

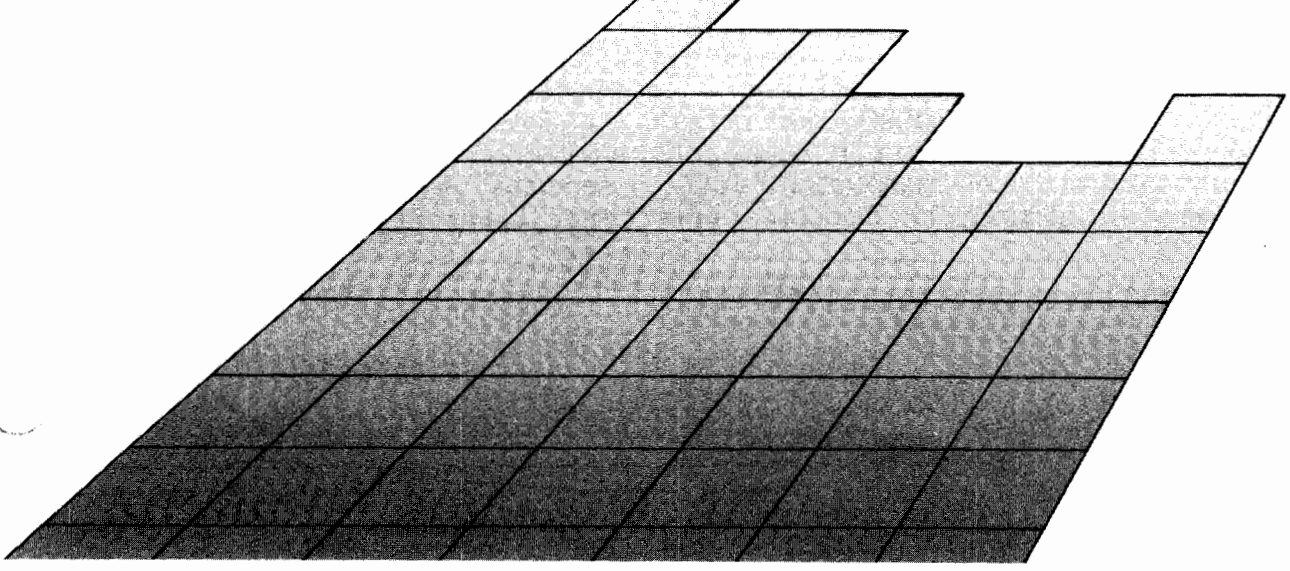
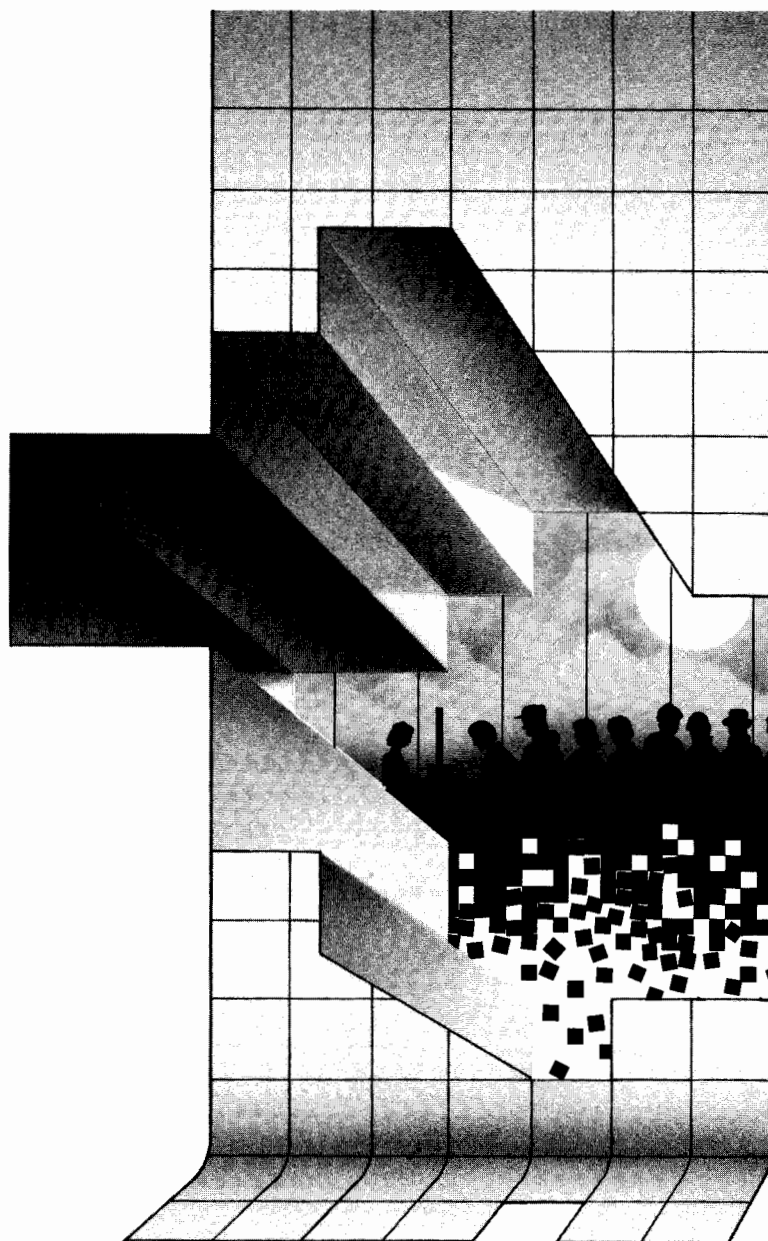
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# **PULLING DOWN UNEMPLOYMENT: THE IMPACT OF LABOR SUBSIDIES ON STIMULATING PRIVATE SECTOR EMPLOYMENT**

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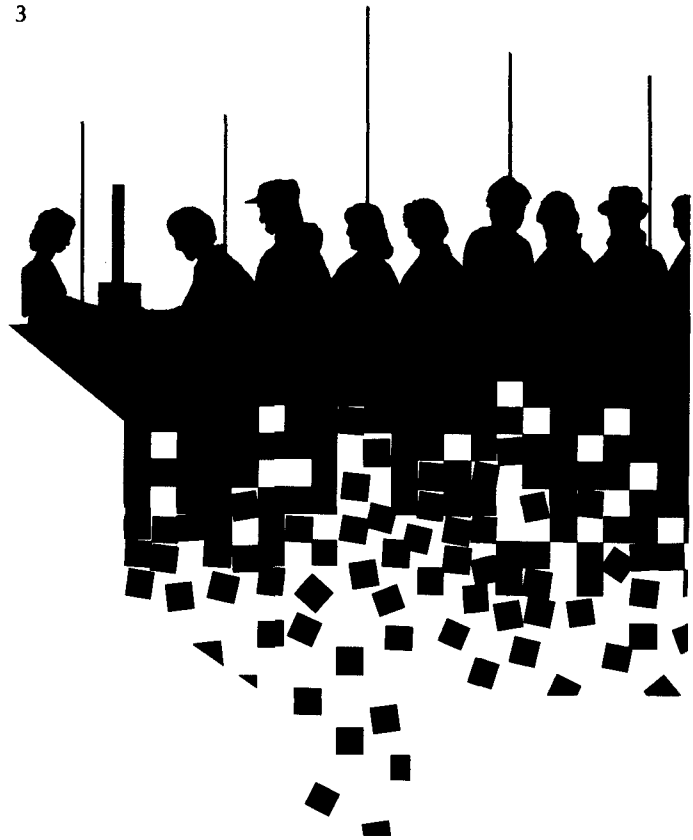
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## EXECUTIVE SUMMARY

*The United States has experimented with several different types of labor subsidies in an attempt to stimulate more employment and to reduce unemployment. For the most part, these programs have met with very limited success. While these experiences do not negate the underlying premise of labor subsidies, they do point out the need for alternative approaches. High unemployment rates are typically short-lived and are primarily a function of weak economic activity; employment rates (and employment levels) generally fall when the economy expands again. However, unemployment that continues for extended periods of time is usually attributable to insufficient education (less than a high school degree) or lack of employable skills rather than to economic malaise. Consequently, labor subsidies which facilitate the acquisition or upgrading of skills hold the greatest potential for permanently reducing unemployment.*



## INTRODUCTION

High unemployment exacts a heavy toll on society. The wasted human resources, lost economic growth, and higher outlays for social entitlement programs (e.g., food stamps, welfare benefits, unemployment compensation) pale in comparison to the anger, frustration, loss of self-esteem, higher incidence of crime, mental illness, child abuse, suicide, and poverty associated with lengthy periods of unemployment. Public employment programs and programs to stimulate employment in the private sector are generally discussed in just such a context. Because public employment programs are widely perceived as costly make-work efforts that provide little hope for permanent employment, initiatives aimed at private sector employment generally create more interest and support.

Labor subsidies are only one of many techniques that have periodically been used to help pull down unemployment rates. They have been promoted as a means of holding down further increases in unemployment during periods of economic recession. Studies have shown that labor subsidies are more effective in retaining jobs and generating private sector employment than import protection, subsidies on business equipment acquisition, building construction or renovation, or product subsidies, especially if employees are unwilling to grant wage concessions.

Moreover, advocates have claimed that, during periods of economic growth, labor subsidies also help reduce structural unemployment and increase the level of gross national product without generating concurrent increases in prices and inflation. ("Structural" unemployment occurs when adjustments to major

changes in labor market conditions are slow; examples include geographical mismatch between workers and jobs, mismatches between skills and employment opportunities, or unrealistic wage expectations.)

The idea behind labor subsidies is relatively straightforward. Suppose an employer uses both workers and machines to manufacture an item and that the employer has some flexibility in determining the mix of workers and machines employed at any given level of output. For instance, the employer might be able to produce 10,000 items with 15 workers and 25 machines, or with 20 workers and 20 machines, or with any worker/machine combination in between. If a labor subsidy makes it less expensive to pay workers, the manufacturer would find it more profitable to maintain output by increasing the number of workers, reducing the number of machines used in the process, and trying to sell off any machines that were no longer needed.

Alternatively, this same employer might find it financially advantageous to retain all the equipment, hire more workers and increase production, still keeping total costs the same as prior to the labor subsidy. If product prices did not decline because of this additional supply, the manufacturer would realize more profits (profit equals sales revenue minus manufacturing and sales costs) and, hence, would have even a greater incentive to expand hiring and output. If greater output was not matched by commensurate increases in demand, prices would fall, yet the manufacturer would still make at least as much profit as before the labor subsidy or else would not participate in the subsidy program.

Consequently, at the end of all the employment, output, and pricing adjustments, more workers would be employed, manufacturing profits would be as large or larger than before the subsidy, and prices would be lower. Workers would

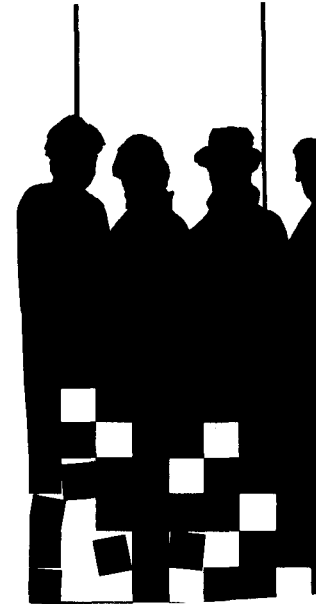
benefit from more employment, manufacturers from higher profits, and consumers from lower prices and reduced rates of inflation, making everyone at least as well off as before the program was initiated.

Thus, during periods of economic recession and weak buyer demand, labor subsidies could help prevent layoffs, preserving the trained work force for use when sales improved enough to support current activity without requiring a subsidy. If the economy was in a period of expansion rather than recession, labor subsidies would make it more cost effective to hire and train unskilled labor to obtain the number of hands needed to expand output and meet demand. In this case, the labor subsidy would help prevent higher inflation and would reduce the underlying rate of structural unemployment.

Whether labor subsidies actually reduce unemployment and by how much depends on a variety of factors: the extent to which workers can be used instead of additional equipment; whether or not unskilled workers replace skilled workers, teenagers replace housewives, or younger workers replace older workers; whether or not a subsidy would draw people into the labor force who previously were not interested in employment, thereby offsetting any reduction in the unemployment rate; and how the subsidy is administered; the duration of the subsidy program; and its short- and long-term impact on the labor market and the economy.

The first part of this report reviews theoretical and empirical information on the extent to which one type of worker can substitute for another, for equipment, and for other productive resources such as energy. Part two explores different labor subsidies and their expected effect on unemployment. Part three reviews actual experiences with various types of labor subsidies.

The final section summarizes the report and offers some conclusions about labor subsidies.



## I. THE SUBSTITUTION OF WORKERS FOR OTHER PRODUCTIVE INPUTS

The effectiveness of a labor subsidy depends in part on how easily labor can be used in place of other productive factors such as energy, machinery, or raw materials. In the extreme case in which one worker is required to operate each machine and each machine can be operated by exactly one worker, a reduction in the employer's cost for labor would not induce any increase in hiring as the additional hands would not have machines with which to work. Ordinarily, however, an employer could achieve an equivalent level of output by hiring more employees and using some of the existing facilities or equipment more intensively, selling off any floor space or machinery that became surplus. In this case, a reduction in the employer's cost of labor could induce considerable substitution, thereby creating new employment.

Numerous studies have indicated this last situation generally describes

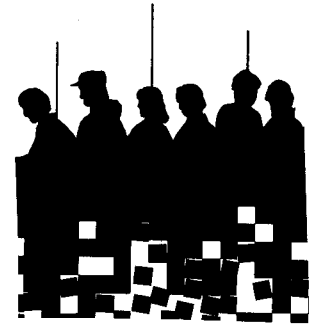
production in the United States. Workers can be substituted for energy, additional physical plant, and equipment. Most studies indicate that if employee costs are reduced by 10 percent, employment increases by 1.5 percent within a year. However, increases in production generate considerably more employment. If output increased by 10 percent and raw material costs are unchanged, employment increases by 7.5 percent in approximately the same one-year period.

#### Timing Within A Business Cycle

A subsidy will stimulate little employment near the bottom of a business cycle when unemployment is high and considerable excess capacity exists in the economy. Even if workers can readily substitute for additional equipment, energy, or physical plant, an employer confronted with a large amount of unused or underused space or equipment would have little to gain by hiring subsidized workers. Taking advantage of the subsidy would first require disposal of existing physical assets, perhaps at a loss. If the conditions causing excess capacity were believed to be temporary, it would be foolish to liquidate assets since the cost of replacement at a later date would probably exceed the gains from a liquidation sale. Consequently, the effectiveness of a labor subsidy will vary over the course of a business cycle.

A labor subsidy will promote more employment near the peak of a business cycle when the economy is expanding vigorously, physical resources are being strained to their limits, and unemployment is low. During this phase of the business cycle, labor subsidies may help reduce unemployment among the unskilled or inexperienced, particularly among minorities and teenagers. Studies have shown that blacks are substitutes for white males in manufacturing, and teenagers are substitutes for white women in the labor market. When white adult males and females are fully

employed and, hence, difficult or expensive to come by, employers are more inclined to hire blacks and/or teenagers.



## II. TYPES OF LABOR SUBSIDIES

There are three basic types of labor subsidies: hiring subsidies, employment subsidies, and wage subsidies; and three different types of payments: a fixed percentage of labor costs without a dollar limit, a fixed percentage with a dollar limit, and a flat dollar amount per worker. Hiring subsidies apply only to new hires and are one-time payments intended to help defray employment and training costs incurred with the hire of new employees. Employment subsidies cover a worker for the duration of employment with the firm. Both types of subsidies are paid to the employer to stimulate demand for labor. The third type, wage subsidies, are paid to workers rather than to employers and are intended to reduce worker resistance to low paying jobs in order to boost the economy's supply of labor.

#### Hiring Subsidies

Of the three principal types of labor subsidies, hiring subsidies are by far the most common. However, depending on the method of administration, hiring subsidies may create incentives for firms to comply with program guidelines but circumvent the intent of the subsidy in order to maximize their financial reward for participation. For example, a two-year

program which uses employment in the previous year as the base for calculating the current year subsidy may induce strong cyclical behavior. A firm could maximize the dollar value of the subsidy by reducing employment in the first year of the program and hiring twice as many employees in the second year as it released in the first. In this way it would maintain the same average employment over the two-year period. The firm would collect a fairly substantial subsidy, but would have created no new net employment. Extension of this program for three or more years simply encourages repetition of this cycle.

Hiring subsidies for new hires rather than new positions could encourage employers to increase the employee turnover rate to maximize the subsidy. This redistributes employment over a larger number of workers, but does not increase employment and discourages investment in human capital by reducing the financial rewards of employee training programs. In addition, if a subsidy is temporary, any induced increase in employment may be temporary. Depending on how large the hiring subsidy is compared to the cost of wages and financing inventories, a firm might find it advantageous to accelerate hiring, increase inventory holdings, and release all subsidized employees as soon as the subsidy expired.

### Employment Subsidies

Employment subsidies targeted to specific high unemployment groups, such as welfare recipients, youths, or the physically handicapped, may impede rather than enhance employment prospects for these groups. If employers believe members of the target group require a subsidy to compensate for low productivity or incompetence, they may become more resistant to hiring an eligible worker. Eligibility for a subsidy then becomes an employment liability rather than an asset.

Targeting of subsidies can have other negative impacts. If only a small portion of the target population is eligible for an employment subsidy, employers may simply replace current unsubsidized (e.g., minority) employees with similar subsidized (minority) employees. This would provide a financial benefit to the employer but would not generate new employment. Moreover, if one target group is readily replaced by another not covered by an employment subsidy, increased employment of the target population may be achieved at great cost to the unsubsidized labor. For instance, if the minimum wage an employer could pay was reduced only for teenagers, increased teenage employment could displace employment of adult women, leading to higher unemployment rates among adult women (since low-wage adult women workers are substitutes for teenagers), while simultaneously failing to create any new positions.

Restriction of eligibility to a geographic region such as a city or a state may increase unemployment for the target group. If a subsidy is successful and increases employment prospects for the target population (unemployed auto or steel workers, for instance) within the region, members of the target population from other areas may migrate into the region, increasing the local source of labor, thereby raising rather than reducing the overall unemployment rate for the target group in that geographic area.

Employment subsidies for net job creation provide windfall gains to employers who are experiencing rapid growth anyway. If the subsidy is provided for an extended period of time, new employers within an industry may gain a significant cost advantage over existing employers. If this forces existing employers to cut costs by reducing their staffing levels, associated layoffs could offset the new jobs provided by new employers, leaving aggregate employment unchanged.



### Administration of a Subsidy

The method of determining eligibility for a labor subsidy will also affect its impact. For instance, subsidies based on increases in the amount of wages subject to Social Security or unemployment taxes, would encourage firms to shift the mix of part- and full-time employees in favor of part-time employees in order to inflate the proportion of wages subject to the tax. Subsidies based on rates of growth favor small firms over large firms -- a small firm which increases its staffing from two to four employees doubles its employment, a feat unlikely to be matched by large firms. Subsidies based on net changes in employment favor large firms over small, since the actual number of employees leaving or joining a large company will probably be larger than that of a small company even though the turnover rate of the large company may be smaller. Finally, per employee subsidies having a maximum dollar expenditure per firm help small firms more than large ones, since the number of eligible employees is likely to be greater for a large firm than a small.

The duration of a subsidy may affect its impact, although it is not clear whether it increases or decreases the impact. Some studies indicate that subsidies create incentives to accelerate employee recruitment in order to fully exploit the program. Other studies indicate that the costs of altering employment or recruitment practices and/or training someone to manage the paperwork and meet the documentation requirements necessary for participating in a subsidy program discourage exploitation of a temporary subsidy.

### Impact on Adjustment to Changed Market Conditions

Labor subsidies designed to prevent layoffs during periods of slack demand may slow or prevent orderly adjustment to marketplace changes. Declining industries such as textiles, steel, chemicals, rubber, and automobiles are

most vulnerable to layoffs during recessions. Consequently, they are more likely to qualify for this type of financial assistance. While such subsidies might reduce the speed of adjustment to changed market conditions and temporarily help maintain employment, subsidies alone are incapable of reversing or improving underlying market conditions. There is little reason to expect that the industry would radically alter its operations if it could obtain relief through subsidies. Without restructuring and adjustment to changed market conditions, the industry might find itself in an even weaker competitive position when the subsidies expire and be forced to reduce operations and employment even more than it would have without the labor subsidies.



## III. U.S. AND BRITISH EXPERIENCE WITH LABOR SUBSIDIES

### A. U.S. Experience

Europe has experimented with numerous variations of labor subsidies at different times and with varying degrees of success, but the U.S. experience has been considerably more limited. The Work Incentive Program (WIN) of 1972 was one of the earliest U.S. experiments with labor subsidies. Employers who hired eligible welfare recipients were provided a tax credit equal to 20 percent of wages for the first 12 months. In 1975 the program was extended to cover all recipients of Aid to Families with Dependent Children.



The impact of the program was miniscule. One report asserted that credits claimed under the WIN program equalled approximately 15,000 person-years of employment, while actual employment of potentially eligible employees numbered about 500,000, indicating that relatively few employers applied for the subsidy. Two surveys of employers who made use of the WIN credit showed fewer than 10 percent of participating employers attributed hiring of a WIN enrollee to the program, indicating that most of the subsidized employment would have existed without the program.

The second major U.S. labor subsidy was initiated in 1977 as the New Jobs Tax Credit (NJTC). Employers received a tax credit of 50 percent of the amount by which total wages were 5 percent greater than the previous year's wages, 50 percent of the amount by which federal unemployment taxes were 2 percent higher than wages subject to federal unemployment taxes for the previous year, 25 percent of total wages subject to unemployment taxes, or \$100,000, whichever was less. The program ran for two years, but the credit applied to new workers for only a one-year period. The NJTC encouraged substitution of low-wage, part-time employment for full-time employment, but the requirement that the total wage bill exceed that of the previous year by at least 5 percent prevented employers from firing all their full-time employees and simply substituting twice as many half-time employees. The \$100,000 limitation on the tax credit favored small over large employers.

Most assessments of the NJTC were favorable. Statistical studies of the program indicated that (1) firms which knew about the tax credit increased employment by more than 3 percent over similar firms which were not aware of it; (2) firms which both knew about the program and made a conscious effort to capture the tax credit increased

employment by more than 10 percent over all other firms and by 9 percent over firms which knew about the credit but exerted no special efforts to qualify for the credit; (3) the subsidy cap on the NJTC shifted distribution of the rate of growth of employment to small- and moderate-sized firms and away from large firms. However, large firms were three times more likely to know about the program than small firms. Of those firms which responded to the Bureau of Census questionnaire on the NJTC, 36 percent indicated their growth rate was high enough to automatically qualify them for the subsidy. However, none of the statistical studies considered the impact of rapidly rising energy prices on the cost of operating machinery or the possibility that rising energy prices, and not the subsidy program, was primarily responsible for the large increases in employment.

Another subsidy, the training incentive payments program, was funded by the U.S. Department of Labor between 1969 and 1975. This program subsidized wage increases to encourage firms to invest in employee training and skills upgrading. The department never evaluated the program for its impact on employment and training, but the evidence indicated the program did help employees upgrade their skills and advance in their firms.

A fourth program, the Targeted Jobs Tax Credit (TJTC), ran from 1979 through 1981. Although similar to the WIN program, the target population was extended to include federal Supplemental Security Income recipients, vocational rehabilitation clients, youths from economically disadvantaged families, economically disadvantaged Vietnam veterans under age 35, General Assistance recipients, cooperative education students, and ex-convicts from economically disadvantaged families.

The program provided employers with tax credits for 50 percent of wages up to a maximum of \$6,000 in the first

year and 25 percent of wages up to a maximum of \$6,000 in the second year for certified workers. The evidence showed that relatively few jobs were created in response to the TJTC. Half of the certifications during the first year of the program (about 54,000) were issued to cooperative education students who probably would have been placed without the tax credit. Between 60-90 percent of the certifications were retro-active for employees who had already been hired.

### B. British Experience

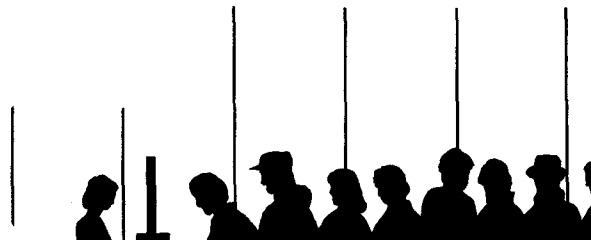
Britain provided one-year subsidies in 1975 to private sector employees who retained 10 or more full-time positions slated for elimination, a subsidy program which has not been tried in the U.S. The subsidy was renewable for an additional six months at half the initial rate if the positions were still at risk at the end of a year. Companies facing bankruptcy were ineligible for a subsidy. It was estimated that 170-190,000 positions were covered annually by the subsidy. Most of the positions covered were in declining industries such as clothing, textiles, and footwear.

A third of participating firms withdrew from the subsidy before the conclusion of a year; 7 percent of these firms withdrew because they had to eliminate positions in spite of the subsidy. The rest of those who withdrew no longer had need for the

subsidy. About 27 percent of firms who exhausted their subsidies had eliminated jobs by the end of 1977, and 33 percent anticipated further job reductions.

In another variation on the labor subsidy theme, Britain implemented a small firms labor subsidy which encouraged expanding companies of fewer than 50 employees to create more new positions by providing a 26-week lump-sum payment to a company for every new hire. Comparable unsubsidized firms expanded employment by 12 percent during the subsidy period while subsidized firms expanded employment by 20 percent. Participating firms indicated that 25 percent of the positions created were directly attributable to the subsidy, but that another 27 percent represented accelerated employment which substituted for overtime hours.

Britain also tried a work experience program. Teenagers were paid a nominal amount to watch work activities of a host employer. Employers were not paid for permitting the teenager to watch, but could enlist the teen's services. The program extended for 26 weeks. Within six months of finishing their training program, fully 85 percent of the teens obtained jobs, 36 percent with the host employer; 29 percent were placed with other employers immediately after completion of the program. At the end of six months, 28 percent of the participants were unemployed.



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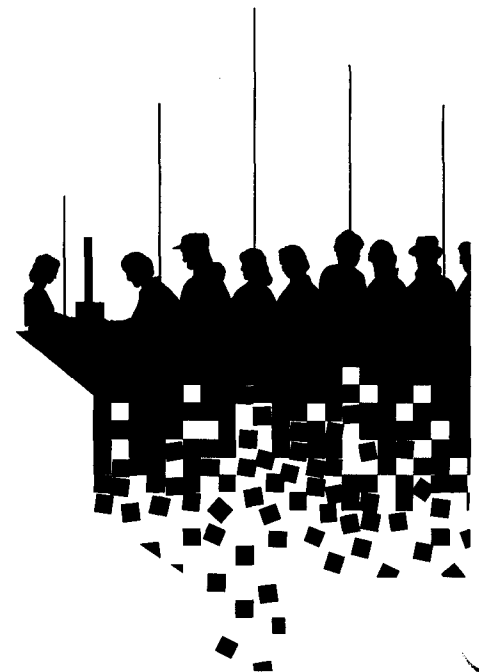
## IV. SUMMARY AND CONCLUSIONS

The U.S. has tried several types of labor subsidies, most of which were administered as tax credits. Whether for lack of knowledge about the program, timing within the business cycle, discrimination against the intended employment group, or employer resistance to the certification and paperwork involved in establishing eligibility for labor subsidies, the programs failed to provide a major stimulus to employment. For the most part, they did not reduce unemployment. The favorable evaluations on the New Jobs Tax Credit may have resulted from factors, such as energy prices, not considered in the study. The western European industrialized countries have used labor subsidies with comparably low levels of success as the British examples illustrate.

Long-term unemployment difficulties are more likely to be associated with insufficient levels of skill and/or education rather than wages which are too high. Unemployment for low-skilled laborers runs about twice that for skilled

laborers. Consequently, subsidy programs need to focus on providing or upgrading the skills of the unemployed. This might be accomplished through training or labor subsidies that provide employer incentives for upgrading worker skills. Once the subsidy is in place, lack of knowledge about the program and employer resistance to it must be overcome for the subsidies to have widespread application or any appreciable impact in reducing unemployment.

These experiences do not refute the theory underlying labor subsidies, but rather argue for a different approach. Short-term unemployment is primarily a consequence of weak economic activity and does not readily lend itself to labor subsidies. Economic growth can produce far greater increases in employment and reductions in unemployment than any labor subsidy could ever achieve. However, subsidies may provide employment for certain types of long-term unemployed workers that a growing economy could not.



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