

flexibility to continue to learn and to survive a rapidly changing technical work environment. The evaluation of specific training programs could have been enhanced by viewing them within a dynamic world economy. The same could be said for the pieces on school choice.

Two main themes emerge from this book. First, borrowing may arise from similar economic and political conditions as much as from conscious decisions for structural change. Second, political motivations for policy borrowing often derive from policy's "role in political discourse and legitimating other related policies" (p. 22). These themes, combined with the systemic framework provided in the introductory chapters make the book a valuable policy piece and well worth the read even if the reader has no interest in either country or in training programs. Educational policy analysts would do well to begin to incorporate such policy frameworks in charting community, national and international educational directions.

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### **Investment in Women's Human Capital.**

Edited by T. PAUL SCHULTZ. Chicago, IL: University of Chicago Press, 1995. 461 pp. Price: U.S. \$22.95 (paper).

IN 1988, a population briefing paper provocatively entitled "Powerless and Pregnant" portrayed the dismal status of the world's girls and women by cataloging gender disparities across nations in infant mortality, literacy, labor market outcomes, and political and legal status. Although dramatic progress has been made during the past decade, gender inequality persists in many measures of social and economic well-being. Gender differences remain especially pronounced in the poorest countries where girls often receive less education, more limited health care, even less food than do boys.

While the gender gap has remained stubborn, what has changed dramatically is the attention being devoted to determining the causes and consequences of this gap. The volume edited by T. Paul Schultz enhances the growing literature that has resulted from this scholarship. This volume originated with a conference in 1992 and 8 of 13 chapters were published in a Fall 1993 special issue of the *Journal of Human Resources*. The primary goal of this compilation is to provide empirical analyses that describe who receives investments in human capital and what explains gender differences in the allocation of investment resources (p. 1). Any conference characterized by such a broad objective can be expected to yield papers diverse in focus and methods. This is the nature of this book that results. Taken together, however, the chapters provide an informative guide to the state of the art research currently being carried out to analyze investment in the human capital of women and girls. Investment in human capital is defined here most broadly to include investment in education, health and nutrition, and migration.

There is wide recognition of the benefits of investment in human capital overall. Women, as do men, experience improved labor market productivity. Improving productivity spurs economic growth. However, if women are relatively more productive at home gains to specialization will result in women working more in the home, and men relatively more in the market. Thus, the benefits of human capital investments in girls and women result in improved efficiency in the production of the non-tradable goods — the health and education of young children. Although these outputs yield no monetary return, they will be valued by the family and society. Thus the benefits of investing in the

human capital of girls may, to a greater extent than is the case for boys, be experienced externally from the family. In addition, investing in human capital yields benefits, some share of which can be characterized as public goods. The proportion of benefits that are "public" may be greater for girls than for boys. It is only when women enter the labor market (and thus produce measurable output) that gender inequality in other outcomes appears to diminish. These complicate the analysis of gender differences in human capital investments.

Tackling this complex subject, this volume provides a useful set of readings for scholars interested in the role of women in economic development and also in the economics of education. The authors produce valuable insights into the potential influence of family decision making on gender differences in human capital [Rosenzweig (for India) and Parish and Willis (for China)]; gender differences in labor market returns to investments in human capital [Vijverberg (for Côte d'Ivoire), Foster and Rosenzweig (for India), Deolalikar (for Indonesia), and Barros, Ramos and Santos (for Brazil)]; the determinants of "health" [Strauss, Gertler, Rahman and Fox (for Jamaica, Malaysia, Bangladesh, and the U.S.)]; and the market for provision of health care services [Mwabu, Ainsworth and Nyamete (for Kenya)]. The chapter by Barros, Fox and Mendonca describes in stark detail one set of consequences of gender inequality in human capital investment in Brazil. Households headed by women are more likely to be poor and the children living in these households less likely to attend school themselves.

The papers by Boserup, Goldin and Gustafsson expand our thinking beyond the microeconomic model to incorporate consideration of social and political norms, institutions, and culture. Siv Gustafsson's comparison of tax and child care policies in Sweden, Germany, and the Netherlands illustrates the dramatic influence that public policy can have on labor market decisions. Claudia Goldin provides an explanation for the observed U-shaped relationship between female labor force participation and economic development. As development progresses and women enter the labor market in rising proportions, their social, political, and legal status improves as well. Ester Boserup argues that while understanding the economic factors underlying investment in women's human capital is vitally important, study of the status of women must include consideration of familial, social, and legal hierarchies. It will be only when we understand the entire environment within which human capital investment decisions are made that we can move beyond the observed consistency in empirical findings to develop policies that can diminish the gender gap in human capital investments.

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### **REFERENCE**

Population Crisis Committee (1988) Country rankings of the status of women: Poor, powerless, and pregnant, Population Briefing Paper, No. 20, June 1988. Washington, DC: Population Crisis Committee.

**Recent Developments in the Economics of Education.** Edited by ELCHANAN COHN and GERAINT JOHNES. England, Brookfield, VT: Edward Elgar, 1994. pp. v + 653. Price: U.S. \$187.95 (cloth).

THIS VOLUME COLLECTS 34 papers that were published between 1984 and 1993. It provides a solid foundation for the study of the economics of education, touching on issues

that span the entire field. It also gives insights into the development of the field over time, chronicling the change from simple conceptual models to more detailed and illuminating investigations of specific and important issues. The collection provides an interesting mixture of "new classics" and other articles that have not, for one reason or another, achieved the general recognition that they might have. Finally, the collection is useful because it brings together work from different levels of education, from both developed and less developed countries, and from a worldwide set of journals. Few people working in the area are able to keep up with the broad range of selections here.

The papers are divided into six major sections. The first short section considers issues of efficiency and equity of which papers by Kenneth Arrow and Henry Levin concentrate specifically on possible trade-offs between efficiency goals and distributional outcomes. While this section is short relative to the importance of the topic, in reality these are recurring themes that come back in many of the subsequent chapters.

This first section also includes an interesting paper by van Imhoff on human capital and economic growth. While it is not obvious that this paper naturally fits in the section on efficiency and equity, it is clearly an important topic that needs attention. In fact, I recently have come to believe that growth issues are very important—mirroring current economic thought popularized by Lucas, Romer, Barro, and others—so it seems reasonable to me that the issues be introduced early in the book. Perhaps the one aspect that dates the entire selection of articles is the limited attention that is given to human capital and growth. It would appear that possible growth effects represent one of the strongest and most easily identifiable externalities of higher education. It also is becoming conventional wisdom that human capital is extraordinarily important in explaining cross-country variations in growth rates, and thus has very important implications for world welfare and the distribution of outcomes. Therefore, the paucity of direct discussions of growth stands out in this volume, but it is also easily explained by the lateness with which economists have come to that position. I expect the next volume on the economics of education to devote noticeably more attention to growth issues.

The second section of the book delves into externalities and the role of government. This section actually mixes together a variety of topics, ranging from true externalities to the better measurement of the benefits of education. For example, the chapters by Robert Haveman and Barbara Wolfe, Edward Gullason, Michael McPherson and Morton Schapiro, and Elchanan Cohn and Sherrie Rhine are really focused on obtaining better and more complete estimates of the benefits and costs of schooling—without having much to say about any externalities. In contrast, the earlier chapters in the section (including David Kodde and Josef Ritzén, and George Johnson) concentrate much more on the role of government, although not necessarily for externality reasons. And, John Hartwick, John Creedy and Patrick Francois, Kjell Lommerud, Martin Weale and Adam Jaffe dwell much more on true spillovers of education including issues of income distribution.

The separate section of school choice provides a good introduction into various views about choice. It includes classic articles by Edwin West, John Chubb and Terry Moe, and Henry Levin. This is a solid section that sets out varying views on one of the most important policy issues of the day.

The fourth section on the costs of education is probably the one with which I have the largest problems. The basic problem, particularly when the discussion turns to higher education, is that not much is being said about output. The discussion really tends to center on expenditure functions which in general do not tend to hold output quality constant but instead include both demand effects and inefficiency in production. The papers in the section represent good examples of the cost estimation that has been done, but the

general focus is to hold numbers of students constant without consideration of quality. (The chapter by Emmanuel Jimenez for developing countries is the exception.) Since much of my own work has concentrated on efficiency and output concerns, I am perhaps overly sensitive to these issues; nonetheless, I do not think that most schools can or should make policy on expenditure without consideration of quality of outcomes. This holds for both developed and developing countries, and for primary, secondary, and tertiary schooling.

The fifth section on the linkages of schools to labor market outcomes is one of the strongest in the book, reflecting the depth of research that exists in this area. There is a series of very strong descriptions of how the market for educated labor has developed over time: Walter McMahon, Kevin Murphy and Finis Welch, Nachum Sicherman, and Mun Tsang each provide overlapping insights into labor market effects. David Card and Alan Krueger's classic estimation of the effects of school quality on earnings is presented along with John Bishop's analysis of student achievement and labor market productivity. These papers provide somewhat contrasting views of both the measurement and importance on student outcomes and thus give the reader some view of the controversies in the area.

The final section includes an unusually broad set of papers on the supply of labor to schools, both in lower and higher education. Richard Murnane and Randall Olsen summarize some of their research on labor markets for primary and secondary schools. Peter Dolton, Ronald Ehrenberg, Hirschel Kasper and Daniel Rees, and Lorne Carmichael each provide insights into the labor markets for college teachers.

In sum, this is a worthy collection of papers. Even specialists in the economics of education will find much in this volume which has managed to pull together a very interesting collection of papers. The volume also underscores how rapidly the area is developing and suggests that we should soon be looking for the next volume.

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**Public School Finance Programs of the United States and Canada, 1993-4**, two volumes. Compiled and Edited by STEVEN D. GOLD, DAVID M. SMITH and STEPHEN B. LAWTON. Albany: American Education Finance Association and Center for the Study of the States, The Nelson A. Rockefeller Institute of Government, State University of New York, 1995. pp. ix + 787. Price: U.S. \$60.00 (soft cover).

THIS CONTRIBUTION, like its predecessors, is extremely useful. The editors, along with the numerous contributors in the U.S. and Canada, compiled an impressive array of data related to school finance in the various states and provinces.

The volumes provide, state by state and province by province, information on the following: general background (state-local support and funding summary); the basic support program (including formula, state-local shares, and pupil weightings); transportation; capital outlay and debt service; teacher retirement; special, compensatory, gifted and talented, early childhood, and bilingual education; other categorical programs; aid for private schools; local school revenues; tax and spending limits; state/provincial earmarked revenues; and special topics (for example, the out-