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Benefit-Cost Analysis as a Dialogue

Benefit-Cost Analysis: A Political Economy Approach. By A Allan Schmid Boulder CO Westview Press, 1989, 354 pages, \$29.50 (hardcover)

Reviewed by David Letson

Do economists talk to themselves? Allan Schmid thinks so. He says that being more social would make us more responsive and give us greater audience. The problem is that benefit-cost analysis (BCA) as currently practiced is rather one-sided, the economist's monologue should be a public sector dialogue. Otherwise, the economist usurps the politician's role. The debate is not a new one, of course. T. W. Hutchinson, for example, warned that welfare economics could not offer "policies without politics."¹ BCA, after all, is only the applied arm of welfare economics. What is new here is a BCA text from an avowed institutionalist. Schmid offers an unlikely synthesis of budgetary politics and the techniques of project evaluation. The perspective is often refreshing.

BCA as practiced is not a dialogue. Schmid knows the reason why a politician would rather the analyst work out compromises than submit to the dirty and unrewarding task himself. Openness about alternatives only helps form opposition, and choosing between them in public means disappointing someone. When explicitness will raise conflicts, obfuscation is the key. Schmid refers to this practice as "heat transfer." Acknowledgment of the practical circumstances of this practical craft is most useful. Ultimately, though, his book is a collection of analytical techniques wedded with a critique of conventional BCA. The problem is that he amasses technique without providing a suitable structure for them by linking them to the ideal of the dialogue. The result is a book that adds to the economist's tool kit of BCA techniques but falls short of its own standards.

The objective of Schmid's synthesis is to make BCA more useful. His thesis is undeniable: the usefulness of BCA is compromised when we mistake value judgments for technical questions. His argument has three themes. The first likens BCA to consumer information, which at its best is explicit and consistent. Not surprisingly his concern is with the assumptions inherent in BCA. These assumptions should bend to meet the realities of circumstance and public sentiments. He envisions BCA as an iterative dialogue between democratic voices and economists. Popularly expressed

rates of discount and risk aversion preferences would allow the economist to speak more responsibly about economic policy. The second theme is the practicality of second-best theory in a process where assumptions must be flexible. His third theme insists that our work have distributive content as well. Allocation and distribution are inseparable. The vision of BCA here is an ambitious one, introduced as the decisionmaking approach by Alan Peacock, Robert Sugden, and Alan Williams.² These arguments have conceptual appeal despite Schmid's admitted inability to describe the form this dialogue might take.

The comparison with consumer information is a good one. Assumptions do restrict the usefulness of BCA. Practitioners know how assumptions limit the focus of their analysis and ultimately the conclusions that might be drawn from it. Students' education in this area is incomplete without this sort of confrontation with the facts. He devotes a chapter, for example, to pointing out the difficulties with using market prices as opportunity costs in the presence of market power, foreign exchange fluctuations, and distortionary taxation. Schmid defines opportunity costs in the usual way but suggests the valuation of resources in alternative uses requires a policy decision: what are the policy objectives? Here Schmid raises an interesting question: why do market prices as indicators of opportunity cost rarely raise a critical eyebrow while the choice of discount rate always does? The discount rate is merely the more obvious assumption. Both are part of Schmid's dialogue.

So assumptions are important. Best to choose them carefully and spell them out clearly for the reader. Plenty of other texts already exist that make this point clearly enough. What's different here is a batch of alternative methods for use when the orthodox assumptions will not do. Schmid knows that orthodox methods will prevail in the profession until alternatives can match the power of their analytical techniques. His presentation of second-best methods is the real contribution here. Distortionary taxes, government budget constraints, and imperfectly competitive prices are the norm for Schmid. He shows how to adjust prices for the effects of taxation and market power so that these prices more closely reflect opportunity costs. Analysts given a budget, rather than allowed to determine one, can use capital rationing to

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¹T. W. Hutchinson, *Positive Economics and Policy Objectives*, Cambridge, MA: Harvard University Press, 1964.

²Alan Peacock, "Cost-Benefit Analysis and the Political Control of Public Investment," *Cost-Benefit and Effectiveness Studies and Analysis*, J. N. Wolfe (ed.) London: Allen and Unwin, 1973, pp. 17-29. Robert Sugden and Alan Williams, *The Principles of Practical Cost-Benefit Analysis*, Oxford: Oxford University Press, 1978.

rank projects systematically within the allotted resource limit

But methods are only tools. To provide a methodology, a statement of what these methods have to do, say, Schmid needs to show the logic which justifies their use in attempting to solve a problem. H. H. Liebhafsky defines methodology as a logical defense of method.³ Schmid does acknowledge the need for some methodological structure. He notes in passing, for example, that his emphasis on second-best theory ties in well with his dialogue. For support he cites the finding of Boadway and Bruce in their examination of second-best conditions that a social welfare function is necessary to rank projects.⁴ A dialogue involving public debate could provide the important assumptions underlying this function. More of this linkage is necessary to keep the reader mindful of the author's vision of BCA. The reader does not get a sense of how these methods form an approach consistent with the dialogue he describes. Schmid's book would read more as the alternative methodology he intends and less as a critique if he could bridge the gap between vision and technique.

The third theme stresses the distributive content of BCA. Schmid claims that the book is not a criticism of BCA but only of those presentations and practices that fail to offer much in the way of systematic illumination. The reader may think otherwise. In large part, his effort is to broaden the scope of BCA. He would include more distributional considerations, such as pecuniary externalities and distributive weights. Hardly a section goes by without Schmid mentioning some distributive implication of an assumption. Most authors sell the virtues of distributive analysis but see it as something apart from allocative BCA. Schmid's motivation for extending the BCA label here is elusive. Since all acknowledge the usefulness of allocative and distributive analysis, his argument appears to be one of emphasis and semantics. It does not advance his metaphor of BCA as a dialogue.

Broadening BCA can dilute its purpose. Schmid is correct to point out that the complex impact of a project upon income distribution often shows up only as a net social gain or loss in the project evaluation. Transfers should be made explicit and should be efficiently delivered. Where some, like E. J. Mishan, would part company is on Schmid's assertion that these considerations should fall within BCA. Traditional BCA is a part of, and not a substitute for, the economic analysis of a project. While distributive analysis should be part of the economic analysis, many would argue that it

should be separate from the determination of whether or not the project results in a net social gain.

Schmid targets these arguments to the classroom, where his text will compete with E. J. Mishan's, now in its fourth edition.⁵ Here, Schmid is at a disadvantage. The reason, quite simply, is that students would be more likely to read Mishan's superbly written text. Even at 354 pages, Schmid's book is underdeveloped. Schmid discusses more topics and offers more citations than Mishan, and does so in fewer pages. Introductory readers will need more coddling. Mishan's chapters are shorter and more clearly written. Schmid's extra material could be a plus. But, often, Schmid ends up with a critical review of methods to which he has given sparse explanation. Like Mishan, a knowledge of intermediate micro and some calculus is presumed, but here a recollection of Mishan is also needed. The student will need to have Mishan nearby since that book often seems to be Schmid's point of departure. The books are complements rather than substitutes.

Schmid's text is not a neoclassical one, and he does trade off some formal elegance for practical detail. With an applied craft such as BCA, both types of knowledge are necessary. For the student's sake, though, the first should precede the second. To criticize or elaborate upon knowledge the student has yet to encounter is futile. On the other hand, pedagogical reliance upon the neoclassical treatment of this practical subject may not explain carefully enough the differences between the neoclassical world and the real one it mimics. Critical thinking is important to understanding BCA but should follow and build upon the fundamentals of the craft that Mishan ably provides. Schmid is a better choice as a second text than as a first one.

The synthesis of BCA techniques and budgetary politics is a legitimate contribution. The parts are available elsewhere, but the wisdom from examining the whole is not. Benefit-cost analysts provide information, and control of information is a source of political power. Since the public and its elected officials have a limited appetite for alternatives and details, exercise of this power is unavoidable. We act within our role when we produce what Schmid calls "useful" BCA, that which does not confuse technical questions and value judgments. Schmid's task in bridging the two areas is large, too much perhaps to bring off in a first edition. Some substantive and expository problems remain. The metaphor of BCA as a dialogue is compelling enough to make this a worthwhile effort though. Schmid's book is a refreshingly practical look at a practical craft and deserves consideration for the classroom.

³H. H. Liebhafsky, *The Nature of Price Theory*. Homewood, IL: The Dorsey Press, 1968, pp. 7-8.

⁴Robin W. Boadway and Neil Bruce, *Welfare Economics*. Oxford: Basil Blackwell, 1984.

⁵E. J. Mishan, *Cost-Benefit Analysis*, fourth edition. London: Unwin Hyman, 1988.

Technology Transfer and Agriculture: How Well Have We Done?

Transformation of International Agricultural Research and Development. Edited by J. Lin Compton. Boulder, CO: Lynn Rienner Publishers, Inc., 1989, 236 pages, \$30

Reviewed by Margot Anderson

This collection of nine essays written primarily by economists, sociologists, and extension experts examines the institutions and organizations that develop and transfer agricultural technology. The writers emphasize technology transfer and productivity growth in developing countries. The essays collectively discuss the components of successful programs and point out where improvements could be made. While there is little new ground explored in these non-technical essays, they provide a good background in the problems associated with the agricultural research and technology transfer. A general underlying theme is that local conditions and the needs of technology users must be recognized in order for new technology to be developed and successfully employed. This seemingly obvious point has been overlooked frequently in many research institutions.

The collection will attract readers interested in how technology is developed and transferred and how problems of agricultural development are addressed in poorer countries. The essays are likely to appeal to those not already familiar with the problems of agricultural growth and technology transfer. More experienced readers may find that the essays do not go far enough to provide insight into how and why technology is developed and disseminated.

The collection is divided into three groups: historical perspectives, selected problems, and future challenges. The Flora and Floia essay in the first section focuses on the development and the evolution of the U.S. land grant and extension system and how these institutions have been implemented overseas. They conclude that, for many developing countries, U.S.-like institutions can be successful in creating and adopting locally useful agricultural technology. The authors stress that institutions responsible for generating and transferring agricultural technology in developing countries must emphasize serving the needs of the local community and not on imitating the U.S. system.

Eastman and Grieshop provide a narrower focus of the appropriateness of U.S. institutions in developing

countries by concentrating on how U.S. institutions have been implemented in potato production in Peru. Although potato research has been well funded since the mid-1950's, potato yields have increased only slightly. The authors suggest that producers have been less willing to adopt new technology because of slow growth in domestic potato demand, relatively low prices received for staple crops compared with export crops, and poorly developed infrastructure. The authors argue that the ability to increase yields is only one step toward promoting increased productivity and that adoption may be limited or encouraged through agricultural and macroeconomic policies, land reform, and access to credit and inputs. These points deserve further discussion.

The importance of the economic and sociologic environment is frequently overlooked. Ruttan stresses this point in his essay, arguing the need to increase the social science component in international and indigenous research programs. Schuh has argued elsewhere that significant breakthroughs for many staple crops are limited and that ecologic and economic considerations are the most important factors for increases in agricultural productivity.¹

The need to link agricultural research and technology transfer to the conditions of the local community is discussed in several essays. Compton develops, in some detail, the link between agricultural research and extension by calling for a more "dynamic" model of technology development, diffusion, and utilization that incorporates the users of innovations in the process of creating new technology. Warren examines why research and transfer institutions have long ignored subsistence farmers and how these institutions are now responding to the needs of small-scale farmers. Women's participation in agriculture, an integral component in agricultural development in many poor countries, continues to receive inadequate attention. Sachs and Caye discuss how women contribute to development and examine the types of institutional change that can facilitate women's participation in agriculture.

A theme that is not adequately addressed is the role of the private sector in developing and transferring new technology. The authors generally focus on public sector research, ignoring the incentives for private sector research and transfer. The increased role of the pri-

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¹Edward G. Schuh, 'Income and Agricultural Production in Developing Countries,' *Technology and Agricultural Policy: Proceedings of a Symposium*, Washington, DC: National Academy Press, 1990.

vate sector is partially attributed to declining public sector research budgets and to government policies that motivate private sector research. In many countries, the private sector has become an important originator and marketer of agricultural innovations, particularly in seeds, pesticides, fertilizers, and machinery. Because public and private sector research institutions operate under different sets of incentives, the goals of research and transfer may be in conflict. Understanding the implications for private sector research on the supply and distribution of innovations is an important component of agricultural growth in many developing countries. Any progress in the area of international property rights under the GATT or within individual countries could increase the level of private sector research and influence the direction of research.

The essays include (1) "An Historical Perspective on Institutional Transfer" by Cornelia Butler Floira and Jan L. Floira, (2) "Technology Development and Diffusion: Potatoes in Peru" by Clyde Eastman and James Greshop, (3) "Communicating Scientific Knowledge" by R. D. Colle, (4) "Women in Agricultural Development" by Carolyn Sachs and Virginia Caye, (5) "The Integration of Research and Extension" by J. Lin Compton, (6) "Evolution and Transfer of the U.S. Extension System" by Everett M. Rogers, (7) "Linking Scientific and Indigenous Agricultural Systems" by D. M. Warren, (8) "The International Agricultural Research System" by Vernon W. Ruttan, (9) "Farming Systems, Research, and Extension" by Robert K. Waugh, Peter E. Hildebrand, and Chris O. Andrew.

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