Book Reviews

1987, Fortune 500 companies reduced their work forces by 3.1 million, going from an aggregate of 16.2 million employees to 13.1 million.

Management Compared

Behind the Factory Walls. Decision Making in Soviet and US Enterprises. PAUL R. LAWRENCE, CHARALAMBOS A. VLACHOUTSICOS, and six others. Harvard Business School Press, Boston, 1990. xii, 342 pp., \$29.95.

Behind the Factory Walls summarizes the research of a joint American-Soviet team of management specialists formed from the Harvard Business School and the Soviet Institute of External Affairs of the Foreign Economic Commission. American and Soviet researchers, working as a team, were given remarkable access to two American and two Soviet enterprises operating in the same lines of business. The identities of the four companies are concealed behind generic names (AmTruck, SovTruck, AmElectric, and SovElectric), and the names of the Soviet and American managers are also changed. What emerges from this joint research effort (conducted in 1988) is a fascinating glimpse "behind the factory walls" into the actual decision-making processes of American and Soviet industrial enterprises. The research team focused attention on key managerial decision-making areas-planning, hiring and firing of managers, capital investment decisions, and new product introduction-to find what is common and what is different.

What can be learned by such a research effort? Are there major surprises for specialists on the Soviet industrial enterprise? A number of findings serve to confirm the specialized literature that has been built up over the years. The American team notes the greater degree of vertical integration of the Soviet industrial enterprise (the bringing of more and more activities in house to avoid dependency), the need to earn bonuses to prevent workers from leaving, the downward adjustment of targets to ensure plan fulfillment, the greater role played by organizations external to the enterprises (such as the ministry or the party), and the preoccupation with supply problems. The confirmation of earlier findings based on the Soviet literature or surveys of emigrés is a welcome result for specialists on Soviet management.

Some of the project's more fascinating findings are discoveries of common behavior. In both settings, industrial managers engage in "storming," battle for easier goals from higher-level organizations, and use similar procedures in easing out unqualified managers. The noted "ratchet effect" (use of previous plan fulfillment to determine current plans) is a concern of both American and Soviet managers. Both Soviet and American industrial managers use social reasons (such as safety or environment) to justify activities that they need on purely economic grounds.

The timing of the appearance of this research is especially fortunate. It captures the first phases of the implementation of Soviet reforms of the industrial enterprise. Hence Soviet specialists can use it to gauge the progress and implementation of reform. The research team's most striking finding is the degree to which the industrial democratization features of the perestroika reform are being taken seriously. In the examined cases, the workers' collective does appear to play a prominent role in the selection of managerial personnel and in other major managerial decisions. The team was struck by the manner in which the Soviet system combines industrial democracy with a directive system in an apparently harmonious fashion.

This book shows the value of comparative case studies, even though the research team's generalizations may be premature in view of the limited number of enterprises studied. The team has succeeded in confirming many of the major research findings of Soviet specialists, has discovered some unexpected common behavior patterns, and has shed light on the implementation of the perestroika reforms.

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Externalized Employment

The Invisible Work Force. Transforming American Business with Outside and Home-Based Workers. BEVERLY LOZANO. Free Press (Macmillan), New York, 1989. xii, 218 pp. \$19.95.

Firms in the United States have undergone profound changes in the last decade as a result of downsizing, mergers and acquisitions, and the need to stay competitive in an increasingly global economy. In fact, between the beginning of 1980 and the end of This type of internal labor-market turbulence has prompted many companies to rethink their overall staffing attitudes and practices. The traditional attitude that firms took toward their white-collar work force entailed permanent, or at least relatively secure, employment, with some notion of career advancement. Yet current staffing practices challenge that stance. Many companies now think of their personnel in much the same manner as they do their inventories, striving for a just-in-time staffing strategy to parallel their just-in-time inventory systems that keep supplies and materials just sufficient to meet current demand.

This desire for elasticity in staffing has resulted in an ad hoc two-tiered work force in many U.S. firms. The first tier comprises a core of salaried employees on the company payroll toward whom the traditional attitude still holds. These core employees are accorded a relatively high degree of job security, perquisites, health and pension benefits, and opportunities for training and skill upgrading. The second tier includes a cadre of workers, many of whom are not on the company payroll, hired as self-employed independent contractors, temporaries, or casual part-timers. These workers have weak ties to the company, are generally hired for finite periods, often in a non-systematic fashion, and receive no health coverage or other benefits. Many in the second tier previously worked for the firm as core employees.

This second-tier work force goes by many names, including contingent work force, peripheral or secondary workers, and even reserve work force. Although this tier has always existed in the United States and elsewhere, there is evidence that its numbers are growing. Examples abound in the publishing, television, insurance, and advertising industries of employees laid off from the core tier and hired back as independent contractors, euphemistically referred to as freelancers, or supplanted by temporary workers. Yet studies of this trend have been lacking.

Into this breach enters Beverly Lozano with *The Invisible Work Force*. On the basis of a case study of Silicon Valley, Lozano aims to document and describe what she calls in her book title the invisible work force and in her text the informal work force. In effect, she defines this work force as made up of those workers who operate in a gray area between wage work and self-employment; typically, each works for only one firm and is expected to perform as an employee, yet is defined and recompensed as though selfemployed, an arrangement that Lozano clearly shows to be questionable. In fact, a third of the contractors in her sample previously worked as employees for the firms for which they now do contract work. These workers typically have moved their work site from the office to the home, usually relying on the resources of home and family (including children) to accomplish their work assignments.

Although Lozano serves her readership well by identifying the inadequacy of current concepts to characterize workers in this gray area, her book raises more conceptual problems than it solves, particularly in its reliance on the theoretical construct informal work. Until recently, that term was used almost exclusively to refer to unenumerated workers, such as petty traders and rag pickers in Third World countries, who use this income-producing strategy to survive. Within the context of the Third World the term is seen as problematic by some scholars, and Lozano herself in one of her final footnotes addresses the debate over its utility (see p. 198). Recently the term informal work has been brought to bear on selected economic activities in the garment and shoe industries in central economies such as Canada and the United States. Yet Lozano's book lacks clearly delineated arguments as to how well the term captures the economic activity of professional and technical contractors in the information-based economy of Silicon Valley.

Lozano also does little to interpret her findings in light of the extensive recent discussions within the United States regarding the notion of a two-tiered workforce, the concept of contingent or peripheral workers, or the fraudulent contracting out of clerical work to home-based workers. The majority of Lozano's references are from the early to mid-1980s and from the West Coast popular press, and she does not seem to have kept up with work published since then or with coverage of contingent work or fraudulent contracting out in, for example, the *New York Times, The Wall Street Journal*, or *Business Week*.

In addition, Lozano's set of interviews at best presents a limited purview of the workers' motivations for accepting this contracting arrangement. Her book is based on the results of interviews, conducted in 1983, with 35 independent contractors (33 of whom work in their homes) and with senior executives at 12 local firms, 5 of which had hired contractors from the pool of 35 she interviewed. These firms were exclusively in business services and electronic manufacturing. Of the 35 contractors, 18 engaged in professional or technical work, 9 in clerical ly made the "choice" to contract from home, without distinguishing between those who possess skills that are in demand in the workplace (most likely the professionals and technical workers) and those whose skills are in limited demand (probably those engaged in electronic assembly). Without such a distinction, it is impossible to know the degree of genuine choice the workers had in making their decisions. Therefore, it is difficult to accept Lozano's conclusion that all the workers "chose" this arrangement solely because of their dislike of working in an authoritarian workplace. There is also no mention of family concerns in the chapter discussing individual motivations for these arrangements. Women with young children often turn to such arrangements as a result of the lack of flexible scheduling alternatives, such as part-time or job-sharing options, in conventional workplaces. Had her interviews been more recent, Lozano would also have likely seen structural changes in the labor market as a major factor in why men and women end up on the periphery of the firm as contractors rather than in the core as employees. In effect, in Lozano's account the complexity of people's life circumstances is reduced to a single dimension: reaction to

work, and 8 in electronic assembly. Lozano

characterizes all of them as having voluntari-

what is seen as an authoritarian workplace. Finally, halfway through the text, Lozano reveals a bias when she reports that, in reaction to the statements of one of her interviewees, "I found myself frustrated with his apparent satisfaction with the arrangement, and blurting out that I thought the bank was exploiting him, I asked, 'Don't you really think they're just using you?' " (p. 94). Such an attitude is unfortunate. By listening to her subjects without sitting in judgment of them, Lozano might have allowed them to reveal the complexity of factors that led them to make the decisions they made.

In conclusion, as one of the first booklength treatments of contracting-out practices in U.S. firms, *The Invisible Work Force* should be credited for beginning to document this trend systematically. Yet its unjustified reliance on the theoretical construct informal work, the datedness and skimpiness of its empirical base, and the lack of contact with the broader discussion regarding the emergence of a two-tiered work force create insurmountable flaws. This is unfortunate, because a solid book with the aims of *The Invisible Work Force* is sorely needed.

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Birds on the Wing

Flight Strategies of Migrating Hawks. PAUL KERLINGER. University of Chicago Press, Chicago, 1989. xvi, 375 pp., illus. \$60; paper, \$19.95.

Migrating hawks flow in great rivers over mountain ridges, fill the sky from horizon to horizon over parts of Central America, and suddenly appear out of nowhere to land on a ship at sea, only to depart again after a few hours. Kerlinger, however, shows that hawks are not consummate migrants. They are found dead by the hundreds when they encounter unfavorable winds over the sea, and many species hesitate to cross even 20 kilometers of open water. In general, hawks fly more slowly and are more dependent on local weather and atmospheric conditions than are other long-distance migrants.

This volume is a first attempt to assemble information on the migratory behavior, physiology, aerodynamics, and ecology of an entire avian taxon and to develop a framework for evaluating alternative strategies the birds might use to accomplish migration with the least cost and the greatest benefit. This application of the methods of behavioral ecology to the study of migration could be an important innovation in a field that has progressed slowly in the past decades, and, if nothing else, Kerlinger has outlined some of the problems to be faced.

Kerlinger's analysis rests on a slender base of data. Counts of hawks moving along mountain ridges and coastlines are too biased to establish migratory routes, speeds, and altitudes. Instead of using such counts Kerlinger draws on a small number of studies using radio telemetry, radar, and banding returns. He reviews his own work in detail and gives brief summaries of other work. Of particular importance is the lack of information on alternative strategies. On those years when hawks are not seen at the traditional counting sites, we simply do not know where they go.

The strongest part of the work is Kerlinger's analysis of the factors affecting the three modes of flight used by hawks: powered flight, gliding along ridges, and gliding between thermals. Behavior and morphology combine to favor powered flight for the swept-winged, solitary peregrine falcon, whereas the gregarious broadwinged hawk more easily identifies the erratic opportunities for thermal gliding by watching for flocks of soaring birds. Longdistance migrants tend to maximize distance traveled rather than minimize energy expended. Kerlinger's simulations show that gliding along ridges or between thermals is more efficient than powered flight, and