

officials involved in illegal payments required of some workers and firms, of embezzlement, forgery, pilferage, loansharking, and of failure to keep adequate financial records. These and other abuses, including the "shape-up" at the pier for hiring each day, absence of regular elections of officials and infrequent union meetings, constituted "exploitation and betrayal of the rank and file." The legislatures of New York and New Jersey created the bistate Waterfront Commission in 1953 to deal with many of the abuses. The AFL expelled the ILA in the same year for its failure to respond adequately to directives to provide democratic procedures, eliminate persons with criminal records from positions of power, and other similar requirements. In short, the ILA at that time fell far short of the ideal model of a union, in which leaders negotiated and administered wholly on behalf of their constituents and the union itself. The challenges from within by rival claimants to power and dissident locals and from outside, especially by the state and the International Brotherhood of Longshoremen, chartered by the AFL to replace the ILA, affected every contract negotiation to 1956 and very nearly eliminated the ILA as the representative of the New York longshoremen; it won a certification election in May 1954 by only a few hundred votes, of almost 20,000 cast.

In 1956, the ILA won, by a substantial majority, the last NLRB certification election resulting from the AFL challenge, at least in part because the ILA itself had changed. The Waterfront Commission had eliminated many of the more flagrant criminal abuses by registration of the workforce and shifting hiring more to the employer and the hiring hall, licensing stevedores, and other changes. The ILA and NYSA created an effective grievance machinery (none had existed earlier) to deal with workers' complaints related to the job. The presidency of the union changed hands, from Ryan to Bradley. Although some of the practices continued and many of the leaders remained in office, the AFL-CIO was persuaded that there had been sufficient improvement to readmit the ILA in 1959.

Professor Jensen's subsequent chapters deal with a more conventional bargaining relationship. Although the ILA continued to have very

difficult internal problems, they involved differences in interests of geographical, ethnic, or age groups of longshoremen roughly similar to the internal differences found in other unions. The NYSA also had internal problems, but again, not qualitatively different from those found in other multiemployer bargaining units.

The bargaining between the parties from about 1956 to 1971 became increasingly concerned with the problems related to technological change in the industry. Prepalletization, unitized loads, then full containerization changed the geographical distribution of jobs, reduced the demand for labor, and provoked employer demands for more flexibility in hiring and work assignment. The ILA sought and won guaranteed annual incomes for longshoremen whose employment opportunities diminished as a result of the changes.

The bargaining continued to be barely workable, up to 1971, in that strikes took place, official and unofficial, and government intervention was required to produce settlements. The ILA and NYSA found it difficult to hold their constituencies together. Bargaining failed frequently because internal differences within the union or association were so great that no peaceful, nonimposed settlement was possible.

In all, Professor Jensen has put together a fascinating study of an unusual union and hard-pressed employers' association, bargaining under conditions of outside restraints and technological change more severe than in most bargaining relationships. It is a good book.

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840 DEMOGRAPHIC ECONOMICS

Economics of the family: Marriage, children, and human capital. Edited by THEODORE W. SCHULTZ. Chicago and London: University of Chicago Press for National Bureau of Economic Research, 1974. Pp. 584. \$12.95.

This book presents a collection of excellent papers which, following the earlier studies by Gary Becker and Jacob Mincer, represent some of the decade's most significant research outputs in an area in which economists have devoted relatively little attention: the econom-

ics of family formation, and in particular, the economics of marriage and childbearing. The papers, seventeen in all, were presented at two separate University of Chicago–NBER sponsored conferences and were previously published in various issues and supplements of the *Journal of Political Economy*. The importance of this book lies not so much in the value of the various contributions of the individual papers, but in three other dimensions.

First, the book is in large part the result of and a tribute to a single man's work: the man is Gary Becker of the University of Chicago. The book's theme, which deals with the childbearing decision, was initiated by Becker's seminal paper presented over a decade ago at a National Bureau of Economic Research conference. At that time the reception by the conference participants to Becker's application of neoclassical price theory and the theory of the firm to the household family formation decision was less than enthusiastic. The tables have now been at least partially turned. Since his original presentation, Becker has joined with others to delineate a new theory of consumer demand and a theory of the allocation of time—both being elements of a model which synthesizes the human capital approach with the elements of traditional price theory. Many if not most of the authors of the papers in the volume under review were inspired or notably assisted by Becker's writings; several participated in his workshops at the University of Chicago. While one could easily overestimate the impact of Gary Becker in the area of family formation research, and overlook other key contributors such as H. Gregg Lewis, Jacob Mincer, Margaret Reid, and T. W. Schultz, it is fair to say that this book represents in large part the result of the contributions of this outstanding academic.

Second, the book represents an excellent example of the modern Chicago School's approach to economic problems. Most of the paper authors and paper discussants have been associated, directly or indirectly, with Chicago training. The book is steeped with the Chicago methodology of positive economics, a methodology more concerned with predictive outcomes of theory than "realism" of assumptions. The book is fully within the tradition of the human capital approach to the analysis of mi-

croeconomic behavior. The papers are thus largely of one voice, showing a common perspective to the analysis of economic problems and to a certain extent a mild intolerance of other approaches to viewing the world of social and economic behavior. There is no methodological controversy here. Some would view this as one of the book's deficiencies. I view it as a strength, since it provides us at once the best of what this School has to offer in the analysis of this type of economic problem.

Finally, this book is important because of the guidance it provides for identifying likely fruitful courses of future research in the entire area of household decision making. In a real sense, the new discoveries and insights offered by the book, especially those insights that are of general applicability and that have been empirically verified, are few in number. Many of the more basic insights can be found in the earlier writings of Gary Becker, T. W. Schultz, Staffan Linder, and others. Yet in arriving at their various conclusions, the authors of this book have articulated their models with clarity and rigor, presenting paradigms of household decision-making which, while somewhat constrained in their empirical applicability in their current form, are broad based in their analytical conception. That is, while the *specific* models in these papers are somewhat narrow, employing assumptions that constrain their applicability to a wide range of household decision making, the overall framework is robust and promising. By being quite explicit in their model formulations and analyses, the authors of these papers have provided a clear target for criticism. As a result, they have productively focused the research and ideas of many scholars, economists and non-economists alike, who may not have been won over to the specific models of these papers, but rather to the broad approach encompassed within them. Hopefully, the result will be the development of a new generation of paradigms, employing more realistic assumptions, explaining a wider range of human behavior, and yet still within the tradition of the individual household's maximizing approach to the childbearing decision. That possible outcome, assuming it is in part a response to this book's stimulus, could represent an important contribution indeed.

In the remainder of this review I will present

a brief summary of the papers' main analytical frameworks and contributions and will dwell most extensively on the limitations of these particular paradigms to household decision making. My discussion will hopefully point out fruitful avenues of future research.

The underlying household model takes the view that utility is derived from "basic commodities," which are combinations of desired attributes (*e.g.*, good health) rather than of commodities or services themselves (a visit to the doctor). "Child services," the multiplicative result of the number and the quality of children, is thus demanded and enters into the household utility function in much the same way as any other good or service. Actual enjoyment of the basic commodities requires "household production," a process that combines direct commodities (*e.g.*, children and purchased goods) and household time. The latter component in household production becomes very important in the model; on the one hand, child services are assumed to be relatively time intensive in production, and on the other hand, there is enormous variation in the value of time within and across societies and over time. The household is thus viewed as a firm producing utility, purchasing inputs (commodities and market services), and allocating its scarce time resources in a maximizing framework. This is a broadly useful and fruitful conceptualization.

To obtain analytically usable results, simplifying assumptions are made. These assumptions effectively purchase a tractable model, but, some would argue, at notable cost. The Robert Willis and Dennis DeTray papers present the best formal treatment of this model. In these papers it is assumed that (1) the wife specializes in home production and the husband in market production (in extreme cases there is complete specialization); (2) the prices of various goods and time are fixed throughout the very long planning period (the alternative of fully predictable price and wage changes could be introduced into the model); (3) child-bearing decisions are made at a single point in time and not modified thereafter in light of new information, preferences, or events (a static maximizing problem is thus the result); (4) there is a single, unified family utility function capable of being maximized; (5) each basic

commodity in the household production function is produced by a separate production process (joint production is thus ruled out by assumption); and (6) the time offered by each family member is solely an input into the household production process and not an output of it; that is, time is a given household constraint and is not a "basic commodity" produced or influenced by the household production process.

From these and a few other simplifying assumptions, a specific model emerges that yields several interesting results, largely consistent with a limited amount of empirical evidence pertaining largely to recent U.S. experience. The changing value of the woman's market time turns out to be the most important explanatory variable influencing the family-size decision. This is due to the substitution effect away from time-intensive goods like child services, substitution engendered by the rising cost of the most important input into child service production, the mother's time. If there is complete specialization in child service production, increases in the father's wage will, through an income effect, result in an increased demand for child services. In contrast, an increase in the wife's wage, assuming a domination of substitution over income effects, will result in a decrease in the demand for child services. Several studies using recent American data have provided some confirmation of the model's predictions if the assumption is made that educational endowments are a proxy for the relative market value of an individual's time.

The "new home economics" has other implications with respect to the demographic transition and to the labor force participation of females. However, in the context of explaining the demand for child services, the above single conclusion relating to the importance of the woman's market versus home production time represents the most significant result of the book. Unfortunately, even this result is not completely general. First, it follows from the model only after employing even more simplifying assumptions, specifically assumptions on the relative importance of the income and substitution effects resulting from an increase in the wife's wage. Second, it represents a prediction on child services, but not on child numbers. Only by utilizing even more restrictive

assumptions on the allocation of “quality” improvements of children within the family and on the demand for quality versus quantity of child services as related to income (and the price of the household member’s time) can explanations of family size be derived. Indeed, Robert Willis, whose paper presents the most thorough exposition of the household decision-making model, asserts “Since the issues to be resolved in order to derive hypotheses about the signs of η_N and η_O depend on the nature of family tastes, economic theory as such has little to say” (p. 39). Dennis DeTray is equally pessimistic about making positive predictions without much more empirical information pertaining to key parameters, since without such information, “. . . no a priori conclusions on fertility behavior can be drawn from the model” (p. 95). So while at once these papers have provided a testable model of the childbearing decision—a giant step forward over virtually all other attempts by other scholars in this area—the models are not easily tested, especially when one realizes the enormous, indeed monumental difficulties of measuring such elusive analytical concepts as “full income” and child quality, and of gaining information on time values when shadow prices rather than market prices must be estimated.

Two of the more insightful papers in this volume are by T. W. Schultz, the introduction to the volume, and by Mark Nerlove, the concluding essay. Without these two papers, this volume would have possessed much less value for the reader who enters for the first time into this highly specialized area of inquiry. The Schultz and Nerlove papers provide a balanced appraisal of the contributions and deficiencies of the new home economics presented in this book.

Professor Schultz, the book editor and conference organizer, is a tough taskmaster in appraising the book’s models and findings. He points out well the main contributions of the book and places these contributions in perspective by relation to the extensive human capital literature to which he has so importantly contributed. Moreover, he draws out unhesitatingly the most important limitations of the models in the book and at the same time gently but persuasively discards commonly-leveled red-herring criticisms of the Chicago approach

to explaining childbearing. Professor Schultz is pessimistic about the specific models’ abilities to explain most of the childbearing decisions that take place in the world: those decisions in the underdeveloped, low-income countries. “These are countries in which illiteracy abounds, human time is cheap, and the income opportunities that women have outside the home are mainly not jobs in the labor market. Furthermore, infant mortality is high, life expectancy at birth is low, debilitation during the adult years is substantial for reasons of inadequate nutrition and endemic diseases, and the availability of modern contraceptive techniques, including information about them, is, in general wanting. These classes of circumstances are not as yet at home in the household model” (p. 20). Unlike many critics of the new home economics, however, he correctly places the above limitations in perspective. “Once the *additional* parts of this theory have been formulated, its usefulness in analyzing household activities in low-income countries will not be in doubt . . .” (p. 20, emphasis mine).

At the analytical level, one of the more constraining features of the new home economics models are their inability to deal with dynamic household decision-making phenomena. As noted by Professor Schultz, “. . . it [the model] cannot yet, however, cope adequately with the lifetime behavior of parents with respect to the many diverse investments they make in the health, education, on-the-job training, travel, and marriage of their children and with respect to the transfer of property via inheritance” (p. 8). Most economists agree that these are important decisions that should be integrated into a simultaneous, decision-making model of the household; the new home economics model has made little headway in this direction.

In my judgment, a simplification of the new home economics model that enormously reduces its applicability is its treatment of children solely as consumer durables. Admittedly this simplifies the analysis significantly. It reduces the necessity to explain the investment in children as a producer or capital good; it also reduces the necessity to explain endogenously the utilization of children in home and market production. It greatly simplifies the analysis of the allocation of household re-

sources on children. For example, educational expenditures in the new home economics model simply augment the quality of child services and thereby provide for greater current and future enjoyment of child services. However, if children were also considered as producer durables, as they are in most parts of the world, then the decision to invest in children's education becomes much more complex. Sex- and parity-specific factors enter the decision-making process; the temporal pattern of returns from education must also be taken into account. Professors Simon Kuznets, R. A. Easterlin, Harvey Leibenstein, and others have emphasized the producer value of children in low-income settings. Indeed, children may well be in excess demand, and supply constraints in the form of biological-nutritional-health factors may largely explain actual family size. In this case, the new home economics model, which is demand-oriented, has little to offer. Professor T. W. Schultz, too, is somewhat concerned about these omissions from the approach of the new home economics model. With respect to advanced countries he notes that "[t]here is too little explicit analysis of the investments by parents in the abilities that children acquire from education . . . and other activities that enhance the capacities of children" (pp. 10-11). With respect to low-income countries he notes ". . . the mother's time is cheap in the context where health services, nutrition, and education for the children are dear. The satisfactions and producer services that parents derive from their children are in large measure from an assured number of children to provide help for household work and for family endeavors consisting mostly of farm work and to provide food and shelter for the parents during their old age and only in small measure from human capital that enhances the acquired quality of children" (pp. 20-21).

Professor Nerlove's concluding essay, which critically evaluates the new home economics model, is perceptive and useful. Among other factors, Professor Nerlove criticizes the logical problems involved with the treatment of the single, family utility function, where each member's preferences are somehow taken into account. He describes this formulation as the "Samuelsonian finesse." Nerlove notes that the model ". . . assumes a fixed family member-

ship, and a great deal of what the Chicago utility function is designed to explain is how that family composition gets determined" (p. 531). While this criticism is logically appealing, I do not consider it as important as other points he raises.

He is concerned with three primary problems with the new home economics: its lack of a dynamic framework, its treatment of time as a constraint exogenously given (time and quality are independently considered), and the lack of joint household production. Complementarities in production, especially in the child quality area—health, educational, and physical development—are pervasive in the household production process. In the low-income setting, where children are also producer durables, and where investing in children's education and nutrition represent a prevalent form of capital formation, the need for a dynamic decision-making model where complementarities in household production are highlighted, not suppressed, appears to merit high priority on the research agenda.

In summary, this book's main contribution lies in the focus it has given in pointing out areas of potentially fruitful future research. It has also made notable headway in convincing many economists and other social scientists that the reproduction decision can be fruitfully subjected to the tools of traditional economic analysis. The particular models set forth in this book will be rightfully criticized for their several limitations and their likely inability to adequately explain the important question of childbearing in low-income countries with high birth rates. But I predict that the underlying broad model of analyzing human behavior by applying cost-benefit analysis to a household in which decision making is made in a maximizing framework, which highlights time as well as traditional economic variables, and where preferences are taken as exogenously determined will still prove to be the most fruitful avenue of future research in the area of family formation. Too many debates over the "specifics" of the new home economics models have obscured this somewhat broader feature of the Chicago School's contribution to population economics.

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