

2003  
Harvard Univ.  
61228 Input -  
output  
study

HARVARD  
UNIVERSITY -  
ECONOMIC  
RESEARCH

It was, on motion,

RESOLVED that the sum of Fifteen thousand dollars (\$15,000)  
RF 61047 be, and it hereby is, appropriated to HARVARD  
UNIVERSITY for use by the Harvard Economic Research  
Project toward the costs of a study of investment  
and changes in input structure in American manu-  
facturing during the period 1955-1957, this sum  
to be payable as an outright grant on or before  
May 31, 1961.

The following considerations were presented:

Social Sciences: Economics

Previous Interest: Since 1947 The Rockefeller Foundation has appropriated a total of \$480,000 to Harvard University for the Harvard Economic Research Project under the direction of Professor Wassily Leontief. Of this sum, a current grant of \$240,000 for general support of the program terminates June 30, 1962. The Foundation in 1960 made an outright grant of \$25,000 toward the cost of an International Conference on Input-Output Techniques organized by the Harvard Economic Research Project in association with the United Nations Secretariat.

General Description: Input-output analysis is a technique pioneered by Professor Leontief which is intended to make possible quantitative estimates of the direct and indirect effects on individual sectors throughout the economy of economic changes originating in one or more sectors. This technique has been developed greatly since World War II and has been applied in an increasing number of countries. Its rapid spread is indicated by the fact that economists

from 36 different countries expressed interest in participating in the international conference on input-output techniques to be held in 1961.

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Many of the 36 countries are underdeveloped countries. One of the serious questions about use of input-output technique is the extent to which it is applicable to underdeveloped countries. Doubts on this score arise because the technique assumes that the relations between inputs and outputs of a producing sector of the economy are fairly stable between the time to which the basic data refer and the time to which the technique is to be applied. In underdeveloped countries that are in the process of development this assumption is seriously in doubt because a major element in their economic development program is an effort to change the past relationships between inputs and outputs.

The present proposal is an attempt to deal with the problem of changing input-output relations. In essence it consists of an experiment, already done on a pilot basis for two industries, to see how accurately changes in labor and electricity inputs per unit of output in each of 450 industries can be estimated from knowledge of the equipment expenditures of individual plants in these industries.

Finances: The \$15,000 requested from the Foundation would be payable as an outright grant and would be used approximately as follows:

Payments to the U.S. Bureau of the Census	
for special transcriptions of data and	
electronic computing . . . . .	\$10,000
Research Assistants and programming	
costs. . . . .	<u>5,000</u>
Total	\$15,000

The expenses of this special study cannot be carried on the regular budget of the Harvard Economic Research Project since it involves massive computations and additional research assistance at a cost beyond the current resources of the Project. Harvard

University will provide the salary of Dr. Anne P. Carter, Senior Research Associate, who will direct the study, and any other necessary expenses.

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Comment: The proposed project would constitute an important step in an effort to overcome a serious objection to one of the important applications of input-output technique. No one can be sure that it will prove possible to estimate changes in input-output relations from plant expenditure, but it is undoubtedly of great importance to find out. The proposed test is ingenious in conception, well designed, and is to be performed in a highly economical way. If successful, it will be a big step forward.

Future Implications: None respecting this special study. The officers may be asked to consider further basic support to the Harvard Economic Research Project following termination of the current grant for that purpose.

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