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Training Programs Raise Worker Productivity

Implementing new employee training programs can increase worker productivity significantly, according to an NBER study by **Ann Bartel**. In fact, in her sample of manufacturing firms between 1983 and 1986, these programs boosted productivity by 17 percent.

In **Productivity Gains from the Implementation of Employee Training Programs** (*NBER Working Paper No. 3893*), Bartel observes that firms with below-average productivity are more likely to institute new training programs for their workers than other firms. And, the firms that do start new programs benefit significantly from their investment in training through increases in worker output. However, Bartel finds that implementing other types of programs for workers, including changes in job design or performance appraisal, do not increase productivity significantly.

In a related study, **Lisa Lynch** focuses on another benefit of employee training programs: reduced turnover among workers. In **Differential Effects of Post-School Training on Early Career Mobility** (*NBER Working Paper No. 4034*), she examines turnover among 2500 young workers in 1979–87 who are within four years of having left school.

Lynch finds that, after leaving school, the typical worker stays with the first employer for about a year and a half. Almost three-quarters of young workers have left their first job after four years, she estimates. About 17 percent of them have received training, either on or off the job.

"Firms that do start new programs benefit significantly from their investment in training through increases in worker output."

Lynch estimates that workers who receive formal on-the-job training are 25 to 30 percent less likely to leave their jobs than otherwise similar workers who do not receive such training. The effects of on-the-job training programs are especially large for women, blacks, and workers with less than a high school education, she finds. However, off-the-job training programs have no such effect.

Minority of Aged Account for Most Nursing Home Use

The majority of elderly Americans will never enter a nursing home, and most who do so will spend only a short time there. However, a substantial minority of the elderly spend years in an institution, and this minority account for a large fraction of nursing home utilization, according to a new NBER study by **Andrew Dick, Alan Garber,** and **Thomas MaCurdy**.

In **Forecasting Nursing Home Utilization of Elderly Americans** (*NBER Working Paper No. 4107*), the three authors use data from two national surveys of long-term care, conducted in the 1980s. They find that the risk that a 65-year-old would ever enter a nursing home was 35 percent. The median age of a first admission was about 81 for men and 84 for women. Indeed, half of the individuals entering a nursing home for the first time were between the ages of 76 and 88.

"Among those aged 65 in the 1980s, only 25 percent could expect to spend more than two months in a nursing home."

Among those first admissions to a nursing home, 10 percent lasted at least four years, and 42 percent ended in death. But almost 25 percent of individuals who ever entered a nursing home spent only one month there. The average stay was six months; only 50 percent of people who had ever been in a nursing home spent more than six months there.

Among those aged 65 in the 1980s, only 25 percent could expect to spend more than two months in a nursing home; about one-third would spend less than three months, and 28 percent would spend from three to twelve months. But a substantial minority of the elderly experienced lengthy stays: nearly 25 percent of women who ever entered a nursing home spent three years there.

In the NBER study, 12 percent of the individuals sampled spent five years or more in a nursing home, and 40 percent spent one year.

Foreign Investment Boom in the United States Not Caused by 1986 Tax Law

In the late 1980s, foreign direct investment (FDI) in the United States boomed. From a total of $29 billion in 1980, FDI rose to $123 billion by 1989. Some economists have attributed this boom to the Tax Reform Act of 1986. But in a recent NBER study, **Alan Auerbach** and **Kevin Hassett** present important evidence that is inconsistent with this view.

In **Taxation and Foreign Direct Investment in the United States: A Reconsideration of the Evidence** (*NBER Working Paper No. 3895*), Auerbach and Hassett explain that some economists expected the 1986 tax law to increase new capital investments by foreign investors because it repealed the investment tax credit (ITC). Japanese and British companies, whose governments based their taxes on worldwide income and reduced their taxes by as much as one dollar for every dollar paid to other countries' governments, would not have been hurt much by the 1986 repeal of the ITC. The ITC helped them very little in the first place: for every dollar in U.S. taxes that the tax credit saved these companies, they had to pay extra taxes to their own governments. But repeal of the ITC did reduce the incentive of U.S. companies to make new investments. Therefore, the ITC's repeal increased the *relative* incentive for Japanese and British companies to invest.

Auerbach and Hassett show that the 1986 tax law also contained provisions that should have discouraged takeovers by British and Japanese companies. The net result of all of these changes, they argue, should have been that Japanese and British companies invested a lower fraction of their investment in mergers and acquisitions and a higher fraction in new capital.

Yet, precisely the opposite happened. From 1986 to 1988, the researchers note, the boom in FDI in the United States was primarily in mergers and acquisitions. According to Auerbach and Hassett, Japanese acquisition activity increased from $1.3 billion in 1986 to $12.2 billion in 1988. In that same time, British acquisitions almost tripled. These two countries' investments in new capital in the United States also increased, but by a much smaller percentage than

their investments for acquisition. The net result was that acquisition investments by foreign companies in the United States rose from 40 percent of total investment in 1986 to 65 percent in 1988. This evidence, the researchers note, clashes with the expected effects of the 1986 tax law on the relative proportions of new investment versus takeovers.

"The boom in investment experienced in the United States is just part of a broader increase in foreign investment activity by those [other] countries."

Auerbach and Hassett also point out that, if the 1986 tax law had been responsible for the boom in FDI in the United States, then the U.S. share of direct investment by other countries should have increased. But the authors show that, in the late 1980s, the U.S. share of foreign investment by other countries stayed constant. This suggests that "the boom in investment experienced in the United States is just part of a broader increase in foreign investment activity by those countries."

The tax law, they conclude, simply cannot account for the increase or change in composition of FDI in the United States. The authors suggest that other factors, such as changes in exchange rates or liberalization of capital markets, may account for the changes in foreign investment. They base their conclusions on data from the U.S. Department of Commerce. DRH

Falling Wages and Unionization Contributed to Decline in Pension Coverage

After more than doubling from 1950 to 1979, the proportion of U.S. employees covered by private pensions fell from 63 to 57 percent between 1979 and 1988. This decline was concentrated among young and poorly educated men: among men aged 25 to 34, the share with pension coverage dropped from 64 to 50 percent; for high school dropouts in the same age group, coverage fell from 49 to 23 percent. Now, a new NBER study by **David Bloom** and **Richard Freeman** estimates that 10 to 20 percent of this recent decline in pension coverage is a result of the fall in average real earnings that occurred during the 1980s, while another 20 to 25 percent is explained by declining unionization.

In **The Fall in Private Pension Coverage in the United States** (*NBER Working Paper No. 3973*), Bloom and Freeman explain that income tax rules create incentives for receiving untaxed benefits, rather than taxable salary, as compensation. Because of this, higher-income workers are more likely than lower-income workers to have pension plans. Thus, as average real earnings fall, so does the desirability of pension coverage.

Bloom and Freeman note that the decline in marginal tax rates in 1981 and again in 1986 lowered the incentive to participate in a pension plan, especially for high-income workers whose marginal tax rates declined the most. But since the change in pension coverage was much larger for low-income than for higher-income workers, this tax effect was probably small.

They go on to explain that older workers, who presumably are more interested in pensions than younger workers are, generally have considerable influence on union bargaining. Declining union strength during the 1980s meant decreased power for these older workers, and therefore less push for pension coverage.

Bloom and Freeman observe that pension coverage did *not* fall because workers' confidence in the Social Security system had strengthened. In fact, younger workers, among whom pension coverage fell most, have the least confidence in the ability of the Social Security system to pay their retirement benefits.

"Declining union strength during the 1980s meant decreased power for these older workers, and therefore less push for pension coverage."

Further, Bloom and Freeman doubt that the increasing cost of health insurance caused many firms to eliminate their pension plans. Indeed, the proportion of employees of medium and large establishments who were covered by health insurance plans funded entirely by the employer fell by 23 percentage points from 1979 to 1989. As a result, employer outlays for group health insurance as a share of total compensation rose by only 1.1 percentage points during the 1980s. This was far too little to explain much of the change in pension coverage.

New NBER Books

Two Volumes Available from University of Chicago Press

Canada–U.S. Tax Comparisons, edited by John B. Shoven and John Whalley, is now available. Priced at $55.00, this book is part of a project that compares social policies in Canada and the United States. The authors find, among other things, a surprising independence in the tax policy of the two countries. Yet, despite different policies, outcomes often are quite similar: for example, the two tax systems generate about the same amount of revenue and produce comparable distributions of income.

Shoven and Whalley are research associates in the NBER's Program in Public Economics. Shoven is also a professor of economics at Stanford University; Whalley is a professor of economics at the University of Western Ontario.

In October, *Immigration and the Workforce: Economic Consequences for the United States and Source Areas*, edited by George J. Borjas and Richard B. Freeman, will be available. Its price is $45.00. This volume analyzes the effect of immigration on the U.S. economy, and on such source areas as Puerto Rico, through the late 1980s. It should interest labor and development economists, demographers, sociologists, and policy specialists.

Borjas is an NBER research associate in labor studies and a professor of economics at the University of California, San Diego. Freeman directs the NBER's labor studies program and is a professor of economics at Harvard University.

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