

**TEMPORARY MEASURES TO  
STIMULATE EMPLOYMENT:  
An Evaluation of Some Alternatives**

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Congressional Budget Office  
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## PREFACE

This study, which compares various temporary measures to stimulate employment, was undertaken by the Congressional Budget Office at the request of the Senate Budget Committee. The Committee's request, transmitted in a letter from Chairman Edmund S. Muskie on April 30, 1975, read as follows:

A major issue in this year's First Concurrent Resolution has been the design of programs which have a temporary, stimulative effect on employment, but which disappear as lower levels of unemployment are achieved. A substantial difference of view exists as to whether such programs can in fact be designed and effectively implemented.

We will appreciate your undertaking a study of the experiences of our country and other nations in the design and implementation of such programs. We would appreciate a thorough examination of the design and economic implication of selected examples of actual and potential programs of this kind. We are very interested in whether such temporary programs can in fact be created and produce a useful effect and, at the same time, remain truly temporary. If such programs can be designed, what are the "triggers" which would actuate them and how can they be designed to "trigger out" effectively when their intended result has been achieved?

In responding to this request the Congressional Budget Office identified several different kinds of programs which might be used to stimulate employment: public works programs, public service employment, antirecession

grants to state and local governments, and a variety of tax and other incentives designed to create jobs in the private sector. Various criteria for judging such programs were also identified--including cost per job, start-up and phase-out time, and impact on inflation--and an effort was made to rate each type of program against these criteria. The report does not attempt to judge whether such programs are needed; nor does it recommend one program over another. Indeed, the analysis indicates that no one program is strong on all criteria. Each has advantages and disadvantages. Consequently, programs discussed should not be viewed as substitutes for each other, but as possible elements in a mixed strategy to combat unemployment.

The report contains a discussion of "triggers" that might be used to start up and phase out such programs and an appendix assessing the experience of several industrial countries with temporary antirecession programs. A second, technical appendix explains the methods used to derive estimates of the impacts of different measures.

It should be noted that the impact estimates for these programs are based on extremely sketchy information. In general, ranges have been given rather than point estimates of particular effects. Work will continue in the Congressional Budget Office to refine these estimates and collect additional information about alternative ways to reduce unemployment.

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### III

#### SUMMARY

Faced with unusually high unemployment and prospects for a long, slow recovery; with substantial inflation that is likely to mount if the energy situation worsens or food prices rise; and with a large federal deficit; policy makers are looking for ways to create jobs with minimal inflation and budgetary impact. This report discusses various measures to stimulate employment and what can be said about the costs, effectiveness and other features of each.

Four general types of programs are considered:

- (1) Accelerated public works--stepping up spending for capital improvements, such as dams, roads, sewers, and repair and maintenance of public facilities;
- (2) Public service employment--adding more workers to public payrolls (primarily state and local) on a temporary basis with the primary objective of creating more jobs;
- (3) Antirecession grants to state and local governments--general purpose grants designed to help those governments maintain their services in the face of the falling revenues and rising costs attributable to recession;
- (4) Measures to stimulate the private sector--general tax cuts and increases in government purchases; also special tax incentives designed to induce consumers to buy more durable goods or businesses to hire more workers.

These programs are evaluated on the basis of several types of criteria:

1) Employment Impact

--jobs created per billion dollars of program expenditure

--jobs created per billion dollars of budget deficit

2) Timing

--start-up time

--phase-out flexibility

3) Other Effects

--impact on inflation

--distortion of the economy

--value of output

--targetability on specific groups or areas

The Senate Budget Committee in requesting this study asked "whether such temporary programs [to stimulate employment] can in fact be created and produce a useful effect, and at the same time, remain truly temporary." The evidence surveyed in this report indicates that the answer is "yes." Public policies can produce more jobs and can be phased out when no longer needed, but different types of policies differ greatly in cost, effectiveness, and other features.

Employment Impact

As may be seen in Summary Table 1, public service employment can be an effective means of creating jobs quickly at a relatively low cost per job. Under such programs most of the public money goes for wages and

SUMMARY TABLE 1.—Estimates of employment and budget impact of various programs costing \$1 billion <sup>1</sup>

Type of program	Initial impact			12 months			24 months		
	Increase in jobs (thousands)	Reduction in unemployment rate	Net budget cost (millions)	Increase in jobs (thousands)	Reduction in unemployment rate	Net budget cost (millions)	Increase in jobs (thousands)	Reduction in unemployment rate	Net budget cost (millions)
Public service employment.....	80-125	0.07-0.11	\$754-\$815	90-145	0.08-0.13	\$492-\$425	90-150	0.08-0.13	\$723-\$530
Anti-recession aid to State and local governments.....	40-77	.04-.07	850-716	70-97	.07-.09	590-570	72-100	.07-.09	480-450
Accelerated public works.....	16-46	.02-.04	915-793	56-70	.06-.07	537-510	64-80	.07-.08	430-390
Tax cut <sup>2</sup> .....	8-15	.01-.02	980-960	26-35	.02-.03	740-720	30-40	.02-.03	663-637
Government purchases.....	20-50	.02-.04	948-870	40-70	.03-.05	600-590	60-80	.04-.05	475-425

<sup>1</sup> These estimates assume no monetary accommodation. If the money supply were increased to prevent interest rates from rising as a result of the expansionary fiscal measure, the job-creating effect would be higher and the net deficit cost lower. Accommodating monetary policy would increase the expansionary effect by 25 percent or more which, in turn, would reduce the budget cost by an average of about \$125 million.

<sup>2</sup> The income tax cut is assumed to be one-third corporate and two-thirds personal. If the tax cut were entirely personal, the expansionary effect would be about 50 percent greater and the net budget cost about \$175 million lower.

Source: See app. B.

relatively little for materials or equipment. If the new jobs are primarily for unskilled workers at low wage levels, the cost per job created may be as low as \$8,000. A billion dollars of spending on public service employment would then have the initial effect of creating 125,000 new jobs, and spending by the new job holders would subsequently create additional jobs in the private sector. The total number of jobs created by this \$1 billion spent might be as much as 150,000 by the end of two years. However, the number of new jobs created would be lower if: (1) the jobs were aimed at higher skilled people with higher wage rates or (2) if a substantial portion of the new public workers displaced regular government employees. On more pessimistic assumptions, \$1 billion spent on public service employment might initially produce only about 80,000 jobs.

Antirecession aid to state and local governments also appears to have high potential for creating jobs, although the maximum number of jobs created per \$1 billion dollars expended will be lower than for public service employment because: (1) less of the money will be used for wages and (2) the average state and local government employee is more skilled and more highly paid than one who might be hired by a public service program aimed at the low-skilled. Also the number of new jobs created by antirecession aid will fall if a substantial portion of the money supplied supports workers who would have been employed anyway.

An accelerated public works program can be a relatively costly way to create jobs if the money is concentrated on major construction projects where costly materials and equipment are needed and high skill levels are required. If maintenance and repair projects are emphasized, however, the number of jobs created per billion dollars will be substantially higher.

A general tax cut, while it may have many other advantages, ranks low in jobs created per billion dollars of revenue lost. This is because: (1) part of the money will be saved by taxpayers and (2) the part that is spent will simply add to general consumer demand. It will not be focused on products

or services that require substantial amounts of unskilled labor. A general increase in government purchases is likely to have more impact on jobs than a general tax cut, but far less than a focused job-creating program such as public service employment.

Estimates of the impact on the unemployment rate of various programs are shown in Summary Table 1; also shown are estimates of the net budget cost of a billion dollars spent on each. The latter takes into account the budget savings that occurs when workers no longer collect unemployment compensation and begin to pay taxes and contribute to social security. If jobs are given to workers who would have been receiving unemployment compensation, the cost per job is reduced by an average of \$3,250 per worker, in addition to the effect of increased tax payments. These off-setting savings will be relatively large for programs that have a high job impact, especially if the newly employed persons are experienced workers likely to be receiving unemployment compensation. The off-setting savings will be lower for low impact programs, especially if the new job holders are new entrants to the labor force or unskilled workers less likely to be covered by unemployment compensation.

Other budget savings result from higher corporate profits, tax receipts and higher personal tax payments from incomes of persons already employed. For most policies, the net budget cost after twenty-four months is less than half the initial program cost.

#### Timing

Programs also differ in the ease with which they can be started up and phased out as shown in Summary Table 2. Historical experience shows that public service employment programs may take a long time to get going if a new administrative mechanism has to be set up to channel money to state and local government projects. Where, as at present, an existing program can be expanded, time lags may be short. Anti-recession aid to state and local governments is also likely to take effect quickly, since the aid is for

SUMMARY TABLE 2.—Summary of the potential impacts of alternative measures to stimulate employment

	Employment impact per dollar expenditure	Startup time	Phaseout flexibility	Inflation impact	Value of output	Targetability
Income tax cut.	Relatively low, particularly in the short run.	Subject to lags in individuals' spending.	Potentially easy to terminate.	Same as any aggregate fiscal measure.	Entirely private sector.	None.
Increase in Government purchases.	Higher than tax cut; lower than special employment programs.	Potentially fast; subject to policy initiation lag.	May be hard to terminate, especially if useful output, services involved.	Same as any aggregate fiscal measure, depending on employees' skill mix.	Mostly public sector; 2d round effects on private sector.	Low.
Accelerated public works.	Potentially low if wages are high; greater job impact from low-wage projects.	Potentially long; but with wide variations depending on type of program.	Wide variation; appropriations easier to stop than some other Government programs, but large-scale projects may take long to complete.	Somewhat greater than other programs if workers highly skilled; lower if aimed at less skilled workers.	Mostly public sector; 2d round effects on private sector.	Can be directed at high-employment areas, construction trades.
Public service employment.	Relatively high if wages are low.	Potentially fast if existing programs expanded.	Relatively flexible if job tenure limited.	Low if aimed at unskilled workers and if wages are lower than private sector alternatives.	Low if emphasis is solely on job impact; if combined with training can produce useful skills.	Can be directed at most needy individuals.
Antirecession aid to State and local Governments.	Less than PSE if skill levels high; more than other Government purchases, public works.	Potentially fast; no new programs, only transfer of funds.	Potentially easy to terminate.	Moderate, depending on skill level of employees.	State and local government services.	Can be directed at Governments hit by recession.

general purposes and requires no new regulations or administrative structure. Public works programs, by contrast, may take a long time to get started, especially if several layers of government are involved, if new mechanisms have to be set up for planning and reviewing projects, or if large, complicated projects are chosen. The Accelerated Public Works program enacted in 1962 was extremely slow in getting started (see Chapter II). Much of the job impact came two or three years after the program was enacted and some money was not spent until after the country had returned to a full employment economy. Such slowness is not inevitable, however. The public works programs of the early 1970s geared up much faster. There is reason to think that jobs could be created quickly at present by a program emphasizing relatively small projects, especially those which have already been designed and are currently being held back for lack of funds.

Events in 1975 indicated that Congress can enact a tax cut quickly and that the Treasury can get refunds to taxpayers with little delay. The job impact of a tax cut may be slow, however, if taxpayers initially save the money or if firms are able to satisfy the new demand by reducing inventories rather than immediately increasing production.

#### Other Criteria

Policies that have ancillary objectives are less likely to have maximum employment impact, but rank higher on other criteria. Indeed, there is often a trade-off between the value of the output produced and the cost of the job created. Public works programs, for instance, are often thought to produce a more useful output than some other public service jobs, although they are naturally more expensive in terms of cost per job. Antirecession assistance to state and local governments may be used to provide valued services, such as education and health, that entail the use of skilled workers. Tax cuts have relatively low potential for creating jobs, but may be preferred because they introduce fewer distortions in the private economy--the money is spent to

satisfy ordinary private wants, not to create new government programs or add to an unwieldy bureaucracy. Those who believe government is too big already prefer tax cuts to programs that impact on the public sector.

Inflation. Those programs that have high job-creating potential, such as public service employment, also carry the least risk of accelerating inflation, principally because they focus on unskilled workers, pay low wages, economize on the use of materials and equipment, and can be started quickly. Programs that require scarce skills or materials or take a long time to come into effect may add to inflationary pressures as the economy recovers from the recession.

Targetability. The current recession is highly uneven. Food and energy-producing areas have been enjoying relatively good times, while unemployment rates are extremely high in major industrial areas, especially those dependent on automobiles and construction. Moreover, unemployment rates among minorities and people with low skills and education--rates that are high even in prosperity--have moved to tragically high levels. Employment policies differ in the extent to which they can be targeted where most needed. Public works spending can be channeled to geographic areas of high unemployment and can be particularly helpful in relieving unemployment among construction workers. Major construction, however, tends to utilize skilled workers and may not benefit the disadvantaged. Public service employment is easier to target on the poor and low-skilled. Antirecession assistance to state and local governments is not susceptible to targeting by skill level, but can be channeled to governments especially hard-hit by the recession. General tax cuts and increases in government purchases cannot be targeted, although some more specific tax incentives discussed in Chapter V may be useful in reaching particular groups. Some types of government purchases can also be targeted at depressed regions and industries.

### Triggers

The use of a triggering formula to initiate and phase out temporary antirecession measures can reduce implementation lags at both ends. Local triggers determine the regional distribution of program funds.

Unemployment rates are most frequently used as triggers both because they are a good, noncontroversial indicator of the severity of the recession and because they are available monthly and on a regional basis. However, because unemployment is often a lagging indicator of changes in economic conditions during recovery, other earlier indicators such as changes in real Gross National Product (GNP) or new claims for unemployment insurance are sometimes suggested. GNP is only available quarterly, however, and not on a regional basis.

Recession-induced unemployment used as a trigger should be distinguished from structural unemployment, to the extent that the objective is to mount temporary programs, separate from other attacks on chronic regional unemployment. Some areas have relatively high unemployment, even at peaks in national economic activity and a temporary program cannot be expected to alleviate such structural problems. This would mean a local unemployment trigger should be related to increases in unemployment over and above the unemployment rate experienced by the area in times of national prosperity.

### Foreign Experience

High unemployment is also being experienced abroad, brought about largely by measures to control the inflation that followed higher worldwide energy prices. Most of the industrial countries have adopted special antirecession measures.

There are many examples of temporary wage subsidies and special investment incentives to stimulate employment. France provides a subsidy to firms which

reduce working hours without laying off workers; Sweden has a special countercyclical investment reserve fund; and many countries have some form of investment tax credit. Japan also provides subsidies to industries threatened with temporary layoffs.

Public employment programs abroad emphasize vocational training. Sweden's public service employment program, the largest of any of the countries, provided jobs for 2.5 percent of the labor force in the last recession, with more than half the participants involved in full-time training. Canada has an interesting Local Initiatives Program, which funds proposals from local governments and private, nonprofit organizations, creating employment and providing services planned by these groups. Many countries, including West Germany, Japan, and Sweden, also use some sort of an accelerated public works program as an antirecession measure.

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## CHAPTER I

## INTRODUCTION

Unemployment in America is at its highest level since the Depression. Even those who are optimistic about the economic outlook expect substantial unemployment to persist for several years.

In this situation the Congress is urgently considering what the federal government might do to get people back to work more quickly. Should tax incentives be used to stimulate employment in the private sector? Should public expenditures be increased, for example by accelerating planned spending for public works projects? Should more workers be employed temporarily in the public sector through public service employment grants, or should special assistance be provided to state and local governments to help them maintain their services in the face of recession? Would these programs be effective in reducing unemployment? Would they rekindle inflation or add dangerously to the federal deficit?

This report analyzes some ways that employment might be stimulated, summarizing the often meager information on how such programs have worked in the past and in several foreign countries as well as comparing alternative approaches on the basis of several criteria. The criteria include the number of jobs expected per billion dollars of spending or deficit, the speed with which programs can be geared up or phased out, and their impact on inflation and on particular groups in the population.

The report does not address the question of whether the federal government should act to stimulate employment; nor does it recommend one program over

another. Its purpose is simply to provide background for Congressional decisions by identifying temporary measures that could be taken to increase employment and by summarizing what is known about the advantages and disadvantages of each.

### The Economic Context

The seriousness of current unemployment levels hardly needs to be reemphasized. Unemployment in May, June, and July, 1975, averaged more than 8.7 percent. More than 8 million persons were actively seeking work and unable to find it, while an additional 1.2 million had become too discouraged to try finding a job and dropped out of the labor force, as shown in Chart I-1.<sup>1</sup> If these discouraged workers are included, the jobless rate is about 10 percent.

The most obvious cost of unemployment is the lost output that unemployed and discouraged workers could have produced: the Gross National Product would be about \$240 billion higher with unemployment at 4 percent rather than 9 percent. This loss is shared by all groups in society, but the unemployed themselves bear an especially heavy cost. Unemployment insurance benefits average only about \$65 a week, or 77 percent of the minimum wage; while only 6 million of the 8 million unemployed are covered by unemployment insurance. In addition, discouraged workers who drop out of the labor force are not eligible for unemployment compensation. Food stamps, welfare and other public services may keep unemployed families from starvation, but they do not prevent a loss of credit and job-related benefits such as health and life insurance. For a small number of the unemployed, collective bargaining benefits are available, but these funds have been running out.

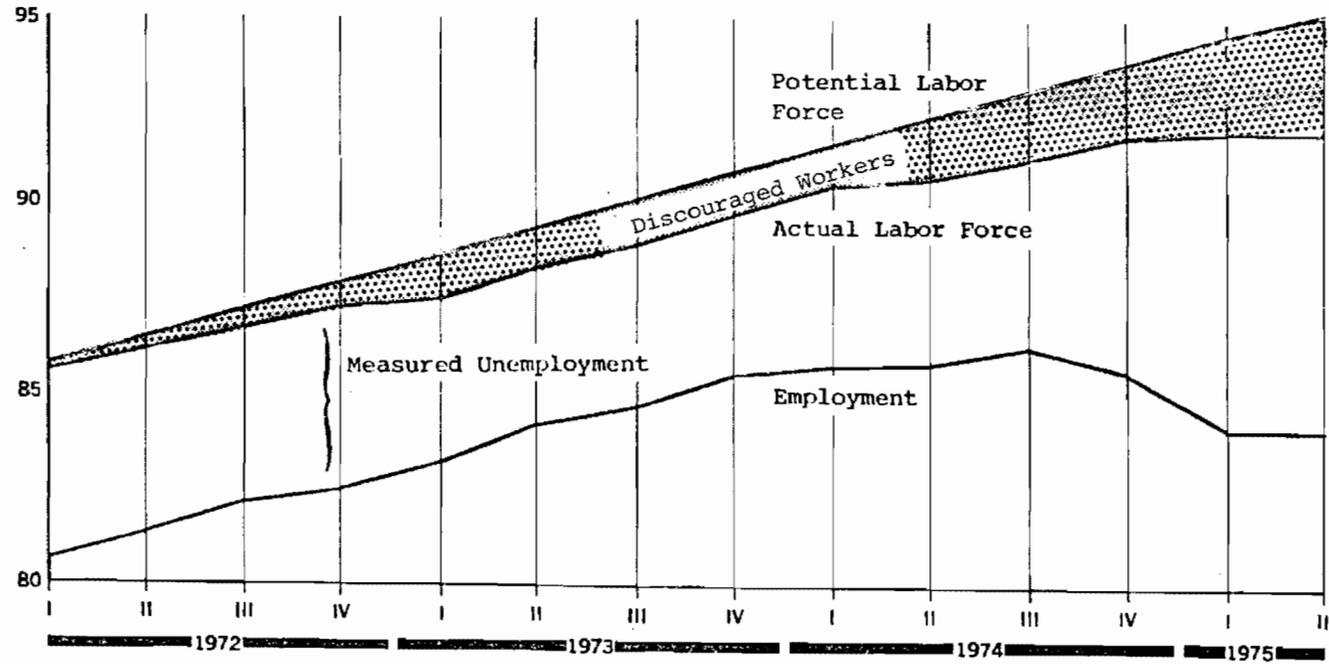
Moreover, there are less tangible costs of unemployment--psychological damage, deterioration of skills, and loss of seniority and job security. For young

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1. Technically, an individual is considered to be a member of the labor force only as long as he is employed or seeking work.

CHART I-1 - LABOR FORCE AND EMPLOYMENT, 1972-75

Millions  
of Persons



Source: *Employment and actual labor force*, U.S. Department of Labor, Bureau of Labor Statistics; *Potential labor force*, U.S. Congress, Congressional Budget Office.

people, unemployment means postponement of on-the-job training and skill development, for some perhaps permanently. For minority groups it means the reversal of hard-won progress toward equality in incomes and job status.

Most economic forecasters agree that the recession is no longer deepening and that the economy is beginning to recover, but the drop in employment has been so sharp that even rapid economic growth will not restore full employment for several years.<sup>2</sup> Moreover, the private industrial sector is likely to remain depressed longer than the rest of the economy. Projections derived from statistical models of the economy indicate that employment in manufacturing and contract construction is unlikely to regain previous peak levels until 1977 or later.

Moreover, increases in employment will not produce equal decreases in unemployment, because the labor force will also grow as recovery progresses, both for natural reasons and because discouraged workers will resume their job search. For the economy as a whole, as ten new jobs are created, six are filled by unemployed persons and four by persons not previously seeking work.

During a typical recovery, labor markets tighten most rapidly for white collar and skilled workers and least rapidly for operatives and laborers. Moreover, unemployment rates for blacks generally fall more slowly than for whites in a recovery.<sup>3</sup> Thus, blacks and other minority groups are likely to suffer longest from the effects of recession.

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2. U.S. Congress, Congressional Budget Office, Inflation and Unemployment: A Report on the Economy, 94th Cong., 1st session, June 30, 1975, p. xii, and Executive Office of the President, Office of Management and Budget, Mid-Session Review of the 1976 Budget, May 30, 1975.

3. Lester C. Thurow, Poverty and Discrimination, (Washington, D.C.: The Brookings Institution, 1969) p. 54.

### Fear of Inflation

The choice of policies to reduce current and projected unemployment is complicated by the fear that any such policy will rekindle inflation. Unlike previous recessions, the current one was accompanied by--indeed largely caused by--rapid increases in prices. Beginning in 1973, sharp increases in food and petroleum prices eroded consumer purchasing power and reduced real household spending; this situation was exacerbated by restrictive monetary and fiscal policy. The resulting downturn in the economy in 1974 occurred simultaneously with the highest price increases in a generation. The Consumer Price Index rose 12.2 percent in that year while the Wholesale Price Index jumped 20.9 percent. Although inflation has slowed considerably in 1975, the slowdown has been endangered by new and prospective increases in food and energy prices, which might raise inflationary expectations and set off a new round of increases in wages and prices, even in the face of the unemployment and excess capacity.

With so much slack in the economy it seems unlikely that moderate measures to increase employment will add to inflationary pressure. Inflation that occurs because of rising food and energy prices is not likely to be curtailed by maintaining high rates of unemployment.<sup>4</sup> Nevertheless, some job-creating programs carry more risk of rekindling inflation than others. For example, programs that create additional demand for scarce materials or comparatively scarce skills could create inflationary pressures during the recovery. Moreover, timing is important. Programs that create jobs quickly are unlikely to have inflationary effects, but those that do not take effect for several years could add to demand for labor and materials at a time when private sector demands are increasing rapidly and shortages are beginning to develop.

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4. Inflation and Unemployment, pp. 8-9.

### The Federal Budget Deficit

Another factor complicating the choice of policies to reduce unemployment is fear of increasing the federal deficit, now expected to reach nearly \$70 billion in fiscal year 1976. The present deficit--unlike those of World War II and the late 1960s--is caused by recession. For every percentage point increase in the unemployment rate above 4 percent, the federal deficit increases by about \$16 billion--\$14 billion due to reduced tax receipts and \$2 billion due to increased transfer payments. At the 8.7 percent average unemployment rate for the last three months this adds up to \$75 billion. Thus, if the unemployment rate were 4 percent, the federal budget would support existing programs and show a surplus.

Projected high unemployment until 1980 implies continued budget deficits. With unemployment at 7.5 percent, for instance, the recession-induced part of the budget deficit would be around \$56 billion.

Although it is recognized that the current and projected deficits are recession-induced (and that under current conditions recovery cannot take place without a sizable budget deficit) many Americans are concerned about the large projected increase in the national debt. Some fear it puts an excessive burden on capital markets, potentially crowding out private investment. Others view it as symptomatic of fiscal irresponsibility and perhaps an inflationary influence. Thus, many policy makers either view new policy options that would increase the deficit as undesirable or at least would give strong preference to employment-creating measures that would minimize the increase in the deficit.

### The Distribution of Unemployment

Although no major group in the population has escaped the burden of the large increase in unemployment, some have suffered proportionately far more than others. Moreover, for many groups--minorities and those with low skills and education--the recession merely escalates a continuing problem

of high unemployment rates and limited job opportunities. Hence, there are strong arguments for preferring job-creation programs that are likely to reach groups especially hard-hit by recession or those with longer run unemployment problems.

In good times and bad, women face higher unemployment rates than men; teen-agers, higher rates than experienced workers; and blacks, higher rates than whites. The recession cannot be said to hit these groups disproportionately (except for black teen-agers). Indeed, the effect of widespread unemployment had been to bring on to the unemployment rolls in increasing proportions those who do not often find themselves unemployed: adult white males, especially married men. (See Table I-1.) On the other hand, the recession has pushed absolute unemployment rates to even higher and more discouraging levels for those groups whose employment prospects are dim even in good times. One in seven black males is looking for work and unable to find it, while the unemployment rate for black teen-agers stands at an astronomical 35.5 percent. In poverty areas of big cities, unemployment rates are running 15 to 20 percent. Among those with less than high school education, unemployment now stands at about 15 percent. These are groups--the poor, the black, the uneducated--with the fewest resources to fall back on and the least reason for hope.

Unemployment also differs widely by industry and occupation. As shown in Table I-1, the highest unemployment rates in May, June, and July were in construction and manufacturing. Within the manufacturing sector, the highest rates in May were in lumber (18.6 percent), textiles (18.3 percent), apparel (16.1 percent), electrical equipment (16.1 percent), and automobiles (15.1 percent). By occupation, blue collar workers were the first to be severely affected by the recession, but later white-collar workers also began to feel the pinch. There is also substantial regional variation in the impact of the recession on unemployment, as shown in Table I-2. Cities hard-hit by unemployment include Flint, Michigan (17.1 percent); Jersey City, New Jersey (15.3 percent); and New Bedford, Massachusetts (15.2 percent).

TABLE I-1.—*Unemployment rates by selected demographic and industrial groups during the 1974-75 recession*

Group	May 1974	March 1975	May, June, July, 1975
All civilian workers.....	5.2	8.7	8.7
Race:			
White.....	4.7	8.0	8.1
Black and other nonwhite.....	9.3	14.2	13.8
Age, sex:			
Males, 20 years and over.....	3.4	6.8	7.1
Females, 20 years and over.....	5.1	8.5	8.2
Both sexes, 16-19 years.....	15.6	20.6	20.0
Occupation:			
White collar workers.....	3.2	4.6	5.0
Professional and technical.....	2.2	2.9	3.5
Managers and administrators, except farm.....	1.9	2.7	3.1
Blue collar workers.....	5.8	12.5	12.6
Craft and kindred workers.....	3.8	8.7	9.4
Operatives.....	6.4	14.1	13.8
Nonfarm laborers.....	8.9	16.2	16.5
Service workers.....	6.7	8.5	8.5
Farm workers.....	2.7	4.5	3.2
Industry:			
Nonagricultural private wage and salary workers.....	5.2	9.3	9.6
Construction.....	9.6	18.1	21.2
Manufacturing.....	4.7	11.4	11.8
Durable goods.....	4.4	11.3	12.04
Nondurable goods.....	5.2	11.6	10.9
Service and finance.....	4.3	6.7	6.7
Government workers.....	3.4	3.9	4.4
Education:			
Elementary: Less than 8 years.....	NA	12.4	NA
High school:			
1-3 years.....	NA	15.2	NA
4 years.....	NA	9.1	NA
College:			
1-3 years.....	NA	6.9	NA
4 years or more.....	NA	2.9	NA

NA=Not available.

Source: U.S. Department of Labor, Bureau of Labor Statistics, "The Unemployment Situation: July, 1975," (press release).

TABLE I-2.—*Unemployment rates by States, May 1975 (not seasonally adjusted)*

State	Rate	State	Rate
Alabama	8.9	Montana	7.1
Alaska	8.2	Nebraska	4.7
Arizona	10.3	Nevada	9.3
Arkansas	8.7	New Hampshire	7.2
California	10.1	New Jersey	10.4
Colorado	4.6	New Mexico	7.5
Connecticut	9.7	New York	9.7
Delaware	9.2	North Carolina	8.9
District of Columbia	7.4	North Dakota	4.9
Florida	11.0	Ohio	8.3
Georgia	9.6	Oklahoma	5.7
Hawaii	6.5	Oregon	9.7
Idaho	6.4	Pennsylvania	8.8
Illinois	8.2	Rhode Island	15.8
Indiana	8.9	South Carolina	11.2
Iowa	5.1	South Dakota	4.4
Kansas	4.4	Tennessee	8.3
Kentucky	7.2	Texas	5.8
Louisiana	8.0	Utah	6.5
Maine	10.0	Vermont	10.1
Maryland	7.5	Virginia	7.3
Massachusetts	12.6	Washington	8.7
Michigan	13.1	West Virginia	7.1
Minnesota	5.6	Wisconsin	6.9
Mississippi	7.6	Wyoming	4.3
Missouri	6.6		

Source: U.S. Department of Labor, Manpower Administration, unpublished data.

These differences suggest that consideration be given to selective policy measures designed to reduce unemployment in hard-hit areas or in industries or occupations with especially severe problems.

The Impact of the Recession on  
State and Local Governments

The recession has also had dramatic effects on state/local government finances. Falling incomes result in a reduced tax base; and higher unemployment requires more local government expenditures for welfare and other income transfer programs. Unlike the federal government, states and localities are unable to float unlimited debt instruments and many are prohibited by their constitutions from going into debt to finance current expenditures. Consequently, shortfalls must be made up by raising taxes, cutting expenditures, and laying off workers. These actions exacerbate the effect of the recession.

A survey of 48 state governments and 140 local governments conducted by the Joint Economic Committee in May, 1975, found that:

The combined state and local government sector can be expected to enact \$3.6 billion in tax increases and \$3.3 billion in reductions in expenditures from current service levels. However, the vast majority of budget adjustments will occur in the high unemployment state and local governments. These governments will often be forced to make adjustments that amount to 7 or 8 percent of their total operation budgets.<sup>5</sup>

The study also reports that twenty states have adopted or will adopt tax increases for this fiscal year. The increases will be concentrated

5. U.S. Congress, Joint Economic Committee, The Current Fiscal Position of State and Local Governments, 94th Cong., 1st Sess., May 6, 1975, p. 32.

in the high unemployment states, where tax hikes will average about 3.5 percent of their budgets. The increases will be as high as 15 percent of the budgets in states that are particularly hard-hit by the recession. On the expenditure side, twenty-two states have been forced to cut services. Once again, the high unemployment states are the ones in which cut-backs are the most severe.

Cuts in service levels have had a significant impact on the number of state government employees. According to the Joint Economic Committee survey, twenty-three states have implemented complete or limited hiring freezes.<sup>6</sup> While the reductions were largest in the high unemployment states, reductions seem to be occurring in all states. The Joint Economic Committee identified 52,000 positions as already having been affected by layoff or freezes. It is estimated that the figure may presently be approaching 100,000.

The recession-induced plight of state and local governments suggests that consideration be given to programs that would prevent cuts in state and local employment, as well as to those that create new jobs in the public or private sectors.

#### Criteria for Evaluating Employment Programs

The above discussion suggests a variety of criteria for evaluating alternative employment programs under current economic conditions. These include:

- (1) Jobs created per dollar of program expenditure. This will depend on what proportion of the funds is spent on wages and on the average wage level. Programs having minimal capital and equipment expenditures and paying low wages will create the most jobs.
- (2) Jobs created per dollar of deficit. This will differ from (1) to the extent that the program reduces other

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6. Ibid.

budget costs such as unemployment insurance or generates additional revenue from income taxes or other sources.

- (3) Start-up time. This depends both on how fast the program can be legislated and implemented and, once established, on how fast the program creates jobs.
- (4) Phase-out flexibility. This will be affected by the nature of the output produced on-the-job--how long it takes to complete the project--and on the political barriers to ending a jobs program in which participants have vested interests.
- (5) Inflation impact. This depends on the extent to which the program uses scarce materials and skills for which the demand is likely to be increasing relative to supply during the recovery.
- (6) Value of output. The new jobs might produce various outputs, private goods and services, public works, and government services. It is difficult to compare the value of these different outputs, but at least they can be identified.
- (7) Distortion of the normal economy. This depends on the extent to which the new jobs involve skills or outputs for which demand is likely to be sustained as the economy recovers.
- (8) Extent to which can be targeted. This depends on the extent to which it is feasible to concentrate the programs in areas or industries of high unemployment or on projects likely to employ workers with particular characteristics.

#### Types of Programs

For at least the last four decades the United States and other industrial societies have recognized the

need for some kind of government action to offset declines in private economic activity and have tried various ways of increasing employment when abnormally large numbers of people were out of work. These measures can be classified in at least three different ways:

- (1) General economic stimulus versus selective programs. A general tax cut is intended to stimulate private consumption or business spending. It is expected that the higher sales that result will in turn stimulate employment. An overall increase in government expenditures has a similar effect. But both taxes and expenditures can be used more selectively. Tax incentives can be used to stimulate investment, even investment in particular industries. As discussed further below, tax incentives can be used to encourage businesses to employ more labor or consumers to buy more durable goods or housing. Similarly, government spending can be directed to particular public needs as determined by the public's representatives, such as capital projects (public works) or programs specially designed to employ extra people (public service employment). Government spending can stimulate either public or private sector employment. This report deals primarily with selective measures to increase employment rather than with general use of fiscal policy.
- (2) Public versus private sector employment. Both general and specific tax cuts stimulate employment in the private sector, as do government purchases from the private sector and spending for public works contracted to private firms. On the other hand, employees can be added directly to government payrolls. The federal government can employ more people or can give grants to state and local governments to enable them to increase their payrolls.



## CHAPTER II

## PUBLIC WORKS

Public works is a broad term connoting new construction of public buildings and facilities--schools, dams, sewer systems and hospitals--and capital improvements such as reforestation, park improvements, and building repair and maintenance. The bulk of public works projects are contracted to the private sector, but some projects are done by government units using government employees.

At least at first glance, timing public works projects to offset ups and downs of the business cycle seems like a good idea. The nation has a continuous need for public capital improvements, but many such projects, by their very nature, can be postponed, unlike direct government services. Hence, it seems sensible to concentrate public works in slack times and, especially, to undertake more such projects when, as at present, unemployment in the construction industry is high. Not only do public works projects stimulate employment in the construction industry, but also they can trigger widespread increases in demand for the products of construction supply industries.

Disadvantages of using public works as a countercyclical tool also need to be considered. If a large proportion of the expenditure goes for materials and equipment, and if skilled laborers who earn high wages are employed, then such projects may have a high cost per job. And, while it may be possible to locate new projects in areas of high unemployment, it may also be difficult to use them to create employment for low-skilled people. Public works can potentially increase inflationary pressures if they add to the demand for scarce skills

or materials during a recovery period. But the major misgiving about public works relates to timing. It may take a long time to plan and start complex projects. Once they are started, they must be completed: No one needs a half-finished dam or school. Thus, unless special care is taken in the choice of projects, public works may add to the demand for labor just when the economy is recovering.

This chapter examines the historical experience with public works in the United States and summarizes the lessons to be drawn about the ways they can be used to stimulate employment.

### Historical Experience

The United States has had long but intermittent experience with the use of public works for counter-cyclical purposes. In the Depression, public works were used on a national scale to offset unemployment. Since the 1960s, public works have been used on a much smaller scale in areas with relatively high unemployment rates.

Overall, the historical lesson is mixed. It shows that major new construction generally does entail lags, but that smaller maintenance and renovation projects can be mounted quickly. Administrative problems also can delay implementation of a public works program; but experience suggests ways in which administrative problems can be overcome.

### The 1930s Experience

The Roosevelt Administration initiated two major types of anti-Depression public works programs-- relief work and contract public works--in the 1930s. Relief work placed people receiving welfare payments or "relief" on the public payroll. Most of the funds went for wages, which were kept low. Contract public works involved major public construction projects, and were carried out by private contractors using their normal employment and wage practices. These

projects generally used more materials and capital equipment per dollar of capital expenditure than did relief projects. Indeed, part of their rationale was to stimulate supply industries.

Relief work. This was begun hastily in 1933 by the Federal Emergency Relief Administration and the Civil Works Administration (CWA) in a program resembling what today would be called public service employment. The CWA employed 4 million persons within two months of its inception. Inevitably, some projects were make-work, leading to a lasting characterization of relief work as "leaf raking." The CWA was terminated in the spring of 1934.<sup>1</sup>

A more substantial, relief-type public works program was begun in May, 1935, by the Works Progress Administration (WPA). By early 1936, almost 3 million were employed on WPA projects. This level dropped to 1.5 million in the latter part of 1937, but after the renewed onslaught of the Depression in 1937, enrollment climbed back above 3 million in the latter part of 1938. About one-fourth of the unemployed were working on WPA projects in the 1937-39 period.<sup>2</sup>

About three-fourths of the \$9.6 billion spent on WPA projects from July, 1935, to June, 1940 was for labor. About 80 percent of the funds was spent on construction projects such as roads, public buildings (both new construction and improvements), and publicly owned or operated utilities, such as waterworks. The rest was for nonconstruction projects such as art, music, writing, sewing, canning, and repairing library books.

Contracted public works. These were sponsored primarily by the Public Works Administration (PWA) which

1. Richard E. Hegner, "The WPA: Public Employment Experience in the New Deal," in Studies in Public Welfare, Paper No. 19, Public Employment and Wage Subsidies, U. S. Congress, Joint Economic Committee, Subcommittee on Fiscal Policy, 1974.

2. Ibid., pp. 125-6.

began in 1933. PWA both funded federal projects and matched grants to state and local governments. The federal portion began more quickly, in part because in 1931 the Federal Employment Stabilization Board had developed a six-year program of projects ready to be implemented. By early 1939, \$6.1 billion had been spent on PWA projects, primarily schools and other public buildings, roads, and water and sewer systems.<sup>3</sup>

#### The 1960s: Accelerated Public Works

After World War II, there was considerable discussion of public works to offset cyclical unemployment, but no real action until passage of the Accelerated Public Works (APW) program in 1962. APW was targeted at areas with depressed local economies and/or high unemployment rates. Among other requirements, the state or local government's share of the project had to represent a net increase in its capital budget and projects had to meet an essential public need.<sup>4</sup>

By July, 1964, projects costing \$1.7 billion had been approved, with APW providing about half this amount. Large project categories were waste treatment and sanitation facilities, public utilities, hospital and other health facilities, roads, and administrative buildings.<sup>5</sup>

#### The 1970s: Public Works Impact Program and Title X

The Public Works Impact Program (PWIP) was created in August, 1971, in response to the 1970-71 recession. Like APW, PWIP was directed at areas with high levels of unemployment, poverty, and out-migration,

3. U. S. Department of Commerce, Economic Development Administration, Public Works and Unemployment: A History of Federally Funded Programs, 1975, p. 41.

4. Ibid., pp. 103-4.

5. Ibid., p. 112.

but special emphasis was placed on small projects that could be quickly started: 80 percent of projects approved for fiscal year 1972 were expected to cost less than \$500,000.<sup>6</sup> PWIP provided \$92 million of the total \$134 million estimated cost of projects approved for fiscal years 1972 and 1973.<sup>7</sup>

Then in December, 1974, Title X was added to the Public Works and Economic Development Act of 1965. Title X similarly emphasized the speed with which projects could be started and completed: Eligible projects were to be substantially completed within a year after funds were allocated. Some \$500 million was authorized for Title X in fiscal year 1975, but only \$125 million was initially appropriated. Because of administrative delays, these funds were not committed until June, 1975. In late June, an additional \$375 million was appropriated.

### Evaluation of Public Works

#### Jobs Created for a Given Expenditure

As indicated above, major new construction requires highly skilled (and, therefore, highly paid) labor as well as costly equipment and materials; the number of jobs created for a given expenditure on this type of construction, therefore, tends to be low.

Some projects, however, have a lower cost per job than others. Repair and maintenance projects, for example, requiring lower skills and fewer materials, can create substantially more jobs per dollar. A May, 1975, survey of forty-six public works projects proposed by eight cities showed that the average cost per worker-year of new construction

6. Ibid., p. 161.

7. U. S. Department of Commerce, Economic Development Administration, An Evaluation of the Public Works Impact Program (PWIP), Final Report, (Washington, D. C.: Government Printing Office, 1975), p. iv.

was \$35,524, while the average cost per worker-year for repair and rehabilitation was \$25,608.<sup>8</sup>

Differences in number of jobs created for a given expenditure also appear to exist between federally operated projects and those contracted to the private sector. In the 1930s, the average wage paid on WPA projects was about half that of the contracted PWA projects. Similarly, the cost per worker-year for PWIP projects undertaken by government employees was \$30,470, compared to \$54,700 for PWIP contract projects.<sup>9</sup>

A much less costly program in terms of expenditures per worker-year may be the Title X program, administered by the Economic Development Administration (EDA) Projects are solicited from federal agencies and regional commissioners. Projects have been selected primarily on the basis of area unemployment, job-creating efficiency, and speed of implementation.

A recent EDA survey identified more than 18,000 project proposals as being ready for implementation.<sup>10</sup> The projects selected involved an initial \$172 million in total project costs with an estimated cost per worker-year averaging about \$11,000. Moreover, because \$50 million of the project costs were covered by matching funds from other federal, state, and local agencies, the net cost to EDA was only \$8,000 per worker-year.

Little summary data are available about the kinds of projects funded by Title X, but in view of the systematic attempts to apply job-creating efficiency and need criteria, it seems likely that Title X

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8. National Council for Urban Economic Development, "Sample Projects to Be Undertaken in Cities if Federal Accelerated Public Works Legislation Is Enacted," mimeo, July 14, 1975, information drawn from Chart 2.

9. An Evaluation of the PWIP, p. 55.

10. "Summary of Title X Proposals," U. S. Department of Commerce, (unpublished), March 7, 1975.

projects would tend to involve maintenance and repair work, rather than major new construction. This is an important consideration, because selection on the basis of employment efficiency may shift federal assistance away from major capital investment and toward maintenance, without regard to the overall capital needs of the public sector.

#### Start-up and Phase-out Time

As indicated in the introduction to this chapter, public works programs frequently are criticized as countercyclical tools because their start-up time generally is long and because, as a result of the long lead time, they may create a heavy demand for labor and material just as a recovery begins. On the other hand, if they are carefully designed, projects can be tailored to fit local and national economic conditions. For example, major new construction projects could be initiated at the beginning of what appears to be a lengthy recession; while maintenance and renovation projects could be started somewhat later.

The start-up phase of a public works project can be delayed at virtually every stage of the process: between appropriation of funds and allocation to state and local governments; between allocation and award of contracts; and between contract award and the start of the project on-site.

Historical experience provides varied evidence of start-up problems. CWA and WPA projects were in operation within a few months with work supervised directly by the agencies, rather than contractors. Early PWA programs, on the other hand, suffered substantial delays, especially nonfederal state and local projects; as administrators gained experience and as a reservoir of projects was accumulated, procedures were devised to expand the program rapidly.

During the 1933 phase, one year elapsed before 90 percent of the funds had been allocated. However, in 1938, 900 allotments were made under WPA

in a three-day period following the signing of the legislation. The time from allotment to contract was also compressed in the later phase of the program. In the 1938 program, about 90 percent of the projects were under contract within 100 days after allocation. In the 1933 program, it was more than 350 days before 90 percent of the contracts had been awarded.<sup>11</sup>

The 1960s Accelerated Public Works program was slow to start, in part because several federal agencies as well as several layers of government were involved. As shown in Table II-1, only a small portion of the funds had been obligated by July, 1963, and the obligations process dragged on into fiscal years 1964 and 1965. However, federal projects again moved somewhat faster than those involving state and local governments.

The PWIP experience in the early 1970s indicates that administrative management of construction programs had improved during the 1960s, as it had during the 1930s. The lag between appropriation and allocation was shorter than for the 1933 program and the 1962 APW program, but not as short as for the 1938 phase of the PWA program. The legislation had been specifically designed with speed in mind and there were fewer administrative requirements than in APW--again a reflection of administrative experience gained by all parties concerned. The program was legislated in August, and more than 90 percent of the funds had been obligated eight months later. During fiscal years 1972 and 1973, half the projects were processed in less than 58 days. The average lag between approval and construction was four to six months for fiscal years 1972 and 1973. For projects approved with fiscal year 1972 funds, construction was completed an average of 308 days after it began.<sup>12</sup>

Recently enacted requirements for environmental impact statements may cause administrative delays

11. John Kenneth Galbraith, The Economic Effects of the Federal Public Works Expenditures: 1933-38, National Resources Planning Board, (Washington, D. C.: Government Printing Office, 1940), pp. 77-78.

12. An Evaluation of the PWIP, pp. 18-24.

TABLE II-1.—*New obligational authority, obligations, and expenditures under the Public Works Acceleration Program, fiscal years 1963-71*

Fiscal year	New obligational authority	Obligations (millions of dollars)			Expendi- tures
		State and local projects	Federal projects	Adminis- tration	
1963	850	96.7	55.0	3.0	62.5
1964	30	313.7	81.8	1.9	331.8
1965	4	192.3	15.7	.6	321.6
1966					88.2
1967					21.1
1968					5.0
1969					2.0
1970					.8
1971 (estimated)					3.0
Total	884	602.7	152.5	5.5	836.0

Source: Nancy H. Teeters, "The 1972 Budget: Where It Stands and Where It Might Go," *Brookings Papers on Economic Activity*, I:1971, p. 233.

for large construction projects. Smaller projects, such as those under PWIP and Title X, however, do not entail such requirements, although environmental assessments are sometimes made. In general, the small-scale projects that can be started and terminated quickly will be less likely to be delayed by environmental impact statement requirements than major new construction that would involve large-scale planning and long lead times anyway.

Various factors account for delays between the time a contract is signed and the time construction can be started. Construction projects are particularly vulnerable to seasonal delays: If contracts are signed in late summer or early fall, construction may not begin until spring unless the work is indoors or the project is in a warm climate.

Time to completion obviously depends upon the type and size of the project, with new projects taking longer than renovations and large projects taking longer than small. For example, under the PWA program, buildings costing between \$75,000 and \$100,000 were completed in an average of 45 weeks; those between \$750,000 and \$1 million, in an average of 86 weeks. In addition, weather delays projects less in mild climates than in cold.<sup>13</sup>

If all these lags are long, it is clear that several years can elapse between the enactment of a public works program and its major impact on employment. Most of the expenditures under the 1962 APW program occurred in fiscal years 1964 and 1965, but, as shown in Table II-1, some funds still were being spent in 1966 and later--long after the economy had returned to more normal levels of employment. Long lags, however, do not appear to be inevitable. For example, PWIP was implemented more rapidly than the APW program. For projects approved with fiscal year 1972 funds, peak employment occurred by the end of the fiscal year.<sup>14</sup>

13. Economic Effects of Federal Public Works Expenditures, p. 89.

14. An Evaluation of the PWIP, pp. 18-24.

In the current context, there are indications that a substantial amount of public works could be started within about ninety days. Although few comprehensive data are available, some pertinent estimates can be noted. The recent survey by the National Council for Urban Development of eight major cities identified forty-six projects costing a total of \$190 million that could be initiated within ninety days.<sup>15</sup> Nearly half the projects could be completed within a year, while only 6.5 percent would take two years or longer. Specific instances of similar projects have been cited in the testimony of various local government officials. Mayor Abraham D. Beame of New York City has estimated that his city has several thousand repair and rehabilitation projects worth about \$200 million. Mayor Lawrence F. Kramer of Paterson, New Jersey, cited \$15.5 million worth of projects ready to go in his city, including sewer projects, a public safety center, a public health center, and park and recreation improvements. Daniel T. Murphy, county executive of Oakland County, Michigan, speaking on behalf of the National Association of Counties, cited a survey of thirty-one counties in twenty-two states that indicated that a large backlog of public facility projects in the counties could be rapidly initiated once funds were made available. All but two of the thirty-one counties indicated that they have at least one public works project ready to go if funding were available.<sup>16</sup>

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15. National Council for Urban Economic Development, "Sample Projects to Be Undertaken in Cities if Federal Accelerated Public Works Legislation Is Enacted," mimeo, July 14, 1975.

16. U. S. Congress, House of Representatives, Committee on Public Works and Transportation, "Local Public Works Capital Development and Investment Act of 1975, HR 5247," hearings, 94th Cong., 1st. Sess., 1975.

Inflationary Impact and Potential  
Disruption to Markets

The extent to which public works projects exacerbate inflation depends upon conditions in the general economy, the scale and type of public works programs, and the location of the projects. Those undertaken in the context of high unemployment and excess capacity will exert less inflationary pressure than those undertaken when the economy is at full capacity. Those located in areas of high construction activity will exert more pressure than those in areas with low levels of activity.

It is sometimes argued that federal construction projects have an inflationary impact because the Davis-Bacon Act requires wages paid on federal or federally assisted projects to be the prevailing wages in the area, as determined by the Secretary of Labor. In practice, prevailing wages are usually interpreted to mean union wage rates.<sup>17</sup>

The current inflationary potential of public work depends further on the extent to which projects would compete for resources in construction-related sectors of the economy. The present outlook for these sectors is uneven. For example, the housing industry, presently operating at less than half the peak levels of 1972 and 1973, has been very weak. On the other hand, the long-term outlook for energy-related construction is quite strong.<sup>18</sup>

Value of Output

Assessment of the larger social costs and benefits of public works program is very difficult. Over construction of schools or hospitals, for example, may render the local delivery of health or educational services inefficient and expensive. A public office building

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17. Gordon F. Bloom and Richard Northrup, Economics of Labor Relations, 6th ed., (Homewood, Illinois: Richard D. Irwin, Inc., 1969), pp. 448-9.

18. U.S., Federal Energy Administration, Project Independence, Summary Report, (Washington, D.C.: Government Printing Office, 1974), Table V-33.

in the heart of a debilitated business district; on the other hand, may crystallize private sector investment in a rundown area.

A successful public works program during a severe recession carries with it a general benefit in terms of long-term capital investment. Public facilities decay regardless of the capricious swings of the national economy. State and local governments, squeezed by declining tax bases and soaring service costs, frequently defer capital refurbishment. An effective accelerated public works program may contribute to a more systematic and effective capital replacement effort by these governments.

### Conclusion

Historical experience provides some insights into the implications of alternative types of public works programs:

- o The implementation lag can be minimized if a criterion of speed is accorded the same high priority as other objectives in the design of the program and the selection of projects.
- o Federal projects can generally be started more quickly than projects that involve several layers of government.
- o Implementation can be accelerated if there is a stock of projects that have reached the contract-letting stage. Small projects, renovation, and maintenance work can be undertaken quickly and completed quickly; major construction, obviously takes longer.
- o Expenditures required to generate a worker-year of on-site new construction employment is sometimes high: \$30,000 to \$40,000 per worker-year. However, a program that emphasizes repair and maintenance work and conservation projects can involve a much lower expenditure per on-site job: \$10,000 to \$12,000 per worker-year.

- o To the extent that an accelerated public works program uses scarce materials and labor, it would exert an inflationary influence. Projects that use resources in relative abundance, such as unskilled labor, would minimize inflationary impact.

## CHAPTER III

## PUBLIC SERVICE EMPLOYMENT

The term public service employment has come to mean programs that create temporary jobs in the public sector when unemployment is high. The program may result in production of a variety of needed services and may train enrollees, but their primary rationale is providing jobs.

Public service employment can be an effective antirecession measure because useful work that does not require much skill or equipment always exists--helping teachers or policemen, working in hospitals, or cleaning and repairing public parks and facilities. It can be argued that it is better to pay people who are out of work to do these jobs than to pay them to do nothing, especially if they receive training or experience that may help them find a permanent job. If wages are kept low and if the program has few costs other than wages, then more jobs will be created than if the same expenditure were used to finance public works or to stimulate employment in the private sector.

The main argument against public service employment is that state and local governments have a limited capacity to absorb or supervise extra workers. Hence, either the new workers may replace regular government employees--redistributing but not reducing unemployment--or be engaged in demoralizing, make-work projects. If this were true it would be preferable to choose programs that create permanent, sustainable jobs either in the public or private sector, even at greater cost per job.

### Historical Experience

As discussed in the previous chapter, the New Deal programs proved clearly that millions of public service jobs could be created quickly and that much useful work could be accomplished. Nevertheless, public service employment programs have been used only on a limited scale since World War II.

The focus of the relatively small public service programs of the 1960s was on the "structural" unemployment of disadvantaged groups--the permanent tendency of those with low skills, poor education, and little work experience to be underemployed or unemployed--rather than the cyclical unemployment of the labor force in general.

The emphasis in the early 1960s was on revitalizing depressed areas, such as Appalachia, and on training or retraining those without salable skills. The Manpower Development and Training Act of 1962 was originally aimed at retraining experienced workers who became unemployed because of technological and economic changes, such as the mechanization of farming and the decline of employment in coal mining. Though many training programs showed some success, the realization grew during the 1960s that training was not enough. The rural poor, welfare mothers, ghetto youths, and other "problem" groups often lacked not only job skills but also experience or work habits needed for permanent private or public employment. Hence, efforts were made to coordinate training with job experience.

The Economic Opportunity Act of 1964 established several public employment programs especially targeted at the unskilled and disadvantaged. The aim was to provide jobs as well as training and work experience. The Neighborhood Youth Corps and Job Corps employed and trained disadvantaged young people, while attempts were made to provide work experience for welfare recipients of all ages.

Other, smaller programs were developed in the late 1960s. New Careers for the Poor trained poor persons as paraprofessionals in health, education, and public safety. Operation Mainstream was primarily an outdoor maintenance program for the elderly in rural areas. Through JOBS, private businesses hired and trained the hard-core unemployed. The Work Incentive Program (WIN) was also initiated under HEW auspices as an effort to get welfare recipients into the labor force.

In the 1970s, public employment programs have again been used to combat unemployment associated with recession, albeit on a far smaller scale than in the 1930s. In 1971, Congress passed the Emergency Employment Act, which created the Public Employment Program (PEP). About \$1 billion was provided in fiscal year 1972, \$1.25 billion in fiscal year 1973, and \$250 million in fiscal year 1974 to about 650 state and local government on the basis of unemployment rates and the number of unemployed in each area. As an antirecession measure, the act emphasized maximum employment impact by providing that no less than 85 percent of the money be spent for salaries and fringe benefits and that the annual federal wage contribution not exceed \$12,000. Between October, 1971, and April, 1974, PEP enrollment, excluding summer employees, averaged about 160,000.

Unlike earlier manpower programs, PEP enrollees were typically not disadvantaged workers, despite the fact that the original legislation specified that disadvantaged workers and minorities be employed. PEP could be phased out rapidly in part because participants were able to find jobs in the private sector during the upturn in 1972.<sup>1</sup>

The President's fiscal year 1974 budget scheduled PEP for a gradual phase-out, but passage of the Comprehensive Employment and Training Act of 1973 (CETA), led to a transition into a new public employment program. CETA attempted to combine the goals of reducing

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1. U.S. Department of Labor, Manpower Report of the President, April, 1975, (Washington, D.C.: U.S. Government Printing Office, 1975), pp. 44-49.

cyclical and structural unemployment, as well as of improving the earnings potential of low-skilled workers.<sup>2</sup>

The funds remaining in PEP were transferred to Title II of CETA. The President's fiscal year 1975 budget contained a \$370 million supplemental appropriation for transitional public employment in fiscal year 1974. Before July 1, 1974, the Department of Labor had allocated \$296 million of this money to "areas of substantial unemployment"--states and localities with 6.5 percent or more unemployment for three consecutive months. Allocations were based on the proportion of unemployed living in all areas of substantial unemployment. As unemployment continued to rise, additional funds were allocated, raising the total funds available to about \$1 billion. While it was projected that this amount ultimately would support about 170,000 public service jobs, by December, 1974, only about 100,000 had been filled.<sup>3</sup>

In that month, however, spurred by rising unemployment rates, Congress enacted the Emergency Jobs and Assistance Act of 1974, which added a new Title VI to CETA designed to create about 110,000 additional jobs for thirteen months. By March 31, 1975, after initial phasing problems were resolved, more than 250,000 were enrolled under Title II and VI. As of June, 1975, the Manpower Administration reported that about 310,000 jobs had been created under Title II and VI of CETA. Thus, as shown in Table III-1, public service employment under CETA has approached twice the number of job slots created by the EEA.

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2. Alan Fechter, "Public Employment Programs: An Evaluative Study," Studies in Public Welfare (Washington, D.C.: U.S. Government Printing Office, December 30, 1974), p. 95.

3. U.S. Department of Labor, Manpower Report of the President, April, 1975 (Washington, D.C.: U.S. Government Printing Office, 1975), p. 81-84.

As in PEP, CETA enrollees have not been the hard-core disadvantaged. As shown in Table III-1, they are predominantly male, aged 22-44, with twelve years or more of education (those who normally have the lowest unemployment rates of all groups).

However, CETA has also reached a large number of non-whites and veterans, employing them in greater numbers than their representation in the unemployment pool.

### Training

Training can be viewed as a special category of public service employment. Although the focus is not on direct output of goods and services, training can increase labor market skills. If effective, this skill increase will contribute to enhanced productivity in later periods of full employment.

Training may also alleviate structural problems in the labor market. Although it has been far from a panacea in the past, there is evidence that training does improve the earnings and employability of low-skilled workers, even though the short-run effects appear small.<sup>4</sup> During the recovery period, training may moderate inflationary wage increases, since the productivity of the work force will be increased and specialized skills will be in greater supply. To the extent that structural unemployment is reduced by training, there will be less danger of inflation as the economy approaches full employment.

Manpower training programs in the 1970s often produced disappointing results. Much of this disappointment, however, can be traced to overly optimistic expectations. Unskilled workers, often high school dropouts and disadvantaged youths, were placed in training programs for periods as short as six months. This brief experience

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4. See, for example, Orley Ashenfelter, "The Effect of Manpower Training on Earnings: Some Preliminary Results," Proceedings of the Industrial Relations Research Association, December, 1974, pp. 252-260. Also see Charles Killingsworth, "CETA and Manpower Program Evaluation," IRRA, December, 1974, pp. 203-210.

clearly could not be expected to result in a dramatic improvement in their skills. Dropout rates were high, as should have been anticipated.

The concept of manpower training as an antirecession device is sometimes opposed because there are questions of whether there will be jobs when the training is completed. This could be a problem in the current situation where unemployment is expected to remain high for a long time. Although job placement apparently was a legitimate problem in former U. S. programs, other countries seem to have been more successful in placing their training graduates. Sweden, for instance, conducts a massive training program in which about 1.3 percent of the labor force participated in 1973. As explained in detail in Appendix A, Sweden designs its program around labor market requirements rather than those of the individual. This requires considerable planning to match training programs with future occupational needs. In this country, on the other hand, the principal focus has been on providing aid to disadvantaged individuals. If training is to be used as an antirecession measure, more emphasis on labor market needs would have two benefits: not only would it enhance trainees' prospects for improved earnings and employability, but also it would increase the supply of skills projected to be in scarce demand in the future.

CETA provides for a large-scale training program with about 152,000 participants in March, 1975. Under CETA, federal funds are allocated to prime sponsors (mostly state and local governments) for participants' salaries and training expenses. About two-thirds of the CETA trainees receive institutional training and one-third, on-the-job-training. The CETA training program has emphasized opportunities for minorities, disadvantaged persons, and Viet Nam War veterans. Most training is in skilled trades, such as construction, machine-tool building, and tool-and-die making, but some programs also offer training in semiskilled occupations.

#### Evaluation of Public Service Employment

Since public service employment is specifically designed for maximum employment impact, it ranks high as

antirecession device in terms of number of jobs created per dollar of expenditure. Further, if existing programs are used as a base, its start-up time could be short and, if job tenure were limited, it could be quickly phased out. And if aimed at unskilled workers, its impact on inflation would be limited. However, the output of public service programs may be less valuable than that of other temporary measures, and the tendency of state and local governments to replace regular employees with public service enrollees must be overcome.

#### Costs Per Job

The relatively low cost per public service job is a direct result of the relatively low wages paid and the requirement that a high proportion of the funds allocated be spent on wages. The average expenditure per job under Title VI of CETA, including fringe benefits and administrative costs, is approximately \$8,000. Of this amount, about \$7,000 is direct wage payments and \$1,000 is for administration, materials, and equipment costs. However, if training is viewed as an attractive alternative to immediate private sector employment, there may be pressure to extend the program, on a smaller scale, after the recovery is completed.

Training would increase cost per job, but this could be offset by paying trainees lower wages than other public service employees. If wages averaged about \$6,500 and materials, administration, and training costs were 20 percent of project funds, \$1 billion could provide 123,000 training positions. If training periods were shorter than a full year, many more individuals could benefit from the program.

#### Phase-in and Phase-Out Time

Recent evidence on PEP and CETA suggests mixed results with phase-in and phase-out times.

The PEP Experience. About nine months was required to fill all of the planned 162,000 PEP jobs. As shown in Table III-2, enrollment under PEP in the early 1970s reached a peak in mid-1973, but declined rapidly during the latter half of 1973 and during 1974, both in numbers of participants and as a percent of unemployed persons.

Nearly 4 percent of the unemployed were in PEP jobs in mid-1972, compared to less than 2 percent by the end of 1973. There were some enrollments in PEP during fiscal year 1975 using money appropriated, but not spent, in earlier years.

The CETA Experience. CETA Title II's 170,000 jobs were filled at roughly the same rate as PEP slots. In contrast, however, the 110,000 CETA Title VI slots were filled in roughly one-third the time required to fill the CETA Title II or PEP jobs. The CETA Title II slots were filled slowly in part because state and local government officials were uncertain about the program's requirements and about funding for the next fiscal year. Further, while fiscal crises at the local level had forced layoffs and hiring freezes, state and local officials were reluctant to raise the level of employment and public services if funds were to be reduced. Title VI could be implemented much more rapidly because the high unemployment that developed in late 1974 and early 1975 created a feeling of urgency to fill jobs quickly.

The phase-out capacity of a program depends upon who is in the jobs, what is being produced, and how long the program has been in effect. If the program is targeted at the unskilled and disadvantaged, its enrollees will be absorbed less rapidly into the private sector during recovery than if it were targeted at skilled workers. Further, if wages were high relative to opportunities in the private sector (as would be more likely for unskilled than skilled workers) participants and members of the target population may bring pressure to bear to keep the program in operation even after the recovery is over.

To ensure phase-out flexibility, program outputs should be of the type that could be completed quickly. In a recovery lasting several years, longer-term projects can be undertaken initially, but later in the recovery, shorter-term projects should be emphasized. Training programs are potentially easy to terminate since the "job" ends when the training is completed.

In general, the longer the program is in operation the more difficult it will be to phase out rapidly. This suggests that a program targeted at unskilled workers that would remain in effect for several years might take longer to phase out than did PEP.

### Potential Inflation Impact

Whether a job-creating program contributes to inflationary pressures in the recovery depends upon several factors. If it utilizes materials and skills that are in demand in the private sector during the recovery, then wages of skilled workers and prices of scarce materials might increase rapidly unless they are released quickly. Further, a general increase in living costs is likely to be caused by higher energy and food prices; skilled workers (particularly union members) are likely to be in a better position than unskilled workers to obtain cost-of-living wage increases.

Traditionally, skilled workers are the first back into jobs as the economy expands. Studies show that these workers are able to achieve much more rapid increases in wages relative to unskilled workers when overall unemployment is high than when it is not.<sup>5</sup> This indicates that one or a combination of two factors occur. First, the demand for skilled workers increases before overall unemployment falls, pushing up their wages. Second, skilled workers are more likely to be members of trade unions and in general to have superior bargaining power that allows them to get cost-of-living increases. In the current period of anticipated rising energy and food prices, this factor, rather than demand pressures, may be the most important determinant of relative wage increases across skill levels. Holding wage levels substantially below those in the private sector will provide an incentive for workers to move rapidly into private sector jobs, preventing this type of wage inflation.

These considerations suggest that a public jobs program will have a lesser inflationary impact to the extent that it is targeted at unskilled workers. The fact that many skilled individuals are currently part of the unemployment pool or that unemployment is expected to remain high throughout 1977 does not significantly alter the issue. The bumping process in the labor market

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5. Gail Pierson, "Union Strength and the U.S. Phillips Curve," American Economic Review, LVIII (June, 1968), pp. 456-67.

assures that the skilled unemployed will gradually filter back into jobs at a faster rate than the less skilled, even if unemployment remains high, and this may even increase their employment at the expense of the unskilled.

#### The Displacement Problem

Since employees hired under public service employment programs help to produce the types of services that state and local governments normally provide, it is tempting for these governments to substitute public service employees for regular workers.

Both PEP and CETA have prohibited some of the most direct forms of displacement. For example, it is not permissible to fire a worker and immediately hire the same worker under the CETA program. Indirect displacement, however, can occur in three ways. First, local governments may gradually assign public employment enrollees to functions previously performed by regular employees who have quit or retired. Second, local governments may use public employment funds to hire people into new jobs, which might otherwise have been financed with local funds. Third, if CETA prime sponsors can demonstrate a severe fiscal need, the Department of Labor will permit them to lay off regular employees for thirty days and rehire them with CETA funds.

Estimates suggest that there was as much as a 50 percent displacement in PEP in the first year.<sup>6</sup> Displacement is likely to be larger in the longer run as states and localities are able to fill vacancies that occur with public service employees. Some estimates indicate that displacement might be as high as 60 to 90 percent in the long run.

6. Alan E. Fechter, "Public Service Employment: Boon or Boondoggle?" in National Commission for Manpower Policy, Proceedings of a Conference on Public Service Employment, Washington, 1975, p. 127. See also George E. Johnson and James D. Tomola, "An Evaluation of the Public Employment Program," Technical Analysis Paper No. 17-A, Department of Labor; Office of the Assistant Secretary for Policy Evaluation and Research; September, 1974, pp. 14-15.

Displacement could be reduced if the federal government were to retain control over how the funds were spent. Less displacement would occur if the jobs were explicitly separated from the regular operations of states and localities and if the program were specifically targeted at the disadvantaged. However, such restrictions would reduce the flexibility of the program and the value of the output, and increase the start-up time.

#### Achieving the Goal of a Temporary Program

If the program is to be temporary, its design must reflect this fact. First, a time might be imposed that specifies the maximum tenure, such as a year or eighteen months, of any individual on a countercyclical job. This would ensure a given terminal date for any individual and might limit political pressure from building that would force the continuation of the program through the expansion phase of the next upswing. An alternative approach would be to require applicants for public service employment funds to propose specific projects with an inherent beginning and end.

The Canadians have had success with such a program (the Local Initiatives Programs--LIP--described in detail in Appendix A). Second, a limit might be placed on the amount of nonlabor expenditures allowable for any given job. If a job is to be phased out after only a short time period, there is less purpose in spending funds for capital equipment that has a useful economic lifespan greater than the job. The less funds committed to capital, of course, the more can be spent on creating new jobs.

Finally, it has been suggested that transitional jobs should not duplicate current civil service jobs and should be administratively compartmentalized. Although government workers have substantial job rights and fringe benefits, it is clear that such rights cannot be extended to cover temporary jobs. Further, the manpower for anti-recession jobs may be substantially less skilled than the traditional government employees. Overlapping

can create serious morale problems for both sets of workers and added inefficiencies may result.<sup>7</sup>

### Conclusion

The use of federal funds for the direct hiring of workers is likely, in a short run, to have a significant impact on employment and unemployment rates. Public service employment is likely to have a greater effect on employment in the short run than other fiscal measures such as tax cuts or increases in government spending. To the extent that the unemployment rate is a true indicator of social distress there is clear value in attempting to lower that rate in the most expeditious manner possible.

However, public service jobs programs have problems that must be recognized. While helping to deal with the short-run distress of cyclical unemployment, they do little or nothing to deal with the underlying structural problems in the labor market. Furthermore, to the extent that the jobs program exceed its anti-recession time horizon, it may impede normal absorption of workers into the private sector. Finally, they must be structured to minimize displacement of regular public employees.

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7. For example, Morris A. Horwitz in the discussion on CETA in the IRRA Proceedings, December, 1974, p. 215, states that "..... persons placed in such jobs recognize very quickly that they are being paid on a job for which they are not fully qualified, and this could be demoralizing. In addition, the employment of such qualified persons may have a demoralizing effect upon the regular civil servants with whom they work side-by-side. One alternative to this possible situation is to place the person in a training program rather than a job, but pay him a regular salary. The possible long-run effects of such training may be much better than a public service employment job with little or no training or supervision.

## CHAPTER IV

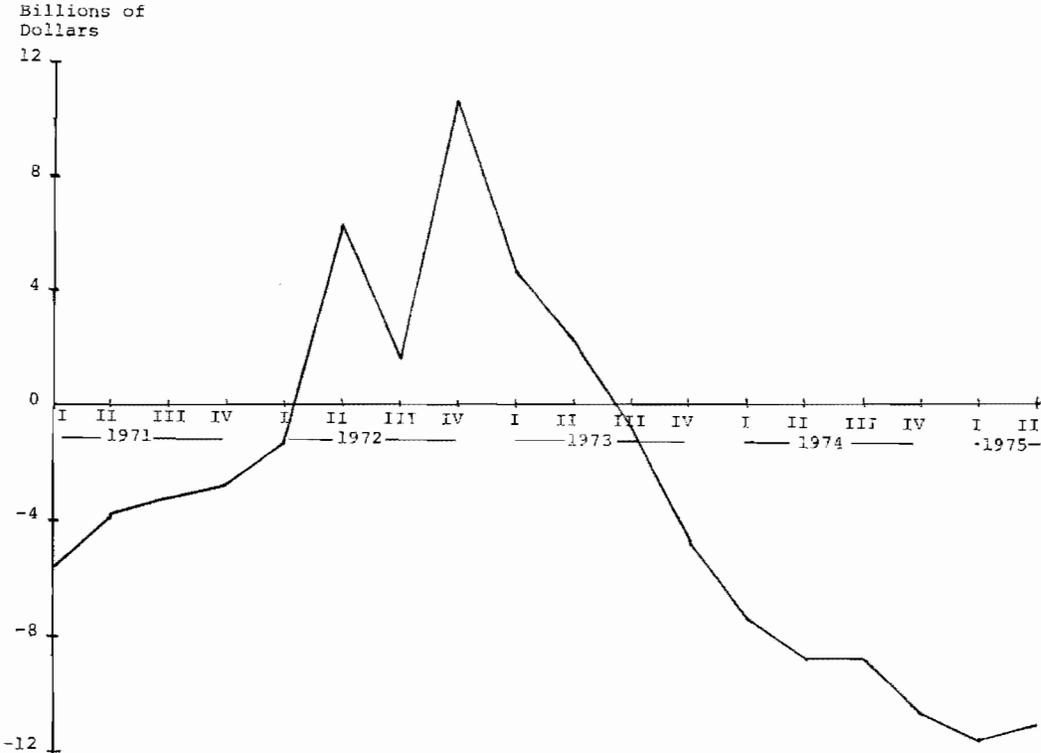
ANTIRECESSION ASSISTANCE TO STATE  
AND LOCAL GOVERNMENTS

Special antirecession assistance has been proposed to help state and local governments stabilize their services over the business cycle. Under the proposal, federal grants to support the general activities of state and local governments would be automatic in a recession (and phased out automatically as the economy recovered) on the basis of a formula designed to channel the funds to those governments hardest hit by the recession. The grants would be aimed at stabilizing state and local services, not specifically at creating jobs; but they would clearly affect state and local employment. They should therefore be viewed--along with public works spending, public service employment, and other measures--as one of the possible elements in a federal strategy to create more jobs in the current recession.

Effects of Recession on State  
and Local Government

The initial impact of a recession on state and local budgets is the same as the impact on the federal budget--revenues tend to fall as economic activity declines and expenditures rise for social services resulting from high unemployment and reduced incomes. Balanced budgets are thrust into deficit. As shown in Chart IV-1, the aggregate budgets of state and local governments moved from a \$10 billion surplus in the second quarter of 1972 to a \$12 billion deficit in the second quarter of 1975. These aggregate figures, of course, mask the fact that some jurisdictions were extremely hard-hit by the recession while others remained unscathed.

CHART IV-1: SURPLUS OR DEFICIT OF STATE AND LOCAL GOVERNMENTS 1971-1975 <sup>a</sup>



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, May 1975.

<sup>a</sup> Less social insurance trust funds.

Statistical estimates suggest that for every dollar decline in the Gross National Product during a business cycle, state and local revenues will eventually fall by about eleven cents, and expenditures will be pushed up by one cent, thus causing a twelve-cent shift in the budget position of state and local governments.<sup>1</sup> These estimates imply that, without compensatory tax hikes and services cutbacks, the reduction in state and local governments' surpluses that would result from the current recession is between \$23 billion and \$29 billion.

Deficit spending in recession by any level of government tends to mitigate the severity of the recession, but state and local governments, unlike the federal government, cannot have deficits in their current operational budgets for extended periods. After they exhaust any balances accumulated from surplus periods, they generally must cut services or raise revenues to get their budgets back in balance. These actions tend to aggravate the recession. Laying off state and local workers adds to unemployment, while raising state and local tax rates reduces the funds that taxpayers have available for private spending that would stimulate the economy.

As noted in Chapter I, the Joint Economic Committee estimates that about \$3.6 billion in tax increases will be enacted by state and local governments in 1975 alone, while a \$3.3 billion cut in services is expected. In addition, an estimated \$1 billion of capital construction projects will be delayed or cancelled. Taken together, these actions represent a total of \$8 billion in budget adjustments at a time when the economy is in the midst of a severe recession.

Moreover, these tax increases and expenditure cutbacks are concentrated in states where the effect of the recession has been especially severe. Layoffs

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1. Edward M. Gramlich and Harvey Galper, "State and Local Fiscal Behavior and Federal Grant Policy," Brookings Papers on Economic Activity, 1973: I, pp. 15-65.

of state and local workers in these areas have created the anomalous situation described in the previous chapter: state and local governments are firing regular employees because of the recession at the same time that the federal government is encouraging them to hire new workers under public service employment grants.

#### Proposed Antirecession Grants

Federal programs have the effect of stabilizing family budgets in a recession. By reducing tax liabilities and maintaining incomes through such programs as unemployment compensation, the federal government can prevent cuts in private spending that would otherwise aggravate the recession. It can be argued that the federal government should do the same for state and local governments: help stabilize their budgets to prevent them from having to take steps they otherwise would be compelled to take, steps that would further aggravate the recession.

The federal government could, of course, take a variety of steps to help state and local governments in a recession. It could relinquish certain taxes to state and local governments to increase their own revenues; it could change formulas to increase the flow of funds under existing grant programs, such as revenue-sharing or medicaid; or it could concentrate on special employment-creating programs such as public service employment.

If the primary objective is to stabilize state and local budgets in the face of recession, however, two subsidiary objectives should be emphasized:

- (1) Money should be given to those who need it the most--those governments hardest hit by the recession, and
- (2) Aid should be given quickly and with a minimum of extraneous conditions and requirements.

These considerations favor a specially tailored

program of automatic, antirecession grants. Assistance given through existing programs will tend to benefit those states and communities that already benefit from the designated program; these are not necessarily those hardest hit by the recession. For example, a liberalization of the medicaid grant formula is of little help to the government of a cyclically depressed community not presently spending much for medicaid.

Moreover, use of existing programs may be slow for two reasons. First, Congress may take a long time to debate appropriate additions or to decide which program or programs should be increased. Second, these existing programs generally have elaborate restrictions to ensure that the money is spent for their particular purposes. It seems clear that the more restrictions are attached to federal aid to state and local governments, the more delays there will be in spending the money. While these restrictions are appropriate for existing grant programs to the extent that they are applied to antirecession fiscal assistance, they will impede the primary mission of bringing quick, automatically determined aid to help local governments maintain their general services and avoid laying off workers. These purposes would be better served by a general purpose grant designed to get funds quickly to governments suffering from the impact of recession. As with other temporary measures, these grants could be triggered by a standard economic indicator such as a rise in the unemployment rate or a decline in the GNP. (A detailed discussion of issues relating to triggers is in Chapter VI.)

#### The Case Against Antirecession Grants

The arguments against antirecession grants include fears that state and local governments will waste the money or spend it in ways that create relatively few jobs. Many federal officials and legislators have felt that providing local governments with general revenue money without their having to bear the political risks of raising that money through taxation will lead to political irresponsibility. In

addition, they feel that the national consensus represented by federal legislation will not be applied in the use of unrestricted funds in all areas, that antipoverty funds, for example, will not be used for the poor everywhere. For these reasons, most grant programs have been bound by restrictions imposed to ensure that the funds were spent in accordance with federal intentions. The major exception is the general revenue-sharing program under which states and localities are permitted to spend grant money for virtually any ordinary governmental activity. Critics of that program have argued that the funds have been used, especially in the first year, for nonessential purposes and hastily conceived programs.

Others believe the growth in state and local expenditures over the last decade has been too rapid. Those who believe that many government services are either unnecessary or inefficiently produced view the recession as an opportunity for squeezing the "fat" out. They oppose antirecession grants on the grounds that such grants would tend to insulate state and local governments from the "fiscal discipline" imposed by falling revenues.

Critics also argue that antirecession grants may not create much employment, especially if they are used to cut state and local taxes or to forestall increases.<sup>2</sup> This criticism ignores the fact, however, that higher state and local taxes restrain private spending and that lower taxes, by encouraging spending, indirectly create jobs. These critics feel that explicit efforts to create jobs, such as with public service employment grants, are more effective. Defenders of antirecession grants, however, point to evidence that many public service jobs provided by federal grants specific to this type of employment are in reality substitutes for jobs that would have existed on regular payrolls and argue that it is better to subsidize state and local governments outright in a recession than to force them into the subterfuge of using special employment-creating grants to cover their ordinary expenditures.

2. This criticism ignores the fact, however, that higher state and local taxes restrain private spending and that lower taxes, by encouraging spending, indirectly create jobs.

Further, it is extremely difficult to devise a fair allocation formula. Almost inevitably some communities will get more money than they can use effectively and some will get less.

#### Design of the Program

The first design question is how big the grant program should be. A program could be designed to offset the entire impact of recession on state and local budgets, but most people would probably regard this as excessive. Freedom from all uncertainty about recession shortfalls in revenue might encourage profligate state and local spending; some "fat" is undoubtedly squeezed out of state and local budgets by recession belt-tightening. Moreover, since it is impossible to target federal funds in exact relationship to recession damage, offsetting the average effect of recession would undoubtedly mean some governments would be overcompensated and would actually be better off than without the recession, a possibility suggesting a frivolous use of scarce federal budgetary funds.

A cyclical assistance program makes more sense if thought of as a device to eliminate the extreme damage caused by the cycle--reducing the amplitude of cyclical swings in revenues by, for example, one-fourth or one-third. This would increase the federal automatic stabilizers by slightly over 10 percent, giving state and local governments approximately the same share of the automatic federal assistance that they have of the Gross National Product.

A program meeting this criterion would channel approximately \$6 billion to state and local governments when unemployment was at 8 percent. The aid would fall to \$4 billion when unemployment returned to 7 percent and to zero when the unemployment rate reached 5 percent.

Another question to be solved is how the antirecession assistance is to be allocated among state and local governments in a way that channels the funds to governments hardest hit by the recession. Several types

of formulas are possible--none of them ideal--in part because there is no good measure of the impact of the recession on state and local budgets. One possibility is to allocate funds in proportion to unemployment rates multiplied by some measure of governmental activity, such as revenues or expenditures. This formula, however, would give relatively large amounts to areas that have high unemployment rates, even in prosperous times, and whose budgetary problems may not have been significantly worsened by more widespread recession. Hence the change in unemployment rates over a base period may give a more accurate index of the impact of recession on state and local budgets.

### Evaluation of Antirecession Grants

#### Employment Creation

The effect of antirecession grants on employment depends on the extent to which the grants are used to create new jobs or to prevent existing ones from being abolished by state and local governments. Funds used to reduce taxes or prevent increases will have some effect on employment (through their effect on taxpayers' spendable incomes), but the effect will be smaller. Under the most optimistic assumptions about the impact of antirecession grants--that is, that all of the money is used to hire new employees (or prevent firings)--\$1 billion in federal grants to state and local governments would create an estimated 77,000 jobs within a three-month period and 104,000 jobs after twelve months. This compares favorably with a general increase in government purchases that would create 35,000 jobs in three months and 65,000 jobs over the twelve-month period. But it has a smaller job-creating impact than public service employment, which would create from 80,000 to 125,000 jobs in three months and 90,000 to 145,000 jobs after twelve months. With the least optimistic assumptions about the employment impact of antirecession grants--that is, that approximately 50 percent of the federal aid is simply used to support existing programs that would otherwise have

been terminated--40,000 jobs, would be created in a three-month period and 70,000 over a twelve-month period. Thus, the least optimistic assumptions about the employment impact of antirecession grants provide a slightly greater effect than an increase in government purchases.

#### Other Criteria

Special assistance to state and local governments can also be compared to other effects of public service employment programs administered by state and local governments. While noncategorical aid can be used to support regular employees and maintain prerecession services, public service employment is designed to provide low-wage jobs with minimal expenditures for materials and equipment.

As discussed in detail in Chapter III, the skill requirements for regular state and local employees are higher than for public service employment jobs, as are wage rates. Many state and local government employees belong to unions and, unlike public service employees whose wage ceilings are established, are paid wages that are determined by collective bargaining. Further, unlike public service employment, there are no restrictions on materials or equipment used for regular state and local government jobs. Consequently, the possibility of some moderate upward pressure on wages and prices is somewhat greater for noncategorical assistance than for public service employment.

Public service jobs are easier to target at the poor and disadvantaged and other individuals who are most in need of jobs. This targetability is more likely if public service employment is accompanied by some noncategorical assistance, however, since then state and local governments would be less likely to fill public service jobs with regular employees. On the other hand, it can be argued that regular state and local government employees provide needed goods and services that are not likely to result from public service employment.

Clearly, each type of program has a special function and its impact on different labor force groups, its inflation impact, as well as the output produced will also be different. If targetability at the disadvantaged as well as maintenance of state and local government services are both objectives of antirecession policy, then both public service employment and noncategorical aid might be desirable.

## CHAPTER V

## PRIVATE SECTOR EMPLOYMENT

An alternative to creating new jobs in the public sector is to create new jobs in the private sector. Those who favor a private sector strategy cite a number of reasons for this preference. Presumably, job placement and wage determination in the private sector are related to market factors: Workers are matched with jobs and compensated for their work on the basis of supply and demand. Union pay scales and seniority requirements are not violated; productivity is enhanced if workers are placed in jobs on the basis of ability.

In addition, as the economy recovers and the private sector expands, a private sector approach presents no problem of moving workers from public back to private sector employment. Return to prerecession levels of private sector employment would be accelerated by temporary measures to create jobs in the private sector. As indicated in Chapter III, public employment, on the other hand, might slow the recovery by reducing the supply of workers available to the private sector.

A related argument in favor of a private sector strategy is that the recession should not be used as an excuse to increase the size of the public sector. An increase in private sector jobs would involve setting in place no new government programs or administrative structures.

Temporary measures to stimulate private sector employment can be categorized in two ways. First, they can be general fiscal measures, such as across-the-board tax cuts or government purchases; or they

can be specific, such as tax credits for the purchase of certain items like automobiles or housing, or subsidies to induce firms to use more labor. Second, they can be measures to stimulate production of goods and services for private consumption, such as tax cuts, or they can involve government purchases from the private sector.

#### Impact of Private Sector Measures

The impact of measures to stimulate employment in the private sector is often difficult to assess in advance. Unlike public service employment, in which a fixed number of new jobs is established, tax cuts and government purchases are merely incentives to create jobs, incentives that may or may not be utilized.

Tax incentives to firms are particularly problematic. Some of the actions encouraged by these incentives would have been undertaken even without them and so lower taxes do not increase employment, but only provide windfalls to certain firms. In other cases, the incentives offered might not be sufficient to induce the desired actions. Personal tax cuts are meant to stimulate spending, but households may choose to save their increased income or to use it to pay off debts.

Where similar measures have been tried before--~~across-the-board~~ tax cuts, investment tax credits, increased government purchases--statistical evidence can be brought to bear on the probable fiscal impact. New programs, on the other hand, have less predictable outcomes.

#### Flexibility, Targetability, and Equity

Some measures to stimulate private sector employment rank high in terms of flexibility and simplicity. ~~Across-the-board~~ measures can be enacted quickly since there is little need to debate program design. There is an equity advantage, too, in that most people are affected in a similar way. However, in the case

of tax cuts, nontaxpayers such as exempt organizations, the unemployed and low-income individuals do not benefit. Further, specific tax expenditures benefit only certain eligible groups, and thus are less equitable for taxpayers than across-the-board tax reductions. In addition, they complicate the tax structure, and when compounded often result in high marginal tax rates that may have undesired incentive effects.

Unlike general measures specific tax expenditures and government expenditure programs such as public works can be targeted in areas or industries with high unemployment or on projects likely to employ workers with particular characteristics. In addition, they can be specifically designed for high employment impact per dollar of program cost. These advantages must be weighed against possible inequities and complications of the tax structure cited earlier.

#### Temporary Versus Permanent Measures

Another consideration in designing measures to stimulate private sector employment is whether or not they should be temporary. Antirecession policy by definition should be temporary. Yet certain types of tax cuts and expenditure increases are known to be less effective in the short run when they are temporary because households and firms will not necessarily alter their spending habits or production patterns in response to incentives known to be of short duration. Other measures, however--investment tax credits and tax credits for the purchase of housing and consumer durables--are likely to be more effective when they are temporary. This is because purchases can be bunched together in periods when the credits are in effect and postponed at other times.

#### Inflation Impact

Measures to stimulate private sector employment can moderate inflation if they reduce production costs. Wage subsidies and investment tax credits reduce the

private cost of labor and capital. Increased government purchases and across-the-board tax reductions on the other hand, serve to increase demand for goods and services without reducing costs, and hence will be more conducive to upward pressure on prices.

Private sector employment is not specifically targeted at low-wage, unskilled workers. To the extent that new jobs are filled by workers with scarce skills, inflationary pressure on wages is likely to be greater than for public employment programs that pay lower wages than in the private sector and/or are targeted at the unskilled and disadvantaged.

#### Selected Programs

There are many possible ways to stimulate private sector employment. A few are outlined below:

Tax Incentives. Tax cuts to stimulate employment can be general and specific. Across-the-board reductions in personal income taxes, for instance, stimulate consumer spending and thus induce firms to expand output and employment. Specific tax expenditures can be designed to encourage spending on particular items or to induce firms to hire more labor at current output levels.

Income Tax Reductions. A reduction in income taxes can be enacted quickly. The Tax Reduction Act of 1975 was passed only two months after it was proposed. The additional output resulting from the measure reflects private preferences and the market is permitted to function normally in the sense that the tax rebates are spent or saved as households see fit.

Income tax cuts rank low in terms of jobs created per dollar of program expenditure. Based on past experience, a \$1 billion tax cut (two-thirds personal, one-third corporate) would increase employment by about 10,000 jobs after three months and 31,000 in a year. Tax reductions are not specifically targeted to create low-paying, wage-intensive jobs because there is no assurance that spending patterns will favor labor-intensive goods and services. Tax cuts, especially

temporary cuts, are even less effective in creating new jobs than other aggregate fiscal remedies, such as increased government purchases, because households and firms choose to save part of the tax reduction or to pay off debts. This was apparently the case with the 1975 temporary cut. But lags in households' spending decisions are unpredictable, so the effect may be felt later on.

Investment Tax Credit. In certain cases temporary tax cuts can have a desirable countercyclical effect. Tax credits on durable products and consumer goods are a case in point, since purchases can be bunched and timed to counteract cyclical swings. The investment tax credit, first used in 1962, is designed to reduce the cost to firms of purchasing certain types of capital. The original legislation, permitting firms to deduct from their taxes a certain percentage of the total cost of investment in eligible equipment, set the tax credit at 7 percent; now the rate is 10 percent.

One study of the 1962 program estimates that 10.2 percent of manufacturing investment in 1963 (\$863 million) could be attributed to the tax credit.<sup>1</sup>

A permanent investment tax credit reduces corporate taxes and stimulates investment through an increase in corporate cash flow. But it may encourage firms to switch to more capital-using techniques, thus reducing the demand for labor.

A temporary investment tax credit (or temporary increase in an existing investment tax credit) would encourage firms to accelerate purchases of capital equipment, creating new demand for capital and increasing the demand for labor in capital-goods industries. Its purpose is not to increase overall use of capital but rather to alter the timing by which firms acquire capital. From the point of view of countercyclical stabilization policy, this is precisely what is wanted.

1. Robert E. Hall and Dale W. Jorgenson, "Tax Policy and Investment Behavior," American Economic Review, LVII, June 1967, pp. 391-414

Of course, if the concern is a long-term capital shortage, a temporary tax credit is probably of less value than a permanent one.

A suggestion often made for increasing the effectiveness of the tax credit is to make it marginal; that is, to grant the credit only for investment expenditures in excess of depreciation or some other level. This might eliminate much of the windfall gain for firms that would have made the investments anyway and would hence reduce the tax revenue foregone per dollar of added investment.

Tax Credit for Purchases of Consumer Durables. In a typical recession and recovery, the durable goods manufacturing sector shows wide cyclical swings, registering the worst losses during the downturn and the biggest gains during the upswing.

A tax/subsidy program could be designed to iron out the cyclical fluctuations in these sensitive industries; such as a variable tax or subsidy on purchases of new consumer durables, including automobiles, household appliances, and the like. After unemployment rose above some critical level, a subsidy--for example, 10 percent of the purchase price--would be granted to all purchasers of specified consumer durables. To reduce demand for durables in boom periods, this legislation might also specify that a tax be levied on durables purchased after the unemployment rate fell below some relatively low level. A program of subsidies in recessions and taxes in boom periods could be designed so as not to change the long-run demand for consumer durables but, like the investment tax credit, to encourage consumers to bunch their expenditures during recession.

Credit for Housing Purchases. The recently enacted income tax credit for the purchase of new homes under construction prior to March 26, 1975, is a variant of this kind of countercyclical policy. Instead of giving a tax credit to individuals who purchase homes during a certain period, however, the housing

credit is given to purchasers of homes built during a certain period. The effect is to increase the demand for the recently constructed stock of houses rather than to stimulate the construction of new housing. The inventory liquidation this represents may help to stimulate new construction after a time, but it is likely that employment would be increased faster by a tax credit for the purchase of new homes that encourages current production.

Employment Tax Credit. Instead of focusing on special sectors of the economy hard-hit by the recession, a tax credit might be designed to encourage firms to hire more workers at current output levels. An employment tax credit is equivalent to a wage subsidy, reducing the cost to the firm hiring labor but not lowering the worker's wage rate. An employment tax credit creates an incentive to increase jobs in two ways. First, it reduces production costs to firms; this should either cause them to reduce prices, to expand output, or both. Second, by reducing wage costs, it may encourage firms to substitute labor for machines or other inputs.

Unlike the investment tax credit, there is no particular advantage to making the employment tax credit temporary, since labor services cannot generally be bunched like purchases of durable capital equipment.<sup>2</sup>

In fact, unless the program is viewed as permanent, firms are unlikely to make the changes necessary to increase their use of labor relative to other inputs. In a recession, firms generally maintain higher levels of employment than is necessary, since the costs of laying off and rehiring some kinds of workers are greater than keeping them on the payroll. Moreover, to utilize additional labor relative to other inputs would involve changes in production techniques that are not likely to be made if the program were considered temporary.

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2. The additional labor services could be used to accumulate inventory in some cases. In that event, the tax credit would act as an inventory subsidy.

Reduced labor costs could result in increased output and would moderate inflationary pressures. In a period of slack product-market demand, however, these effects are difficult to predict.

Some studies are optimistic about the potential job-creating effects of an employment tax credit. A Department of Labor study estimates that a permanent 10 percent tax credit based on average compensation per worker applied to employment above 90 percent of a base period would create as many as 190,000 jobs per \$1 billion of tax expenditures in three months and 360,000 jobs after twelve months.<sup>3</sup> If the program were temporary, the study estimates that the increase in jobs would be cut in half. Another private study has similar estimates.<sup>4</sup>

These studies make two crucial assumptions. First, they assume firms do not begin with an excessive level of employment. Second, they assume price flexibility, full immediate adjustment of input proportions to the changed prices, and substantial output effects. To the extent that these are not valid assumptions, the number of new jobs created by the program would be lower.

An often-cited problem with wage subsidies is that they provide windfalls to firms that would have increased or maintained employment anyway. This is true of any tax incentive program, however. In order to induce the marginal firm or household to take a desired action, others may profit who do not need such incentive. If the most profitable firms receive

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3. "Employment Estimates under Alternative Policy Actions," U.S. Department of Labor, (unpublished) April 16, 1975.

4. Ernst R. Bendt, Jonathan R. Kessler, and Samuel H. Williamson, "Tax Credits for Employment Rather than Investment," Discussion paper #279-75 Institute for Research on Poverty, University of Wisconsin, Madison, June, 1975. Jobs created by the program would be lower.

such incentive. If the most profitable firms receive windfalls, however, (and this is likely to be the case for an employment tax credit), the distributional effect may be viewed as undesirable.

Government Purchases. Direct government purchases, including public works, can also stimulate private sector employment. While the goods and services produced are used by the government rather than private individuals, employment and wages are determined in the private sector. As in the case of tax cuts, the employment impact of these measures per dollar of expenditure tends to be relatively low since they are not specifically aimed at low-wage and labor-intensive activities.

Because government purchases represent immediate increases in spending, they are likely to have a larger, speedier impact on employment than tax cuts. Based on previous experience, a \$1 billion increase in government purchases is likely to create about 35,000 jobs in three months and 63,000 jobs after a year. Implementation lags on the other hand, may be longer, generally increasing the more complex and controversial the program design. To the extent that programs involve production of goods and services that take a long time to finish, they have a potentially slower phase-out time than tax cuts.



## CHAPTER VI

## TRIGGERS

As indicated in previous chapters, one of the most critical issues in the design of antirecession policy is timing and flexibility. Programs must be enacted early enough to cushion the immediate effects of the recession. In the current situation, unemployment is already at or near its peak, so the question of start-up timing is simply a matter of how rapidly a program can be implemented and how fast it will create jobs. (If a policy is to be permanent, however, the question of when to trigger it on in future recessions will be an issue.) Phase-out flexibility also is important to ensure that a program does not employ individuals and use materials that are in demand in the private sector during recovery.

Triggers have two objectives. First, they turn a program on and off automatically to reflect changes in some indicator of economic performance, such as unemployment or GNP. This reduces implementation lags at either end, eliminating the need to debate anew whether to establish or terminate a measure. Second, triggers may also serve the role of determining program size. A jobs program, for example, might be triggered on at a level of \$2 billion, when unemployment exceeds 5 percent for three months or more, and be increased at \$1 billion increments for every percentage point increase above 5 percent.

Triggers can be both national and local. National triggers turn programs on and off and determine size. Local triggers serve as devices to apportion program funds among different areas. To the extent that the recession impacts on different areas to various degrees, local triggers serve as the distribution formula for the program.

### Issues in the Design of Triggers

The design of a trigger involves several issues. First, some variable or variables must be used as a trigger. Second, a formula must be established relating the trigger and the program level. Third, local triggers must be differentiated from national triggers.

#### Selection of Appropriate Trigger

The variable to be used as a trigger should be a good indicator of the seriousness of the problem. It also should be selected to minimize the lag in implementing the program. In some instances, a variable such as the unemployment rate is a good, noncontroversial indicator of the severity of the recession. But unemployment is often a lagging indicator of the level of economic activity. In particular, during previous post-World War II recessions, the high point in the unemployment rate occurred, on average, three months after the low point in real GNP. Other variables such as changes in real GNP or new claims for unemployment insurance are earlier indicators of cyclical changes.

The choice of variables also is influenced by the types of data available and the extent to which data are current. More series are available at the national level than at state or local levels. For example, at the national level measures of unemployment, industrial production, capacity utilization rates in manufacturing, and GNP are available; of these, only unemployment data are available on a detailed subnational basis.

Differences in when data become available also influence selection of a trigger. For example, unemployment data are available on a monthly basis, while GNP data are available quarterly. In addition, estimates of the unemployment rate are available for the previous month by the end of the first week of the following month. GNP estimates for the previous quarter are not available until well into the next quarter. Thus, at least some of the time gained by using GNP would be lost because the GNP data are available on a less current basis.

GNP does have an advantage as a national trigger for emergency assistance to state and local governments, since it is a better measure than unemployment of changes in the state and local income tax base.

If the unemployment rate is to be used as a national trigger, a determination must be made as to what rate is indicative of the need for remedial action. Economists consider a rate of between 4 and 5 percent as the rate for so-called full employment. Allowing for errors in judgment and statistics, most would view unemployment above 5 percent as indicative of the need for remedial action, particularly if the unemployment rate exceeds 5 percent for three months or longer. Some programs, such as large-scale accelerated public works, are more drastic than others; and they might be initiated only at higher rates, such as 6 or 7 percent.

The limitations of leading indicators suggest the possibility of using a composite of indicators or of using more elaborate forecasting methods. Leading indicators, however, sometimes give false signals. Several times in the post-World War II period, for instance, the composite of twelve leading indicators signaled downturns that never materialized. A number of large-scale statistical models of the economy also are available. An official forecasting council, with representation from labor, business, and government, could be established. However, programs based on forecasted developments always will be controversial and subject to the false-signal problems of leading indicators.

#### National versus Local Triggers

As indicated above, unemployment data are the only data regularly available on a subnational level. However, actual counts are generally available only for the part of the labor force covered by unemployment insurance. Thus, even this measure is problematical. Rural areas and economically depressed areas within cities are the most difficult to evaluate on the basis of current statistical practices. Better local data on unemployment would greatly enhance the

ability of public policy to focus its effects on those areas where need is greatest

Further, it is important to distinguish between structural- and recession-induced high unemployment. Some localities always have high unemployment, even at peaks in national economic activity. While measures should be introduced to reduce structural unemployment, an antirecession program probably cannot be expected to solve all problems that create unemployment.

One solution is to tie the local trigger to sustained (three-month) increases in unemployment above a base-period regional rate when national unemployment is below 5 percent. A difficulty with this approach is that there is not always uniformity in the timing over which various areas experience a recession. For example, it may be that automobiles (a regionally concentrated industry) would lead the economy in a recession so that the "base" unemployment rate for these regions would be set too high.

Another form of local unemployment trigger might require that the current unemployment rate be above some moving average of past local rates. This latter type of trigger would have the disadvantage of local areas triggering a program off, if unemployment rose and remained high for an extended period. This is likely to be the case in the current situation, where unemployment is expected to decrease gradually but remain unacceptably high for several years. In such a case, a method that triggers the program off as unemployment falls to its prerecession level would be preferred.

#### Triggers to Determine Program Size

GNP has a built-in advantage in a formula to determine program size in that the program could grow automatically over time as the economy grows and hence be a constant share of GNP. The unemployment rate, a ratio, does not grow with the economy, but instead moves up and down over the cycle. Changes in GNP reflect effects of a recession on state and local governments. It is estimated that

for every \$1 decline in GNP, the consolidated budget deficit of state and local governments increases about twelve cents. A program designed to return to state and local governments one-sixth of the revenues lost because of a recession would provide federal aid to states and localities in the amount of two cents for every \$1 decline in GNP. Currently, the difference between actual and potential GNP is \$240 billion; this formula then would imply a \$4.8 billion program of assistance to state and local governments.

Increases in the unemployment rate obviously can also trigger increases in program size. Program expenditures can increase or decrease as the national employment rate rises and falls so that policies can be phased in and out gradually, minimizing disruption of the private economy.



## CHAPTER VII

## COMPARISON OF PROGRAMS

Because antirecession policy has many objectives--stimulating demand in the private sector, putting unemployed and discouraged workers back to work, and restoring the financial viability of state and local governments, to name a few--it is doubtful that a single program could be very effective in achieving them all. One program may be more efficient in solving some problems than others; and a combination of programs may be the most effective way to mitigate the adverse effects of the recession.

Distortions and inefficiencies may occur when one program is used to satisfy several objectives. For instance, some state and local governments may try to use a public service employment program to maintain service levels and to avoid laying off regular employees. Restrictions on wages and materials purchases in public service employment are desirable if it is to have maximum employment impact, but may be a problem if local government services require skilled workers or higher materials components. Attempts to circumvent regulations can mean delays and unfilled job slots, reducing employment impact without providing needed state and local government services. Similarly, a personal income tax cut or increased government purchases might increase the effectiveness of a temporary wage subsidy, since the demand for goods and services in the private sector would be increased at the same time that firms are provided an extra incentive to employ more workers. Thus, the programs described in this report should not be viewed as substitutes for each other, and this should be kept in mind in making comparisons.

Employment Impact and Budget Cost

Some measures of effectiveness, such as employment impact, are easier to estimate and quantify than others. Some, such as value of output, are more qualitative in nature, particularly where public goods and services are compared with private sector outputs.

Table VII-1 provides some quantitative estimates of the employment impact and net budget cost of alternative programs costing \$1 billion. In cases where historical experience is available--for tax cuts, government purchases, and public works--estimates are derived from statistical models. For public service employment and special assistance to state and local governments, estimates were made on the basis of assumed cost per job and different assumptions about the amount of budget substitution or displacement. Second-round effects due to increased spending by the program participants and equipment purchases were derived from statistical models. A detailed explanation of the estimating techniques is provided in Appendix B.

In all cases, ranges are provided. These ranges reflect different assumptions about households' and firms' spending behavior in the case of tax cuts and for the second-round effects of various programs. For public service employment and aid to state and local governments, the ranges reflect different assumptions about the number of job slots filled by persons who would have been hired anyway. For public works, the range reflects the wide variety of activities with this designation, with employment estimates depending on the skill levels of workers as well as the amount of materials and equipment needed.

With an average cost per job of \$8,000, public service employment programs have the highest employment impact of the measures considered, although the effect is substantially lower if the funds are used for other purposes. Special aid to state and local governments and small-scale, maintenance types of public works also have a relatively low cost per job, about \$13,000, and hence have a potentially high employment impact. However, if some of these funds are used

TABLE VII-1.—Estimates of employment and budget impact of various programs costing \$1 billion<sup>1</sup>

Type of program	Initial impact			12 months			24 months		
	Increase in jobs (thousands)	Reduction in unemployment rate	Net budget cost (millions)	Increase in jobs (thousands)	Reduction in unemployment rate	Net budget cost (millions)	Increase in jobs (thousands)	Reduction in unemployment rate	Net budget cost (millions)
Public service employment.....	80-125	0.07-0.11	\$754-\$615	90-145	0.08-0.13	\$492-\$425	90-150	0.08-0.13	\$723-\$530
Anti-recession aid to State and local governments.....	40-77	.04-.07	850-716	70-97	.07-.09	590-570	72-100	.07-.09	480-450
Accelerated public works.....	16-46	.02-.04	915-793	56-70	.06-.07	537-510	64-80	.07-.08	430-390
Tax cut <sup>2</sup> .....	8-15	.01-.02	980-960	26-35	.02-.03	740-720	30-40	.02-.03	663-637
Government purchases.....	20-50	.02-.04	948-870	40-70	.03-.05	600-590	60-80	.04-.05	475-425

<sup>1</sup> These estimates assume no monetary accommodation. If the money supply were increased to prevent interest rates from rising as a result of the expansionary fiscal measure, the job-creative effect would be higher and the net deficit cost lower. Accommodating monetary policy would increase the expansionary effect by 25 percent or more which, in turn, would reduce the budget cost by an average about \$125 million.

<sup>2</sup> The income tax cut is assumed to be one-third corporate and two-thirds personal. If the tax cut were entirely personal, the expansionary effect would be about 50 percent greater and the net budget cost about \$175 million lower.

Source: See app. B.

merely to support services and programs that would have been provided anyway, the effect is not much greater than broad-based increases in government purchases.

Estimates of net budget costs take account of the budget savings that occur when workers no longer collect unemployment compensation and begin to pay taxes and contribute to social security. If jobs are given to workers who would have been receiving unemployment compensation, the deficit is reduced by an average of \$3,250 per worker, in addition to the effect of increased tax payments. Since corporate profits and personal incomes of previously employed persons also increase as a result of the economic stimulus, additional tax receipts are forthcoming and the deficit is reduced.

In general, the greater the employment impact, the lower net budget costs will be relative to program expenditure. However, not all persons placed in new jobs will have been recipients of unemployment insurance, and the percentage of such persons will vary depending on how the program is structured. Table VII-1 shows that net budget cost may be less than 50 percent of the original program expenditures after a year or two. The assumptions underlying these estimates are detailed in Appendix B.

#### Comparison by Other Criteria

Policies that have ancillary objectives are less likely to have maximum employment impact, but rank higher on other criteria. Table VII-2 summarizes the advantages and disadvantages of the various measures previously discussed. Public works programs, for instance, are often thought to produce a more useful output than some other public service jobs, although they are naturally more expensive in terms of cost per job. Antirecession assistance to state and local governments may be used to provide services such as education and health that entail the use of skilled workers. Like public works projects, there is often a tradeoff between the value of the output produced and the cost of the job created.

Aggregate fiscal policy measures, increased across-the-board federal government purchases, and a personal

TABLE VII-2.—*Summary of the Potential impacts of alternative measures to stimulate employment*

	Employment impact per dollar expenditure	Startup time	Phaseout flexibility	Inflation impact	Value of output	Targetability
Income tax cut	Relatively low, particularly in the short run.	Subject to lags in individuals' spending.	Potentially easy to terminate.	Same as any aggregate fiscal measure.	Entirely private sector.	None.
Increase in Government purchases.	Higher than tax cut; lower than special employment programs.	Potentially fast; subject to policy initiation lag.	May be hard to terminate, especially if useful output, services involved.	Same as any aggregate fiscal measure, depending on employees' skill mix.	Mostly public sector; 2d round effects on private sector.	Low.
Accelerated public work.	Potentially low if wages are high; greater job impact from low-wage projects.	Potentially long; but with wide variations depending on type of program.	Wide variation; appropriations easier to stop than some other Government programs, but large-scale projects may take long to complete.	Somewhat greater than other programs if workers highly skilled; lower if aimed at less skilled workers.	Mostly public sector; 2d round effects on private sector.	Can be directed at high employment areas, construction trades.
Public service employment.	Relatively high if wages are low.	Potentially fast if existing programs expanded.	Relatively flexible if job tenure limited.	Low if aimed at unskilled workers and if wages are lower than private sector alternatives.	Low if emphasis is solely on job impact; if combined with training can produce useful skills.	Can be directed at most needy individuals.
Antirecession aid to State and local Governments.	Less than PSE if skill levels high; more than other Government purchases, public works.	Potentially fast; no new programs, only transfer of funds.	Potentially easy to terminate.	Moderate, depending on skill level of employees.	State and local government services.	Can be directed at Governments hit by recession.

and corporate tax cut create new jobs but have the lowest job-creating potential per dollar spent. However, these measures are sometimes preferred because they are believed to introduce fewer distortions into the market behavior of firms and individuals. Tax expenditures and public service jobs programs are seen by many as ways to increase bureaucratic red tape and to complicate the tax structure. Aggregate fiscal measures, on the other hand, are more acceptable policy remedies since they minimize the need to make decisions on matters of program design, eligibility, etc. For this reason they may be subject to the shortest implementation lags of all the programs under discussion.

In terms of inflation impact those programs that have a high job-creating potential also rank high, principally because they focus on unskilled workers, pay low wages and economize on the use of materials and equipment.

#### Illustrative Program Combinations

As indicated, several programs in combination might be a better way of accomplishing several objectives than any single program. Distortions may arise if a measure designed to alleviate one problem is used to accomplish a different objective. Further, if timing is a potential problem, programs that can be initiated rapidly--like public employment and training--can be combined with public works and other measures that have a longer lead time. Table VII-3 shows the employment impact of three alternative policy packages, each costing \$7 billion. The mixes are intended to be illustrative, to show the effects of operating programs in combination.

Different assumptions have been made about the time it takes for each program to become effective. For public service employment and the wage subsidy, the phase-in time was assumed to be spread over three months. For accelerated public works it was assumed that no impact would be felt for three months. Impact lags for tax cuts and increases in government purchases were derived from statistical models.

TABLE VII-3.—*Illustrative examples of policy combinations costing \$7 billion*

	Policy impact after—			
	3 months	6 months	12 months	24 months
Policy mix 1:				
\$2 billion increase in Government purchases.....	70,000	89,000	126,000	140,000
\$3 billion public service employment.....	150,000	218,000	354,000	360,000
\$2 billion aid to State and local governments.....	60,000	97,000	170,000	180,000
Total increase in jobs.....	280,000	404,000	650,000	680,000
Change in unemployment rate.....	-.23	-.34	-.55	-.57
Net budget cost (billions).....	\$6.2	\$4.8	\$3.2	\$2.7
Policy mix 2:				
\$2 billion temporary wage subsidy.....	95,000	190,000	360,000	400,000
\$2.5 billion aid to State and local governments.....	75,000	121,000	213,000	225,000
\$2.5 billion accelerated public works (high skill/substantial materials).....		40,000	100,000	155,000
Total increase in jobs.....	170,000	351,000	673,000	780,000
Change in unemployment rate.....	-.13	-.28	-.53	-.62
Net budget cost (billions).....	\$6.5	\$5.0	\$3.6	\$2.7
Policy mix 3:				
\$3 billion personal tax cut.....	45,000	75,000	135,000	150,000
\$2 billion public service employment.....	50,000	112,000	236,000	240,000
\$2 billion accelerated public works (lower skill/few materials).....	50,000	92,000	120,000	140,000
Total increase in jobs.....	145,000	279,000	491,000	530,000
Change in unemployment rate.....	-.12	-.24	-.42	-.45
Net budget cost (billions).....	\$6.5	\$5.4	\$4.3	\$3.5

Lags in the impact of aid to state and local governments were assumed to be less than three months.

Interactions between programs (that is, changes in amount of job substitution when programs are combined) have also been assumed. The public service employment and aid to state and local government estimates are weighted averages of the most optimistic and least optimistic estimates from Table VII-1. For public service employment, the weights are equal; for aid to state and local governments the most optimistic estimate is weighted slightly more heavily. Other assumptions are described in the appendix.

The impacts of the three policy mixes can be summarized as follows:

Policy mix 1--\$2 billion increase in government purchases, \$3 billion public service employment, and \$2 billion assistance to state and local governments. This has the greatest initial employment impact of the three, but the effect after two years is intermediate between the other two.

Policy mix 2--\$2 billion wage subsidy, \$2.5 billion revenue sharing, and \$2.5 billion large-scale accelerated public works. This has the greatest employment impact after two years.

Policy mix 3--\$3 billion personal tax cut, \$2 billion public service employment, and \$2 billion small-scale accelerated public works. This has the smallest employment impact in both the short and the long run.

In all cases, the employment-creating effects are substantial. Within three months, from 145,000 to 280,000 jobs would be created in a program costing \$7 billion. After two years the employment impact of a program costing \$7 billion per year would range from 530,000 to 780,000 jobs depending on the policy mix involved. After two years, the net budgetary costs of the programs would be considerably reduced by savings in unemployment compensation payments and increased tax

receipts. The estimated budget costs range from \$2.7 billion (creating 780,000 jobs) to \$3.5 billion (creating 530,000 jobs).

#### Conclusion

In conclusion, temporary measures to stimulate employment can be found that have a higher job-creating impact per dollar of increased deficit than traditional antirecession remedies. A wide variety of public and private goods and services can be produced, and workers can benefit from training and job experience. Some of these programs would have a lesser inflation impact than traditional fiscal measures and some would enhance the future productivity of the economy by up-grading labor market skills. Some could potentially be started up rapidly, especially where only an expansion of existing programs is needed. Looking ahead to several years of high unemployment, program design could be developed with the view to gradual phasing out during the recovery. Thus, the timing problems associated with earlier, more rapid recoveries in the past are not as likely to arise in current circumstances.



## APPENDIX A

## SELECTED FOREIGN EXPERIENCE

Overview

Most Western European countries and Canada are suffering from high rates of unemployment, brought about largely by measures to control the inflation that followed higher worldwide energy prices. Although unemployment rates in most European countries are still less than 5 percent and may seem low compared to the United States, they are extremely high by European standards; the unemployment rate in Canada, on the other hand, is above 7 percent--much closer to the United States level.

Table A-1 summarizes measures that various countries have recently taken to deal with recession-induced unemployment. Job-creation programs generally emphasize vocational training (both to upgrade the skills of the labor force and, as a short-term countercyclical measure, to provide productive activity for the unemployed), as well as private sector subsidies (wage grants, tax credits, and investment credits). These relatively new approaches are becoming more important as the traditional trade off between unemployment and inflation becomes more complex. A few countries operate accelerated public works and public service employment programs, but these are the exception. The reverse was the case in the more immediate postwar recessions.

This change in emphasis reflects the view that direct job-creation programs are costly when compared to the employment effect generated. A related trend of thought also emphasizes the worldwide interdependency of the business cycle. Governments rationalize recessions as being outside their control and prefer to rely on unemployment compensation benefits.

TABLE A-1.—Selected Foreign Countries

Country	Wage grants	Other private sector stimulus	Public service employment	Accelerated public works	Training	Assistance to State and local governments
Canada.....			Local initiatives program and opportunities for youth program.			Federal guarantee of 100 percent of previous years' revenue to provincial governments.
France.....	Firms paid subsidy to reduce work schedule without layoffs; wage grant for hiring youth.	10 percent investment credit for plant and machinery; 60 percent investment loans to expand productive facilities.			Training courses for graduates, covered by monthly grant of \$80.	
Great Britain.....		National Enterprise Board set up to provide investment capital.			Increased training grants and skill centers.	
Japan.....		Increase in Government loans; investment in antipollution equipment; subsidies to firms facing layoffs.		\$5 billion appropriated, assumed to be oriented toward long-term jobs.	Used to absorb the unemployed; operated publicly and within firms.	
Sweden.....		Countercyclical investment reserve funds; fluctuation of timing on govt.; orders to industry mobility grants.	Job oriented relief works.	Project orient - relief works.	Countercyclical training program to absorb the unemployed.	
West Germany.....	Wage grants for recruitment of unemployed labor.	Federal Institute of Labor anticyclical reserve funds; 7.5 percent investment tax credit.		Federal Institute devoted funds (\$323 million) for building projects in towns with above average unemployment.	Countercyclical training programs to absorb the unemployed.	Alteration of shared (federal, state) joint tax ratio.

Selected CountriesCanada

In May, 1975, the Canadian unemployment rate was 7.4 percent;<sup>1</sup> up from 5.8 percent in December, 1974. To deal with this increase the Canadians increased their expenditures on two existing countercyclical job-creation programs.<sup>2</sup> These programs, which would be expanded quickly, were aimed at specific areas or population groups.

There also is a provision in Canadian law that resembles a type of countercyclical revenue sharing.

Local Initiative Program. The Local Initiatives Program (LIP) was introduced by the Canadian government in the fall of 1971, when the unemployment rate was 6.7 percent.<sup>3</sup> The goal of LIP is to reduce seasonal and regional unemployment. In promoting local initiatives it accepts project proposals from local governments as well as cultural, religious, service, recreational, business and labor organizations for nonprofit, primarily labor-intensive community service projects. The projects include such things as day-care centers, transportation and delivery services for the elderly, self-help sewing lessons for public housing residents, low-income housing rehabilitation projects, and recreation areas and facilities development. Only about 20 percent of the projects in 1973-74 were more capital-intensive public works.

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1. Adjusted to U.S. concepts, U.S. Department of Labor, Bureau of Labor Statistics.

2. The Local Employment Assistance Program (LEAP) has not been included here because it is basically geared toward structural problems.

3. October, 1971, seasonally adjusted.

Projects aim to create employment for people who otherwise would not be able to find jobs. Project sponsors must give priority to applicants receiving unemployment insurance benefits or social assistance. About 70 percent of LIP participants receive government security payment (i.e., unemployment insurance) prior to LIP. The only significant restriction on products is that they cannot be sold commercially (i.e., they cannot be profit-making nor can they compete with existing means of providing goods or services in the community). Individual projects cannot create less than 15 worker-months of employment, with individual jobs being six months in duration.

LIP wage rates must meet but cannot exceed local prevailing wages for a particular occupation. The project sponsor receives \$140 per week. Twenty-two dollars (\$22) per project per worker week is allocated to cover overhead (i.e., administrative costs and employer contributions such as unemployment insurance). The average weekly employee wage is \$100, varying according to age and sex but not exceeding \$115. The maximum federal contribution allowable per project is presently \$75,000 (down from a maximum of \$500,000 in 1971-72). This figure is also the minimum amount allowable per Canadian constituency.<sup>4</sup>

Expenditures for Canadian fiscal year (April-April) 1971-72 equalled \$190 million, which created some 90,000 jobs varying in length from one week to one year. Although no figures are published showing the actual number of worker-years of employment created (at that time the jobs could last up to one year as opposed to the present restriction of six months), cost per job is roughly \$6,334 per worker-year of employment. The \$190 million

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4. There are 264 Canadian constituencies. The bare minimum allocation of \$75,000 per constituency requires an expenditure of \$19,800,00.

would then have provided the equivalent of approximately 29,950 full-year jobs. A comparable project in the United States (covering 0.3 percent of the labor force) would have to create 278,000 jobs. The cost would be about \$1.7 billion if the same dollar-job relationship is assumed (\$6,334 per annual year of employment) or \$2.2 billion if an annual salary of \$8,000 is assumed (which is more in keeping with earlier calculations in this report).

In 1972-73, the LIP expenditures were increased to \$215 million, which, according to the Canadian Department of Manpower and Immigration, created the equivalent of 35,500 full-year jobs. The Department of Manpower and Immigration, which is in charge of administering LIP, also calculates that during these first two years of operation (1971-72 and 1972-73) the average annual unemployment rate fell by 0.3 percentage points for every \$100 million spent. LIP then accounted for a decrease of between 0.5 and 0.6 percentage points in the unemployment rate in each of its first two years of operation.

As the unemployment rate fell to 5.4 percent, the 1973-74 expenditures fell to \$82.6 million, allowing for the equivalent of 12,000 full-year jobs. The 1974-75 expenditures were increased slightly to \$96.25 million as the unemployment rate began to climb once again; the expenditures for 1975-76 are expected to approach the 1971 level as Canada feels the further effects of the worldwide recession.

The formula for the distribution of LIP funds by constituency is also important. For 1974-75, funds were allocated on the basis of the number of unemployed beyond a 4 percent base rate of unemployment, subject to a minimum allocation of \$75,000 in each constituency. For each unemployed person beyond the 4 percent base, \$262 was provided.

The net cost to the federal government for operating LIP was less than the gross expenditure of \$215 million in 1972-73. Unemployment insurance payments were reduced, unemployment insurance premiums were increased, and welfare expenditures were lowered. Income taxes were also increased. All of this revenue goes to the Canadian government.<sup>5</sup> A macroeconomic study of the impact of LIP found that the program expenditures of \$490 million between 1972 and 1974 resulted in an increase of \$723 million in Gross National Product.<sup>6</sup>

LIP has created approximately 238,200 jobs (from a week to a year in length) in the four years since it began. These have been distributed among about 20,000 different projects. It has also reduced regional disparities, thus reducing poverty and involving numerous persons in the betterment of their communities. The projects have been truly temporary in nature and have avoided the lag time so often attributed to public works programs. In fact, in the 1974-75 program year, applications were accepted from September 1 to October 7. Some projects began as early as December 1 and none later than January 31-- unquestionably a shorter lag period than is involved in the majority of public works projects.

The community studies on LIP indicate that the program provided needed products and services in more than 85 percent of the cases. A substantial number of the projects have established a permanent public

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5. Task Force on Direct Job Creation, Canadian Department of Manpower and Immigration, February, 1975.

6. Canadian Department of Manpower and Immigration, "Manpower Programs Information for Presentation to the Senate Standing Committee on National Finance, 'Job Creation'," February, 1975, page 4.

or private market for their output and have become wholly or partially self-sustaining.<sup>7</sup>

The Manpower and Immigration Department evaluation of LIP shows that 70 percent of the participants learned new skills; the majority said they considered their chances for future employment to have improved because of the LIP job. Nearly 70 percent of the projects were found to be well-received by the local populace. In terms of cost-benefit, about 38 percent of the projects were considered by the community to have yielded benefits well above the cost of the project. An additional 36 percent were considered reasonable, or just worth the cost. The remaining 26 percent were classed as too expensive in relation to their benefits. These results are all the more interesting when one remembers that LIP is basically a job-creation, public service employment program where the value of output is not the prime objective. From this standpoint alone, the Local Initiatives Program deserves serious attention.

Opportunities for Youth Program. The Opportunities for Youth Program (OFY) was launched in March, 1971, at a time when the student summer unemployment rate was about 17 percent. It takes a new approach in affirming the ability of students to initiate worthwhile community projects. The objectives of the program are: (1) the creation of summer jobs which are meaningful to students and of benefit to the community; (2) the implementation of students' ideas and aspirations, for which resources are provided; (3) the development of students' abilities through experience.

Projects are selected on the basis of their response to community needs in social service, information, culture or artistry, environment, research, or business. As with LIP, the only significant restriction on the projects is they not duplicate existing services.

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7. When projects become profit-producing, yet need some support, they move into the LEAP category and may apply for partial funding for a maximum of three years. (See footnote 2).

In the summer of 1974, 3,876 projects were approved with an expenditure of \$26,335,000. These projects created 27,525 jobs with an average pay of \$957 per job. The average project cost \$6,794. One-third of the funds were allocated to the 35 Canadian management areas on the basis of the distribution of the population 15 to 25 years of age in the area. The remaining two-thirds was distributed in accordance with a prescribed formula which took into account, by area, the number of jobs normally available to young people and the youth population. More than 102,000 jobs have been created through OFY to date.

Countercyclical Aid to Local Governments. The Federal-Provincial Fiscal Arrangements Act of 1972 provided the authority to: (1) make equalization payments to provinces with below-average revenues over the period 1972-77, at a project cost to increase from \$1 billion in 1972-73 to about \$1.5 billion in 1976-77; and (2) make stabilization payments to provinces as necessary to prevent any absolute year-to-year reductions in provincial revenues. The first authority is structurally oriented; the latter countercyclical.

Under the 1967 Federal-Provincial Fiscal Arrangements Act, the federal government guaranteed that every province would receive annually at least 95 percent of the total revenues produced in the previous year from the same tax rates and tax structure. Revenues protected under the guarantee included those from a province's own sources as well as unconditional transfers from the federal government. As further protection against cyclical disturbance, the 1972 fiscal act increased the stabilization guarantee to 100 percent of previous-year revenues.

Until recently, inflation has been more of a problem to Canada than recession. For this reason, no province has experienced a decline in revenues requiring stabilization payments under the provision, but the guarantee has provided an important foundation for provincial finance and has assisted provinces in raising funds on capital markets.

France

The French are facing a 13.6 percent rate of inflation as well as a 5.1 percent rate of unemployment.<sup>8</sup> Their main emphasis has been on fighting inflation but, as is the case in the majority of European countries, in the last few months interest in unemployment has increased.

In April, 1975, a \$3.85 billion spending package was enacted, providing for business, including farmers and artisans, to receive a 10 percent investment tax credit<sup>9</sup> for plant and machinery ordered before the end of 1975. This program is expected to inject some \$2 billion into the economy within a year. A credit of about \$1 billion will be added to the budget for 1975 and the projected budget for 1976 to accelerate improvements in the French telephone system (a publicly-owned utility). Budget funds for loans to state-owned industry were increased by about \$250 million. State credit institutions and an association of small and medium-sized industries will combine to float a government guaranteed loan of about \$1.3 billion on the domestic capital market. Funds raised will be loaned to businesses which undertake, before the end of 1975, to expand their productive facilities. Loans may cover up to 60 percent of the new investment and will last for fifteen years.

This program is expected first to reduce under-employment now reflected in reduced working schedules and then to create some new jobs in machine tool and related industries.

To keep firms from laying off workers entirely, the French government has enacted a program to subsidize employers that keep workers on while reducing their hours. Since January, 1975, the government has paid a subsidy of 5.1 francs (\$1) for each one-hour reduction (under forty hours) in an individual's work schedule: sixty cents is given to the firm and forty cents to a public fund.

The French are relying on training programs to deal with

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8. Adjusted to U.S. concepts, April, 1975.

9. This represents about 1.4 percent of French GNP. A proportionate measure in the U.S. would cost \$19 billion.

the problem of unemployed youths. In May, 1975, the government enacted a program to delay graduates from entering the labor force during the current recession. This is a short-run countercyclical policy. Monthly grants of about \$80 are given to young persons who are ready to leave school, provided that they enroll in general or specific vocational courses for six to ten months.

The French also recently announced a wage grant of \$125 to firms for each person under 25 hired within the next six months. This program is estimated to inject several million dollars into the economy.

To summarize, the French have thus far relied on tax measures and loan policies to stimulate business investment, subsidies to reduce working hours, and training programs for youths. They also have increased unemployment compensation benefits and extended their duration.

#### Great Britain

Despite the fact that the British have historically feared unemployment, they do not have a tradition of experience with accelerated public works or public service employment. The unemployment rate in Britain is increasing--April and May both showed a 4.2 percent rate of unemployment, up from a 3.6 rate in the first quarter of 1975. There is a good chance that a continued increase will initiate interest in additional job-creation measures. For now the British are relying on training programs, unemployment compensation, and general social services for dealing with their unemployed, and the newly created National Enterprise Board (NEB) for stimulating industrial activity.

Active manpower policy in Britain is directed at improving the existing training program. Being considered are:

- (1) Training grants for apprenticeships to industry (to compensate for the present shortfall in recruitment of apprentices). This is aimed primarily at the construction industry.

- (2) Grants to encourage private employers to make places available for trainee technologists. This would give the trainees industrial experience and open new spaces within government training programs.
- (3) An increase in the amount of refresher training in skill centers for people who already have skills.

Training in Britain is not viewed as an alternative to unemployment compensation but rather as a means of increasing the skilled labor force and as useful activity for the unemployed.

The NEB provides investment capital not otherwise available to industry in normal capital markets. The board sustains employment by investing in commercially sound enterprises suffering from short-term fall-offs in demand or general managerial difficulties, especially in areas of high unemployment.

An example of the working of the NEB, announced in April, 1975, is the takeover of a majority shareholding of British Leyland, the country's leading automobile manufacturer and biggest single exporter. About \$3.6 billion will be invested in the company by the government over the next seven years. This action was considered necessary due to the depressed condition of the automobile industry and the potential loss of one million jobs.

#### Japan

The Japanese unemployment rate has averaged well below 2 percent since 1960. One of the reasons for this low rate is the withdrawal of persons in positions of temporary employment, primarily women and older workers, from the labor force during times of recession, disguising the true jobless rate. Counting these withdrawals, the U.S. Embassy

estimated the Japanese jobless rate in November, 1974 at 3.5 percent rather than 1.3 percent.<sup>10</sup> Therefore, contrary to the present conception of Japanese unemployment, the Japanese are facing a problem similar to that of Western Europe and North America. Even so, the major emphasis in Japan is on fighting a 14 percent inflation rate.<sup>11</sup>

In terms of active manpower policies, the Japanese are relying on training and public works projects (work relief). Public works have played an important role in Japan since World War II. Their primary purpose after the war was rebuilding the infrastructure. Projects were aimed more at economic viability than at employment creation. During the 1950s and 1960s, realizing the need for employment-creation measures, the Japanese government substituted work relief projects with a lower rate of capital expenditure for the traditional public works projects. By the middle of 1970, about 190,000 persons were employed on these work relief projects. One point that should be emphasized, though, is that these projects are not aimed at temporary job creation. According to the Organization for Economic Cooperation and Development, the average duration of employment on work relief is thirteen years and two months.<sup>12</sup> Some 44 percent of the workers are over 60. The projects must therefore, be viewed as being more structurally than cyclically oriented.

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10. "Unemployment in Nine Industrial Nations, 1973-75," Monthly Labor Review, June, 1975, p. 13.

11. January to April, 1975 (on an annual basis) equalled 14.6 percent. This is little improvement over the 14.7 percent rise in prices from January, 1974, to January, 1975.

12. Organization for Economic Cooperation and Development, Manpower Policy in Japan, Paris, 1973, p. 59.

The Japanese have recently accelerated their contract awarding for public works; about \$5 billion was appropriated for this purpose from January to March, 1975. No information is readily available to clarify the nature of this allocation, i.e., whether it is meant to create temporary jobs or whether it is aimed at some other goal.

Training in Japan is aimed primarily at improving the skills of the labor force, but it is also used as a countercyclical measure. Training is geared toward occupations where jobs are available. The total number of trainees in public vocational training and training within industry increased from 120,000 in 1960 to 220,000 in 1970--almost the same number as the decrease in work relief participation over the same period.

One group that is particularly hard-hit by the present recession is secondary school and university graduates. In Japan's traditionally tight labor market, the majority of university graduates accepted jobs long before they graduated. This situation has changed recently since Japanese industry is not in a position to hire new employees. In some cases, where an improvement of this situation is anticipated, graduates are being paid 50 percent of their eventual salary and asked to stay at home with their families until they are needed at the firm. Unfortunately this policy does not cover all new entrants and the remainder are not covered by any type of unemployment insurance.

In February, 1975, the Japanese government took a series of measures to counter the present decline in business activity. Among them were:

- (1) Expansion of loans to medium and small-sized businesses and an increase in housing loans;
- (2) Accelerated government investment in antipollution equipment;

- (3) Government subsidies to industries facing the need to lay off workers (this is only in the case of temporary layoffs); and
- (4) Partial relaxation of restrictions on building construction and equipment investment (this is merely permission to invest, not an incentive, since all investment is authorized by the government).

In conclusion, the Japanese emphasis is on preventing further increases in unemployment rather than on new job creation. This position must be viewed in light of the fact that some 40 percent of the Japanese labor force have guaranteed lifetime employment and all unemployment compensation is paid by the firm rather than by the government (although some aid is being given to the firms through these newly introduced government subsidies). The policy is then one of paternalism on the part of the firm; the government traditionally is not involved.

#### Sweden

Swedish labor market policy is controlled by the National Labor Market Board, an agency with remarkably broad economic powers. Operating with an elastic budget, the board coordinates relief work programs, investment reserve funds, and government orders to industry and training programs.

Relief works are general and specific. General relief works are employment-creation projects geared toward seasonal and cyclical unemployment, operated for unemployed but fully employable individuals. Special relief works are employment-creation projects geared toward the handicapped and other individuals who would tend to be unemployed even under conditions of full employment. Both categories include forestry work, library work, and renovation of buildings.

The capacity for the rapid expansion of these projects is considerable. Local government authorities receive a special subsidy from the central government for compiling detailed blueprints for job-creation projects and making other preparations. This planning is then coordinated by the labor market board. A major emphasis is placed on preparedness.

Expenditures for relief works in 1973-74 equalled approximately \$377.4 million, or about 0.7 percent of Swedish GNP. In March, 1973 (the last serious recession), this money provided some 48,000 jobs (approximately 1.2 percent of the labor force)<sup>13</sup> As the labor market situation eased, appropriations for 1974-75 were reduced to approximately \$175.7 million.

Despite the fact that the Swedish are about two years behind Western Europe and the United States in the business cycle, they are presently experiencing a slight increase in unemployment. The unemployment rate in March, 1975, was 1.5 percent and in April, 1975, it had increased to 1.6 percent. While this figure is still extremely low, even for the Swedes, action is being taken and the 1975-76 proposed budget includes an appropriation of about \$189.62 million for relief works, a slight increase over the previous year.

Investment reserve funds are another tool used by the Swedes to increase employment or safeguard existing jobs. The Swedish government or, by its authorization, the National Labor Market Board, may approve the release of investment reserve funds, which Swedish firms have built up individually. The fund is made up of tax-free profits placed

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13. An equivalent program in the United States would cost over \$8 billion and create more than 1 million new jobs.

in a blocked, noninterest bearing account to be used only upon authorization by the government or the Labor Market Board. These funds are used to purchase equipment or replenish inventories at times when the level of economic activity is declining. The authorization may be limited to certain branches of industry or certain regions and may also be selective as to the type of investment authorized. In the recession of 1967-68, the authorization to draw on investment reserve funds was estimated to have saved or created 14,100 jobs as of February-March, 1968 (funds first released in November, 1967), from the roughly \$450 million withdrawn from the investment funds.

Extra government orders, or government-subsidized local authority orders, may also be given to Swedish industry, usually to support firms giving advance notice of their intention to cut down production or close down the plant, temporarily or permanently. If the shutdown is to be permanent, this policy provides the employment service time to find new jobs or organize training programs for the workers affected. As a temporary measure, it keeps the unemployment rate down in times of cyclical fluctuation and reduces the number of persons receiving unemployment compensation and keeps work skills in active use. In the recession of 1967-68, advance orders to industry were credited with saving 3,300 jobs.

The Swedish training program, relative to the size of the labor force, is the largest in the world. Sweden is also one of the few countries where the training program focuses on labor market needs, rather than those of the individual. In other words, each occupation is seriously studied to determine future needs and individuals are trained for occupations where demand exists or will exist in the near future. While there is particular emphasis on recruiting young persons and older married women into the program, every Swedish citizen is guaranteed a place in the program,

even those presently employed. The training programs are operated by the Labor Market Board, the Board of Education, or directly through the firms (by means of subsidies at times when layoffs would otherwise occur).

In 1973-74, the expenditure for training in Sweden was some \$219.1 million. In March, 1973, about 58,000 people were involved in some sort of training, roughly 1.3 percent of the labor force. If this figure is combined with the number of people employed on relief works for the same period, it can be seen that some 2.5 percent of the Swedish labor force (about 105,000) was involved in some type of public employment program.

The Swedish training and job-creation programs operate in a complementary manner. As employment opportunities increase, the need for training as a countercyclical measure diminishes. In the same manner, as the employment situation deteriorates, individuals are easily absorbed into the training process. The Swedes estimate that the training program could absorb 20,000 to 30,000 workers (between 0.5 and 0.7 percent of their labor force) in one year without much difficulty. Roughly 85 percent of these trainees who are not prevented by personal reasons (such as illness) from seeking work appear to have obtained a job less than three months after completing the training course.<sup>14</sup>

The Swedes also operate a highly developed system of grants to promote geographic mobility among unemployed individuals as well as individuals employed in sectors with declining employment.

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14. Swedish Report to Organization for Economic Cooperation and Development Directors for Social Affairs, Manpower and Education, Swedish Ministry of Labor, Stockholm, Sweden, 1975.

The expenditures for mobility grants have not varied cyclically over the last few years primarily because no matter how much money is allocated for the grants, workers cannot be forced to move. Older workers normally suffer from a particularly high rate of unemployment during recession, yet this is the group with the lowest degree of mobility. Expenditures can only respond to demand and this seems to have increased slightly over the past few years. From 1973-74, about \$16.4 million was spent on mobility allowances. This figure increased to about \$18.5 million for 1974-75, and the budget proposal for 1975-76 includes approximately \$20 million for this purpose. The average grant is about \$625 per family.

Sweden is an example of strong coordination of measures promoting job creation, indicating strong political commitment to employment rather than reliance on unemployment compensation.

#### West Germany

Despite the historic German fear of inflation, measures for dealing with the present downturn in demand and 3.8 percent unemployment have gained priority in German economic policy. The Germans emphasize traditional fiscal measures and variations in public investment.

In 1967, the Germans passed an Act for the Promotion of Economic Stability and Growth. This is the cornerstone of German antirecession policy. The act requires the federal and state governments to have short-term supplementary expenditure programs (particularly in the form of public works and similar public investment) in readiness at all times. Each level of government (federal, state, and local) is empowered to put these programs into effect in times of need.

The Federal Institute of Labor uses countercyclical policy to deal with unemployment. The Institute's budget is made up of a contribution from employers and workers totaling 1.7 percent of the wage bill. The money then covers unemployment insurance

benefits, employment creation, and training programs. The expenditures should be high during slack periods to stimulate the economy. During periods of high employment, the surplus should be placed in a reserve fund or used to create employment in underdeveloped areas.

The Federal Institute's anticyclical reserve funds have recently been used in an attempt to stimulate employment. When the unemployment rate rose to 2.5 percent (the highest rate at that time since the 1958 recession) in the third quarter of 1974, the German government announced a special program to sustain employment at regional and local levels. The expenditure for this program totaled about \$323 million (approximately 1 percent of the German GNP, or \$14 billion as a U.S. equivalent). These funds were earmarked primarily for building projects in towns and regions where the unemployment rate is above average.

In December, 1974, the government adopted a "Program to Promote Employment and Growth in Conditions of Stability." Contained in the program were: (1) additional government expenditures totaling \$385 million to encourage investment (especially for energy supply and construction); (2) a provision for moving forward investments planned for the next year; (3) an investment tax credit of 7.5 percent for purchase or production costs of buildings or moveable capital goods subject to depreciation, that takes place before June 30, 1975 (the actual bonus will be paid in 1976 so as not to worsen the projected budget deficit); (4) assistance measures for the housing sector; (5) \$205 million (or about 0.6 percent of German GNP--\$860 million as a U.S. equivalent) to improve the labor market situation. This included wage grants to employers who recruit unemployed labor (projected hiring of 90,000 workers) and nonrecurrent mobility supplements to those unemployed for an extensive period of time (200,000 workers projected to benefit under this program).

In June, 1975, the federal government announced that \$100 million would be used to encourage private employers to create new jobs by granting investment subsidies of up to 25 percent of total investment costs.

The concept of training also receives much attention in Germany. There is general feeling that low-grade employment or unemployment should not be dealt with merely by supplementary income. For this reason, education is viewed as the basis of manpower policy. Training then has two primary purposes: to upgrade the skills of the labor force and as a short-term instrument to counter cyclical fluctuations in employment. This latter purpose is very similar to the Swedish concept.

The Germans also practice a form of revenue-sharing that can be manipulated to counteract the business cycle. This program is an alteration of the ratio of shared taxes going to state governments. Both the income tax and the value-added tax are shared by the federal and state governments. This tool is used if the states are threatened with deficits while the federal government has a surplus (or vice versa).

An example of a countercyclical alteration of this ratio was recently enacted in Germany. In an attempt to stimulate the economy, German income taxes were reduced by about \$6 billion. Because this will cause the federal government to run a large deficit (being more dependent on income taxes than the state governments), negotiations will take place in August in an attempt to change the shared-tax ratio. This, in fact, will be revenue-sharing in reverse, to the extent that the states are actually giving up some of their anticipated revenue in an attempt to aid the federal government. However, alteration of the ratio of joint taxes can be used as a countercyclical tool regardless of the fact that the Germans are presently operating it to offset other policy measures.

## APPENDIX B

## IMPACT ESTIMATING PROCEDURES

This technical appendix describes the procedures used in estimating the employment and budget impact of various policies.

Employment ImpactTax Cut and Purchase Increase

Both the high and low estimates of the unemployment rate changes for the tax cut and increased purchase policies are based on the forecasts from three quarterly econometric models of the economy: those of Chase Econometric Associates, Inc.; Data Resources, Inc; and Wharton Econometric Forecasting Associates, Inc. One-third of the tax cut was in reduction of corporate taxes and two-thirds in reduction of personal income taxes. Because corporate tax cuts produce very little increased spending in these models, the stimulative impact is about 30 percent less than if the entire cut had been in personal income taxes. The increased government spending was on nondefense purchases. The actual number of jobs created is based on the estimated unemployment rate changes. However, the procedure in calculating jobs created is more complex than simply multiplying the unemployment rate changes times the labor force (assumed to be 92 million). This is because any increase in unemployment will also generate increases in the labor force and changes in the unemployment rate reflect both changes in employment and changes in the labor force. To multiply the change in the unemployment rate by the

labor force would therefore understate the total increase in jobs. It typically is assumed that if employment is increased by ten jobs the labor force will grow by four workers. Therefore, the change in employment implied by the procedure mentioned above (multiply the change in the unemployment rate by the original labor force) was only 60 percent of the actual number of jobs created by the policy. This adjustment was made to the estimates of both the tax cut and the purchase increase.

#### Public Service Employment

The estimates of the number of jobs created by public service employment (PSE) (with displacement) were derived from a recent study of PSE.<sup>1</sup> The authors have estimated the degree to which federal spending on PSE (assumed to be channeled through state and local governments) simply replaces state and local funds that would otherwise have been spent. The least optimistic estimates in Table VII-1 are for what the authors describe as "moderate substitution."

To derive the changes in the unemployment rate associated with the PSE program, the labor force increase must also be estimated. The increase in the labor force was assumed to be only two workers for every ten jobs created. This is less than the increase in the labor force above for the tax cuts and purchase increases. This is because it was assumed that there would be provisions in the program requiring that PSE workers be taken directly off of unemployment rolls. The effect on the unemployment rate is therefore higher than it would have been if four workers had entered the labor force for every ten jobs created.

The initial effect of PSE with no displacement was derived by dividing the direct cost per job (\$8,000) into \$1 billion. The cost per job

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1. George E. Johnson and James D. Tomola, "The Efficacy of Public Service Employment Programs," unpublished, June, 1975, Table III, p. 21.

includes \$7,500 in wages per worker plus \$500 in administrative costs, overhead, and costs of materials. The change in the unemployment rate was calculated in the same manner as that of the PSE with displacement; that is, assuming a labor force increase of two workers for every ten jobs created.

The additional increase in jobs created in subsequent rounds from PSE is slightly lower than that from the government purchases. An adjustment was made to account for the lower levels of transfer payments. This is because total unemployment compensation is lower under PSE since more people have been taken off the unemployment rolls than was the case for government purchases.

#### Special Aid to State and Local Governments

The initial effect of the proposal to provide aid to state and local governments (most optimistic) was calculated by dividing average costs per job in state and local government (\$13,000 per year) into \$1 billion. The cost per job included \$10,000 in wages and \$3,000 in overhead and administrative costs, etc. The change in the unemployment rate was calculated in exactly the same manner as that of PSE described above; that is, assuming labor force increases of two workers for every ten jobs created.

The second and third round job effects were calculated in the same procedure used for subsequent rounds of PSE.

The job-creation estimates for aid to state and local governments (least optimistic) were derived from estimates in a recent study indicating that each \$1 billion of general revenue sharing generates only \$455 million of additional spending by state and local governments.<sup>2</sup> This \$455 million was divided by the cost per job in state and local governments (\$13,000) to get the job-creation estimates.

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2. "State and Local Fiscal Behavior," pp. 15-65.

Unemployment rate changes were calculated in the manner used for employment impact assuming that the labor force would increase by two workers for every ten jobs created. Since displacement may prevent state and local governments from raising taxes or may allow them to lower taxes, however, an indirect stimulus to household spending may occur, and this was accounted for by assuming two-thirds of the funds not used for direct employment-creation resulted in lower tax payments than otherwise would have occurred. (The rest was assumed to go for debt repayment or addition to surplus.)

#### Accelerated Public Works

The smaller of the two accelerated public works estimates is based on projections from the Wharton econometric model mentioned above. One billion dollars of government spending was channeled directly into the contract construction sector simulating the effect of increased government spending on public works projects. Both the job-increase estimates and the unemployment rates estimates were generated by the model.

The upper end of the range is derived by assuming that of the \$1 billion spent, 60 percent went to wages and salaries and the remaining 40 percent to nonlabor costs. The average salary was assumed to be \$13,000. The initial employment impact is therefore 46,000 jobs. This estimate corresponds to a much more labor-intensive program, one in which material costs and skill requirements are lower. The employment impact in subsequent rounds was calculated using the procedure for subsequent rounds of PSE.

#### Budget Impact

The estimates in Table VII-1 of budgetary cost are derived from the employment change estimates plus the assumptions about labor force growth and average wages. If a job is filled by a worker coming off of unemployment compensation the budget effect is the reduction in unemployment compensation (\$2,600 per worker) plus the increase in tax receipts, which are a function of the

wages paid. The unemployment compensation estimate (\$2,600) takes into consideration the fact that not all of the unemployed are insured. If the worker was not previously in the labor force the budget effect is simply the increase in tax receipts.

Wages were assumed to be \$7,500 in all cases except for the worker employed under regular state and local government programs (\$10,000) and those employed in the construction industry in accelerated public works (\$13,000).

In addition, the estimates of budget costs take into consideration the increased revenues from corporate taxes, excise taxes, and personal taxes caused by the rise in total income associated with the expansionary policy.

#### Policy Combinations

The employment estimates contained in Table VII-3 are derived by multiplying the estimates in Table VII-1 by the appropriate dollar value for each of the separate programs. Since the tax cut shown here is all from personal income rather than two-thirds personal and one-third corporate, the upper end of the estimated tax effects was used. The PSE and aid to state and local government numbers are weighted averages of the least optimistic and the most optimistic estimates found on Table VII-1. For PSE the weights are equal. For aid to state and local governments the most optimistic employment case is weighted slightly more heavily than the least. All of the assumptions concerning labor force growth and average wages discussed above are the same. The net budgetary costs and the changes in the unemployment rate are derived in the same manner as described in the first two sections of this appendix.

In several programs (PSE, wage subsidy, and accelerated public works) the phase-in time was adjusted to account for administrative lags. The timing of the employment impact is therefore delayed relative to the estimates in Table VII-1. For PSE and wage subsidy

the initial impact was assumed to be spread over six months. For the accelerated public works in Policy Mix #2 it was assumed that three months would be required before the program would have any impact. In addition, the estimates on the lower end of the range were used.

In Policy Mix #3 the employment estimates for accelerated public works are from the high end of the range listed in Table VII-1 (corresponding to the more labor-intensive program). The initial impact is spread over six months.