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Working Paper

Fiscal Limitations: An Assessment of the U.S. Experience

IUI Working Paper, No. 90

Provided in Cooperation with:
Research Institute of Industrial Economics (IFN), Stockholm

Suggested Citation: Oates, Wallace E. (1983) : Fiscal Limitations: An Assessment of the U.S. Experience, IUI Working Paper, No. 90, The Research Institute of Industrial Economics (IUI), Stockholm

This Version is available at:
https://hdl.handle.net/10419/95093

FISCAL LIMITATIONS:

An Assessment of the U.S. Experience*

by Wallace E. Oates

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* I am very grateful to Steven D. Gold for his assistance. I have relied heavily on his study (1980) for the Urban Institute and on other materials and comments that he has provided. I am also indebted to Anne Stevens for her excellent help in pulling together the diverse material on fiscal limitations.

INTRODUCTION

During the past decade, the United States has experienced widespread protests against the growth of government and taxes and their "intrusion" into the private sector; in some instances these protests have taken the form of "tax revolts" resulting in new legislation limiting the size or expansion of the public budget. The impression emerges of a groundswell of public opinion directed against an "oppressive" public sector. The new legislation and constitutional amendments curtailing the activities of state and local governments appear to have been but a prelude to a sweeping national victory for a new administration committed to a program of dramatic cuts in the civilian sector of the federal government. As a recent RAND study concludes, "A period of fiscal containment is upon us" (Pascal et al., 1979, p. v).

While there is evidence to support this impression, one finds an abundance of ambiguities upon cutting through the political rhetoric to a more careful assessment of the U.S. experience. A number of meticulous studies of voter opinion do not reveal a pervasive dissatisfaction with the size and scope of the public sector. Of the many proposals to place limits on the fiscal activities of state and local governments, at least as many have failed to receive the approval of a majority of voters as have passed. Finally, one can make a persuasive case that the primary motivation for several major referenda, notably Proposition 13 in California, was not the size of the public sector, but rather an imbalance in the existing revenue structure. (See, for example, Levy, 1979; and Shapiro, Puryear, and Ross, 1979). In short, a more

careful assessment of recent U.S. fiscal experience does not yield a neat, well-defined set of conclusions; it turns up a number of troublesome, if potentially instructive, puzzles and paradoxes.

The purpose of this paper is to describe and to try to interpret this experience. I shall turn first to the provocative, but elusive, issue of what it is that the voters in the United States seem to want. Three independent studies of preferences and voting patterns in California, Michigan, and Massachusetts provide some intriguing (and surprisingly consistent) insights into this matter. A second and closely related issue is what the voters have in fact gotten. The striking finding here is the marked and somewhat bewildering variety of fiscal-limitation measures enacted in different states. Some states have introduced limitations on their local governments, others on both the state and local "fisc"; some states have turned to limits on public expenditures, while others have instituted ceilings on particular sources of revenues; some states have chosen to limit tax rates, others have tied the growth in revenues or spending to inflation and population growth, and yet others have limited the expansion of the public sector to growth in personal income in the state; some states have instituted measures that are currently binding on fiscal choices, while in many states the limits are not, at present at least, binding constraints on budgetary decisions. I shall try in Section 2 of the paper simply to summarize the range of fiscal limitations that the various states have introduced in recent years.

This variety of approaches to "fiscal containment" offers an intriguing opportunity for a comparative analysis of the actual effects of the different measures on state and local fiscal activity. Although it is a little early to ascertain the full range of these effects and to determine their likely magnitude over the longer term, there are already some lessons to be learned from this experience. Section 3, the primary focus of this paper, is an examination of the impact of these various forms of fiscal limitation on the structure and functioning of the state-local sector. One basic conclusion emerging from this analysis is that these measures typically have a wide range of effects, many of which are unintended and may run counter to the desires of those who instituted them. Proposition 13 in California, for example, had as its fundamental objective the limitation of property taxation. While it has achieved this goal, it has also had the profound effect of increased centralization of the state-local fisc, consisting both of a shifting of functions from local to the state government and a heavier reliance on state revenues. This "centralization effect" was not, I suspect, either widely understood or necessarily desired by most California voters. The lesson, in brief, is that the design of fiscal-limitation measures requires careful consideration of the broader range of potential effects on the structure and working of the government sector.

I will also suggest from a longer-term perspective that measures designed to prevent growth in the public sector's share in the economy are likely to become binding constraints on public-sector activity even if they do not effectively limit public budgetary decisions at the outset. There is evi-

dence to suggest that the desired rate of growth in the public budget exceeds that of private income. Limits that restrict the rate of budgetary growth to that of private income are thus likely to become increasingly troublesome obstacles to the attainment of the desired balance between public and private economic activity. As such, they will generate political pressures to find ways (perhaps quite inefficient ways) to circumvent these constraints and to direct more resources into the public sector.

1 WHAT DO THE VOTERS WANT?

One interpretation of the recent U.S. experience is simply that the populace is expressing its opposition to the historically growing share of the public sector in the economy. As Table 1 indicates, from 1929 to 1975, public expenditure as a fraction of gross national product grew steadily; over this period, the total public budget grew from about one-tenth to one-third of the U.S. GNP.[1] It is this growth in spending and the associated tax burden that, under this interpretation, constitute the basic source of the fiscal-limitation movement. People feel that government has become "too big".

Even were this relatively simplistic view correct, it leaves unanswered some fundamental questions. Is voter dissatisfaction the result of a perceived excessively high level of public services or, alternatively, of a sense of waste and the resulting conviction that the public budget can be cut significantly without a noticeable reduction in service levels? Three detailed survey studies of voter preferences in the states of California, Michigan,

Table 1 Government Expenditure as a Percentage of U.S. Gross National Product

Calendar year	Federal	State	Local	Total public sector
1929	2.5	2.0	5.3	9.9
1939	9.8	4.1	5.3	19.2
1949	16.0	3.4	3.5	23.0
1954	19.1	3.5	4.0	26.5
1959	18.7	3.8	4.4	26.9
1964	18.6	4.3	4.8	27.7
1969	20.1	5.3	5.1	30.5
1974	21.2	6.0	5.2	32.4
1975	23.3	6.3	5.3	34.9
1979	21.5	5.9	4.7	32.0
1980 (est.)	22.1	5.8	4.5	32.4

Note: Government expenditure from own funds as measured in the National Income and Product Accounts. The federal share includes Social Security (OASDHI) and all federal aid to state and local governments.

Source: Advisory Commission on Intergovernmental Relations (Oct., 1980), pp. 4-5.

and Massachusetts have turned up similar findings on this matter. All three studies find that voters seem basically satisfied with existing levels of public outputs with one important exception: a desire for reduced spending on public welfare.

In Michigan, Courant, Gramlich, and Rubinfeld (1980) conducted a survey of voters following passage of the Headlee Amendment in November 1979, a measure that limits the growth of both state and local revenues. As indicated in Table 2, for every expenditure category but public welfare, more survey respondents indicated a desire for higher

Table 2 **Preferences for Spending by Program Area**
All 2001 Respondents

Program area	Less	Same	More 1	More 2	No response	Mean strong preferences
Police/ Fire	63	1163	97	615	58	.282
Welfare spending	1262	499	44	127	69	-.587
School spending	296	882	108	635	80	.176
College spending	196	977	126	545	157	.189
Road maintenance	120	824	295	698	64	.298
Parks and recreation	209	1117	145	485	45	.141

Notes:

1. The column More 1 indicates the number of respondents who favored increased spending, but answered no to the question "If your taxes need to be raised to pay for the additional expenditures for (Program), would you still favor an increase in spending in this area?" The column headed More 2 gives the number of people who responded yes to this question.

2. "Mean strong preferences" is derived by assigning a value of minus one to those who desired less spending, zero to those who wanted the same or "More 1", and one to those who chose "More 2".

Source: Courant, Gramlich, and Rubinfeld (1980, p.3).

levels of spending (to be supported by more taxes) than those wishing a reduction. Although interpretation of this kind of survey data is fraught with difficulties, the impression that emerges from the Michigan study as a whole is that the support of fiscal-limitation measures there largely reflects (along with some dissatisfaction over welfare spending) the perception that tax cuts can be achieved without serious reductions in public services.

Citrin (1979) offers some similar findings from polls in California at the time of Proposition 13 (June 1978). The electorate in California tended to favor more public spending on police and fire protection, mental health programs, and public schools; the desire for less spending centered on expenditures for welfare, public housing, and, especially, city and county administration. The last item on this list suggests that, as in Michigan, the voters in California were concerned with waste and inefficiency in government. Citrin found that "On the eve of the vote on Proposition 13, fully 38 percent of the California electorate believed that state and local governments could provide the same level of services as previously with a 40 percent reduction in their budget" (p. 115). The inescapable conclusion is that a large fraction of the electorate perceives, not that levels of public services are excessive, but rather that revenues flowing into the public sector are substantially greater than necessary to provide existing levels of services.

A study by Ladd and Wilson (1983) in Massachusetts reiterates these results. Following the December 1980 enactment of Proposition 2 1/2 to restrict local property taxation and introduce certain other budgetary reforms, a survey of voters revealed that (as in Michigan and California) residents were generally content with existing levels of services with the exception again of a desire for reduced expenditure for public welfare. Although there existed some sense that Proposition 2 1/2 could entail service cuts, the prevailing view seemed to be that such cuts would be modest and would not affect "basic services". Moreover, survey respondents indicated their perception that Massachusetts government is both inefficient and

corrupt, and that budgetary cutbacks would be largely absorbed with little impact on levels of services.

The three studies thus reach quite similar findings concerning voters' views on the general adequacy of service levels and the belief that (at least "basic") service levels can be maintained in the face of budget cuts. However, these measures also involved elements of tax reform and here there is somewhat more diversity in response to interstate differences in tax structure. In California, for example, one can make a persuasive case for the view that the wish for a reduced reliance on property taxation was, far and away, the dominant force behind Proposition 13. The explicit purpose of Proposition 13 was to reduce property taxation and this it accomplished effectively by limiting property tax rates to one percent of assessed valuation and by placing stringent limits on the growth of assessed valuation (see Oakland, 1979).

The need for such a measure relates peculiarly to the California land market and fiscal institutions. In particular, dramatic increases in housing prices in California, coupled with an efficient assessment mechanism, generated enormous increases in the residential tax base. This in itself, however, need not be the source of increased tax payments by owners of residential property; in principle, the nominal tax rate could simply decline with the growing tax base such that tax bills would remain unchanged. But this didn't happen in California for two reasons. First, the market value of commercial-industrial property did not grow as rapidly as that of residential property so that the share of the local property tax

liability falling on home owners increased. And second, because of the specific form of the state-aid formula for education grants, increases in the local tax base generated large reductions in state grants-in-aid to local school districts. Consequently, increased local revenues were needed to offset the loss in state aid. From this perspective, Proposition 13 can be interpreted as a movement to cut off the continuing escalation of the reliance on taxation of residential property and to restore the earlier balance between property taxation and other sources of revenue in the state (Levy, 1979; Oates, 1979; Shapiro, Puryear, and Ross, 1979). Subsequent events provide some additional support for this view. In June 1980, over 60 percent of California voters rejected Proposition 9, a proposal that would have cut state income tax rates in half and indexed the lower rates to changes in the price level.

The interpretation of the fiscal-limitation "movement" thus appears to involve considerably more than simply a sense that the government sector is too large. While there seems to be a pervasive dissatisfaction with existing welfare programs, the levels of most other public services are not perceived as excessive. The primary concern appears to be one of waste in the public sector. At the same time, the focus in several states has been a restructuring of the state and local revenue systems to reduce the role of property taxes. As the next section of this paper indicates, the form that this movement has taken varies in quite striking ways across the different states. Some have limited overall spending on revenue growth and others have fixed tax rates; some have placed limits solely on their local governments, while others have chosen to restrict budgets at both

state and local levels. The receptiveness of the electorates of the various states to these measures has likewise exhibited wide variation. The heavy support for Proposition 13 in California generated attention and interest throughout the world. Yet in 1980, there were similar proposals on the ballots of five other states (Arizona, Nevada, Oregon, South Dakota, and Utah); like Proposition 13, these measures would have limited the rate of property taxation to one percent of market value and would have rolled back assessment levels. All five proposals were defeated. Like most other "movements", the fiscal-limitation cause appears to encompass a somewhat disparate set of objectives with the relative emphasis and extent of support ranging markedly from the particular circumstances and voters in one state to the next.[2]

2 WHAT DID THE VOTERS GET?

Fiscal limitations in the United States are not an invention of the 1970's. In fact, tax revolts have a rich history in the United States dating back to the Boston Tea Party in 1773.[3] However, the past decade distinguishes itself both by the number and character of the new measures to restrict the public budget.[4] Earlier limitations were primarily state-level restrictions on the fiscal activities of their local governments (typically limits on property taxation). In contrast, in 1976, New Jersey introduced the first limitation on expenditures by its state government. As Table 3 indicates, New Jersey was immediately followed by a number of other states; fiscal-limitation measures presently exist at the state level in eighteen states. These measures take the form of restric-

tions on the annual rate of growth of either the public revenues or expenditures; they limit this growth to the rate of increase in personal income (the most common ceiling), the sum of the rates of population growth and inflation, or some fixed percentage (e.g., 7 percent in Colorado). In addition, since 1978, nine states have chosen to index their state income taxes against changes in the price level.

It is interesting to compare the relative restrictiveness and long-term implications of these alternative ceilings on budgetary growth. By definition, the rate of growth of nominal income can be approximated as the sum of three components:

$$G_y = G_r + G_n + G_p \ , \qquad (1)$$

where

G_y = Rate of growth of nominal income

G_r = Rate of growth of real income per capita

G_n = Rate of growth of population

G_p = Rate of price inflation.

From (1), it is clear that a "cap" on the rate of budgetary growth equal to the rate of growth in nominal income is less restrictive than the California and Nevada measures that limit fiscal expansion to the sum of population growth and inflation (the latter two terms in (1)). The income limit, in principle, restricts growth in the public budget to that in the economy as a whole so that the share in the economy of the public sector (or the state sector in this case) cannot expand.

Table 3 Recent State Tax Reductions, Budgetary Limitations, and Indexation of Individual Income Taxes

State and region	Ad hoc tax reductions: Personal income tax	Ad hoc tax reductions: General sales tax	Indexation of individual income tax	Tax and spending lids
Total	36	22	9	18
New England				
Connecticut		X ('77)		
Maine	X ('79)	X ('79)		
Massachusetts	X ('80)			
New Hampshire				
Rhode Island				S ('77)
Vermont	X ('78)	X ('78)		
Mideast				
Delaware				C ('80)
District of Columbia	X ('78,'79)			
Maryland	X ('77,'80)	X ('80)		
New Jersey		X ('78)		S ('76)
New York	X ('78,'79)	X ('77,'79,'80)		
Pennsylvania				
Great Lakes				
Illinois				
Indiana				
Michigan				C ('78)
Ohio	X ('79)			
Wisconsin	X ('79,'80)	X ('79,'80)	1979	
Plains				
Iowa	X ('80)		1979	
Kansas				
Minnesota	X ('79,'80)		1979	
Missouri				C ('80)
Nebraska	X ('79)	X ('79)		
North Dakota	X ('79)			
South Dakota				
Southeast				
Alabama				
Arkansas		X ('80)		
Florida				
Georgia				
Kentucky		X ('80)		
Louisiana	X ('80)	X ('80)		S ('79)

Table 3, cont.

State and region	Ad hoc tax reductions: Personal income tax	Ad hoc tax reductions: General sales tax	Indexation of individual income tax	Tax and spending lids
Southeast (cont.)				
Mississippi	X ('80)			
North Carolina	X ('78,'80)			
South Carolina			1980	S ('80)
Tennessee				C ('78)
Virginia				
West Virginia		X ('80)		
Southwest				
Arizona	X ('79,'80)		1978	C ('78)
New Mexico	X ('77,'80)			
Oklahoma				
Texas		X ('79)		C ('78)
Rocky Mountain				
Colorado	X ('78,'79,'80)	X ('78,'80)	1978	S ('77)
Idaho				S ('80)
Montana	X ('78,'80)		1980	
Utah		X ('80)		S ('79)
Wyoming				
Far West				
California	X ('79)		1976	C ('79)
Nevada		X ('80)		S ('79)
Oregon	X ('80)		1979	S ('80)
Washington		X ('79,'80)		S ('79)
Alaska	X ('79,'80)			
Hawaii	X ('77,'78)			C ('76)

S = Statutory

C = Constitutional

Note: X indicates a major tax decrease, i.e., a decrease in excess of 10 percent of the economic growth of the tax.

Source: ACIR staff.

The California-Nevada cap, in contrast, places a potential ceiling on real expenditure (revenues) per capita equal to the level existing at the time of adoption of the measure; with any positive growth in real income per capita, the share of the state sector in the state economy will decline.[5]

I stress that these are "potential" ceilings. There are, in fact, various loopholes involving the ways in which expenditures or revenues are defined. Spending financed by federal aid, for example, is typically excluded from the cap. Moreover, all of these limitations can be suspended in a "fiscal emergency" with the consent of some specified majority of the state legislature.

As noted earlier, state fiscal limitations on local governments have a substantial history in the United States; they are also much more widespread than caps on the state governments. Table 4 summarizes these limitations. Since property taxation is historically the primary source of local revenues, most of the restrictions are on either property tax rates or levies. As is evident in Table 4, the majority of states have some sort of limit on property taxation in their counties, municipalities, and school districts. These frequently take the form of ceilings on tax rates. Rate limitations, however, may not mean much where local assessors are in a position to vary the effective sales-assessment ratio; by assessing properties at a larger fraction of their market value, assessors can increase the revenues produced by a given nominal tax rate. Some states have tried to close off this means of circumventing rate limits (as well as revenue growth from increased market value) through the adoption of "full disclosure" procedures; such procedures provide taxpayers with

an analysis of revenue changes that effectively allocates the increment in revenues between changes in the tax base and adjustments in the tax rate.[6]

While Table 4 indicates the pervasive character of fiscal limitations on local governments, it masks their great variety. Some states, for example, have enacted a flat percentage ceiling on the annual increase in each local government's property tax revenues (e.g., 5 percent in New Mexico); others have placed limits on property-tax rates (one of the most stringent being California's ceiling of a one-percent tax rate on property combined with a ceiling on assessment increases for unsold property of 2 percent per year). Finally, states like Montana rely on full-disclosure laws that require newspaper advertising and special public hearings when property-tax levies are to be increased in excess of some specified increment. These cases only begin to suggest the wide variation in U.S. fiscal-limitation measures. Within these general classifications, the particular form and the degree of restrictiveness of these measures differ markedly from state to state.

3 THE EFFECTS OF FISCAL-LIMITATION MEASURES[7]

The professed objectives of the various provisions for fiscal containment have typically been the limitation of the size or growth of the public budget and/or a reduced reliance on property taxation. The initial issue of interest is the extent to which these measures have had their "direct" or "intended" effects on budgetary size or growth and on levels of property taxes. However, most of the limiting statutes or constitutional amendments

Table 4 State Imposed Restrictions on Local Government Tax and Expenditure Powers

January 1, 1981

States	Overall[a] property tax rate limit	Specific[a] property tax rate limit	Property tax levy limit	Overall revenue limit	Overall expenditure limit	Limit on assessment increases	Full disclosure	Date of most recent action (Noted with *)
Total	12	31	20	3	6	4	8	
Alabama	CMS*	CMS						1978
Alaska		M	M*					Amended 1975
Arizona	CMS*		CM*	CMS*		CMS*		1980
Arkansas		CMS	CMS*					1980
California	CMS				CMS*	CMS		1979
Colorado		CS	CM*					Passed 1956/Amend.1976
Connecticut		[b]						--
Delaware			CS*					1972
District of Columbia								
Florida		CMS	CMS*				CMS	1980
Georgia		CMS*						1874, 1945
Hawaii							C*	1976
Idaho	CMS*	CMS						1978
Illinois		CMS*						Continual
Indiana		CM	CMS*					1979
Iowa		CMS			S	CMS*		1977
Kansas		CM	CM*		S			1973
Kentucky	CMS						CMS*	1979
Louisiana		CMS	CMS*					1978
Maine								Repealed 1978
Maryland							CM*	1977
Massachusetts	CMS*		CMS					1980

Michigan	CMS		CMS*				1978
Minnesota		CMS	CM*				1973/Amend. 1979
Mississippi		CMS*					1958
Missouri		CMS	CMS*				1980
Montana		CMS				CMS*	1979
Nebraska		CMS		CMS*			1979
Nevada	CMS				CM*		1979
New Hampshire							--
New Jersey			C*		MS*		1976
New Mexico		CMS	CMS*				1979
New York		CMS*					1938, 1949/Amend. 1953
North Carolina		CM*					1973/Amend. 1975
North Dakota		CMS*					Amended 1975
Ohio	CMS		CMS*				1925
Oklahoma	CMS*						1955/Amend. 1965
Oregon			CMS			CMS*	1979
Pennsylvania		CMS*					1949, 1955/Amend. 1971
Rhode Island							Repealed 1973
South Carolina		S	CMS*				1976
South Dakota		CMS*					Amended 1977, 1978
Tennessee						CMS*	1979
Texas		CMS				CMS*	1978
Utah		CMS		CMS*			1979
Vermont							--
Virginia						CM*	1975
Washington	CMS	CMS	CMS*				1971, 1977
West Virginia	CMS*	CMS*					1939, 1949
Wisconsin		CMS	CM*		S		1973, 1975
Wyoming		CMS*					Amended 1979

C = County M = Municipal S = School district

[a] Overall limits refer to limits on the aggregate tax rate of all local government. Specific rate limits refer to limits on individual types of local governments or limits on narrowly defined services (excluding debt). States such as Alaska, where there is only one type of local government, have been included under specific limits.

[b] Single county.

Source: ACIR staff/C. Richardson.

have other potentially important effects on the functioning of the state-local sector, often "indirect" or "unintended" effects that did not figure in the design of the measures. These include an impact on the public work force and wages, on the distribution of income, on the composition of the public budget, on the relative roles of the different levels of government, and on the allocation of certain activities between the private and public sectors. In short, the attempts to limit budgets and property taxation have introduced a number of potentially interesting and important side effects on the structure and operation of the public sector. I shall consider each of these effects in turn.

(a) Limitation of budgetary size or growth: The most publicized objective of the "tax revolt" in the United States has been to contain the size of the public budget. As we have seen, however, it is not entirely clear what the "representative citizen" has in mind. There does not appear to be a general consensus that levels of public services are excessive (with the exception, perhaps, of certain purely redistributive programs). The sense seems rather that sufficient waste or fat exists in the public budget such that substantial cuts in spending can be achieved with little effect on levels of services. (Whether or not this is true is, of course, another matter.) Whatever the perceptions of voters, however, we can examine the actual or potential effects of the measures that have been introduced.

There are two general approaches to the problem. First we can explore the historical effects of fiscal limitations to try to discern how much they have constrained the growth in public budgets.

Second we can seek some longer-term predictions of their likely effects on public expenditures and revenues. I shall employ both approaches. Although it would be desirable to rely primarily on the analysis of actual experience with these measures, many of the fiscal-limitation programs (particularly those restricting state budgets) are so recent in origin that it is hard to determine their effects. In fact, most of the containment measures at the state level do not even appear, so far, to be binding constraints on the states. Consequently, I shall supplement the treatment of existing measures with some admittedly rather conjectural analysis of likely effects over the longer term.

As Table 3 indicated earlier, eighteen states have now adopted limitations on state-level expenditures or revenues. Since most of these provisions are only a few years old, their long-run impact has not yet manifested itself. But these measures have generated some interesting shorter-run responses. In particular, there often exist mechanisms for circumventing the limits. In New Jersey, for example, the limitation on the growth of expenditures financed from the general fund explicitly excludes revenues from the new state personal income tax (the revenues from which are not part of the general fund). In Colorado, where the 7 percent limit on the growth of general-fund expenditures is potentially highly restrictive at current rates of inflation, certain sources of "earmarked" funds are not subject to the limit. The evidence suggests some scope for budgetary maneuvers to avoid fiscal containment. The short-run effects appear, on the whole, not to have been very restrictive on the states. However, as Gold points out, "The effects of state limitations are extremely variable. ... The limits are too new to

be able to say much about their actual effects. ... In most cases, spending or revenue was not very close to the limit in its first year of operation, but it appeared very possible that the limit could be binding within a few years if past trends continued" (p. 17).

It would be useful to supplement this impressionistic evidence with more systematic statistical analysis. At this point the best that can be done is a crude test involving a comparison of the rates of growth in state-government tax revenues in those states with fiscal-limitation measures with those without such constraints.

The test is a simple comparison of means treating the eighteen states from Table 3 with limitation measures as one sample and the remaining states as the other.[8] The results indicated that, on average, states with limitation provisions experienced a growth in state tax revenues of 7.8 percent from 1979 to 1980, while those without such provisions increased tax revenues, on average, by 8.1 percent. Although the mean for the limitation sample is less than that for the non-limitation sample, the difference is quite small -- far too small to reject the null hypothesis of equal means at any reasonable level of confidence. These findings are thus consistent with the view that, as of 1980, the constraints on state-government budgets have not, on average, been very effective in holding back the growth in public revenues. I emphasize, however, the crude character of this test and the need both for the proper data covering a longer time span and for more refined multiple-regression analysis to control for the effects of the other determinants of budgetary growth.

There has been a considerably longer experience with fiscal limitations on local governments. As noted earlier, fiscal restrictions on local governments have typically taken the form of limits on property taxation -- either of rates or levels of revenues. Only two states, New Jersey and Arizona, have adopted spending limits on their local governments. Moreover, both the form and degree of restrictions on property taxation throughout the states vary enormously; they range from outright freezes on tax rates in Indiana (1973-1977) and a tax rate ceiling with controlled growth of assessments in California, to far less restrictive measures that permit large increases in property-tax revenues (e.g., Wisconsin) or simply require "full disclosure" procedures (e.g., Montana) for increases in property-tax levies.

It is not an easy matter to distill this varied experience into a set of unambiguous conclusions on the effects of fiscal limitations. But some attempts have been made. One strand of research consists of some multiple-regression studies that explore the effect of fiscal limitations on local-government expenditure. Although the findings of these studies are not wholly consistent, they seem to suggest only a very limited effect, if any, in restricting spending. An ACIR effort (1977), consisting of a cross-sectional study of limits on general-purpose governments in 1974, found the presence of property-tax limitations to be associated with a reduction of 6 - 8 percent in "local own-source per capita expenditures". This does not, however, imply a reduction in spending from all sources. In fact, the ACIR found no significant association between state-local spending per capita and the presence or absence of fiscal limitations on local governments. Other cross-sec-

tional regression studies, one of school districts by Wilken and Callahan (1978) and one of forty-one large U.S. cities by Inman (1979) found no significant effects on spending from local property-tax limits. We must, however, be cautious about the reliability of these results (see Gold, 1980, pp. 26-28). Not only are the data subject to some serious deficiencies, but the studies typically use simply a dummy variable to indicate whether or not some sort of limit exists; they do not try to measure the potential restrictiveness of the variety of limitation measures in use.

Looking at individual cases can be instructive. The State of Indiana, for example, adopted in 1973 a very stringent restriction on local property taxation: a freeze on the tax rate in cities and counties with no revaluation of existing property. In consequence, city and county property-tax revenues rose only slightly from 1973 to 1977. Yet expenditures grew at a rate roughly in line with the country as a whole. Indiana local governments were apparently able to generate sufficient additional revenues from increased state aid, a heavier reliance on charges and fees, and the introduction in some counties of local income taxes, to offset the loss of property-tax revenues.

The experience among local governments is quite diverse, and I am hesitant to suggest any sweeping conclusions. But the evidence does seem to indicate that restrictions on local property taxation alone are not a reliable means to hold down local-government expenditure. This has been true in part because of easy access to "over-ride" mechanisms or various exemptions that provide ways to circumvent existing limitation measures. But it is also true that a restriction on a single revenue source

at one level of government in a federal system is unlikely to present a serious obstacle to continued budgetary growth. Other revenue sources, intergovernmental aid, or shifts of functions among levels of government are all easily accessible means to offset the impact of such restrictions on public-sector growth. Limitations on property taxation may reduce reliance on property taxation; they need not, however, constrain spending.

This leaves us with the more difficult and potentially more important issue of the longer-term effects of limitation measures on state levels of expenditure. The U.S. experience with these limitations is, as we have noted, too brief to reach any real conclusions on the basis of historical experience. However, we may be able to make some educated judgments about the longer run.

Let us consider the most widespread of the state-limitation measures: a ceiling on the growth in public spending equal to the growth in personal income. Are such limits likely to become a serious, binding constraint on the government sector? Gold suggests one approach to answering this question: a comparison of the projected rate of growth of tax revenues (on the assumption of unchanged tax rates) with growth in income. In short, he examines the income elasticity of the tax system in each state.[9] If the elasticity is less than unity, then the "automatic" rate of growth in tax revenues will be less than the rate of growth of income. In this case, taxes as a percent of income will tend to decline, implying that the limitation on expenditures will not constrain budgetary growth. Since about one-third of the states have tax structures with income elasticities less than one (and several of these have enacted fiscal-limi-

tation measures), Gold suggests that in a number of states the ceiling on expenditure growth may never become an effective constraint. At the same time, the revenue systems of several other states exhibit income elasticities well in excess of unity; in these states, projected revenues will tend to grow at a rate in excess of that of state revenue. In these instances, the analysis implies that the limitation provision will become a binding constraint and will require an explicit budgetary response such as a tax rebate. Gold's examination of the measured elasticities suggests that, for roughly half of the states that enacted budgetary limitations on their state governments, the limits are not likely to become a constraint on the growth in spending.

The Gold approach is useful in that it indicates the circumstances under which a government will have to undertake explicit fiscal measures to comply with the limit on budgetary growth. However, it really does not tell us whether or not the limit is a binding constraint, for (as Gold notes) revenue growth is the sum of automatic increases in tax receipts from the growth in nominal income and changes in receipts from discretionary adjustments in tax rates. The real question is whether or not the existing limit on growth keeps <u>automatic plus discretionary</u> revenues below what they otherwise would have been. And an examination of tax elasticities obviously cannot tell us this. In fact, tax elasticities may tell us very little about future revenue growth; in an earlier study of the decade of the 1960's, my own results (Oates, 1975) suggest that the elasticity of the revenue system had only a very small role in explaining differentials in budgetary growth both at the state and city level.[10]

Alternatively, we can try to project the rate of increase of the desired level of public expenditure compared to that of income. While such projections are obviously a tricky matter, they may provide some insights. Suppose that a "representative voter" has a demand function for public services of the form[11]

$$X_t = AY_t^{\alpha} P_t^{\beta}, \qquad (2)$$

where

X_t = Level of public services demanded at time t

Y_t = Real income

P_t = Price of public outputs (relative to the price of private goods). A, α and β, are constants.

P_t is understood here to be the tax-price of public outputs for our representative voter and is measured relative to the price of private goods. Taking logs and differentiating with respect to time, we find that the desired rate of growth of public output for our voter is

$$\frac{\dot{X}}{X} = \alpha \frac{\dot{Y}}{Y} + \beta \frac{\dot{P}}{P}, \qquad (3)$$

where

$\dot{X} = (dX/dt)$ and so on. His desired expenditure at time t, E_t, is (assuming a balanced budget)

$$E_t = X_t P_t, \qquad (4)$$

or, again taking logs and differentiating with respect to time,

$$\frac{\dot{E}}{E} = \frac{\dot{X}}{X} + \frac{\dot{P}}{P} \quad . \tag{5}$$

Substituting $(\dot{X}/X)$ from (3) into (5) yields

$$\frac{\dot{E}}{E} = (1+\beta)\ \frac{\dot{P}}{P} + \alpha\ \frac{\dot{Y}}{Y}. \tag{6}$$

Equation (6) indicates our voter's desired rate of growth in the public budget.

The magnitude of $(\dot{E}/E)$ depends on four variables and parameters: the rates of growth of real income per capita $(\dot{Y}/Y)$ and of the relative price of public services $(\dot{P}/P)$, and the price and income elasticities of demand (β and α, respectively). We have available from a variety of sources estimated values for these determinants of $(\dot{E}/E)$. Several demand studies of state and local expenditure, making use of multiplicative demand functions like that adopted here, have produced estimates of the price and income elasticities of demand for various state and local services (see, for example, Bergstrom and Goodman, 1973, and Peterson, 1975). Most of these studies estimate a value for the income elasticity of demand somewhat below unity for non-educational services (a typical $\hat{\alpha}$ is around 0.7), and a little over unity for education. Suppose that we take unity as a representative value of α.[12] It is then clear from (6) that the answer to our question depends on the sign of the first-term on the right hand side of the equation: if $(1+\beta)(\dot{P}/P)$ is positive, $(\dot{E}/E)$ will exceed $(\dot{Y}/Y)$ and conversely.

With regard to $(\dot{P}/P)$, there is a substantial literature suggesting that over the long haul the unit cost of public services is likely to rise relative

to the cost of private goods (see Baumol, 1967; Bradford et al., 1969; and Baumol and Oates, 1972). In brief, the contention is that public services such as education, where the labor input is often an integral part of the service, possess less potential for continued technological progress than output in much of the private sector (particularly in manufacturing and agriculture). Consequently, the unit cost of these services tends to rise over time relative to the unit cost of private output, with the estimates of this differential in the annual change in costs appearing to be roughly 2 to 3 percent.[13]

A rising relative tax-price of public services need not, of course, induce an expansion in the public budget. If the demands of voters are price elastic, the response will be a reduction in public outputs sufficient to induce a net contraction in public spending. But on this issue, the findings of nearly all the demand studies are consistent: the demand for state and local services appears to be highly price inelastic with a typical estimate on the order of -0.4. The implication is that the term $(1+\beta)(\dot{P}/P)$ is positive and probably of a substantial magnitude; our typical values suggest that $(\dot{E}/E)$ may exceed $(\dot{Y}/Y)$ by something on the order of one to two percentage points per annum.

The procedure that has led to this result is surely subject to some important reservations based on its highly aggregative character, the uncertainty surrounding the particular functional form and parameter estimates, the view of public services as "technological laggards", and finally the implicit assumption that the course of the public budget over time reflects the demand of a

"representative voter". On this last matter, Brennan and Buchanan (1977) argue that "Leviathan" charts his own course and produces a growing budget in excess of, and in spite of, the preferences of the electorate. I do not, however find the Leviathan model very compelling; it is my sense that political competition, especially over the longer term, will prevent the balance between the private and public sectors from getting too far out of line. If this is true, the analysis here suggests that in the long run desired public spending is likely to grow at a more rapid rate than total income. Such a conclusion suggests that fiscal limits constraining the share of the public sector to its existing size will indeed become binding, and, perhaps more important, will generate political forces to circumvent these limits and restore the desired balance between the private and public sectors of the economy.[14]

(b) Reduced Reliance on Property Taxation: There is no doubt that several of the measures to restrict property taxation have achieved their objective. In the most publicized case of California, the limit of one-percent on the tax rate, combined with a rollback and control of assessments, cut property-tax revenues in half in its first year of existence. (Estimates suggest that these revenues were only about 45 percent of their predicted level in the absence of Proposition 13.) Likewise, the freezing of property-tax rates in Indiana in 1973 permitted very little growth in revenues from this source from 1973 to 1977.

A typical (and largely intended) response to these restrictions has been an increased diversification of local revenue systems. Local governments in several states (e.g., cities in Arizona and Colora-

do, and cities and counties in Kansas) have turned to a heavier reliance on sales taxation; in Indiana and Ohio, some local governments have adopted income taxes. In addition, limits on property taxation have encouraged a much wider employment of user fees for such things as libraries, recreational facilities, educational programs, trash collection, and even fire protection (Menchik and Pascal, 1980). Finally, as noted earlier, increases in state aid have, in some instances, largely filled the gap from reduced property-tax revenues.

It would be erroneous to conclude, however, that nearly all the states have enacted effective measures to limit property taxation. Many of the limits have not been very restrictive at all. Gold suggests that limitations on property taxation were largely ineffective in California (prior to Proposition 13 in 1978), Florida, Iowa, and Wisconsin. In some instances, seemingly strict limitations have been undermined by crucial exemptions of parts of the budget or by over-ride mechanisms that permit easy circumvention of the restriction. Where these measures have been effective, however, they have fostered the adoption of other forms of local taxation and increased state assistance. In consequence, property-tax limitations appear not, in themselves, to have generated a serious obstacle to continued budgetary growth by local governments.[15]

(c) Vertical Structure in the Federal System: While Proposition 13 may have had its intended effect of a reduced role for property taxation, it has also had an important (and largely neglected) impact on the degree of centralization in the state-local sector in California. The severe restriction on the primary source of local tax rev-

enues prompted a response at the state level in the form of more fiscal assistance to local governments. In fact, during the year immediately following the enactment of Proposition 13, a large accumulation of past state surpluses permitted the state to fill most of the revenue loss at the local level. But state aid comes rarely without some encroachment on local prerogatives. Moreover, part of the response in California has been an explicit shift of certain functions from the local to the state level. The state now supports most of county health and welfare costs and has increased greatly its share of state-local spending on education. Much of this is not necessarily undesirable; a good case, for example, can be made for relieving local governments of the primary responsibility for explicitly redistributive programs like welfare (see Oates, 1972, Chapter 1).

The more general point, however, is that effective constraints at one point or level within a federal system will generate pressures within the public sector as a whole that are likely to call forth responses elsewhere in the system. Fiscal-containment measures directed at local governments (like property-tax limits) will tend to enlarge the role of the state government in relation to its localities giving rise to an increased degree of centralization in the public sector. While this need not be detrimental to the performance of the government sector, such effects on fiscal structure should be explicitly recognized as potentially important consequences of the introduction of fiscal limitations. Certain measures may, of course, reduce rather than increase the extent of centralization; this may be the case in Michigan, where it appears that the constraints imposed on the state

government may prove to be more restrictive than those on local governments.

(d) Making Public Services Private: In addition to their effect on the balance within the government sector, fiscal limitations may induce a shift in the provision of some services from the public to the private sector. There are certain services like refuse collection that are presently provided publicly in some local jurisdictions in the United States and privately (typically through a contract to a private firm) in others. To the extent that fiscal limitations are an effective constraint on budgetary size, we can expect a shift toward private supply of these services. In the summer of 1978, for example, directly after the enactment of Proposition 13, California made widespread cutbacks in summer-school programs; private summer schools, some for profit and others not, came quickly into existence to provide summer education programs.[16]

(e) Effects on Public Employment and Wages: Since salaries and fringe benefits constitute roughly 80 percent of state and local budgets, any binding limitations on state and local spending are sure to affect levels of compensation and employment in the public sector. The precise pattern of these effects is less clear, but a few tendencies have emerged. Since it is often politically difficult to fire public employees, a typical short-run response to fiscal pressures is to institute a freeze on public-sector wages and on hiring. The needed budgetary reductions are then achieved through normal attrition in the public labor force and a gradual reduction in real wages through price inflation. In California, for example, in the first year following the enactment of Proposi-

tion 13, there occurred an 8 percent reduction in public employment; very little of this was the result of layoffs (Menchik and Pascal, 1980, p. 18). The difficulty with a primary reliance on attrition is an arbitrary pattern of cutbacks in levels of public services; a particular agency's loss in staff depends not on the relative demand for its services but upon the age and skill distribution of its employees. Since libraries, for instance, tend to have a relatively aged workforce, library services will contract when those who retire are not replaced.

A second concern is the composition of the public labor force. The government sector in the United States has, in recent years at least, provided a disproportionately large share of employment for minority groups. In most large U.S. cities the public-sector workforce includes twice the fraction of minority employees as elsewhere in the economy. Few of these minority workers have much seniority. Because of civil service regulations and union agreements, they are typically the first to be dismissed in times of fiscal stress. This tendency was apparent in the fiscal crisis in New York City, where reductions in jobs cut deeply into the employment of blacks and Spanish-speaking workers (Peterson, 1976, p. 114). Over the longer term as well, a reduction in public-sector employment may slow the absorption of minority workers into the economy.

The empirical question remains as to the extent to which recently enacted fiscal-limitation measures have, in fact, constrained growth in public employment and earnings. I noted earlier in the section on budgetary growth that the data on the change in state government tax revenues from 1979 to 1980

(although far from a fully satisfactory measure) do not suggest that existing restrictions have seriously retarded budgetary expansion. Available data permit a similar test for public employment and earnings. More specifically, I again used Table 3 to divide the states in the U.S. into two samples: one consisting of the 18 states that have enacted fiscal-containment provisions at the state level and the other including the remaining 32 states with no such restrictions on their state government. For each state, I calculated the percentage increase in the number of full-time employees at the state level and the percentage increase in average earnings of full-time employees of the state government from 1979 to 1980. Within the two samples, I found that the mean rate of growth for both of these variables was higher for the group of states with limitation measures than for the non-limitation sample. The mean rate of growth from 1979 to 1980 in full-time employment was 1.7 percent for states with fiscal-containment provisions, but only 1.3 percent for those without such measures; likewise, the mean increase in average earnings of state employees was 9.2 percent for states with limitation provisions and only 7.2 percent for those without such restrictions.

These data, although constituting only fragmentary evidence, are consistent with the tax results: they both support the view that, on average, state-containment measures have, as yet, not acted as a serious constraint on state-government growth. The effects of fiscal limitations on local governments and on the state-local sector as a whole remain to be studied.

(f) The Distribution of Income: There is reason to believe that the kinds of fiscal-limitation

measures introduced in the United States will have a net regressive impact on the size distribution of income. The distributive effects of these measures operate through four channels:

1. The structure of the tax system,
2. Levels and composition of public outputs,
3. Factor earnings,
4. The value of existing assets.

The predominant effect on the tax structure has been a reduced role for property taxation. If, as is now widely held, the property tax is a progressive tax (Aaron, 1975), the observed shift away from local property taxation towards a heavier reliance on user charges and local sales taxes is surely regressive. In a few instances, local jurisdictions have turned to income taxation; here, the overall effect is unclear. Similarly, the increase in state intergovernmental aid to localities as a substitute for local revenues need not be regressive, if, at the margin, the state revenue system is more progressive than local property taxes. However, there is no compelling evidence I know of comparing the marginal incidence of state revenue systems with that of local property taxes. One suspects that the net changes in state-local revenue systems are probably regressive.

The distributive effects of the fiscal-limitation movement operating through the level and pattern of public outputs are, likewise, difficult to pin down with great confidence. However, there are again some grounds for believing them to be regressive. As noted earlier, the major class of expenditures which taxpayers-voters apparently wish to see cut involves explicitly redistributive measures that provide assistance to low-income households (e.g., welfare programs). Many of these

"human-service" programs are of relatively recent origin and have not developed vocal, well-organized constituencies. In contrast, groups like teachers and policemen tend to have powerful organizations that can provide more effective resistance to cutbacks in the services they provide. As Menchik and Pascal (1980) conclude, "insofar as fiscal containment is driven by a middle-class tax revolt, we may expect disproportionately severe cutbacks in those redistributive functions that are targeted on disadvantaged groups and ethnic minorities and are the least popular with the middle range of voters" (p. 17).

As we noted in the preceding section on employment effects, it is precisely the lower-paid segment of the public workforce, lacking seniority, that can be expected to be laid off first when there are budgetary cuts. This suggests that the impact of fiscal limitations on the distribution of factor incomes is also likely to be regressive.

Finally, the potential effect on asset values of measures that restrict local budgets (measures like Proposition 13) is an intriguing one. As Goldstein and Pauly (1979) argue, an effective limit on local spending will result in a scarcity of high-expenditure jurisdictions with a consequent excess demand for residences in these jurisdictions at pre-limitation prices. Owners of dwellings in these jurisdictions will thus realize a capital gain. Since, with a tax-rate restriction, spending can be higher in localities with larger tax bases, we might expect the high-spending jurisdictions to be relatively wealthy areas with high levels of property values and income. In consequence, the distribution of capital gains would be expected to exhibit a regressive pattern of incidence.

4 SOME TENTATIVE CONCLUSIONS

Because of the specific character of many of the new fiscal-limitation measures in the United States, it is perilous to offer sweeping conclusions of widespread applicability. Yet this experience is at least suggestive in a number of respects.

(1) Attempts to place limits on certain public-sector activities or sources of revenues will typically produce a wide range of effects, often reaching beyond the specific intent of the measures themselves. We saw in California, for example, that Proposition 13, while achieving its goal of a reduced reliance on property taxation, also fostered an increased centralization of the state-local sector. The design of fiscal-limitation provisions should address explicitly these "unintended" effects as well as the basic objectives of the program.

(2) As a kind of corollary to (1), it appears that efforts to control the size or growth of the public sector must not limit themselves to specific levels of government and/or sources of revenues. Limitations on local property taxation, for example, will tend to give rise to an increased use of other local revenue sources and to a larger role for the state government. An effective constraint on the size of the public sector requires a co-ordinated set of measures that prevents contraction at one point from being offset by expansion at another.

(3) Although several of the recent measures to limit state budgetary growth are not now binding constraints, there is evidence to suggest that

over the longer term they will become so. The rising relative cost of public services, in conjunction with estimated price and income elasticities of demand for state and local services, suggests that the desired level of public expenditures is likely to grow at a higher rate than private income. One potential consequence is substantial losses in welfare (Ladd, 1978). Moreover, with the passage of time as the constraints bite more deeply into the desired budget, political pressures will increase to circumvent the limits. There are already numerous instances in the U.S. of "creative finance" to sidestep existing limitations in order to maintain or expand public outputs.[17] Such ad hoc means of finance may be considerably less efficient and equitable than a reliance on more conventional fiscal measures.

(4) Although it is hard to generalize on the overall redistributive impact of fiscal limitations, there is some reason to believe them to be regressive. At the most general level, the public sector is a primary agent for redistributive activity in the economy; one of its basic functions is to adjust the market-determined distribution of income toward one that society regards as more equitable. Effective limits on the scope of public budgetary activity might for this reason alone be expected to reduce somewhat the extent of equalizing transfers through the public sector. Moreover, an examination of the specific ways in which fiscal limitations in the United States have altered the incidence of the tax system, the composition of public outputs, the distribution of factor incomes, and the value of existing assets suggests that these measures have probably reduced the progressivity of the fiscal system.

NOTES

1 Note, however, the decline in the share of the public sector since 1975, which is at least in part attributable to fiscal-limitation measures.

2 While voter preferences are important in understanding what voters desire, they do not seem to explain voting behavior all that well. Differing perceptions within the electorate as to the content and likely effects of proposed legislation often lead voters with similar preferences to behave differently in the polling booth. Models that incorporate the interaction between preferences and perceptions explain voting behavior better. See Gramlich, Rubinfeld and Swift (1981), and Ladd and Wilson (1983).

3 See Reid (1979) for a short history of tax revolts in the United States.

4 For an excellent description of the limitations measures recently introduced in the United States, see Gold (1980).

5 A ceiling on the rate of growth of state expenditure equal to a fixed percentage can obviously be either more or less restrictive than these other caps depending on whether the percentage limit is less or greater than the sum of the three components of (1). With inflation around 10 percent per annum, the Colorado limitation of a 7 percent rate of growth in state spending is clearly the most restrictive (at present) of the state caps.

6 Under full disclosure laws, "... the state or assessor establishes a property tax rate which when applied to a percentage of the tax base (95-100%) will produce revenue equal to the prior year's property tax levy. This established rate can be exceeded only by explicit vote of the local governing board after a public notification and hearing procedure on any proposed increase" (ACIR, 1977, p.26). In some states, these laws provide an automatic rollback of tax rates to offset any potential increases in tax revenues resulting from revaluation of property.

7 This section draws heavily on Gold (1980) for the discussion of the effects of existing limitation measures.

8 I omitted Alaska from the sample because of its incredible (and presumably unrepresentative) 76.0 percent increase in state tax revenues in a single year. The source of the data is Bureau of the Census, State Government Tax Collections in 1980, (Series GF-80, No.1, Washington, D.C.: U.S. Government Printing Office, 1980), p.6.

9 The income elasticity of the tax structure is the percentage change in tax revenue (holding tax rates constant) that results from a one-percent increase in income.

10 More specifically, in two multiple-regression studies, one of the states and one of thirty-three large U.S. cities, I found that the growth in public expenditure per capita over the decade 1960-70 was positively and significantly related to a measure of the income elasticity of the revenue system. However, the effect appeared quite modest in size: states, for example, that relied heavily on income taxation experienced a larger growth in per-capita spending than did states without income taxes, but the typical differential between such states seems small relative to the mean growth in expenditure over the decade.

11 The analysis here follows Baumol and Oates (1975, Chap.17). I stress that the public services envisioned here are not pure, Samuelsonian public goods; they are, instead, subject to congestion. In fact, existing econometric work suggests that most state and local services (e.g., education) are subject to crowding to virtually the same degree as private goods. In line with this finding, I shall assume that an increase in population requires a proportionate increase in inputs (or spending) to maintain unchanged the level of public outputs.

12 Although many of the econometric estimates of the income elasticity of demand are below unity, there are good reasons, as Hamilton (1983) contends, to believe that these estimates are seriously biased in a downward direction. In brief, most of the econometric evidence is based upon cross-sectional studies that compare levels of expenditures on public services in jurisdictions with different levels of income. They tend to find that, ceteris paribus, expenditure per capita does not rise fully proportionately with income. Hamilton's argument (see also Oates, 1981) is that higher income communities are systemat-

ically more efficient in the provision of certain critical local services than are poorer jurisdictions; because of the characteristics of the population, wealthier localities can provide, for example, superior schools and higher levels of safety with fewer inputs per capita than can lower income communities. In consequence, differentials in measured inputs understate the true differentials in levels of public outputs across jurisdictions with varying levels of income. When Hamilton tries to adjust for this bias, he finds an estimated income elasticity of demand for local services close to unity.

13 As Bush and Mackay (1977) have pointed out, if public services are truly Samuelsonian public goods, then an increasing population size will imply a fall in the price per capita of public services that could offset the upward pressure from relatively slow growth in productivity. However, as noted earlier, existing econometric work suggests that state and local services are not pure public goods; overall, they seem subject to crowding to about the same extent as private goods and services.

14 An admittedly disturbing element that the analysis overlooks is the effect on the economy of rising tax rates over time. The tax-induced distortions in resource allocation, with their associated "supply-side" effects, may come to exert a real drag on the performance of the economy. From this perspective, we may envision a real tension between the desire for continued growth in public output and the detrimental economic effects of the rising levels of taxation needed to finance these outputs.

15 In California, the restrictiveness of fiscal limitations on local government has been enhanced by provisions that prevent the local electorate from increasing property-tax rates under any circumstances and that require a two-thirds approval of any proposal for increases in other local taxes. The evidence suggests that this combination of measures has held back to a measurable extent the growth in local spending.

16 In a theoretical analysis, White (1979) suggests that, in response to fiscal limitations, governments will tend to make relatively large reductions in those public inputs for which private substitutes are readily available;

White contends that this outcome implies a substantial "excess deadweight loss" as compared to the socially efficient pattern of cutbacks.

17 Earl Rolph has told me that in one municipality in California, residents have chosen to finance certain local services by a levy on property owners. This levy is based on "units" of property where the number of units is defined in terms of dollars of assessed valuation. It remains to be seen if a sham of this sort to circumvent the rate limit on property taxation will survive a court challenge.

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