
FOREIGN POLICY & DEFENSE

how to overwhelm Soviet-made Syrian anti-aircraft systems.

Not only does Israel test American-built weapons in battle, Spiegel adds, but it contributes innovations to the American arsenal. A minor example: Sand-clogged helicopter engines aborted the 1980 U.S. Iran rescue mission; the Israelis came up with a workable sand filter.

Close U.S.-Israeli cooperation may strain ties with the Arabs, Spiegel concedes, but it has not kept the United States from becoming the pre-eminent power in the Middle East. Indeed, Anwar Sadat turned from Moscow to Washington in 1975 precisely because he knew the Americans could influence the Israelis. Eventually, other Middle Eastern states may follow the same logic.

ECONOMICS, LABOR, & BUSINESS

Jobs of the Future

"The Declining Middle" by Bob Kuttner, in *The Atlantic Monthly* (July 1983), P.O. Box 2547, Boulder, Colo. 80322.

New technology often takes jobs away with one hand and gives them back with the other. But Kuttner, former editor of *Working Papers* magazine, argues that the overwhelming majority of jobs created during the 1980s will be routine and poorly paid. The result, he fears, will be a shrinking middle class and an increasingly stratified U.S. society.

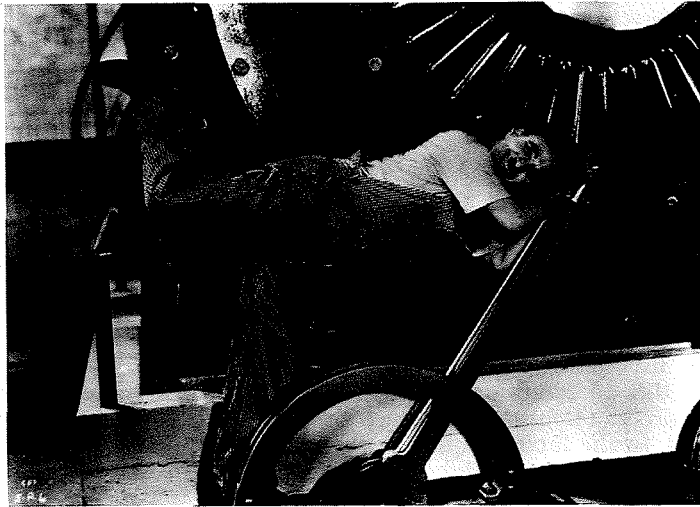
The decline of America's "smokestack" industries—machine tools, autos, rubber—cost nearly three million highly paid production jobs during the last four years alone. Manufacturing accounts for one job in eight today, compared with one in four in 1950.

New jobs are replacing the old, but they are simply not as good. Of the 19 million additional jobs created by 1990, according to the U.S. Department of Labor, only 3.5 million will be for white-collar "professional and technical" workers; there will be twice as many openings for service workers and secretaries.

The fast-growing, "high-tech" industries offer no panacea. Few workers are needed to assemble computers, for example, and they earn little (\$12,000) compared to their "smokestack" counterparts. Overall, electronics industries will not add many jobs: Some 120,000 new computer programmers and 125,000 more electrical engineers will be needed during the 1980s. Because self-diagnosing systems are now being built into computers, even computer repairmen face a tight job market: The American Electronics Association puts the need for new technicians at only 90,000 by 1990. The demand for janitors (600,000), salesclerks (500,000), and fast-food workers (400,000) will be far higher.

While computers are freeing executives and professionals from routine work, Kuttner says, the effects on the lower end of the job hierarchy are just the opposite. At one large Blue Cross/Blue Shield office in

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Popular ambivalence toward technology is not new: In Modern Times (1936), Charlie Chaplin emphasized the "dehumanizing" effects of factory life.

Massachusetts, for example, clerks once started at the bottom—filing, sorting documents, keypunching, delivering mail—and worked their way up to supervisory positions. But now, says a company executive, because computers are eliminating the need for mid-level decision-making, "We have a lot more routine jobs at the bottom, and a few more complex jobs at the top."

While economists disagree as to whether the economy will eventually "self-correct" for such imbalances, Kuttner notes that there are two powerful agents for equality: labor unions, whose presence boosts wages by 10–20 percent, and government, which now provides entry level slots for well over half the nation's black and female college graduates. Both, he notes, are now in relative decline—which augurs ill for the "high-tech" society of the future.

Explaining Japan's Qualitative Edge

"Quality on the Line" by David A. Garvin, in *The Harvard Business Review* (Sept.-Oct. 1983), P.O. Box 3000, Woburn, Mass. 01888.

Japanese manufacturers produce many goods, notably autos, that are widely considered superior in quality to comparable U.S. products. Most analysts are vague about the reasons for the Japanese advantage.

Garvin, a Harvard Business School professor, carried out a 1981–1982 study of the room air conditioner industry (nine U.S. companies, seven Japanese) to find the answer. The Japanese manufacturers, he found, do indeed vastly outperform their American competitors in quality. On average, the Japanese companies suffered less than one