urban renewal program administered by the Department of Housing and Urban Development, is an attempt to alleviate the overwhelming problems of the overgrown cities. The objective is a most important one, but, in general, the means used are the tearing out of slums and their replacement with new construction. The government is becoming the new slum landlord.

Worthwhile experiments in the building of new cities are being made by private enterprise. Examples are Columbia, Maryland; Disneyworld's experimental prototype city in Florida; and Westinghouse's community proving ground in Florida. More than 200 "new cities" are either in the design stage or are under construction in the United States.

Some of the new towns are being built exclusively for the "senior citizen." In this country we are working hard at the problem of integrating people of different races, yet we segregate people of different ages. We must integrate people of all ages, income levels, and interests, to achieve the total mixture which makes up the stimulating society of a city.

These government-financed and privately financed "new cities" are similar to the Minnesota Experimental City in one respect: they are built from scratch. On the other hand they are, in the best meaning of the term, real estate developments, and consequently they tend to be satellites of existing urban complexes—communities where people live and from which they commute to work. That this is the case may be seen from the fact that almost all of the "new cities" are growing along the coastlines — East, West, and Gulf — where the overgrown cities already are. Generally their size is not controlled, and one can anticipate that even the best of them, such as Reston (Virginia) and Columbia, will be swallowed up as the nearby urban complexes—in this case Washington and Baltimore—expand. Because they do not have sufficient reserved open land around them, even the best of the "new cities" will become engulfed; moreover, since they are close to existing huge cities, they cannot develop with enough independence to try novel technologies.

## Conclusion

It is obvious to me that we must use all of our land for living, not just tiny fractions of it. To do this we must look at solutions that envisage urban dispersal, and if we are to disperse into new planned cities, a national experimental cities program is an urgent must.

### References and Notes


1. "Waste Management and Control: A Report to the Federal Council for Science and Technology," *Nat. Acad. Sci.–Nat. Res. Council Pub. 1400* (1966), p. 26; *Science* **152**, 329 (1966).


2. I am most grateful for the support that I found in Minnesota, particularly from Mr. Otto Silha, who worked on organizing and financing the Experimental City from the outset.


**NEWS AND COMMENT**

# NIH: Heightened Concern about Choosing Shannon's Successor

Anxiety over the appointment of a new director at NIH has mounted sharply in the wake of the White House announcement on 25 January that John W. Gardner was resigning as Secretary of Health, Education and Welfare (HEW). Leaders of the National Institutes of Health have confidence in Gardner's ability to exert a constructive influence on the choice of a successor to James A. Shannon who retires on 1 September. They fear for the future of NIH if the new director is not appointed before Gardner leaves office in 2 weeks.

Gardner makes it perfectly clear that he is very interested in the choice of a successor to Shannon. In an interview with *Science* on 6 February, he emphasized his feeling that "NIH is a distinguished research organization; it is just essential that this distinction be kept." Gardner adds that "It is immensely difficult to mount a distinguished research organization from a government base. . . . There have been few successful examples in the past 25 years and a very large number of failures."

But what Gardner does not feel he can do at this time is to give assurance that a new NIH director will be selected before he leaves HEW. After all, Gardner does not have the final say in this matter; this power lies at the White House. At this moment, the President is understandably preoccupied with an ever-expanding military conflict in Asia. Also, it is believed that the President's annual health message and the long-delayed unveiling of the reorganization of health services in HEW will be announced before a new NIH director will receive official appointment.

Last summer, Gardner convened an informal advisory committee to advise him on the future of NIH. (Committees are often assembled in government by officials who want to insure that their own values are not ignored in the formulation of major decisions.) After asking the group to discuss the mission of the organization, he also asked them to comment on each individual who was being seriously considered as the new director. Members of the distinguished committee, many of whom are oriented toward basic research, include the presidents of the National Academy of Sciences, the Carnegie Institution of Washington, the University of Chicago, Yale, the provost of M.I.T., and the deans of the medical schools at Stanford and Duke Universities. Clearly, the hope in HEW is that prospective candidates for the directorship of NIH will be cleared through this committee, even when Gardner is no longer around to submit names to the group.*

*The members of the HEW Secretary's advisory group on NIH are: W. G. Anlyan, Dean, School of Medicine, Duke University; George Beadle, President, University of Chicago; Kingman Brewster, Jr., President, Yale University; Robert J. Glaser, Dean, School of Medicine, Stanford University; Sidney Farber, Director of Research at The Children's Cancer Research Foundation in Boston; Caryl P. Haskins, President, Carnegie Institution of Washington; Charles A. Le Maistre, Vice-Chancellor for Health Affairs, The University of Texas; Walsh McDermott, Cornell University Medical College; Don K. Price, Dean of the John F. Kennedy School of Government at Harvard University; Henry W. Riecken, Vice-President, Social Science Research Council; Frederick Seitz, President, National Academy of Sciences; Donald W. Seldin, Southwestern Medical School at Dallas; Wendell Stanley, Director, Virus Laboratory, University of California at Berkeley; Cornelius H. Traeger, New York City; Jerome B. Wiesner, Provost, Massachusetts Institute of Technology.

# NEWS IN BRIEF

● **BEHAVIORAL SCIENCES DATA:** The National Academy of Sciences Committee on Information in the Behavioral Sciences has proposed a computerized information system to streamline the data-gathering processes in the behavioral sciences. In its report, the committee recommends a time-shared system which "would read widely, have total recall, evaluate . . . reorganize materials, recognize fruitful analogies, and synthesize new ideas." The report also advocates the establishment of a decentralized national network of data banks containing basic statistical information on domestic and foreign populations, and a federal data service center to assure a coordinated government statistical output. The report opposes the creation of a single national data center that would centralize all social information, advocating instead a decentralized network of data banks "geographically organized in state and local government data collections, and topically or substantively organized in private or academic research repositories." Also suggested is the adoption of all necessary technical and legal safeguards so that data centers will not constitute a threat to individual privacy. David Easton, University of Chicago, headed the committee that prepared the report, *Communications Systems and Resources in the Behavioral Sciences.* Copies, at $2.50 each, are available from the Printing and Publishing Office, NAS–NRC, 2101 Constitution Ave., NW, Washington, D.C.

● **NEW PUBLICATIONS:** Transcripts are now available of several hearings on research and technology that were held during the last congressional session. The Senate Subcommittee on Government Research of the Committee on Government Operations has parts two and three of hearings on Senate Resolution 110, the Equitable Distribution of R & D Funds by Government Agencies, and parts two and three of hearings on S. 836, the proposed National Social Sciences Foundation. Parts one of both hearings were issued earlier and are no longer available. The Subcommittee on Government Research may be contacted in the Old Senate Office Building, Washington, D.C.

The House Subcommittee on Science, Research, and Development of the Committee on Science and Astronautics has copies of a Technology Assessment Seminar that was conducted by the committee. The committee is located in the Rayburn House Office Building, Washington, D.C. There is no charge for any of the publications.

● **M.I.T. DRAFT STAND:** The faculty at the Massachusetts Institute of Technology has endorsed a resolution against giving preferential draft treatment to students in the sciences and engineering. The resolution which was sent to President Johnson recommended that "all graduate students be treated equally without limitation or preference as to their particular disciplines or fields of study."

● **NATIONAL SCIENCE BOARD:** The Association of State Colleges and Universities has asked President Johnson to consider appointing "a qualified person" from its member institutions to the National Science Board. The request followed a resolution passed at the association's annual meeting in November. National Science Foundation officials said the request was the first direct petition ever submitted on behalf of an organization for representation on the 24-member board, NSF's highest level advisory board. The resolution stated, in part, that the institutions represented by the association enroll 1.3 million students, "are the fastest-growing degree granting colleges and universities in the United States . . . but which in fiscal 1966, received only three percent of the funds made available by the National Science Foundation . . . [and] no administrators or faculty members from within this major group of institutions are members of the National Science Board."

● **PHYSICS INFORMATION SYSTEM:** The National Science Foundation has granted $239,000 to the American Institute of Physics for the initial phase of a long-term project to develop a national information system in physics and astronomy. The project will consist of studies and analyses of elements of physics information, comparative studies of retrieval schemes for seeking and producing material from computers, and development of systems which will enable the information program to operate on a national basis.

In the world of biomedical research, the activities of NIH are so important that there is always apt to be concern about the appointment of a director. The increased worry since the announcement of Gardner's departure can, in simplified terms, be summed up in a name which is mentioned frequently by federal health officials—Mary Lasker. These officials like "Mary" and give her great credit for encouragement of health research, but they also fear that her view of the future of NIH is not that of the scientist. "She has the layman's natural desire for quick practical results and applications," one noted. They also think she has a tendency to throw her influence around.

Mary Lasker is no ordinary philanthropist. She has charm, persistence, and access to the highest political officials in Washington, including President Johnson.

At a lunch for Administration "intellectuals" on 18 May of last year, President Johnson told Gardner that he had a good candidate for the directorship of NIH—surgeon Michael E. De Bakey of Baylor University in Houston. Gardner is said to have been cool to the idea, and later conveyed his reservations to the President. De Bakey, who apparently did nothing to initiate such a proposal, is said to have been suggested for the position by Mary Lasker. Almost any candidate backed by Mrs. Lasker would probably be suspect by federal health officials and by many scientists, if only because it would be assumed that her candidates shared her concern for quick practical applications.

After Gardner's departure, it is feared that Mrs. Lasker will be better able to convince the President to "draft" De Bakey for the directorship. Even if De Bakey is eliminated from consideration or doesn't want the job, "Mary has a stable of other candidates," one NIH official lamented.

How much progress has been made in picking a successor to Shannon? According to Gardner, "We're coming into the home stretch; we're down to three or four names."

In an interview with *Science* last week, William H. Stewart, the Surgeon General, said that he collected a list of about 100 possibilities last year. From this list, he eliminated most of the older men and most of those who didn't have an M.D. He reduced the number to 12 or 15 names, and interviewed all these men. In November, he submitted the

names of four candidates, ranked in order of priority, to Secretary Gardner. All these men are physicians and are in the 45–55 age group, Stewart said. (Michael De Bakey is 59.) Stewart said that Gardner added one name to this list—a candidate whom he found perfectly acceptable. Gardner has interviewed several prospects but says that so far "I haven't made an offer to anyone."

One of the most intensively supported candidates inside NIH is Robert W. Berliner, director of intramural research at the National Heart Institute. (Berliner's acceptability to Mary Lasker has been questioned.) Another NIH scientist mentioned is the director of the Heart Institute, Donald S. Frederickson. Ivan Bennett, Jr., deputy director of the White House Science Office, enjoys wide favor, as do some of the "younger, more vigorous medical school deans." Robert J. Glaser of Stanford is mentioned most often, but others include Frederick C. Robbins at Western Reserve, Lewis Thomas at New York University, and John Hoggness at the University of Washington.

When talking to prospects outside the government service, Gardner said that he often finds it difficult to match private salaries. A medical school dean often earns an annual salary of $35,000 and has college tuition benefits for his children, while the maximum possible salary at present for the director of NIH is $27,000. Also, some candidates shudder at the possibility of having to defend NIH against attacks such as that of the Fountain Committee (*Science*, 3 November 1967).

Gardner said that filling the NIH director's job after Shannon's illustrious tenure was "one of those classic cases of looking for the impossible man." Gardner listed several necessary qualities for a good NIH director, in addition to administrative ability:

► "First, he must really understand research, have some background in it, and understand the conditions under which the best research can be done."

► "Second, he must be thoroughly familiar with medical schools. The well-being of the nation's medical schools is very much a part of the future of NIH."

► "Finally, he must be someone who can communicate with NIH's various publics, and that includes Congress."

At present, finding a replacement for Shannon at NIH is just one of the many tasks which Gardner must perform before leaving office. To insure the continuity of his programs, Gardner obviously wants the President to pick an able man to succeed him as Secretary of HEW. Gardner has urged the President to appoint HEW Undersecretary Wilbur J. Cohen as the new Secretary, or, failing that, to make him Acting Secretary so as to keep HEW intact in the 8 months before the November election.

After 1 March, Gardner is scheduled to undertake projects on urban affairs for the Carnegie Corporation. He has been mentioned as a possible president for Stanford or Rockefeller Universities. He comments, however, "I don't think I will accept the presidency of any university." Gardner explained with emphasis that "I am really interested in urban problems . . . and think there is great opportunity and need to mobilize the private sector to help deal with them."

To say that the top NIH officials fervently hope that Shannon's successor will be chosen before Gardner leaves HEW is to underestimate their degree of concern. One NIH official gloomily prophesies, "It may be fatal that Secretary Gardner didn't move earlier." Gardner himself is not pessimistic about the appointment of a reputable scientist to the NIH job, even after he leaves HEW. "I'm confident that the President understands that this must be a person who has the full support of the scientific and research community," Gardner said. Other HEW officials point to the Secretary's NIH advisory committee as a continuing group for discussion of new names for the NIH directorship.

There are many reasons for the concern over the directorship of NIH. The position is not a political one; the man who is appointed is expected to serve for a good many years. With a budget of well over a billion dollars, NIH is the largest patron of biomedical research in the nation, a major subsidizer of the country's medical schools, and a large spender in colleges and universities. NIH has received liberal treatment from the government during Shannon's tenure mostly because of congressional leadership rather than Executive requests. The two principal congressional supporters of this largesse were Rep. John E. Fogarty (D–R.I.), who died last year, and Sen. Lister Hill (D–Ala.) who announced recently that he would retire next year. Without these congressional champions, in a time in which all of Washington must focus on the economic demands made by the Vietnam war, NIH will need a talented director to convince Congress and the executive branch of the need for continued large-scale spending on biomedical research. And, perhaps most importantly, NIH has established its reputation as a first-class research institution during Shannon's tenure. There is real concern at NIH and elsewhere that the organization might suffer "a descent into mediocrity" under a director who does not fully understand the requirements of research creativity.

—BRYCE NELSON

# A POINT OF VIEW

*Vice President Hubert Humphrey at the meeting of the Panel on Science and Technology, House Committee on Science and Astronautics, 24 January 1968.*

This permits me to say a word to some of our university friends here. I know many times I read in the press there is a little rebellion on some campuses about government research projects, projects in universities. I don't know whether I ought to say this or not, but I'm a rather free-wheeling man. I feel if you don't want the money, there is another place for it. I sort of feel that if the university wants to exclude itself from the life of the nation, then it will most likely find itself living a rather barren life . . .

I hope that our Universities and our Government can work together. I hope that there will not be a breach because if there is it will not be the Government that suffers, because the Government can set up its own laboratories.

I don't think that is very smart. I think that the Government ought to work with the private sector. . . . But if a nation is denied that then it has to have some way to protect itself.