including comparisons of their costs and benefits. The statement was developed at the direction of the President by the heads of four agencies with principal statutory responsibilities for affected projects—i.e., the Secretaries of the Army; Agriculture; Health, Education, and Welfare; and Interior.[15]

Analogous comparisons (though less rigorous) have been offered from time to time for various programs in the field of human resources. Budgetary justifications for the vocational rehabilitation programs often have included comparisons of the potential earnings and tax-payments of rehabilitated persons with the public costs of the services. The Public Health Service in 1964 published a symposium report on "Economic Benefits from Public Health Services: Objectives, Methods, and Examples of Measurement," in which a leading paper dealt with the problem of measuring economic benefits from public health services.[16]

An extensive "source paper" on the economic costs of cardiovascular diseases and cancer in 1962 was included in the report of the President's Commission on Heart Disease, Cancer, and Stroke. The Commission used these estimates of economic costs primarily to support a call for strong governmental action aimed at reducing the incidence of heart disease, cancer, and stroke. It compared the economic costs of these afflictions with expenditures for research to combat them. Its report did not, however, include comparisons of the costs of projected public programs with the potential reductions in the economic toll exacted by these diseases.[17]

Another report to the President, based on a study of the National Institutes of Health, included a brief examination along similar lines of economic and other criteria for determining levels of Federal Government support of health research. This study included an estimate of "demand" for medical research expenditures in 1970.[18]

Efforts to measure the potential benefits and to compare them with costs for particular public programs of health and education were part of a spreading pattern designed to improve the basis for planning and budgetary decisions. With growth in the relative importance of government in the national economy, it was increasingly evident that prudent governmental choices in the matter of resource allocation require full and explicit assessment of possible alternative programs and all their costs and benefits. In recognition of this need, President Johnson, in August 1965, announced that a planning-programing-budgeting system which had been developed in the Department of Defense would be extended throughout the Government. In this system, the formulation of cost-benefit comparisons is an important element, though only one element. The Bureau of the Budget

[15] The statement and a brief sketch of its origins appear in 87th Congress, 2d sess., Senate Doc. No. 97, "Policies, Standards, and Procedures in the Formulation, Evaluation, and Review of Plans for Use and Development of Water and Related Land Resources, prepared under the direction of the President's Water Resources Council" (May 29, 1962). For the earlier documents, see Bureau of the Budget Circular A-47, esp. par. 9; and Bureau of the Budget, "Standards and Criteria for Formulating and Evaluating Water Resources Development: Report of a Panel of Consultants" (1961).

[16] Clem C. Linnenberg, "How Shall We Measure Economic Benefits From Public Health Services?" in Public Health Service Publication No. 1178, "Economic Benefits from Public Health Services" (April 1964). See also Linnenberg, "Economics in Program Planning for Health," Public Health Reports, December 1966, pp. 1085-1091.

[17] President's Commission on Heart Disease, Cancer, and Stroke, "A National Program to Conquer Heart Disease, Cancer, and Stroke," vol. I (December 1964). The source paper, prepared by Dorothy P. Rice, is in ibid., vol. II (February 1965), pp. 440-630. Also in vol. II, at pp. 631-644, is a report of a conference of economists on the economics of medical research.

[18] Dr. Joseph B. Platt, "Memorandum to the Committee Regarding Criteria for Determining Levels of Federal Support of Health Research," app. 3 in "Biomedical Science and Its Administration: A Study of the National Institutes of Health—Report to the President" (February 1965), pp. 77-84.