may have to do a similar coordinating of the problem here in the Congress. I think an advisory committee could help you on this problem.

Senator TOWER. May I go to another subject? As to nuclear testing, do we have devices that adequately show arrangements about these tests that they should be curtailed?

Dr. WIESNER. Senator Tower, I do not want to talk about that subject for it is one on which I am a confidential adviser to the Preseident.

Senator TOWER. Would your office be advising those who are engaged in atomic research in any way?

Dr. WIESNER. My office will probably advise the President on the technical aspects of some of these matters. We have in the past.

Senator TOWER. What is your thinking about disarmament—we should freeze armaments at the present levels, is that a relatively bad or good position?

Dr. WIESNER. If we could freeze them and then provide adequate verification procedures so that we would know that they were frozen, I believe it would be to our advantage. This is a technical problem that we must face in detail when we talk about it. That is, how can we ascertain that agreements are being honored?

Senator TOWER. Thank you, Dr. Wiesner.

The CHAIRMAN. Are there any further qeustions?

Senator PELL. I would like to follow up, with one further question, the question by Senator Javits concerning the problem of getting more people into the engineering profession. A survey was conducted for me by the U.S. Naval Underwater Ordnance Station in Newport, and many of the engineers who participated in the survey said they would not advise their children to go into the engineering profession, since they felt that there was insufficient social status in being an engineer, And one recommendation that was made was that engineers should be licensed the same way as doctors or lawyers.

I was wondering what your view is on that proposition.

Dr. WIESNER. Well, I do not think that you can achieve social status by licensing. I think there is a general feeling among engineers that the social status and the recognition of the importance of an engineer has decreased. I think part of the reason—well, it is real. It stems in part from the fact that there has been an increasing participation by scientists in the more advanced work that was formerly the work of engineers. It also is due to the nature of some engineering education. It has often been difficult for engineers to evolve as rapidly as their fields change.

Thirty or forty or fifty years ago a man who entered the engineering program was in a field that did not change very rapidly. During World War II the situation changed. And we have come into a situation where there is constant change. This means that a man must

keep on learning to keep abreast; this is necessary to a greater degree than it was previously.

Most good engineering schools have recognized this and have made many changes in their curriculum.

I think part of the problem is semantic. It is commonly believed that all technical accomplishments nowadays are the work of scientists. I think it is the whole cultural attitude that has created the problem you are talking about.

Senator PELL. How would you recommend that the curriculum be changed?

Dr. WIESNER. I think working on the educational problem that I have mentioned probably is the most important thing to do.

Senator PELL. Would you support the concept of licensing?

Dr. WIESNER. I think that you might want to license engineers in certain fields for other reasons. In my own opinion, I do not believe you will add any prestige or improve the social status of engineering by licensing people—quite the contrary. In certain fields there is a need for licensing.

Senator PELL. Thank you very much.

The CHAIRMAN. Let me ask you this: Have you worked out the organization which you expect to have; for example, with respect to how many deputies you might have?

Dr. WIESNER. The Reorganization Act specifies that there will be one Deputy Director to be confirmed by the Senate, so you will have an opportunity to meet him when I identify him.

We are going to transfer the organization that was built up in the White House to the new office. We have a staff of about 25 people. And we plan to add to the group, so that there might be 35 people in a year. I expect that it will stay reasonably close to that level. It is not our proposal to build up a very large staff. We will pay considerably more attention to the coordination functions I have talked about than in the past. We have already identified a number of areas in which we expect to work.

The CHAIRMAN. Have you someone particularly qualified in the field of biological medicine?

Dr. WIESNER. Yes. Let me explain this structure that has existed and some of which will continue to exist.

First of all, as you know, there is the President's Science Advisory Committee which has 18 distinguished scientists in it. There are 4 men in the biological or life sciences on that committee—that is, of the 18.

I have on my staff 12 technical scientific staff members. Two of those people are medical scientists and work with the National Institutes of Health and other agencies in the field.

Then we have an intergovernmental coordinating committee called the Federal Council on Science and Technology, which includes representatives of Health, Education, and Welfare, and Agriculture, and other organizations. The composition of the group tends to reflect the national problems. In the past the emphasis had not been in the life sciences, but we have begun to pay increased attention to them.

The CHAIRMAN. Would you have specialists represented in your organization?

Dr. WIESNER. I do not intend to have specialists in all possible fields, but I will draw very heavily on consultants from the Government, from the universities, and from industry. We have about 250 consultants available to us. And among these consultants we have people who are knowledgable in most fields of interest.

The CHAIRMAN. Are there any other questions, gentlemen?

Senator MORSE. I should like to give my reaction to your nomination, Dr. Wiesner, because it is very much the same as the reaction of my present administrative assistant, who says that you are one of the most able, dedicated public servants that he knows of.

I also have that feeling. We are very fortunate that you are willing to make this sacrifice for your country. I want to express my congratulations to the President upon this appointment, and extend my thanks to you for taking it. It is a very important public service. The country will be greatly indebted to you. That is my reaction to your nomination.

Dr. WIESNER. Thank you. I do not regard it as a sacrifice. You may all recall that Dean Acheson once wrote in the New York Times magazine section, an article in which he discussed the rewards of public service and in which he stated that anyone who has had important public service found the rewards of any other activity inadequate. I think that is why I serve and why you serve.

Senator MORSE. That is a wonderful comment. It explains my reason for commending you for undertaking this assignment.

The CHAIRMAN. Are there any further questions? If not, Dr. Wiesner, we certainly want to thank you for your appearance here this morning and for the very enlightening statements you have made in answer to the questions we have put. We deeply appreciate it. Thank you very, very much.

The committee will now go into executive session.

(Whereupon, at 11:25 a.m., the committee proceeded into executive session.)