

socioeconomic and social classes are still pertinent in sociological and economic analyses. This important piece of empirical work, which covers a long period of time, will bring new ideas to the debate on the usefulness of social class analysis.

Working with expenditures of households, the author brings forth what may be a surprising observation: Poor families in 1988 were better off than poor families in 1973, due to an increase in unreported income. The author pleads for a new index of poverty in order to take into account real expenditures, and not only income or experts' norms.

Clair Brown's well-written book makes a significant contribution to our understanding not only of standards of living, but also of the transformation of family, social classes, and women's life in the United States from the 1920s to the 1990s.

Restructuring for Innovation: The Remaking of the U.S. Semiconductor Industry, by **David P. Angel**. New York: The Guilford Press, 1994. 216 pp. \$27.95 cloth. ISBN: 0-89862-272-2.

LANE KENWORTHY
East Carolina University

As the field of economic sociology has blossomed in recent years, it has largely ignored the issue of economic performance. The explanatory aim of sociological research in most areas, from crime to poverty to the family, extends beyond such matters as individual behavior and government policies to include outcomes. Thus far, however, economic sociologists have tended to leave the study of economic performance to other disciplines. *Restructuring for Innovation*, by geographer David Angel, offers an analysis of industry-level performance that economic (and other) sociologists should find insightful and instructive.

The book examines economic performance patterns in the semiconductor industry. During the 1960s and 1970s U.S. firms dominated the world chip market, accounting for 60 percent of worldwide sales as recently as 1980. Angel seeks to explain how Japanese companies caught up and captured the lead in market share during the 1980s

and how American firms recaptured it by the early 1990s. He draws upon data from industry sources, secondary analyses, responses by 72 American semiconductor firms to a survey questionnaire, and a series of interviews with industry players conducted between 1989 and 1991. Angel's account departs from conventional analyses of the semiconductor industry, which typically locate the key to success in entrepreneurial innovation, firm size, or government activism.

U.S. dominance of the industry through the early 1980s was largely a product of substantial investments (both private and public) in research, which generated continuous advances in product technology. According to Angel, however, in the conditions of intense competition, rapid technological change, and fluctuating market demand that have come to characterize the semiconductor industry, superior product technology is seldom sufficient to ensure sustained competitive advantage. More important is the ability to move quickly from innovation to production (referred to as time-to-market) and to rapidly adapt production processes so as to maintain high levels of efficiency and quality in the face of continuous change. Like their counterparts in industries such as automobiles and textiles, U.S. semiconductor firms tended to treat basic research, product development, and production as discrete, sequential operations to be conducted by separate groups. By limiting their ability to codevelop new products and new production processes, this strategy proved to be the Achilles' heel of American chip manufacturers.

In contrast, Japanese firms typically integrate these processes, utilizing multidivisional teams to coordinate the research-development-production chain and frequently rotating employees from R&D into production. Angel argues that this organizational strategy, combined with a complex of other factors—a thoroughgoing commitment to production as a key source of competitive advantage, close relationships between chip manufacturers and suppliers, government support for research and protection of Japan's domestic chip market, and several conjunctural developments—propelled Japanese semiconductor firms to the top of the world market by 1986.

The chief reason for the recent comeback

by U.S. firms, according to Angel, is that by the late 1980s a number of them had begun to emulate the Japanese practice of integrating technology development and production. He credits this organizational shift with reducing time-to-market and improving production efficiency and quality. Enhanced manufacturer-supplier cooperation, alliances between American chip producers and domestic and foreign competitors, and the government-supported Sematech consortium are said to have played a helpful but secondary role in the U.S. resurgence.

Restructuring for Innovation is not without weaknesses. Angel underplays the impact of computerization of the chip design process in improving time-to-market in recent years, and the reader is left wishing for more data on time-to-market and production efficiency in U.S. and Japanese firms.

On the whole, though, this is a well-researched, compelling book. Its findings are consistent with a growing body of theoretical and empirical work that emphasizes the utility of combining market competition with various nonmarket forms of cooperation with and between firms. A better understanding of such cooperative practices would seem to be one of the principal contributions economic sociology can make to the study of economic performance.

Description, Explanation and Understanding: Selected Writings, 1944–1980, by **Tom Burns**. New York: Columbia University Press, 1995. 312 pp. \$65.00 cloth. ISBN: 0-7486-0533-9.

J. DAVID KNOTTNERUS
Oklahoma State University

In this collection of 14 papers, covering nearly four decades of work, we gain a vivid sense of how Tom Burns's approaches to the study of social life have unfolded. While this Fellow of the British Academy is probably best known for his studies of the organizational structures of industrial and nonindustrial settings, the present work provides us with a sampling of his wide concerns, ranging from his experiences as a prisoner of war in the Second World War to the nature of sociological explanation and the develop-

ment of bureaucracies in the modern world. Fortunately, these papers have not been assembled in an arbitrary manner, with little purpose other than to commemorate the contributions of an internationally recognized scholar. Rather, the author has chosen these works to show "how much one's working life is a continuous learning process" (p. 1). Given the varied nature of the essays and the circumstances of Burns's career, this seems a quite appropriate justification for this project.

More precisely, the backdrop for this collection of papers is found in the author's search for explanation and understanding through his research—thus, the title of the book. These concerns, which provide an underlying sense of coherence to the book, are most clearly addressed in the introduction. Here, Burns expresses his belief that sociology involves descriptive and taxonomic dimensions, along with explanatory and theoretical aspects. Four styles of description are identified: straightforward narrative of events, explanation of observations that appear unfamiliar or strange, description and deeper understanding of the complexities of the familiar, and a new awareness of a familiar reality derived from looking at it from a different perspective.

Most of the contributions in the book are informed by these levels of description. For instance, we learn that Burns's well-known investigations into successful and unsuccessful management structures in industry generated a number of discrepancies. His explanation for these findings focuses on internal politics, careerism, and a dual image of organizations (and society) involving cooperation and competition, issues that are examined in various essays, including one called "Micropolitics." Certain other papers are related to the author's investigations of the BBC, which (along with his research into hospitals), led to an understanding of organizations focused on "the fabric of individual involvement and relationships" (p. 19) and "organized collective action" (p. 21). Another aspect of understanding also refers to an investigative procedure (somewhat akin to that used in social anthropology) developed during Burns's career, which utilizes interviews and aims at a "shared understanding" between interviewees and researcher (p. 16).