

Book Reviews

Water Resource Development and Federal Policy

Water Resource Investment and the Public Interest. An analysis of federal expenditures in ten Southern states. Robert H. Haveman. Vanderbilt University Press, Nashville, Tenn., 1965. xiii + 199 pp. Illus. \$6.

This volume is the most recent in a series of significant and scholarly studies of the federal government's water resource development policies. Major authors in this series include Eckstein, Krutilla, Hirshleifer, DeHaven, Milliman, and McKean. Haveman's study is, however, more restricted in scope than the earlier volumes. He takes the theoretical apparatus that earlier writers have developed and applies it in an intensive study of the appropriations made to the U.S. Army Corps of Engineers for water resource projects in ten southern states during the period 1946 to 1962.

In a few places, the author's comments on theoretical issues seem pedestrian. This is most notable in his appendix on risk and uncertainty, where the impression is conveyed that theoretical contributions to this subject end with a justifiably famous paper by Georgescu-Roegen in 1958. The work of Savage and others on subjective probability is ignored, even though it undermines the distinction between risk and uncertainty on which Haveman's discussion is based.

However, this is a minor criticism. The author's purpose is empirical analysis, and it is carefully and painstakingly carried out within a competent theoretical framework. He rightly focuses his attention on the economic efficiency of the Corps' projects and on the ways that these projects effect the distribution of income.

Haveman's conclusions on the question of efficiency are striking. Of the \$2.6 billion of federal funds committed to the projects studied, 3.6 percent did not even pass the efficiency test (a

benefit-cost ratio greater than one) by the Corps' own calculations. When the benefit-cost ratios are recalculated in accordance with rules believed to be conservative (that is, biased in favor of the projects) by most academic economists, it is seen that between 42 and 58 percent of the funds are for projects that fail the efficiency test. Haveman's study thus provides additional evidence for the view, widely held by academic economists and others, that we as a nation are not receiving a fair return on federal water resource investments.

Unlike most writers on water resource policy, Haveman does not stop with the demonstration that many projects are economically inefficient. Instead, he goes on to study in depth the extent to which Corps projects have redistributed income from other parts of the country to the relatively impoverished South. During the period studied the South received about \$1.3 billion of net benefits (excess of benefits received over that part of costs borne directly by the South, or borne indirectly through Federal taxes) from Corps projects. Had the Corps constructed only those projects that pass the test of economic efficiency, the South's net benefits would have been \$340 million less, but national expenditures would have been \$640 million less. This shows that to redistribute income to the South through economically inefficient Corps projects costs nearly twice as much as redistribution through direct income transfers.

Haveman thus shows that in the South not only are about half the Corps dollars spent on projects that reduce rather than increase national income, but also that, as a way to redistribute income to the South, the economically inefficient projects are about twice as expensive as would be direct transfers.

I believe the situation is even worse.

Haveman is inclined to accept Congressional appropriations as a reflection of the desires of society to redistribute income. But I suspect it has more to do with seniority and committee systems in the Congress than with deeply felt wishes of the rest of the nation to aid the South. My preferences would be for somewhat more redistribution of income in favor of the nation's poor than at present. But there is no evidence that water resource projects tend to favor the poor. And there is some reason to believe the contrary. To a considerable extent, the benefits of water projects are realized through increased land values—for example, when land is protected from flooding by a Corps project. But, landowners are not typically among the poorest groups in most areas. Thus, not only are water projects an inefficient way to redistribute income, but also they often redistribute it to the wrong people.

Haveman concludes with an ingenious calculation based on a suggestion by Eckstein. The suggestion is to assume that if individual A is taxed at a marginal tax rate of twice the marginal rate for B, it is because "society" values a dollar of extra income for A at only half what it values an extra dollar for B. This leads to the recalculation of benefits and costs, using weights that are proportional to the inverses of marginal federal personal income tax rates. It is logically inevitable that, in areas where average income levels (and hence marginal tax rates) are low relative to the nation as a whole, benefit-cost ratios calculated in this way will be more favorable than those using dollar amounts. On the basis of this calculation, only about 18 percent of the money spent by the Corps in the South was on projects that failed the efficiency test. Whether one accepts this result depends on, among other things, whether one approves of the existing federal tax structure. On this, honest men may disagree! Some, at least, may disagree with the social evaluation implied by the well-known fact that those in very high income brackets pay lower tax rates than those with somewhat lower incomes.

Haveman has made a real contribution to the subject of his study. All serious students of federal water resource policy are in his debt.

EDWIN S. MILLS
*Department of Political Economy,
Johns Hopkins University*