Countercyclical Uses of Federal Grant Programs

November 1978
November 27, 1978

The President of the Senate
The Speaker of the House of Representatives

Dear Mr. President and Mr. Speaker:

Section 215(b) of the Public Works Employment Act of 1976 requires the Congressional Budget Office to study the means by which the federal government can stabilize the national economy by the countercyclical use of federal grants to state and local governments. This paper, Countercyclical Uses of Federal Grants, is CBO’s response to that mandate. As required by the Act, we enclose the comments of the Comptroller General of the United States.

The study examines triggering devices that activate federal aid to state and local governments. It focuses on means of targeting aid toward geographical and population sectors most in need. It also discusses the problems of federal constraints and fiscal substitution in recipient jurisdictions in the context of achieving national economic objectives, as well as options for using existing federal grants in a countercyclical fashion.

We hope that Members of Congress find this report useful. We would be pleased to respond to any questions.

Respectfully submitted,

Alice M. Rivlin
Director
The Honorable Alice M. Rivlin  
Director, Congressional Budget Office  

Dear Ms. Rivlin,  

We have received your draft of Countercyclical Uses of Federal Grant Programs, which was prepared in response to Section 215(b) of the Public Works Employment Act of 1976. We have reviewed this draft with interest and find it provides a useful overview of the discussion that has taken place over the course of the last two years concerning the appropriateness and effectiveness of Federal antirecession assistance to State and local governments.

We are happy to note that you found our reports on "Antirecession Assistance--An Evaluation" (PAD-78-20, November 29, 1977) and on the impacts of antirecession assistance on State, county, and city governments (GGD-77-76; GGD-77-60; GGD-77-69; and GGD-77-70) useful in the preparation of your report. Your analysis and findings concur with the major points that we have developed in our studies of the antirecession assistance programs.

We believe that your differentiation between the stabilization of the national economy and the "fiscal stabilization" of State and local budgets is a useful distinction and should help clarify the different objectives of antirecession assistance. Two additional points made in the draft are worthy of special note because they represent perspectives that have not received sufficient notice in previous analytical work: (1) social service and transfer programs are difficult to turn off once they are initiated as antirecession programs, (2) general revenue sharing combined with antirecession assistance may be effective in offsetting fiscal destabilization in State and local budgets.

The analysis contained in your report should provide the Congress with useful information and again demonstrates the difficulty of designing one program to meet multiple objectives.

Sincerely yours,

Comptroller General of the United States
COUNTERCYCLICAL USES OF FEDERAL GRANT PROGRAMS

The Congress of the United States
Congressional Budget Office
NOTE

All dates refer to calendar years unless otherwise noted.
This study was undertaken by the Congressional Budget Office in response to a directive contained in paragraph 215(b) of the Public Works Employment Act of 1976 (P.L. 94-369). The study examines the potential uses of federal grants to state and local governments to affect employment, output, income, prices, and state and local budgets.

The report was written by Sophie Korczyk of CBO's Human Resources and Community Development Division under the supervision of Robert D. Reischauer and David S. Mundel. Stephen Barro, a consultant to CBO, wrote the manuscript on which this report is based. The author wishes to thank Peggy Cuciti, Stanley Czerwinski, Paul Ginsburg, Roger Vaughan, and Larry Wilson for valuable assistance. Johanna Zacharias edited the manuscript. Jill Bury patiently and expertly typed the many drafts of the paper.

In accordance with CBO's mandate to provide objective and impartial analysis, this paper contains no recommendations.

Alice M. Rivlin
Director

November 1978
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SUMMARY

Federal grants to states and localities have historically been used to encourage the recipients to pursue activities that improve the quality of living in those places. Among the aims of such grants have been advancing educational equality, improving the natural environment, and reducing poverty.

In recent years, the federal government has also sought to further macroeconomic goals—such as increasing aggregate income, employment, and output—through aid to state and local governments. For example, the recent recession prompted the enactment of three programs that provided grants designed to help stabilize macroeconomic conditions: Antirecession Fiscal Assistance (ARFA), Local Public Works (LPW), and Comprehensive Employment and Training Act/Public Service Employment (CETA/PSE). Besides affecting macroeconomic conditions, these programs were also intended to stabilize the budgetary position of state and local governments and to ameliorate the problems of individuals, places, and economic sectors that were particularly hard hit by recession.

The simultaneous pursuit of economic stabilization, stabilization of state and local budgets to avoid service cutbacks or tax increases, and increased financing of certain activities that further federal objectives may entail conflicting policies. Economic stabilization requires that grants increase during a recession in order to stimulate demand, and that, during periods of inflationary pressure, they decrease as aggregate demand approaches or exceeds the limits of available resources.

Fiscal stabilization may require a different time path of grant flows. During a recession, grants should increase to compensate for cyclical fluctuations in revenues and expenditures. But fiscal stabilization during inflation, regardless of whether the inflation coincides with excess aggregate demand, may require an increase in grants to compensate for increased costs. Service provision demands a steady flow of resources in order that careful program development and implementation can occur and that vital activities not be disrupted.
These conflicting demands for funding expansion and contraction complicate the use of grants for economic and fiscal stabilization.

TRIGGERING, TARGETING, AND MEETING FEDERAL OBJECTIVES

The effectiveness of state and local grants in achieving economic and fiscal stabilization depends upon three factors:

- When the aid is distributed or cut back and by how much (triggering and timing);
- Which areas or governments receive aid (targeting); and
- How the federal government assures that the grants will be used for the purposes designated (constraints).

Triggering

Choosing a triggering mechanism that turns aid on and off and that adjusts funding to changes in cyclical indicators involves several factors. First is the choice between discretionary and automatic funding mechanisms. On the one hand, the decision can be made each year by the Congress and the President based on the economic circumstances and competing priorities. In all three of the recent stabilization grant programs, yearly funding decisions by the Congress determine whether aid is available and if so how much is distributed; only in ARFA is the exact amount of aid authorized directly linked to unemployment. Because of the time lags built into the authorization, appropriation, and implementation of such discretionary grant triggers, aid is likely to be mistimed with respect to need for countercyclical assistance. On the other hand, the authorization and appropriation can be made available for several years provided that certain economic conditions signifying the need for such aid are met. The use of automatic on/off triggers and scaling the amount of aid to the rate and duration of decline or recovery, not just the level of economic activity, could increase the sensitivity of the programs to state and local cyclical needs.
The second choice raised by the triggering issue is what mechanism to use to get an indication of need for grant support and of the appropriate level of support. The triggering indicator most often used is the unemployment rate. From the point of view of availability and reliability, the unemployment rate has many advantages. Other macroeconomic variables—wages and salaries, employment levels, and output—represent important dimensions of economic cycles that are not captured by unemployment rates, however. The choice among triggering indicators rests on availability and timeliness of state and local data. On these points, the unemployment rate dominates.

The final choice with respect to the triggering mechanism concerns the form of the formula. The ARFA formula uses the national unemployment rate in excess of some threshold level to determine the total amount of aid to be distributed. Were other economic variables—such as wages and salaries, employment levels, or output—to be used, the program could be triggered by a decline in the absolute value of the indicator, a decline relative to its previous peak value, or a decline relative to its long-term growth trend.

**Targeting**

Effective targeting can advance the stabilization goals by reducing inflationary pressures. If aid is directed primarily at areas with unemployed resources, this could redistribute demand so as to optimize resource utilization. The identification of localities in need is difficult, however, for while the measure of need attempts to identify cyclical problems of localities, in some cases it may measure long-term decline. The two main criteria upon which cyclical targeting depends are the sensitivity of a jurisdiction's revenues and expenditures to inflation and recession, and the extent to which cyclical problems affect the area. In general, state revenues and expenditures tend to be more sensitive to recession than those of localities. Inflation increases state revenues more than it does local revenues, but it affects expenditures of both state and local governments. The sensitivity to cyclical disturbance depends upon the particular types of taxes upon which each jurisdiction relies, the services it is responsible for providing, and the responsiveness of state aid to local budgetary problems caused by economic cycles. Distinctions among local jurisdictions are difficult to make.
The measure most often used to indicate an area’s cyclical need is its local unemployment rate. No state and local economic or fiscal indicators are so reliable or readily available, even though others may be more representative of the disruption to the local economy, state and local government budgets, and public services caused by recession or inflation.

Local cyclical need is easily confused with longer-term or "structural" problems. Current countercyclical programs distribute aid to jurisdictions in large part based on their unemployment rates. But this does not differentiate regions with high but long-term levels of unemployment from those with cyclical problems that can be relieved by temporary aid. Using the unemployment rate as a criterion for distributing aid may simply serve to give temporary relief to areas with structural unemployment problems. This may cause problems when aid is discontinued due to national recovery while local need persists. In addition, the problems faced by such areas might be better addressed by programs more explicitly aimed at the causes of structural problems—for example, at an absence of private sector activity, or at a lack of a skilled labor force.

Constraints on Grantees

For grant programs to meet economic, not fiscal, stabilization goals, the grants must include provisions to assure that the funds are used for the specific purpose of stimulating aggregate demand. Fiscal substitution—the use of federal funds to replace local money that would have otherwise been spent—weakens the economic stabilization effects of grants. Such substitution can be limited by earmarking the grants for certain uses, by requiring additivity (that is, making sure that the grant funds add to other monies being spent), and requiring matching funds from local sources. Another constraining provision can be that aid be focused on disadvantaged groups of people as well as disadvantaged localities. Such constraints can cause delays in spending the grants, however. These delays can be averted by the use of fiscal incentives to reward prompt action and by streamlining program requirements to cut down on bureaucratic procedures.
ADAPTING GRANT PROGRAMS FOR COUNTERCYCLICAL USE

The objectives of countercyclical grants to state and local governments can be pursued either by initiating temporary programs or by adapting existing federal grants. To date, the former strategy has been followed, but interest in the latter approach has been expressed. Four types of grants are large enough and suitably constructed so that they can be effectively used for countercyclical purposes. In general, such grants can be adapted for countercyclical use by varying either the funding level or the share of program costs paid by the governments.

Unrestricted grants of the form of General Revenue Sharing (GRS) and ARFA are more effective for fiscal than for economic stabilization, because grantees are not limited in their use of the funds.

Capital construction grants can be adapted both for fiscal and economic stabilization. Fiscal stabilization can be pursued by varying the state and local matching rate in programs with such requirements. Economic stabilization can be pursued by varying the numbers or scale of grant-aided projects and by accelerating or delaying programs. The Community Development Block Grant program, while it supports capital construction, offers grantees enough flexibility that it resembles GRS in terms of its countercyclical potential and effects.

Social services grants are difficult to use for countercyclical purposes because they serve disadvantaged segments of the population, and thus variations in the level of these services would have an undesirable effect on the well being of these groups. Several social services programs are, however, potential candidates for countercyclical use because variations in funding would not have this disruptive effect. The community services program supports small-scale, short-duration projects that could be pursued with temporary funding. Federal contributions to the social services grant program could be varied countercyclically.

Transfer payment programs have the same limitations as countercyclical tools as do social services grant programs. The required local matching rate for these programs could be varied for fiscal stabilization purposes, however.
In response to the recent recession, the Congress passed a number of special grant programs to aid state and local governments. These "countercyclical" programs are intended to offset the effects of local economic slowdowns and fiscal disruption, or to dampen overheated economic activity.

Because little was known about such an approach to combating recession or inflation, the Congress directed that studies be undertaken of the design, effects, and implications of such grants. One such directive, contained in Section 215(b) of the Public Works Employment Act of 1976, called on the Congressional Budget Office (CBO), the Advisory Commission on Intergovernmental Relations (ACIR), and the General Accounting Office (GAO) to conduct a study to determine the most effective means by which the Federal Government can stabilize the national economy during periods of rapid economic growth and high inflation through programs directed toward State and local governments. Such study shall include a comparison of the effectiveness of alternative factors for triggering and measuring the extent of the fiscal coordination problem addressed by this program, and the effect of the recession on State and local expenditures. . . . 1/

This report was undertaken in response to this mandate. 2/

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1/ Public Law 94-369, July 22, 1976.

2/ This report extends CBO's analysis of antirecessionary programs and considers explicitly the use of these programs as counterinflationary tools. Earlier CBO reports presented both general and empirical analyses of the employment and GNP effects of antirecessionary programs. See Temporary Measures to Stimulate Employment: An Evaluation of Some Alternatives (September 2, 1975) and Short-Run Measures to Stimulate the Economy (March 1977). A subsequent paper explored the impacts of phasing down these programs in the current recovery. See Phasing Down the Antirecession Programs (June 30, 1978).
A division of labor was agreed to under which the ACIR concentrated on the fiscal coordination problem and the effects of recession on state and local governments. 3/ CBO has focused on "targeting" and "triggering"—that is, determining the amount, timing, and distribution of aid. CBO has also evaluated other aspects of alternative aid mechanisms, including the adaptation of existing state and local grant programs for countercyclical use. The GAO report identifies alternatives available to Congress when it considers renewing the antirecession programs. 4/

This report deals with the following questions:

- What are the goals of stabilization grants and how might they reinforce and conflict with each other? (Chapter II.)

- To what extent do triggering mechanisms that increase or decrease aid in response to economic conditions and targeting mechanisms that concentrate aid on specific sectors, groups, or areas enhance the effectiveness of these grants? (Chapter III.)

- What measures of economic activity are most suitable for triggering and targeting purposes? (Chapter IV.)

- How can such grants be designed and administered to influence appropriately the fiscal responses of recipient jurisdictions? (Chapter V.)

- How can existing countercyclical grants be made more effective and how can grants not specifically designed for countercyclical purposes be converted to play a role in economic stabilization policy? (Chapter VI.)

The discussion gives special consideration to the potential uses of countercyclical grants to reduce inflationary pressure.


During 1975 and 1976, three countercyclical grant programs were enacted into law:

- The Antirecession Fiscal Assistance (ARFA) program (known as "countercyclical revenue sharing"), which distributes general-purpose funds to states and localities;

- The Local Public Works (LPW) program, which funds construction projects undertaken by state or local governments; and

- The Public Service Employment (PSE) component of the Comprehensive Employment and Training Act (CETA), which pays the salaries of certain workers hired by state and local governments or nonprofit organizations.

As of the end of fiscal year 1978, $19.4 billion had been allocated under the three programs for expenditure in fiscal years beginning with fiscal year 1976.

Although grants for public works, public employment projects, and increases in transfer payments, have been used before as antirecessionary devices, the new grants have features that set them apart from their predecessors. All three of the new programs have been implemented and operated at the state and local levels, but financing for the programs has been federal. The programs distribute funds among states and localities using formulas that incorporate unemployment measures. In the case of ARFA, a "triggering" mechanism increases and decreases the overall flow of aid at different points in the cycle. The distribution formulas and triggers can be considered steps toward establishing the grants as automatic—rather than discretionary—economic stabilizing tools.

Stabilization grants have at least four related goals:

- Maintaining acceptable aggregate levels of employment, output, income, and prices;
Stabilizing state and local budgets by reducing cyclical service cutbacks and tax increases;

Directing aid to the geographic areas, economic sectors, and population groups most affected by recession or inflation; and

Increasing productive capacity by encouraging investment in labor force skills and public and private sector capital stock.

STABILIZATION OF THE GENERAL ECONOMY

As is true of all stabilization policy tools, stabilizing the economy with grants means achieving desired levels of employment, income, output, and prices. Different stabilization grants will have different effects on these variables, at least in terms of immediate impact. A public service employment program may generate large numbers of low-paid, low-productivity jobs. A construction program or other capital-intensive project may generate more output but fewer and more highly-paid jobs. A cash or in-kind transfer program, in contrast, will directly produce income but no output or employment.

The impact of stabilization programs on prices will depend on the level of resource utilization and composition of the resource pool in the area or sector toward which the program is targeted. If a program requires highly specialized labor or other scarce resources, then the overall rate of inflation will be affected more adversely than if the program required unspecialized labor and abundant resources. 1/

1/ Resource scarcity is only one reason grants could contribute to inflation. Inflationary pressures could also result if funds are used to supplement salaries of existing government employees.

FISCAL STABILIZATION

Fiscal stabilization means the narrowing of cyclical fluctuations in the expenditures and revenues of state and local...
governments. Governments faced with recession-caused slides in revenues, or with price rises caused by inflation, may be forced to cut back services or raise taxes. Service cutbacks not only impair the achievement of the objective of the particular activity, they also cause declines in income, employment, or both. On the revenue side, increases in taxes in response to recession or inflation may avoid service cutbacks, but only at the expense of further reducing aggregate demand and/or adding to the cost of living. Fiscal stabilization is thus important for two reasons: for its effects on service provision, and as a means of achieving economic stability.

These effects of federal grants on the expenditures and revenues of state and local governments cannot easily be achieved with other fiscal tools. Federal tax cuts cannot be targeted geographically, nor do they have a direct impact on state and local revenues and expenditures. To the extent that tax cuts stimulate economic activity, they can contribute to state and local budget stabilization, but with delays that limit their usefulness for fiscal stabilization policy. Countercyclical use of direct spending activities leads to delays in spending which reduce countercyclical effectiveness. And again, federal spending is not likely to have a direct impact on state and local finances.

The Relationship Between Economic and Fiscal Stabilization

Macroeconomic conditions—the level of income, output, employment and prices—determine whether economic and fiscal stabilization require the same policy actions:

- During a recession, both goals require increased grant flows so as to generate output and employment, to offset revenue losses caused by the recession, and to support the necessary increased social services and unemployment compensation.

- During inflation accompanied by recession, fiscal stabilization requires increased grants to offset recession-caused hardships and the budgetary problems which occur if inflation raises the costs of state government faster than it raises revenues. Since price changes in response to increases in demand occur very slowly, it may be
possible to pursue economic stabilization through the same stimulatory grant policies. Such policies should be carefully targeted on areas and sectors with excess supplies of labor and other resources.

- If inflation occurs with full employment and rapid growth, economic stabilization suggests that grants be cut. Prices will probably react very slowly to such cuts. Fiscal stabilization requires increased grants to offset the adverse fiscal effects of rising costs if revenues do not increase at the same rate.

**TARGETING**

Directing program impacts toward certain economic sectors, geographic areas, and population groups is important in order to affect equity or fairness of income distribution and also to enhance the effectiveness of overall stabilization policy.

**Impacts on Economic Sectors.** The rationale for considering sectoral impacts is the broad variations among industries in cyclical sensitivity. Sensitive sectors include construction, durable consumer goods, and industrial machinery and equipment. Other things being equal, directing antirecessionary stimuli toward the more sensitive sectors would be desirable for two reasons. First, generating increased output, income, and employment in sectors with substantial unused capacity should be easier. Second, if there were sharp increases in the demand for the output of sectors not significantly harmed by the recession, bottlenecks and shortages could develop, leading to inflation. By the same reasoning, the achievement of anti-inflationary goals would be facilitated by focusing so-called "contractionary" policies on sectors in which rates of output are straining capacity or, especially, on sectors where capacity constraints are generating shortages and price increases.

**Impacts on Population Groups.** Disadvantaged groups are likely to bear disproportionate shares of the burdens of economic cycles. As marginal workers, they are more likely to be laid off during recessions and to be the last hired during recoveries. Again, along with the distributional goal, macroeconomic goals can also be served when grants are earmarked for, say, jobs for the disadvantaged. This is because a dollar spent on an employment project will have a greater first-round impact on employment than will a dollar spent on a capital-intensive project.
Geographic Targeting. Targeting aid to jurisdictions according to fiscal or economic need has been deemed desirable both on grounds of equity and as a means of enhancing the effectiveness of stabilization efforts. But these two purposes can lead to conflicting criteria for assessing the geographical distribution of countercyclical aid.

The equity argument for targeting is based on the federal interest in the economic activity, tax burden, and available services in particular regions and localities. This suggests that the areas hardest hit by cyclical problems should be favored.

In contrast, the effectiveness of stabilization policies may be improved if funds are channeled to those areas likely to generate the greatest increase in economic activity or to display the most fiscal improvement, since there are large variations among regions and localities in the severity and timing of cyclical problems. 2/ Targeted areas may be worse off or simply may have a greater potential for quick improvement.

INCREASING PRODUCTIVE CAPACITY

Several aspects of economic efficiency need to be considered in evaluating alternative countercyclical programs.

Economic Value. Economic value of activities undertaken or foregone in a countercyclical program is difficult to determine for two reasons. First, there is no market criterion for assessing the value of public sector activities. Second, lower costs should be attributed to the resources consumed by anti-recessionary programs if they would be unemployed or underemployed in the absence of an active stabilization policy because these resources would not then be generating income or output.

Effect on Long-Run Economic Efficiency. Countercyclical programs may affect the structure of the economy in the following ways:

2/ Interregional and inter-area variations in cyclical patterns are documented in Georges Vernez, et al., Regional Cycles and Employment Effects of Public Works Investments, The Rand Corporation, R-2052-EDA (January 1977), Chapter II.
Programs aimed at stimulating economic activity in the short run may affect the level, composition, and geographic distribution of the public and private capital stocks for years to come.

Programs aimed at generating employment during recessions may help unemployed workers, youths, and others to obtain skills and experience, thereby improving such people's own future employment prospects and adding to the overall productive capacity of the labor force.

Programs that tend to sustain activity in declining industries and locations are likely to hinder long-run economic performance, while those that focus on sectors and areas with long-run growth potential are likely to improve long-run resource allocation.
FACTORS DETERMINING THE EFFECTIVENESS OF GRANTS

Whether grants to state and local governments are effective as stabilization tools depends on four factors:

- What circumstances prompt the disbursement of funds, and how much money is distributed (the triggering mechanism);
- Which groups, sectors, and localities receive the aid (the targeting mechanism);
- The adequacy of measures of economic activity chosen to trigger and target aid; and
- Whether the use of the funds furthers stabilization goals.

This chapter presents alternative mechanisms for triggering and targeting.

The triggering mechanism determines whether the aid will reinforce or offset the macroeconomic disturbance. If aid is increased during a recovery, it may exacerbate inflation as it furthers the recovery. If it is decreased during a decline, it may further reduce income, employment, and output. To deal with these possibilities, the timing and duration of aid and the duration of the economic effects of aid need to be responsive to changes in economic circumstances.

The targeting mechanism increases the program’s effectiveness in stabilizing both the economy and the budgets of state and local governments. Increases in employment and output can be achieved—and with little pressure on prices—by targeting stimulative policies to areas, sectors, and population groups with substantial excess productive capacity. Contractionary policies can be directed to those segments of the economy experiencing actual or threatened resource shortages. State and local...
The aggregate level of aid under all three current anti-recessionary programs (ARFA, CETA/PSE, and LPW) is directly or indirectly determined by the strength of the national economy. In ARFA, an explicit trigger based on the unemployment rate is used. In LPW and CETA/PSE, the total amounts are set by the Congress. In all three programs, targeting to localities is based on subnational unemployment rates and other local characteristics. Each area's aid depends on the severity of its problems relative to those of other areas, since the total amount of aid to be shared at any one time is fixed.

**TRIGGERING AND TIMING**

The following factors are essential in the triggering and timing of countercyclical aid:

- A threshold level of the indicator—for example, unemployment—which determines the minimum amount of economic contraction required to trigger aid and the minimum amount of recovery needed to turn it off;

- A sustained effect or duration indicator, which sets the time the contraction must last before the aid is initiated; and

- A calculation method to determine the amount by which aid changes in response to the threshold indicator, improves or worsens.

Additional considerations include:

- A choice about whether the stabilization component should be added on to a regular grant or whether the stabilization grant should be activated only when cyclical conditions warrant; and

- A choice about whether countercyclical grants should be funded automatically when the threshold is reached or whether funding should be dependent on Congressional discretion.
Threshold Level

The threshold for a recession may be defined as a simple absolute worsening in the indicator relative to current levels, a level worse than its potential value, or a level worse than the long-run growth trend of the indicator. Thresholds that have been considered include unemployment rates in excess of enduring so-called "structural" levels, declines in absolute employment, and declines in income, wages, and salaries. These alternatives are discussed further in Chapter IV.

In an economy with a growing population and labor force and with expectations of rising living standards, declines of key indicators such as income relative to long-run growth trends are more reliable measures of economic distress than are absolute declines. A threshold indicator defined as a decline below trend is more sensitive to change in a dynamic economy. Furthermore, such an indicator would trigger aid more easily than would one responsive only to absolute declines.

Another possibility is to use as a trigger a decline below potential value of the indicator. The problem with this choice is the difficulty of computing the potential value of an indicator, discussed further in Chapter IV.

Decreasing aid during a recovery is complicated by disagreement over how recovery, as well as recession, should be defined. Recovery may be a return to the previous peak level of economic activity, or to the current level of potential GNP—which will be higher than the former peak because of increases in the labor force and the capital stock.

Sustained Effect

One example of an indicator of sustained effect or duration is the requirement that unemployment must exceed the threshold level for three consecutive months for aid to be activated. A similar sustained-effect standard could be established for triggering anti-inflationary cuts in aid. Such an indicator could help distinguish transitory or isolated economic adjustments natural to a growing economy from disturbances that affect a number of sectors and cause a prolonged decline in several measures of economic activity.
The higher the threshold and the longer the contraction is sustained before aid commences, the less likelihood of the program responding to a false indication of a recession. But an accompanying risk is that grants would be delayed beyond the time when such stimulus would be useful.

Methods for Calculating Aid

The rate at which aid responds to changes in the indicator depends on the calculation method chosen. The simplest triggering mechanism is an on/off switch that causes aid to flow at a predetermined, constant rate once circumstances in the economy have fallen below a certain mark in the indicator. With such a trigger, the level of funding is not sensitive to variations in the severity of the cycle as measured by further changes in the indicator.

One way of linking the amount of aid to the severity of the cycle is to make the aid increase in proportion to the amount by which the cyclical indicator exceeds its threshold. The ARFA triggering formula is a combination of the on/off switch and the proportional formula. The total volume of aid consists of the fixed amount of $125 million, which is available when the unemployment rate is in excess of 6 percent, and the variable amount, which is proportional to the amount of unemployment over 6 percent.

An alternative, suggested by GAO (1977), is a formula that permits aid to increase more than in proportion to the severity of the cycle. Such a formula could be adapted to respond to the speed at which the economy is declining or to the duration of the recession. This alternative could also offset the effect of the delays in data availability and program implementation—which make aid smaller than needed during a recession and greater than needed during a recovery—by adding aid at a rate rapid enough to compensate for the delays.

Aid calculation methods can be modified to take account of inflation in one of two ways. Indexing grants for changes in

the price level means that aid increases at the same rate as inflation to maintain a constant real level of aid. This only partially deals with the fiscal disruption due to inflation. If expenditures increase at a more rapid rate than do revenues, then aid may need to be increased more rapidly than inflation to avoid a growing deficit. These methods do not attempt to identify the portion of inflation that may be caused by the behavior of the state and local sector.

Indexing is necessary if the legislation determining funding is to remain unchanged for several years. If aid is not adjusted for price changes, the program becomes an increasingly weak fiscal instrument. An alternative to building a price index into the triggering formula is to calculate aid in relative terms—for example, to specify that the amount of antirecessionary aid should be a fixed percentage of the amount by which actual GNP falls short of potential GNP. Either method will maintain the real purchasing power of grant recipients, which in turn aids fiscal stabilization.

Changing the real level of aid in response to inflation could be accomplished using several methods of calculation. Aid can either be increased to relieve fiscal pressures on state and local governments or decreased to avert or relieve inflationary pressures due to resource shortages. One approach is to treat the degree of economic slack as only a threshold condition and to make the size of the aid change an increasing function of the rate of inflation. The flow of aid would begin once unemployment reached a certain level, but the amount of aid would be proportional to the inflation rate. A more general solution would be to develop a formula that dispenses aid in proportion to both the rate of inflation and the degree of economic slack.

Add-On or Separate Stabilization Grant?

Distributing stabilization grants as an add-on to an ongoing service-provision grant increases the speed with which aid can be transmitted. Add-ons reduce administrative costs since little new bureaucracy is required; localities have experience in spending the federal grant funds. But countercyclical variations in the provision of some services can be detrimental to the accomplishment of program goals. Interference
of stabilization with program goals and possible solutions are discussed in Chapter VI.

**Automatic Stabilizer or Discretionary Grant?**

All three countercyclical programs require Congressional action to start the flow of aid. Thus, in addition to the delays for obtaining information and implementing the program, a possible legislative delay is built into the programs.

Countercyclical grants could possibly operate in a fully automatic manner, as does the personal income tax which stabilizes because of its progressive rates. Transfer programs also are automatic stabilizers because they act automatically to cushion declines in disposable income. An automatic trigger would improve the timing of countercyclical grants and could allow their use as anti-inflationary as well as antirecessionary tools. At the same time, however, it would increase the non-discretionary component of the federal budget and reduce the flexibility of the Congress in responding to changing social priorities. Creating a fully automatic stabilization grant program would imply a judgment that the goals of these grants are important enough and the grants are effective enough to warrant the sacrifice in flexibility.

**TARGETING**

Two general issues concerning the design of the targeting mechanism emerge:

- Which jurisdictions are to be eligible and how should need be defined?

- How much aid will jurisdictions receive? Should aid be tied to local measures of need? Should aid be distributed according to a regular grant-distribution formula or according to another distribution formula?

This section discusses the options for formula design.
Eligibility

A local cyclical indicator can be used in several forms to represent local need and determine eligibility.

Deviations from Previous National Cycle Peak Value. The current value of the indicator chosen can be compared with the value of that indicator in that jurisdiction at the time of peak of the previous national cycle. This comparison of economic cycles consequently makes no allowance for geographical variations in timing. Aid timed to the national cycle may be mistimed with respect to local cycles.

Deviations from Previous Local Peak Value. A modification of the approach described above is to use the difference between the current value and the previous peak value regardless of when the local peak was reached. This method does allow for inter-area variations in cyclical timing. Neither method, however, separates cyclical from long-term changes in the value of the indicator. To make this distinction would require separate analyses of indicator trends and cycles in each potential recipient jurisdiction.

Deviations from Local Trend Indicators. The most effective method, but the one most difficult to implement, is to use the difference between the actual value of the indicator and its projected trend value or its potential value as the measure of the severity of the downturn. An example of such an indicator would be a temporary decline in the rate of growth of income. This would indicate a decline in the region’s share of national economic activity and probably a decline in per capita income even though no absolute decline in total income had occurred. This approach would separate cyclical from structural changes in the area’s economic activity, with the latter being represented by a long-term decline in growth.

Distributing Aid

Considerations in Choosing a Method. Both the economic and fiscal stabilization goals suggest that the aid-distribution formula incorporate local indicators of cyclical impact. If economic stimulation is the major goal, distributing aid to an area with labor or capital shortages will not generate much
new income and employment. If state and local budgetary stabilization is the major goal, by definition the formula should respond to local conditions.

Several practical considerations complicate local targeting. For example, the neediest jurisdictions may not be those in a position to undertake countercyclical projects. An area with high unemployment may have an unskilled labor force that is unsuited to a public works project. Or an area with fiscal difficulties may not have the personnel to draw up plans for a project; this would lead to delays in implementation.

A second consideration is that the limited availability of timely data on local cyclical phenomena restricts the possibilities for designing a highly responsive system of local targeting.

The alternative methods for distributing aid are combinations of a triggering device and a formula to determine local entitlement. Aid can either be triggered by a national indicator and then the national total of funds available distributed among areas according to need, or it can be started and stopped for each locality individually—in which case triggering and targeting are the same process.

Local entitlement can be determined in one of two ways: aid can be related to a measure of the severity of the local cyclical problem, or it can be distributed without regard to cyclical conditions. Using the second distribution method, aid can be allocated according to the pattern of another, noncyclical federal grant, or it can be allocated on the basis of local features such as selected population characteristics.

National Triggering, Base Grant Distribution. If countercyclical aid takes the form of a temporary increase in the level of funding of a regular grant program, the simplest method of distributing the increase is to use the regular grant formula without modification for cyclical conditions or some other criterion such as population or population composition. The resulting distribution would bear no relationship to the severity of the cycle’s effects in any given area, except insofar as those effects happened to be reflected in the base grant formula, if
The percent increase in the regular grant would be determined either by an explicit legislative decision or by the operation of a national triggering formula for the base grant.

National Triggering, Independent Distribution. Under this method, the countercyclical portion of aid is distributed by adjusting the amount called for by the regular formula according to a cyclical indicator. The ARFA formula, which distributes aid in proportion to the product of each recipient jurisdiction's regular (GRS) grant and that jurisdiction's unemployment rate in excess of 4.5 percent, provides a prototype for this approach. Since the total amount of countercyclical aid is fixed, the share going to each jurisdiction is determined by the severity of unemployment in that jurisdiction relative to its severity elsewhere, not by the absolute magnitude of the problem.

The countercyclical component could be allowed to become negative, reducing the GRS entitlement for jurisdictions with very low unemployment rates. This device would be one method of carrying out a policy of using reductions in federal aid to dampen aggregate demand in areas with tight local resource markets.

A variant of this approach is to use data on cyclical conditions to distribute aid among states; the states would take charge of distributing the funds to localities. Since some states have better data on local economic and fiscal conditions than are available to federal officials, this technique could improve the intrastate targeting of aid if states are able and willing to undertake this task.

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2/ Income is one of the factors used in the General Revenue Sharing (GRS) formula. Thus, if this formula were used to target countercyclical aid, some of the effect of local cyclical conditions would be incorporated. As Chapter IV explains, however, many noncyclical factors also influence income.

3/ A certain rate of unemployment—usually 4.5 percent—is expected to persist. The term "full employment," therefore often implies a "structural" element of some unemployment.
Local Triggering, Base Grant Distribution. A local cyclical indicator, such as the unemployment rate, can be included among the factors in the regular aid-distribution formula. A mechanism for countercyclical distribution is thus built into the basic grant. The redistributive effect is independent of the national triggering mechanism. Even if no extra aid were provided in response to the national cyclical indicator, the formula would continue to redistribute funds in response to local cyclical conditions as long as the cyclical component of the grant were allowed to become negative for areas with low unemployment. One drawback of this method would be the great uncertainty about the total funding level required for the countercyclical grant.

Local Triggering, Independent Distribution. The final alternative is to distribute countercyclical funds without regard to the distribution of a regular grant but rather according to the severity of cyclical problems in each jurisdiction. This would entail the use of a subnational triggering formula incorporating indicators of the severity of the cycle in each jurisdiction and other characteristics of the jurisdiction.

Depending on the choice of a cyclical indicator, additional measures of local characteristics in the formula might be necessary. For instance, funds cannot be allocated solely according to an excess unemployment rate. To do so would mean giving the same amount of aid to a city of 50,000 and to a city of one million if both cities had an unemployment rate of 7 percent. It does make sense, however, to give the same amount per capita to both cities. Including population size in the formula would accomplish this. Other possible scaling factors include numbers of people in specific population categories—for example, the number of school children in the case of an education grant, or the number of poor people, or numbers of long-term unemployed—or fiscal variables, such as the volume of state or local own revenues or outlays.
CHAPTER IV. NATIONAL AND LOCAL CYCLICAL INDICATORS

How useful would alternative cyclical indicators be as triggering and targeting devices in an aid formula?

The proper choice of an indicator depends in part on the goal of policy. One objective can be to reduce real economic fluctuations. Another can be to improve the fiscal position of state and local governments. A third can be to reduce or avert pressures on prices.

Four characteristics are desirable in a triggering and targeting indicator:

- It should be a good measure of the problem being controlled;
- It should be available for potential recipient localities;
- It should be available promptly and both nationally and locally; and
- Its changes should coincide with changes in overall economic activity so that policy will respond to true, sustained declines; that is, it should be a coincident indicator.

INDICATORS OF EMPLOYMENT, INCOME, AND OUTPUT

Unemployment Rate

Triggering. The national unemployment rate is an available, reliable, and valid indicator of national recession. 1/ Data are

1/ This is a controversial point. For further discussion of the shortcomings of unemployment rates, see J. Shiskin, "Employment and Unemployment: The Doughnut or the Hole?" Monthly Labor Review 99:2 (February 1976), pp. 3-10.
published monthly with only a one-month lag, and rate changes coincide with changes in overall economic activity. Reasonably reliable unemployment data are also available for many states, labor market areas, and large urban areas. This consideration makes possible the use of consistent indicators for the triggering and distributional phases of the funds-allocation process.

The unemployment rate is not, however, a complete measure of the employment loss or the economic loss associated with a recession. Discouraged workers who stop searching for work and those involuntarily working part-time or below their skill level—the so-called "underemployed"—are not reflected in the unemployment rate. Determining what fraction of the unemployed are jobless for cyclical rather than long-term (structural) and short-term (frictional) reasons is also a problem. Unemployment of 4 to 6 percent has generally been considered a situation not attributable to cyclical causes, while unemployment over this threshold is deemed cyclical.

Despite its deficiencies as an indicator, the unemployment rate may still be an adequate measure for policy control. When the number of persons officially counted as unemployed rises, the number of unemployed persons under-counted probably goes up at a similar rate.

Targeting. The attribute that makes unemployment data attractive for use in the subnational distribution formula is the availability of unemployment estimates for approximately 1,500 jurisdictions, including all 50 states and all local governments or consortia designated as CETA prime sponsors. The reliability of estimates for smaller jurisdictions is considered very low, however.

The recent countercyclical programs all use unemployment rates or numbers of unemployed persons as indicators of jurisdictions' cyclical needs. The indicator used in the ARFA formula is the unemployment rate in excess of 4.5 percent. The two indicators considered in apportioning LFY funds among the states are the total number of unemployed persons and the number in excess of 6.5 percent. The three indicators that determine the allocation of CETA/PSE (Title VI) funds among prime sponsors are the total number of unemployed persons, the number of unemployed residing in areas where the unemployment rate exceeds 6.5 percent, and the number of unemployed in excess of 4.5 percent.
Table 1 compares two methods of quantifying the severity of cyclical unemployment in each state. In all cases, cyclical unemployment is measured as of the second quarter of 1975, the time when national unemployment reached its highest level during the last recession; thus, none of these methods allows for differences in the timing of local cycles to emerge. As the table makes clear, the choice of method dramatically affects the estimates of the relative severity of the cycle in each state. The examples are outlined here:

- **Using the difference between the actual state unemployment rate and 4.5 percent and 6.0 percent as an indicator.** With this method, states such as Alaska or Louisiana—with high unemployment both before and during the recession—would receive the same treatment as a state like Oklahoma, where unemployment more than doubled during the recession. Assuming that the timing of the local cycles coincided with that of the national cycle, this formula appears not to differentiate between structurally and cyclically troubled areas. The fixed-base method of computation yields low estimates of cyclical unemployment in states that had low rates of unemployment before the recession. This effect is accentuated by setting the uniform base rate at 6.0 rather than 4.5 percent. The higher the base rate chosen, the fewer jurisdictions receive aid.

- **Using the difference between the actual rate and the rate at the previous national cycle peak as an indicator.** This method yields much higher estimates of cyclical impact for the states with low unemployment during the pre-recession period. For example, New York and North Carolina reached the same unemployment rate during the recession, but New York's pre-recession rate was higher. The two computations outlined in the previous paragraph implied that the cycle had the same impact on each state, but the third method shows that North Carolina sustained much more cyclical damage.
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a/ The last national recession began at the third quarter of 1973 (1973:III); this point is designated $U_0$.

b/ The last national recession reached its bottom in the second quarter of 1975 (1975:II); this point is designated $U_1$.

c/ This threshold is computed as the unemployment rate at $U_1$ less a "normal" unemployment rate of 4.5 percent.

d/ This threshold is computed as the unemployment rate $U_1$ less a "normal" unemployment rate of 6.0 percent.

e/ This threshold is computed as the unemployment rate at $U_1$ less unemployment at the start of the recession, that is $U_0$. 
The first method—using a fixed base—yields estimates of relative need that reflect both the cyclical and long-run components of unemployment together. The second method—using a local base—highlights the cyclical component. Therefore, if the objective is to design a formula that responds only to cyclical problems, the second method seems more appropriate. The data suggest that the effect of using this method would be to reallocate funds away from the larger, more industrialized states in the North toward those in the South and the farm belt.

Several other economic indicators convey important dimensions of a recession or a threatened resource shortage that are not measured by the unemployment rate. While each has certain advantages over the unemployment rate, each also poses some serious problems.

**Level of Employment as an Indicator**

With this indicator, there is no need to set an arbitrary full-employment rate. The employment level can serve as a measure of growth and job creation potential in the economy since it shows how rapidly the economy can provide jobs for a growing labor force. Employment levels are available monthly, local data exist, and employment changes coincide with changes in overall economic activity.

Because of labor-force growth, however, a fairly severe recession could occur, leaving several million persons unemployed, without necessarily producing a decline in absolute employment. When using this indicator either as a triggering or as a targeting mechanism, therefore, it should be compared with a long-run employment growth trend line so that cyclical deviations can be measured.

**Real Wages and Salaries as an Indicator**

The real monthly wage bill is the mathematical product of the number of persons employed, the average number of hours worked per worker per month, and the hourly wage rate adjusted for inflation using the consumer price index. Wages and salaries are the largest component of personal income net of transfers (74 percent) and the most likely to respond cyclically. Recession-related reductions and demand-related increases in wage rates and
hours worked would be reflected in a wage and salary indicator, whereas only reductions or increases in the number of persons working are reflected in the employment measures. Although changes in wages and salaries measure another aspect of the economic loss due to a recession, achieving agreement on the expected long-run growth path of real wage rates and work hours in a full-employment economy might pose difficulties. In addition, this indicator responds to inflation, labor strikes, and contract settlements. Thus, these effects would have to be extracted before this indicator could be used.

Income and wage and salary measures are published quarterly for states and annually for large metropolitan areas. Changes in income coincide with changes in general economic activity.

**Real GNP and the GNP Gap as an Indicator**

The broadest measure of a recession's effect on economic output is the decline in the real Gross National Product (GNP) below its full-employment level. This difference is known as the GNP gap.

The real GNP gap has three shortcomings as a trigger: the initial published estimates are preliminary and are often subject to substantial revision; state or local figures are not available; and considerable controversy exists over the calculation of potential GNP and thus the GNP gap. Thus, with this indicator there would be long lags in the availability of data, little responsiveness to changing conditions, and no sensitivity to local conditions. GNP figures do, however, display changes that coincide with general economic activity.

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2/ At the substate level, the data are for Standard Metropolitan Statistical Areas (SMSAs), a designation used by the U.S. Department of Housing and Urban Development.

3/ Estimates of potential GNP vary according to the underlying assumptions concerning the natural rate of unemployment, productivity growth, and growth in the potential labor force. The more optimistic the estimates of these variables, the higher the estimate of potential GNP.
The Index of Industrial Production as an Indicator

Another output indicator that has the advantage of monthly availability and is also a coincident indicator is the Federal Reserve Board's index of industrial production. This index is only a partial measure of economic activity, but it covers the sensitive manufacturing, mining, and utilities sectors of the economy. No state or local data or ready-made base for cyclical comparisons is available, however.

Other Possible Indicators

Other statistical series that measure significant aspects of economic activity are the index of part-time employment for involuntary reasons and the Wharton index of capacity utilization. The index of part-time employment is compiled monthly from the Current Population Survey. A peak in this index tends to precede the unemployment rate peaks by 3 to 4 months and the troughs by 10 months, making it an early warning signal. Using this indicator could increase the likelihood that a grant program would respond before a true recession was underway. But this index does not respond until unemployment has passed 6 percent, which is usually recognized as a recession signal. This feature in turn reduces the likelihood of a too-rapid response.

The Wharton capacity utilization rate offers a simple measure of one of the key indicators of the need for anti-recessionary and anti-inflationary policy. Each peak in output (derived from the Federal Reserve industrial production index) is defined as full industrial capacity or 100 percent, and current operating rates are measured in relation to this peak. An advantage of this index is its simplicity. Disadvantages include the absence of state or regional data, the provisional nature of capacity estimates (they are continuously revised in response to output peaks), and the absence of information on the movements of the index relative to the business cycle.

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INDICATORS OF STATE AND LOCAL FISCAL DISTRESS

No suitable indicators of state and local fiscal conditions exist for use in a countercyclical grant formula. The state/local operating surplus is useful for describing certain aspects of state and local responses to the cycle, but it is not itself an acceptable measure because it reflects both the effects of the cycle on state and local budgets (autonomous component) and the response of governments to these strains (discretionary component). The autonomous change in budgetary position is the component of budgetary disruption. Two different approaches to isolating and measuring the autonomous changes in state and local surpluses are outlined below.

Although there are satisfactory approaches to developing a fiscal distress indicator, lack of timely state and local data which are comparable across state and local governments makes it unlikely that one can be implemented.

The Autonomous Change in the State/Local Surplus. The GAO report on ARFA 5/ proposes an indicator of budgetary disruption based on econometric estimates of the response of state and local revenues and selected categories of spending to recessions. Budgetary disruption during a recession is defined as the sum of the autonomous recession-induced decreases in state/local revenue and the autonomous increases in cyclically sensitive components of state/local spending. This sum is equivalent to the autonomous decrease in the state/local surplus—that is, the amount by which the surplus would decrease if states and localities made no changes in tax rates or service levels to compensate for their worsened fiscal situations. Thus far, the method has only been applied to annual state budget data.

The Impact of Recession on the State/Local Budgetary Constraint. An alternative framework for measuring changes in the fiscal well-being of state and local governments is presented, but not implemented empirically, by Stephen Barro. 6/ This method focuses on year-to-year changes in the relationship

5/ GAO, 1977, Appendix 1, Chapter 5.


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between the financial resources available to state and local governments and the demand for state and local outlays. Barro shows how estimates of the changes in the various revenue and expenditure factors can be combined into a composite index of changes in state and local fiscal condition. Such an index could be used to target countercyclical aid in much the same manner as the various indicators of recession described above.

Unemployment rates. In the absence of more appropriate and easily used budget data, the local unemployment rate is used to identify areas with budgetary as well as economic needs. The unemployment rate probably serves to identify areas where revenues are threatened by declines in income, or those that face recession-related increases in service demands. But using the unemployment rate to target fiscal aid may result in aiding areas in a long-term decline but not facing much cyclical hardship.

INDICATORS OF INFLATION AND EXCESS AGGREGATE DEMAND

Grant reductions would be appropriate as anti-inflationary tools when inflation combines with a high level of employment or a small GNP gap. This implies a dual triggering condition that depends on both the rate of inflation and the degree of tightness in the economy.

Price Indexes. The principal candidates for an inflationary indicator are the consumer price index, the producer price index—formerly the wholesale price index—and the GNP deflator or selected components of this indicator such as the state-local price deflator. The first two indexes are available monthly and the second two quarterly. The consumer price index measures changes in prices that are paid for goods and services usually bought by moderate-income families in large urban areas. The producer price index shows changes in the prices of all goods produced or imported for sale in commercial transactions in U.S. primary markets. The GNP deflator is found by dividing current-dollar GNP by GNP in constant dollars and multiplying by 100. The state and local deflator corrects state and local spending for price level changes, thus isolating that component of inflation which may originate in this sector.
Since 1970 the CPI, the GNP deflator, and the state and local purchases deflator have generally followed similar paths, but the PPI displays swings of somewhat greater amplitude (see Figure 1). Since the inflation rate lags behind changes in general economic activity, using any of these indicators would mean that the grant program would not be responsive to changes in employment and output.

Figure 1.
COMPARISON OF PRICE INDEXES: 1970 THROUGH 1978, SECOND QUARTER

The amount of excess capacity in the economy can most easily be quantified using the unemployment rate. A triggering condition for grant reductions could be defined as an unemployment rate less than some sustainable full-employment value. Alternatively, a GNP gap close to zero—perhaps in the range of 1 to 2 percent—would provide the triggering signal.
CHAPTER V. SELECTION AND REGULATION OF GRANT RECIPIENTS

How are state and local governments selected to receive stabilization grants? And how are the uses of grant funds by recipient governments controlled? This chapter presents options available to the Congress for accomplishing these tasks.

FEDERAL CONTROL OVER GRANT-FINANCED SPENDING

Targeting aid to certain sectors, areas, and jurisdictions raises a number of issues in intergovernmental relations that are not encountered in federal spending which is not focused on specific areas. This is because the effect of targeted grants depends on fiscal and programmatic decisions by recipient governments.

There are advantages in allowing recipients a certain amount of discretion in determining how federal grant funds are spent. Detailed federal involvement increases administrative costs; regulations may disregard local needs and differences among areas. Thus the freedom of grantees to make certain spending decisions can make stabilization programs more effective by allowing prompt responses to economic changes.

There are also disadvantages to allowing grantees freedom in their spending choices. If localities use federal grant money to carry on otherwise locally funded activities, or if they delay spending the funds, the effect can be to reduce the grants' effectiveness or even to exaggerate the cyclical situation. Either result undermines economic stabilization.

Two devices can be used to control the use of grant funds by recipients:

- Eligibility for grants can be restricted to those governments whose budget situation and spending responsibilities make them most likely to spend the funds consistently with federal stabilization goals.

- Uses of funds by grant recipients can be restricted to assure behavior consistent with stabilization goals.
THE SELECTION OF RECIPIENTS FOR COUNTERCYCLICAL GRANTS

The antirecessionary programs differ from one another in the designation of eligible grantees. ARFA distributes funds to state governments and general-purpose local governments (counties, municipalities, and townships). The CETA/PSE program distributes grants to CETA prime sponsors, which are large localities or consortia of local governments. LPW grants are available to a broad range of local governments, including some school districts and other special-purpose units not directly eligible for ARFA and CETA/PSE.

Functional Responsibilities and Types of Spending of Different Categories of Jurisdictions

One determinant of the effect of countercyclical aid is the composition of the first round of spending generated by the grant. Labor-intensive projects such as public service employment are appropriate tools if the goal is simply to generate employment. If the goal is to raise employment and stimulate spending at the same time, a grant for a labor-intensive project using low- to moderately-paid workers would be appropriate because more income means more consumption. In contrast, a capital-intensive project using highly-paid workers will generate more output but less employment and spending on local consumption since construction materials are likely to be purchased outside the area. 1/

1/ The size and speed of impact of similar increases in spending on public service employment, public works, and countercyclical revenue sharing on employment, GNP, and budget costs are compared in CBO, Temporary Measures to Stimulate Employment: An Evaluation of Some Alternatives (1975), p. v, and CBO, Short-Run Measures to Stimulate the Economy (1977), p. 3. The implications of differences among state and local governments are drawn more fully in Chapter VI. In that chapter, the major grants to state and local governments are examined in terms of the types of spending they support and their effects on economic and fiscal stabilization. For example, if local governments are to be assisted, grants for transfer programs would not be as effective as other grants due to the limited role of local governments in these programs.

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Because of significant differences in functional responsibilities among jurisdictions, there would be differences in spending likely to be generated by countercyclical aid. Tables 2 and 3 illustrate the differences in functional responsibilities and expenditure mixes between the state and local sectors. The major state expenditures are highways, higher education, and welfare; primary and secondary education, police and fire protection, and health care and hospitals are the major elements of local spending. The state has a large role in operating transfer programs and in financing local outlays for such programs. A larger proportion of local government spending is devoted to current operations than is the case with state governments (see Table 3).

**TABLE 2. STATE AND LOCAL DIRECT, GENERAL EXPENDITURES, BY FUNCTION: FISCAL YEAR 1975-1976 (IN BILLIONS OF DOLLARS, AND PERCENTS)**

<table>
<thead>
<tr>
<th>Function</th>
<th>State Governments</th>
<th>Local Governments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amount</td>
<td>Percent of Total</td>
</tr>
<tr>
<td>Education</td>
<td>25.5</td>
<td>27</td>
</tr>
<tr>
<td>Highways</td>
<td>14.9</td>
<td>16</td>
</tr>
<tr>
<td>Public Welfare</td>
<td>20.2</td>
<td>21</td>
</tr>
<tr>
<td>Health and Hospitals</td>
<td>9.9</td>
<td>10</td>
</tr>
<tr>
<td>Police and Fire Protection</td>
<td>1.4</td>
<td>1</td>
</tr>
<tr>
<td>Sanitation and Sewers</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Parks, Recreation, and Natural Resources</td>
<td>3.6</td>
<td>4</td>
</tr>
<tr>
<td>Housing and Urban Rehabilitation</td>
<td>0.3</td>
<td>0</td>
</tr>
<tr>
<td>All Other</td>
<td>20.1</td>
<td>21</td>
</tr>
</tbody>
</table>

Total a/ 95.8 100 159.7 100

**SOURCE:** U.S. Department of Commerce, Bureau of Census, *Governmental Finances in 1975-76*, Table 7, p. 22.

a/ Details may not add to totals because of rounding.
TABLE 3. STATE AND LOCAL DIRECT EXPENDITURE, BY CHARACTER AND OBJECT: FISCAL YEAR 1975-1976 a/ (IN BILLIONS OF DOLLARS)

<table>
<thead>
<tr>
<th>Expenditure Category</th>
<th>State Governments</th>
<th>Local Governments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amount</td>
<td>Percent of Total</td>
</tr>
<tr>
<td>Current Operation</td>
<td>68.2</td>
<td>55</td>
</tr>
<tr>
<td>Capital Outlay</td>
<td>18.0</td>
<td>15</td>
</tr>
<tr>
<td>Assistance and Subsidies</td>
<td>7.3</td>
<td>6</td>
</tr>
<tr>
<td>Interest on Debt</td>
<td>4.1</td>
<td>3</td>
</tr>
<tr>
<td>All Other</td>
<td>26.5</td>
<td>21</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>124.1</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>


a/ Amounts shown include general and other direct expenditure, exclusive of insurance benefits and repayments.

Cyclical Sensitivity of State and Local Finances

A second determinant of the impact of countercyclical grants is the cyclical sensitivity of the recipient's finances. The government whose revenue base is most eroded or expenditures most escalated by cyclical conditions is most likely to spend grant funds rather than turn them into budget surplus.

Nonproperty tax revenues (mainly income and sales taxes) respond more automatically to changes in economic activity than does the property tax base. State revenues are more sensitive than localities in this respect, and those of cities are more sensitive than are those of other local governments (see Table 4). A heavy dependence on property tax revenues makes a jurisdiction more sensitive to inflation because, at least in the short run, tax collections lag behind changes in property
values. 2/ Local jurisdictions should thus be harmed more by inflation than states, and revenues of cities should be harmed less than those of other types of local units. These statements must be qualified by the observation that great differences in fiscal structure exist among states and among localities.

TABLE 4. STATE AND LOCAL REVENUES BY MAJOR SOURCE, FISCAL YEAR 1975-1976: PERCENTAGE OF GENERAL REVENUE FROM EACH SOURCE

<table>
<thead>
<tr>
<th>Revenue Source</th>
<th>All States</th>
<th>Local Counties</th>
<th>Cities</th>
<th>Townships</th>
<th>School Districts</th>
<th>Other Special Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>1</td>
<td>34</td>
<td>31</td>
<td>26</td>
<td>56</td>
<td>41</td>
</tr>
<tr>
<td>Other</td>
<td>58</td>
<td>8</td>
<td>7</td>
<td>17</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>59</td>
<td>41</td>
<td>38</td>
<td>43</td>
<td>61</td>
<td>42</td>
</tr>
<tr>
<td>Charges and Miscellaneous</td>
<td>12</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Intergovernmental Aid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>28</td>
<td>8</td>
<td>8</td>
<td>13</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>State</td>
<td>--</td>
<td>34</td>
<td>36</td>
<td>25</td>
<td>21</td>
<td>46</td>
</tr>
<tr>
<td>Total a/</td>
<td>29</td>
<td>43</td>
<td>45</td>
<td>40</td>
<td>30</td>
<td>50</td>
</tr>
</tbody>
</table>


a/ Total intergovernmental aid includes transfers between local governments; thus, federal plus state aid need not equal total aid.

2/ The property tax base is highly responsive to inflation but various legal barriers slow the ability of localities to tap this increase. For further discussion and empirical evidence, see Robert Crider, "The Impact of Inflation on State and Local Governments," Urban and Regional Development Series, No. 5 (Columbus, Ohio: Academy for Contemporary Problems, July 1978), p. 4.
The items of state and local expenditures that respond most sharply to changes in the level of economic activity are welfare payments and related social services. Responsibilities for these services are concentrated at the state level in most states, but they are assigned to counties or cities in a few important instances, such as welfare payments in New York City. Differences in the sensitivity of various spending categories to inflation are difficult to assess.

Although state revenues and expenditures are more sensitive to recessions than are local revenues and expenditures, states probably have greater ability to finance current deficits by borrowing. Since more than half of all state constitutions forbid operating deficits, however, grants still have an important role to play in state finances.

State and Local Fiscal Responses to Aid

A greater economic impact per dollar of aid can be obtained by channeling funds to the jurisdictions that will purchase additional public goods or services, or reduce taxes, rather than build up their surpluses. The timing of the grantees' responses is also relevant.

Unfortunately, very little is known about the fiscal responses of different types of jurisdictions. Most empirical studies of the effects of aid have focused on the behavior of the combined state/local sector. 3/ There have been some studies of the behavior of local governmental units (especially school districts and, to a lesser extent, cities) which yielded relatively high estimates of fiscal substitution. 4/ As yet there are no satisfactory analyses of the fiscal responses of states.

3/ Gramlich and Galper (1973) found that expenditure responses varied with the type of grant. Each dollar of revenue sharing results in $0.43 added spending, while categorical matching grants augment spending by $0.80 to $0.90 per dollar. Edward Gramlich and Harvey Galper, "State and Local Fiscal Behavior and Grant Policy," Brookings Papers on Economic Activity 1 (1973), pp. 34-36.

4/ For further discussion of this, see Barro, The Urban Impacts of Federal Policies.
A phenomenon that sheds some light on the fiscal response issue is the rapid buildup of budget surpluses after the last recession. A large part of this buildup apparently has been accounted for by the state governments rather than by the localities. This suggests that countercyclical aid to the states might be relatively ineffective. During recoveries, such aid would be likely to accelerate surplus accumulation rather than to generate increased outlays. During contractions, the federal grants would support outlays that might otherwise have been financed by spending down the existing accumulations.

Several aspects of the role of state governments in the federal/state/local system need to be taken into account in deciding how the states should participate in a countercyclical aid program:

1. The existence of large state-to-local flows implies that the distinction between countercyclical grants to states and to localities is not clear cut. In fiscal year 1975-1976 state grants to localities accounted for 38 percent of all general expenditures of governments and provided 34 percent of the general revenue of localities.

2. States could participate in the selection of the specific projects to be funded with countercyclical aid (especially in the case of construction grants), just as they do with many regular federal grant programs. Existing statewide plans for certain categories of public services could be used as the base for planning countercyclical activities. And regular state administrative structures could be used to ensure compliance with the targeting provisions and other conditions attached to federal aid.

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METHODS FOR LIMITING FISCAL SUBSTITUTION

Fiscal substitution diminishes the effectiveness of the grant programs as economic stabilizers. When federal funds are used to fund projects that would otherwise be paid for with local resources, little countercyclical gain is achieved. The degree of impairment depends on how the replaced funds are used. The greatest damage is done if the funds are channeled into surplus accumulation. In such cases, the stimulative effect is either eliminated or deferred to a time when it may be less needed. Less damage is done if grant funds are diverted toward state or local tax relief, since at least part of each tax-relief dollar ultimately results in new spending. If funds are shifted among expenditure categories in response to the aid, the effects on local employment and output depend on the expenditure categories involved in the shifting. For example, substituting a labor-intensive project for a capital-intensive project will increase employment effects.

When economic stabilization is the primary goal of countercyclical aid, the ideal response by grantees is to increase total spending for designated projects or activities. Earmarking and grant-matching requirements assure that recipients spend federal funds for designated purpose. Earmarking and additivity requirements ensure that grant financed activities do not replace activities that would otherwise have been undertaken. Matching requirements, or other rules that make the amount of aid contingent on grantees' spending behavior, can also be imposed.

Earmarking Grant Funds

The critical factor in earmarking is the designation of activities that would otherwise have been undertaken by the recipients. Earmarking countercyclical aid for specific projects and activities limits the grantees' opportunities to convert such aid into general revenue. Many federal programs now in effect constrain the uses of grant funds. These include the large construction programs, especially those for water treatment facilities, airports, and mass transit systems. (Chapter VI reviews these so-called "categorical" programs.)

Tight federal constraint of the spending of grant funds would probably be feasible. But the start-ups of countercyclical activities would probably be delayed if federal
officials had to approve and supervise in detail the use of all grant funds. And greater administrative costs would be incurred for both the grantor and grantee.

Requirements for Additivity of Expenditures

Many federal grant programs are designed to restrict the ability of recipient governments to shift nonfederal funds away from the grant-assisted activities. The restrictions include maintenance-of-effort and nonsupplanting rules and various forms of a requirement that the grantees display incremental expenditure, services, or employment.

The one requirement of this type in the present counter-cyclical programs is the maintenance of effort provision in CETA/PSE, Title VI. The regulations for Title VI of CETA stipulate that public service jobs funded under Title VI of the act . . . "shall only be in addition to employment that would otherwise be financed by the prime sponsor without assistance under the act . . ." and, more specifically, that programs supported with Title VI funds:

(1) Shall result in an increase in employment opportunities over those which would otherwise be available;

(2) Shall not result in the displacement of currently employed workers . . .

(3) Shall not impair existing contracts for services or result in the substitution of Federal funds for other funds in connection with work that would otherwise be performed; and

(4) Shall not substitute public service jobs for existing federally assisted jobs under federally supported programs other than those under the Act . . .

6/ U.S. Department of Labor, Regulations Governing Programs under the Comprehensive Employment and Training Act, part 99.34.
One problem in attempting to apply such strictures is measuring the employment that would otherwise be available. This difficulty is similar to those encountered in defining threshold values for recession indicators. The Title VI provision, though spelled out at considerable length, provides no operational definition of the level of activity expected without grants. It places no direct restrictions on the right of CETA/PSE grantees to discharge regular workers. In fact, it specifically affirms their right to use CETA funds to rehire employees who lost their jobs because of legitimate lay-offs.

Another problem in enforcing such rules is the limitation they place on grantees’ adjustment to cyclical difficulties. Unless enough federal aid is available to offset the full fiscal effect of an economic downturn, some adjustment on the part of the recipient government—either service curtailment or a tax increase—would be necessary. Requiring that grantees forego these adjustments as a condition of eligibility would put many applicants in an untenable position, particularly those without surpluses to draw on or the capacity to borrow to fill their revenue gaps.

Requiring that countercyclical aid add to outlays for the particular program being assisted does not ensure total spending will increase. The effect of the additivity provisions could be to shift nonfederal resources from one program to another, leaving only the illusion of a net additive effect. Determining what outlays for all of a jurisdiction’s programs would have been, and establishing a maintenance-of-effort requirement for total outlays, would be even more difficult than making the same determination for the particular program receiving assistance.

**Matching Requirements and Fiscal Incentives**

A matching requirement makes federal aid contingent on the state or local government’s contribution to the project’s costs. This limits substitution in two ways. First, it sets a limit on the amount of money that can be shifted to other activities by requiring a local contribution to the aided program. Second, by lowering the cost to the grantee of the aided activity, it encourages greater local outlays than would have been made without the grant. Matching requirements are part of many ongoing federal grant programs, most notably the transfer payment
programs and the large categorical construction grants. But none of the current countercyclical programs requires matching.

The effectiveness of requiring matching in countercyclical programs is questionable. In the case of construction grants, matching requirements might generate additional outlays by some grantees. On the other hand, some grantees might be deterred from accepting the federal funds because of the difficulty of raising the required matching money during a recession. Also, the usefulness of drawing in local matching money would depend on the source of that money. If the funds were shifted from current operations or from non-grant-aided construction projects to a project with matching requirements, there would be no net stimulative effect from the local share. Moreover, even if grantees responded to the matching requirements with net increases in total spending, much of the stimulative effect of the increases would be cancelled out if they had to raise taxes to obtain the matching funds. The matching strategy might be most appropriate during recoveries, therefore, when the alternative to spending, for at least some jurisdictions, is to rebuild depleted surpluses. These surpluses could be drawn into spending by means of the grant programs.

METHODS FOR INFLUENCING THE TIMING OF EXPENDITURES

The current antirecessionary programs contain two explicit provisions concerning timing. The ARPA legislation requires an assurance from grantees that funds received will be spent within six months. The LPW legislation requires that on-site labor begin within 90 days of project approval.

Restrictions like these are unlikely to be very effective, and they could encourage substitution. Neither provision prevents the labeling of some activity as supported by countercyclical aid, whereas the true effect of the aid does not occur until later.

Certain alternative approaches to stimulating prompt uses of funds could be effective under some circumstances. One approach, applicable to construction grants and similar discrete projects, is to make funds payable only for activity completed within a specified period. In the case of small public works, this requirement is equivalent to the starting date requirement.
A more moderate variant would be to make the rate of federal reimbursement depend on timing—for example, the fraction of the cost paid by the federal government could decline from 100 percent in the first two years to, say, 75 percent in the third year and to only 50 percent thereafter. Such a provision would need to be accompanied by very strict prohibitions against substitution.

METHODS OF CONTROLLING THE DISTRIBUTION OF GRANT BENEFITS

Special provisions can be designed to control grants' effects both within and among recipient jurisdictions.

Controlling Geographical Spillovers

Spillovers from aid-receiving jurisdictions can occur at all stages of the income-, output-, and employment-generation process. Direct effects result from payments to employees, suppliers, or contractors outside the jurisdiction. Indirect effects result when primary recipients of grant generated income spend a portion of their incomes outside the jurisdiction.

A pertinent example of a constraint to control spillovers in the current antirecessionary programs is the requirement in CETA/PSE that public service jobs be filled by residents of the aid-receiving jurisdiction. The effect of this device depends on how much of the public work force would normally consist of local residents and on how many of the jobs represent additional jobs rather than substitution for regular employment.

Constraining spillovers has inherent limitations. First, it is questionable whether it makes sense to attempt to retain the benefits of countercyclical grants within jurisdictional boundaries when the jurisdictions in question are integral parts of larger metropolitan or market areas. Second, any attempt to restrict geographical spillovers would probably entail some loss in economic efficiency. Local public agencies and construction contractors would be precluded from seeking the best workers and the most favorable terms for procurement of materials and services. Grant-aided projects might suffer delays and increased costs because of local shortages of suitable materials or skills. The process of monitoring compliance and approving
necessary exceptions to residency and local-procurement constraints would itself impede the efficient execution of countercyclical projects.

Controlling the Distribution of Benefits Among Population Groups

The objective of channeling federal benefits to the groups most severely affected by recession has motivated the inclusion in CETA/PSE of detailed provisions defining eligibility for grant-supported public employment. The number of programs to which these targeting constraints can reasonably be appended is small. The distinguishing characteristic of CETA/PSE and other employment programs in this regard is that their main purpose is job creation; production of public services is secondary. If attempts were made to attach similar restrictions to the regular social services grants, conflicts might arise between the targeting constraints and the skills required to operate the programs.
CHAPTER VI. POTENTIAL COUNTERCYCICAL USES OF GRANT PROGRAMS

This chapter describes the potential countercyclical uses of federal grant programs that aid state and local governments. The consideration of grant programs for countercyclical use is limited to large grant programs, with "large" defined for practical purposes as having estimated outlays of at least $500 million in fiscal year 1978. Smaller programs are excluded because countercyclical spending must be on a scale of billions of dollars to have a significant impact on macroeconomic conditions. Furthermore, programs and program clusters with outlays of $500 million or more account for more than 90 percent of all federal aid to the state/local sector.

Grant programs with potential countercyclical uses can be grouped into four categories:

- Unrestricted grants;
- Grants for capital construction;
- Grants for current services; and
- Grants that support state and local transfer payment programs.

Most major grant programs are easy to categorize within this four-way system. The breakdown is useful because the grants in each category are similar in terms of administration, impact, and the type of activity supported. The most difficult problem in applying the categorization concerns the broad block grant programs—Community Development Block Grants (CDBG) and grants under the Comprehensive Employment and Training Act (CETA). On the basis of the kinds of activities they support, these programs may reasonably be assigned to the capital construction and current services categories. Both programs, however, also resemble General Revenue Sharing in that the detailed decisions about uses of funds are made at the state and local levels. Thus, they could be considered in the unrestricted grants category. Table 5 presents the categorical breakdown for all federal grant-in-aid programs as well as the estimated budget authority and outlays for each in fiscal years 1977 and 1978.
TABLE 5. MAJOR FEDERAL GRANT PROGRAMS, ESTIMATES OF BUDGET AUTHORITY AND OUTLAYS, FISCAL YEARS 1978 AND 1979: IN BILLIONS OF DOLLARS

<table>
<thead>
<tr>
<th>Grant Program</th>
<th>Administering Agency</th>
<th>Expenditure Category</th>
<th>Estimated Budget Authority 1978</th>
<th>Estimated Outlays 1978</th>
<th>Estimated Budget Authority 1979</th>
<th>Estimated Outlays 1979</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wastewater Treatment Construction</td>
<td>EPA</td>
<td>Construction</td>
<td>4.50</td>
<td>3.20</td>
<td>4.20</td>
<td>3.40</td>
</tr>
<tr>
<td>Airport Construction</td>
<td>DoT</td>
<td>Construction</td>
<td>0.56</td>
<td>0.52</td>
<td>0.59</td>
<td>0.53</td>
</tr>
<tr>
<td>Federal Aid Highway Program</td>
<td>DoT</td>
<td>Construction</td>
<td>6.65</td>
<td>6.20</td>
<td>7.84</td>
<td>7.20</td>
</tr>
<tr>
<td>Urban Mass Transportation</td>
<td>DoT</td>
<td>Construction, service</td>
<td>0.48</td>
<td>1.92</td>
<td>2.36</td>
<td>2.25</td>
</tr>
<tr>
<td>Local Public Works Program</td>
<td>EDA</td>
<td>Construction</td>
<td>---</td>
<td>2.84</td>
<td>---</td>
<td>1.91</td>
</tr>
<tr>
<td>Community Development Block Grants</td>
<td>HUD</td>
<td>Construction, service, broad block grant</td>
<td>4.00</td>
<td>2.10</td>
<td>4.15</td>
<td>2.90</td>
</tr>
<tr>
<td>Community Services Program a/</td>
<td>CSA</td>
<td>Service</td>
<td>0.57</td>
<td>0.66</td>
<td>0.60</td>
<td>0.59</td>
</tr>
<tr>
<td>Elementary and Secondary Education</td>
<td>HEW</td>
<td>Service</td>
<td>3.19</td>
<td>2.76</td>
<td>3.46</td>
<td>3.10</td>
</tr>
<tr>
<td>Social Services</td>
<td>HEW</td>
<td>Service</td>
<td>2.52</td>
<td>2.72</td>
<td>2.58</td>
<td>2.58</td>
</tr>
<tr>
<td>Human Development a/</td>
<td>HEW</td>
<td>Service</td>
<td>1.52</td>
<td>1.43</td>
<td>1.70</td>
<td>1.65</td>
</tr>
<tr>
<td>Comprehensive Employment and Training Programs</td>
<td>DoL</td>
<td>Service</td>
<td>2.68</td>
<td>8.21</td>
<td>10.18</td>
<td>9.88</td>
</tr>
<tr>
<td>Unemployment Trust Fund—training and employment</td>
<td>DoL</td>
<td>Service</td>
<td>0.61</td>
<td>0.61</td>
<td>0.69</td>
<td>0.70</td>
</tr>
</tbody>
</table>

(Continued)
<table>
<thead>
<tr>
<th>Grant Program</th>
<th>Administering Agency</th>
<th>Expenditure Category</th>
<th>Estimated Budget Authority 1978</th>
<th>Estimated Outlays 1979</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Services and Resources b/</td>
<td>HEW</td>
<td>Service, construction</td>
<td>1.42</td>
<td>0.97</td>
</tr>
<tr>
<td>Medicaid</td>
<td>HEW</td>
<td>Transfer program</td>
<td>10.70</td>
<td>11.66</td>
</tr>
<tr>
<td>Child Nutrition Programs</td>
<td>DoA</td>
<td>Transfer program</td>
<td>2.50</td>
<td>2.70</td>
</tr>
<tr>
<td>Public Assistance</td>
<td>HEW</td>
<td>Transfer program</td>
<td>6.35</td>
<td>6.66</td>
</tr>
<tr>
<td>Housing Assistance</td>
<td>HUD</td>
<td>Transfer program</td>
<td>31.55</td>
<td>24.40</td>
</tr>
<tr>
<td>Unemployment Trust Fund—unemployment insurance administration</td>
<td>DoL</td>
<td>Service</td>
<td>0.89</td>
<td>0.95</td>
</tr>
<tr>
<td>Law Enforcement Assistance</td>
<td>DoJ</td>
<td>Service, broad block grant</td>
<td>0.50</td>
<td>0.50</td>
</tr>
<tr>
<td>General Revenue Sharing</td>
<td>Treasury</td>
<td>General purpose</td>
<td>6.86</td>
<td>6.86</td>
</tr>
<tr>
<td>Antirecession Fiscal Assistance</td>
<td>Treasury</td>
<td>General purpose</td>
<td>1.40</td>
<td>1.33</td>
</tr>
<tr>
<td>Total Major Grant Programs</td>
<td></td>
<td></td>
<td>89.45</td>
<td>93.05</td>
</tr>
</tbody>
</table>

SOURCE: CBO estimates.

a/ 1979 budget authority and outlays include anticipated legislation.

b/ Total of accounts: (1) health services; (2) health resources (health care services); and (3) health resources (education and training).
THE COUNTERCYCLICAL USE OF UNRESTRICTED
GRANTS—GRS AND ARFA

Two large grant programs (GRS) and (ARFA) provide unrestricted grants. GRS was authorized in 1972 for five years and reauthorized in 1976 for an additional 45 months. Funding for this program has increased gradually from $5.3 billion in fiscal year 1972 to the current level of $6.85 billion. The current funding level is to be maintained for each year of the extension period. From the standpoint of countercyclical policy, this stability is desirable because GRS provides a predictable expenditure base about which deliberate cyclical variations can be generated. ARFA is a countercyclical program closely linked to GRS. The two could be combined into a regular, permanent program of countercyclical aid.

The nonrestrictiveness of GRS makes it an ideal instrument for carrying out the state and local budgetary stabilization (as opposed to the economic stabilization) goal of federal countercyclical policy. On the other hand, a negative aspect of such unrestricted grants is that there is little federal control over their use. This means, first, that the money cannot be targeted to particular economic sectors or groups of beneficiaries and, second, that a higher rate of substitution of federal aid funds for state and local funds is likely. (Chapter V discusses these disadvantages.)

Triggering and timing the flow of aid over the cycle. The lack of any federal involvement in specifying how the aid funds are to be spent, or even in approving the grantees' expenditure plans, means that countercyclical aid can be made available to states and localities without administrative delays. A special source of concern, however, is that the grantees may use unrestricted countercyclical aid to build up their surpluses rather than to increase spending or reduce their own revenue collections. This is especially likely because state and local spending is set at the start of a budget cycle and cannot easily be varied. According to Edward Gramlich (1978), this behavior takes place to such a degree that unrestricted aid becomes a weak economic stabilization tool, at least during the recovery phase of the business cycle. 1/

1/ Similar results are also reported in a preliminary report on GRS prepared for the Department of Treasury by Charles
GRS can be turned into an automatic countercyclical program by appending to the basic program a mechanism that varies the total amount of aid in response to economic conditions. ARFA and GRS programs can be combined in such a way. The funding level of the countercyclical component would vary in proportion to the unemployment rate. Alternative methods of calculating the countercyclical component of aid are discussed in Chapter III.

Varying the timing of GRS payments rather than the aggregate level of outlays is another possible way to achieve countercyclical effects. With this approach, payments would be made before their scheduled dates during periods of economic slack, and delayed during periods of resource shortage.

Targeting GRS aid to jurisdictions. The distribution of GRS funds takes place in stages. Funds are first allocated among states, then between the state and local sectors, then among county areas within states, and finally to individual localities. At each stage factors such as population, tax effort, and per capita income are taken into account. ARFA funds are distributed among states and localities by a formula which uses GRS entitlements and unemployment.

THE COUNTERCYCLICAL USE OF CAPITAL CONSTRUCTION GRANTS

There are six major federal construction grant programs, with combined 1978 outlays of $18.2 billion (see Table 5). The first is the explicitly countercyclical LPW program, which provides funds for nearly all types of local public facilities. Four programs support specific categories of public "infrastructure" investment—highways, wastewater treatment plants, mass transit systems, and airports. The last supports urban development efforts.

1/ (Continued) F. Adams, Jr., and Dan L. Crippen in conjunction with the Brookings Institution's Monitoring Studies Group entitled "The Fiscal Impact of General Revenue Sharing on Local Governments," p. 37. They found that unusually large increases in intergovernmental aid are less easily displayed by local governments and thus show up as temporary additions to fund balances.
The temporary LPW program is a possible prototype for a permanent program of automatically triggered antirecessionary construction grants. Because the types of projects conducted under LPW are those that grantees would normally undertake with their own funds, the rate of substitution of federal grants for state and local funds can be quite high. 2 This makes the program more useful for fiscal stabilization than for economic stabilization. If the locality's own funds would have come from borrowing, however, then the grants achieve neither goal.

Timing the flow of aid over the cycle. LPW has several advantages relative to the categorical construction grants. It supports more diverse, generally shorter-term and shorter-lead-time projects. It has few time-consuming planning and approval requirements. And it lends itself to flexible geographical targeting. The LPW program also has several limitations, however, because of its zero-base level of funding in nonrecessionary periods. There is no regular flow of grant funds the timing of which can be altered to achieve a countercyclical effect, and there is no matching rate to manipulate. Also, there is no way to exercise fiscal restraint by reducing aid below its regular level in times of high inflation or scarce resources. To convert LPW into an automatic stabilizer, it would be necessary to add a triggering mechanism and establish some system whereby potential LPW grantees could maintain a periodically updated file of approved projects ready for initiation in the event of a recession; but this procedure would probably promote substitution.

The Categorical Construction Grants

The four categorical construction grant programs—highways, wastewater treatment plants, mass transit, and airports—have several features in common. All four support relatively large-scale, long-duration building projects. All involve the federal government in approving particular projects and plans. And all provide supplementary financing in the form of matching grants.

2/ See Gramlich (1978), p. 208. There is also a possibility that the grants are used to finance projects for which voters have turned down bond issues.
The use of public works construction grants to combat recession (of which the LPW program is only the most recent example) raises the issue of whether ongoing, regular construction programs could be developed into automatic countercyclical tools. One major advantage of using the regular grants instead of ad hoc antirecessionary programs is that the long delays involved in establishing and implementing ad hoc programs would be avoided. Another advantage is that regular grants would provide the option to use cutbacks or delays in outlays to counter inflation. A feature of the programs that enhances their economic impact is that the large construction grants are for specific projects that might otherwise not have been undertaken; thus they are less likely than many other grants to displace state and local funds.

Because the construction grants are categorical and provide relatively limited opportunity for fiscal substitution, countercyclical increases in the number or scale of assisted projects would do little to help the budgetary situation of the grantees. The grant would provide general-purpose fiscal relief only in those situations in which grantees were able to substitute federally funded projects for projects that would otherwise have been undertaken with state or local funds.

Timing the flow of aid over the cycle. The timing problems appear to be worse for the large-scale construction programs than they are for some other categories of public works. When projects have not been predesigned and preapproved, the lead times may be substantial in the context of the cycle. Federal aid could take the form of reductions in the required local share of project funding rather than increases in the number or scale of construction projects. This choice would have two effects. First, it would free local resources for other uses, making countercyclical grants more effective for fiscal than economic stabilization. Second, the delays inherent in large-scale construction projects would be shortened. Varying the federal share of program financing could provide rapid assistance to jurisdictions with federally aided programs already underway.

Targeting aid. The characteristics of the categorical construction grant programs limit the flexibility with which the federal government could target aid geographically. The degree of targeting flexibility is inherently less with fewer, bigger projects than with numerous, dispersed, smaller projects. Also, since on-site labor is a relatively small component of total
costs, only three out of ten jobs generated by a public works project are likely to be located in the labor market area containing the project site. 3/

The relatively high skill level required in construction work ill suits construction grant programs for directing benefits to lower-income households, youths, or the long-term unemployed. These programs do appear effective in employing minority workers, however. 4/

The federal aid highway program supports continuous, homogeneous projects. In each state in each year, there is some federally aided highway construction underway that could be speeded up or slowed down for stabilization purposes. This element of continuity, together with the relative stability of funding enjoyed by the highway program over the years, make the highway grant program more attractive than the other categorical construction programs as a base for automatic countercyclical aid.

The wastewater treatment construction grant program already matches the highway program in scale and may eventually come to resemble it in the respects mentioned above. As each state develops its plans and priorities for wastewater treatment, and as a backlog of approved project plans accumulates, it will become feasible to alter the level of program funding for countercyclical purposes. The program is still in its early years, however, and its development has not yet reached that of the highway program so far as potential countercyclical uses are concerned.

Urban mass transportation grants for construction of rail transit systems tend to be especially inappropriate countercyclical tools since they tend to be of long duration and to have long start-up times. They are also concentrated in a few places.


4/ Georges Vernez and Roger Vaughan, Assessment of Countercyclical Public Works and Public Service Employment Programs, R-2214-EDA (Santa Monica, Calif.: Rand Corporation, October 1978), forthcoming.
As of September 1976, eight cities accounted for three-fourths of the federal mass transit funds. Thus, there would be very little targeting flexibility. For countercyclical purposes the matching rate could be varied. The remaining capital funds, which are mainly used for bus purchases, and all the formula funds, which are mainly used for operating subsidies, can be allocated more flexibly.

Community Development Block Grants

The final type of categorical construction grants are Community Development Block Grant (CDBG), which for the most part are distributed on a formula basis. The level of funding for each grantee is predetermined, and specific projects are chosen by local officials, subject to federal approval. Many different types of projects are eligible, including land acquisition and clearance, public-use construction and improvement, housing rehabilitation, and relocation. Some CDBG money can also be used for certain ongoing services and to provide the local matching funds mandated by other federal grant programs. The CDBG program itself requires no local matching.

The flexibility allowed to the local governments means that changes in program funding can have a speedy impact. Further, because CDBG funds are less narrowly restricted than other construction grant funds, a larger fraction of CDBG money will probably replace state and local spending for construction. However, if these projects would have otherwise been deferred during economic downturns, the grants will have a cushioning effect on local capital outlays, which are the most cyclically volatile components of local expenditures. Thus, the grants may generate additive spending.

Triggering and timing the flow of aid over the cycle.
Some of the same options exist for adapting CDBG grants for countercyclical use as are available for the GRS program. Three possible approaches are: first, to allow the total level of CDBG funding to vary systematically over the cycle, leaving the

distribution formula unchanged; second, to augment the basic grant with a countercyclical add-on (analogous to ARFA); and third, to incorporate an indicator of the severity of the cycle (which could be either an economic or a budgetary disruption measure) into the basic formula. In addition, advance payments in loan form of CDBG funds could be allowed during recessions.

Targeting aid to jurisdictions. The nature of the CDBG formula, especially since its revision in 1977, is such that countercyclical aid based upon it would be strongly targeted toward urban areas (this is also true of urban mass transportation grants). This would be a desirable characteristic if urban areas prove in the future, as in the past, to be more sensitive than other areas to economic cycles. The CDBG program also provides, at least in theory, for targeting of activities in low-income sections of urban areas—a feature not shared by any of the other construction programs.

Regional Economic Development Programs

Federal grant programs aimed at fostering economic development in particular geographical areas can also be used countercyclically. The principal programs in this category are the economic development assistance programs of the Department of Commerce, and the Appalachian regional development programs. Individually, these programs are small (their respective outlays for fiscal year 1979 are $153 and $274 million). Together, however, they are of special interest, because the activities they support are especially attractive for countercyclical purposes. Aid under these programs goes specifically for projects aimed at generating income and employment, and at enhancing the long-term economic prospects of localities.

THE COUNTERCYCLICAL USE OF SOCIAL SERVICES GRANTS

Ten large grant programs, or clusters of programs, account for $19.2 billion of fiscal year 1978 outlays for the support of current state and local public services. Eight of the ten (all but community services and law enforcement assistance) are human resources programs administered by the Department of Health, Education, and Welfare and the Department of Labor. Several programs exhibit some countercyclical effects.
Most federal aid for social services is for ongoing activities. Countercyclical variations in aid would therefore be expected to affect the scope, coverage, and intensity of the activities aided, but not to determine whether particular types of services will be provided.

In most social services programs, federal aid covers only a minor fraction of program financing, with the remainder of the funds coming from state and local sources. This is especially true in the areas of education, health services (other than services for the needy under Medicaid), and law enforcement. Thus, substantial percentage changes in federal funding, such as might be desirable for stabilization purposes, may not be large relative to the overall level of support for the aided activity. This reduces the value of such projects as stabilization tools.

Most social services grants support activities that are carried out by state and local jurisdictions directly, using public employees. This means that the services programs could have a direct stabilizing effect on the public sector—perhaps by offsetting recession-induced cutbacks in public employment. Because the projects are labor-intensive, the initial employment impact of the services grants will be larger than the impact of a similar amount spent on construction, of which a good deal will be spent on capital costs.

**Timing the flow of aid over the cycle.** Grants for social services are likely to enter the spending stream considerably earlier than are grants for capital construction. How the two categories of grants compare in the timing of their effects on the private economy is less clear, however. The construction grants, though slow to begin, have their initial impacts in the private sector, while the social services grants affect the private sector indirectly and with some delay through the income-consumption mechanism.

**Targeting.** Many of the services programs provide benefits to particular disadvantaged segments of the population. The direct effects of cyclical variations in the levels of funding of these programs would be concentrated on these target groups, rather than spread over the general population.

The suitability of the social services grants for countercyclical use depends largely upon the characteristics of the
individual programs. The community services program, for example, may be suitable for countercyclical use because it supports a large number of small-scale short-duration activities that could reasonably be pursued with temporary countercyclical funding.

The social services grant program is a promising candidate for countercyclical applications. It provides closed-ended matching grants to states for a broad range of services delivered to the recipients of public assistance transfer payments. The federal contribution could be varied countercyclically and would substitute for local funds, leading to fiscal stabilization.

The law enforcement assistance program consists partly of a broad block grant to states, which could readily be varied for countercyclical purposes. Some of the activities supported by the program are relatively short-term in nature (such as, procurement of equipment and demonstration programs) and would not suffer from funding on a cyclical basis.

Public service employment programs have the advantages of creating employment quickly and at relatively low cost per job and of affording at least some degree of targeting control to the federal government. The employment training assistance component of CETA/PSE, which authorizes public service employment along with other employment and manpower activities, provides a potential permanent base for an automatic countercyclical program. 6/

THE COUNTERCYCLICAL USE OF GRANTS FOR TRANSFER PAYMENT PROGRAMS

Four large state/local transfer payment programs are partly financed with federal grants—public assistance (mainly Aid to Families with Dependent Children—AFDC) medicaid, housing assistance, and child nutrition. Total federal outlays for these programs are estimated at $24.7 billion in fiscal year 1979.

Public Assistance and Medicaid

The AFDC and medicaid programs have similar characteristics. Both provide open-ended matching grants to cover a specified share of the cost of assistance to certain low-income families (cash grants under AFDC and payments for medical services under Medicaid).

The federal grant to each state under these programs is the mathematical product of three variables: the number of eligible beneficiaries who participate in the program, the average benefit payment per participant, and the federal share of the program's cost.

Triggering and Timing Aid Over the Cycle. In principle, a countercyclical fiscal effect could be obtained by varying any one or more of the three variables that determine each state's grant for transfer programs. Realistically, the possibilities are more limited. Countercyclical variations in per capita benefit levels, or in eligibility, would make the standard of living of low-income families the vehicle of fiscal stabilization. However, it might be considered acceptable and appropriate for economic stabilization to extend eligibility for some or all benefits to those most severely affected by the cycle—the unemployed who have exhausted or are ineligible for other forms of assistance. Twenty-seven states include an unemployed father component in their AFDC plans. Mandating extension of this relatively small program to all states could have a countercyclical impact due to the inclusion of intact families of new entrants who might have cyclically-caused difficulties finding employment; intact families of unemployed workers not covered by unemployment insurance; and intact families of unemployment insurance exhaustees. Implementation of such programs in all states could be desirable on equity grounds apart from any stabilization benefits, but no fiscal stabilization benefits are likely unless the federal government increases its contribution to compensate for the added costs of this mandate. In addition, since the program only accounts for approximately 6 percent of AFDC payments in those states where it exists, the impact on spendable income and thus on economic stabilization is not likely to be large at present program levels.

Varying the federal share of transfer program costs is the most practicable use of the programs for state and local
budgetary stabilization. Although the federal share varies from state to state, each state's required matching rate is easily calculated from a formula based on state per capita income. 7/ A simple countercyclical mechanism could take the form of a number or fraction, linked to a cyclical indicator such as unemployment, that modifies the whole set of matching rates.

A more limited version of this approach would be to change the federal share only with respect to the portion of welfare and medicaid cost that is attributable to the cycle. The resulting fiscal relief to states and localities would be significant because the AFDC and medicaid population are highly sensitive to the business cycle. 8/

Targeting Aid. The effect of temporary increases in the federal share would probably be mainly to free state and local funds for other uses rather than to stimulate increases in total welfare and medicaid spending. In this respect, the countercyclical use of the AFDC and medicaid grants would be more effective for fiscal than economic stabilization. To the extent that some increase in transfer payments did occur, however, the benefits would be targeted at the low-income population. This is a result that is difficult to achieve with other types of countercyclical aid.

Housing Assistance

Federal outlays for housing assistance take a variety of forms: payments for the operating costs of public housing, interest rate subsidies under homeownership and rental housing programs, and, more recently, direct subsidies to participants in the Section 8 Housing Assistance Payments program (as authorized by the Housing and Community Development Act of 1974). To alter housing assistance payments countercyclically, it would be necessary to vary the number of new commitments (that is, the

7/ For many states there is also a second optional formula that does not use income.

number of units or households subsidized) under the currently active programs.

The advantage of using housing assistance as the vehicle for countercyclical aid is that the program, if appropriately designed, could apply stimulus or restraint to the cyclically sensitive housing construction industry. Such a policy has its drawbacks, however; with conventional production subsidy methods, long-term obligations would be created that would generate outlays when stimulus was no longer required. Also, housing production programs typically have long start-up times. Therefore, it would probably be necessary to develop new forms of stand-by housing programs to obtain the desired effects.

Child Nutrition Programs

The final transfer payment category, child nutrition programs, has little countercyclical potential. In principle, a countercyclical effect could be obtained by varying the subsidy rate. There is no apparent rationale for preferring this method to more general methods of freeing local resources for other uses.

Supplementary Security Income

Supplemental Security Income (SSI) is not classified as a grant, but it resembles grant programs in some important respects. It is reasonable to consider it as an alternative to the other programs discussed in this section.

SSI is a federally administered system of transfer payments to the aged, blind, and disabled, with a fiscal year 1978 expenditure level of $6 billion. A certain base level of benefits in each state is 100 percent federally financed, but many states contribute supplementary funds to the program. The structure of this program creates the opportunity for the federal government to provide countercyclical fiscal relief to states by assuming some of the supplemental costs or to impose fiscal restraint by shifting some of the costs of the base program to the states. In view of the trend toward federalization of welfare programs, however, it is not likely that the latter would be proposed or enacted into law.
SUMMARY AND CONCLUSIONS

There are only a few programs that can be relied upon to have the desired countercyclical economic impacts, that can be targeted flexibly, and that can be operated countercyclically without undue sacrifice of the basic program goals. The list of "best candidates" varies depending on the stress placed on the economic stabilization versus the fiscal stabilization goals. For economic stabilization, grants should be earmarked for particular programs and projects. Such grants can be more readily targeted than broader forms of assistance at specific economic sectors and population groups and are less likely to substitute for state and local revenue or to add to surplus accumulations. For fiscal stabilization, unrestricted aid, broad block grants, and reduced state and local matching requirements are most appropriate. More specific conclusions concerning the major categories of grants and individual grant programs follow.

Unrestricted grants, such as those provided under the GRS and ARFA programs, are the most readily adaptable for countercyclical use. They can be targeted geographically with great flexibility, and their use would entail minimal disruption of state and local programs. In principle, they can be used countercyclically during periods of both insufficient and excessive aggregate demand. They are better suited for fiscal stabilization. The high rate of fiscal stabilization expected in response to unrestricted grants and lack of control over the allocation of funds among sectors and population groups weakens their effectiveness as economic stabilizers. Also, the possibility that substantial fractions of unrestricted aid will be added to state and local accumulated surpluses raises doubts about the effectiveness of such aid during recovery phases.

Capital construction grants can be used countercyclically in several ways:

- The economic stabilization goal can be pursued by varying the amount of grant-aided activity (either the number or the scale of projects) or by accelerating or delaying projects.

- The fiscal stabilization goal can be pursued by varying the state and local matching rate in programs with matching requirements.
Some of the delay in the impact of construction grant programs on economic activity would be eliminated by establishing automatic mechanisms for triggering construction outlays.

Of the major categorical construction programs, highway grants are the most feasible to use as automatic stabilizers.

The current LPW program could serve as a partial prototype for an automatically operating system of construction grants. The diversity, relatively small scale, and relatively short duration of projects supported by LPW makes that program more suitable for countercyclical use than the programs of categorical aid.

The CDBG program is in a different class from other federal grants that support capital construction. Because of the flexibility available to the grantees in using federal aid, the program resembles GRS in many respects and has some of the same advantages and disadvantages as a countercyclical tool.

Social services grants are not practical to use as fiscal stabilization instruments. The principal reasons are that the programs are fragmented—they consist of many components with different formulas and allocation procedures—and that cyclical fluctuations in program funding could result in unacceptable disruptions of programs serving particular, usually disadvantaged, target groups. The social services programs that are most promising as vehicles for countercyclical aid are the community services grants and both the manpower development and public service employment (PSE) components of CETA.

Social services grants have the advantages that they can generate relatively large increments in employment per dollar of aid, can be targeted, are continuously variable in size, and involve relatively short time lags. Their disadvantages include the likelihood of high rates of fiscal substitution and the lack of direct impact on the private sector of the economy. The PSE program, which is the largest of the current antirecessionary programs, could readily be converted into an automatic countercyclical stabilizer. Although PSE is a direct instrument for stimulating employment, it is especially subject to the problems of social services grants.
Federal grants in support of transfer payment programs have limited but potentially important countercyclical uses. It would be possible to provide countercyclical fiscal relief (or to apply restraint) by varying the required matching rates under these programs. This would be useful mainly for fiscal rather than economic stabilization. Federal housing assistance grants could also be varied countercyclically by adjusting the number of households assisted in response to economic conditions. This would have the advantage of directing countercyclical aid to the volatile housing sector, but under the current housing programs such action would create undesirable long-term spending commitments.