The 1990-91 Budget: Perspectives and Issues

Report from the Legislative Analyst's Office to the Joint Legislative Budget Committee

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Introduction

The purpose of this document is to assist the Legislature in setting its priorities and reflecting these priorities in the 1990 Budget Act. It seeks to accomplish this by (1) providing perspectives on the state's fiscal condition and the budget proposed by the Governor for 1990-91 and (2) identifying some of the major issues now facing the Legislature. Many of these issues are long-range in nature. Even in these cases, however, legislative action during 1990 is warranted, since the Legislature generally will have a wider range of options for addressing these issues now than it will have in subsequent years. As such, this document is intended to complement the *Analysis of the 1990-91 Budget Bill,* which contains our traditional item-by-item review of the Governor's Budget.

The *Analysis* continues to report the results of our detailed examination of all programs and activities funded in the Governor's Budget. In contrast, this document presents an analytical overview of the state's fiscal condition. The recommendations included herein generally cut across program or agency lines and do not necessarily fall under the jurisdiction of a single fiscal subcommittee.

The 1990-91 Budget: Perspectives and Issues is divided into four parts.

Part One, "State Fiscal Picture," provides an overall perspective on the fiscal dilemma the Legislature faces in the coming year.

Part Two, "Perspectives on the 1990-91 Budget: Expenditures," presents data on the state's spending plan and provides information on each of the main program areas in the budget (such as K-12 Education, Resources, and Capital Outlay). For each area, we provide historical perspective on spending, an overview of the budget (including how the proposed amounts compare to a "current service level"), and a description of how much ability the Legislature has to control costs in the budget year.

Part Three, “Perspectives on the 1990-91 Budget: Revenues,” describes the state’s major funding sources and evaluates the administration’s economic and revenue forecasts.

Part Four, “Major Issues Facing the Legislature,” discusses some of the broader issues currently facing the Legislature. Wherever possible, our analysis identifies options that the Legislature may wish to consider in addressing these issues. The issues in this part fall into five general categories: (1) drug-related issues (its use among the population, an inventory of state programs to fight drug abuse, and an analysis of state prevention programs); (2) infrastructure topics (an overview of the state’s infrastructure situation and an analysis of the capital outlay needs of postsecondary education); (3) resources issues (an alternative method of addressing air pollution and state preparedness for small oil spills); (4) health issues (state health services to rural areas, long-term health care, and the status of Proposition 99 programs); and (5) oversight issues (county fiscal capacity and the implementation of Proposition 103).

State Fiscal Picture I

Part I

State Fiscal Picture

The *1990-91 Governor's Budget* reflects the two main constraints under which it was developed. First, the state's economy is expected to grow at a moderate pace, limiting the resources available to fund state spending requirements. Second, past state policy choices put in place by legislation and initiatives dictate to a large extent the allocation of available resources among state programs.

As it has in past years, the Governor's Budget offers as a starting point for negotiations a set of policy choices that only partially accepts these dual constraints. While the budget recognizes the need to restrain state expenditure growth to the level of available resources, it proposes changes in existing policies as to how those resources are allocated. In part, this reflects the administration's preferences as to how the state's money should be spent. Over the next four months, the Legislature and the administration will attempt to reconcile their preferences in developing a state budget for 1990-91. However, changes in the economy and in the state's past policy choices also may influence the budget that is ultimately signed into law.

In this part, we review the state's fiscal condition, the major areas where demand for state services is outstripping its ability to provide them, and the extent to which the state's existing revenue base is capable of supporting the delivery of existing and additional state services. Finally, we provide a brief examination of the strategies proposed in the Governor's Budget for resolving the state's fiscal dilemma.

State Fiscal Picture

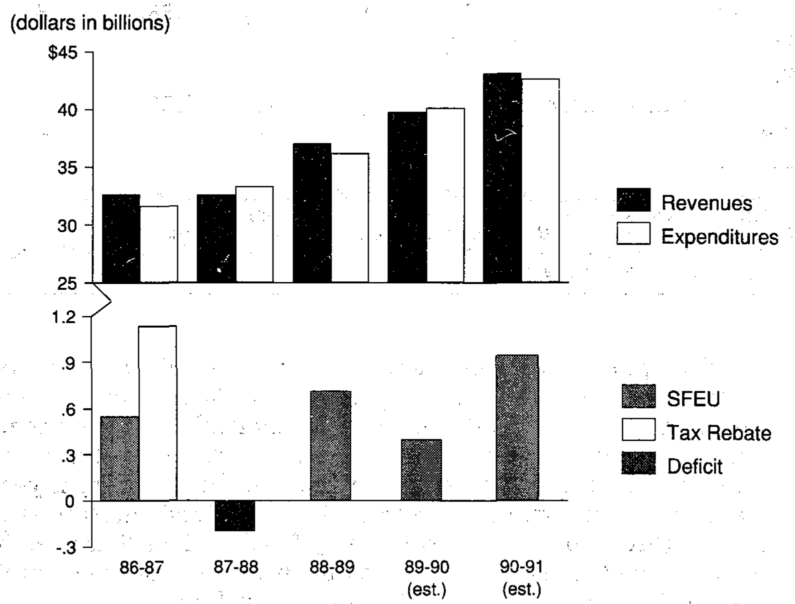
OVERVIEW OF THE GENERAL FUND CONDITION

Figure 1 provides information on General Fund revenues, expenditures and the Special Fund for Economic Uncertainties (SFEU) from 1986-87 through the budget year. Figure 2 presents the same information in greater detail. Several of the numbers shown in Figure 2 differ from those in the Governor's Budget, for two reasons. First, consistent with existing law governing the transfer of funds to the SFEU, we reflect only the unappropriated

Figure 1

Comparison of General Fund Revenues, Expenditures and the Special Fund for Economic Uncertainties (SFEU)

1986-87 through 1990-91



balance of the General Fund as available for transfer to the SFEU. The budget, however, includes funds within the SFEU which are committed for continuing appropriations. Second, we have not reflected the administration's anticipated savings of $50 million in 1989-90 from cancellation of encumbrances, because they are unlikely to occur and because the reduction of expenditures on this basis is not consistent with traditional accounting practices.

Figure 2

General Fund Revenues, Expenditures and the Special Fund for Economic Uncertainties

1986-87 through 1990-91[a]
(dollars in millions)

	Actual 1986-87	Actual 1987-88	Actual 1988-89	Estimated 1989-90[b]	Proposed 1990-91[b]
Prior-year resources	$711	$680	-$8	$829	$485
Revenues and transfers	32,614	32,579	36,983	39,775	43,102
Expenditures	31,560	33,342	36,146	40,120	42,613
General Fund balance	$1,765	-$83	$829	$485	$974
Reserves[b]	(78)	(117)	(116)	(88)	(28)
Tax rebate	(1,138)	—	—	—	—
Special Fund for Economic Uncertainties	(549)	—	(713)	(396)	(946)
Deficit	—	-200	—	—	—

[a] Source: State Controller. Data for 1986-87 and 1987-88 reflect adjustments to highlight funding provided for tax rebates. Detail may not add to totals due to rounding.
[b] Source: *1990-91 Governor's Budget.* Data reflect LAO adjustments to exclude effect of accounting differences between the Department of Finance and the State Controller's Office and to include continuing appropriations.

The figures show that General Fund expenditures exceeded revenues in 1987-88 and are projected to do the same in the current year. In 1987-88, a significant shortfall in state income tax receipts late in the year wiped out the state's reserve fund, and ultimately resulted in a deficit. Projections for the current year (based on traditional state accounting practices) indicate that expenditures will exceed revenues by $345 million. These additional expenditures will be funded by drawing down the state's reserve fund, reducing it to $396 million by June 30, 1990.

Based on the projected levels of revenues and expenditures for 1990-91 contained in the Governor's budget, *we estimate that the Governor's proposed spending plan would leave the General Fund with approximately $946 million in the SFEU on June 30, 1991.* These funds serve to protect the state against unanticipated declines in General Fund revenues and unforeseen increases in expenditures.

Big Revenue Swings Dominate Budget Picture

Figures 3 and 4 summarize the changes in the condition of the General Fund for 1988-89 and 1989-90, respectively.

1988-89. As shown in Figure 3, it was anticipated in January of last year, using traditional state accounting practices, that the state would close 1988-89 with a *deficit* of $83 million in the General Fund. When the revenue estimates were revised in May of 1989, however, the administration announced that the state would receive nearly $1 billion more in 1988-89 revenues. This was the result of stronger-than-anticipated growth in personal income taxes, including capital gains. The projected additional revenue increased the 1988-89 ending General Fund balance to $522 million, according to the estimates made in July 1989. The State Controller's final report for the 1988-89 fiscal year, however, indicates that the state actually finished 1988-89 with a General Fund balance of $829 million. This increase in the fund balance was largely the result of lower-than-anticipated 1988-89 expendi-

Figure 3

Change in the 1988-89 General Fund Condition[a]

(dollars in millions)

	January 1989 (Est.)[b]	July 1989 (Est.)[c]	January 1990 (Actual)[d]
Beginning resources	-$83	-$83	-$8
Revenues and transfers	36,002	37,037	36,983
Expenditures	36,002	36,432	36,146
General Fund balance	-$83	$522	$829

[a] Detail may not add to totals due to rounding.
[b] Source: *1989-90 Governor's Budget*, adjusted to reflect traditional state accounting practices.
[c] Source: *1989-90 Final Budget Summary*, adjusted to reflect traditional state accounting practices.
[d] Source: State Controller's Office.

tures, primarily in corrections and Aid to Families with Dependent Children (AFDC).

1989-90. As shown in Figure 4, one year ago the 1989-90 fiscal year was projected to close with a General Fund balance of $784 million. Given the tight fiscal situation anticipated at that time, this $784 million ending balance was predicated on achieving a number of significant program reductions proposed in the *1989-90 Governor's Budget*. Last year's May revision not only added $1 billion to 1988-89 revenues, it also increased 1989-90 revenues by $1.4 billion. This increase was attributable primarily to more optimistic assumptions about the economy and higher capital gains estimates. This projected revenue increase allowed the restoration of the expenditure reductions originally proposed in the budget, as well as several other spending increases. On the basis of the adopted budget, it was estimated that the state would close the 1989-90 fiscal year with a General Fund ending balance of $1.2 billion.

Figure 4

Change in the 1989-90 General Fund Condition[a]

(dollars in millions)

	January 1989 (Est.)[b]	July 1989 (Est.)[c]	January 1990 (Est.)[d]
Beginning resources	-$83	$522	$829
Revenues and transfers	38,877	40,278	39,775
Expenditures	38,010	39,608	40,120
General Fund balance	$784	$1,192	$485

[a] Detail may not add to totals due to rounding.
[b] Source: *1989-90 Governor's Budget*, adjusted to reflect traditional state accounting practices.
[c] Source: *1989-90 Final Budget Summary*, adjusted to reflect traditional state accounting practices.
[d] Source: *1990-91 Governor's Budget*, adjusted to reflect traditional state accounting practices.

A large portion of the anticipated revenue gain was wiped out, however, when the Governor's Budget was released this January. The 1990-91 budget reflects a *decrease* of $875 million in the estimate of current-year General Fund revenues (exclusive of additional transfers proposed in the budget), relative to what was assumed at the time the 1989 Budget Act was enacted. This reduction occurred primarily because the May 1989 economic assumptions were determined to be overly optimistic. Since the expenditure estimates have not been dramatically revised since the 1989 Budget Act was passed (exclusive of earthquake-related spending), the reduction in estimated revenues has had the effect of reducing the projected ending balance for the current year to $485 million, $299 million below the estimates of one year ago and approximately $707 million below the balance projected at the time the 1989 Budget Act was adopted.

THE STATE'S BUDGET DILEMMA FOR 1990-91

As has been the case for the last several years, the state faces a dilemma in putting together a balanced budget for 1990-91. This dilemma results from increased spending requirements which exceed the amount of new revenue available to meet those requirements.

How Much New Revenue Will Be Available?

Under the economic assumptions contained in the Governor's Budget, General Fund revenues are projected to increase by $3.3 billion in 1990-91. Taking into account the distorting effect of earthquake-related tax revenues transferred to the General Fund, the increase in revenue actually amounts to almost $3.5 billion. The first $345 million of these new revenues, however, must be used to fund the *existing* level of state expenditures. This is because current-year expenditures are expected to exceed current-year revenues and are being financed in 1989-90 by drawing down the state's reserve fund, as described earlier. In addition, the budget proposes that $489 million be used to restore the state's reserve fund in 1990-91. We estimate that this amount would bring the state's reserve to approximately $946 million based on traditional accounting practices (as shown in Figure 2), or about 2.2 percent of proposed General Fund expenditures. These allocations leave approximately $2.6 billion (equivalent to an increase of 6.7 percent in revenues) available to fund increases in state programs. Thus, almost one-quarter of the overall increase in revenues is not available to fund state spending in the budget year.

What Demands Will Be Placed on the Available New Revenue?

While the budget assumes that the state will continue to see moderate economic growth in the budget year, the $2.6 billion available to fund expenditure increases is well below the amount needed to maintain current service levels. As discussed in more detail in Part Two of this volume, we estimate that nearly $4.5 billion in resources would be needed to accommodate the normal growth in state expenditures, and to restore the reserve to the 3-percent level. Thus, the Legislature faces a $1.9 billion funding gap as it begins its deliberations on the state's budget for 1990-91.

What Factors Contribute to the Funding Gap?

As noted above, the demands for state funding increases exceed the amount of revenue that is available to pay for them. The higher growth rate for state expenditures stems from a variety of statutory and constitutional provisions and from past policy decisions which require growth in an increasing portion of the state's budget. For example, in the area of corrections, the state's prison inmate population has been increasing rapidly, in large part as a result of tougher statutory sentencing requirements, but also due to increased numbers of parole violations. This has led to a dramatic increase in corrections-related expenditure requirements to accommodate the additional inmates. The budget's growth also reflects the growth in entitlement programs in the health and welfare area such as AFDC, Supplemental Security Income/State Supplementary Program (SSI/SSP), and Medi-Cal. In addition, since the passage of Proposition 98 in November 1988, the state cannot reduce K-14 funding levels as part of an overall budget-balancing strategy.

In all of the cases cited above, increasing program expenditures are not subject to control through the budget process. In fact, by our estimates, more than 70 percent of the state's General Fund budget is controlled by policies placed in statute or the state Constitution. As a result, there is less than 30 percent of the budget that the Legislature can influence without changes to existing law. The portion subject to legislative control in the budget process includes state funding for higher education, public health, mental health and developmental disability programs, resources programs, and a variety of social services programs. While these programs enjoy little statutory or constitutional protection, they also reflect policy choices made in the past. The state has, however, used its control over these programs in past years to help balance the budget. By not granting many of these programs additional spending authority to compensate for caseload growth and inflation, the state has required that fewer persons be served, that those served receive a lower level of service, or that new funding sources be found to support the programs.

Thus, *without changes in existing law,* the Legislature would be faced with making $1.9 billion in reductions to the 30 percent of the budget subject to discretion in the budget process. This is equivalent to an across-the-board reduction in this portion of the budget equal to 15 percent of proposed expenditures for 1990-91.

FUNDING PRIORITIES REFLECTED IN THE GOVERNOR'S BUDGET

Given the fiscal dilemma of expenditure requirements that are growing faster than available state revenues, the state is faced with hard choices as to how the available resources should be allocated. The Governor's Budget proposes that the current growth rates be maintained in certain program areas, and reduced in others to make ends meet. Thus, it recognizes certain existing priorities and spending requirements, and proposes that others be changed. In general, the administration proposes to provide the necessary funding increases for K-14 education required by Proposition 98, and to continue the expansion of the state's correctional system. In addition, the Governor's Budget reflects the administration's general policy decision to fund workload and new legislative requirements.

Governor's Strategy for Balancing the Budget

The administration's strategy for closing the funding gap and balancing the budget can be categorized as follows:

Deferrals of State Costs (-$197 million). The budget includes three proposals which would defer existing General Fund costs to future years. Specifically, the administration proposes to defer until 1991-92 the last Medi-Cal checkwrite of 1990-91 ($48 million) and the state's 1990-91 contribution to the University of California Retirement System ($50 million). In addition, the budget proposes to defer $99 million in state costs for some existing state-mandated local programs from 1990-91 to future years.

Lower Reserve Funding (-$330 million). We estimate that an additional $330 million (above the amount provided in the Governor's Budget) would be required to fund the state's reserve at the 3-percent-of-expenditures level used in recent years as the state's funding goal.

Reductions in Services (-$1.2 billion). The budget proposes to provide reduced levels of services in a variety of areas. It proposes the suspension of statutory cost-of-living adjustments for specified programs, and reductions in funding for other programs. Some of the most significant proposals include: cutbacks in a variety of welfare programs (-$223 million) including Greater Avenues for Independence (GAIN) and the In-Home Supportive Services program, several changes in the Medi-Cal program (-$98 million), and the elimination of funding for a variety of state-mandated local programs (-$28 million). Of the proposed reductions, approximately $500 million would require legislation in order for the proposed savings to be realized.

Shifting Costs to Counties (-$157 million). The budget includes two proposals which will, at least in part, result in a shift of program costs to county governments. These include a proposed reduction of $150 million in the AB 8 county health services program (which would require legislation) and a shift of state costs for property tax programs to local funding sources.

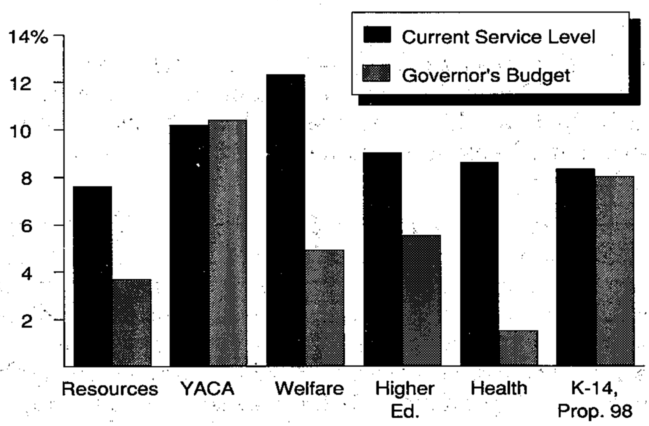
Impact of Proposed Budget by Program Area

Another perspective on the Governor's strategy for balancing the budget can be gained by comparing the current service growth rates to the rates of growth provided in the Governor's Budget for the major program areas.

Figure 5 shows that the only major programs for which the current level of services is nearly or completely funded are K-14 education and Youth and Adult Corrections (YACA). The lower level of funding for K-14 education reflects the proposed diversion of Proposition 98 resources to other programs and certain technical factors. All other major program areas show significant shortfalls.

Figure 5

Growth Rates for Current Service Level Versus Governor's Budget, 1990-91



CONCLUSION

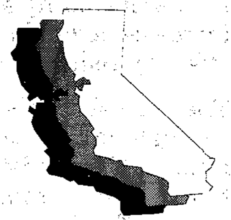
Given the context in which the budget must be developed, the Legislature must begin its work with the majority of its effort focused on how to trim the state's spending requirements to match its available resources. The state's appropriations limit, at least as it stands today, precludes the Legislature from proposing any significant increase in revenues for the budget year. The Governor's Budget estimates that the state would have less than $150 million in room available under its appropriations limit to absorb additional tax revenues in the budget year. Thus, if the context of the budget four months from now remains as it is today, the Legislature will be faced with adopting a budget that makes significant reductions in existing programs and does not provide the traditional level of protection against economic uncertainties.

The context for the 1990-91 budget, however, could easily change over the next four months. The May revision could find the economy growing faster than anticipated, and provide the Legislature with more revenue to allocate (as occurred in the current year). A constitutional amendment which has been placed on the June 1990 ballot (SCA 1, Garamendi), if approved by the voters, could provide in the range of $1 billion of increased room under the appropriations limit to absorb additional tax revenues. Under these circumstances, the Legislature would find its choices less difficult, but still not easy. At the same time, however, the budget's economic forecast is already somewhat more optimistic than that of other forecasters, and the state's economy could grow more slowly than anticipated. This could increase the magnitude of the budget problem.

Perspectives on the 1990-91 Budget: Expenditures

II

Part II



Perspectives on the 1990-91 Budget: Expenditures

This part provides an overview of historical state spending trends and the spending plan proposed in the *1990-91 Governor's Budget.* It discusses the level of proposed expenditures and the factors which determine this level, the major components of the budget, the priorities reflected in the budget, and the major program changes proposed for 1990-91. It also compares the levels of funding provided for different programs with the amounts that would be required to maintain the current levels of service in those programs.

The major findings of this part include:

- The increase in General Fund expenditures in 1990-91 is restrained to 6.2 percent by: (1) the need to allocate $345 million of the increased revenue anticipated for 1990-91 to fund the *existing* level of state expenditures (because current-year expenditures are expected to exceed current-year revenues), and (2) the proposed allocation of $489 million to the Special Fund for Economic Uncertainties.
- The General Fund cost of maintaining current levels of service, including the restoration of the reserve to the 3-percent-of-expenditures level, would amount to $4.5 billion. Because the amount of General Fund revenue available for spending increases in 1990-91 is projected to be only $2.6 billion, this leaves a *$1.9 billion funding gap.*

- The budget provides $1.5 billion for workload growth, $1.3 billion for K-14 education pursuant to the provisions of Proposition 98, $400 million for cost-of-living adjustments (including salary increases), and $210 million for increased federal requirements. These costs are partially offset by reductions in a variety of program areas.
- The Legislature's options for reducing expenditures through actions taken in the Budget Bill are relatively limited. They exist mostly in the areas of higher education, health, resources and general government. Constitutional funding guarantees place most of K-14 education off limits, while a combination of state laws and federal regulations predetermine the funding levels that must be provided for many welfare programs and Medi-Cal. Thus, significant expenditure reductions would inevitably be dependent upon the enactment of legislation.

Expenditures in 1990-91

HISTORICAL CONTEXT OF BUDGET EXPENDITURES

Figure 1 shows state expenditures for the last 10 years from the General Fund and special funds in both "current dollars" (amounts as they appear in the budget) and "constant dollars" (current dollars adjusted for the effect of inflation since 1981-82). This adjustment relies upon the Gross National Product (GNP) implicit price deflator for state and local purchases of goods and services. The GNP deflator is a good general measure of the price increases faced by state and local governments, and allows us to make comparisons of the "purchasing power" of state resource allocations over time. (Unless otherwise noted, all inflation adjustments in this part have been made using this GNP deflator.)

Figure 1

Total State Spending
Current and Constant Dollars

1981-82 through 1990-91

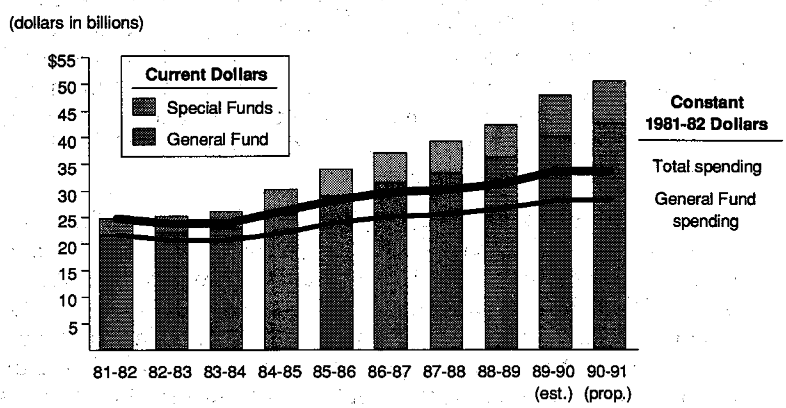


Figure 1 shows that state spending (in current dollars) from all state funds has increased from $24.7 billion in 1981-82 to a proposed level of $50.5 billion in 1990-91. This amounts to an average annual increase of 8.3 percent. Figure 1 also shows that in constant dollars, total state expenditures have grown less rapidly, increasing at an average annual rate of 3.5 percent over the 10-year period.

Over the last 10 years there has been a gradual but steady increase in the share of state expenditures financed by special funds. For example, in 1981-82, special fund expenditures represented approximately 12 percent of total state expenditures. In the 1990-91 proposed budget, however, special fund expenditures represent nearly 16 percent of total spending. This reflects both the relatively higher growth for certain special fund revenues, such as motor vehicle license fees, and the adoption of new user charges and taxes for specific activities, such as hazardous waste site cleanup.

THE 1990-91 BUDGET

This section provides an overview of the spending proposed in the 1990-91 budget. It discusses state spending by program area and identifies the cost pressures faced by the state in building a budget for 1990-91.

State Spending by Program Area

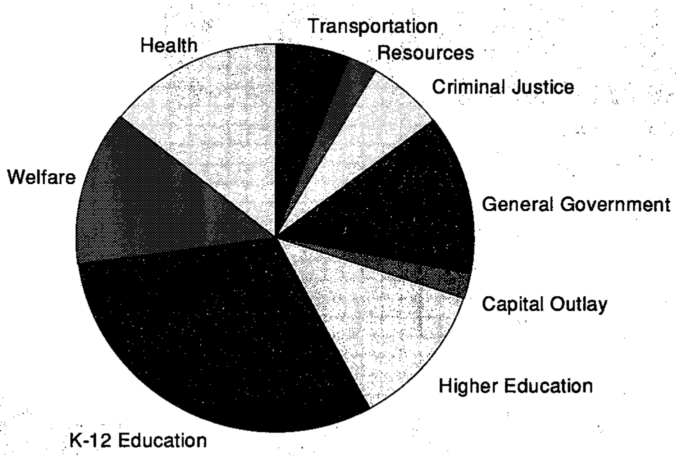
Figure 2 shows the distribution of proposed 1990-91 expenditures from all state funds among different program areas. We have included both General Fund and state special fund expenditures here to provide some perspective on total state spending on different programs. In some program areas (for example, resources), the exclusion of special fund expenditures from discussions of program changes would not permit a meaningful evaluation of funding and policy changes.

The program area groupings used in Figure 2 differ in three ways from the traditional groupings used in the Governor's Budget. Specifically, the criminal justice category includes both the traditional Youth and Adult Corrections category as well as state expenditures for the judicial system, in order to recognize the linkage between these programs. The general government category includes not only most of the programs that traditionally are shown as general government in the Governor's Budget, but also includes all of the administrative functions traditionally included in the Legislative, Judicial, and Executive; State and Consumer Services; and Business, Transportation, and Housing categories. This provides a better perspective as to the costs of running state government. Finally, the capital outlay category

Figure 2

Total State Spending By Major Program

Proposed for 1990-91



includes all of the direct capital outlay expenditures made from the General and special funds, as well as state general obligation bond debt service, payments associated with lease-revenue bonds, and the costs of the school facilities aid program. This treatment allows a consolidated perspective as to the impact on the budget of the state's expenditures for the acquisition of capital assets.

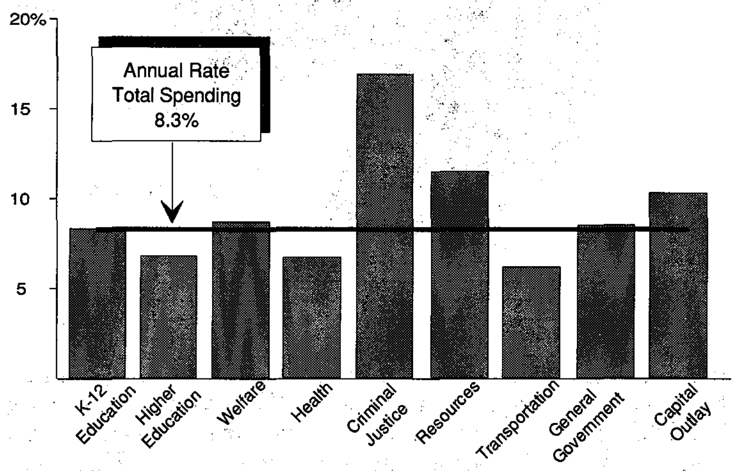
Figure 2 shows that slightly more than 40 percent of all expenditures from state funds is proposed for educational programs, and nearly one-third for health and welfare programs. The remaining expenditures are in the areas of general government (14 percent) criminal justice (6.3 percent), transportation (6.0 percent), resources (2.4 percent) and capital outlay (2.1 percent).

Figure 3 compares the average annual growth rate for each program area during the 1980s with the overall growth in state spending from all state funds. It shows that criminal justice, resources and capital outlay expenditures have grown significantly faster than the budget as a whole. Taken together, these programs represent 11 percent of all state expenditures in 1990-91. Expenditures on K-12 education, welfare, and general government programs, which together make up over 54 percent of the total state budget, have been growing at essentially the same rate as the budget as a whole. Finally, health, transportation and higher education programs have been growing significantly slower than total spending.

Figure 3

Comparison of Annual Average Growth Rates for Major Program Areas

All State Funds
1981-82 through 1990-91



How Are Spending Levels Determined?

The proposed spending levels described above reflect a multitude of decisions made in the preparation of the budget. One of the most significant constraints on spending decisions is the level of revenue available. We estimate that, after accounting for the need to finance the gap between current-year expenditures and revenues and for the budget's proposal to allocate $489 million of the new revenue to increase the state's reserve, there is only about $2.6 billion (equivalent to an increase of 6.7 percent in revenues) available to fund increases in state programs. In addition, given the Department of Finance's estimate that the state has less than $150 million in room under its appropriations limit in 1990-91, the Legislature and the administration have limited flexibility to provide for additional expenditures by proposing revenue increases.

On the expenditure side, most of the proposed spending reflects the "baseline" costs of maintaining existing state programs. Thus, most of the decisions made in the course of the normal budget process are focused on how *additional* resources will be allocated. This year's budget, however, also reflects a number of decisions to reduce baseline expenditures in order to make ends meet.

In distributing these additional resources among individual programs, the Legislature and the Governor must consider a variety of factors. These factors include state and federal requirements which necessitate higher expenditures, as well as policy decisions to maintain, expand or cut back existing levels of state services. While new priorities may be established each year, one way to gain perspective on the budget is to examine what would be required to maintain current service levels in existing programs, comply with existing state and federal requirements for the expansion of certain programs, and restore the state's reserve to the 3-percent-of-expenditures level. We estimate that approximately $4.5 billion in additional resources would be needed for these purposes in 1990-91. Figure 4 summarizes these budget-year funding requirements.

As the amount of General Fund revenues available for new spending in the budget year is estimated to be $2.6 billion, the state is left with a $1.9 billion "funding gap" relative to the amount of resources that would be needed to maintain current service levels.

Figure 4

General Fund Current-Service Level Funding Requirements

1990-91
(dollars in millions)

Program	Amount
Workload changes	$1,700
Proposition 98	1,270
COLAs:	
Statutory	450
Other	580[a]
Special Fund for Economic Uncertainties (SFEU)	330[b]
Increased federal requirements	210
Total	$4,540

[a] Includes funding for salary increase commitments.
[b] Amount required to bring SFEU balance to 3 percent of General Fund expenditures (in addition to amount proposed in the Governor's Budget).

The rest of this section discusses this year's budget from a program-area perspective. For each program area, we discuss historical funding patterns in both current- and constant-dollar terms, describe the Governor's proposal for 1990-91, and identify how the Governor's proposed allocations compare with funding levels that would be required to maintain current service levels. In addition, because the Legislature must begin this year's budget deliberations focused on how to address the $1.9 billion funding gap described above, each program area discussion addresses the question of how much flexibility the Legislature has to reduce state costs through the Budget Act.

K-12 Education

Funding for K-12 education represents 36 percent of General Fund expenditures proposed in 1990-91 and 30 percent of proposed expenditures from *all* state funds. Figure 5 shows spending trends over the last nine years and as proposed in the budget. The average annual increase in General Fund spending for K-12 education over this period is 8.4 percent, or slightly higher than the rate of increase in *total* General Fund spending (7.8 percent). The figure also shows that General Fund expenditures for K-12 education have been relatively stable, ranging from a low of 34 percent (1981-82) to a high of 37 percent (1984-85). The proposed level of expenditures in 1990-91 would fall about in the middle of this range. This percentage differs from the commonly cited 41 percent used for Proposition 98 purposes because it excludes community college expenditures. In addition, the Proposition 98 percentage is based only on General Fund *tax* revenues, as opposed to total General Fund expenditures.

Figure 5

K-12 Education Expenditures Current and Constant Dollars

General Fund 1981-82 through 1990-91

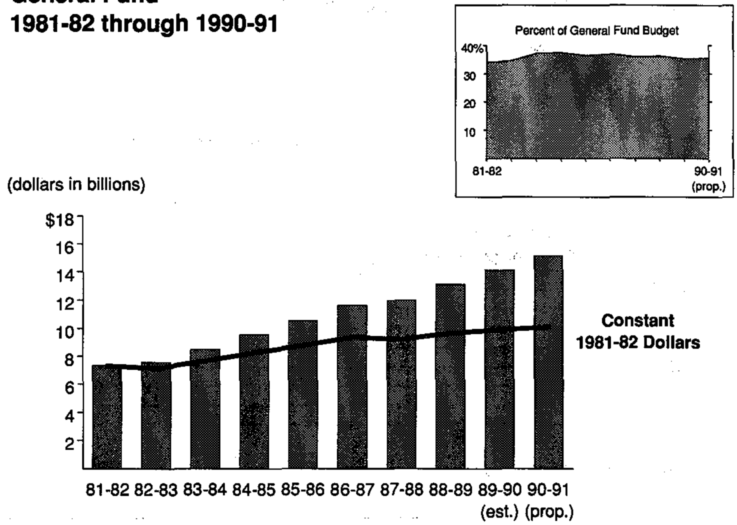


Figure 5 also displays the rate of increase for K-12 expenditures as adjusted for declines in state purchasing power. As the figure shows, expenditures in "constant" dollars also have increased significantly (37 percent) over the period.

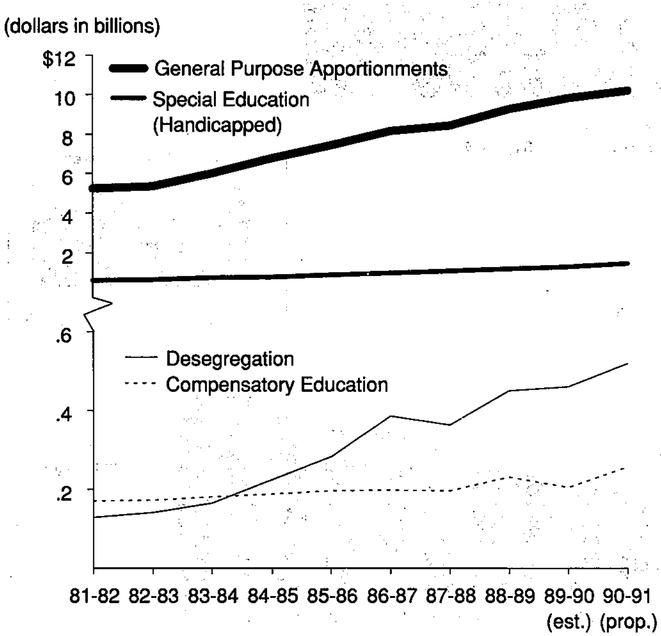
Figure 6 shows the relative growth of four of the largest programs in K-12 education: (1) general-purpose school apportionments, (2) special education for handicapped pupils, (3) desegregation programs, and (4) compensatory education (Economic Impact Aid). These four programs account for over 80 percent of total state funding for K-12 education.

As the figure shows, these programs have grown at very different rates over the period 1981-82 through 1990-91. Specifically, funding for general-purpose apportionments has increased by 96 percent, while funding for special education has increased by 136 percent. Funding for compensatory education, in contrast,

Figure 6

K-12 Education Expenditures By Major Program

General Fund
1981-82 through 1990-91



has grown by only 50 percent. Finally, funding for desegregation programs has *quadrupled* over this same period.

OVERVIEW OF THE BUDGET

The budget for 1990-91 proposes an increase of $1,033 million (7.3 percent) from the General Fund. We estimate that the General Fund increase needed to meet the requirements of Proposition 98 and thereby fund the current level of services is approximately $1,078 million, including $183 million for workload increases and $895 million for statutorily required inflation adjustments. This is $45 million above the amount proposed by the Governor.

The budget contains the following major policy proposals, which account for the $45 million difference just noted:

- ***Cost-of-Living Adjustments ($321 Million Net Reduction).*** The budget proposes to provide *statutory* COLAs at 3.0 percent, in lieu of the 4.95 percent required by current law. Partially offsetting this reduction is the budget's proposal to provide *discretionary* COLAs at 3.0 percent for other programs.
- ***Class Size Reduction ($110 Million Augmentation).*** The budget proposes additional funds for the first year of an eight-year program to (1) reduce class sizes in grades 9 to 12 and (2) implement a language arts enrichment program in grades 1 to 3, as authorized by Ch 1147/89 (SB 666, Morgan).
- ***Adult Education ($44 Million Reduction).*** The budget proposes to reduce funding for K-12 school apportionments by tightening eligibility standards and funding rates for (1) K-12 students concurrently enrolled in adult education and (2) adults enrolled in K-12 independent study programs.
- ***Proposition 98 Reserve ($210 Million Augmentation).*** The budget proposes to continue the current-year practice of maintaining a reserve, in order to avoid potentially appropriating to K-12 education more than the amount required by Proposition 98.

Although the budget is $45 million short of funding the current service level for K-12, it does fund the Proposition 98 requirements. This is because the budget proposes two actions which, taken together, reduce the amount of the Proposition 98 guarantee that would otherwise be available for K-12 purposes. These are: (1) shifting to the K-12 budget funding for certain noninstructional services required by special education pupils, and (2) increasing funding for drug education programs administered by the Office of Criminal Justice Planning.

Figure 7 shows the major funding changes proposed for each of the K-12 program areas in 1990-91.

Figure 7

K-12 Education Programs
Proposed Major Changes for 1990-91

General Purpose Apportionments	Requested: $15 billion Increase: $852 million (6%)

- \+ $476 million for enrollment growth
- \+ $441 million for cost-of-living increase
- − $55 million for adult education services

Special Education	Requested: $1.6 billion Increase: $163 million (11%)

- \+ $74 million for enrollment growth
- \+ $65 million for cost-of-living increase
- \+ $41 million for noninstructional services

Desegregation	Requested: $519 million Increase: $58 million (13%)

- \+ $23 million for program expansions
- \+ $20 million for enrollment growth
- \+ $15 million for cost-of-living increase

Compensatory Education	Requested: $659 million Increase: $47 million (7.7%)

- \+ $35 million to continue funding appropriated in 1988-89, but received in 1989-90
- \+ $9 million for enrollment growth
- \+ $7 million for cost-of-living increase

ABILITY OF THE LEGISLATURE TO CONTROL COSTS

Due to the enactment of Proposition 98, the Legislature has virtually no ability to control the overall level of General Fund support provided to K-12 education. This is because this measure provides K-12 schools and community colleges a constitutionally guaranteed minimum funding level. Of the $15.1 billion in total General Fund support proposed for K-12 education in 1990-91, $15 billion (99.4 percent) counts towards meeting Proposition 98 requirements.

The Legislature, however, has considerably more ability to control the growth of costs *within* the overall Proposition 98 guarantee. For example, in contrast to other areas of the budget, the Legislature has the ability to provide lower cost-of-living adjustments for K-12 education than those required by statute. (As noted, the Governor's Budget proposes K-12 COLAs of 3.0 percent, rather than the statutorily required 4.95 percent; this action reduces the costs of these programs by $353 million.)

The Legislature also has a limited number of options (discussed in greater detail in the *Analysis of the 1990-91 Budget Bill, Item 6110)* for bringing the rapidly increasing costs of desegregation programs under control, including (1) imposing stricter eligibility standards and cost controls and/or (2) increasing the required local cost share above the current 20 percent level. A third option would be to combine all or part of the existing funding for desegregation with that provided for compensatory education, and require that school districts' first priority for the use of such funds be to support the costs of desegregation programs. Our review indicates that the adoption of any of these options could assist in bringing the costs of desegregation programs under control, while being sensitive to legitimate program needs, and could ultimately lead to a more equitable distribution of state funds among all school districts impacted by high concentrations of minority populations.

Higher Education

Funding for higher education programs represents 8.1 percent of expenditures from all state funds and 14 percent of General Fund expenditures proposed in 1990-91. As shown in Figure 8, higher education expenditures have declined steadily as a percentage of General Fund expenditures since 1981-82. The figure also shows that expenditures for this program area have increased from about $3.4 billion in 1981-82 to almost $6 billion as proposed for 1990-91, which represents an average annual increase of 6.7 percent.

Figure 8 also presents the spending trend for higher education as adjusted for declines in purchasing power. On this basis, higher education expenditures have increased at an average annual rate of 2 percent. (This rate drops below 1 percent on a per-student basis.)

Figure 8

Higher Education Expenditures Current and Constant Dollars

General Fund 1981-82 through 1990-91

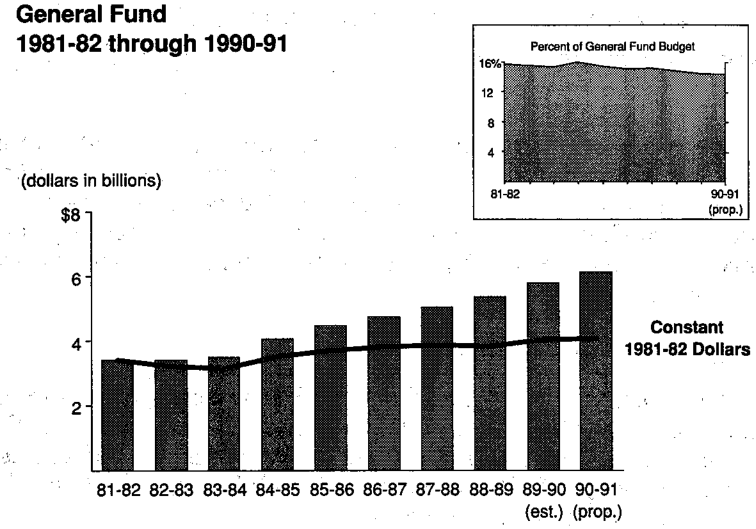
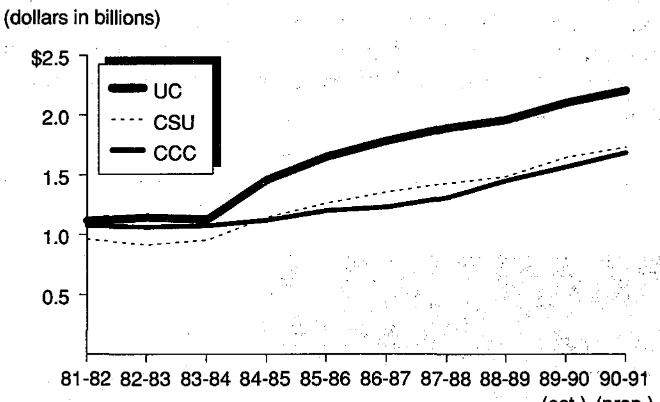


Figure 9 shows the trend in state support since 1981-82 for each of the three segments of higher education. It shows that the University of California (UC) has experienced a greater rate of growth than has the California State University (CSU) or the Community Colleges (CCC). This is partially explained by the greater full-time enrollment (FTE) increase at UC compared to CSU and the CCCs.

Figure 9

Higher Education Expenditures[a] By Segment

General Fund
1981-82 through 1990-91



[a] Excludes CSU appropriated fee revenue.

Figure 10 presents estimates of the average annual rate of growth in state funds *per student,* and compares these rates to the average annual change in the prices of government services. These data show that expenditures per student in each segment have increased at a slightly higher rate than has the government services index.

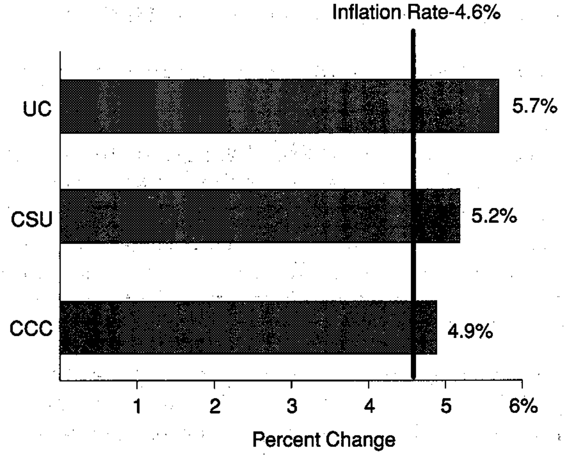
OVERVIEW OF THE BUDGET

The budget proposes a General Fund increase for higher education of $352 million, or 6.1 percent. We estimate that the General Fund increase needed to fund the current level of services is approximately $506 million. This is $154 million above the amount proposed by the Governor.

Figure 10

Average Annual Growth in Per Student Spending in the Higher Education Segments Compared to the Average Annual Change in Prices[a]

1981-82 to 1990-91



[a] Change in prices as measured by the implicit price deflator for purchases of goods and services by state and local governments.

The CCC budget is funded at the current service level, largely because of the funding requirements of Proposition 98. The primary difference between the the proposed budget and the current services level funding occurs in the UC and CSU budgets. The major items reflected in the funding shortfall are:

- ***Merit Salary Adjustments (MSAs).*** The budget does not fund the anticipated $24 million cost of staff MSAs that will be provided in 1990-91.
- ***Price Increases.*** UC and CSU anticipate increased costs of $30 million for a variety of price increases that are not addressed in the budget.
- ***Instructional Equipment Formula.*** The budget underfunds the normal level of funding for instructional equipment by $16 million, according to the formula traditionally used for this purpose.

- ***CSU Unallocated Reduction.*** The budget proposes an unallocated reduction of $14 million for CSU.
- ***Retirement Contributions.*** The budget also proposes to delay the state's contribution of $55.6 million to the University of California Retirement Plan until the 1991-92 fiscal year.

Figure 11 shows the major funding changes for higher education reflected in the proposed budget for 1990-91.

ABILITY OF THE LEGISLATURE TO CONTROL COSTS

The Legislature has a great deal of ability to control the expenditures of the UC and CSU through the budget process. This is because most of the higher education budget is based on agreed-upon formulas that can be changed on a year-to-year basis rather than on statutory obligations. Generally, however, cost controls in higher education represent difficult choices because they either affect access of students or they affect the level of educational services provided.

Access. As mentioned, the budget proposes to serve an additional 7,120 FTE in the CSU and 1,888 FTE in the UC at costs of $34 million and $11 million, respectively. These enrollment increases are the primary cost drivers in the higher education systems and they are under control of the Legislature to adjust. To do so, however, creates a policy problem of reducing the access of qualified students to these institutions.

Likewise, the budget proposes the opening of a new CSU campus at San Marcos. This is a significant General Fund expense of approximately $6 million to serve just 250 FTE students in the first year of operation. While the Legislature could choose to forego this expense by delaying the opening of the campus, the trade off would again be reduced access for some students to higher education.

In addition, the Legislature can control the fees charged to students. Thus, if resident student fees were set to increase by 10 percent rather than the approximately 4.7 percent proposed, an additional $24 million in revenue could be generated. This action, even if accompanied by additional financial aid support, could negatively affect access for some lower-income students.

Level of Service. Other cost control measures within the jurisdiction of the Legislature involve changing the level of service provided. Such changes could range from increasing the amount of space cleaned by janitors to the number of students taught by the faculty. Thus, currently we budget UC faculty at an agreed-

Figure 11

Higher Education Segments
Proposed Major Changes for 1990-91

Community Colleges — Requested: $1.7 billion; Increase: $124 million (7.9%)

+ $120 million for cost-of-living increases
+ $41 million for statutory and preferential enrollment growth
+ $11 million for equalization of revenue limits
+ $10 million for a reserve

California State University — Requested: $2.1 billion; Increase: $114 million (5.8%)

+ $58 million for 1990-91 salary increases
+ $43 million for annualization of 1989-90 salary increases
+ $34 million for enrollment growth
+ $6 million for expansion at the new San Marcos campus
+ $5 million for revenue bond payments
− $20 million to correct for one-time adjustments
− $14 million unallocated cut

University of California — Requested: $2.2 billion; Increase: $114 million (5.5%)

+ $53 million for 1990-91 salary increases
+ $46 million for annualization of 1989-90 salary increases
+ $17 million for faculty merit salary increases
+ $11 million for enrollment growth
+ $8 million for workload related to maintenance of new buildings
− $14 million to the General Fund to reflect additional UC revenues
− $5 million reduction in the teaching hospital subsidy

upon student/faculty ratio of 17.6/1. There is no statutory requirement to do this, merely budget practice. It is within the jurisdiction of the Legislature to adjust this ratio upwards to achieve some measure of cost control in the instruction program. To make changes in many of these previously agreed-to budgeting practices could result in service level reductions.

Due to the enactment of Proposition 98 in 1988, the Legislature, however, has virtually no ability to control the overall level of General Fund support to K-14 education. It can, however, allocate costs within the overall Proposition 98 guarantee to affect the allocation to the CCCs. The budget proposes an allocation of 9.9 percent to the CCCs from the Proposition 98 guarantee—the same as in the current year.

Welfare and Social Services

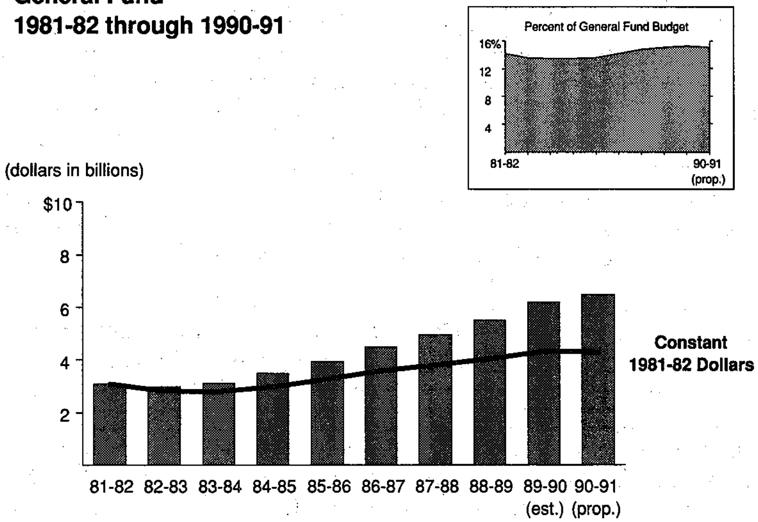
Funding for welfare and social services programs represents 13 percent of state expenditures from all state funds and 15 percent of expenditures from the General Fund as proposed in the budget for 1990-91. Figure 12 displays spending trends in this area over the last nine years and as proposed in the budget. As the figure shows, General Fund expenditures for these programs have increased steadily since 1982-83, and have more than doubled over the entire period. The figure also shows that welfare and social services programs have accounted for a slightly increasing share of all General Fund expenditures since 1983-84.

Figure 12 also displays the spending for these programs adjusted for declines in the purchasing power of the dollar. On this

Figure 12

Welfare and Social Services Expenditures Current and Constant Dollars

General Fund
1981-82 through 1990-91



basis, expenditures still increased by 41 percent from 1981-82 to the current year, which represents an average annual rate of increase of 4.4 percent. The amount proposed in the budget, which would require several statutory changes to implement, would actually represent a slight decline (less than half a percentage point) in purchasing power as compared with estimated current-year expenditures, resulting in the first drop in real expenditures for these programs since 1983-84.

The inflation index that we used in preparing Figure 12 is the GNP implicit price deflator for state and local government purchases, which is a good indicator of the general price increases faced by state and local governments nationwide. The California Necessities Index (CNI), which is designed to estimate inflation in the prices of the goods that California's poor need to survive—food, clothing, shelter, and transportation—provides an alternative approach to estimating changes in the purchasing power of California's welfare programs. Using the CNI to adjust the welfare portion of total program expenditures, we estimate that real expenditures still grew by almost 4 percent per year during the 1980s. To put this increase in perspective, the *populations* that are targeted by welfare and social services programs—the poor, the aged, and children—grew at annual rates of 4.8 percent, 3.1 percent, and 2.1 percent, respectively, during this period. These data would tend to indicate that real expenditures in this program area have essentially kept pace with expansions in service populations.

Figure 13 displays General Fund expenditures for the five major welfare and social services programs. The figure shows that the two major welfare programs, AFDC and SSI/SSP, have grown steadily since 1983-84. The budget's proposal to suspend the statutory COLAs for these programs would result in a flattening of the rate of growth in SSI/SSP costs. While the budget also proposes to suspend the COLA for the AFDC program, the other pressures on costs in this program are so substantial that they more than offset the proposed savings, with the result that proposed 1990-91 expenditures continue the steady increases reflected in the graph over the past several years.

The figure also shows that General Fund costs for county administration (of the AFDC and Food Stamps programs) and for the two major social services programs—Child Welfare Services (CWS) and In-Home Supportive Services (IHSS)—have increased substantially over this period. The rather substantial decline in the IHSS program between 1984-85 and 1985-86 is due more to the switch in federal funding between the CWS and the IHSS programs, which occurred in 1985-86, than to the rather modest reduction in total program costs that occurred at the same time.

Figure 13

Welfare and Social Services Expenditures By Major Program

General Fund
1981-82 through 1990-91

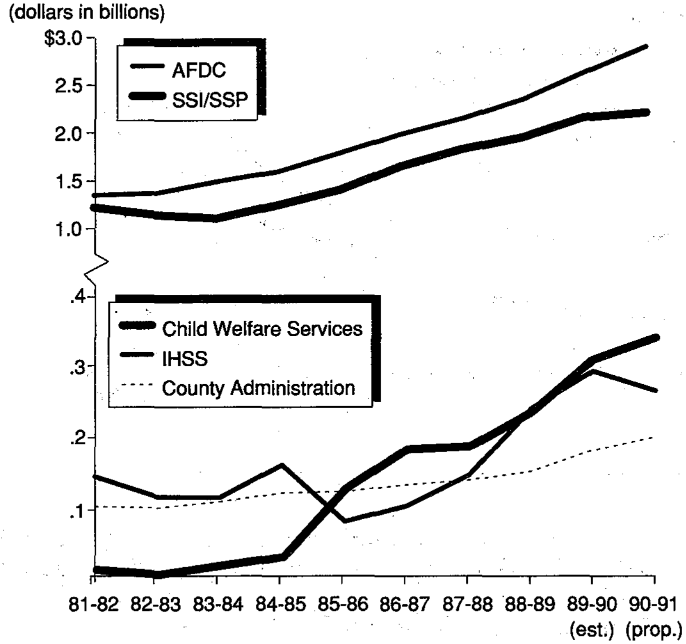


Figure 14 provides a better view of IHSS costs because it includes federal as well as state funds. As the figure shows, the combined state and federal costs of all three of these programs have grown substantially since 1981-82. By far the most dramatic increase among these programs has been the 530 percent increase in funding for the CWS program that occurred between 1981-82 and 1989-90. This reflects an increasing number of abused children that require services as well as the state's expanded financial participation in the program.

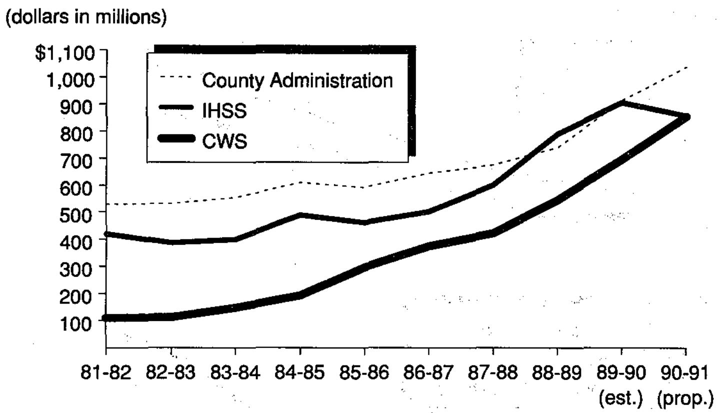
OVERVIEW OF THE BUDGET

The budget proposes *increases* of $300 million from the General Fund for all programs in the welfare and social services area. The General Fund increase represents a 4.9 percent increase over

Figure 14

Welfare and Social Services Expenditures from State and Federal Funds

1981-82 through 1990-91



estimated General Fund expenditures in the current year. We estimate that the General Fund amount needed to fund the current level of services would be approximately $6.9 billion, or $463 million more than is proposed in the budget.

The major proposals in the welfare and social services portion of the budget are for *reductions* in costs. The budget does contain one major new program in 1990-91, the new transitional child care program to reimburse AFDC recipients who take a job and leave welfare for the child care costs they incur during their first 12 months off welfare. This proposal, however, simply implements a new federal requirement. The major cost-cutting proposals contained in the budget are:

- ***Suspension of Statutory Welfare COLAs ($253 Million General Fund Savings).*** The budget proposes to suspend the provisions of state law that require increases in AFDC and SSI/SSP grants based on the change in the CNI. Under existing law, AFDC grants will receive an estimated 4.62 percent increase effective July 1, 1990. As a result, the grant for a family of three will increase from the current $694 per month to $726. SSI/SSP grants will receive the same percentage increase effective January 1, 1991, so that the grant for an aged couple will increase from $1,167 to $1,221. The proposed suspension of the COLAs, which requires legislation to implement, would result in savings of $388 million ($253 million General Fund, $121 million federal funds, and $14 million county funds).

- ***Greater Avenues for Independence—GAIN (Net General Fund Reduction of $67 Million).*** The 1989 Budget Act included funds to serve 100 percent of the caseload that was anticipated to go through the GAIN program in the current year. Since the GAIN program is relatively new—it is still being phased in by all 58 counties—the Department of Social Services (DSS) anticipates that the number of individuals served by the program would be substantially higher in 1990-91 than in 1989-90. In addition, the estimated costs of serving each client have increased substantially, based on counties' actual experiences. The budget proposes to scale back the number of new cases that counties will be allowed to serve in 1990-91, for a General Fund savings to the GAIN program of $96 million. These savings would be partially offset by increased General Fund costs to the AFDC program of $29 million, because the GAIN program will generate less savings.

- ***IHSS Program ($71 Million General Fund Reduction).*** The budget proposes legislation to eliminate IHSS program eligibility for recipients whose physical ability to take care of their everyday needs has been assessed as being somewhat greater than most other recipients. Additional restrictions would apply for individuals whose service providers are their own relatives. The DSS estimates that this proposal would reduce eligibility by 42,000 persons.

- ***Child Welfare Services ($24 Million General Fund Reduction).*** The budget proposes $339 million from the General Fund for the Child Welfare Services program, which is $24 million less than the DSS estimates would be needed to provide enough social workers to serve the entire anticipated child welfare services caseload. The budget does *not* indicate how county welfare departments would be expected to accommodate this shortfall.

Figure 15 displays the major funding changes proposed for the welfare and social services program areas in 1990-91.

Figure 15

Welfare and Social Services Programs Proposed Major Changes for 1990-91

AFDC — Requested: $2.9 billion; Increase: $273 million (10%)

- \+ $158 million for caseload increases
- \+ $84 million increase for legislation enacted in 1989 and to offset reduced federal funding for refugees
- − $112 million reduction due to suspension of COLA
- − $26 million for transfer of funding for foster care costs of severely emotionally disturbed children from DSS to SDE

SSI/SSP — Requested: $2.2 billion; Increase: $51 million (2.4%)

- \+ $138 million to fund the full-year cost of the COLA that recipients were granted effective January 1, 1990
- \+ $79 million for caseload increases
- − $172 million reduction due to savings resulting from increases in the federal share of the grant
- − $141 million reduction due to suspension of COLA

Child Welfare Services — Requested: $339 million; Increase: $31 million (10%)

- \+ $51 million for caseload increases
- − $24 million program reduction

In-Home Supportive Services — Requested: $265 million; Decrease: $28 million (9.5%)

- \+ $55 million for caseload increases
- − $71 million program reduction

ABILITY OF THE LEGISLATURE TO CONTROL COSTS

The Legislature has limited ability to control the costs of most of the welfare and social services programs through the budget without also making statutory changes. This fact is reflected in the budget itself, in that most of the cost-cutting measures proposed in the budget would require legislation to implement.

The two exceptions are the proposal to scale back the GAIN program and the program reduction proposed for Child Welfare Services. With respect to the Child Welfare Services program, however, there are practical limits to the amount of cost control that it is possible to achieve without statutory change. This is because existing law is very specific as to how counties must serve abused and neglected children and their families. While it might be possible for some counties to make some modest staffing reductions and still provide all the required services, a substantial cutback would require them to reduce services below the levels required by law. Should this occur, it is likely that the budget cuts would face legal challenges from the counties and from client groups.

The Legislature, however, has broad discretion to control costs in welfare and social services programs through statutory changes. There are three basic approaches that the Legislature could use in designing legislation to effect reductions in welfare and social services costs: generalized reductions in program benefits, targeted reductions, and elimination of lower priority programs. The budget includes examples of how the administration proposes to use each of these approaches.

General Reductions in Benefits. The proposed suspension of welfare COLAs is a general reduction in benefits. Such reductions are generally allowable under federal rules, have the potential to yield large savings, and are administratively simple to implement. On the other hand, this approach does *not* distinguish between recipients based on their individual circumstances and therefore may place some unknown number of recipients at substantial risk. For example, recipients in rural communities with lower housing costs might be able to forego the statutory COLA for 1990-91 with less difficulty than recipients in urban areas, where high housing costs already place some recipients at risk of becoming homeless.

Targeted Reductions. The major example of a targeted reduction in the welfare and social services part of the budget is the proposed IHSS "program reduction." This approach attempts to "soften" the adverse effects of budgetary reductions by placing the burden of the cuts on individuals who are theoretically best able to handle them. In the case of the proposed IHSS reduction, recipients would no longer be eligible for benefits if their physical ability to take care of their own everyday needs is assessed as being relatively high. While this type of targeted approach can yield fairly large savings, it can be extremely difficult to design and implement. For example, the budget proposal for IHSS program reductions is flawed because it bases the targeting on the recipients' *average* scores on a complex assessment of their physical ability to take care of a variety of their own personal care needs. Since the average can mask significant variations in an individual's ability to handle specific self-care tasks, it is quite possible that many of those targeted by the proposal are *not* actually able to take care of all of their essential daily needs, and would therefore be placed at significant risk under the proposed reduction.

Elimination of Lower-Priority Programs or Program Components. To the extent that it is possible to identify programs of lower priority, this approach makes the most sense analytically. The problem is in determining which programs are of lower priority. The programs proposed for elimination in the welfare and social services portion of the budget, however, are in areas of historically high priority to the Legislature such as child abuse prevention, job placement for the disadvantaged, and the licensing of family day care.

Another criterion the Legislature could use in assessing its priorities is program effectiveness. Often, however, there is not compelling quantitative evidence of either program effectiveness or ineffectiveness. In the case of the proposal to save $10 million by eliminating the Child Abuse Prevention Training Act Program, for example, there are no reliable studies that assess the program's success in preventing abuse.

Health

Funding for health programs represents 14 percent of expenditures from all state funds and 15 percent of General Fund expenditures proposed in the budget for 1990-91. Figure 16 shows spending trends over the last nine years and as proposed in the budget. The average annual increase in General Fund spending for health programs over the last 10 years is 5.5 percent. Including the recent increase in cigarette tax funding and other special funds pushes the rate of annual increase up to 6.7 percent.

Figure 16 shows that expenditures from all funds for health programs have increased every year since 1983-84, except for a decline in 1990-91, due to the elimination of one-time Proposition 99 (Cigarette and Tobacco Products Surtax Fund—C&T) funds carried over from 1989-90. Expenditures from the General Fund have increased every year since 1983-84.

Figure 16

Health Expenditures
Current and Constant Dollars

All State Funds
1981-82 through 1990-91

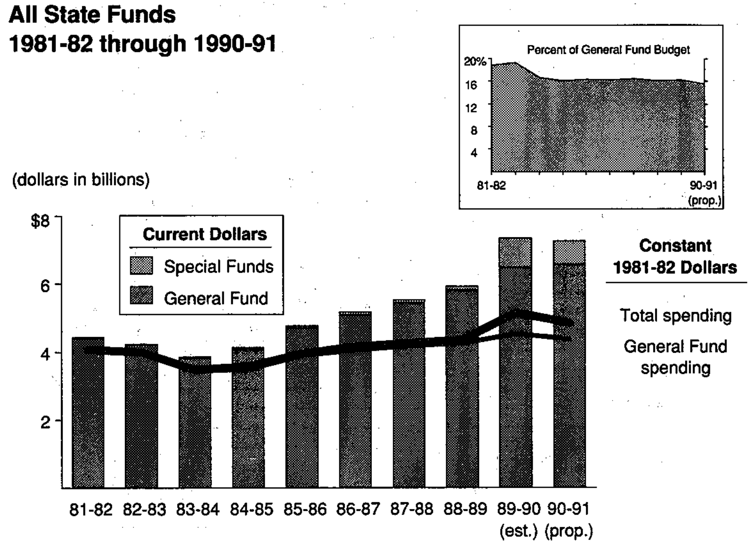


Figure 16 also displays the rate of increase for health programs as adjusted for declines in state purchasing power. As the figure shows, spending on the adjusted basis has increased only slightly over the last 10 years. The average annual increase in adjusted spending from the General Fund amounts to 0.9 percent; including the special funds raises this increase to 1.9 percent.

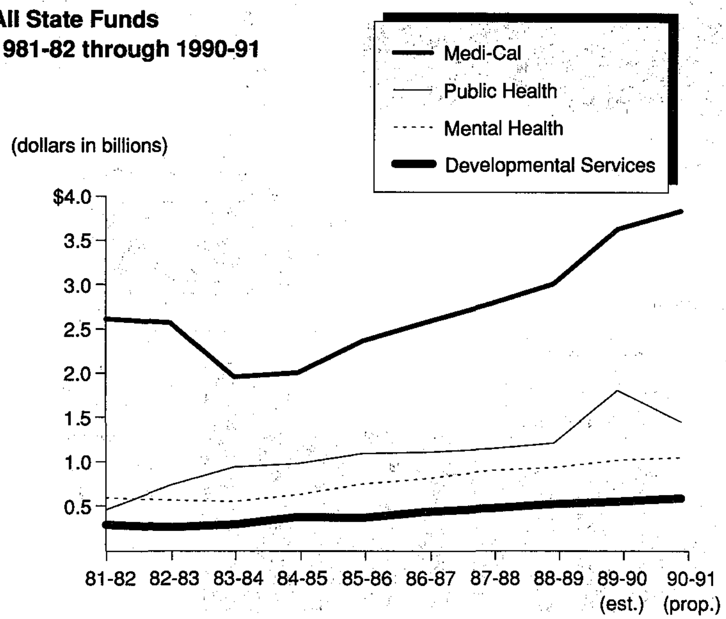
Figure 17 shows spending from all funds by major program. For Medi-Cal, the largest program, the figure shows a significant reduction in 1983-84 due to reforms in the program, followed by a steady increase since then. The program shows an accelerated rate of growth between 1988-89 and 1989-90 primarily as a result of new federal requirements and the delay in payment of certain expenditures from 1988-89.

Spending for public health programs has increased significantly over the past nine years, primarily due to (1) establishment of the Medically Indigent Services Program (MISP) in 1983 to

Figure 17

Health Expenditures By Major Program

All State Funds
1981-82 through 1990-91



assist counties to care for former Medi-Cal eligibles and (2) the infusion of C&T funds in the current year.

OVERVIEW OF THE BUDGET

The budget for 1990-91 proposes a reduction of $76 million (1 percent) from all state funds and an increase of $98 million (1.5 percent) from the General Fund for health programs. We estimate that the General Fund increase needed to fund the current level of services is approximately $556 million, consisting of $444 million for workload increases and $192 million for cost increases, offset by a net savings of $80 million due to other factors. This is $458 million above the amount proposed by the Governor.

The budget contains the following major policy proposals:

- ***Reduction in AB 8 County Health Services ($150 Million General Fund).*** The budget proposes to reduce funding for this program based on the premise that a major cause of recent increases in state Medi-Cal spending is that counties are receiving additional Medi-Cal reimbursements for services provided to aliens as a result of federally mandated changes in Medi-Cal. This premise is probably accurate to some extent; however, the exact level of additional Medi-Cal funding received by counties for services to aliens is unknown.
- ***Medi-Cal Savings Proposals ($98 Million General Fund).*** The budget proposes to implement various savings proposals in the Medi-Cal program. The largest single proposal is to eliminate six health care benefits not required by the federal government ($36 million). The others involve rate reductions for incontinence supplies ($28 million), drug cost containment ($24 million), and restructuring of physician reimbursement rates ($10 million).
- ***Regional Center Fees ($34 Million General Fund).*** The budget proposes to impose fees on regional center clients. The Department of Developmental Services estimates that actual fee collections would be $5 million. The remaining savings would occur because instituting fees would enable the state to claim federal funding through the Medi-Cal program for case management services.
- ***MISP Reduction ($25 Million General Fund).*** The budget proposes to reduce funding for the MISP. According to the budget, the General Fund reduction will be offset by an increased appropriation for the program next year—1991-92.

- ***Special Education Pupils Shift ($15 Million General Fund).*** The budget proposes to transfer responsibility for mental health services to special education pupils to the State Department of Education.
- ***Suspend Statutory COLAs ($29 Million General Fund).*** The budget proposes to suspend statutory COLAs for cash assistance beneficiaries. This affects expenditures in several health programs.

The policy changes listed above account for $351 million of the difference between the proposed General Fund budget and current services level funding. The remaining difference is due primarily to the budget's failure to fund cost increases in some programs ($146 million General Fund).

The budget also reflects a decrease of $174 million, or 20 percent, in special funds. This is primarily due to elimination of one-time Proposition 99 funds that were available in the current year.

Figure 18 shows the major changes in funding proposed for health programs in 1990-91.

ABILITY OF THE LEGISLATURE TO CONTROL COSTS

The Legislature has limited ability to control health program costs through the budget process. This is because in many of the major programs, eligibility requirements, benefits, provider reimbursement methods, and/or funding levels are set in statute. In addition, for many programs, federal requirements limit the Legislature's flexibility to make changes in statute. Some of the major factors affecting costs are:

Caseload. Eligibility requirements for the Medi-Cal program are set in statute and generally are based on eligibility requirements for the state's cash assistance programs—SSI/SSP and AFDC. Thus, the Legislature cannot control caseload growth through the budget. To reduce Medi-Cal costs, the Legislature could enact statutory changes to revise eligibility requirements for the cash assistance programs or eliminate or curtail coverage of some limited categories of Medi-Cal eligibles who do not receive cash assistance. However, any reduction in Medi-Cal costs would be at least partially offset by increased costs to counties, as the counties are "the providers of last resort."

The budgets for several public health programs (amounting to approximately $110 million from the General Fund in 1990-91), the Department of Developmental Services, and a portion of the state hospitals in the Department of Mental Health, also are

Figure 18

Health Programs
Proposed Major Changes for 1990-91

Medi-Cal Local Assistance	Requested: $3.8 billion Increase: $211 million (5.8%)

- \+ $198 million for new federal requirements
- \+ $126 million for changes in caseload, utilization, and other factors
- \+ $62 million for current- and budget-year cost-of-living adjustments
- − $98 million for six cost-saving proposals
- − $14 million to delete funding for Medi-Cal abortions

Public Health Local Assistance	Requested: $1.4 billion Decrease: $349 million (19%)

- − $173 net reduction in C&T funds available
- − $150 million reduction in the AB 8 county health services program
- − $25 million program reduction in the MISP

Mental Health	Requested: $1 billion Increase: $29 million (2.8%)

- \+ $21 million to reduce the salary savings level at the state hospitals and to fund other cost increases
- \+ $10 million from the C&T Fund for program expansion
- − $15 million savings to transfer responsibility for providing services to special education pupils to the SDE

Developmental Services	Requested: $584 million Increase: $45 million (8.3%)

- \+ $27 million for implementation of the Alternative Residential Model rate-setting system
- \+ $19 million to reduce the salary savings level at the developmental centers and to fund other cost increases
- − $34 million savings as a result of imposing fees on regional center clients

caseload-driven, based on statute. The caseload increases in these programs are not subject to control through the budget.

Benefits. Like eligibility levels, the benefits available through many programs are set in statute and are influenced by federal requirements. The Legislature cannot control these through the budget process. The Legislature can reduce the benefits available, however, through statutory changes. Again, such reductions could result in some offsetting costs: (1) to the state, in the form of higher-cost Medi-Cal services or (2) to counties, as the providers of last resort.

Costs of Services. Many of the programs operate by reimbursing private providers according to rate schedules set by statute or regulations. The Legislature has varying amounts of control over reimbursement rates through the budget process. For example, the Legislature can choose whether to grant COLAs to some categories of Medi-Cal providers, such as physicians. Other categories of providers, such as noncontract hospitals and nursing facilities, receive automatic COLAs under federal rules and state law.

For programs operating by reimbursing providers through *rate schedules,* another factor affecting costs is the mix of services billed. The Legislature can institute some controls through the budget process, for example, by increasing prior authorization staffing, but cannot implement any major changes in the criteria for approving services in this manner.

Reimbursement levels and the mix of services billed are influenced by underlying trends in the costs of medical care. Costs of these programs have increased despite cost containment measures, in part because medical care costs have increased more rapidly than the costs of other goods and services.

Some programs operate through *contracts* or *agreements*. In some of these programs, the Legislature has very little control over the contract arrangements and costs through the budget process. For example, although the regional centers operate under contract, they have considerable autonomy under the Lanterman Act to approve services for clients. In contrast, the Legislature can control the level of spending on local mental health programs and many public health programs by setting the appropriation in the annual budget.

The state itself operates the state mental hospitals and developmental centers. The costs of these services can be controlled to a limited degree through the budget process by setting staffing levels or funding community alternatives. However, requirements imposed by the federal government limit the Legislature's staffing flexibility, and community alternatives can be as costly as state institutional care.

Statutory Funding Levels. The funding level for the AB 8 County Health Services Program is set in statute based on the level of spending in 1977-78, adjusted for inflation and population changes. Thus, statutory changes are required to affect spending levels for this program.

Criminal Justice

Funding for criminal justice programs represents 6.3 percent of expenditures from all state funds proposed in 1990-91 and 7.5 percent of General Fund expenditures proposed in 1990-91. As shown in Figure 19, criminal justice program expenditures have almost tripled over the last 10 years, increasing at an average annual rate of 17 percent (General Fund). The figure also shows that criminal justice expenditures have increased steadily and rapidly as a share of the General Fund budget over the 10-year period. In fact, criminal justice is the only expenditure category that has increased its share of General Fund expenditures in *every* year since 1981-82. Figure 19 also displays the spending trend as adjusted for declines in state purchasing power. On this basis, criminal justice expenditures have increased at an average annual rate of 12 percent.

Figure 19

Criminal Justice Expenditures
Current and Constant Dollars

General Fund
1981-82 through 1990-91

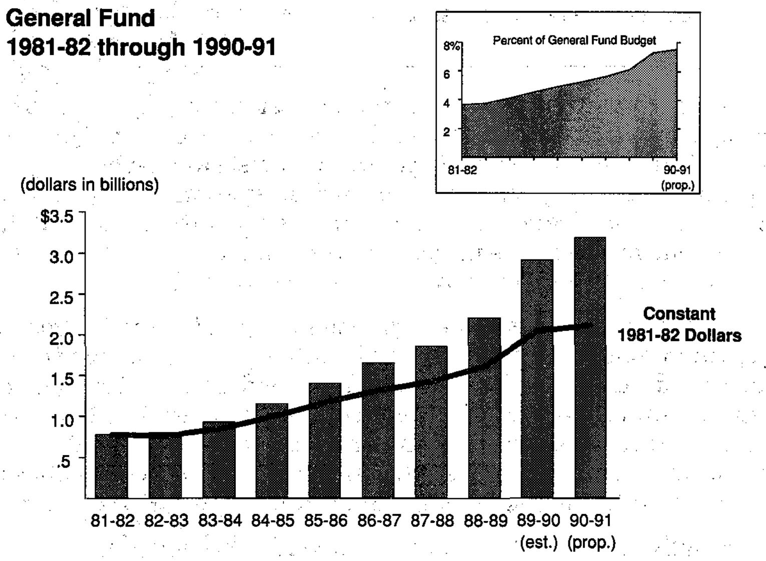
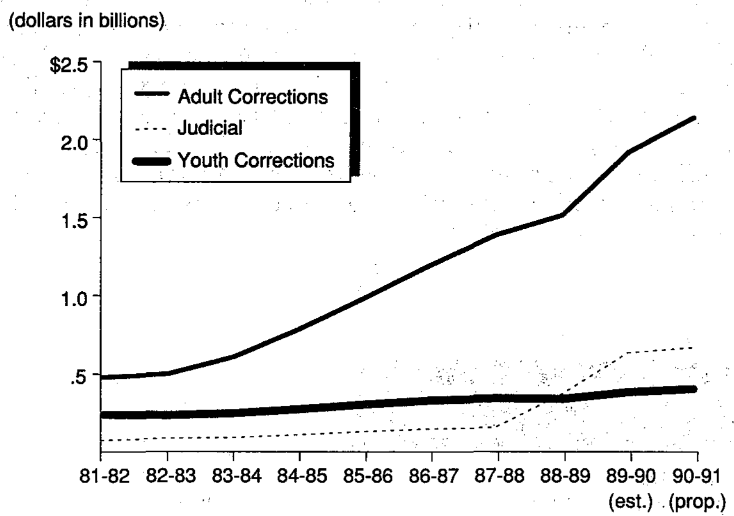


Figure 20 shows how each of the major programs in this area have grown since 1981-82. These data indicate that the rates have differed substantially.

Figure 20

Criminal Justice Expenditures By Major Program

General Fund
1981-82 through 1990-91



Adult corrections is, by far, the largest criminal justice program, accounting for about two-thirds of proposed criminal justice expenditures in 1990-91. This program consists almost entirely of expenditures to support the state prison system. The primary reason for the dramatic rise in state expenditures for adult corrections has been the increase in the number of adults sent to state prison—295 percent over the 10-year period.

As Figure 20 shows, the increase in expenditures for youth corrections has been relatively small, although it has doubled over the period. The number of youthful offenders incarcerated in Department of Youth Authority facilities, however, has risen 51 percent since 1981-82. The major factor contributing to this population increase has been the length of stay, which is subject to administrative decisions of the Youthful Offender Parole Board.

Finally, Figure 20 shows that expenditures for judicial programs accounted for a small portion of criminal justice expenditures until a sharp rise in 1988-89. This is attributable to implementation of the Trial Court Funding Program, which provided for the state to assume primary responsibility for funding the operations of the trial courts in counties that chose to participate.

OVERVIEW OF THE BUDGET

As shown in Figure 19, the budget for 1990-91 proposes increases of $278 million (9.5 percent) for criminal justice programs. These programs are financed almost completely from the General Fund. We estimate that the General Fund increase needed to fund the current level of services is approximately $269 million, consisting of $191 million for workload increases and $78 million for costs increases. The Governor's Budget proposes spending about $9 million above this amount.

The Governor's Budget contains no major policy proposals for criminal justice programs.

Figure 21 displays the major funding changes proposed for program in the criminal justice area for 1990-91.

Figure 21

Criminal Justice Programs
Proposed Major Changes for 1990-91

Adult Corrections — Requested: $2.1 billion; Increase: $214 million (11%)

+ $167 million for increased caseload
+ $41 million for cost adjustments
− $21 million unallocated reduction

Youth Corrections — Requested: $402 million; Increase: $22 million (5.7%)

+ $11 million for increased caseload
+ $11 million for cost adjustments

Judicial — Requested: $667 million; Increase: $39 million (6.2%)

+ $23 million for cost and workload adjustments in state-financed local court programs
+ $16 million for increases in state judicial programs

ABILITY OF THE LEGISLATURE TO CONTROL COSTS

The Legislature's ability to control costs of criminal justice programs, especially in the short run, is severely limited. This is because most of the factors that determine workload in this area, such as the length of criminal penalties, are set in statute. Most changes in statute that could reduce expenditures would be unlikely to have an impact for one or more years. In addition, changes in this area could result in significant trade-offs that would help control costs at the state level, but result in increased costs at the local level.

Given that adult corrections comprise two-thirds of criminal justice expenditures, the Legislature would probably need to focus attention in this area in order to have any significant effect on expenditures. However, California's criminal sentencing structure makes it extremely difficult for the Legislature to control costs of adult corrections in the short-run, because any changes in sentences would apply only prospectively.

In order to have a significant impact on expenditures, the Legislature would have to seek reductions in the inmate and parole populations. The options that would control expenditures most quickly include selectively reducing prison terms, releasing some inmates from prison prior to the end of their terms, or making changes in methods of parole supervision to reduce the number of parole violators returned to prison. These options generally run counter to trends in recent legislation.

The Legislature also could reduce expenditures for support of the existing adult corrections programs, such as reducing the number of custody, support, or program staff in state prisons (staff services comprise just over two-thirds of the costs of adult and youth corrections programs). Reductions of custody staff, however, would have obvious public safety trade-offs. Reductions in support or program staff could actually make the fiscal situation worse, since most programming in state prison is intended to reduce the time inmates spend in institutions or decrease their likelihood of returning.

Youth corrections comprise only about 12 percent of criminal justice expenditures and, as Figure 20 shows, have been relatively stable over the past 10 years. Consequently, changes to control costs in this area would not result in as significant a change in state costs as would be available in the corrections area. Most of the options outlined above would apply to these programs as well.

Changes in judicial programs would likely require statutory changes and may be of little benefit to the Legislature when attempting to control costs. For example, the Legislature could modify the Trial Court Funding Program (which accounts for about 70 percent of judicial program expenditures) to reduce block grants to counties. Such an option would have little benefit, however, because modifications would require an increase in the appropriations limits of counties and a decrease in the appropriations limit of the state. Thus, the state might not have sufficient room under its limit to spend the funds that were saved as a result of the transfer.

Resources

Funding for resources programs represents only a small share (2.4 percent) of expenditures from state funds proposed by the Governor's Budget in 1990-91. In total, the budget proposes $1.2 billion from all state funds for support of resource program operations and local assistance in the budget year. Nearly 60 percent ($724 million) of state support for resources programs will come from special funds, including the Environmental License Plate Fund, the Motor Vehicle Account, the Public Resources Account (Proposition 99), and funds generated by fees for support of specific regulatory activities. The remainder—$503 million—is proposed from the General Fund. As Figure 22 demonstrates, the share of the General Fund budget allocated for resources programs has declined steadily for the last five years, and special funds have now surpassed the General Fund as the primary source of support for resources programs.

Figure 22

Resources Expenditures
Current and Constant Dollars

All State Funds
1981-82 through 1990-91

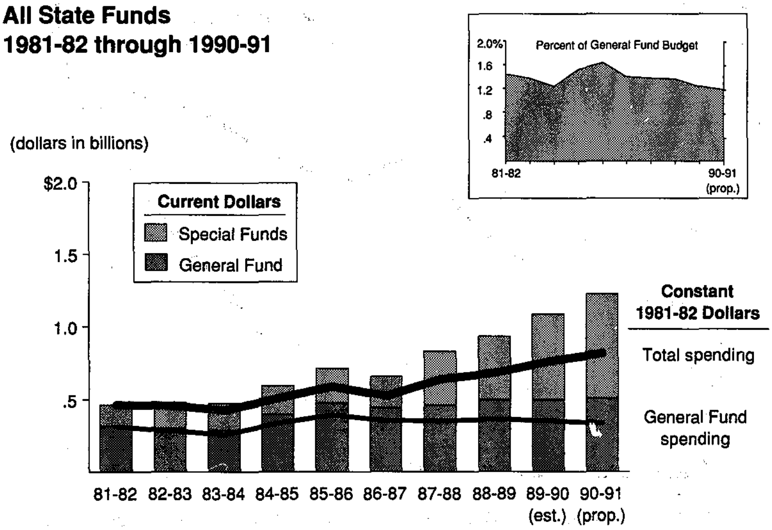


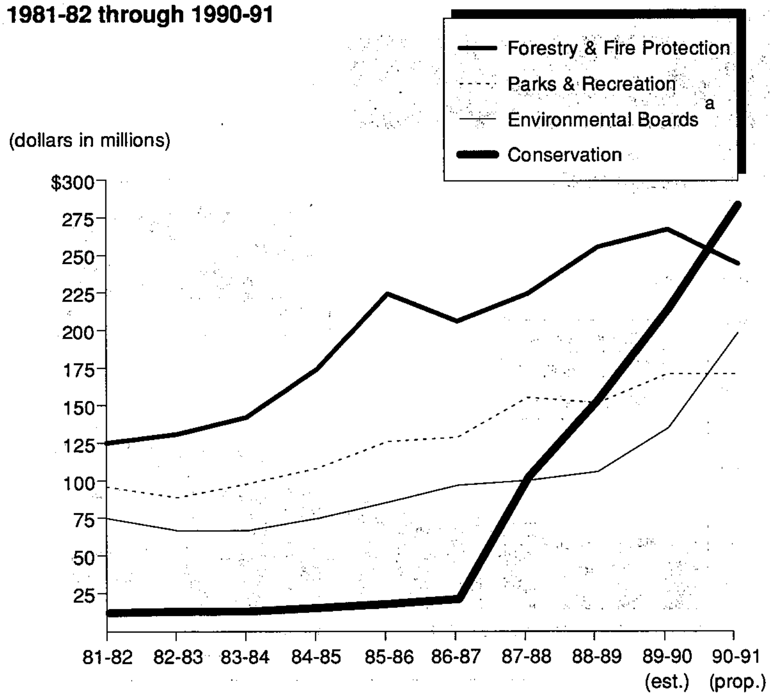
Figure 22 shows state spending trends for resources programs over the last 10 years. As this figure demonstrates, General Fund expenditures have increased by nearly $200 million in the last 10 years. When these expenditures are adjusted for declines in purchasing power, however, the growth in General Fund spending for support of resource programs has increased only slightly. Figure 22 also demonstrates that special fund expenditures for resources programs have increased markedly—from $150 million in 1981-82 to $724 million proposed in 1990-91. Adjusting for declining purchasing power, *total* state expenditures for resources programs grew at an average annual rate of 6.5 percent during the last 10 years.

Figure 23 illustrates expenditure trends for the four largest state-funded program areas within the resources area: the De-

Figure 23

Resources Expenditures By Major Program

All State Funds 1981-82 through 1990-91



[a] Includes State Water Resources Control Board, Air Resources Board, and the Integrated Waste Management Board.

partments of Conservation (DOC), Forestry and Fire Protection (CDFFP), and Parks and Recreation (DPR), and the Environmental Affairs Agency boards with responsibility for water quality, air quality, and waste management. As the figure shows, the most marked increase in expenditures began in 1987-88 when the Department of Conservation grew from a relatively small department ($21 million in state funds) to become the largest single department within the Resources Agency ($283 million proposed in 1990-91). This rapid growth resulted from the implementation of a statewide beverage container recycling program.

OVERVIEW OF THE BUDGET

As shown in Figure 22, the budget for 1990-91 proposes increases of $140 million (13 percent) from all state funds and $6 million (1.2 percent) from the General Fund. We estimate that the General Fund increase needed to fund the current level of services is approximately $35 million. This is $29 million above the amount proposed by the Governor. The failure of the budget to plan for emergency fire suppression costs (approximately $24 million) explains most of the discrepancy in funding for the current services level. The remaining amount is due primarily to a reduced level of support for local assistance grants and programs and the failure to fund cost increases in various departments.

Figure 24 shows the major funding changes for resources programs proposed for 1990-91.

ABILITY OF THE LEGISLATURE TO CONTROL COSTS

The ability of the Legislature to control resource program costs are constrained by several factors. First, costs determined by natural events, or by the need to plan for natural phenomena contribute significantly to the overall cost of resources programs. Among other things, these costs include expenditures for fighting forest fires and helping local governments build flood control projects. Second, the pressure to preserve open space and outdoor recreational opportunities for an increasingly urban society, and to protect wildlife habitat from environmental pressures caused by population growth ultimately increases state costs to operate, maintain, and police acquired lands. Third, the state must comply with various federal requirements regarding environmental quality. Finally, statutory initiatives passed by the electorate often require regulatory action by state agencies, as in the case of Proposition 65. (Proposition 65 imposed new requirements for discharges of toxic chemicals and for warnings about exposure to toxic chemicals.) Environmental initiatives currently circulating for the June and November 1990 ballots could significantly

Figure 24

Resources Programs
Proposed Major Changes for 1990-91

Conservation	Requested: $283 million Increase: $68 million (32%)

+ $68 million for implementation of the state's new Beverage Container Recycling Program

Forestry and Fire Protection	Requested: $244 million Decrease: $21 million (8.6%)

− $24 million reduction for emergency fire suppression costs

Environmental Boards	Requested: $198 million Increase: $63 million (47%)

+ $43 million to expand integrated waste management activities

+ $21 million to expand programs relating to storage tanks

increase state costs to protect habitat and regulate forest practices.

Despite these constraints, the Legislature has several tools available to it to control costs—especially General Fund costs—of many resources and environmental programs. These tools include:

Shifting Costs to the Regulated Community and Program Beneficiaries. In recent years, the Legislature has frequently used special fees assessed on regulated industries to support the costs of environmental programs. Examples include (1) fees assessed on owners and operators of petroleum storage tanks to cover the State Water Resources Control Board's (SWRCB) costs to regulate tank operation, maintenance and cleanup, and (2) new fees implemented in the current year to cover the full costs of the Integrated Waste Management Board. However, there are other areas traditionally supported by the General Fund that also could be shifted to fees, including: (1) the state's costs for reviewing Timber Harvest Plans, (2) the SWRCB's costs of issuing water rights permits and of regulating waste discharges, and (3) the costs to operate the state park system.

Accepting Greater Risk; Doing Less. Federal and state requirements in many areas of environmental regulation result in the state implementing inspection and enforcement programs to ensure that the regulated community is complying with legal requirements. Implicit in the level of resources approved for these activities is an assessment of risk that the state has made concerning the costs to the state to enforce the regulations versus the cost to the environment of a violation of the requirements. In many areas, it may be that the state has been more risk-averse than current law minimally requires by providing resources for optional inspections and reviews. As a cost-control measure, the Legislature could choose to allocate fewer enforcement resources for environmental programs, thereby accepting a greater risk that violations resulting in environmental damage will happen. This would be contrary, however, to recent legislative trends in this area.

Transportation

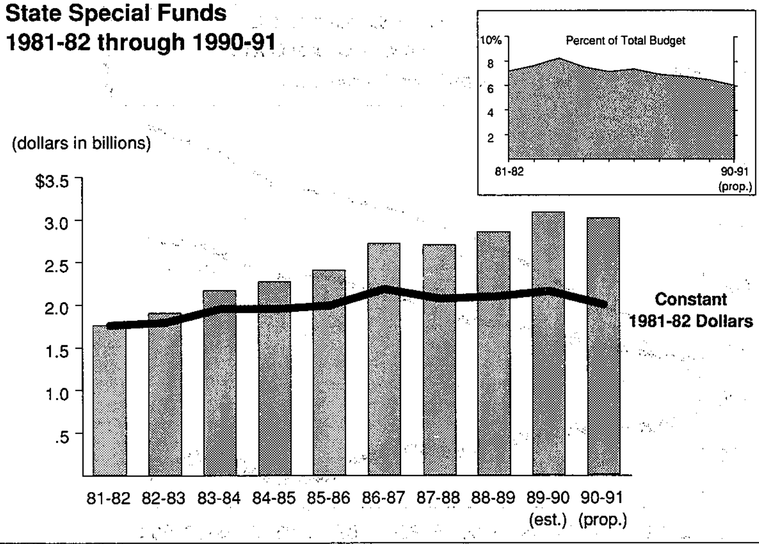
Funding for transportation programs represents 6 percent of expenditures from all state funds proposed in 1990-91. State funds for transportation programs are provided almost entirely from state excise taxes on gasoline and diesel fuel, truck weight fees, and vehicle registration and drivers' license fees. Only minimal amounts of General Fund money are used for the state's transportation programs.

Figure 25 shows spending trends over the last 10 years. The average annual increase in spending from all state funds for transportation programs over the decade was 6.1 percent. The figure also shows that expenditures for transportation programs have been declining steadily as a share of expenditures from all state funds since 1982-83. Figure 25 also shows the rate of increase in state spending as adjusted for declines in state purchasing power. On this basis, transportation spending's annual

Figure 25

Transportation Expenditures Current and Constant Dollars

State Special Funds 1981-82 through 1990-91



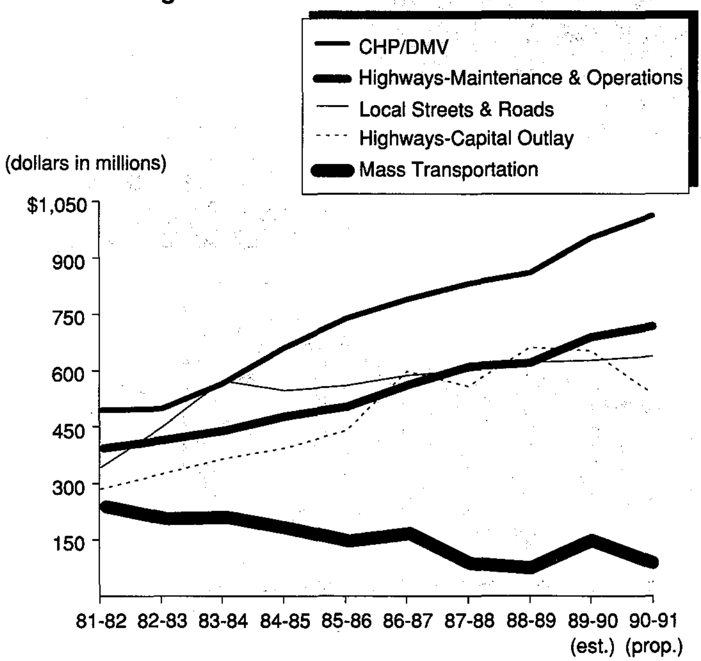
rate of increase was about 2.3 percent through 1989-90, but would decline in 1990-91.

Figure 26 shows spending for the five major transportation-related programs since 1981-82. It indicates that state expenditures for licensing and registering California drivers and vehicles, as well as for traffic enforcement—by the Department of Motor Vehicles (DMV) and the California Highway Patrol (CHP), respectively—have increased significantly over the last 10 years, at an average annual rate of 8.3 percent. Expenditures to operate and maintain the state's highway system have also expanded significantly, although at a lower average annual rate of 6.9 percent. State-funded expenditures for highway capital outlay (including design, engineering and construction) show a relatively rapid rate of growth through 1989-90 (about 11 percent per year). However, as shown in Figure 26, these capital outlay

Figure 26

Transportation Expenditures By Major Program

State Special Funds 1981-82 through 1990-91



expenditures are projected to decrease dramatically in the budget year.

In contrast, the figure shows that expenditures on mass transportation activities have declined consistently since 1981-82, at an average annual rate of almost 11 percent. In 1990-91, expenditures for mass transportation are proposed at $88 million, compared to expenditures of $238 million in 1981-82.

OVERVIEW OF THE BUDGET

As shown in Figure 25, the budget for 1990-91 proposes $3 billion in state funds for transportation programs. This is a net decrease of $75 million (2.4 percent) from the current-year estimated level.

The Governor's Budget identifies a $533 million deficit in state funds necessary to restore base reductions made in the current year in highway maintenance and operations, and to carry out previously planned highway capital outlay activities. In order to minimize the necessary cutbacks in the highway capital outlay program, the budget contains the following major policy proposals:

- ***Highway Capital Outlay ($185 Million Reduction).*** The budget proposes to eliminate all state-funded highway capital outlay projects, except for seismic retrofit, safety, and earthquake-related rehabilitation work.
- ***Engineering Service Contracts ($104 Million Reduction).*** The budget proposes to eliminate state funding of engineering services contracts and to rely only on state engineering staff to design and develop highway projects.
- ***Transit Programs ($118 Million Reduction).*** The budget proposes to eliminate State Transportation Assistance (STA) and transit guideway funding, and to reduce Transit Capital Improvement program funding. As a result, the state will not be able to honor about $85 million worth of prior funding commitments in 1990-91. These funds would be used for highway transportation purposes instead.

While highway capital outlay and mass transportation expenditures are proposed for reduction, the budget would increase state funding of the traffic licensing and enforcement programs above the current level. Specifically, the budget provides funding for additional CHP traffic officers and additional staff at the DMV for increased workload and to implement new programs. To pay for the higher service levels and to avoid a potential deficit in the Motor Vehicle Account (MVA), the budget proposes to increase various fees charged to drivers and for vehicle registration (if the fee increases are not implemented, the MVA could run a deficit of at least $60 million in 1990-91). In addition, the budget proposes to fund part of the retirement expenditures for CHP staff from surplus employer contributions to the Public Employees' Retirement Fund.

Figure 27 displays the major funding changes proposed for transportation programs in 1990-91.

Figure 27

Transportation Programs
Proposed Major Changes for 1990-91

Program		
Highway Operations and Maintenance	Requested:	$717 million
	Increase:	$30 million (4.3%)

+ $30 million to restore reductions in highway maintenance expenditures made in the current year

Program		
Highway Capital Outlay	Requested:	$538 million
	Decrease:	$114 million (18%)

– $114 million reduction as a result of insufficient state funds for highway activities

Program		
Local Streets and Roads	Requested:	$637 million
	Increase:	$11 million (1.7%)

+ $11 million in subventions for local streets and roads

Program		
Mass Transportation	Requested:	$88 million
	Decrease:	$61 million (41%)

– $61 million reduction from eliminating funds for state transit assistance programs and transit guideway projects

Program		
Traffic Enforcement	Requested:	$1 billion
	Increase:	$59 million (6.2%)

+ $27 million for 150 new CHP officers and for other cost and workload increases

+ $33 million for increased workload and to implement new legislation at DMV

IMPACT OF SENATE CONSTITUTIONAL AMENDMENT 1 (SCA 1)

The Governor's Budget proposal for transportation expenditures was prepared based on current law. In the June 1990 election, voters will be asked to approve SCA 1 (Garamendi). If approved, this measure would trigger increases in gasoline and diesel excise taxes, and in truck weight fees, beginning in August 1990. These increased revenues would have a significant impact on the budget for transportation programs.

If SCA 1 is approved by the voters, an additional $925 million in state revenues would be received in 1990-91 for highway transportation, local streets and roads, and mass transportation purposes. In that event, the Legislature would need to determine whether to restore all the base adjustments and reductions proposed in the Governor's Budget, and what amount of the additional funds ought to be directed for highway and mass transportation activities.

However, if SCA 1 is not approved, the Legislature would need to determine the appropriate level of highway capital outlay activities to be sustained, given limited state resources, and how best to adjust to the lower program level. In addition, the Legislature would need to determine the extent to which state funds ought to be used for mass transportation purposes, and how to accommodate the state's demand for transportation services from the available combination of state, federal, local and private funds.

General Government

Funding for general government programs represents about 14 percent of expenditures from all state funds and approximately 8.4 percent of General Fund expenditures in 1990-91. These general government expenditures include: state administrative expenses, regulatory programs, tax relief, local government aid, and the costs of state-mandated local programs.

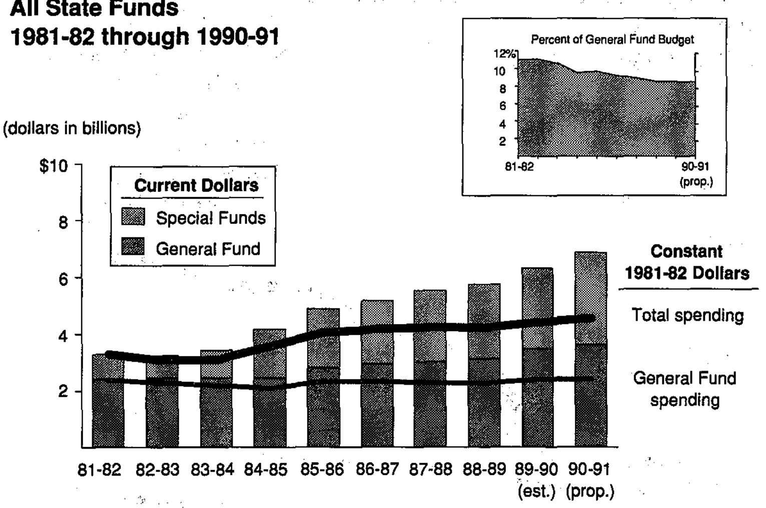
Figure 28 shows that general government expenditures from all state funds have increased from $3.3 billion in 1981-82 to a proposed level of $6.8 billion in 1990-91, an average annual increase of 8.5 percent. Spending for these programs from the General Fund has increased at a much-less-rapid average annual rate of 4.7 percent. As a result, special funds now support almost one-half of expenditures in this program area.

Accounting for declines in state purchasing power, Figure 28 shows that general government expenditures from all funds have

Figure 28

General Government Expenditures
Current and Constant Dollars

All State Funds
1981-82 through 1990-91



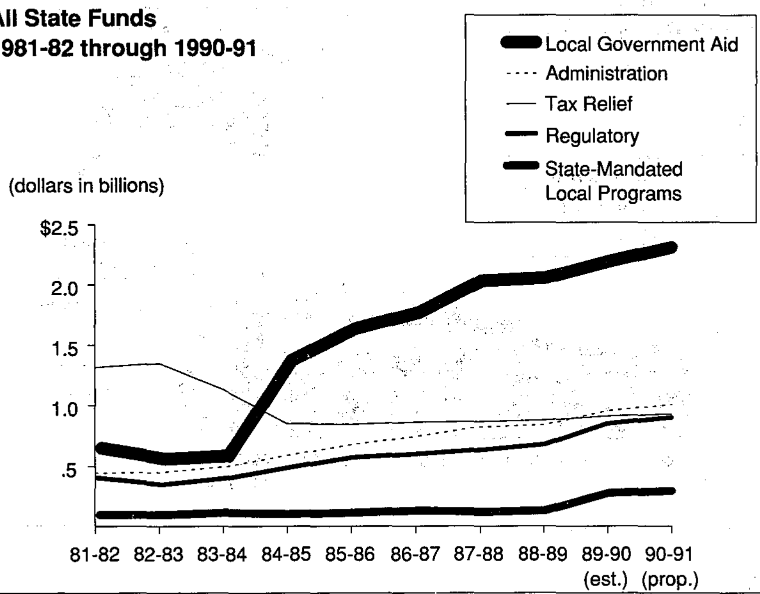
grown at an average annual rate of 3.7 percent between 1981-82 and 1990-91. General Fund expenditures, in contrast, show no increase over the 10-year period when adjusted for purchasing power declines.

Figure 29 shows funding for general government expenditures, by major program, for the last 10 years. The largest program over much of the last 10 years has been aid to local governments. This aid, which is funded primarily by motor vehicle license fees (VLF) and is apportioned to cities and counties for general purposes according to population, has been growing at an annual average rate of 9.1 percent since 1984-85. In the 1981-82 through 1983-84 period, the state reduced VLF subventions as part of its overall budget-balancing strategy. The decline in state funding for tax relief between 1982-83 and 1984-85 shown in Figure 29 reflects the repeal of the Business Inventory subvention in 1983-84. Tax relief expenditures have been relatively stable ever since. Finally, Figure 29 also shows that although state-mandated local programs are a relatively small portion of expenditures for general government programs, they have more than doubled over the last two years.

Figure 29

General Government Expenditures By Major Program

All State Funds
1981-82 through 1990-91



OVERVIEW OF THE BUDGET

The Governor's Budget proposes general government expenditures of $6.8 billion from all state funds ($3.6 billion General Fund) in 1990-91. This represents an increase of 8.6 percent, (5 percent for General Fund spending) over estimated 1989-90 expenditures. With two exceptions, the Governor's Budget proposes to fund programs in the general government area at the level required to maintain current service levels.

First, the budget, consistent with its practice in recent years, does not provide funding for merit salary increases and certain other cost increases in most departments. The second exception is that the budget proposes to eliminate the funding for certain state-mandated local programs.

Figure 30 shows the major funding changes proposed for general government programs in 1990-91.

ABILITY OF THE LEGISLATURE TO CONTROL COSTS

While the Legislature has some limited flexibility to reduce costs in general government programs, there can be significant costs to making certain types of reductions. For example, while state administrative programs are not generally protected through statute or the State Constitution, significant reductions could actually worsen the state's current fiscal situation. For instance, reductions made in the budgets of the Franchise Tax Board or the Board of Equalization could result in decreased revenue collections for the state. Similarly, significant reductions in the State Treasurer's office might result in reduced investment yields or higher interest expenses. In general, some minimum level of state funding is required for these programs and significant reductions in this area could affect the efficiency and effectiveness of state government.

In the area of regulation, much of the funding comes from special funds, which obtain their revenue from the industries they regulate. In this case, expansions in regulated industries result in both increased costs and increased revenues. In addition, spending on regulatory programs is generally intended to protect California citizens. Thus, while reductions in the level of regulation might be made, to do so could expose the citizens of the state to increased problems with currently regulated industries. In terms of General Fund costs for regulation, the largest portion goes for programs in the Department of Industrial Relations (DIR). While the level of funding for DIR programs is generally discretionary, reductions in those programs could result in decreased worker safety in the state.

Figure 30

General Government Programs Proposed Major Changes for 1990-91

Administration	**Requested: $1 billion** **Increase: $49 million (5%)**

+ $20 million for workload increases

Regulatory	**Requested: $898 million** **Increase: $51 million (6.2%)**

+ $22 million to implement the workers' compensation reform legislation

Tax Relief	**Requested: $925 million** **Increase: $13 million (1.4%)**

+ $13 million for normal program growth

Local Government Aid	**Requested: $2.3 billion** **Increase: $120 million (5.5%)**

+ $120 million for normal program growth

State-Mandated Local Programs	**Requested: $289 million** **Increase: $17 million (6.2%)**

+ $82 million for additional mandated program reimbursements

− $28 million reduction due to proposal to eliminate 10 state-mandated local programs

In the other major general government program areas (tax relief, local government aid and state-mandated local programs), the Legislature has limited flexibility to make spending reductions through the budget process. This is because a significant portion of the costs of those programs are protected through statute and the state Constitution.

Thus, a significant portion of general government expenditures are essentially uncontrollable by the Legislature through the budget process. In the areas in which the Legislature does have some discretion, however, it is not clear how deep reductions could be made and still allow state government to function reasonably efficiently and effectively.

Capital Outlay

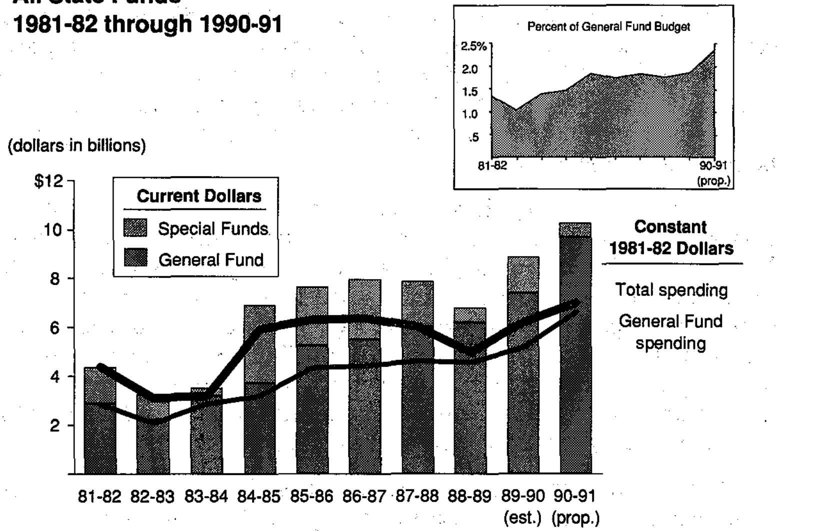
Funding for capital outlay expenditures represents about 2.1 percent of expenditures from all state funds proposed for 1990-91 and about 2.3 percent of the General Fund budget. These expenditures reflect the state's current *payments* for capital programs in each year (through "pay-as-you-go" spending or debt service payments), as opposed to the total amount of *outlays* (such as a bond expenditure which is "paid for" over a period of many years). As shown in Figure 31, expenditures for capital outlay programs have increased significantly over the past 10 years, and the increase is attributable to increased General Fund spending. The average annual increase in General Fund expenditures over the 10-year period amounts to 15 percent.

Figure 31 also displays the spending trend as adjusted for declines in the purchasing power of the dollar. On this basis,

Figure 31

Capital Outlay Expenditures Current and Constant Dollars

All State Funds 1981-82 through 1990-91



spending for capital outlay expenditures have increased at an average annual rate of 5.4 percent (all state funds) over the 10-year period, while state General Fund expenditures have increased at an average annual rate of 9.6 percent.

Until 1987-88, state expenditures were about evenly divided between special fund expenditures for capital outlays (basically "pay-as-you-go" spending from tidelands oil revenues) and General Fund expenditures for payment of debt service on funds borrowed through the sale of general obligation bonds. Since 1987-88, however, the state has relied almost exclusively on borrowed funds for its capital outlay programs, either through general obligation bonds approved by the electorate or through lease-revenue bonds approved by the Legislature and the administration. These methods of financing have been used mainly for two reasons. First, there was a substantial decline beginning in 1987-88 in the state's tidelands oil royalties—the traditional revenue source for financing capital outlay. Second, the magnitude of the expansion of the state prison system, coupled with an increased emphasis on construction in education, made it impossible to finance these costs on a pay-as-you-go basis.

Figure 32 shows the past 10-year trend for capital outlay expenditures in four governmental areas: (1) Youth and Correctional Agency (YACA), (2) K-12 education, (3) higher education and (4) resources. These four areas represent between 75 and 90 percent of the annual expenditures in each of the 10 years covered by Figure 32. Other than the resources area, which experienced a steady upward trend in expenditures through 1989-90, state expenditures in these governmental areas have varied significantly over the 10-year period. The most significant increase has been in the area of YACA, where new outlays for prison construction in the early 1980s caused a dramatic increase in expenditures beginning in 1984-85.

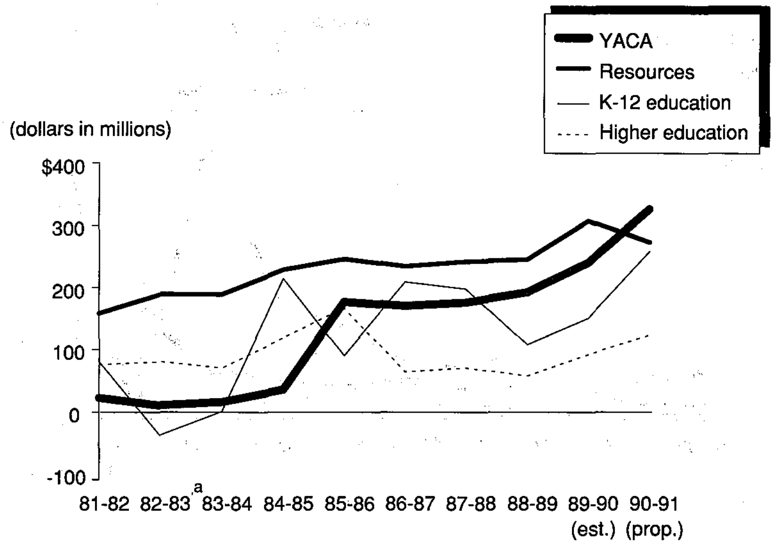
As noted earlier, these expenditures do not represent the actual level of capital improvements undertaken in each year. Instead, most of the expenditures reflect payments to retire the debt incurred through the use of bond financing. For example, debt service payments represent 88 percent of the capital outlay expenditures from state funds in 1988-89. However, some of this debt payment is for general obligation bonds that were authorized as long ago as 1955. Debt service payments generally continue for a period of 20 years after each bond sale.

Figure 33 shows the annual amount of state outlays for the acquisition of capital assets in each year, for the four program areas described above. In general, these outlays represent capital improvements actually accomplished or committed to construc-

Figure 32

Capital Outlay Expenditures By Program Area

All State Funds
1981-82 through 1990-91



[a] Negative expenditure for K-12 education in 1982-83 represents excess bond repayments by local school districts.

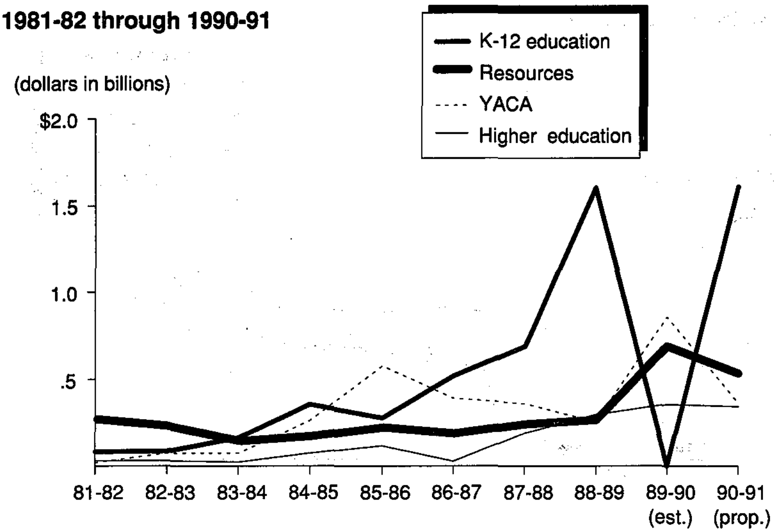
tion in the particular year. An exception to this is in the area of K-12 education, where the expenditures represent allocations to local districts. Since 1988-89, the full amount of new bond authorizations are allocated to school districts in the year the authorizations are approved by the voters. These commitments are then reflected as expenditures for accounting purposes. This change explains the large swings in capital outlays for K-12 education between 1988-89 and 1990-91. The actual disbursement of the funds, and the commencement of construction activities, may not occur for several years after the allocations are made.

Figure 33 shows that one of the most significant changes in annual capital outlay activities occurred in 1984-85, when major expansion of the state's prison system began. Another rapid increase is evident in 1987-88, when expenditures are shown for the first of a series of bond issues for higher education.

Figure 33

Annual Outlays for Acquisition of Capital Assets By Program Area

All State Funds
1981-82 through 1990-91



OVERVIEW OF THE BUDGET

The Governor's 1990-91 Budget includes over $2.9 billion of proposed capital *outlays*, exclusive of transportation-related capital outlays. This reflects outlays of $747 million for state-level facilities, and $2.2 billion in state assistance for capital facilities to be constructed by local governments and school districts. Of the $2.9 billion in total outlays, almost all ($2.8 billion) would be paid from bond funds.

The Governor's Budget indicates support for six new general obligation bond issues totaling $4.65 billion for the June and November 1990 statewide ballots. These bonds would finance capital outlay programs in education (K-12 and higher education), prisons, transportation and earthquake safety upgrading for state buildings. Not all of these measures had been placed on the ballot at the time this analysis was prepared. In addition, a voter initiative calling for $1.99 billion of general obligation bonds for passenger rail facilities has qualified for the June ballot.

Of the $2.8 billion in proposed outlays from bond funds (discussed above), about $2 billion is proposed to be funded from the general obligation bond issues that the budget assumes will be approved by the voters at the June and November 1990 elections. Thus, depending on voter approval of the bond issues finally approved by the Legislature and the administration, the state will continue to finance a large share of its capital outlay program by borrowing money through general obligation bonds.

FUNDING BY PROGRAM

State-Level Capital Outlays. The major thrust of the state-level capital outlay program in the Governor's Budget is in higher education. About $344 million is for expenditures in this area. Expenditures for already authorized correctional facilities ($154 million) and for state parks projects ($121 million) make up most of the remainder. The budget as submitted to the Legislature *does not include any proposals for new prisons.* This omission has been the administration's practice in recent years. Rather than give the Legislature a clear picture of total needs in the state budget—including needs for new prisons—the administration has chosen to propose individual new prisons in separate legislation. Consequently, Figure 33 does not reflect any proposed outlays for new prisons in 1990-91.

Local-Level Capital Outlay Assistance. As in past years, the major emphasis of the local-level expenditure program is K-12 school construction. About $1.6 billion in allocations to school districts are planned for 1990-91, which is the full amount of the general obligation bond issues currently proposed for the 1990 elections. The budget also reflects an allocation of $200 million for county correctional facilities, and about $150 million in grants for local park projects.

ABILITY OF THE LEGISLATURE TO CONTROL COSTS

The Legislature has almost no flexibility to reduce the impact of capital outlay expenditures on the budget, because—as noted earlier—most of the state's current budget expenditures are for debt service on past capital outlay projects. Only a small amount of state funds—primarily tidelands oil revenues—are used for pay-as-you-go capital outlays.

Conclusion

This part has described past spending trends for state expenditures, summarized the proposed budget for 1990-91, and discussed the Legislature's ability to control state expenditures through the budget process. As this review indicates, the preparation of a balanced budget for 1990-91 will not be an easy task, given the fiscal conditions facing the state. Rather, it will be one that requires the reevaluation of past policy choices and funding decisions.

The prospects that a significant windfall in state revenues will change the nature of this year's budget deliberations are small. As we discuss in Part Three of this document, the administration's economic forecast is already on the high end, relative to the consensus of other economic forecasters, and the risks to the revenue forecast are generally on the down side. Further, the state's appropriations limit places a cap on the amount of additional tax revenues that could be absorbed or raised through legislative action, at least as it stands today. Thus, the Legislature must begin the 1990 budget process by examining its options for reducing state expenditures to the level of available revenues.

As we have discussed throughout this part, the Legislature's options for reducing expenditures *through actions taken in the Budget Bill are relatively limited.* They exist mostly in the areas of higher education, health, resources and general government. Constitutional funding guarantees place most of the budget for K-14 education off-limits, while a combination of state laws and federal regulations predetermine the funding levels that must be provided for many welfare programs and Medi-Cal.

The Legislature has considerably more flexibility to control expenditures through enactment of legislation changing the service-level requirements for state programs. If *all* state programs are to be subject to the *same level of scrutiny* in terms of their priority for the receipt of state funds in 1990-91, then it will be necessary to consider statutory changes along with budgetary actions. Some of the available statutory changes, such as the suspension of COLAs, could provide significant short-term savings without requiring complex program adjustments. In some program areas, program restructuring would probably be required in order to realize significant savings. In any event, the magnitude of the savings required to balance the budget will force the state to reduce the level of services it provides.

Depending upon the types of changes relied upon to balance the budget for 1990-91, the state may still face large funding gaps in *future* years. In order to address the state budget's structural problem in the longer run, it would be helpful to take actions *now* to reduce the underlying cost trends, and bring these trends in line with the anticipated growth in revenue.

Perspectives on the 1990-91 Budget: Revenues

III

Part III

Perspectives on the 1990-91 Budget: Revenues

This section provides an overview of the revenues for funding the spending plan proposed in the Governor's Budget. It first discusses the economic forecast upon which the revenue estimates are based. It then discusses the revenue projections themselves, including the individual taxes and other sources from which they will be derived. It also discusses the reliability of the revenue projections, including their uncertainties and potential error margins. The major findings of this section are that:

- Continued modest economic expansion without a recession is assumed for both 1990 and 1991, though growth is expected to be subdued during the first half of 1990. The *general thrust* of the budget's economic forecast is *reasonable*. However, relative to the consensus forecast of other economists for California, its *specific projections* for 1990 are on the *optimistic* side.
- General Fund revenues are projected to *increase moderately* in 1990-91, reflecting the economy's expected modest growth.
- It is only realistic to expect revenue estimating errors of *at least several hundred million dollars,* and it is within this band of uncertainty that the budget's revenue estimates should be viewed.
- The budget's revenue estimates have *downward* potential, and we believe that the Legislature should take this into account for its *initial* planning purposes when mak-

ing spending plans and calibrating the reserve for economic uncertainties. Critical information will become available in April regarding personal income taxes, however, and the revenue estimates should be revised at that time.

Introduction

This part reviews the budget's estimates of state revenues, including the economic projections and other assumptions upon which they are based. These revenues are divided into two general categories — General Fund revenues and special fund revenues. Figure 1 summarizes the relative size of these revenue categories, and their major components. Section I discusses the budget's economic forecast, followed by a discussion of General Fund revenues in Section II and special fund revenues in Section III.

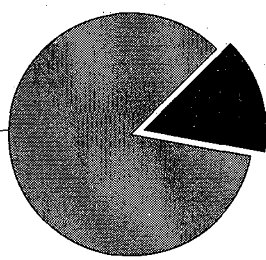
Figure 1

State Revenues in 1990-91

(dollars in billions)

Total State Revenues
$51 billion

General Fund Revenues	
Personal income taxes	$19.1
Sales and use taxes	14.5
Bank and corporation taxes	5.9
All other	3.6
Total	$43.1



Special Fund Revenues	
Motor-vehicle related	$4.9
Tobacco-related taxes	0.6
Sales and use taxes	0.5
All other	1.9
Total	$7.9

Source: 1990-91 Governor's Budget.

The Economic Outlook

The Economy's Importance to Revenues

The economy's performance during 1990 and the first half of 1991 is expected to be the single most important determinant of state revenue collections during the remainder of 1989-90 and throughout 1990-91. This is because most of the state's revenues are derived from sources which directly reflect economic conditions. For example, personal income taxes are influenced by wage levels and the number of people who are employed, sales taxes depend on the level of consumer spending, and corporate taxes depend on the amount of profits that businesses report. Thus, the stronger (weaker) the economy is, the larger (smaller) will be the state's revenue base and the amount of income it generates.

The sensitivity of state revenues to economic conditions also means that inaccurate economic forecasts can result in significant revenue estimating errors. When revenues are overestimated, serious fiscal disruptions can result, including cutbacks in public programs. Alternatively, when revenues are underestimated, time and opportunities may be wasted to move forward with those programs that the Legislature supports and the public values.

Given the above, it is critical that the state's budget plan be based on as accurate an economic forecast as possible, and that the reliability and potential error margins of the economic forecast be understood.

THE CURRENT ECONOMIC CLIMATE

Figure 2 summarizes the current economic environment. It shows that a mixture of both positive and negative forces presently are at work in the economy. In addition, there are major uncertainties regarding such important considerations as the future course of interest rates, the foreign trade deficit, consumer spending, federal defense cutbacks, and the drought. Given this, considerable uncertainty surrounds anyone's projections of the economy's course over the next 18 months. Many economists have cautioned that an economic downturn could occur during this period. Nevertheless, it is the current consensus view of economists that the positive factors in the outlook will most likely outweigh the negative ones, and thus that continued economic growth will occur in 1990, though at a more subdued pace than during the past couple years.

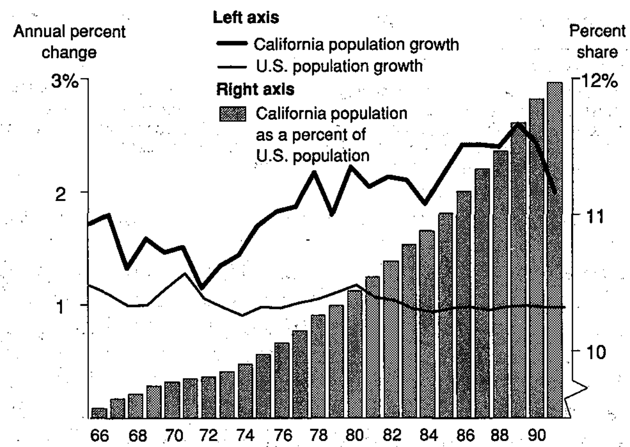
Dramatic Population Gains Have Occurred

One of the most striking aspects of California's 1989 performance was the dramatic population growth that occurred. Figure 4 shows that 1989's gain was extremely large—2.6 percent. This percentage increase, which translates into 740,000 new residents (about the population of San Francisco), was the greatest in 25 years. The figure also shows that California's population growth has consistently exceeded the nation's, resulting in the state comprising a steadily increasing share of the nation's total population. Figure 4 shows that relatively strong state population growth, which is both a result and a cause of the state's continued economic expansion, is projected to continue in 1990 and 1991, although at lower rates of growth than 1989.

Figure 4

California and U.S. Population Growth

1966 through 1991



Source: California Department of Finance and Wharton Econometrics. Data for 1990 and 1991 are projected.

How 1990 Began

As of year-end 1989, both the national and state economies had slowed considerably compared to their performance earlier in the year. The nation's real GNP growth for the final quarter of 1989 was only 0.5 percent, its weakest performance since spring 1986. Likewise, California's unemployment rate had inched up to 5.3 percent as of December 1989, and its year-over-year nonagricultural employment growth had slowed to 2.6 percent. Thus, although the economic expansion was still on track at year-end, the economy entered 1990 on a soft note.

THE BUDGET'S ECONOMIC FORECAST

Figure 5 summarizes the budget's economic forecast for 1990 and 1991 for California and the nation.

Figure 5

Department of Finance Economic Outlook for California and the Nation 1989 through 1991

National Economic Indicators	1989 Estimated	1990 Projected	1991 Projected
Percent change in:			
Real GNP	2.9%	2.1%	2.9%
Personal income	8.9	7.1	8.1
Pre-tax corporate profits	-7.9	-6.1	12.9
Wage and salary employment	2.9	2.5	3.0
Civilian employment	2.1	1.5	2.0
GNP prices	4.1	4.1	4.4
GNP consumer prices	4.4	4.3	5.3
Consumer Price Index	4.8	4.5	5.1
Unemployment rate (%)	5.2	5.2	5.0
Savings rate (%)	5.5	5.6	5.6
Prime interest rate (%)	10.9	9.5	9.3
New car sales (millions of units)	10.1	9.9	10.4
Housing starts (millions of units)	1.39	1.46	1.47
Net exports (billions of dollars)[a]	-$62.8	-$68.2	-$60.5
California Economic Indicators			
Percent change in:			
Personal income	7.7%	8.8%	8.4%
Wage and salary income	7.2	8.8	8.4
Wage and salary employment	3.1	3.1	3.4
Civilian employment	2.3	3.1	3.1
Consumer Price Index	4.7	5.4	4.6
Key elements of the state's tax base:			
Taxable personal income[b]	7.9	9.1	8.6
Taxable sales	7.4	6.4	8.8
Taxable corporate profits	9.3	9.5	8.5
Unemployment rate (%)	5.1	5.1	5.1
New car registrations (thousands of units)	1,475	1,470	1,480
New building permits (thousands of units)	228	236	237

[a] Defined as United States exports minus imports, measured in constant 1982 dollars.

[b] Defined as total personal income plus Social Security contributions, minus transfer payments and certain other nontaxable income components. This income concept historically has shown a strong correlation to adjusted gross income reported for tax purposes in California.

Source: *1990-91 Governor's Budget* and Department of Finance. Data for 1989 are preliminary estimates.

Continued Moderate Expansion Assumed

Neither a recession nor a strong economic upturn is being predicted by the department in either year. Rather, it assumes that the current economic expansion will continue throughout the next two years at a moderate pace, with growth being subdued in the first half of 1990 and then picking up somewhat thereafter. Both inflation and interest rates are expected to remain in a range that will not derail the expansion.

Highlights of the National Forecast

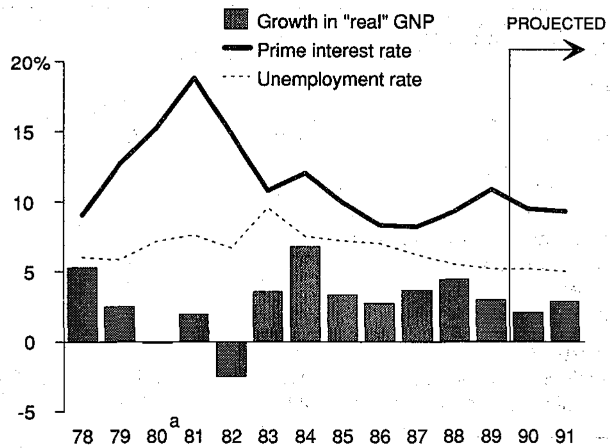
Figure 5 and Figure 6 indicate that for the nation:

- ***Real GNP growth*** is projected to drop from 2.9 percent in 1989 to 2.1 percent in 1990, and then return to 2.9 percent in 1991. (Average GNP growth during the 1980s has been 3 percent, and most economists view growth of less than this amount as unsatisfactory over the long run.)
- The ***unemployment rate*** is projected to hold fairly steady, as the rate of job growth slows to about the same pace as labor force growth.

Figure 6

Trends in Key National Economic Variables

1978 through 1991



[a] "Real" GNP declined by 0.2 percent.

Source: Department of Finance. Data are estimated for 1989.

- The ***prime interest rate*** is predicted to decline from 10.9 percent in 1989 to 9.5 percent in 1990 and 9.3 percent in 1991, reflecting the subdued pace of economic expansion.
- The ***savings rate*** (that is, savings as a percent of disposable income) is forecast to inch upward slightly, as consumers become more conservative about borrowing and attempt to reduce their current high household debt burdens. As a result, only modest growth in consumer spending is anticipated.

The 1990 forecast also calls for a continuing large (though improving) federal budget deficit, some increase in the foreign trade deficit and decline in the dollar's international value, moderate oil prices, reduced car sales, declines in corporate profits, and a mild strengthening in new home building.

Accelerating Inflation—Will It Be a Problem?

Throughout 1989, a number of economists have been voicing concerns that high inflation, which plagued the economy in the first half of the 1980s, might be poised for a return. They have feared that the economy's sustained growth during recent years has pushed the unemployment rate down and the factory capacity utilization rate up so far that continued economic expansion could result in rising labor costs and input prices, and thus an upsurge in inflation. If so, this might cause the federal monetary authorities to "tighten up" on the money supply, in an effort to control inflation by slowing down the economy through higher interest rates. The worry is that this could push the economy into a recession.

Moderate Inflation Is Assumed. As shown in Figure 7, the budget assumes inflation will remain moderate, softening slightly in 1990, and then continuing upward again in 1991. Thus, the department is assuming that inflation will *not* become a significant problem during the next 18 months. This is a plausible inflation scenario, given the department's assumption that economic growth will be slower than in 1989.

California to Outperform Nation

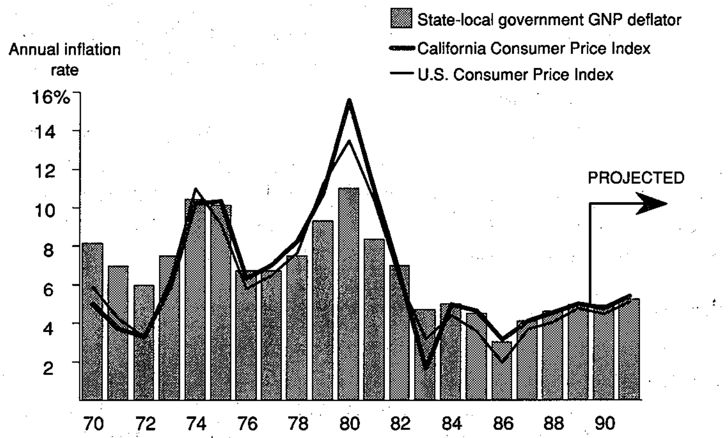
Regarding California, Figure 5 indicates that the state is forecast to experience the same modest economic growth as the nation. However, the state's performance is predicted to be a bit stronger than the nation's in a number of respects. For example:

- ***Personal income*** is predicted to increase in California by 8.8 percent in 1990 and 8.4 percent in 1991 (see Figure 8). These growth rates are not especially high by historical standards, but they do exceed the nation's.

Figure 7

Trends in Inflation

1970 through 1991

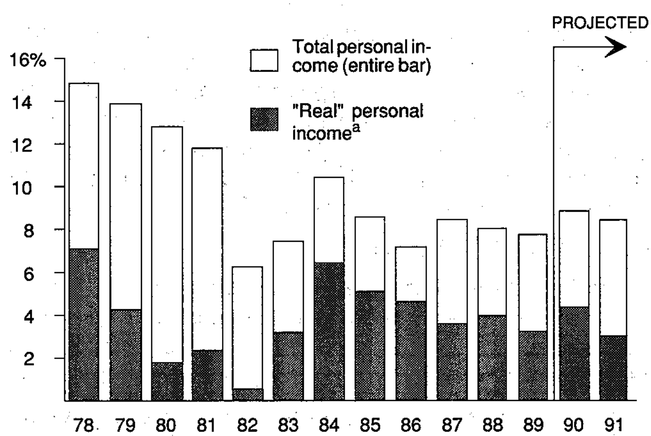


Source: California Department of Finance and U.S. Department of Commerce.

Figure 8

Annual Growth in California Personal Income

1978 through 1991



[a] "Real" personal income is defined as total personal income deflated by the GNP consumption expenditures deflator.

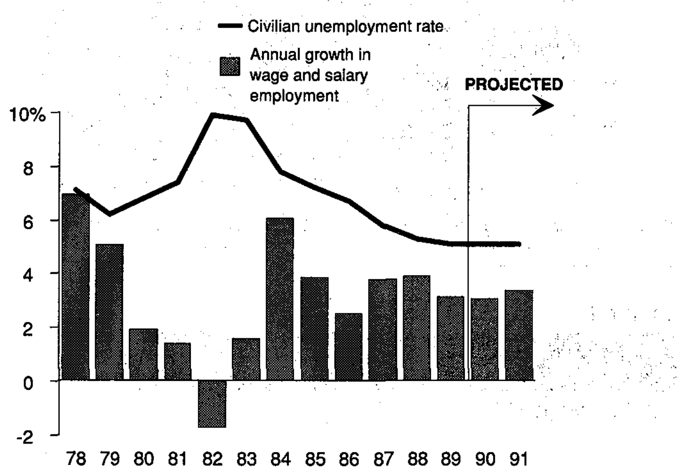
Source: Department of Finance. Data are estimated for 1989.

- ***Wage and salary employment*** is expected to rise by a bit over 3 percent for the state in both 1990 and 1991 (see Figure 9). Again, these predicted gains are not particularly strong for a nonrecessionary period. However, they are greater than the nation's and will raise California's share of U.S. employment to a new high—11.5 percent.
- California's ***unemployment rate*** is projected to remain extremely low by historical standards—only slightly over 5 percent (see Figure 9).

Figure 9

Trends in California's Employment and Unemployment

1978 through 1991



Source: Department of Finance and Employment Development Department. Data are estimated for 1989.

The budget forecast also assumes that new building permits will strengthen somewhat and new car sales will weaken somewhat in 1990 from their 1989 levels, but in both cases will not be fundamentally different between years. Their moderate performance reflects such factors as the ongoing moderate pace of economic activity and continued high consumer debt burdens. Figure 10 shows the relatively stable performance of total and per capita new vehicle registrations that is being predicted. Figure 11 tells a similar story for building permits, where strong single-family building is being offset by fairly depressed apartment construction.

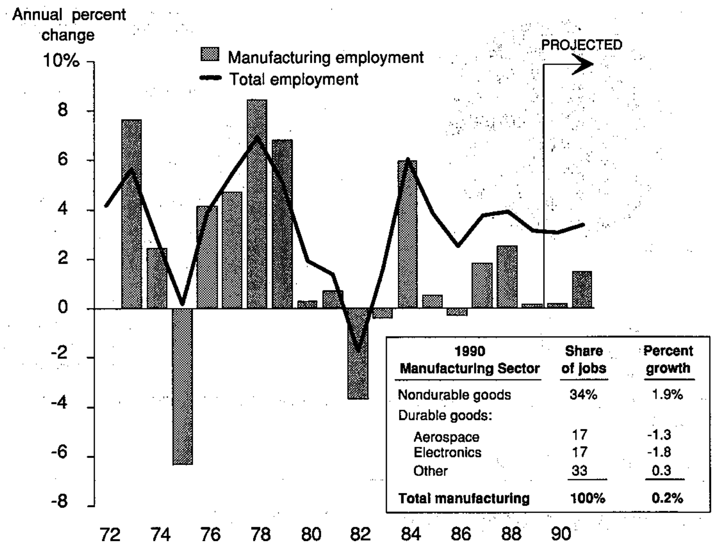
manufacturing relative to such sectors as services, trade, and finance.

- Durable goods industries typically experience slow growth during years when economic expansion is not particularly vigorous, as currently is the case.
- Federal defense spending, which has long been an important source of stimulus to the California economy, is contracting.

Figure 13

Manufacturing Employment in California

1972 through 1991



1990 Manufacturing Sector	Share of jobs	Percent growth
Nondurable goods	34%	1.9%
Durable goods:		
Aerospace	17	-1.3
Electronics	17	-1.8
Other	33	0.3
Total manufacturing	**100%**	**0.2%**

Source: California Department of Finance.

Reduced Defense Spending—How Much Will it Hurt?

Defense Spending in California. As of the late 1980s, defense spending in California stood in the general range of $50 billion annually, or equivalent to about 8 percent of gross state product (GSP). About half of this amount has been for nonprocurement purposes, including pay for defense-related employees and operation of military bases. The remaining spending has been for defense contracts (such as for weapons, satellites and other military hardware), most of which generate jobs in the aerospace industry. California traditionally has received about 15 percent to

20 percent of all federal defense prime contract awards, and around 20 percent of the output produced in California's aerospace sector appears to have been defense-related.

Cuts Are Coming. Throughout most of the 1980s, federal defense spending increased rapidly in California, rising at an inflation-adjusted average annual rate of over 8 percent. This contributed greatly to California's strong economic growth during these years. In recent years, however, federal budget restrictions have softened the outlook for defense spending in California, and the dollar volume of defense contracts and defense spending relative to GSP already has dipped. Several recent developments have further dampened the outlook for defense spending. These include the possibility of defense spending cutbacks arising out of recent political developments in Eastern Europe, and a proposal by the Pentagon to close down or consolidate a number of military facilities in California. The military facilities on the list being considered currently have a payroll of over $1 billion and employ over 60,000 military and civilian personnel.

Net Effects—Negative but Manageable. The exact economic effects of reduced defense spending in California will depend on the eventual magnitude and timing of the cuts, which will be phased in over a number of years. However, California definitely can expect to get much less stimulus from this source in the future than in the past, and defense cutbacks certainly will hurt the state's economy as they unfold. Fortunately for the state, however, the aerospace industry also is expected to enjoy some offsetting strength from both domestic demand and a strong export market for such outputs as commercial aircraft, computer equipment and parts, and electronics products. This should help to mitigate the immediate statewide economic losses due to reduced defense spending. Likewise, in the longer run, the state's ongoing economic growth and economic diversity should soften the negative impacts of the cutbacks on California's statewide economic performance.

The *regional* impacts of reduced defense spending within California will be varied, however. Certain areas of the state where the spending cutbacks are concentrated, such as for major military facilities located in the San Francisco Bay Area, Long Beach, Monterey, and Sacramento, will clearly be negatively affected, and some may face a difficult transition period. On the other hand, other geographic areas may actually benefit. For example, San Diego, which has no facilities on the Pentagon's potential "hit list," may pick up business from the other facilities being closed or consolidated.

Is the Drought Still a Problem?

For several years now, California has suffered from below-normal rainfall, snowfall packs, and water runoff. Despite relatively good storms in January 1990, the California Department of Water Resources reported in late January that there is only a 10 percent chance of a normal water runoff into the Northern California dams that hold most of the state's water storage — Shasta Dam, Oroville Dam, and Folsom Dam. More recently, water authorities have issued warnings that reduced water allocations to agricultural users in various areas of the state are likely later in 1990. Thus, California continues to face drought-type conditions.

How Is the Economy Affected? Drought conditions have the potential to negatively affect the economy in many ways. These include destroying fish and wildlife, reducing agricultural and timber production, raising food prices, increasing fire hazards, restricting new construction, making energy more expensive due to less hydroelectric power generation, limiting the use of recreational sites, and causing environmental damages. Other effects include reductions in farm proprietors' incomes and reduced federal payments for crop support programs.

No one has a reliable way of predicting what the state's rainfall and snowfall conditions will be during the next 18 months, or of estimating exactly how the possible continuation of the drought will affect California's future economic performance. This is because California has not experienced a persistent drought in recent times. The budget does not assume that the drought will significantly damage the state's near-term economic performance. However, a continuation of the drought in 1990 would undoubtedly hurt California's economy. Thus, the drought continues to be a real "wild card" in the economic outlook.

HOW RELIABLE IS THE ECONOMIC FORECAST?

General Thrust Is Reasonable...

Given current economic conditions, the general thrust of the department's economic forecast — continued modest growth without a recession, but sluggishness during the first half of 1990 — appears reasonable at this point in time. Figure 14 shows that this same basic type of outlook is shared for 1990 by most other economic forecasters.

...But Projections Are More Optimistic Than the Consensus

Figure 14 also shows, however, that the budget's economic forecast for 1990 is on the *optimistic side* relative to the specific projections made by other economists for many of the most impor-

Figure 14

Comparisons of Different Economic Outlooks for 1990[a]

National Forecasts	Percent Change In: Real GNP	GNP Prices	Pre-Tax Profits[b]	Unemployment Rate	New Car Sales (millions)	Housing Starts (millions)
Department of Finance	2.1%	4.1%	-3.0%	5.2%	9.9	1.46
NABE Survey[c]	1.8	4.0	—	5.5	9.8	1.45
Blue Chip Survey:[d]						
Average forecast	1.7	4.0	-1.9	5.6	9.7	1.43
Low-end forecast	0.5	3.4	-10.0	5.3	9.1	1.31
High-end forecast	2.7	4.5	5.7	6.1	10.4	1.54

California Forecasts	Percent Change In: Personal Income	Consumer Prices	"Real" Personal Income[e]	Wage and Salary Jobs	Unemployment Rate	New Residential Building Permits (thousands)
Department of Finance	8.8%	4.7%	3.9%	3.1%	5.1%	236
Other Forecasters:						
UCLA	7.0	4.5	2.4	1.9	5.6	193
Security Pacific Bank	7.2	4.6	2.5	2.3	5.4	243
First Interstate Bank	7.0	4.6	2.3	1.8	5.5	235
Bank of America	7.6	4.7	2.8	2.6	5.2	210
Wells Fargo Bank	7.7	4.6	3.0	2.8	5.2	234
Commission on State Finance	7.3	4.6	2.6	2.4	5.5	217
Average of "Other" Forecasters	7.3%	4.6%	2.6%	2.3%	5.4%	222

[a] Forecasts available as of approximately year-end 1989 or early January 1990.

[b] Defined as pre-tax profits *with* inventory valuation and capital consumption adjustments. This variable is not published by the National Association of Business Economists (NABE). The most relevant profit measure for revenue estimating *excludes* these adjustments. However, the Blue Chip Survey does not report such a figure. The department's 1990 projection for growth in this latter measure is -6.1 percent.

[c] Consensus median forecasts of a 60-member panel of professional forecasters selected by NABE.

[d] Includes the projections of about 50 economists as published in *Blue Chip Economic Indicators.* Permission to reprint data granted by Capitol Publications, Inc.

[e] Defined as personal income adjusted for consumer price inflation.

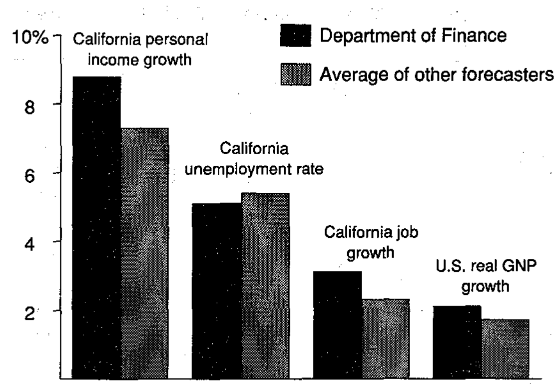
tant economic variables. As illustrated in Figure 15, for example, the department's forecast is more optimistic than the consensus for U.S. real GNP growth, California growth in personal income and employment, and the unemployment rate.

Personal Income Forecast Seems Especially High

The most striking disparity in Figure 14 is for California personal income growth — the single most important revenue-

Figure 15

Economic Outlook Comparisons for 1990



determining economic variable for California. *The budget forecast is significantly above the consensus view for 1990 and exceeds all of the other individual forecasts identified.* This is an important difference, since each 1 percentage point of income growth typically translates into at least $400 million in additional revenues.

The above suggest that, from a revenue-estimating perspective, the department's California economic forecast may be somewhat optimistic.

The Uncertainties Are Considerable

Of course, many things could occur during the next year that would dramatically alter the economic environment, including a major retrenchment by consumers, accelerating inflation followed by restrictive monetary policies, severe drought conditions, an escalation of world oil prices, and so forth. Such developments, which no economist can accurately predict, obviously could require substantial revisions to the 1990 and 1991 economic outlook in the future. Thus, *there is a large band of economic uncertainty within which the revenue forecast must be viewed.*

The Forecast for General Fund Revenues

Figure 16 presents the department's forecast for General Fund revenues, by source, for the current and budget years. This section discusses the forecast for General Fund revenues, which account for about 85 percent of all revenue collections.

OVERVIEW

Figure 16 shows that General Fund revenues are projected to total $39.8 billion in 1989-90 and $43.1 billion in 1990-91. Figure 17 indicates that over 91 percent of these revenues will come from three large taxes—the personal income tax, the sales and use tax, and the bank and corporation tax. The remaining 9 percent of revenues is derived from the insurance tax, interest income from investments, death-related taxes, and various other sources.

Moderate Revenue Growth Expected

General Fund revenues are projected to grow by about 7.6 percent ($2.8 billion) in 1989-90 and 8.4 percent ($3.3 billion) in 1990-91 (see Figure 16). Figure 18 shows that this growth is moderate by historical standards, both before and after adjustment for inflation. Figure 18 also shows that General Fund revenues will amount to about 6.6 percent of state personal income in both years, similar to the historical average. The outlook for moderate revenue growth is consistent with the moderate growth rates predicted for the economy and such key revenue-determining economic variables as taxable personal income, taxable sales, and taxable corporate profits (see Figure 5 earlier).

Special Factors Distort Revenue Trend

As is true in most years, the projected current-year and budget-year revenue growth rates incorporate various special factors and distortions which cause them to differ from the underlying revenue-growth trend.

What Special Factors Are Involved? The special factors affecting General Fund revenue growth in the current and budget years include, among others, the effects of new legislation, court cases involving tax liabilities, tax auditing activities and settlements, a number of small transfers from various special funds, and year-to-year differences in the volume of income-generating

Figure 16

General Fund Revenues

1988-89 through 1990-91
(dollars in millions)[a]

Source of Revenue	Actual 1988-89	Estimated 1989-90	Projected 1990-91	Change 1989-90 to 1990-91 Amount	Percent
Taxes:					
Personal income[b]	$15,886	$17,375	$19,050	$1,675	9.6%
Sales and use[c]	12,577	13,410	14,485	1,075	8.0
Bank and corporation[d]	5,138	5,235	5,880	645	12.3
Insurance[e]	1,318	1,194	1,273	79	6.6
Estate, inheritance and gift	335	371	397	26	7.0
Cigarette	162	155	151	-4	-2.6
Alcoholic beverage	128	128	127	-1	-0.8
Horse racing	103	106	113	7	6.6
Subtotals, taxes	($35,647)	($37,974)	($41,476)	($3,502)	(9.2%)
Other Sources:					
Interest on investments[f]	$458	$459	$494	$35	7.6%
California State University fees	305	322	342	20	6.2
Abandoned property[g]	66	209	81	-128	-61.2
Oil and gas revenues[h]	26	58	55	-3	-5.2
Other revenues[i]	280	258	377	119	46.1
Transfers[j]	171	495	277	-218	-44.0
Totals, General Fund	$36,953	$39,775	$43,102	$3,327	8.4%

[a] Detail may not add to totals due to rounding.

[b] Estimates include net downward adjustments of $12 million in 1989-90 and $62 million in 1990-91, due to such factors as newly enacted legislation, and proposed adjustments and augmentations relating to audit and collections activities by the Franchise Tax Board (FTB).

[c] Estimates include net upward adjustments of $60 million in 1989-90 and $121 million in 1990-91. These adjustments reflect assumptions regarding the payment of taxes by out-of-state retailers on mail-order sales, new legislation, and proposed adjustments and augmentations relating to audit and collections activities by the Board of Equalization.

[d] Estimates include net downward adjustments of $13 million in 1989-90 and $5 million in 1990-91 associated with new legislation and proposed adjustments and augmentations relating to audit and collections activities by the FTB.

[e] Estimates include one-time revenues of $178 million in 1988-89 due to a court decision regarding taxation of "excess risk" arrangements between employers and insurers.

[f] Includes gross interest income earnings under the state's external borrowing program, which are partly offset by borrowing costs. For additional detail, see text discussion.

[g] Includes revenue increases due to Ch 286/88 (AB 3815, O'Connell) of approximately $130 million in 1989-90. This measure shortened the time period after which unclaimed property escheats to the state from seven years to five years.

[h] Represents oil and gas royalties from state lands, about 80 percent of which come from the state's tidelands located adjacent to the City of Long Beach. Excludes royalties allocated to other funds and federal land royalties.

[i] Includes revenues from various regulatory taxes and licenses, local agencies, user charges for services provided to the public, property-related income and other miscellaneous sources. The 1990-91 amount includes $67 million from the proposed sale of Agnews State Hospital.

[j] Includes transfers from the Disaster Relief Fund of $327 million in 1989-90 and $186 million in 1990-91. These amounts are to reimburse the General Fund for expenditures associated with the Loma Prieta earthquake.

external borrowing. In addition, both the current- and budget-year revenue totals include a large transfer of funds from the Disaster Relief Fund to compensate the General Fund for earthquake-related relief spending. (These factors are discussed elsewhere in the text and in the notes to Figure 16.)

Figure 17

1990-91 General Fund Revenues, by Source

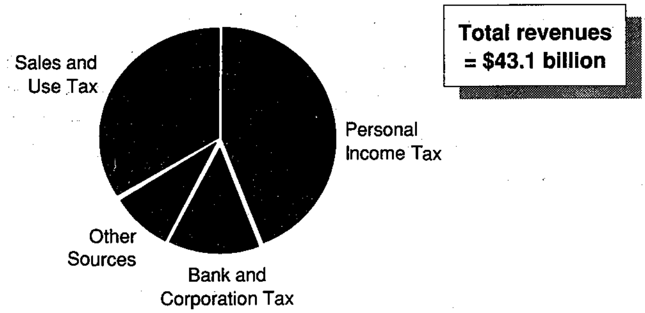
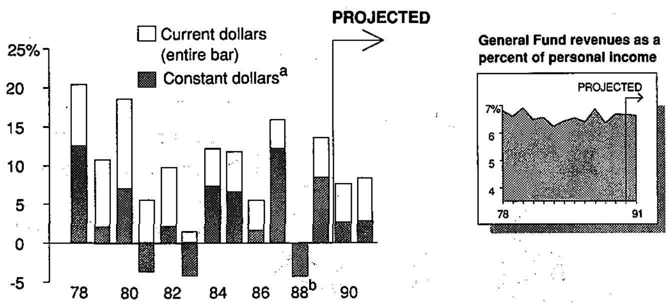


Figure 18

Annual Growth in General Fund Revenues

1977-78 through 1990-91



[a] Revenue growth adjusted for inflation using the GNP state and local government price deflator.

[b] Current-dollar revenues increased by 0.05 percent.

Source: Governor's Budgets and State Contoller's reports. Data are for fiscal years ending in years shown.

How Is Revenue Growth Affected? The net impacts of these distortions are to *raise* current-year General Fund revenue growth (from an underlying 6.9 percent to the reported 7.6 percent) and *reduce* budget-year revenue growth (from an underlying 9.1 percent to the reported 8.4 percent). Thus, after adjusting for special factors, there is a much greater difference between revenue growth in the current and budget years (2.2 percentage points) than the reported figures show (0.8 percentage point). This is consistent with the projections that the economy is to be sluggish through mid-1990 and then strengthen somewhat thereafter.

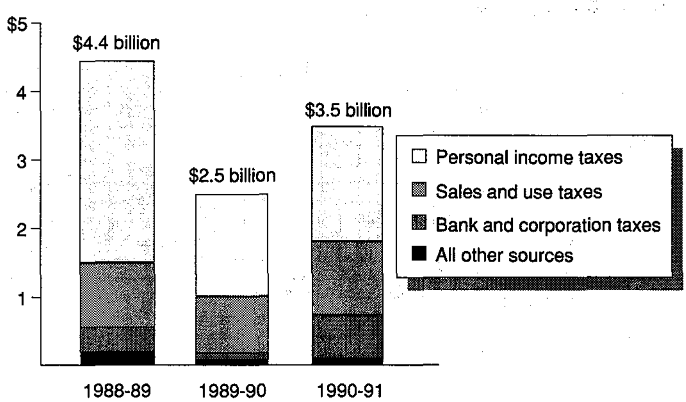
Where Will the Revenue Growth Come From?

Figure 19 indicates that, of the General Fund revenue gains projected for the current and budget years, over 50 percent is due to personal income taxes and about 30 percent is attributable to sales and use taxes. The remaining amount is due to corporate profits taxes and other revenue sources.

Figure 19

Amounts and Sources of General Fund Revenue Growth[a]

1988-89 through 1990-91
(dollars in billions)



[a] Data shown exclude transfers into the General Fund of earthquake-related tax revenues, equal to $327 million in 1989-90 and $186 million in 1990-91.

INDIVIDUAL GENERAL FUND REVENUE SOURCES

The Forecast for Personal Income Taxes—Above-Average Growth

Background. The personal income tax (PIT) is the single largest General Fund revenue source, accounting for nearly 45 percent of the total. The tax is imposed on income using a progressive tax rate schedule ranging from 1 percent to 9.3 percent, and includes a variety of income exclusions, deductions, and credits. In 1987, state legislation was enacted which significantly restructured the tax to more closely conform with federal law. This included adopting most of the base-broadening provisions of the federal Tax Reform Act of 1986 (including limiting or eliminating various deductions, making capital gains fully taxable and restricting "passive losses"), conforming to the federal standard deduction, and establishing a number of new tax credits, such as for low-income housing and certain research activities. *These law changes have made it much more difficult to accurately forecast PIT revenues than previously.*

The PIT Forecast. Figure 16 indicates that PIT revenues are projected to total $17.4 billion in 1989-90 (9.4 percent growth) and $19.1 billion in 1990-91 (9.6 percent growth).

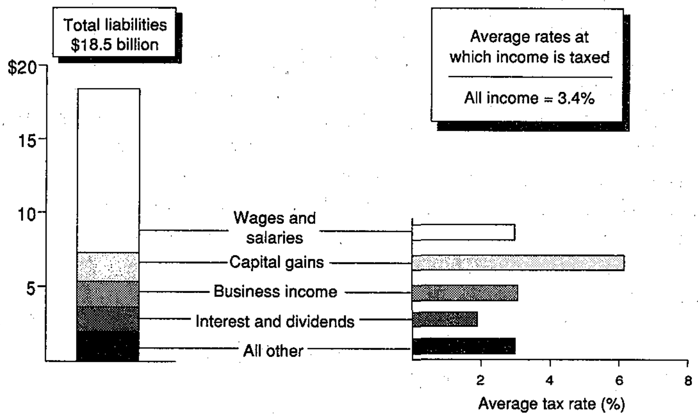
The PIT forecast is constructed using a three-step process. First, estimates must be made of the *income-year tax liabilities* which will be generated from the taxable personal income produced by economic activity. Second, estimates must be made of taxes to be paid on *capital gains* from the sale of assets, which have accrued in past years but are just now being realized and reported by taxpayers. Third, *special adjustments* are required for factors like new legislation and audit collections, and for the timing of tax receipts.

Tax Liabilities—Healthy Increases Assumed. Total tax liabilities are projected to increase by about 11 percent in the 1990 income year and nearly 10 percent in 1991. Figure 20 shows that 1990 liabilities are expected to total $18.5 billion, about 60 percent of which relates to wage and salary income and the remainder to such income sources as capital gains, business income, and investment income. It also shows the average tax rates for the different types of income (the significance of these differing rates is discussed below). Figure 21 shows the assumptions for growth in taxable personal income and capital gains on which the income tax liability forecasts are based. Regarding taxable personal income, projected growth is about average and slightly below the predicted growth in liabilities after the volatile capital gains liabilities have been excluded. This general relationship makes sense, since tax liability growth normally should increase slightly

Figure 20

1990 Personal Income Tax Liabilites, by Type

(dollars in billions)

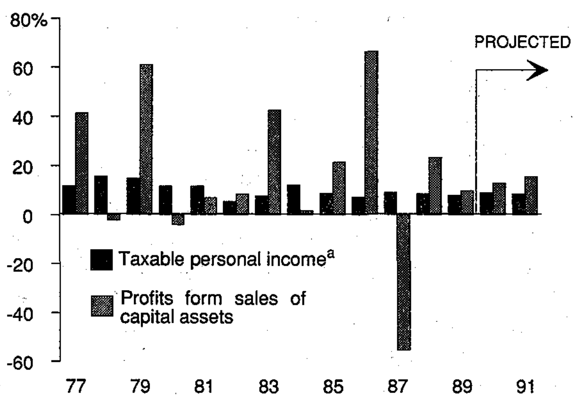


Source: Department of Finance and Franchise Tax Board.

Figure 21

Annual Percent Growth in the Income Tax Base

1977 through 1991



[a] Excludes profits from sales of capital assets. For definition, see Figure 5.

Source: Department of Finance. Data for 1989 are estimated.

faster than income growth due to the state's progressive marginal tax bracket structure.

Capital Gains—Moderate Growth Assumed. Regarding the budget's assumptions for capital gains, Figure 21 shows that a steady and moderate growth is being predicted, unlike the wide year-to-year growth rate swings which have occurred in the past. These past swings have resulted both from the inherent volatility characterizing the realization and reporting of capital gains, and such factors as the recent changes in the federal and state tax treatment of capital gains.

The Capital Gains Forecast Is Uncertain. The capital gains growth predictions shown in Figure 21 are the net result of a complex calculation incorporating assumptions about both the ongoing effects of tax reform on reported capital gains, and the underlying trend of capital gains independent of tax reform. The budget assumes that this underlying trend growth in capital gains will be 10 percent in 1989 through 1991. This compares to an average annual increase of over 15 percent during the past 10 years. *Thus, if history is any guide, the budget's assumptions could prove conservative.* However, projecting capital gains is to a large extent guesswork, and potentially offsetting this historical factor is the possible negative near-term revenue effects of the President's 1989 proposal to reduce the federal capital gains tax rate. *Although this proposal was not enacted, it nevertheless may have caused a reduction in capital gains realized during 1989* if taxpayers decided to wait to realize some of their gains in hopes that a lower tax rate would eventually be in effect. (Evidence as to whether this indeed occurred will not be available until after 1989 income tax returns are filed in spring 1990 and are subsequently analyzed.) These taxpayers may again follow such a strategy in 1990, since a reduced federal capital gains tax rate is again being proposed.

Given the above, *the capital gains forecast is a source of considerable uncertainty.* Each added (reduced) 1 percentage point in capital gains growth would increase (decrease) annual tax liabilities by over $20 million. This revenue effect is greater than for errors in predicting other types of income because, as Figure 20 indicates, capital gains are, on average, taxed at a higher rate than other income.

Special Factors to Reduce Revenues. The budget assumes that personal income tax liabilities will be lower than otherwise in the current and budget years by about $75 million combined, due to such factors as new legislation. This amount, which incorporates partially offsetting projected revenue gains from increased tax enforcement and auditing activities, includes costs for earthquake-related casualty-loss benefits (a two-year personal income tax revenue reduction of $60 million) and the state's automatic conformity to a recent federal tax change involving social security contributions by self-employed persons (a budget-year revenue loss of $100 million).

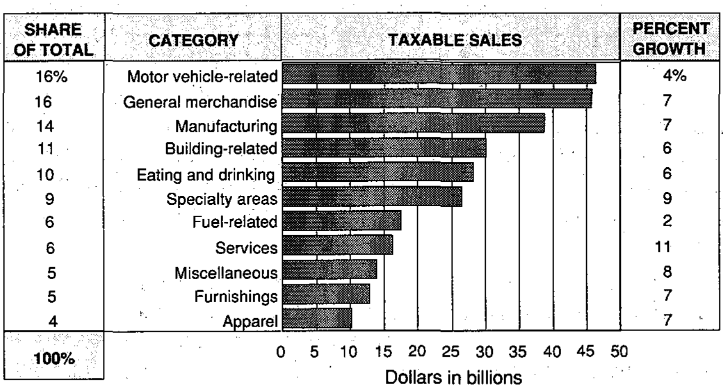
The Forecast for Sales and Use Taxes—Modest Growth

Sales and use taxes are the second largest source of General Fund revenues — around 34 percent of the total — and are projected to reach $13.4 billion (6.6 percent growth) in the current year and $14.5 billion (8 percent growth) in the budget year. These revenues are derived from the state's 4.75 percent levy on taxable sales. In addition, sales and use taxes of up to 2.25 percent are levied by local governments and transit districts, and a temporary one-quarter cent sales tax is in effect from December 1, 1989 through December 31, 1990 to fund earthquake relief.

The key to forecasting this tax is projecting the level of taxable sales in California. Figure 22 summarizes the expected composition of 1990 taxable sales, by major spending category.

Figure 22

1990 Taxable Sales, by Category



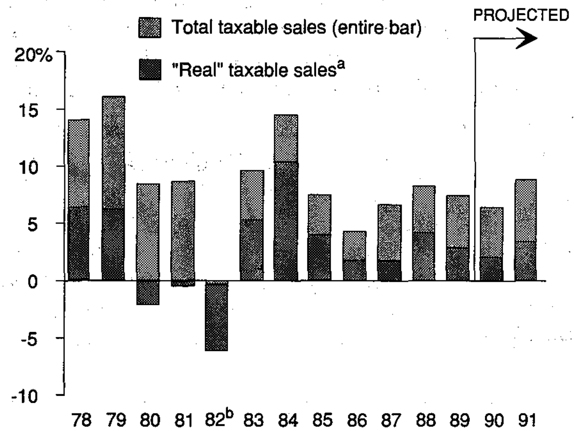
Source: Department of Finance. Detail may not add to totals due to rounding.

Taxable Sales to Trail Income Growth. The budget predicts that taxable sales will rise by 6.4 percent in 1990 and 8.8 percent in 1991, compared to 1988's 7.4 percent growth. Figure 23 shows that 1990's projected growth is *modest by historical standards,* both before and after adjusting for inflation. And because this growth is assumed to be less than personal income growth, the portion of state personal income that is spent on items subject to sales taxation is predicted to decline to its lowest level ever.

Figure 23

Annual Growth in California Taxable Sales

1978 through 1991



[a] "Real" taxable sales equal total taxable sales (current dollars) deflated by the GNP price deflator for consumption expenditures.

[b] Total taxable sales declined by 0.4 percent.

Source: Department of Finance. Data for 1988 are preliminary estimates.

The main reason why the budget's projected taxable sales growth in 1990 is not higher is that the single largest taxable sales category shown in Figure 22 -- motor vehicles and related products -- is asumed to increase by only 4 percent. This can be traced to the relatively flat level of projected new car sales, as shown earlier in Figure 10. This outlook is reasonable, given the weakness in the nation's automobile sector as of year-end 1989.

Special Adjustments May Be Overstated. The budget includes upward adjustments of $60 million in 1989-90 and $120 million in 1990-91 due to special factors. About $130 million of the two-year total is for "use" taxes on mail order sales, which 1987 California legislation requires out-of-state retailers to collect and remit to the state. Whether this amount fully materializes will depend on the outcome of pending litigation and the willingness of out-of-state retailers to comply with the law prior to the time that the litigation is resolved. Revenues from this source fell short of the estimate made in last year's budget.

fornia's insurance premiums. Figure 25 indicates that premiums are projected to reach $52.2 billion in 1990, and shows how this total is expected to be distributed amongst different insurance lines. Figure 26 indicates that growth in insurance premiums is assumed to slow from nearly 6 percent in 1988 to under 4 percent in 1989 and less than 5 percent in 1990. This growth is considerably less than personal income growth and well below the average for premium growth over the last five years — over 14 percent.

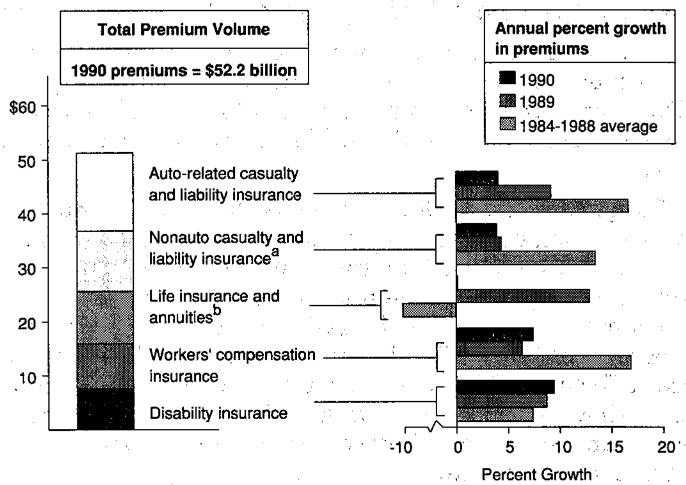
Why the Weakness? Figure 25 indicates that the projected weakness in premium growth is spread amongst a number of different insurance lines, including auto and nonauto casualty and liability insurance, life insurance and annuities, and workers' compensation insurance.

Taxable insurance premiums are related to a number of factors, including economic activity, the cyclical financial position of the insurance industry, and special factors like tax law changes and regulatory decisions. Our own revenue-estimating proce-

Figure 25

1990 Insurance Premiums, by Type

(billions of dollars)



[a] Includes homeowners', medical malpractice, commercial property, title, earthquake, and various other lines of insurance.

[b] The 1989 decline is associated with 1988 federal law changes regarding the tax treatment of single-premium life insurance.

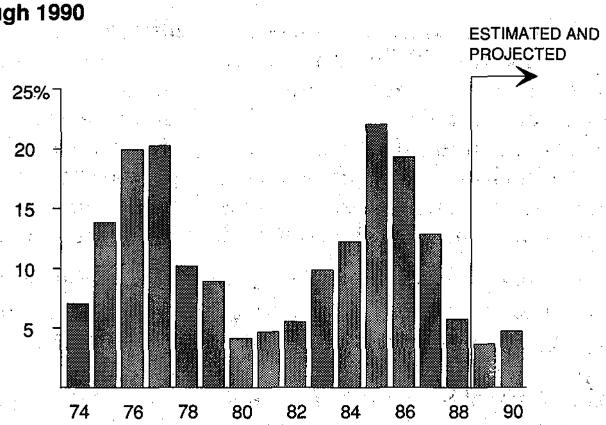
Source: Department of Finance.

dures indicate that (consistent with the department's view) the budget's economic forecast, taken alone, would generate only modest growth in insurance premiums (although our growth is a bit above the department's). In addition, however, Figure 26 shows that insurance premiums follow a definite cyclical pattern over time. This is because the industry experiences cycles of underwriting profits and losses, in response to which it continually adjusts its premium rates. Thus, periods of large underwriting losses typically are followed by periods of large premium increases, and vice versa. Figure 26 suggests that the department is assuming that California will remain in the lower part of the cycle. Of course, because of Proposition 103, *the premiums forecast is prone to much greater-than-normal error.*

Figure 26

Annual Growth in California Taxable Insurance Premiums

1974 through 1990



Source: Department of Finance. Data shown are for premiums subject to the 2.35 percent tax rate, and exclude certain premiums for pension and profit-sharing plans, surplus lines and ocean marine insurance, which are taxed at special rates.

Proposition 103—Is It Affecting Revenues? Proposition 103 (November 1988) mandated reductions in premium rates for certain types of insurance (auto, fire, and liability) and also established a new regulatory environment for increasing premiums in the future. (The way that Proposition 103 is working thus far is discussed in Part Four.) Proposition 103 also provides that the insurance tax rate be adjusted to compensate for any decrease in state revenue which might result from any premium rate reductions resulting from the measure.

It is clear that a measure such as Proposition 103 will affect premium volumes and thus state revenues in some manner, *but exactly what this effect is cannot be directly observed and thus must be estimated.* Accurately adjusting the insurance tax rate to hold state revenues harmless is a difficult undertaking, due to the need to accurately account for reductions in premium rates, and the effect of these reductions and the measure's other provisions on premium sales.

Since the budget was presented, the California Board of Equalization has concluded that Proposition 103 has caused a small revenue loss of about $9 million and that, in order to offset this loss, an increase in the gross premiums tax rate from 2.35 percent to 2.37 percent will be imposed. This rate increase will apply to taxes owed on 1989 premiums, the final tax payments for which are due in April 1990. The added revenues from this tax rate adjustment will be *in addition* to the revenues shown in the budget.

Death-Related Taxes — Moderate Gains

Death-related tax revenues are predicted to increase by nearly 11 percent in 1989-90 and 7 percent in 1990-91 (see Figure 16). These taxes total in the range of $400 million and account for about 1 percent of all revenues. They include estate taxes, inheritance taxes, and gift taxes. Although Proposition 6 (1982) abolished inheritance and gift taxes and replaced them with the estate tax, revenues continue to be collected under the former taxes from unclosed accounts of persons who died before the law was changed.

What Effect Has Proposition 6 Had? Figure 27 shows the pattern of death-related taxes during the 1980s, including the phasing in of Proposition 6. It indicates that, prior to when Proposition 6 began to reduce revenues, death-related taxes were in the range of $500 million (or about 2.5 percent of General Fund revenues). They also had grown rapidly throughout the 1970s. Now, however, they are only about 1 percent of revenues, and this share probably will continue to decline.

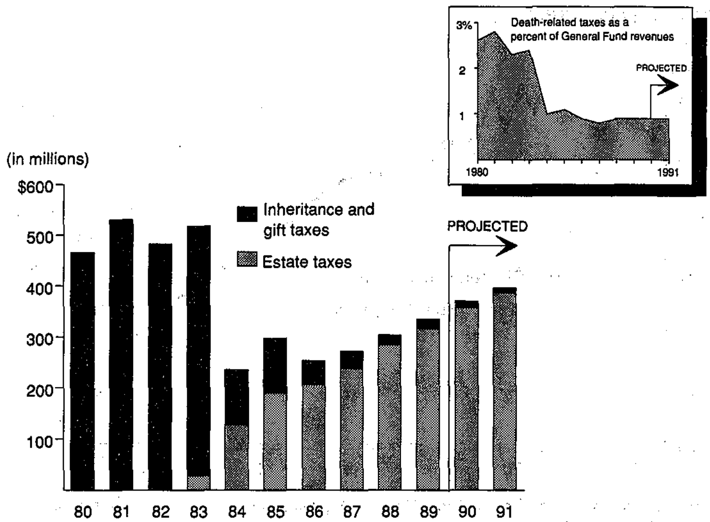
All Other Taxes—No Growth

General Fund revenues from the state's remaining taxes are projected to total a combined $391 million in the budget year. This is about 1 percent of total revenues and nearly identical to both the prior and current years. These taxes include the cigarette tax ($151 million), alcoholic beverage taxes ($127 million), and horse racing taxes ($113 million).

Figure 27

General Fund Revenues From Death-Related Taxes

1979-80 through 1990-91



Source: Department of Finance and State Controller. Data are for fiscal years ending in years shown.

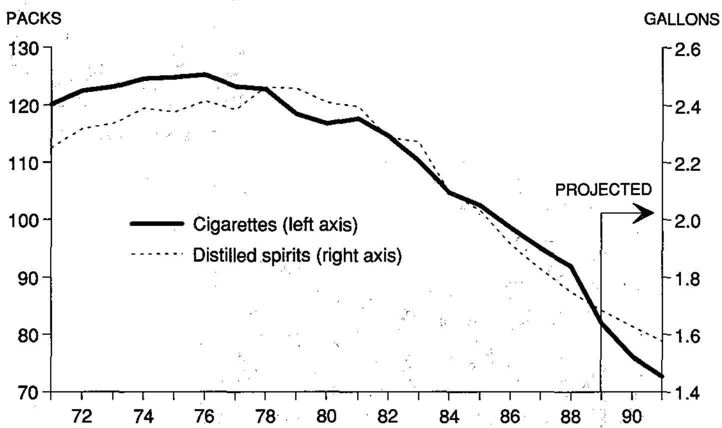
Cigarette and Beverage Taxes Are Declining. Both cigarette and beverage taxes are projected to decline slightly in the current and budget years. Figure 28 shows this is because per capita consumption of alcoholic beverages and cigarettes is expected to continue trending downward as in recent years, and this decline will not be offset by population growth. This, combined with the fact that the General Fund revenues from these sources come from fixed "cents-per-unit-consumed" excise taxes, means that taxes do not increase over time even as the prices for these items rise.

The Effect of Proposition 99. Figure 28 shows that the 25-cent-per-pack tobacco surtax imposed by Proposition 99 (1988) has accelerated the ongoing reduction in cigarette consumption. It indicates that per capita consumption fell by an estimated 11 percent in 1988-89, which, in turn, caused total cigarette sales to decline by over 8 percent. In last year's budget, it was assumed that the tobacco surtax would result in a General Fund revenue gain in 1988-89 and 1989-90 combined of $41 million, representing increased sales taxes of $44 million and reduced excise taxes of $3 million. (The special-fund revenues from this surtax are

Figure 28

California Per Capita Consumption of Cigarettes and Distilled Spirits

1970-71 through 1990-91



Source: Department of Finance and State Board of Equalization. Data shown are for fiscal years ending in years specified.

discussed in the next section.) This estimate, however, assumed that consumption would decline by only 1 percent. The larger consumption decline actually experienced suggests that the revenue effect on the General Fund from Proposition 99 is roughly a "wash." This is because the greater consumption decline implies a greater loss in General Fund excise taxes and a smaller gain from sales taxes than previously assumed.

Horse Racing Revenues Up Modestly. General Fund revenues from pari-mutuel horse racing wagering are projected to increase by about 7 percent ($7 million) in the budget year. This reflects a projected increase of 4 percent in wagering, primarily due to increased activity at satellite wagering facilities located at fairs and other sites. The reason why General Fund revenues are projected to rise by more than the wagering gain is due to Ch 74/89 (AB 347, Floyd), which revised the share of revenues which the General Fund receives from wagering at satellite facilities. (Wagering taxes at these satellite facilities primarily accrue to special funds, and such wagering can hurt the General Fund by reducing attendance and wagering at racetracks.) Without this measure, the General Fund revenue gain would be closer to 3 percent.

Interest Income—Higher Despite Lower Interest Rates

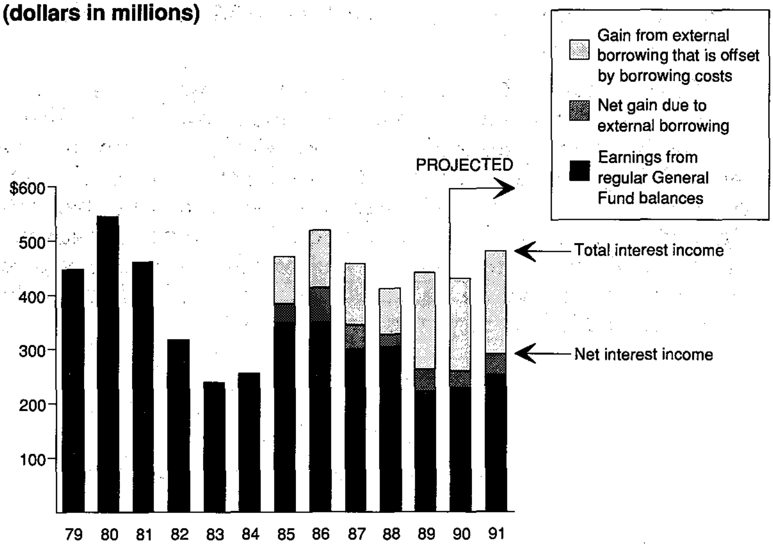
General Fund interest income accounts for somewhat over 1 percent of total revenues. Figure 29 shows that it is projected to total $494 million in the budget year, up moderately from the current and prior years.

Where Does Interest Income Come From? Interest income is derived from four primary sources: (1) the investment of monies carried over from prior years (such as balances in the Special Fund for Economic Uncertainties); (2) earnings on certain special fund balances to which the General Fund is entitled; (3) investment of incoming General Fund revenues that are temporarily not needed to pay for expenditures; and (4) "arbitrage income" from the short-term investing of temporarily idle monies that the General Fund has borrowed to handle its intra-year cash-flow imbalances. These monies all are invested through the state's Pooled Money Investment Account (PMIA).

Figure 29

General Fund Revenues From Interest Income

1978-79 through 1990-91
(dollars in millions)



Source: 1990-91 Governor's Budget, Department of Finance and State Treasurer. Data shown are for fiscal years ending in years specified and reflect earnings from the Pooled Money Investment Account.

Greater Balances to Boost Earnings. The PMIA's *average interest yield* is projected to fall to 8.3 percent in 1990-91, below the 8.6 percent for 1989-90 and 8.7 percent in 1988-89. This yield is consistent with the budget's assumptions regarding economy-wide interest rates in 1990 and 1991. Despite this lower earnings yield, however, budget-year interest is assumed to be *higher* than in either previous year, because:

- The *regular* General Fund PMIA balance is projected to average $3.2 billion in the budget year, well above the current year's $2.8 billion and the prior year's $2.4 billion.
- The *volume of external borrowing* is assumed to rise to $3.5 billion in the budget year, up from $3.0 billion in the current year and $3.2 billion in 1988-89.

Taken together, these two factors are projected to raise the average PMIA balance in the budget year about $800 million above the current year, and thus more than offset the negative effect of the interest rate decline.

Other General Fund Revenues

The remaining sources of General Fund revenues include a variety of regulatory taxes and fees, California State University fees, monies from local agencies, and miscellaneous revenue sources. Figure 16 shows that, together, budget-year revenues from these sources are projected to total $855 million, or 2 percent of total revenues.

Big Gain from Unclaimed Property. Figure 16 shows that, the estimate for revenues from unclaimed property has been increased by about $130 million in 1989-90 above its normal trend level. This gain is due to Ch 286/88 (AB 3815, O'Connell), which reduced from seven to five years the period of time before unclaimed property held by banks and other financial institutions must be turned over to the state. These added revenues represent accelerations of revenue collections which would otherwise have been received in future years.

RELIABILITY OF THE GENERAL FUND REVENUE FORECAST

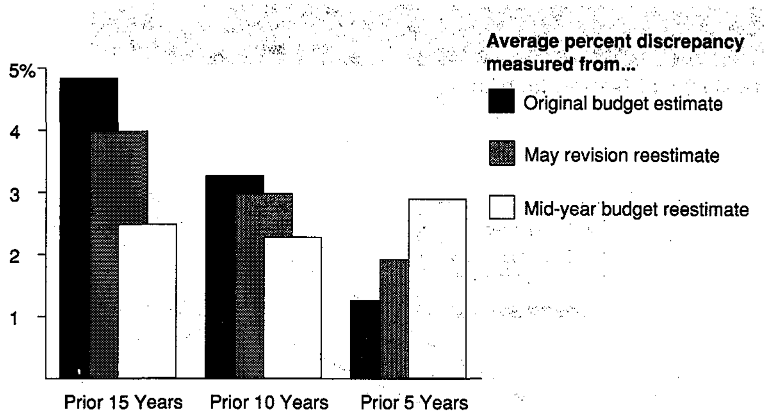
How Reliable Have Past Forecasts Been?

The reliability of past revenue forecasts has been quite variable. This serves as an important reminder that the current forecast also is vulnerable to error. Figure 30 shows what the revenue-estimating discrepancies have averaged in past years. For example, it indicates that, over the past 10 years, the average discrepancy has been:

- About 3.3 percent when comparing how revenues actually performed to what was predicted in the *original budget estimate — the projection six months prior to the start of the budget year.*
- About 3 percent in terms of the *May revision* revenue estimate — the revenue projection generally in force at the time the budget is enacted.

Figure 30

Discrepancies Between Actual and Estimated General Fund Revenues[a]



[a] Estimates by the Legislative Analyst, based on analysis of Department of Finance revenue estimates. Percentage discrepancies shown represent the average absolute values of discrepancies for the years specified that are attributable to economic forecasting revisions, taxpayer behavior and revenue estimating procedures. Data have been adjusted for the initial estimates of new legislation, budget actions, audit settlements and various other factors.

Figure 30 also shows that the average percentage estimating errors have been getting *smaller* in recent years for both the original budget estimate and May revision estimate. In addition, it indicates that, during the past five years, the original budget estimate has actually been *more accurate* than its subsequent revisions. This partly is due to the large capital gains revenue-estimating errors in recent years, which do not show up until a fiscal year is almost over.

Large Dollar Errors Are Likely

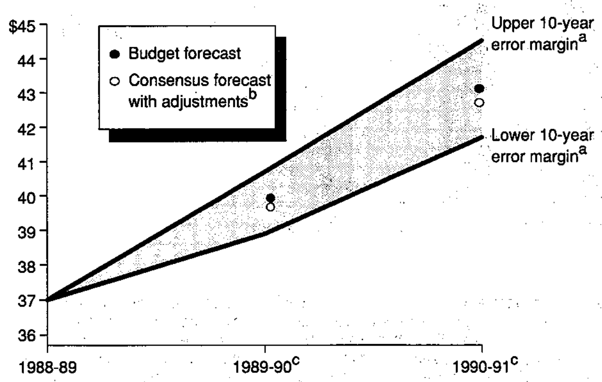
Percentage errors of these magnitudes translate into *very large dollar amounts*. For example, in 1990-91 a forecasting error of only 1 percent will produce a revenue error of about $430 million. Thus, a 10-year historical average error — 3.3 percent — would cause a revenue error of over $1.4 billion. Even the small error shown for the past five years in Figure 30 for the original budget estimate — 1.3 percent — would translate into nearly $560 million.

Figure 31 indicates how revenues would differ from those in the budget if the 10-year average percentage errors shown in Figure 30 were to occur. The error range shown is a plus-or-minus $900 million for the current year and $1.4 billion for the budget year, or $2.3 billion for the two years combined.

Figure 31

Reliability of the General Fund Revenue Forecast

1989-90 and 1990-91 (in billions)



[a] Based upon data in Figure 30.

[b] Reflects consensus econmic forecast plus technical reestimates and certain other adjustments cited in the text.

[c] As projected in the *1990-91 Governor's Budget*.

Source: 1990-91 Governor's Budget and Legislative Analyst.

The Errors Could Be Even Larger

Of course, even larger percentage errors could occur, as has happened in the past, especially if an event such as a serious recession were to take place.

Given the above, ***it is only realistic to expect revenue-estimating errors of at least several hundred million dollars, and it is within this band of uncertainty that the budget's revenue estimates should be viewed.***

Nevertheless—Are the Revenue Estimates "Reasonable"?

Even though significant error margins inherently surround revenue estimates, it still is necessary that a specific revenue projection eventually be used in developing the state's budget plan. Thus, the relevant question facing the Legislature is: *Are the budget's revenue estimates reasonable to use for this purpose?*

Where Might the Estimates Go Wrong? Assessing the reasonableness of the budget's revenue projections involves considering three main factors. These include the *consistency* of the revenue projections with the budget's economic forecast, the *reliability* of the economic forecast itself, and the accuracy of assumptions regarding *noneconomic* factors like capital gains. Another consideration is how revenue collections have performed since the revenue estimates were made. Our analysis of these factors indicates the following:

- ***Consistency.*** Our own revenue-estimating procedures suggest that the *budget's economic forecast* would produce somewhat *more* revenues than the budget projects. However, the amount involved is only a small fraction of the revenue base, and thus we find that *the budget's aggregate revenue estimates are generally consistent with its economic assumptions.*
- ***Economic Reliability.*** Over the past 10 years, the consensus economic forecast has been somewhat more accurate on average than the department. The net effect of using the less optimistic *consensus economic forecast* for 1990 (see Figure 14) would be to *reduce* revenues below the budget forecast.

Taken together, these two adjustments amount to about $480 million *less* revenues than the budget projects for the two years combined (see Figure 31).

- ***Capital Gains.*** Incorporating the higher historical-average capital gains growth rate discussed earlier would *increase* revenues, by about $430 million for 1989-90 and 1990-91 combined. This would offset most of the net downward adjustments above.

However, as noted earlier, capital gains have proved to be very volatile and difficult to predict in recent years, and it also is possible that the volume of reported gains is being dampened due to uncertainties regarding future federal tax changes. Thus, it is possible that the historical capital gains growth trend will not apply in 1989 and 1990, in which case the added revenues might or might not materialize. For example, declarations of estimated taxes made in December 1989 were *soft* relative to the previous year. Although declarations in January 1990 were a bit stronger than expected, it is the December declarations which often are an indication of the volume of year-end capital gains realizations.

General Conclusion—Estimates Have Some Downward Potential

Based on the information *currently available,* it seems most likely that the department's revenue estimates are on the *high side,* rather than the low side, possibly by *a few hundred million dollars* for the current and budget years *combined.* As Figure 31 shows, however, while such amounts may be very significant in absolute dollar terms, *they are "swamped" by the error margins* within which the revenue forecast should be viewed. Nevertheless, pending the receipt of additional information in the months to come on how the economy and revenue collections actually are performing, we believe that the Legislature should take this downward revenue potential into account for its *initial* planning purposes when making spending plans and calibrating the reserve for economic uncertainties.

April Will Provide Critical Missing Information. During each of the past three years, the budget's revenue projections have been significantly revised in May, following the filing of personal income tax returns in April. This is in part because recent federal and state tax-law changes have made it very difficult to anticipate both the amount of personal income tax liabilities and the timing of tax payments. This year's April revenue data will again provide important information which could *significantly change* the revenue estimates. For example, we will know in April if the softness in declarations payments at the end of 1989 represented an actual revenue loss or simply a cash-flow shift between 1989 and 1990, and whether the budget's assumptions regarding 1989 capital gains are reasonable. Thus, *depending on what these April data show, the revenue estimates could be subject to considerable revision this May.*

The Forecast for Special Fund Revenues

Special fund revenues are projected to total $7.3 billion in 1989-90 and $7.9 billion in 1990-91 (see Figure 32). After accounting for various special factors (discussed below), the underlying rate of special funds revenue growth is a moderate 6 percent in the current year and 8 percent in the budget year. The growth rates for individual special fund revenue sources differ considerably from one another, however.

Figure 32

Special Fund Revenues

1988-89 through 1990-91
(dollars in millions)[a]

Source of Revenue	Actual 1988-89	Estimated 1989-90	Projected 1990-91	Change 1989-90 to 1990-91 Amount	Percent
Motor Vehicle Revenues:					
License fees (in lieu)	$2,002	$2,157	$2,307	$150	7.0%
Fuel taxes	1,321	1,336	1,361	25	1.9
Registration, weight and miscellaneous fees	1,137	1,178	1,250	72	6.1
Subtotals, motor vehicle revenues	**($4,460)**	**($4,671)**	**($4,918)**	**($247)**	**(5.3%)**
Other Sources:					
Cigarette and tobacco products tax[b]	$397	$642	$625	-$17	-2.6%
Interest on investments	147	182	166	-16	-8.8
Sales and use taxes[c]	74	437	528	91	20.8
Oil and gas revenues[d]	90	77	63	-14	-18.2
Other	1,201	1,295	1,570	275	21.2
Totals, special funds	**$6,369**	**$7,304**	**$7,870**	**$566**	**7.7%**

[a] Detail may not add to totals due to rounding.

[b] Includes revenues due to Proposition 99 (November 1988) of $329 million in 1988-89, $576 million in 1989-90, and $561 million in 1990-91, and local governments' share of the state's 10-cents-per-pack excise tax on cigarettes. For additional detail, see text discussion.

[c] Includes revenues of $350 million in 1989-90 and $435 million in 1990-91 from the temporary one-quarter cent sales tax increase to fund earthquake relief established by Ch 13x/89 (AB 48x, Areias) and Ch 14x/89 (SB 33x, Mello). Also, reflects state revenues to the Transportation Planning and Development Account in the State Transportation Fund.

[d] Represents oil and gas royalties from state lands, about 80 percent of which come from the state's tidelands located adjacent to the City of Long Beach. Excludes royalties allocated to other funds and federal land royalties.

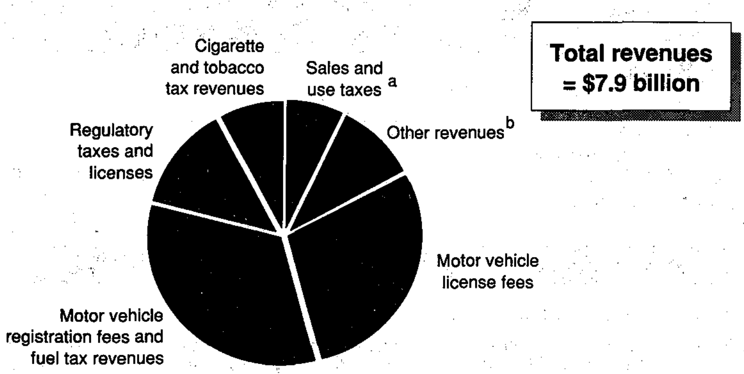
Where Do Special Fund Revenues Come From?

Figure 32 and Figure 33 indicate that:

- More than 60 percent ($4.9 billion) of special fund revenues are derived from motor vehicle-related sources. These include those dedicated for transportation purposes—namely fuel taxes ($1.4 billion) and vehicle registration and related fees ($1.3 billion). Also included is the vehicle license fee ($2.3 billion), which is imposed on motor vehicles in lieu of the local property tax.
- The remaining 40 percent ($3 billion) of special fund revenues include tobacco-related taxes (about $625 million), sales and use taxes ($528 million), and interest income (about $165 million). (The sales and use tax revenues include receipts from the temporary 13-month one-quarter cent levy that was enacted in 1989 to fund earthquake relief, plus state sales and use tax revenues allocated for local transit projects.) Also included are oil and gas

Figure 33

1990-91 Special Fund Revenues, by Source



[a] Includes $435 million from a temporary one-quarter cent sales tax increase to fund earthquake relief. Also includes $93 million in state tax revenues allocated for local transit projects.

[b] Includes a variety of sources such as interest and property income, penalty assessments and user fees.

revenues, and other smaller sources such as various business and professional license fees, utility surcharge receipts, and penalties from traffic violations and criminal convictions.

How Are Special Fund Revenues Used?

Special fund revenues are used for a wide variety of purposes. For example:

- Over half of motor vehicle-related revenues are returned to local governments for transportation-related and other purposes. The remainder is used for various state programs relating to transportation and vehicle use, including support of the Department of Motor Vehicles (DMV), the California Highway Patrol (CHP), and the Department of Transportation (Caltrans).
- Revenues raised by the new tobacco-related taxes imposed by Proposition 99 (1988) are distributed to various state accounts to be spent for health- and natural resources-related purposes.
- The local 3-cent share of the basic 10-cent state cigarette tax in effect prior to Proposition 99 is distributed between cities (83 percent) and counties (17 percent).
- Oil and gas revenues are used primarily to finance capital outlay projects.

Mixed Growth Trends for Motor Vehicle-Related Revenues

These revenues are projected to grow by about 5 percent in both the current and budget years. Regarding the individual revenue sources:

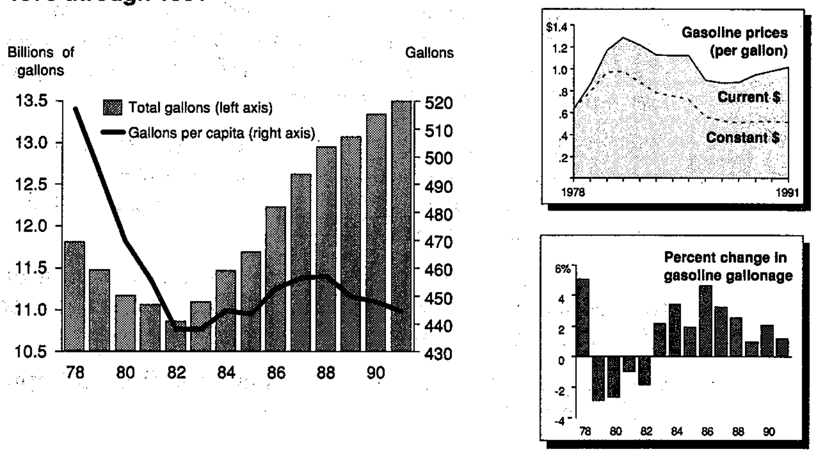
- ***Vehicle license fees*** are projected to increase moderately (about 7 percent) in both the current and budget years. These fees—the single largest special fund revenue source—are imposed for the privilege of operating vehicles on public roads in California, and are in lieu of the personal property tax on vehicles. The revenue projections assume that new car sales will be relatively flat throughout the forecast period (see Figure 10) and car prices (which determine a vehicle's actual license fee) will increase by around 5 percent per year.
- ***Registration fees,*** which are levied at a flat per-vehicle rate, are projected to increase about 4 percent in 1989-90 and 6 percent 1990-91.

- ***Fuel taxes,*** which also are levied at a flat rate, are projected to increase very little—less than 2 percent per year. Figure 34 shows that this is because of weak growth in gasoline sales. Per capita gasoline consumption is expected to actually decline slightly, despite soft gasoline prices.

Figure 34

California Gasoline Consumption and Prices

1978 through 1991



Source: *1990-91 Governor's Budget* and State Board of Equalization. Data are estimated for 1989 and projected for 1990 and 1991.

What About SCA 1? Senate Constitutional Amendment 1, which will be on the June 1990 statewide ballot, would increase truck weight fees and raise the gasoline tax if approved by the voters. The measure would result in an estimated 1990-91 revenue gain of $130 million in weight fee revenues and $760 million in fuel taxes.

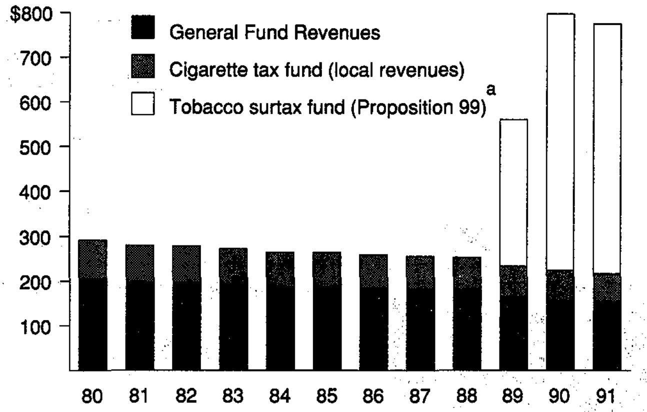
Tobacco-Related Taxes—$625 Million in Proposition 99 Revenues

Special fund revenues from tobacco-related taxes are estimated to total $642 million in the current year and $625 million in the budget year. Most of this money—$576 million in 1989-90 and $561 million in 1990-91—is due to Proposition 99. This measure levied an additional cigarette tax of 25 cents per pack and imposed a tax on other tobacco products equivalent to that on cigarettes. Figure 35 shows the trend in tobacco-related revenue

Figure 35

Cigarette and Tobacco Tax Revenues

1979-80 through 1990-91 (in millions)



[a] The Cigarette and Tobacco Products Surtax Fund was established by the Tobacco Tax and Health Protection Act of 1988, which increased the cigarette tax to $0.35 per pack and added an equivalent tax to other tobacco products. These tax increases became operative January 1, 1989. The revenues from these tax increases are deposited into the fund and subsequently transferred to six separate accounts to finance various program activities.

Source: Governor's Budgets and State Controller. Data shown are for fiscal years ending in years specified, and are projected for 1989-90 and 1990-91.

collections.

Future Revenues Likely to Decline. Total cigarette consumption has fallen every year during the 1980s due to steady declines in per capita consumption (see Figure 28). If this trend continues, Proposition 99 revenues will experience absolute dollar declines in future years, since the cigarette tax is a fixed cents-per-pack levy. Evidence of this can be seen from the fact that budget-year revenues are projected to be lower than current-year revenues.

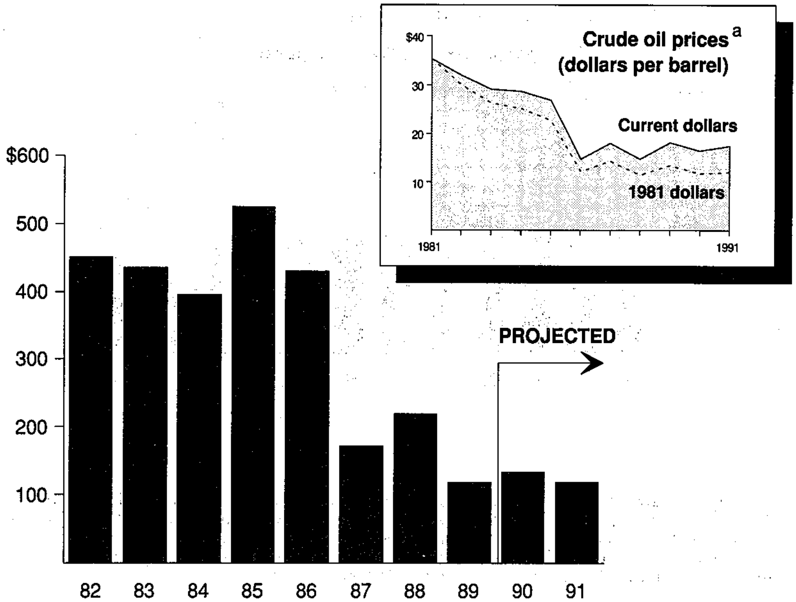
Oil and Gas Revenues—Extremely Depressed

Figure 36 shows that state oil and gas royalty income is expected to remain far below the high level experienced during the first half of the 1980s. As shown in the figure, this reflects the current modest level of crude oil prices, which reduces both the

Figure 36

State Oil and Gas Royalties

1981-82 through 1990-91 (in millions)



[a] Estimates by Wharton Econometrics. Data represent average U.S. refiners' crude oil acquisition prices.

Source: *1990-91 Governor's Budget* and State Lands Commission. Revenue data are for fiscal years ending in years specified, and include oil, gas and mineral royalties collected by the State Lands Commission.

revenues obtained from oil produced on state-owned lands and the volume of oil that is profitable to extract. Total state oil and gas royalty income is projected to be only $135 million in the current year and $120 million in the budget year. This compares to an average of $450 million annually for the period 1981-82 through 1985-86.

California State Lottery Revenues

The special fund revenue totals contained in the budget do not include any revenues derived from the California State Lottery. This is because lottery revenues have been classified as "nongovernmental trust and agency funds," and monies so designated are not reported in the budget. However, because the lottery is a major source of state income, its revenue outlook is summarized below.

Projected Lottery Sales—$2.8 billion. Lottery sales are projected to total $2.8 billion in both 1989-90 and 1990-91. This is about 5 percent above lottery sales in 1988-89. The current-year estimate is over 10 percent above the estimate made one year ago. As this indicates, lottery sales have been exceeding expectations. Over 70 percent of budget-year sales are expected to come from on-line lotto wagering and the remainder from instant ticket sales.

Sales Forecast—Reasonable but Subject to Error. Given recent wagering experience, the budget's estimates are not unreasonable. However, as last year's wagering experience demonstrated, lottery projections are subject to considerable error.

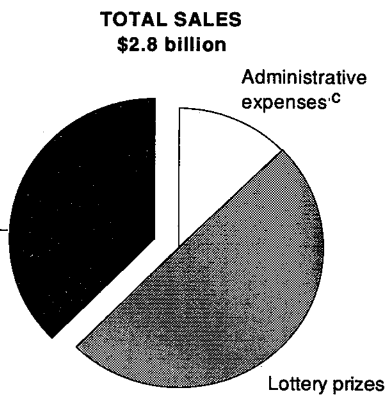
Use of Lottery Proceeds—Over $1 Billion to Education. Figure 37 shows how the $2.8 billion in budget-year lottery proceeds will be distributed. It indicates that:

Figure 37

Estimated Distribution of 1990-91 State Lottery Receipts

Revenue to Education (in millions)

K-12 Education	$835
Community Colleges	127
California State University	46
University of California	25
Other[a]	4
Total	**$1,037**[b]



[a] Includes Hastings College of the Law, California Maritime Academy, Department of Youth Authority, and certain state special schools.

[b] Total includes $1,004 million from 1990-91 lottery sales and $33 million in net interest income, and excludes any unclaimed prize monies from on-line games.

[c] Includes commissions to retailers, instant-game ticket costs, on-line lotto-game costs, and general operating expenses.

- 50 percent ($1.4 billion) will be paid out in prizes, as statutorily required.
- About 13 percent (nearly $350 million) will be used for lottery-related administrative expenses, including commissions to lottery retailers. (This is about $100 million less than the maximum 16-percent share that current law permits for administrative costs.)
- The remaining 37 percent (somewhat over $1 billion), plus certain interest earnings, will go to public education.

Figure 37 also shows how the monies going to education are to be allocated to different educational levels. Existing law provides that this be done on the basis of educational enrollments and attendance. Altogether, the 1990-91 lottery revenues earmarked for education amount to about 4.7 percent of total proposed General Fund educational expenditures.

Major Issues Facing the Legislature

IV

Part IV

Major Issues Facing the Legislature

In addition to the major policy and funding issues identified in the *Analysis,* this part discusses some of the broader issues currently facing the Legislature. Many of these issues are closely linked to funding requests contained in the Governor's Budget for 1990-91, others are more long-range in nature and will, in all probability, persist for many years beyond 1990.

The issues in this part fall into five general categories:

- The *first* category consists of *drug-related issues:* drug use in California, an inventory of state programs to fight drug abuse, and an analysis of state prevention programs.
- The *second* category deals with *infrastructure topics:* an overview of the state's infrastructure situation and an analysis of the capital outlay needs (including proposed new campuses) of postsecondary education.
- The *third* is comprised of *resources issues:* an alternative method of addressing air pollution and state preparedness for small oil spills.
- The *fourth* category consists of *health issues:* state health services to rural areas, long-term health care, and the status of Proposition 99 programs.
- *Finally,* we analyze the issues of county fiscal capacity and the implementation of Proposition 103.

Drug Use in California

How Widespread Is Drug Use? What Are the Characteristics of Heavy Drug Users?

Summary

Drug use among the general population has been decreasing since 1979. Specifically, the number of "current users" declined 40 percent between 1979 and 1988. Over the same period, however, several indicators of heavy use have increased. This suggests that the drug-using population can be categorized into two main groups—casual users, whose numbers have been decreasing, and heavy users, whose numbers have been increasing. Available information also indicates that youth who are heavy users of illicit drugs have many more social and behavioral problems than youth who use only alcohol or who only experiment with drugs or than those who abstain. In addition, about three-fourths of all arrestees (all types of crimes) tested positive for drugs.

Alcohol consumption nationwide has also been decreasing since 1979, but at a much more gradual rate. Consumption in California has experienced a similar decline, but residents of the state still drink 21 percent more than the nationwide average. Of the U.S. population 14 years and older, one-third do not drink alcohol, one-third are light drinkers, and one-third are moderate to heavy drinkers. Ten percent of the drinkers account for half of the alcohol consumed.

For the past several years, drug use and abuse has been one of the most prominent issues in the country. The public's interest in and concern about the subject has been heightened by the current federal "war on drugs." While the national focus has been on *illicit* drugs like cocaine and heroin, the most commonly used drug in our society is alcohol. To assist the Legislature in thinking about and responding to issues relating to both alcohol and drug use, we have prepared three related pieces on the subject.

In *this* analysis, the first of the three pieces, we review national and California-specific estimates of drug and alcohol use and describe use among the two populations that have generated the greatest concern—youths and heavy users. In the following two pieces we (1) describe the state's current alcohol- and drug-related programs and how they would be affected by the proposed federal National Drug Control Strategy and (2) review and analyze the available research on alcohol and drug *prevention* programs and discuss the implications of our findings for California's prevention programs.

DRUG USE

In this section we review various estimates of the use of illicit drugs (such as marijuana, cocaine, and hallucinogens) and the nonmedical use of prescription drugs (such as stimulants and tranquilizers). It is difficult to measure the extent of drug usage, for two main reasons. First, given the illegality of illicit drugs, users are reluctant to identify themselves. In addition, many drug users—especially heavy users—are homeless, unemployed, or both, and therefore are difficult to locate and count. As a result, no one knows precisely how many people use illicit drugs. The estimates that are available rely on surveys. Below, we provide information on the illicit drug-using population based on the most reliable surveys available.

DRUG USE AMONG THE GENERAL POPULATION

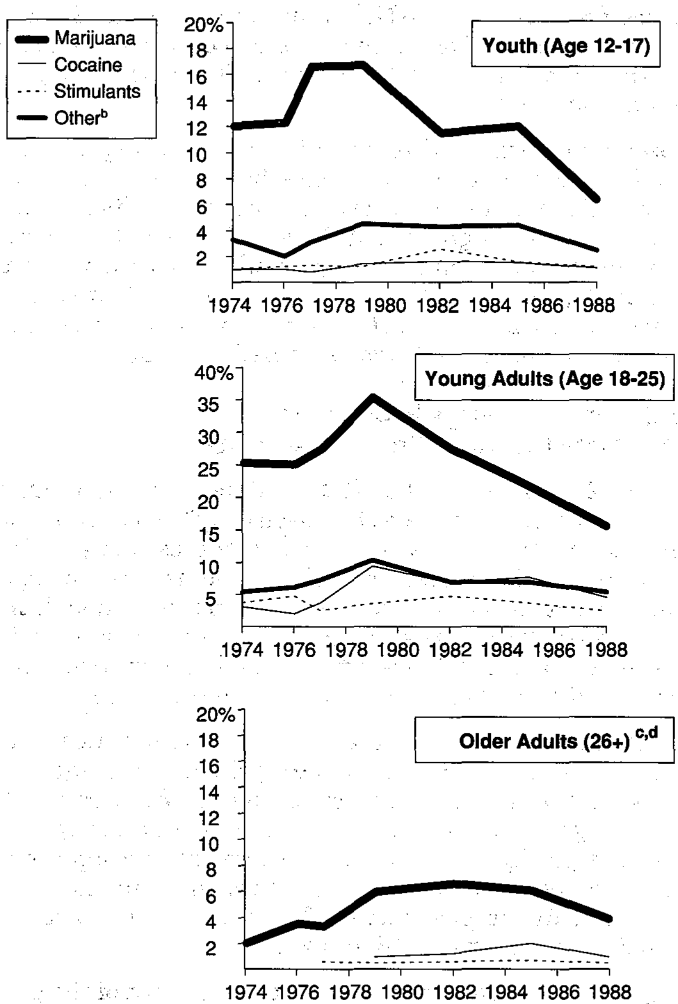
Drug Use Has Been Declining Nationally Since 1979

The National Institute on Drug Abuse (NIDA) has surveyed American households regularly since 1971 in order to estimate drug use in the United States. The NIDA survey is generally regarded as the best estimate of drug use among the general population. It does not, however, provide state-level estimates. Figure 1 displays NIDA's estimates of the prevalence of drug use among three different age groups, from 1974 to 1988. Overall, the percentage of individuals who use drugs has been declining since 1979. As the figure shows, there have been dramatic decreases (over 50 percent) in the use of marijuana by youths and young adults since that time, accompanied by much smaller declines in the usage of most other drugs in recent years. The upswing in cocaine use in 1985 by adults (18 and older) corresponds roughly to the emergence of crack cocaine. Historically, when a new drug

Figure 1

Drug Use Has Decreased for All Age Groups

Prevalence of Current Drug Use, 1974-1988[a]



[a] A current drug user is defined as an individual who had used drugs at least once in the month prior to the survey.

[b] "Other Drugs" include tranqualizers, hallucinogens, psychotherapeutics, analgesics, and sedatives.

[c] No values are graphed for stimulants before 1977 or for cocaine before 1979 since the responses were too low to give an estimate which would be statistically significant.

[d] For older adults, the values for "other drugs" are not graphed since the survey only received significant values for 1976 (5.0 percent), 1977 (6.0 percent), 1985 (2.5 percent), and 1988 (1.3 percent). The values for the other years were too low to give an estimate which would be statistically significant.

Source: NIDA Capsules, Overview of the 1988 National Household Survey on Drug Abuse, National Institute on Drug Abuse.

is introduced into society, its use increases initially, then decreases over time.

The NIDA also reports that drug use declined in all age categories; among both men and women; in all regions of the country; for all levels of education; and for blacks, whites, and Hispanics. Overall, the 1988 NIDA survey found that 14.5 million people, or 7 percent of those surveyed, used drugs at least once during the month prior to the survey. This was a 40 percent reduction since 1979.

America's Drug of Choice Is Marijuana. Figure 1 shows that by far the most commonly used drug for all age groups is marijuana. The second most prevalent drug for adults ages 18 and over is cocaine. Although it is not shown on the graph (due to gaps in survey data), the second most commonly used drugs for youths are inhalants, such as glue, amyl, and butyl nitrates. Lastly, NIDA estimates that many of the 14.5 million current drug users use more than one of the drugs identified in Figure 1.

Experimentation With Drugs Is Common and Significantly More Prevalent Than Regular Use

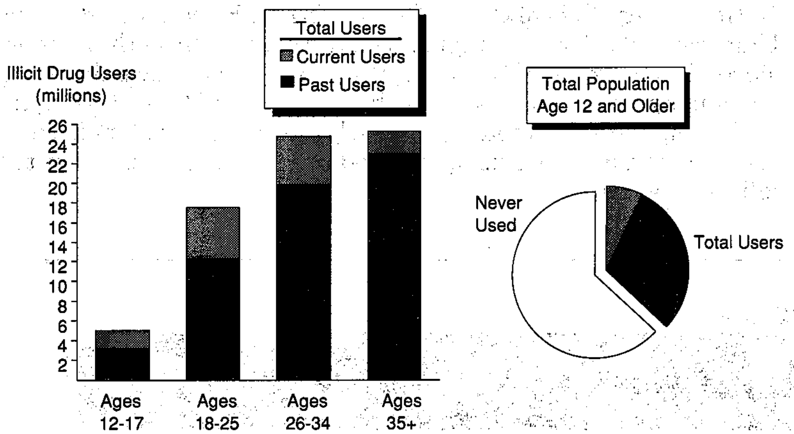
Figure 2 shows the 1988 NIDA estimates of the number of *current* drug users—those who had used drugs at least once in the month prior to the survey—relative to the estimate of "past" users—those who have tried an illicit drug sometime during their lifetime but not in the past month. (The classification "current users" is generally regarded as a reasonable proxy for *regular* users, even though it includes a small number of individuals who had *first* tried a drug in the month prior to the survey.)

As the figure shows, the number of past users is substantially greater than the number of current drug users for all age groups. NIDA estimates that 72.5 million people, or 37 percent of the population age 12 and older, have tried some illicit drug at least once. As the pie figure shows, the 37 percent is comprised of 7 percent who are current users and 30 percent who have used a drug, but not in the past month. The greatest increase in use occurs between the ages of 18 and 25.

In general, this data indicates that over a third of the population has tried at least one drug, but only 20 percent of those who have tried drugs continue to use them. These current drug users are predominately adults; youth (ages 12-17) comprise only 13 percent of the total.

Figure 2

Illicit Drug Use: Current and Past Use 1988 National Population Estimates[a]



a Note: A current drug user is defined as an individual who had used a drug at least once in the month prior to when the survey was taken. A past user is an individual who has used a drug at least once, but not in the past month. The sum of the two (the length of the whole bar in the figure) equals "total users."

Source: Household Survey on Drug Abuse, 1988, National Institute on Drug Abuse.

Current Drug Use Varies Significantly Among Subgroups

The NIDA survey also identified subgroups that had a greater prevalence of use than in the general population. While the survey found that the overall current prevalence of illicit drug use was 7.3 percent, the rate for metropolitan areas was 9 percent. Current use among blacks (8.2 percent) and Hispanics (7.8 percent) was slightly higher than among whites (7.0 percent).

In general, women's drug usage was much lower than men's, although in the west current use was greater for women (11 percent) than men (9.3 percent). By region, women's use rate varied dramatically, ranging from 4 percent in the northeast and south to 6.1 percent in the north central region and to 11 percent in the west. In addition, NIDA estimates that 9 percent of women in the child-bearing years of 15-44 are current drug users. This is of special concern since pregnant women can seriously harm their fetuses if they use drugs during pregnancy. We addressed the issue of substance-exposed infants in *The 1989-90 Budget: Perspectives and Issues* (please see page 250).

DRUG USE AMONG YOUTH

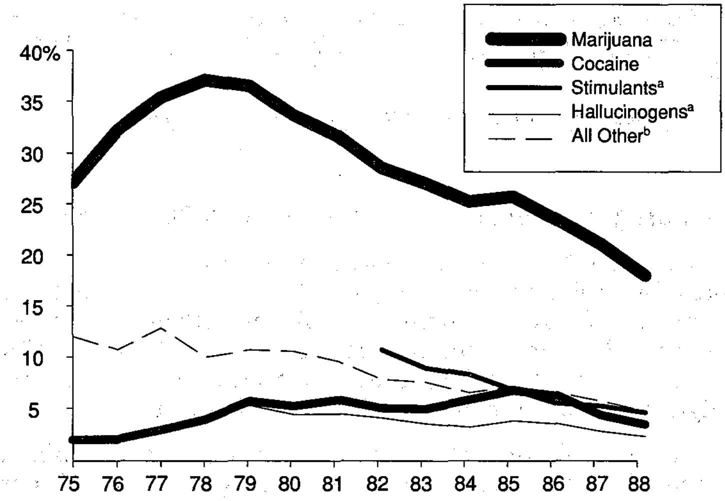
Use Among Youth Has Also Been Declining Since 1979

The major national study of drug use among youth is the National High School Senior Survey (NHSSS), conducted by the University of Michigan. Figure 3 shows the results of that survey since 1975. Like the NIDA data, this survey also shows that drug use among youths has been declining since 1979. As the figure indicates, usage declined significantly over the period for all drugs except cocaine, where usage peaked in 1985 and then fell in the following years.

Figure 3

Current Drug Use Among High School Seniors
National High School Senior Survey

1975-1988



[a] Note: Before 1982 for stimulants and 1979 for hallucinogens, different definitions for these drugs were used and thus those earlier values cannot be compared to the later values.

[b] Note: Includes heroin and other opiates, sedatives, and tranquilizers.

Source: *Drug Use, Drinking, Smoking: National Survey Results from High School, College, and Young Adult Populations,* University of Michigan, Institute for Social Research.

Another major study of drug use among youth is the series of surveys commissioned by the Attorney General of California in 1985-86, 1987-88, and 1989-90. The Attorney General's surveys covered 7th, 9th, and 11th grade California public school students. Like the surveys reviewed above, the Attorney General's survey found a substantial reduction in drug use from 1985-86 to 1987-88, including a decrease in daily users of marijuana from 7.4 percent to 4.3 percent of 11th grade students. The survey also found that most young people's first intoxication experience involves alcohol and, although drug experimentation can begin at an early age (for example, in 1987-88, 5.6 percent of 7th graders reported they had tried a drug by the 6th grade), most experimentation takes place between the 9th and 11th grades.

Youth Who Are "High-Risk" Users Have More Social Problems Than "Conventional" Users

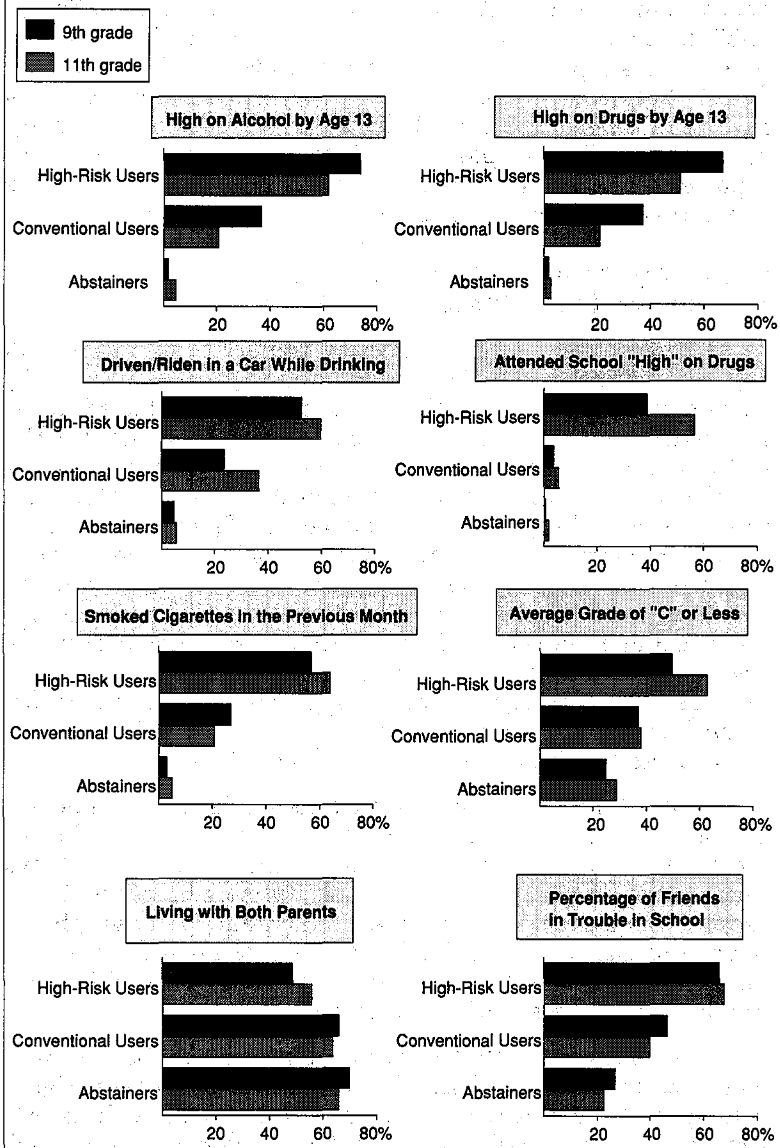
A report based on the Attorney General's survey provides separate estimates of "conventional" and "high-risk" users. High-risk users were defined as those who either (1) had used the less frequently tried and more dangerous drugs such as LSD or PCP, or (2) had used marijuana at least weekly, or (3) were polydrug users (including those who combined drugs and alcohol) on a number of occasions, or (4) had used cocaine. The survey identified 14 percent of 9th graders and 23 percent of 11th graders as high-risk users. However, with regard to the latter group, 60 percent of the 11th graders enrolled in continuation high schools were classified as high-risk users compared to 20 percent of regular high schools. The survey also identified 28 percent of the 9th graders and 19 percent of the 11th graders as abstainers (from alcohol and drugs) within the last six months and 57 percent of both 9th and 11th graders as "conventional" users.

Conventional users are defined as students who had used alcohol or drugs at least once in the past six months. The term "conventional user" was chosen since these students' use characterizes the use patterns of the majority of their peers. For example, conventional users were predominately those who had been intoxicated on alcohol at least once in the last six months. In general, conventional users used alcohol rather than illicit drugs and high-risk users used illicit drugs.

The survey found that there are significant differences in the characteristics of high-risk and conventional drug users. Figure 4 compares the characteristics of high-risk users with those of conventional users and abstainers. As the figure shows, high-risk users were less likely to live with both parents, tend to have lower grades, are more likely to have had earlier experiences with intoxication (age 13 or earlier), scored higher on measures of

Figure 4

California Public School Students Who Are "High-Risk Users" Differ from "Conventional Users" and Abstainers[a]



[a] Abstainers are defined as those who reported no use in the last six months.

Source: *Identifying High-Risk Substance Users in Grades 9 and 11, A Report Based on the 1987-88 California Substance Use Survey.* Rodney Skager, Sandra Firth, 1989.

school dropout potential, and more often engage in high-risk behavior, such as driving or riding in a car while drinking, smoking cigarettes, having friends who have gotten into trouble in school, and attending school while "high" on alcohol or drugs.

The survey also found that high-risk users were more likely to consider alcohol and drugs easy to obtain within their communities and to believe that students used drugs to have a good time or out of boredom. We discuss some of the policy implications of these differences in characteristics in our analysis of prevention programs (please see second following piece).

HEAVY DRUG USE

The National Surveys Are Poor Estimates of Heavy Use

While both the NIDA national household survey and the NHSSS provide reasonably good estimates of drug use among the general population, they miss certain segments of the population. Specifically, the NIDA survey does not include the homeless and persons living on military bases, in dormitories, or in other group quarters or institutions (such as hospitals and jails). The NHSSS only includes high school seniors and thus excludes dropouts. Therefore, these surveys may be missing some of the individuals who are most prone to heavy drug use.

For example, the NIDA survey does not give estimates for current heroin use since the responses it receives are too small to be significant. This is not surprising since heroin use is also considered to be one of the most deviant forms of drug use and therefore is less prevalent among the general population. Likewise, the NHSSS states that the effect of not surveying dropouts means its figures are low, but it estimates that the largest correction for most drugs, taking into account both dropouts and absentees, would be an increase of 7.5 percent. However, NHSSS states that, even with its corrections, it is unable to get a very accurate estimate for heroin use, and perhaps even for crack cocaine and PCP use, since these drugs represent the most deviant end of the drug-using spectrum. Therefore, the use of these drugs by dropouts may be much higher than their use by students who attend class.

Because of these methodological problems with the NIDA survey and the NHSSS, and because drug use by heavy drug users is a major public policy concern, it is important to examine other sources of data on this population. Below we summarize not only the NIDA estimates of heavy drug use but four other major sources of data on this population: The California Department of Alcohol and Drug Program's (DADP) estimate of "problem drug use," the Drug Abuse Warning Network (DAWN), the Drug Use

Forecasting (DUF) Program, and the DADP's California Drug Abuse Data System (CAL-DADS).

Heavy Drug Use: NIDA Survey Results Are Mixed

Until recently, NIDA did not ask any questions specifically about heavy drug use. In 1985, NIDA began to ask additional questions regarding heavy use of cocaine and marijuana, the most prevalent drugs. The NIDA reported in 1988 that the number of frequent users of marijuana declined by 28 percent from 1985. This decrease is not as steep as the decline in casual use, but is still substantial. On the other hand, although the number of current cocaine users *decreased* by 50 percent between 1985 and 1988, the number of heavy users—those who used cocaine at least once a week—*increased* by 33 percent (from 647,000 to 862,000). In addition, NIDA estimates that the number of daily, or almost daily, users of cocaine increased 19 percent between 1985 and 1988. The survey also found that, of the 2.9 million current cocaine users, almost 500,000 used crack cocaine. Thus, although current drug use and cocaine use declined in recent years, the heavy use of cocaine has increased.

The DADP Estimates There Are 2.1 Million Problem Drug Users in California

In 1983, the DADP contracted for a study to estimate the number of "problem drug users" in California. Problem drug users are defined as those who have smoked marijuana for 20 or more of the past 30 days, who have used opiates at least once in the past 30 days, or who have used any other drug (such as cocaine or hallucinogens) for nonmedical purposes for 5 or more of the past 30 days. Based on this study, the department estimated that, in 1986, there were 2.1 million problem drug users in California.

The department's estimate is frequently cited and it *does* suggest that there are a substantial number of problem drug users in California. However, even the department acknowledges that it is a very rough estimate. Moreover, because of the differences in how "problem users" and "heavy users" are defined by the DADP and NIDA, respectively, the department's estimate for California is *not* directly comparable to NIDA's national estimates.

Emergency Room Episodes and Drug-Related Deaths Have Greatly Increased During the 1980s

The DAWN collects data from hospitals and medical examiners on the number of times drugs are reported or mentioned in emergency rooms in certain Standard Metropolitan Statistical Areas (SMSAs) throughout the United States. In California, three

SMSAs are part of the DAWN system: Los Angeles, San Francisco, and San Diego.

Unlike the NIDA survey data, the DAWN data cannot be used to estimate the absolute number of heavy drug users. It does, however, provide a very good estimate of the *trends* in heavy use. In California, DAWN has recorded massive increases in emergency room admissions involving cocaine and therapeutic amphetamines (amphetamines, methamphetamine, etc.) since the early 1980s. Specifically, from 1983 to 1988, DAWN recorded the following increases in California:

- ***Cocaine.*** A 451 percent increase in emergency room episodes and a 457 percent increase in cocaine-related deaths.
- ***Therapeutic Amphetamines.*** A 157 percent increase in emergency room episodes and a 177 percent increase in therapeutic amphetamine-related deaths.
- ***Heroin/Morphine.*** A 122 percent increase in emergency room episodes and a 98 percent increase in heroin/morphine-related deaths.
- ***Marijuana.*** A 57 percent increase in emergency room episodes.

These data strongly suggest that there has been a large increase in the heavy use of cocaine and therapeutic amphetamines, with a smaller relative increase in heavy heroin/morphine and marijuana use. (The data did show a significant decrease of heavy use of one drug—PCP.) While the trends in heavy cocaine and amphetamine use reflected in the DAWN data may appear to contradict the declines in use by the general population reflected in the NIDA data, we believe that *both* estimates are valid. Specifically, the data suggest that casual or experimental drug use is substantially decreasing while heavy drug use is increasing.

Characteristics of Heavy Drug Users

Two other sources of data—the DUF Program and DADP's CAL-DADS—provide additional insights as to the characteristics of many heavy drug users.

Arrestees. The DUF Program conducts interviews and collects urine specimens from arrestees in large cities nationwide. Although the program is voluntary, over 90 percent of the arrestees asked to participate have given interviews and over 80 percent have provided urine specimens. The National Institute of Justice began the DUF Program in New York City in 1986 and has been expanding it ever since. There are three DUF sites in California: Los Angeles, San Diego, and a new one in Santa Clara.

Currently, there is information available on arrestees (all types—drug-related and nondrug-related) for the period January through March 1988. The data indicate dramatically high levels of drug use. For instance, the percentage of male arrestees testing positive for any drug (not including alcohol) ranged from a low of 58 percent in New Orleans to a high of 82 percent in New York City. Los Angeles registered 74 percent testing positive (64 percent, excluding marijuana) and San Diego, 79 percent (69 percent, excluding marijuana). Female arrestees, although much fewer in number, registered slightly higher values. In Los Angeles 79 percent tested positive for drugs (73 percent, excluding marijuana). (Data for females is not available for San Diego.)

Again, the figures above are for *all* arrestees, not just those arrested for a *drug* violation. For example, in Los Angeles 84 percent of the male arrestees whose major charge at the time of arrest was robbery tested positive for drugs. Similarly, 83 percent of those arrested for burglary, 77 percent for larceny, and 71 percent for stolen property tested positive for drugs. Figure 5 displays some of the characteristics of arrestees interviewed by the Los Angeles DUF Program.

Drug Treatment Clients. The DADP collects data through the CAL-DADS on drug treatment clients who are admitted to publicly funded treatment centers and private methadone clinics. This data also provides some insight into the characteristics of heavy drug users, although since the system includes private methadone providers, the data is somewhat more representative of heroin addicts than of other heavy drug users. Figure 6 shows the characteristics of drug treatment clients, based on the information collected on CAL-DADS.

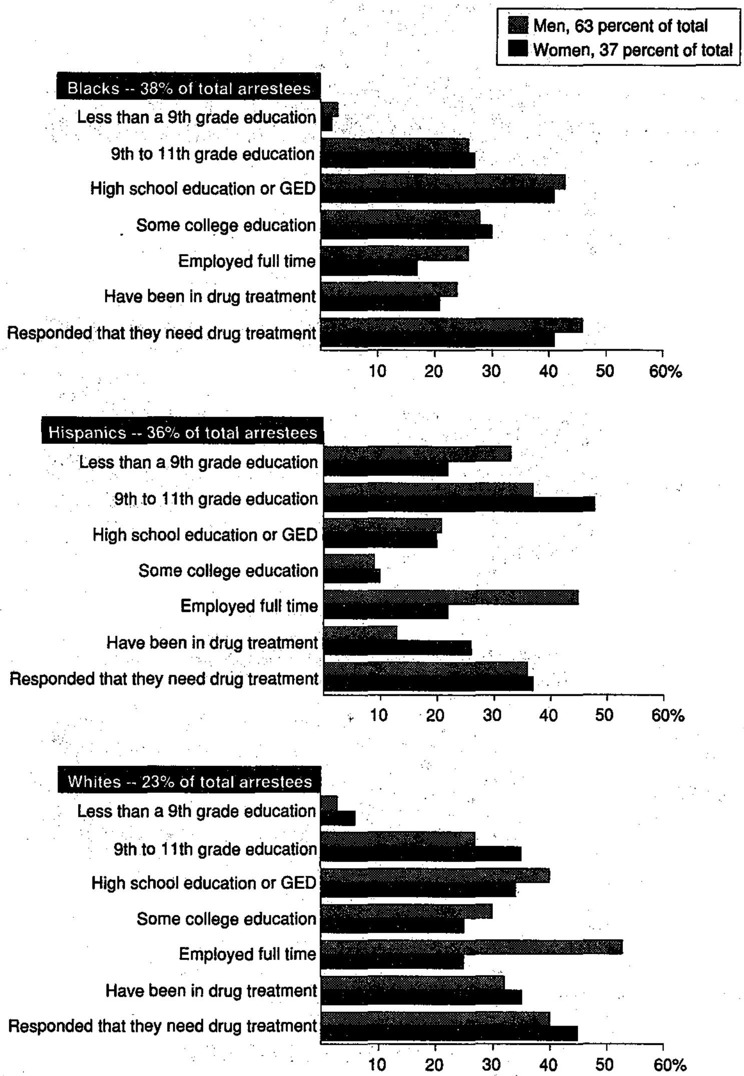
Taken together, Figures 5 and 6 provide a snapshot of the characteristics of two populations of heavy drug users: arrestees and treatment clients. The figures show that:

- ***Most Heavy Drug Users Have at Least a High School Education.*** Figure 5 shows that approximately 70 percent of black and white arrestees had at least a high school education. By comparison, only 30 percent of Hispanic males who are heavy drug users had at least a high school education.
- ***Heavy Drug Users Tend to Be Unemployed.*** The figures show that 71 percent of treatment clients are either seeking work or are out of the labor market altogether. The arrestee data shows that about half of the

Figure 5

Characteristics of Arrestees in Los Angeles County[a]

October 1987-August 1988



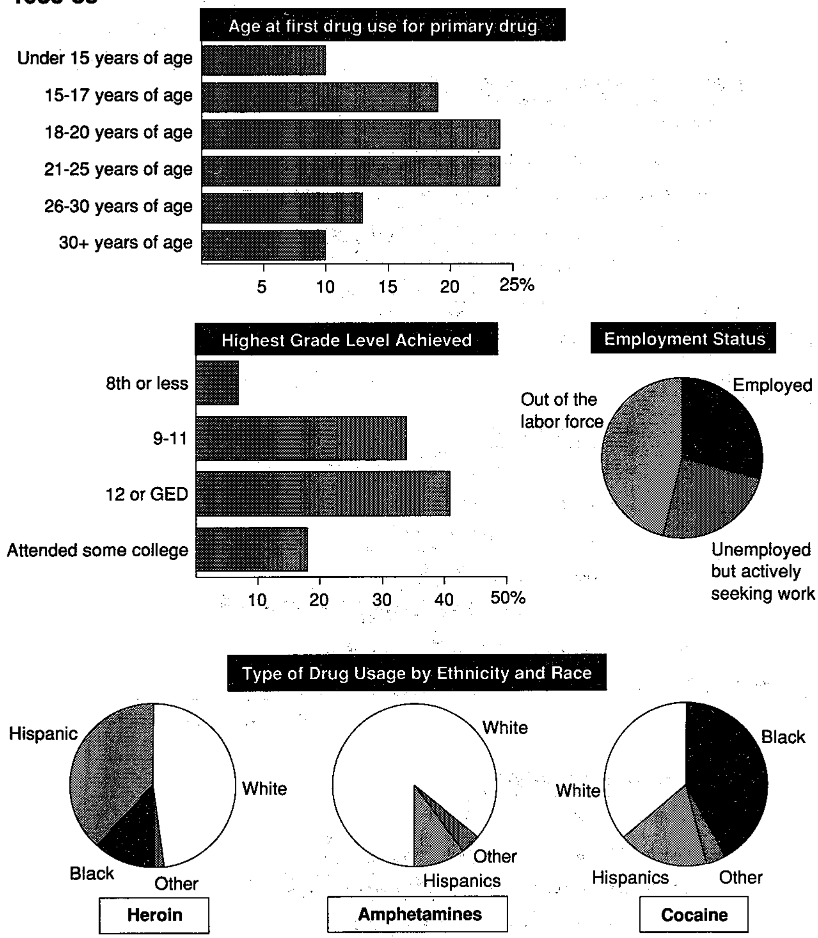
[a] Note: Not shown is the 3 percent of the arrestees who are not black, Hispanic, or white.

Source: Annual Epidemiological Analysis of Los Angeles County Drug Use Forecasting Data, UCLA Drug Abuse Information and Monitoring Project, April 1989.

Figure 6

Characteristics of Drug Treatment Clients

1988-89



Source: Department of Alcohol and Drug Programs.

white and Hispanic male arrestees were employed full time, as compared to one-fourth of black males.

- ***Drug Preferences Differ Substantially Along Ethnic and Racial Lines.*** Figure 6 shows that whites constitute 86 percent of the amphetamine users in drug treatment and only 36 percent of cocaine users. On the other hand, blacks were 42 percent of the cocaine treatment admissions and only 12 percent of the heroin admissions. Hispanics were a significant portion of the heroin admissions.

In addition to the information shown in Figure 6, treatment data from the DADP indicate that the primary drug of choice among addicts differs substantially along geographic lines. For example, in 1987-88 amphetamine admissions were concentrated in the counties of Riverside, San Bernardino, and San Diego and also made up a large proportion of the admissions in rural counties. On the other hand, 46 percent of all cocaine admissions were in Los Angeles County. The counties with the next highest cocaine admissions were Orange County with 11 percent and San Francisco County with 6 percent of statewide cocaine admissions.

SUMMARY

Many Americans have experimented with drugs, but most experimenters have not gone on to become regular users. Among the general population, illicit use of most drugs has been decreasing steadily for many years, although cocaine use has dropped only since 1985. However, indicators of heavy drug use—such as emergency room drug-related admissions—indicate that heavy use of drugs has been increasing for most of this decade. This suggests that the drug-using population consists of two distinct populations—casual users whose numbers have been decreasing and heavy users whose numbers have been increasing.

Drug use among youth, as among the general population, has also been steadily decreasing. Survey data suggest that youth who use drugs regularly or have tried the more dangerous drugs (such as cocaine) are significantly different from the youth who abstain from alcohol and drugs, only use alcohol, or who use drugs infrequently. These frequent drug users have social and behavioral problems (such as poor grades) and engage in more high-risk behavior (like attending school while "high" on drugs). Lastly, treatment and arrestee data indicate that most heavy drug users are unemployed and most arrestees are under the influence of an illegal substance.

ALCOHOL USE AND ALCOHOL-RELATED PROBLEMS

While alcohol is legal for adults, there are still serious societal problems caused by the *misuse* of alcohol (for example, alcoholism and alcohol consumption by pregnant women) and the *illegal use* of alcohol (for example, driving while intoxicated and the use by minors). Because of its legality, estimates of the amount of alcohol consumed are much more reliable than those for illicit drugs. In this part of the analysis, we review national and California-specific estimates of alcohol consumption as well as some of the data on alcohol-related problems. In addition, we describe alcohol use among youths and heavy drinkers.

ALCOHOL USE AMONG THE GENERAL POPULATION

Alcohol Consumption

As with drug use, per capita consumption of alcohol has been decreasing nationwide and in California since the late 1970s. The decrease in alcohol use, however, has been much more gradual than the decrease in drug use. Figure 7 shows California's consumption as compared to the rest of the nation for beer, wine, distilled spirits, and all alcoholic beverages. (Amounts are expressed in gallons of ethanol consumed, not in gallons of beverage consumed.) As the figure shows, California's per capita (age 14 and older) consumption of alcohol fell from 3.40 gallons in 1979 to 3.12 gallons in 1986 (the last year for which data are available)—a reduction of 8.2 percent.

Figure 7 also shows Californians drank 21 percent more alcohol per capita in 1986 than Americans nationwide, with most of the difference due to wine consumption. In 1986, Californians drank wine at twice the national per capita rate.

ALCOHOL USE AMONG YOUTH

Alcohol Use Among Youth Has Declined Only Slightly

The NHSSS reports only a slight decrease in alcohol use among high school seniors. Figure 8 shows the use of alcohol from 1975 to 1988 for this group. For all three categories—use within the past 30 days, 5 or more drinks in a row in one sitting within the past 2 weeks, and daily use—the survey found very slight gradual decreases. From 1979 to 1988, use within the past 30 days decreased from 72 percent to 64 percent, the number having 5 or more drinks in a row within the past 2 weeks decreased from 41 percent to 35 percent, and daily use decreased from 6.9 percent to 4.2 percent.

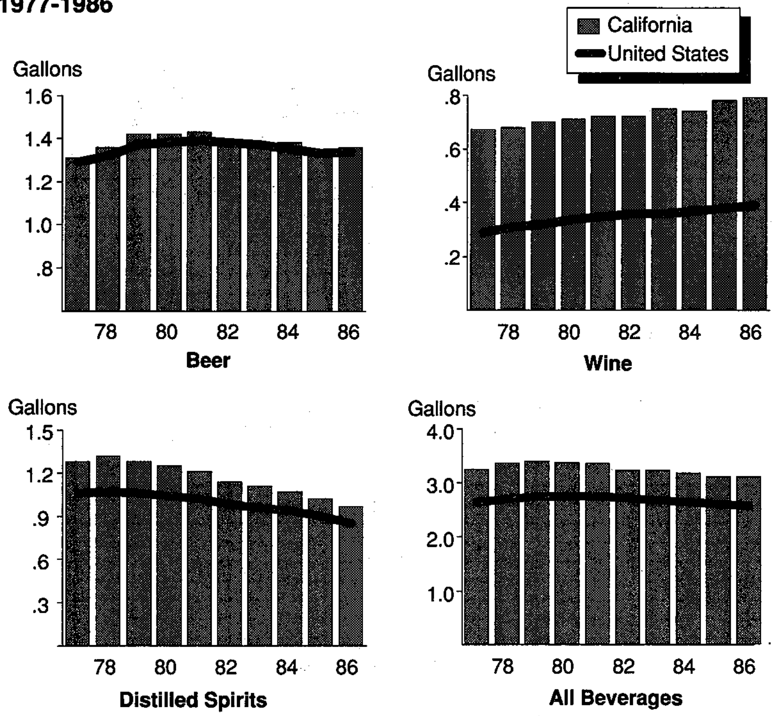
Experimentation Begins at an Early Age

The Attorney General's survey of California's students found that experimentation with alcohol begins at a substantially earlier age than does experimentation with illicit drugs. The survey

Figure 7

Annual Per Capita Consumption of Alcohol in Alcoholic Beverages, U.S. and California

1977-1986[a]



[a] The per capita values are based on the population age 14 or older. Volumes are in gallons of ethanol consumed (not total liquid).

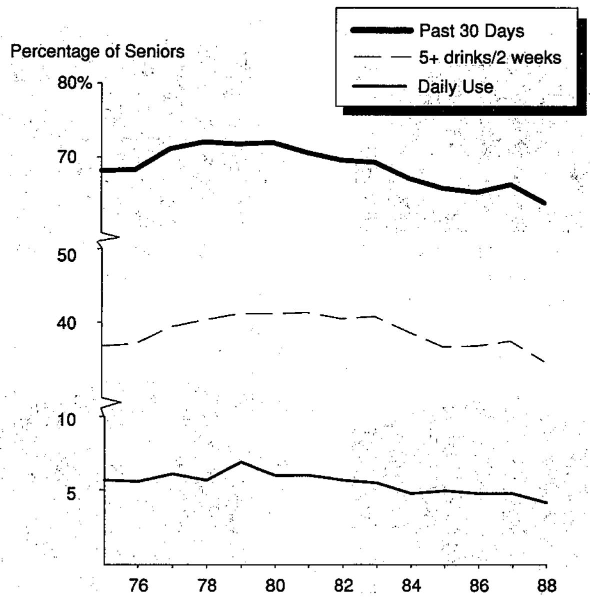
Source: Center for Disease Control, 1989.

reported that, in 1987-88, 46 percent of the 7th graders surveyed had tried alcohol at least once by the time they had reached the 6th grade. However, only 10 percent of them had been intoxicated at least once by that time. By comparison, 40 percent of 11th graders had been drunk at least once by the 9th grade and 62 percent by the 11th grade. Interestingly, only 64 percent of 7th graders said they thought their parents were "strongly against" their use of alcohol. This number dropped to 47 percent for 11th graders.

Figure 8

Alcohol Use Among High School Seniors
National High School Senior Survey

1975 through 1988



Source: Drug Use, Drinking, Smoking: National Survey Results from High School, College, and Young Adult Populations, University of Michigan, Institute for Social Research.

HEAVY ALCOHOL USE AND ALCOHOL-RELATED PROBLEMS

Ten Percent of Drinkers Responsible for Half of Total Consumption

In 1987, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) estimated that there were 18 million adults 18 years of age and older who experienced problems such as loss of memory, inability to stop drinking until intoxicated, inability to cut down on drinking, binge drinking, and withdrawal symptoms. The NIAAA defines persons with such dependent symptoms as alcoholics.

In addition, based on information from various studies, the NIAAA estimates that approximately one-third of the U.S. population age 18 and over are abstainers, one-third are light drinkers, and one-third are moderate to heavy drinkers. Although two-thirds of the adult population drink, consumption of alcohol is very unevenly distributed among the drinking population. NIAAA estimates that 10 percent of the drinkers, or 6.5 percent of the U.S. adult population, account for one-half of all the alcohol consumed in the nation.

Heavy Alcohol Use Is Significantly Higher Among Certain Subgroups

As we saw in drug use, there are racial, ethnic, and gender differences in alcohol use. The NIAAA reports that, with respect to gender, alcohol use differs as follows:

- Among all age groups, more men than women are drinkers, and of those who drink, there are significantly more heavy drinkers among men than among women. For example, among 18-29 year olds, NIAAA estimates that 81 percent of men are drinkers versus 73 percent of women. In this age group, 28 percent of the men are heavy drinkers, whereas only 7 percent of the women are classified as heavy drinkers.
- Among Hispanics, almost half of Hispanic women are abstainers, but less than one-fourth of Hispanic men abstain.

The NIAAA also reports the following ethnic and racial differences in alcohol use:

- Hispanic men have a higher rate of alcohol use and abuse than the general population.
- Abstention from alcohol is more common among blacks than among whites; and in addition, black men who drink are less likely than white men who drink to be heavy drinkers.
- American Indians and Alaskan Natives appear to have very high rates of alcohol abuse and alcoholism. For instance, in 1979 American Indian hospital discharges involving alcohol-related illnesses and injuries were more than three times the rate of the general population. In addition, the combined mortality rate from 1977 through 1979 for alcohol psychosis, alcoholism, and alcoholic cirrhosis of the liver was 57.3 per 100,000 American Indians and Alaskan Natives as compared to 7.4 per 100,000 for the overall population.

- Although alcohol use differs among Asian Americans of different origins, generally Asian Americans of both sexes drink significantly less than whites, blacks, or Hispanics.

Lastly, homeless persons are estimated to have a high rate of alcohol-related problems. For example, in 1988 the Rand Institute reported that 57 percent of the homeless in Alameda, Orange, and Yolo Counties had an alcohol abuse problem.

The data that the DADP collects on alcohol recovery clients is not as extensive as the data on drug treatment clients. For this reason, the department can only estimate the size and makeup of the clientele. The DADP estimates that for 1989-90, alcohol recovery clients are 78 percent male, 64 percent white, and 22 percent black, and predominantly between the ages of 25 and 44. Unlike the drug data, there is no information on their level of education or employment.

Alcohol-Related Problems Are Not Solely Confined to Heavy Users

A National Academy of Sciences report found that although the heaviest drinkers have the highest *rates* of alcohol-related problems, the larger number of light and moderate drinkers account for more of the total alcohol-related problems than heavy drinkers. As noted above, alcohol-related problems result in many different types of costs to individuals and society. For instance, during 1987, there were 45,533 alcohol-related motor vehicle accidents in the state that killed 2,754 Californians and injured 68,817. The number of people killed in alcohol-related motor vehicle accidents in California increased 14 percent between 1982 and 1987. About half of all the people killed—and one-fifth of the people injured—in motor vehicle accidents were in alcohol-related accidents.

In addition to traffic accidents, alcohol is a factor in many nontraffic injuries and deaths such as drownings, falls, fires, and suicides. The DADP estimates that from 20 percent to 25 percent of all hospital admissions are alcohol-related. Lastly, a pregnant woman can cause harm to her fetus if she consumes alcohol during her pregnancy. The DADP estimates that approximately 4,500 infants are born annually in California with either Fetal Alcohol Syndrome or Fetal Alcohol Effects, which are serious medical and developmental conditions directly related to alcohol use.

Almost Half of All Convicted Persons Had Used Alcohol Prior to Committing Their Crime

A 1985 U.S. Department of Justice study sampled county prisons to find out how many prisoners had been under the influence of alcohol at the time of their criminal activity. The study estimated that 48 percent of convicted persons had used alcohol prior to committing their crimes. As was the case with the drug data presented earlier, alcohol was a factor in a wide variety of crimes, not just with infractions associated with alcohol consumption itself, such as public drunkenness or driving under the influence. For example, the study estimated that 54 percent of violent crimes and 40 percent of property crimes were performed under the influence of alcohol. If this national data is considered together with the DUF arrestee data presented earlier, it is clear that many crimes are committed under the influence of *both* drugs and alcohol.

SUMMARY

The consumption of alcohol has been decreasing, but at a much slower rate than drugs. As with drug use, alcohol is used by a large portion of the society, but at varying levels of use. Although two-thirds of the population drink alcohol, 10 percent of the drinkers consume half of all the alcohol.

Alcohol experimentation begins at an early age, much earlier than drug use. Although alcohol is illegal for teenagers, many students reported that they did not think their parents were strongly against their drinking it. Finally, the misuse of alcohol results in serious health and safety problems for both individuals and society.

Second in a Series of Three Drug-Related Pieces

Anti-Drug Programs in California

How Will the Recently Enacted Federal Drug Control Legislation Affect California's Drug Control Programs?

Summary

California will spend more than $1 billion (all funds) for anti-drug programs in the current year. Local expenditures, though difficult to quantify, are probably close to $2 billion. Of the amount spent by the state, almost 70 percent is for enforcement activities. The remainder is spent on the treatment, prevention, and research programs.

As a result of new federal legislation, California will receive a minimum of $100 million in additional federal grant funds available for expenditure beginning in 1989-90 to assist in the fight against substance abuse. The Governor's Budget provides little information on the administration's expenditure plan for these funds. In order for the Legislature to assess the direction of the state's anti-drug programs, the Department of Finance and specified state agencies should report to the Legislature, prior to budget hearings, on the proposed expenditure plan for these monies.

Background

In September 1989, President Bush proposed the first phase of a major new "National Drug Control Strategy," which included requests for federal funding for various anti-drug programs and proposals for changes in federal and state laws. Congress enacted the funding provisions of the strategy, and as a result, California will receive substantial increases in federal funds for anti-drug programs in the current and budget years. The additional funds provide the Legislature with an opportunity to assess California's current expenditures for various drug programs and more sharply focus the state's response to substance abuse.

In this analysis, we review the state's current efforts to control drug abuse through enforcement, treatment, prevention, and research programs. We then examine the changes in federal funding resulting from the President's National Drug Control Strategy. This analysis is designed to assist the Legislature as it considers the options and opportunities available to California as a result of the increased federal funding.

CALIFORNIA'S CURRENT ANTI-DRUG EFFORTS

In order to assess the possible uses of the increased federal funds, it is necessary to know what anti-drug programs currently operate in California, both at the state and local levels. We were able to identify most expenditures at the state level, but because of data limitations, were unable to quantify expenditures at the local government level. It should be noted that our discussion of state and local anti-drug programs includes programs designed to curb the use of both alcohol and other legal and illegal drugs.

State Anti-Drug Programs

Anti-drug programs at the state level can be grouped in one of four categories: *enforcement* programs, *prevention* programs, *treatment* programs, and *research* programs. The total funding levels for these programs in the current year are displayed in Figure 1. It indicates that the state will spend $940 million for anti-drug programs in 1989-90. (For reasons discussed below, this figure should be viewed as the *minimum* amount spent by the state. Actual expenditures are probably much greater.)

As the figure shows, enforcement of drug control laws represents the largest expenditure category for state programs. Federal funding is concentrated primarily in the treatment and prevention categories. In both cases, federal expenditures are roughly

Figure 1

State Expenditures for Anti-Drug Programs

1989-90
(in millions)

Categories	Federal	State	Total
Enforcement	$19.3	$626.6	$645.9
Treatment	94.7	95.1	189.8
Prevention	51.1	39.3	90.4
Research	13.5	0.7	14.2
Total	$178.6	$761.7	$940.3

equivalent to state expenditures. Federal funding provides the bulk of the drug research funding for the state but only a small portion of total spending for enforcement.

Figure 2 provides a detailed listing of the anti-drug programs summarized in Figure 1. Below, we highlight some of the major programs in each category.

Enforcement. We estimate that the state will spend about $646 million for enforcement of drug control laws in 1989-90. The cost of incarcerating drug offenders in state prisons ($501 million) far exceeds all the other identified expenditures in this category, representing about 78 percent of the total spending on enforcement. Drug offenses include possession, manufacture, sale or transportation of illegal drugs. Most of the programs in this category are related to direct enforcement of drug laws by state agencies.

The total enforcement amount includes only those costs *directly* identified as related to imprisonment of drug offenders. In addition, there are many other persons incarcerated for crimes committed as a result of substance abuse (such as burglary to support a heroin habit or assault and battery while under the influence of alcohol), the costs of which are *not* included in the total. We know that these types of crimes represent a large percentage of the total enforcement costs. For instance, 76 percent of state prison inmates have a history of substance abuse. In addition, data collected on a sample of arrestees in Los Angeles indicate that 74 percent of the males and 79 percent of the females tested positive for drugs.

There are also court-related costs which are not included in the enforcement totals of Figures 1 and 2, because these costs cannot be quantified. This is because it is impossible to determine the amount of time and work required by courts to try drug offenders. We do know, however, that the state will spend almost $630 million for court programs in the current year, with a sizeable portion of that amount attributable to drug offenses.

Treatment. The second highest category of state expenditures for anti-drug programs is treatment, with almost $190 million in 1989-90. Almost two-thirds of the state's expenditures for drug treatment is concentrated in the Department of Drug and Alcohol Programs (DADP). The DADP subvenes monies to county offices of alcohol and drug programs, which fund methadone detoxification and maintenance programs as well as alcohol recovery homes and drug-free outpatient and residential programs. In addition, the state funds several treatment programs for inmates, wards, and parolees through the Departments of Corrections and the Youth Authority.

Figure 2

State Anti-Drug Programs

1989-90
(in millions)

Department/Program	Description	Federal	State	Total
Enforcement Programs				
Corrections				
Incarceration and supervision	Incarceration and parole supervision of drug offenders.	—	$500.8	$500.8
Drug testing	Drug testing for parolees.	—	1.5	1.5
Youth Authority				
Incarceration and supervision	Incarceration and parole supervision of drug offenders.	—	34.0	34.0
Drug testing	Drug testing for parolees.	—	0.2	0.2
Justice				
Bureau of Narcotic Enforcement	Statewide law enforcement for narcotics dealers and clandestine drug manufacturers operating in multiple jurisdictions.	—	39.4	39.4
Asset Forfeiture	Seizure of assets earned by illegal narcotics activity.	—	0.2	0.2
Campaign Against Marijuana Planting (CAMP)	Coordination of multi-agency task force program to destroy marijuana.	$0.5	—	0.5
Judiciary				
Trial and appellate courts	Court proceedings for drug-related offenses.	—	Unknown	Unknown
Office of Criminal Justice Planning				
Anti-drug abuse grant programs	Local assistance to various criminal justice agencies for drug-related enforcement activities.	15.8	—	15.8
Marijuana eradication	Grants to selected counties for marijuana eradication and prosecution.	—	2.2	2.2
Major Narcotics Vendor Prosecution	Grant program to counties for support of prosecution in major drug cases.	—	2.8	2.8
Alcoholic Beverage Control				
Licensing and compliance	Licensing the sale of alcoholic beverages. Enforcement of licensing regulations.	—	22.5	22.5
Motor Vehicles				
Discretionary Driving Under the Influence (DUI) actions	Imposing and processing various discretionary actions relating to drivers with an identified substance abuse problem.	—	2.5	2.5
Various mandatory DUI actions	Processing of actions taken when drivers are convicted of of DUI of drugs or alcohol.	—	4.3	4.3

Department/Program	Description	Federal	State	Total
Enforcement Programs—CONTD				
California Highway Patrol				
Traffic management	DUI arrests, narcotics drug enforcement, public relations, drug influence recognition and eradication.	—	14.4	14.4
Office of Traffic Safety				
Community alcohol programs	Special DUI enforcement in 10 communities and a public awareness program. Program education and development.	0.7	0.7	1.4
Various programs	Training to law enforcement and the public, studies and pilot programs.	2.3	—	2.3
Commission on Peace Officers Standards and Training (POST)				
Peace officer training	Courses offered in the areas of alcohol and drug awareness and investigation.	—	0.3	0.3
Board of Corrections				
Peace officer training	Courses offered in the areas of alcohol and drug awareness and investigation.	—	0.6	0.6
Parks and Recreation				
Training	Drug and alcohol training for peace officers.	—	0.2	0.2
Total, Enforcement Programs		$19.3	$626.6	$645.9
Treatment Programs				
Alcohol and Drug Programs				
Various treatment programs	Programs include methadone detoxification and maintenance and alcohol detoxification programs.	$69.6	$51.6	$121.2
Health Services				
Medi-Cal	Heroin detoxification.	0.8	0.8	1.6
Medi-Cal	Health care related to drug and alcohol abuse.	Unknown	Unknown	Unknown
Medically Indigent Services Program	Funds health care related to drug and alcohol abuse, which is provided by counties.	Unknown	Unknown	Unknown
Perinatal substance abuse pilot programs	Funding for prenatal infant care and case management substance abusing mothers.	1.8	—	1.8
Social Services				
Various programs	Programs that target children in families with drug- or alcohol-abusing members, including court dependent and addicted babies.	0.1	2.1	2.2
Alcohol/drug abuse recovery or treatment facilities for adults	Licensing.	—	0.2	0.2

Department/Program	Description	Federal	State	Total
Treatment Programs—CONTD				
Rehabilitation				
Drug and alcohol programs	Basic vocational rehabilitation services to disabled individuals.	22.4	5.0	27.4
Corrections				
Treatment for paroles	Parole programs targeted to substance-abusing parolees.	—	14.2	14.2
Treatment for inmates	Prison programs targeted to substance-abusing inmates.	—	1.1	1.1
Youth Authority				
Treatment for wards	Educational and counseling services in camps and institutions.	—	15.8	15.8
Various				
Employee Assistance Programs	Drug and alcohol counseling for employees of state agencies and licensed professionals.	—	4.3	4.3
Total, Treatment Programs		$94.7	$95.1	$189.8
Prevention Programs				
Alcohol and Drug Programs				
Various prevention programs	Primarily local programs targeting specific groups, provided through county subvention process.	$25.7	$17.7	$43.4
Education				
Federal Drug Free Schools and Communities Act	Funds to school districts for drug and alcohol use prevention.	21.0	—	21.0
Higher Education				
Educational Courses	Various educational courses that cover the academic study of drug and alcohol abuse.	—	3.0	3.0
Drug and Alcohol Problem Management Consortia	Seven regional consortia projects provide information and technical assistance on developing and improving substance abuse programs at member institutions.	0.2	—	0.2
Office of Criminal Justice Planning				
Comprehensive Alcohol and Drug Prevention Education (CADPE)	Grant program provides funds to school districts for coordinated alcohol and drug prevention strategies among schools, law enforcement, and community organizations.	4.2	18.6	22.8
Total, Prevention Programs		$51.1	$39.3	$90.4

Department/Program	Description	Federal	State	Total
Research Programs				
University of California				
Alcohol and drug abuse programs	Numerous research projects related to substance abuse.	$12.9	$0.7	$13.6
Various state agencies				
Various research	Alcohol and drug-related.	0.6	—	0.6
Total, Research Programs		$13.5	$0.7	$14.2
Total, All State Anti-Drug Programs		*$178.6*	*$761.7*	*$940.3*

The state's Medi-Cal program provides assistance to thousands of low-income persons, many of whom suffer from medical problems resulting from alcohol or drug use. Expenditures for Medi-Cal services in the current year are about $7 billion, about half of which is from state funds and half from federal funds. Because of data limitations, it is not possible to quantify the portion of this amount that is devoted to this treatment. However, every 1 percent of total Medi-Cal expenditures which is devoted to treatment of persons for alcohol and drug-related health problems adds $70 million to the total amount in the treatment category.

In addition, the state currently spends about $400 million for the Medically Indigent Services Program (MISP), which provides funding to counties for health services for indigent persons. There is no data on the amount of MISP funding devoted to care and treatment of alcohol and drug-related health programs.

Prevention. Programs designed to prevent alcohol and drug use represent the third highest category of the state's anti-drug expenditures. About $90 million will be spent for these programs in the current year. These programs are administered primarily by three state agencies: the DADP, the State Department of Education (SDE), and the Office of Criminal Justice Planning (OCJP). The largest state expenditures in this category are for the programs administered by DADP ($43 million), which subvenes most of these funds to county offices of alcohol and drug programs. The OCJP provides prevention programs through its Comprehensive Alcohol and Drug Prevention Education (CADPE) program, while the SDE serves primarily as a conduit to local agencies for federal prevention funding. For a detailed discussion of the state's expenditures on prevention programs, see "Drug Prevention in California" following this analysis.

Research. Alcohol and drug research supported by the state is primarily conducted by the University of California. The bulk of this research, which totals $14 million in the current year, is supported by federal funds.

Local Anti-Drug Programs

In addition to federal and state funding for anti-drug programs (much of which is "passed through" to local governments), local entities also spend millions of dollars annually from their *own* revenues on anti-drug programs. In reviewing data on local spending, however, we found that it is not possible to identify all the funding sources and amounts for these programs. This is because anti-drug programs are generally part of a broader reporting category (for example, a local alcohol prevention program might be included in "public health" expenditures). It is possible, however, to offer some general comments on the categories in which local governments spend money for drug control.

Enforcement. Enforcement is also the largest segment of local government expenditures related to anti-drug efforts. Local governments bear the costs for enforcement of drug control laws through county sheriff's, county probation, and city police departments. These law enforcement agencies spend in excess of $5 billion per year statewide to investigate, make arrests, supervise, and incarcerate persons for all crimes. In 1988 nearly 30 percent of all arrests at the local level were for drug-related offenses. *If* the costs were strictly proportional to arrests, the total amount spent by local entities on enforcement costs would be about $1.5 billion.

In addition to the sheriff's, probation, and police expenditures related to drug control, local governments also bear the costs of prosecuting drug offenses and defending indigent defendants through the district attorney's and public defender's offices, respectively. The annual costs for these functions is over $600 million statewide, some sizeable portion of which can be attributed to cases related to substance abuse.

Treatment and Prevention. Other local agencies also bear major costs of drug treatment and prevention services. For example, when indigent substance abusers use a county hospital emergency room, or are admitted to a county hospital, it is often the local agency that absorbs the cost of treatment. In addition to the funds provided by the state, counties spend almost $1 billion in local health care and public health programs. An unknown portion of this amount is related to the effects of substance abuse. Counties also spend an unknown amount of their funds to provide follow-up care and other services (such as homeless shelters) for indigent substance abusers. Local agencies may also provide family counseling and support services to local residents who are victims of substance abuse. In addition, local school districts spend funds for school-based prevention and education programs that are not funded by the state and for the costs of supporting teachers to deliver drug and alcohol education curricula.

In summary, although we cannot precisely quantify the amount local agencies spend on anti-drug programs, the total could easily be close to, or in excess of, $2 billion.

THE NATIONAL DRUG CONTROL STRATEGY

The Bush Administration's strategy released in September was the first of a two-part plan. In the first phase, the president requested $7.9 billion in federal spending for various anti-drug programs. In late November, the Congress increased the president's request and appropriated a total of $8.8 billion for the programs. Although much of the additional funding is confined to federal programs (such as defense and federal prison programs), there are also substantial increases in grant funds available to states.

In this section, we describe the Bush Administration's recommendations for changes in state law, detail the additional federal funds that will be available to California, and provide an overview of the uncertainties about the plan that the Legislature may wish to monitor.

Suggested State Legislation

The Bush Administration recommended that states enact a variety of drug control statutes. Enactment of these statutes is not currently a *requirement* to receive additional federal money. In reviewing the National Drug Control Strategy, we found that the California Legislature has already enacted much of the recommended legislation.

Specifically, the President suggested that states adopt the following:

- ***Mandatory Sentences for Drug Offenses.*** These sentences would carry prison terms for serious drug crimes.
- ***Alternative Sentences for Some Offenses.*** These sentences would include a variety of penalties for drug offenses, including community service, house arrest, and work on environmental projects.
- ***Asset Forfeiture Laws.*** These laws allow confiscation of property that is presumed to be used in facilitating illegal drug transactions. The Administration suggested that states earmark the funds to law enforcement programs.
- ***Schoolyard Laws.*** These laws provide additional penalties for anyone selling or using drugs around a schoolyard or place frequented by children.

- ***Penalties for Drug Possession.*** These laws provide penalties for possession of even a small amount of illegal drugs, such as losing a driver's license.
- ***Drug-Free Workplace Statutes.*** The Administration recommends all state and municipal employers be required to take personnel action against employees found to be using drugs.

Our analysis indicates that most of the provisions suggested by the Bush Administration have already been enacted in California in some form. For instance, the state's determinate sentencing laws provide minimum prison sentences for many drug offenses. The state also has specific laws prohibiting certain drug activities near schools, and laws permitting forfeiture of assets earned as a result of illegal drug activities.

Federal Funding for California

The Congress appropriated additional monies for grant programs that are available to the states. Although the President originally proposed funding his National Drug Control Strategy by redirecting funds from State Legalization Impact Assistance Grants (SLIAG) under the federal Immigration Reform and Control Act, that proposal was rejected by Congress. Had the President's original proposal been enacted, it could have had a significant impact on California, which is estimated to receive almost $2 billion in SLIAG funds over an estimated five-year period.

There are three major federal grant programs that provide funds to states for drug programs: the Drug Control and System Improvement Formula Grant Program; Alcohol, Drug Abuse, and Mental Health Services Block Grant Program; and Drug Free Schools and Communities Block Grant Program. These grants are referred to as "formula" grants because they are allocated to the states on the basis of a formula that takes into account a state's population and other distinguishing characteristics. Of the total amount appropriated by the Congress for the federal plan, approximately $2.2 billion was provided for these various formula grants. Although some of the grants are used to support programs at the state level, the majority pass through state agencies and are spent at the local level.

We estimate that California will receive approximately $209 million for these grants in federal fiscal year (FFY) 1990 (October 1989 to September 1990), an increase of about $100 million, or 91 percent, above the amount provided in FFY 1989. The additional federal funding should be available for expenditure in both 1989-90 and 1990-91, the state fiscal years which overlap with FFY

1990. In some cases, the state will have as long as three years to spend the funds. Figure 3 compares the 1990 amounts for the three grants to the 1989 amount.

Figure 3

Federal Anti-Drug Funding for California

(dollars in millions)

Formula Grant Programs	FFY 1989[a]	FFY 1990[b]	Change
Drug Control and System Improvement	$10.8	$39.7	268%
Alcohol, Drug Abuse, and Mental Health Services (substance abuse portion only)	68.5	120.7	76
Drug Free Schools and Communities	30.0	48.4	61
Totals	$109.3	$208.8	91%

[a] October 1, 1988 through September 30, 1989.
[b] October 1, 1989 through September 30, 1990.

We provide details on the three grant programs below.

Drug Control and System Improvement Grants. California will receive $40 million in FFY 1990, an increase of 268 percent. These funds can be used for virtually any law enforcement function. Federal law requires the state to allocate 64 percent, ($25.5 million) to local law enforcement agencies and 36 percent ($14.1 million) for state agencies and administration.

The federal government made changes to this program when the new funds were appropriated. In the past, states were allowed to allocate up to 10 percent of the grant for administration of the program. This year, only 5 percent is allowed for administration.

We describe the Governor's proposals for use of these funds in our analysis of the OCJP in the *Analysis of the 1990-91 Budget Bill* (please see Item 8100).

Alcohol, Drug Abuse, and Mental Health Services (ADMS) Block Grants. We estimate that California's share of the ADMS Block Grants will be $140.1 million for FFY 1990, of which $120.7 million is for alcohol and drug abuse programs and $19.4 million is for mental health programs. This grant has a number of constraints on its use that require specific expenditure levels for particular program areas. For example, federal law requires that at least 35 percent of the block grant be used for alcohol programs and at least 35 percent for drug programs.

It is not clear whether additional constraints will be placed on these grant funds. At the time this analysis was prepared, there were still several issues which were awaiting action in Congress. Among the items under discussion are how to allocate the funds, whether treatment programs should be required to show greater accountability, and whether additional portions of the grant should have categorical restrictions. This grant program is discussed in our analysis of the DADP in the *Analysis* (please see Item 4200).

Drug Free Schools and Communities Block Grant. Based on information furnished by the DADP, we estimate that California will receive approximately $48.4 million in federal grants under this program. About $35 million of these funds will go directly to the SDE, with the remaining funds being the "Governor's discretionary funds." In the current year, the Governor's discretionary funds are allocated to the DADP, OCJP, and the Department of the Youth Authority.

With the FFY 1990 appropriation, the grant was amended to create a new program to be funded out of the Governor's discretionary monies. Federal law requires that this new program provide funds to local education agencies at the discretion of the Governor. (Please see Item 6110 of the *Analysis* for our discussion of the SDE portion of these funds and Item 4200 for our discussion of the new Governor's discretionary funds.) At the time this analysis was prepared, no details were available on the new program.

Uncertainties About the Federal Program Remain

The second phase of the President's plan was released in late January 1990. Although the specific provisions of the second phase were not available at the time this analysis was prepared, it appears that the state and local governments could receive *even greater* federal funding in the budget year under the President's proposal. Los Angeles and certain parts of southern California may receive increased funding if designated as a high-intensity drug trafficking area.

Until Congress acts on the the second phase of the President's plan and all regulations are in place, it is impossible to predict what the final result will be. However, we do know that during the past year several changes in the grant requirements were considered, such as:

- Requiring drug testing of inmates and persons arrested for various crimes as a prerequisite to receiving federal criminal justice funds.
- Strengthening accountability requirements for drug and alcohol treatment and prevention programs.

- Requiring all states receiving federal drug funds to have a written state strategy.
- Requiring schools receiving substance abuse funds to develop plans and sanctions for drug-abusing faculty, students, and staff.

At this time, however, it is not clear whether any of these alternatives will be implemented as a requirement for receipt of federal funds.

Legislature Needs Information

We recommend that the Department of Finance, in conjunction with other state agencies, report to the Legislature prior to budget hearings on the administration's proposed expenditure plan for new federal drug control funds.

Based on the information presented above, we estimate that California will receive at least an additional $100 million in federal funds for expenditure in 1989-90 and 1990-91 for anti-drug programs. At this time, however, there is a lack of data on how the administration proposes to spend all of the additional money, and, more specifically, how much will actually be available for expenditure in the budget year. The Legislature needs information to determine whether the proposed expenditures of the increased federal funds is consistent with a balanced approach to substance abuse problems in California and meets the priorities of the Legislature.

In order to adequately address these issues, we believe the administration should provide the Legislature with a comprehensive plan of how it proposes to expend these funds. Accordingly, we recommend that the Department of Finance, in conjunction with the DADP, the SDE, the Department of Justice and the OCJP, report to the Legislature, prior to budget hearings, on its proposed expenditure plan for the additional federal funds. The report should provide information on new programs (their scope and function) as well as information on programs that will be expanded. The report should also note where federal grant money will be replacing existing state funds.

Third in a Series of Three Drug-Related Pieces

Drug Prevention Programs

How Can the Legislature Improve Its Strategy for Preventing Drug Problems?

Summary

The budget proposes to spend over $100 million in state and federal funds for educational and social services programs designed to prevent drug and alcohol abuse. More than one-half of this amount is for school-based programs. Our review of the research on substance abuse suggests that a relatively small subgroup of youths will go beyond experimentation to develop serious substance abuse problems. It therefore appears that drug abuse prevention strategies that focus primarily on discouraging experimental use are too broad-based in their approach. Moreover, these kinds of programs have been extensively evaluated and have not been shown to be effective. We therefore conclude that the best strategy for school-based programs would be to encourage school districts to emphasize programs that target "high-risk" youth.

Community-oriented prevention programs have not been rigorously evaluated. However, one promising approach, which is currently being used in the area of alcohol abuse, is community organization, which is designed to get communities involved in ridding their neighborhoods of environmental factors that contribute to substance abuse problems, such as high concentrations of bars and stores that sell alcoholic beverages. We therefore recommend that the Department of Alcohol and Drug Programs evaluate the current efforts in the alcohol field and help counties develop similar approaches with respect to other drugs.

In general, there is a great deal of uncertainty about what works and what does not work in the prevention field. We therefore recommend that the Legislature encourage programmatic experimentation at the local level and evaluation and information sharing at the state level.

INTRODUCTION

The Department of Alcohol and Drug Programs (DADP) estimates that in 1985 alcohol abuse cost California $11.7 billion and drug abuse $6.0 billion due to reduced productivity, increased mortality and morbidity, increased crimes and accidents, and increased needs for social services. For 1990-91, the budget proposes to spend approximately $100 million on substance abuse prevention programs. These programs provide a variety of educational and social services—such as classroom instruction, counseling, and community outreach—to prevent substance abuse by either (1) focusing on preventing the onset of use (primary prevention) or (2) stopping abuse before it leads to addiction (early intervention). Obviously, these programs do not represent all of California's efforts to prevent alcohol and drug problems. For example, they do not include alcohol and drug treatment programs, or law enforcement's efforts to reduce the supply of illicit drugs and to prosecute individuals who use illegal drugs or who use alcohol illegally (such as drunk drivers and underage drinkers).

In order to assist the Legislature in reviewing the social services and educational components of the state's overall strategy for preventing substance abuse, we have reviewed the research literature on the causes and consequences of substance abuse and the effectiveness of prevention programs. In this piece, the third of three pieces dealing with drugs and alcohol, we provide an overview of the state's prevention programs, review school-based and community-based prevention programs, and provide our recommendations for improving California's substance abuse prevention programs.

OVERVIEW OF CALIFORNIA'S PREVENTION PROGRAMS

Alcohol and drug prevention programs in California are administered by three different state departments—the DADP, the State Department of Education (SDE), and the Office of Criminal Justice Planning (OCJP). In addition, the California State University, University of California, and the California Community Colleges provide educational courses on substance abuse issues. Figure 1 displays the amounts proposed for the programs in 1990-91 (not including administrative costs) by funding source, and presents a brief description of each program. In addition, the figure shows the prevention-oriented technical assistance provided to local governments by the departments. The figure is a more detailed presentation of California's prevention programs than that presented in the preceding analysis, "Anti-Drug Programs in California."

The figure shows that the budget proposes to spend $103 million in state and federal funds on prevention programs. The DADP estimates that counties will spend an additional $9.3 million in local matching and other local funds on prevention programs and we estimate that local education agencies will spend approximately $14.1 million in local funding (district general fund and private funds) on drug and alcohol prevention programs. In addition, we estimate that the annual cost of teacher time to deliver prevention curriculums is from $18 million to $48 million.

As we note in the previous analysis, the budget does *not* include a substantial amount of additional federal funds that we believe will be available to California as a result of recent congressional action on the President's drug control program. Of the additional federal funds, we estimate that the following amounts will be available for prevention programs: (1) $14 million in Drug-Free Schools and Communities (DFSC) block grant funds available for allocation to the SDE; (2) $1.5 million in DFSC block grant funds for the DADP; (3) $2.7 million of DFSC block grant funds for a new program, which requires the Governor to fund programs in local education agencies; and (4) at least $12 million of Alcohol, Drug Abuse, and Mental Health Services (ADMS) block grant funds for the DADP. We discuss these additional federal funds in our *Analysis of the 1990-91 Budget Bill* (please see Items 6110 and 4200).

Figure 1 groups prevention programs into three major categories—school-based programs, community-based programs, and technical assistance. As the figure shows, the budget proposes $54 million for school-based programs, $42 million for community-based programs, and $3.3 million for technical assistance. We discuss each of these categories in more detail below.

REVIEW OF SCHOOL-BASED PREVENTION PROGRAMS

School-based programs designed to prevent the use of drugs and alcohol are generally of two types: (1) curriculum programs, which are delivered to the general school population and (2) high-risk youth programs, which are targeted at students who are using, or who have been assessed as being at high risk of beginning to use, alcohol or drugs.

These programs are provided in the schools but are administered at the state level by the DADP, SDE, and the OCJP. The state does not collect specific data on how school districts spend the monies they receive from the state for school-based programs.

PROGRAMS	DESCRIPTION	GENERAL FUND	FEDERAL FUNDS	TOTALS
Community-Based Programs—contd				
Tule River Indian Health Program	Provides peer support and alcohol education training to teen women who then become voluntary trainers and counselors in the American Indian community.	—	48	48
Modoc Indian Health Project	Provides alcohol prevention and outreach programs to American Indian women in Modoc County.	—	25	25
Red Ribbon campaign	Supports an annual statewide anti-drug campaign during Red Ribbon week.	—	30	30
Subtotals, Community Programs		$14,466	$27,463	$41,929
Technical Assistance to Local Governments				
SDE:				
Technicalassistance	Funds workshops and a resource center to assist school districts with planning and implementing prevention programs.	—	$1,575	$1,575
DADP:				
Prevention coordination	Supports a statewide prevention network comprised of alcohol prevention coordinators from each county.	—	55	55
Prevention roundtable	Supports an annual prevention roundtable of experts from the alcohol and drug prevention field.	—	40	40
COA and SAP evaluation	Evaluates the COA and SAP programs.	—	205	205
County drug program administrators	Funds regular meetings between the DADP and the county drug program administrators.	—	77	77
Technical assistance contracts	Funds the DADP contracts with a variety of organizations to provide technical assistance on specific issues, such as women's and Asian/Pacific Islander concerns.	—	253	253
Prevention resource system	Provides clearinghouse services (operated by the DADP) to collect, analyze, and disseminate information to counties, practitioners, and health care professionals.	—	500	500

PROGRAMS	DESCRIPTION	GENERAL FUND	FEDERAL FUNDS	TOTALS
Technical Assistance to Local Governments—contd				
Public policy	Provides training and technical assistance (including distribution of a manual) to counties to develop policies that address alcohol-related problems in their communities.	—	165	165
Drug abuse information and monitoring project	The DADP has contracted with the University of California at Los Angeles to establish an electronic drug abuse information collection and dissemination system to monitor drug abuse trends.	—	250	250
California State University (CSU)/University of California (UC)/California Community Colleges (CCC):				
Drug and alcohol problem management consortia	Funds seven regional consortia projects that provide information and technical assistance on developing and improving substance abuse programs at member institutions.	—	200	200
Subtotals, Technical assistance		—	$3,320	$3,320
Other				
DADP:				
General education, media campaigns	Supports media and education campaigns on alcohol issues, alcohol-related birth defects, and alcohol and youth.	—	$571	$571
Perinatal drug issues	Provides cross-training conferences, coalition building funds, and a media campaign on the perinatal drug abuse issue.	—	110	110
CSU/UC/CCC:				
Various	Funds various educational courses that cover the academic study of drug and alcohol abuse.	3,000[d]	—	3,000[d]
Subtotals, Other		$3,000	$681	$3,681
Totals, all programs		$47,109	$55,946	$103,055

[a] In addition, we estimate that local education agencies spend approximately $14.1 million in local funding (district general fund and private funds) on drug and alcohol prevention programs. We also estimate the cost of teacher time to deliver the drug and alcohol prevention curriculums to be from $18 million to $48 million.

[b] The DADP does not collect data on the amount of funds spent by counties on specific types of prevention programs. Although some counties spend some of their subvention funds on school-based programs, the DADP estimates that the vast majority of programs are community-based.

[c] In addition, the DADP estimates that counties will spend $9.3 million in local matching and other local funds in 1990-91.

[d] We estimate that *at least* $3 million will be spent on educational courses.

Figure 2, however, lists the typical prevention programs provided by local education agencies. Data from a survey completed for the SDE show that at least 75 percent of the schools in the state have used curriculum programs and that, depending on the definition of a high-risk youth program, between 14 and 48 percent have implemented some type of high-risk youth program.

Figure 2

Typical School-Based Drug Prevention Programs

Programs	Description
Curriculum Programs	
Here's Looking at You, 2000	A commercially developed curriculum that provides classroom teachers with a variety of exercises that are designed to teach refusal skills. The program is used by about 40 percent of all districts in the state.
Drug and Alcohol Resistance Education (DARE)	A 17-week curriculum-oriented program delivered by law enforcement personnel.
Subject-integrated instruction	Many school districts deliver instruction on drugs and alcohol as part of their regular health or science curriculum, or in drivers education.
High-Risk StudentPrograms	
Impact training	Program provides training for a small number of staff in each participating school in assessment of "high-risk," abusive behaviors and potential intervention techniques.
Children of alcoholics	These programs involve support groups and counseling for students with alcoholic parents.
Student assistance programs	These programs involve (1) a variety of support groups for students with different problems (such as emotional instability or family problems) or (2) "peer counseling" (where students assist other students on a one-on-one basis).
Mentor programs	In these programs, adult volunteers (often teachers or community leaders) "watch over" and counsel specific students.

CURRICULUM-BASED PREVENTION PROGRAMS

In curriculum programs, sometimes referred to as "drug education," teachers, nurses, or police officers provide instruction based on a package of written and/or audio-visual materials, generally in a classroom setting. The goal of these programs is primary prevention—preventing the onset of substance abuse.

The curriculums are usually purchased by the school district from a private company.

The practice of using prepared curriculums in classrooms as a way to prevent substance abuse began in earnest in the 1960s. Since then, the curriculums have evolved in several stages, with each new curriculum trying to take into account the results of the previous curriculum's approach. In this section, we review the evolution of these programs and the evaluations that have been done on them.

Information-Only Programs and Scare Tactics Can Increase Use

During the late 1960s and early 1970s, the dominant form of drug education was the information model. This model was based on the assumption that youth use drugs because they are unaware of the harmful effects of the substances. Programs proliferated which provided information about the physical and psychological effects of different substances, and the legal implications of using illicit drugs. Many of these programs used scare tactics or "fear-arousal" techniques to emphasize the consequences of drug use. Some programs were presented by students, and others by outside experts such as nurses or police officers. Rigorous evaluations have repeatedly shown that, although these programs may have increased student's knowledge about drugs, they did not reduce drug use. In fact, some studies found that *the programs actually increased drug use.* These results led the National Commission on Marijuana and Drug Abuse in 1973 to conclude that "no drug education program in this country or elsewhere has been sufficiently successful to warrant our recommending it."

Why were these programs unsuccessful? The most common explanations given are: (1) many people use damaging substances even when they know the harmful implications of their use, (2) programs that exaggerate the harmful effects of drugs and only address the negative consequences tend to be disbelieved, and (3) the underlying assumption—that increased knowledge changes attitudes and that these attitude changes will lead to behavior change—is an oversimplification of the conditions that lead to drug abuse.

"Individual Deficiency Model" Programs Have Shown Little, If Any Effect on Drug Use

In the early 1970s, the "individual deficiency model" became popular. This model assumed that the problem was with the youth: young people use drugs because they lack self-esteem or the proper decision making tools. These programs took many different forms, such as (1) having students work in small groups to develop communication skills; (2) providing teacher training in communication skills and nonpunitive discipline in the hope of fostering better classroom management, as well as making the classroom environment more responsive to students' needs; and (3) "affective education" designed to help students clarify their values, improve their self-esteem, and enhance their problem-solving skills.

Most of the evaluations done on these types of programs found no positive effects on drug use. For example, the National Institute on Drug Abuse (NIDA) conducted a series of evaluations of individual deficiency model programs in Napa, California from 1978 to 1983. These evaluations were carefully designed and implemented. They probably represent the most conclusive evaluations ever done of this kind of program. The evaluations studied the long-term effects of the programs by following youth who participated in the programs, and youth who did not, for one to three years. The only positive effect that was found was for one of the "affective education" programs, which was shown to have a positive, but short-term effect on girls' cigarette and drug use. Otherwise, the programs failed to affect drug use; attitudes toward peers, school, or self; or academic achievement.

Some of the reasons given for the failures of these programs are that (1) the programs are difficult to implement, (2) research shows that while low self-esteem is somewhat correlated with drug use, other factors are substantially more important, and (3) little is known about which values affect drug use.

"Social Influence Model" Programs Have Been Successful in Delaying the Onset of Cigarette Use

The first major breakthrough in substance abuse prevention came with the application of the "social influence model" to cigarette smoking. The social influence model was based on the premise that peers, family, and—to a lesser extent—the media influence the initiation of cigarette smoking. In general, these programs involved (1) making students aware of the social pressures to smoke, (2) teaching refusal skills, (3) using peer leaders, and (4) correcting misperceptions regarding social norms about smoking (surveys have shown that youth think cigarette smoking and drug use are much more prevalent among their peers than they actually are). In addition, many of these programs encourage students to make public commitments against smoking cigarettes.

Most, but not all of the evaluations that have been done on these programs have found reductions in both experimental and regular cigarette smoking.

Applying the Social Influence Model to Alcohol and Other Drugs: Little Evidence of Its Effectiveness

Based on the success of the social influence model in reducing cigarette smoking, educators applied it to alcohol and other drug use, on the theory that, since family and peers also affect drug use, this model should be effective for other drugs besides tobacco. Unfortunately, the evaluations of these programs as applied to other drugs have been much less promising. A few have found short-term positive effects for alcohol and marijuana use, but most have found no effect on other substances.

The major reasons given for the differences in the model's effectiveness, at least between alcohol and tobacco use, has to do with the difference in society's attitudes about using these different substances. Specifically, in the last 20 years prevailing societal opinion has shifted against tobacco use, whereas attitudes toward alcohol remain mixed. For example, whereas tobacco advertising is banned from television, alcohol advertising is not.

Evaluations of Combined Curriculum Programs: Little Evidence of Effect on Use

During the 1980s, several curriculum programs became popular which *combined* components of the programs described above. For example, many of these programs included information components dealing with the consequences of alcohol and drug use, components aimed at increasing self-esteem, and components on peer resistance skills. As was the case with the other curriculum programs, the evaluations have not found any long-term effect on alcohol and drug use. The most comprehensive evaluation of the combined curriculum approach was a study funded by the National Institute of Alcohol Abuse and Alcoholism (NIAAA) of an early version of a curriculum that is widely used in California schools, "Here's Looking At You" (HLAY). The HLAY curriculum includes materials and exercises designed to increase self-esteem, strengthen decision making skills, increase knowledge about the effects of substances (particularly alcohol), and instill attitudes favoring moderation in consumption. The evaluation collected data over three years, beginning in 1978, on HLAY programs operated in the Seattle, Washington, and Portland, Oregon areas.

The evaluation was designed to measure the effect on variables such as knowledge, self-esteem, and attitudes toward abusing alcohol, as well as the student's actual alcohol and drug use. Students tested two years after the program revealed some increases in *knowledge*, but the study found no effect of the curriculum on alcohol and drug *use*. Moreover, this finding applied even with respect to students who received more than the average number of HLAY sessions and those who had the most committed teachers.

A Combined School and Community Approach to Primary Prevention: Results Unclear

A relatively new school-based primary prevention program is one which combines a curriculum program with a community-based approach (discussed below). This program, Students Taught Awareness and Resistance (Project STAR), currently operates in the Kansas City and Indianapolis metropolitan areas.

Project STAR combines a social influence model curriculum with an emphasis on getting students and their families involved in the community. The community involvement generally takes the form of advocacy on policy issues surrounding alcohol and drug use (such as restrictions on liquor and cigarette advertising).

The program reports that it has achieved significant reductions in alcohol and cigarette use but not in marijuana use. The program's evaluations did *not* address any effects on the use of harder drugs. Because of several flaws in the program's evaluation—for example, the control groups were *not* randomly selected and published reports of the evaluation results are inconsistent—we are not certain to what extent the reported effects on alcohol and cigarette use are reliable.

Most Curriculum Programs Have Not Been Effective

Evaluations of the most widely used curriculums in California have not supported the effectiveness of the curriculum-based approach. While we acknowledge that an effective model may eventually be developed, the track record of these programs in reducing drug use has not been good.

HIGH-RISK YOUTH PREVENTION PROGRAMS

School-based programs targeted at *high-risk* youth generally include one or more of the following four components:

- ***Identification.*** Often districts train classroom teachers to identify signs of emotional and social instability, such as sudden changes in dress patterns or completion of school work. Other methods of identification may include (1) designating certain staff (or students) as "helpers" whom students may approach in order to talk about their problems and (2) working with law enforcement agencies to identify students who have committed crimes. Although high-risk programs are often used for older children, it is also possible to identify "high-risk" signs in young children, for example, by determining if there is a drug user in the child's immediate family.

- ***Assessment.*** Typically, once students have been identified as potentially high risk, they are referred to a "core" team of teachers, administrators, and other professionals who have been trained in assessment techniques.
- ***School-Based Support.*** Support services often provide students with training and practice in interpersonal communication skills. Examples of support services include counseling by a school nurse or by peers, or participation in support groups for students with specific problems, such as a drug addiction, having an alcoholic parent, or displaying emotional instability.
- ***Community Referrals.*** Many schools refer students to organizations in the community for more intensive services, such as for drug treatment or counseling.

The most comprehensive programs that we visited during our site visits contain all four of these components; many, however, may contain only one or two of them. In the schools, these programs are not as widespread as curriculum programs.

In the remainder of this section, we review the research literature on adolescent drug use, which shows that casual adolescent drug use usually does *not* result in long-term consequences but that regular and heavy use does. In addition, we review the research literature which shows that youth who have many behavioral and psychological problems are at risk of becoming heavy users and therefore are the group to which prevention programs should be targeted. Finally, we review the limited evaluations available on these programs.

Casual or Experimental Alcohol and Drug Use Does Not Usually Result in Long-Term Negative Consequences

A longitudinal study conducted by two UCLA researchers has shown that most drug use does not lead to addiction or result in serious consequences for the user. This study has followed 1,634 students from 11 Los Angeles County schools since 1976. The study compares students who used alcohol or drugs with those who abstained to determine what effect adolescent drug use had on their lives. For example, the researchers looked at the effect on family formation (marriage and having children), family stability, criminality, and educational attainment. The study found that casual or experimental alcohol and drug use did *not* result in long-term negative consequences. The researchers stated that "the typical youngster who has a beer or some marijuana at a party is not the one who is going to develop long-term damage as a result of his or her drug use." However, regular drug use during adolescence was found to be associated with increased involvement with drug crimes and stealing, decreased college involvement, and earlier family formation. Furthermore, use of hard drugs significantly reduced the individual's chances of graduating from high school, and was correlated with reduced social support and increased loneliness in young adulthood.

There Are Substantial Differences Between Experimental Drug Users and "High-Risk" Users

Because of the high prevalence of alcohol and drug experimentation by youth, researchers have begun to emphasize the need to differentiate among experimental, regular, and problem use. Those individuals who are able to learn from their drug use experience and eventually give up drugs are significantly different from those who do not stop the risk-taking process, and begin to use drugs as an escape or to resolve severe psychological problems. As we note in the first analysis of this series, a study based on the Attorney General's 1987-88 survey of public school students reported that high-risk users were less likely to live with both parents, tend to have lower grades, are more likely to have had earlier experiences with alcohol and drug intoxication, scored higher on measures of dropout potential, and engaged in more high-risk behavior (such as attending school while "high" on drugs). Other research has also found that, while peer influences affect experimental use of drugs in social settings, such use is not likely to prove harmful unless it is combined with psychological problems, in which case it may well lead to eventual dependence.

Youth Who Will Have Problems With Drugs Are Relatively Easy to Identify

One of the main themes of the recent research literature is the move to a risk factor theory of drug use. This theory is based on the observations that there are many different paths that could lead one to drug use and that youth who regularly use drugs have many other problem behaviors besides their drug use. Because youth who develop drug problems also have other problems, they can be identified relatively easily.

One study using the UCLA longitudinal data base described above identified 10 risk factors that were correlated with substance use. These risk factors, in decreasing order of their affect on drug use, were: peer drug use, deviance, perceptions about adult drug use, early alcohol use, sensation seeking, poor relationship with parents, low religiosity, poor academic achievement, psychological distress, and low self-esteem. The extent to which these factors correlate with drug use varies. For example, peer drug use was found to be six times as correlated with drug use as poor self-esteem. Many of these factors are related to deviant behavior and correspond with the findings of the UCLA study that drug use is most highly correlated with a lack of social conformity. Figure 3 summarizes the results of the study. The top panel in Figure 3 shows the percentage of youth who had ever tried cigarettes, alcohol, marijuana, and hard drugs (hard drugs include 14 substances, such as amphetamines, cocaine, heroin, and PCP). It shows that the prevalence of use increases steadily with the increase in the number of risk factors. For example, 14 percent of the students who were identified as having 1 risk factor had tried hard drugs at least once, whereas 78 percent of students having 7 or more of the risk factors had tried hard drugs.

The bottom panel of Figure 3 shows the relationship between the number of risk factors and the likelihood of *heavy drug use.* As the figure shows, heavy drug use increased substantially with the number of risk factors. For example, 2 percent of those with one risk factor were found to be heavy users of hard drugs, while 28 percent of those with seven or more risk factors were heavy users of hard drugs. Interestingly, the percentage of heavy users of cigarettes and alcohol dropped off for students with seven or more risk factors for cigarettes and six for alcohol. The authors theorize that this may represent a transfer from cigarettes and alcohol to marijuana and hard drugs.

The figure shows that experimentation is fairly common, but more prevalent among youths with a high number of risk factors. On the other hand, heavy drug use is fairly uncommon, but its incidence increases substantially with the number of risk factors. It is also important to note that these results have held up over time. Specifically, using their longitudinal data, the researchers were able to determine that the number of risk factors were associated with increased likelihood of use, both at the time the risk factors were identified and one year later.

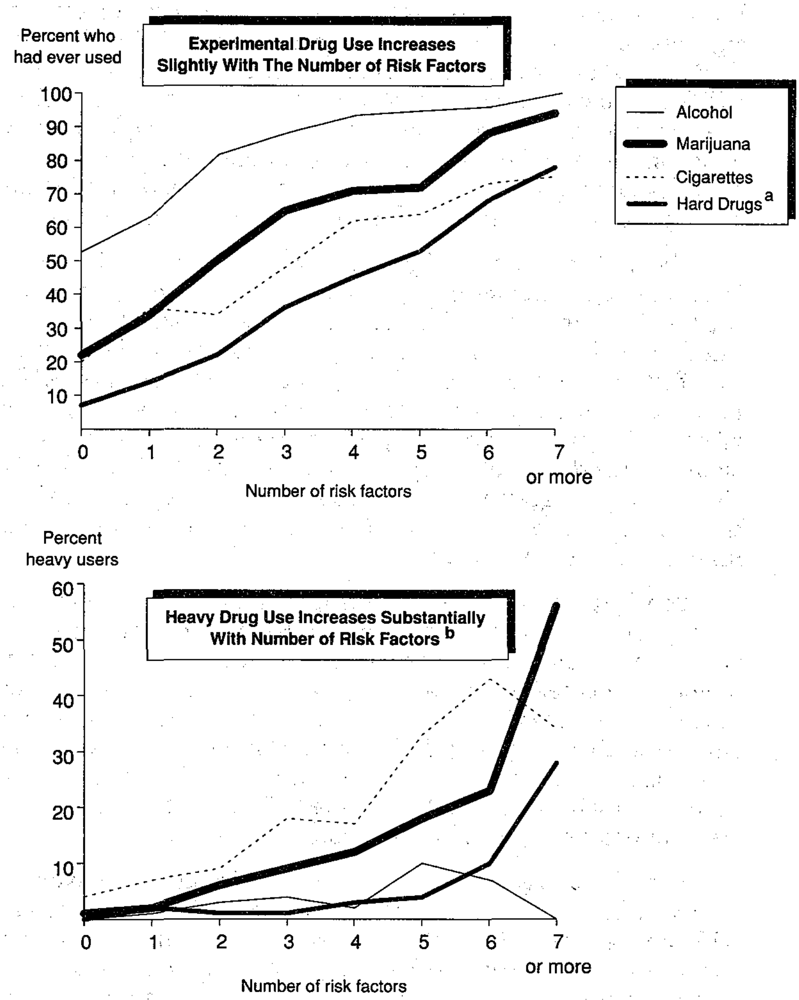
The UCLA study concluded that, although not every drug user will fit this characterization, the average frequent drug user will have a life-style that includes rebellion, involvement with other deviant or illegal behaviors, poor family connections, few educational interests, early involvement in sexual activities, emotional turmoil, alienation, and early involvement with the work force. In general, students exhibiting these characteristics and behaviors are relatively easily identified by school personnel.

Few Evaluations Have Been Done on High-Risk Youth Programs

In general, there have been few evaluations of high-risk youth programs. One study that reviewed evaluations of a number of

Figure 3

Risk Factors and Drug Use
Los Angeles Students, Grades 10-12



a Hard drugs include 14 substances such as amphetemines, cocaine, heroin, and PCP.

b Heavy cigarette, alcohol, and marijuana use is defined as daily or more use, and heavy hard use is defined as weekly or more use of any hard drug substance.

Source: *Risk Factors For Drug Use Among Adolescents: Concurrent and Longitudinal Analysis,* American Journal of Public Health, May 1986, vol. 76, no. 5, Michael D. Newcomb, Ph.D., Ebrahim Maddahion, Ph.D., and P.M. Bentler, Ph.D.

prevention programs found that only two types of programs had an effect on drug use: (1) peer programs—where peers were used for most of the program implementation—and (2) "alternative programs" for special population groups. The alternative programs were aimed at "at-risk" youngsters and emphasized one-on-one relationships, tutoring, job skills, and physical adventure.

Several of the high-risk youth programs we visited were similar to these two programs. For example, many of the programs use peer groups and one-to-one relationships. Since there have been so few evaluations of high-risk programs to date, however, it would be premature to conclude that the current programs operating in the state are effective.

CONCLUSIONS AND RECOMMENDATIONS ON SCHOOL-BASED PROGRAMS

We recommend that the Legislature give funding priority to programs that target high-risk youth.

While experimental drug use by teenagers is still fairly common, such experimental use does not typically lead to the kinds of problems associated with long-term abuse. There is a relatively small subgroup of youth, however, who go beyond experimentation to develop serious substance abuse problems and these youths can be identified relatively easily because they also tend to have many other social and behavioral problems. It therefore appears that drug abuse prevention strategies that focus primarily on discouraging experimental use are too broad-based in their approach. Moreover, the most widely used, broad-based prevention strategies are curriculum programs that have been extensively evaluated and *have not been shown to be effective.*

Therefore we conclude that the best prevention strategy would be to emphasize programs that target high-risk youth. Consistent with this strategy, we recommend that the Legislature adopt Budget Bill language in the SDE, OCJP, and DADP items requiring these departments to give funding priority, within youth prevention programs, to those programs that target high-risk youth.

With regard to OCJP's Comprehensive Alcohol and Drug Prevention Education (CADPE) Program, we also recommend enactment of legislation eliminating the requirement that school districts adopt a standardized age-appropriate curriculum as a condition of eligibility for receiving CADPE funding. Eliminating this requirement would allow districts greater flexibility to use CADPE funds for programs that serve high-risk youth.

COMMUNITY-BASED PREVENTION PROGRAMS

What Is a Community-Based Program?

Rather than being located in and focused on the schools, community-based programs are targeted at *entire* communities. These programs generally entail either communitywide events, or programs targeted at youth, particularly high-risk youth. As Figure 1 shows, state-supported community-based programs are funded predominantly through the DADP county subvention process. In administering these programs, most counties we visited divide their service areas along geographic and ethnic lines and assign a prevention coordinator to each area.

The DADP does not collect data on how counties spend their prevention funds. Figure 4, however, lists the kinds of prevention programs that the department advises are most common. As the figure shows, the programs range from public meetings to individual counseling. The goals behind community-based programs are to (1) get the community involved in ridding its neighborhood of environmental factors that contribute to substance abuse problems (for example, visible drug dealing, a high concentration of bars and stores that sell alcoholic beverages, and empty lots or beaches where youths congregate to drink), (2) make families aware of the alcohol and drug problems in their communities and encourage them to talk with their children about this issue, (3) provide training to families and community leaders, (4) advertise the availability of alcohol and drug treatment and support services in the community, and (5) provide referrals to these programs. Many of the alcohol and drug program administrators work with recognized community leaders—for example, religious and business leaders—to reach out to the rest of the community.

A recurring theme that we heard in our visits to counties was that their greatest difficulties are in organizing community activities within the areas that need assistance the most; that is, the heaviest drug using and selling areas. According to the administrators we spoke with, these areas are difficult to organize because (1) it is difficult to find prevention coordinators who know these areas and their leaders, (2) the communities may lack experience in organizing, or (3) the community's poverty makes it difficult to find the private funds needed to help support prevention efforts.

Community Programs Have Not Been Evaluated

We found no rigorous evaluation of any of the various types of community programs summarized in Figure 4. Several of the researchers we spoke with indicated that the repeated failure of school-based curriculum programs to produce results has, how-

Figure 4

Typical Community-Based Alcohol and Drug Prevention Programs

Programs	Description
Community-Wide Programs	
Family counseling services and parent education	Designed to assist families suffering from alcohol- and drug-related problems and educate parents on alcohol and drug issues.
Prevention, education, and public relations committees	Focused on reducing the environmental risks associated with alcohol-related problems and on issues related to the availability of alcohol in various settings.
Public policy	Public hearings, forums, and training events promoting public policy related to alcohol and drug issues.
Community activities	Focusing on increasing public awareness of alcohol and drug problems and emphasizing the role of the community. These programs include needs assessments, public forums, and providing culturally relevant programs and information to the community.
Alcohol-free living centers	Centers that provide an alcohol- and drug-free environment, open to the community.
High-Risk Youth Programs	
Early intervention programs	Prevention programs, both community and school based, aimed at high-risk youth who have begun to use alcohol or drugs.
Drop-in centers	Centers that provide information and alternative drug-free activities to the community and youth in particular.
Peer leadership training for youth	Many counties have peer-led prevention programs and emphasize leadership training for these peer

ever, led an increasing number of researchers to turn their attention to community programs. While this may ultimately lead to a better understanding of what works and what does not work in this area, any conclusive results of this work will take years to achieve.

While there are no evaluations of community-based programs, there is an extensive literature on one increasingly popular community-based approach to preventing *alcohol*-related problems.

DADP's Community-Based Prevention Strategy for Alcohol-Related Problems

We recommend that the DADP provide the Legislature with its plan to evaluate the effectiveness of the community planning pilots.

The alcohol field and the alcohol research community have for several years promoted a strategy that is based on controlling the availability of alcohol through community organization. This focus has grown out of years of research and study of local programs. For example, research shows that (1) higher densities of bars and stores that sell alcoholic beverages are associated with higher alcohol-related disease rates, (2) more than half of the drivers arrested for driving under the influence of alcohol had their last drink in a bar, and (3) in certain areas (skid rows), store owners cater to the public inebriate.

These findings have led the alcohol research community to promote a strategy that relies on community organization. Under this approach, communities are trained to examine the alcohol-related problems in their area and work to (1) better manage the decisions over the placement and number of alcohol outlets and (2) monitor public places for drinking. The DADP has embraced this strategy and has helped to fund the production of "The Manual For Community Planning to Prevent Problems of Alcohol Availability." This manual has been distributed to county alcohol administrators and the DADP is actively helping them to implement its suggestions.

In addition, the DADP has chosen four pilot communities—the Fremont/Newark/Union City area, Ukiah, Merced, and the San Pedro district of Los Angeles—which will be given additional assistance in implementing this strategy. While the department plans to monitor the implementation of the strategies outlined in the manual in the pilot communities, at the time this analysis was prepared, it had no specific plans to evaluate the pilots. Such an evaluation would help the Legislature in formulating its overall strategy for substance abuse prevention. We therefore recommend that, prior to budget hearings, the DADP provide the Legislature with its plan to evaluate the effectiveness of the pilots.

The DADP Should Develop for a Community Planning Manual to Prevent Drug Problems

We recommend that the Legislature require the DADP to develop a community planning manual to prevent drug use and drug-related problems.

Our analysis indicates that the community organizing approach that has been developed in the alcohol abuse prevention field has potential applications in the area of drug abuse prevention. For example, community action could be used to discourage public drug selling and to prevent people from congregating to use illicit drugs in public areas. The DADP recognizes this and advises that it intends to develop a manual for county drug administrators similar to the one currently available to alcohol administrators. However, at the time this analysis was prepared, the DADP had not provided the Legislature with its specific proposal. We therefore recommend that the Legislature require the DADP to develop a community planning manual to prevent drug use and drug-related problems and distribute the manual to county offices of drug programs.

TECHNICAL ASSISTANCE

As Figure 1 shows, the budget proposes $3.3 million to support a variety of technical assistance activities by the DADP and SDE. The DADP's technical assistance activities include roundtables and meetings with county and departmental staff, maintenance of clearinghouses for prevention information, and training programs for county staff. The SDE sponsors workshops and a resource center to assist school districts in planning and implementing their programs. In addition to formal technical assistance programs, the SDE, DADP, and OCJP monitor and advise on the specific programs for which they provide state and federal funds to counties and school districts.

Departments Need to Provide More Technical Assistance to Local Governments

We recommend that the Legislature encourage the SDE and the DADP to disseminate information on the effectiveness of various prevention programs to school districts and county administrators and to conduct evaluations of programs in order to identify successful approaches.

As discussed in detail above, our review of the research literature in the area of substance abuse prevention programs indicates that there is scant evidence of the effectiveness of any of the current approaches to prevention. The only type of prevention program that has been thoroughly and rigorously evaluated is the school-based primary prevention programs that rely on packaged curriculums, and these evaluations have shown that these programs have little effect, especially on the use of hard drugs. We recognize, however, that policymakers need to continue to look for ways to prevent substance abuse and to reduce the problems associated with it. We also believe that there are some approaches that have significant potential to reduce abuse; for example, school-based programs targeted at high-risk youth and the community organization approach to community-based programs.

Given the uncertainty about what works and what does not work, we believe that the Legislature should encourage program experimentation at the local level, and evaluation and information sharing at the state level. We therefore make the following recommendations:

- ***Dissemination of Information to Local Governments.*** We recommend that the Legislature require the SDE to summarize in writing the available research literature on school-based prevention programs and disseminate this information to school districts. We also recommend that the Legislature require the DADP to disseminate information on school- and community-based prevention programs to county drug and alcohol administrators.
- ***Evaluations.*** We recommend that the Legislature adopt Budget Bill language directing the SDE to allocate a minimum of $500,000 in federal funds for a longitudinal study of drug prevention strategies. Please see Item 6100-183-890 in the *Analysis of the 1990-91 Budget Bill* for the specific recommended language. We also recommend that the DADP report to the Legislature, prior to budget hearings, on the availability of federal funds through the National Institute on Drug Abuse and the National Institute on Alcohol Abuse and Alcoholism for evaluations of county-run programs.
- ***Data Collection.*** As noted earlier, the state has very little information on how county offices of alcohol and drug programs spend their prevention funds. To address this data deficiency, we recommend that the DADP, in conjunction with county alcohol and drug administrators, develop a way of collecting information on the types of prevention programs administered by the counties.

State Infrastructure

How Should the Legislature Address the State's Growing Capital Facility Needs?

Summary

The state is faced with a large and growing need to revitalize and expand its infrastructure. Although the state does not have a comprehensive plan to identify its specific capital outlay requirements and the associated costs, it is clear that the state's infrastructure needs are in the tens of billions of dollars. To better identify these requirements, establish priorities and develop an appropriate financing plan for this infrastructure, the state needs a comprehensive multi-year capital outlay plan. Until such a plan is available, however, we suggest the Legislature establish criteria to assess specific capital outlay proposals. We also believe the Legislature should establish standards for maintenance of state facilities and set as a high priority goal the elimination of deferred maintenance.

Based on the large volume of infrastructure needs and the state's current budgetary situation, we conclude that the state will have to continue to rely heavily on bonds to finance infrastructure revitalization and expansion. We believe that when borrowing money through the use of bonds, the state should rely as much as possible on general obligation bonds, rather than lease-revenue bonds, in order to minimize General Fund costs.

As California enters the last decade of this century, it will be faced with great demands to revitalize existing infrastructure and develop new infrastructure to meet the dynamic changes occurring in the state. During the past several years the condition of the state's infrastructure has deteriorated and, except in the area of prisons and to some extent education, very little has been done to increase its capabilities. This situation must be turned around if the state's infrastructure is to accommodate future needs. Failure in this effort could have a significant impact on the social and economic future of the State of California.

In this analysis, we examine some of the major infrastructure related problems facing the Legislature: (1) identifying the state's infrastructure needs (2) setting priorities to meet these needs and (3) establishing a financing plan to carry out the Legislature's priorities.

WHAT ARE THE STATE'S INFRASTRUCTURE NEEDS?

Estimates of Statewide Needs

Available information indicates that the overall magnitude of the demand for improving and expanding the state's infrastructure is large. For example, in 1984 the Governor's Infrastructure Review Task Force reported that over the ensuing 10-year period approximately $29 billion would be needed for deferred maintenance and $49 billion for new infrastructure. For the most part, state expenditures over the intervening six years, with few exceptions (most notably prisons and education), have reflected a status quo effort and have done little to address the needs identified in the Task Force report.

Another indication of the current magnitude of infrastructure needs can be seen from Figure 1, which shows that $18.9 billion will be needed for state and K-12 projects over the next five years. (This amount should be used cautiously because it does not reflect all potential needs due to the incompleteness of the state's planning process, and the plans also may include proposals that do not merit funding.) Moreover, the October 1989 Loma Prieta earthquake heightened the awareness of the need to make the state's infrastructure less hazardous during an earthquake. The state's current plans do not systematically address this issue. Nevertheless, it is clear that the state's infrastructure needs are easily in the tens of billions of dollars.

Figure 1

Projected Capital Needs for the State and K-12 1990-91 through 1994-95

(in millions)

	Five-Year Total
Legislative/Judicial/Executive	$60
State/Consumer Affairs	650
Business/Transportation/Housing	4,990
Resources	470
Health/Welfare	160
Youth/Adult Corrections	3,970
Education	8,560
General Government	30
TOTAL	$18,890

Source: LAO estimates, based on information from departments.

Needs in Specific Program Areas

To illustrate the infrastructure needs of particular programs, we briefly review specific capital outlay requirements in five areas.

Transportation. The 1988 State Transportation Improvement Program (STIP)—the state's current five-year program for all state and federally funded transportation improvement projects—includes about $4.8 billion in highway capital outlay projects scheduled for construction through 1992-93. Resources available through 1992-93, however, fall about $3.7 billion short of funding these projects. To fund this STIP shortfall and to meet other transportation needs identified by the governor and the Legislature, the Legislature enacted Ch 105/89 (SB 300, Kopp), Ch 106/89 (AB 471, Katz) and Ch 108/89 (AB 973, Costa) to provide about $18.5 billion over 10 years (1990-91 through 1999-2000) for transportation purposes through increases in gas taxes, truck weight fees, and issuance of bonds. These additional funds, however, will only be available if voters approve SCA 1 at the June 1990 election. (For a more detailed discussion of these transportation acts, please see the *Analysis of the 1990-91 Budget Bill,* page 263).

Under current law, transportation capital outlay projects are not individually funded through the Budget Bill. Instead, current law requires the California Transportation Commission (CTC) to program projects for funding based on statutory priorities and commission-established guidelines. The commission is also responsible for allocating funds appropriated by the Legislature among projects in this program.

Postsecondary Education. Enrollment in the state's three segments of postsecondary education is expected to grow by between 30 percent and 50 percent over the period 1990 to 2005. Estimates by postsecondary education indicate that $3.6 billion will be required for capital outlay-related expenditures over the next five years. Moreover, several billion dollars more will be needed in subsequent years if the state is to accommodate the enrollments anticipated in 2005.

In addition to the needs generated by enrollment growth, there will be an ongoing need to alter existing facilities to meet changes in academic programs. It will also be necessary to provide sufficient funding to assure that existing and new facilities will be properly maintained and that eventually deferred maintenance will be eliminated. The deferred maintenance problems at UC and CSU, for example, represent multi-million dollar costs. In February 1989, UC estimated $176 million in deferred maintenance and CSU expects a $35 million backlog by July 1990. When this analysis was prepared, the Legislature was considering SB 147 (Hart), which would authorize (as amended January 18, 1990) a $900 million general obligation bond issue to be submitted to the voters at the June 1990 primary election. (Please see the following piece, "Accommodating Growth in Postsecondary Education," for a detailed review of each segment's proposal for campus expansions.)

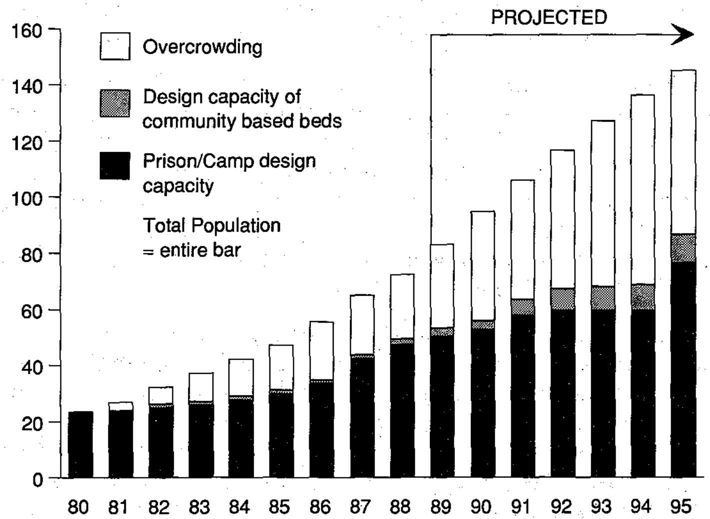
Prisons. In 1980 the inmate population in California's prisons was about 23,500. According to Department of Corrections' projections, that population will be nearly 145,000 by 1995. Thus, in this 15-year period the population in state prisons will have increased *sixfold*. A comparison of this population increase to the physical facilities to accommodate the inmate population is provided in Figure 2.

Since 1980, the Legislature has approved the construction of 41,700 prison beds costing about $3 billion. Even after completion of this massive expansion and assuming the department's overcrowding policy (130 percent of design capacity), the prison system will be 43,900 beds *short* of the expected June 1995 inmate population. To fill this gap, the department estimates that an

Figure 2

State Prison Population and Capacity[a]

1980 through 1995 (inmates in thousands)



[a] Data as of June 30 for each year. Population is based on CDC's fall 1989 projections. Projected design capacity is based on CDC's five-year facilities master plan.

expenditure of about $4 billion will be required over the next five years. Currently, the Legislature is considering SB 842 (Presley), which would place a $900 million general obligation bond issue on the June 1990 ballot.

State Office Buildings. In 1977, the Legislature adopted a Capital Area Plan to coordinate the development and use of state facilities in metropolitan Sacramento. An important element of this plan was the goal to accommodate 90 percent of state office space in *state-owned* buildings by 1987. In 1977, state-owned space represented 64 percent of state office space in Sacramento. Contrary to the stated goal, the proportion of state-owned space fell to 52 percent in 1989. In fact, between 1977 and 1989 total leased space more than doubled and annual leasing costs increased more than sixfold—from $10.1 million to $65.5 million. Meeting the plan's goal for state-owned office space by 1998 would require financing construction of about 3.3 million net square feet, at an estimated cost of around $580 million.

Increase Safety of State Buildings During Earthquakes. A 1981 report from the Seismic Safety Commission identifies 1,350 state-owned buildings in priority sequence (based on life safety considerations) for improving seismic resistance. As mentioned above, however, there is no systematic plan to address this issue. Moreover, the statewide cost to make the necessary improvements is unknown. At the time this analysis was written, the Legislature was considering SB 1250 (Torres), a $250 million general obligation bond proposal to finance the cost of improving seismic resistance of state and local buildings.

WHICH INFRASTRUCTURE NEEDS SHOULD THE LEGISLATURE FUND?

Pending development of a comprehensive multi-year capital outlay plan, the Legislature should establish criteria to assess various proposals according to the Legislature's priorities.

The state's current process for identifying, ranking and financing its capital outlay needs is fragmented. The Legislature receives a series of independent five-year plans in most program areas, but there is no centralized compilation nor ranking of projects across programs to provide a statewide perspective. As a result, there is no easy way to identify the relative priority of those individual projects included in the Budget Bill or the financing required to address overall state needs.

In recognition of this problem, the Legislature enacted SB 2214 (Campbell) in 1988. This bill required the Department of Finance to provide a comprehensive multi-year capital outlay plan for determining needs and setting priorities. The Governor, however, vetoed the measure. Currently, the Legislature is considering an identical measure (SB 348, Alquist). In addition, the State Treasurer recently announced his support for this concept and indicated that legislation would be introduced on his behalf. We believe that adoption of such a plan is an essential element of the state's infrastructure efforts.

In the meantime, however, the Legislature is faced with the difficult task of determining which infrastructure needs to fund in the short term. For the most part, each program area has identified infrastructure projects which merit consideration for funding. Unfortunately, faced with the magnitude of need identified above, it simply is not possible to finance it all at the same time. Thus, the Legislature must rank these competing projects in terms of importance and urgency and then establish a schedule for when and how much funding should be made available. One way of selecting projects that meet the Legislature's priorities would be to establish criteria to apply in individual cases. To aid the Legislature in this effort, we suggest consideration of the following five criteria:

- ***State's Liability.*** Does the proposal correct life threatening security (such as in 24-hour institutions)/code deficiencies or meet contractual obligations?
- ***Urgency of the Service Need.*** Does the project address an existing deficiency or shortcoming (such as severe overcrowding) as opposed to enhancing a service level?
- ***Alternative Approaches.*** Are there less capital-intensive ways to meet the program objective? For instance, can a project be avoided through more intensive or efficient use of existing space?
- ***Alternative Sources.*** Is it appropriate for the *state* to develop this project? In some cases, proposals could be developed using nonstate sources.
- ***Cost Efficiency.*** Will the proposal reduce state costs (through measures such as reducing office building lease costs)?

TAKING CARE OF THE STATE'S INFRASTRUCTURE

We recommend that the Legislature establish a maintenance standard for state facilities and set as a high priority goal the elimination of deferred maintenance.

In addition to financing the revitalization and expansion of the state's infrastructure, the state is also faced with the task of extending the useful life of its infrastructure through proper maintenance programs. Because of the aging of existing facilities and the construction of new infrastructure, there will be an increasing demand on the state's resources to maintain the systems in efficient and economic operating condition. To assure that this happens, the state must place a high priority on maintenance.

The Governor's Infrastructure Review Task Force reported in 1984 that during the next decade approximately $29 billion would be needed for deferred maintenance. The task force recommended that deferred maintenance be designated as the state's highest funding priority. During the intervening years the deferred maintenance problem has not lessened and has probably gotten worse. The difficulty in identifying the extent of the problem is that funding for maintenance efforts are generally lumped together in the budget with other support costs under a single line item "facility operations." This also makes it quite easy to use these funds for purposes other than the specified maintenance. In contrast, state office buildings under the Department of General Services are maintained from a dedicated source (the Building Rental Account) that receives revenues from rent charged to those departments occupying the building. In general, these office buildings are well maintained and there is no deferred maintenance.

The consequence of not fully funding regular maintenance is the steady erosion of the state's capital assets. In the near term, this erosion is less evident. Within a short period of time, however, these assets either require higher-than-necessary costs to be operated and properly maintained, or they must be replaced at a high cost before the end of their normal useful life.

To begin addressing this issue, we believe the Legislature should establish standards for maintenance of state facilities and set as a high priority goal elimination of deferred maintenance. There are several steps the Legislature could take to begin moving the state in this direction. For example, the Legislature could require departments that have a large capital outlay budget to:

- Establish a preventive maintenance program;
- Identify specific elements of infrastructure (maintenance, deferred maintenance, special repair, etc.) by line item in the budget (the Legislature could also add budget language restricting the transfer of these funds for other purposes); and
- Provide a post audit report identifying how the appropriated funds were used and how the deferred maintenance backlog is being reduced.

HOW CAN THE STATE FINANCE ITS INFRASTRUCTURE NEEDS?

As discussed in our Policy Brief *Bonds and the 1990 Ballots* issued in January 1990, there are three basic ways that the state can finance infrastructure projects. The state can:

- Pay "up front" through direct appropriations of state revenues;
- Rent, lease or lease-purchase from private parties through annual rental payments; and/or
- Borrow money by issuing bonds that are repaid with interest.

The state uses each of these financing methods in its capital program but relies most heavily on bonds. Financing a project using bonds is about 25 percent more costly than through direct appropriation (after adjusting for the effects of inflation). Nevertheless, given the large volume of infrastructure needs and the state's current tight budgetary situation, there simply is not enough money available to rely primarily on direct appropriations. As a result, we believe the state will have to continue to rely to a great extent on bonds, if these needs are to be met.

The state has generally relied on two types of bonds:

General Obligation Bonds. The use of general obligation bonds is dependent on approval of each bond proposal by a vote of the people. These bonds are backed by the state, meaning that the state is obligated to pay the principal and interest costs on these bonds. Typically, General Fund revenues are used to pay these debt costs. Currently, the main benefits of using this method of borrowing money is that the interest costs are lower than other methods and debt service payments are exempt from the state's appropriation limit.

Lease-Revenue Bonds. Recently, the state has placed an increasing emphasis on using lease-revenue bonds, particularly in the areas of prisons and postsecondary education. Authorization to issue these bonds is *not* dependent on voter approval and the debt is *not* backed by the "full faith and credit of the state." Nevertheless, the lease payments on these bonds (paid from the General Fund) must be included in any calculation of the state's General Fund debt-service.

An advantage of this method of borrowing is that the state does not have to wait until a general election and therefore can respond more quickly to certain infrastructure needs. The disadvantages are: interest rates are higher than general obligation bonds (by up to 0.5 percent), there are certain other costs that are incurred (such as insurance), and the debt service payments are subject to the state's appropriation limit. (However, under the provisions of SCA 1—on the June 1990 ballot—it appears that the Legislature could exempt these payments from the appropriations limit.)

Given the fiscal advantages of general obligation bonds over lease-revenue bonds, we recommend that the Legislature rely to the maximum extent possible on the former when addressing its infrastructure financing needs. A comprehensive capital outlay plan would help the Legislature achieve this end through improved planning and scheduling of necessary general obligation bond measures for future ballots.

It is, of course, important that the state not indiscriminately issue bonds, thereby incurring excessive indebtedness. However, as our Policy Brief noted, California has a debt burden that is relatively low, enjoys high credit ratings, and can issue more bonds without being financially imprudent.

CONCLUSION

The state must improve and expand its infrastructure to eliminate deficiencies and to accommodate future demographic and economic growth. Based on recent reports and information from various state departments, it is clear that the state's infrastructure needs over the next 15 years are easily in the tens of billions of dollars. In view of the magnitude of these costs, the state must be able to identify specific needs, set priorities and establish a financing plan to carry out the necessary expansion and improvements.

In order to accomplish this effectively, the state needs a comprehensive multi-year capital outlay plan. Until such a plan is available, however, the Legislature is faced with determining which infrastructure needs to fund in the short term. To do this, we suggest that the Legislature establish specific criteria against which various proposals can be assessed. Furthermore, to properly maintain the state's infrastructure, the state needs to place a high priority on maintenance and the elimination of deferred maintenance. Finally, to undertake the necessary revitalization and expansion of its infrastructure, the state will have to rely heavily on borrowing money through the issuance of bonds. In such cases, we believe that the Legislature should rely to the maximum extent possible on general obligation bonds rather than lease-revenue bonds.

Capital Outlay for Postsecondary Education

How Should the Legislature Accommodate Enrollment Growth in Postsecondary Education?

Summary

Over the next 15 years, enrollments in California's three segments of postsecondary education are expected to grow by between 30 percent and 50 percent. To accommodate these growing enrollments, each segment is proposing major facility expansions on existing campuses. The five-year capital outlay plans prepared by the segments propose total expenditures over the next five years of $3.6 billion to fund the initial phase of these expansions, as well as alterations of existing facilities to meet various program needs. In addition, the University of California (UC) is proposing three new UC campuses, the California State University (CSU) is proposing five new CSU campuses and the California Community Colleges (CCC) estimate a need for 23 new community college campuses.

Our review indicates that UC should expedite the development of one new campus, reassess the enrollment assumptions associated with a second new campus and suspend planning for a third new campus. Our review indicates that there currently is no demonstrated need to plan for any new CSU campuses. Due to significant shortcomings in the CCC planning model, we are unable at this time to advise the Legislature as to either the necessary expansion of existing community college campuses or the number of new CCC campuses needed. We further find that billions of dollars will be needed in the next five years and beyond for postsecondary education capital outlay, but the capital outlay planning by the segments does not adequately inform the Legislature on how needs related to projected enrollment growth are to be met. Thus, the Legislature does not have the information it needs to make sure it funds postsecondary education facilities based on its priorities.

INTRODUCTION

The Legislature faces many significant decisions to plan for and fund postsecondary education facility needs in the short-term and into the next century. These needs are generated largely by enrollment increases projected to occur over the next 15 years. Over this time period enrollments in each of the three segments of postsecondary education—the University of California, the California State University and California Community Colleges—are expected to grow 30 percent to 50 percent. To accommodate this growth, the state will have to undertake a multi-billion dollar capital outlay program to renovate facilities and construct new facilities throughout the segments. To address the capital outlay needs associated with this growth, the Legislature will have to determine how much expansion of current campuses is necessary; how many new campuses, if any, are to be developed; and how best to finance these facilities.

In this analysis, we assess for each segment of postsecondary education: (1) long-range enrollment plans, (2) the potential need for new campuses, and (3) how each segment's five-year capital outlay plan addresses needs associated with enrollment growth.

UNIVERSITY OF CALIFORNIA

The University of California (UC) was established in 1868 as the state's land grant university. It encompasses eight general campuses and one health science campus. (For the purposes of this analysis, we will deal only with the eight general campuses.)

UC currently serves about 147,000 undergraduate and graduate students. As virtually all UC students attend school full-time, there is little difference between the number of students and full time equivalents (FTEs), a term commonly used in budgeting. For simplicity's sake, we will use only number of students throughout this section on UC.

Undergraduate Enrollment Projections for UC

In October 1988, the university issued a general campus enrollment plan for the period 1988-89 through 2005-06. These projections were revised in December 1989 and extended to include the year 2020-21. In addition, in November 1989 the Department of Finance's (DOF) Demographic Research Unit developed projections of UC enrollments for the period 1989-90 through 2020-21. Figure 1 displays the UC and DOF projections for undergraduate enrollment for the years 2005-06, 2010-11 and 2020-21.

Figure 1

Projections of UC Undergraduate Enrollment[a]

Years	UC	Department of Finance
1989-90 (estimated)	120,000	120,000
2005-06	162,000	175,000
2010-11	176,000	176,000
2020-21	182,000	169,000

[a] Average annual "headcount." Figures have been rounded to the nearest one thousand.

UC projects that undergraduate enrollments will grow from 120,000 students in 1989-90 to 162,000 students in 2005-06. This represents an average annual growth rate of almost 2 percent, and a 35 percent increase over the period. The DOF, on the other hand, projects 175,000 undergraduates in 2005-06 (a 46 percent increase over the period). The difference between the two projections arises primarily from the university's assumption that a higher rate of the undergraduates who would be eligible to attend UC would instead "...opt to go to the other segments (public and private) because they could not obtain their top choice or choices of campus or program within UC."

Our review indicates that the UC and DOF projections represent a reasonable range of possible enrollments for 2005-06. In other words, we believe the state should plan on accommodating at least 162,000, and as many as 175,000, UC undergraduates in 2005-06.

Growth Beyond 2005-06. Between 2005-06 and 2020-21 UC projects slower, but continued, enrollment growth whereas DOF projects a slight enrollment decline (from 175,000 to 169,000). Consequently, by 2020-21 UC's projection of 182,000 undergraduates exceeds DOF's projection by 13,000 students. It is important to note, however, that enrollment projections for 2010 and beyond are significantly more speculative because the age cohort constituting most of the undergraduate "pool" for that period has not yet been born. Nevertheless, the importance of the projections to 2020, from a planning standpoint, is that under either projection, enrollments remain at a high level after 2005-06. Thus, facilities built to accommodate enrollments for 2005-06 likely will continue to be needed.

Graduate Enrollment Projections for UC

While the undergraduate enrollment projections are based primarily on demographics, UC's graduate enrollment plan is based on educational policy. That is, the university has established, for each campus, desired levels of graduate students (expressed as a percentage of total enrollment). In 1987, UC proposed to gradually raise the graduate enrollment ratios for seven of the eight campuses, resulting in a systemwide average of 21.3 percent (by comparison, the current-year ratio is 18.1 percent).

In October 1988, however, UC proposed to increase this percentage to 22.6 percent. The Legislature, in the *Supplemental Report of the 1989 Budget Act,* directed UC to develop additional justification for its proposed higher rate and stated legislative intent that until the Legislature reviews this justification, graduate enrollment increase requests would be evaluated based on the *1987* plan. As of this writing, no such justification has been submitted to the Legislature.

UC's 1988 graduate plan projects that enrollment will increase from its current level of 26,600 to 47,300 in 2005-06. This estimate is based on the assumption that the graduate enrollment ratio would reach the 22.6 percent proposed in the 1988 plan. Since, however, the Legislature has not yet adopted that ratio, we believe it is premature to use it for planning purposes. If, instead, the 1987 graduate enrollment ratios are used, total graduate student enrollment would stand at 41,500 in 2005-06, or 5,800 less than proposed by UC.

Accommodating Enrollments on Existing Campuses

Figure 2 compares, for each UC general campus, current enrollment and UC's projected enrollment for 2005-06. With the exception of Riverside (see below), the projected enrollment figures for 2005-06 also represent the *maximum* enrollment currently planned for the existing campuses. As the figure shows, the university's plan assumes that the eight campuses will be able to accommodate 187,700 students in 2005-06, an increase of almost 41,000 (28 percent). Thus, assuming funds are provided to build new facilities, the system has the ability to handle substantial enrollment growth on its existing campuses.

UC Riverside Could Grow More Rapidly. As shown above, the university's planned enrollment for Riverside in 2005-06 is 18,000. (This figure was revised upward from 15,000 by the UC President's Office last December.) The 18,000 figure, however, does not represent the university's *maximum* planned enrollment for Riverside, but simply the enrollment that it believes can

Figure 2

The University of California Current and Planned Enrollment for 2005-06 at Existing General Campuses

Campus	Current Enrollment[a]	Planned Enrollment in 2005-06[b]
Berkeley	29,600	28,700
Davis	19,900	25,000
Irvine	15,100	25,000
Los Angeles	31,000	31,000
Riverside	8,000	18,000
San Diego	15,900	25,000
Santa Barbara	18,300	20,000
Santa Cruz	9,300	15,000
Totals	147,100	187,700

[a] UC's estimate for 1989-90. Average annual headcount.
[b] Based on UC's general campus enrollment plan.

reasonably be achieved by 2005-06. We believe UC's plan underestimates the university's ability to absorb enrollment growth at that campus. Last year, in response to concerns raised by us and others, the Legislature directed UC in the *Supplemental Report of the 1989 Budget Act* to evaluate the feasibility of enrolling up to 25,000 students at Riverside by 2005-06 or beyond. UC is to send its evaluation of this issue to the Legislature by January 1, 1991.

University Concerned over Difficulty with More Rapid Growth at Riverside. UC officials have expressed concern that more rapid enrollment growth at Riverside, coupled with the need to replace retiring faculty, could strain that campus' ability to recruit high quality faculty. While we share the university's concerns about the importance of educational quality, we believe UC needs to advise the Legislature on: (1) the rate of enrollment growth at which recruitment would become a problem and (2) which measures, if any, UC and/or the Legislature could adopt to ameliorate this potential problem.

For example, funding could be provided in advance of enrollment growth at Riverside in much the same way as would be done in the case of a new campus. This advance funding could be used to hire visiting scholars to free-up time for permanent Riverside faculty to devote to recruiting. In addition, UC faculty from other campuses could be asked to assist at Riverside and thereby free up time for Riverside faculty. Help from faculty at other campuses is not uncommon and should be encouraged. In fact, faculty from other campuses would be used for recruiting purposes at the proposed new campuses.

Thus, at this time it is still unclear to us why Riverside could not grow to its maximum enrollment by 2005-06. Pending receipt of information from UC to the contrary, we believe the Legislature should use the higher figure for capital outlay planning purposes. This would increase the total enrollment that could be accommodated by the existing campuses to 194,700.

Other Options. The Legislature may want to consider other options to accommodate projected enrollment. These include increasing enrollments at UC Santa Barbara and UC Santa Cruz beyond planned levels. These sites could accommodate more students, and at one time UC planned for larger enrollments at these campuses. Community opposition to expansion of these campuses beyond current planned levels, however, would be significant. In addition, if enrollments increase faster than projected by UC, or if increasing enrollment to 25,000 (by 2005-06) at Riverside proves infeasible, *temporary* increases above planned enrollments at these and other campuses could be considered as an option. Finally, the university could consider holding classes year-round. All of these options would allow the state to accommodate additional enrollment at the existing campuses.

Conclusions on Need for New UC Campuses

Our analysis indicates a demonstrated need for only one new UC campus by 2005-06. We find further that UC should (1) develop this campus on a faster track than currently proposed, (2) reassess the enrollment assumptions as they relate to the need to plan for a second campus, and (3) suspend planning efforts for a third campus.

As mentioned above, in October 1988 the university issued a general campus enrollment plan for the period 1988-89 through 2005-06. Based on the projected enrollments and UC's assessment of its ability to accommodate enrollments on existing campuses, UC proposed establishment of three new campuses later in this decade. (Specifically, the campuses would open in the fall of 1998, 1999 and 2000.) In December 1989, the university revised slightly its enrollment projections and continued to plan for three new campuses.

Figure 3 shows, for the year 2005-06, UC's current projections of total enrollment for 2005-06, the extent to which this enrollment would be accommodated on existing campuses and the "unaccommodated" enrollment which would result. It also shows our estimate of a range of potential "unaccommodated" enrollment, using (1) UC's and DOF's undergraduate enrollment projections, (2) our recommended graduate student ratio (discussed above), and (3) the assumption that 7,000 additional students can be accommodated at UC Riverside (also discussed above).

Figure 3

Projected UC Enrollment Accommodated and Unaccommodated for 2005-06[a]

	UC Plan	LAO Estimated Range[b]	
		Low	High
Projected Enrollment:			
Undergraduate	161,800	161,800	175,300
Graduate	47,300	41,500	43,800
Total Enrollment	209,100	203,300	219,100
Projected Enrollment at Existing Campuses	187,700	194,700	194,700
Unaccommodated Enrollment	21,400	8,600	24,400

[a] Average annual headcounts.

[b] The low estimate uses UC's estimate of undergraduate enrollment and the high estimate uses the Department of Finance's. Both estimates assume (1) the graduate enrollment ratios in UC's 1987 plan and (2) that UC Riverside could grow to 25,000 by 2005-06.

One Campus Needed. UC's proposal for three new campuses is based on its projection of "unaccommodated" enrollment of 21,400 students in 2005-06. On the other hand, using UC's undergraduate enrollment projection and what we believe are reasonable assumptions regarding projected capacity for UC Riverside and the graduate student ratio in the 1987 plan, we estimate an unaccommodated enrollment of 8,600 students. This assumes that the long-term enrollment ceiling for each campus (other than Riverside) will not be increased and that year-round scheduling will not be implemented. On this basis, we believe the Legislature should use this estimate in planning for UC's long-term facilities needs, and we conclude that an unaccommodated enrollment of 8,600 students justifies the need to plan **only one** new campus before 2005-06.

Furthermore, given the likelihood of having at least 8,600 unaccommodated students, we see no reason to delay planning and development of this new campus. Placing the campus on a faster track than the current UC plan would not only ensure the availability of capacity for the 8,600 students, it would also allow

UC to accommodate more students in the event UC's undergraduate enrollment exceeds the low end of the range. A concentrated effort by the university to develop this campus could result in an opening date in the mid-1990s rather than in 1998, as currently planned by UC.

Enrollment Assumptions for Second Campus Should Be Reassessed. If the higher end of the projected enrollment range proves correct, a second campus would be needed. For example, if the Department of Finance's enrollment projections are correct, UC will have 24,400 in unaccommodated enrollment. This shortfall could *not* be met by one new campus by 2005-06. The decision to plan for a second campus, however, can be deferred for at least a year without jeopardizing UC's schedule to bring it into operation in time to accommodate a higher enrollment. Deferring this decision would permit UC to concentrate its planning efforts in the coming year on the first campus. This would also allow UC and the Legislature to reassess enrollment projections and their underlying assumptions, as they relate to the need to plan for a second campus.

Suspend Planning for Third Campus. Even at the high end of our estimated range of enrollment for 2005-06, a third campus would not be needed. The additional enrollment at the high end of the range could be accommodated through (1) more rapid enrollment growth at two new campuses and/or (2) temporary over-enrollment at existing campuses. Therefore, we recommend that UC suspend its planning efforts for a third campus. Instead, UC should (1) concentrate its planning efforts on one campus and (2) reassess the need for a second campus based on further experience with enrollment growth.

The University of California's Five-Year Capital Outlay Plan

We find that UC's five-year capital outlay plan does not adequately inform the Legislature on how needs related to projected enrollment growth are to be met. We find further that a significant portion of the plan's proposed expenditures do not address enrollment-related needs.

In the *Supplemental Report of the 1989 Budget Act,* the Legislature directed each of the segments to submit five-year capital outlay plans to the Legislature by September 1, 1989. These plans were to include projected enrollments for each campus for each year of the plan and are to be updated annually. UC's November 29, 1989 five-year capital outlay plan (1990-91 to 1994-95) indicates that UC expects undergraduate enrollment systemwide to increase by over 12,000 (8 percent) over the five-year period. This includes a 6 percent increase in undergraduate and an 18 percent increase in graduate enrollments.

To meet this enrollment growth, and also to renovate existing facilities that may be obsolete for physical or program reasons, UC's plan calls for the expenditure of about *$1.1 billion* of state monies during the five-year period 1990-91 to 1994-95. The proposed program includes funds for 139 major projects at the nine campuses as well as an ongoing minor capital outlay program (projects costing $250,000 or less). While the plan does *not* include any proposed expenditures for planning or establishing new campuses, it does include projects designed to meet needs associated with enrollment growth at existing campuses. This year the university incorporated several elements into its five-year plan that make it more useful to the Legislature. For example, the plan now covers the full five years, includes estimated costs to complete each project and lists the projects in priority. Although the university's plan has been improved and is generally responsive to the Legislature's directive, we have several concerns about it.

Plan Does Not Provide Enrollment-Related Information. The Legislature directed that the capital outlay plans include, among other information, a discussion of how each project contributes to accommodating needs associated with current/projected enrollments. The UC plan does not include this information. Without this information it is impossible for the Legislature to determine the extent to which the capital outlay plan meets needs generated by enrollment growth or the cost of meeting those needs. This places the Legislature in a difficult position for making funding decisions on UC's capital outlay program.

Plan Includes Significant Expenditures for Purposes Not Directly Related to Enrollment Growth. Some indirect measures indicate that a significant portion of the university's proposed capital outlay expenditures do not meet needs generated by enrollment growth. For example, the university expects enrollment growth at six of the eight general campuses and modest enrollment declines at two campuses—Berkeley and Los Angeles. The plan, however, proposes expenditures of about $160 million (excluding projects related to seismic safety), or 17 percent of the five-year total, at Berkeley and Los Angeles, *even though current capacity at those campuses exceeds current enrollment.*

In addition, our analysis indicates that about $100 million proposed for expenditure in 1990-91 is for projects that are primarily for research-related space rather than enrollment growth. The estimated future cost to complete these projects is over $180 million.

Expenditures for capital improvements that are not related directly to enrollment growth are certainly appropriate and may be necessary. The Legislature, however, needs better information in the five-year capital outlay plan so that it can assess the needs for projects related to enrollment growth (including new campuses) and other improvements, in order to set the Legislature's priorities and strike an appropriate funding balance between the two.

CALIFORNIA STATE UNIVERSITY

The California State University (CSU) system is composed of 20 campuses and nine off-campus facilities which provide instruction in the liberal arts and sciences as well as in applied fields which require more than two years of college education. In addition, CSU may award a doctoral degree jointly with the University of California or a private university.

Enrollment Projections for CSU

In October 1989, CSU issued a *Growth Plan for 1990-2005* that included enrollment projections for the period 1990-91 through 2005-06. The plan also includes a proposal to start five new campuses, with the first to be brought on line in 1994. In November 1989, the Department of Finance's Demographic Research Unit developed projections of CSU enrollments for the same time period. (These projections do not distinguish between undergraduate and graduate students. CSU has a smaller percentage of graduate students than UC and, unlike UC, is not proposing to increase that percentage.)

In preparing for its facilities needs for the year 2005-06, CSU assumes that enrollment will grow from 361,000 students in 1990-91 to 541,000 in 2005-06. This is an increase of 180,000 students, or 50 percent. By contrast, DOF—based on demographic data and historic participation trends—projects an enrollment of 466,000 students—an increase of 105,000 students. This represents an average annual enrollment growth of 1.7 percent and growth of 29 percent over the period. The key difference between the numbers arises from an assumption by CSU that, by 2005, it will reach the state's goal of educational equity—that is, the current low participation rates of students from under-represented ethnic groups will increase to rates comparable for those of whites. (Currently, blacks participate at about one-half, and Hispanics at about one-third, the rate of whites.)

Clearly, attaining educational equity at CSU (and all postsecondary segments) is an important priority. But for capital planning purposes, projections of enrollment need to be based on the best available demographic data, not on policy goals. CSU cannot accomplish this objective as an institution acting alone.

The state's K-12 system must graduate qualified students in sufficient numbers to put the policy goal within reach. There is no evidence that we know of which suggests that the laudable objective of equal participation rates can be achieved within the next 15 years. For example, there are currently about 40,000 Hispanics in the CSU system. If the participation rate for Hispanics continues to increase as it has during recent years, there would be about 115,000 Hispanics—almost three times the current numbers—by 2005-06. To meet CSU's plan, however, the system would have to enroll over 190,000 Hispanics—almost five times the current number—over the period. The improvement in black participation rates would have to be even more pronounced in percentage terms in order to meet CSU's objective. In short, CSU's enrollment figure for 2005-06 is not a projection based on demographic trends.

By comparison, the DOF projections are based on enrollments growing generally according to historic trends during the planning period. If these past trends continue, this assumption implicitly reflects substantial increases in the enrollments of under-represented students. In relying on these DOF figures, we note two caveats. First, the trends in participation rates should be carefully monitored to capture changes as they occur and to make necessary changes in out-year enrollment projections. Second, it is possible that, in the near future, DOF will be able to provide projections with more detail by race and ethnic group. This will greatly assist the Legislature in its efforts to equalize future participation rates.

Accordingly, we suggest that CSU develop a more realistic enrollment projection through the year 2005-06 that could serve capital outlay planning purposes. If participation rate experience in the future indicates that CSU is more rapidly attaining this goal, the enrollment projection *can* and *should* be revised upward. Until actual trends (including high school graduation rates) demonstrate otherwise, however, we believe DOF's enrollment projection forms a more reasonable basis for planning CSU facility needs. On that basis, the state at this time should plan on accommodating 466,000 CSU students in 2005-06. Because many CSU students are part-time, this level of enrollment would be 350,000 full-time equivalent (FTE) students. For the remainder of this section on CSU, we use FTE enrollment figures.

Accommodating Enrollments on Existing Campuses

Figure 4 shows, for each CSU campus, the current enrollment, CSU's projected enrollment for 2005-06 and CSU's recommended master plan ceilings. As the figure shows, CSU's growth plan projects that its existing campuses and off-campus centers can be expanded to accommodate an enrollment of 365,400 FTE by 2005-06, an increase of about 93,000 FTE (34 percent increase) over the current enrollment.

Figure 4 also shows that CSU's projected enrollment for the 20 campuses (344,100) is almost *60,000 less than* the total campus enrollments under proposed master plan ceilings (404,000). This master plan total includes CSU's plan to raise ceilings at five campuses: (1) Fresno and San Francisco from 20,000 to 25,000

Figure 4

CSU Current and Projected Enrollment and Master Plan Ceilings at Existing Campuses[a]

	Current Enrollment[b]	Planned Enrollment in 2005-06[c]	Master Plan Ceilings
Bakersfield	4,000	8,500	12,000
Chico	14,000	14,000	14,000
Dominguez Hills	6,200	12,000	20,000
Fresno	16,100	25,000	25,000[d]
Fullerton	17,600	20,000	20,000
Hayward	8,300	12,100	18,000
Humboldt	6,800	8,000	8,000
Long Beach	23,600	25,000	25,000
Los Angeles	13,600	18,500	25,000
Northridge	20,900	25,000	25,000
Pomona	14,700	19,100	20,000
Sacramento	19,000	23,400	25,000
San Bernardino	7,800	17,100	20,000[d]
San Diego	25,000	25,000	25,000
San Francisco	20,000	25,000	25,000[d]
San Jose	20,500	25,000	25,000
San Luis Obispo	14,700	17,400	20,000[d]
San Marcos	300	7,000	25,000
Sonoma	5,400	10,000	15,000[d]
Stanislaus	3,900	7,000	12,000
Subtotals	(262,400)	(344,100)	(404,000)
Off-campus centers	3,500	10,400	n/a
Year-round operation[e]	6,000	10,900	n/a
Totals	271,900	365,400	404,000

[a] Full-time equivalent students.
[b] CSU's estimate for 1990-91.
[c] Enrollment planned by CSU.
[d] Increased ceiling recommended by CSU.
[e] Use of summer quarters at four existing year-round campuses.

FTE each, (2) San Bernardino from 12,000 to 20,000 FTE, (3) San Luis Obispo from 15,000 to 20,000 FTE and (4) Sonoma from 10,000 to 15,000 FTE. Although these master plan changes will require a detailed review process, including environmental impact assessments, we have no basis for assuming the ceilings cannot be raised.

We believe CSU's estimate of the ability of existing campuses to absorb growth is conservative. Under CSU's plan, 11 campuses would still be below their recommended master plan ceilings in 2005-06. Some of these campuses (such as Hayward or Dominguez Hills) may not be able to grow faster than CSU has planned, given problems experienced by those campuses in attracting enrollment. Several of the other campuses, however, have the potential to grow faster than CSU has planned, including Sacramento, Pomona and San Marcos.

Conclusions on Need for New CSU Campuses

Our analysis indicates that there currently is no demonstrated need to plan for any new CSU campuses.

As mentioned above, the CSU growth plan for the period 1990 through 2005 calls for establishment of five new campuses. Under this plan, the new campuses would be brought into operation at two-year intervals beginning in 1994. The plan also calls for establishment of five new off-campus centers to serve upper division and graduate students.

Statewide Enrollment Needs. Figure 5 shows for the year 2005-06 CSU's projections of total enrollment, enrollment accommodated at existing campuses (including summer quarter enrollment) and off-campus centers, and the "unaccommodated" enrollment on which its proposal for five new campuses and five new off-campus centers rests. The figure indicates that under CSU's enrollment projections, the system could not accommodate 41,000 students within existing facilities. CSU's growth plan assumes that this shortfall would be addressed through:

- The five new campuses (20,000 FTE).
- The five new off-campus centers (6,000 FTE).
- Other off-site instructional areas (3,000 FTE).
- An undefined combination of measures, including various forms of off-site instruction and expanded use of summer terms (12,000 FTE).

As discussed above, however, we believe CSU's enrollment projection is unrealistically high and that DOF's enrollment

Figure 5

Projected CSU Enrollment Accommodated and Unaccommodated for 2005-06

	CSU Plan	DOF Projection
Projected enrollment	406,000	350,000
Projected enrollment at existing sites	365,000	365,000
Unaccommodated enrollment (surplus capacity)	41,000	(15,000)

projections are more appropriate to use at this time for planning purposes. Under DOF's projection, the potential for existing campuses to accommodate enrollments significantly *exceeds* the expected enrollment level. As Figure 5 shows, existing campuses and centers can accommodate projected enrollment growth (through capacity-expanding construction projects), and still have the potential to accommodate 15,000 *additional* FTE students in 2005-06 and beyond. Moreover, as discussed above, under CSU's recommended master plan ceilings there would be *further* potential to expand existing campuses to accommodate another 60,000 FTE students.

Regional Aspect of Accommodating Enrollment. Some may argue that, even if there were existing capacity in the system as a whole, CSU's regional focus requires that new campuses be built in areas where campuses are reaching or have reached capacity. In considering the question of accommodating enrollment, however, it is important to recognize the *mixed state/regional nature* of CSU campuses. According to CSU's publication, *Origin of 1988 Fall Term Enrollment*, 12 of the 20 campuses draw a majority of their freshmen classes from the region (defined as the metropolitan statistical area) in which the campus is located. The same document indicates that 40 percent of all entering freshmen come from *outside* the region in which the campuses they are attending are located. Thus, a substantial portion of enrollment is from outside the campus region and could be viewed as a statewide component of the enrollment.

Nevertheless, it is conceivable that one or more new campuses could be justified strictly on the basis of regional enrollment needs. We believe, however, there are several options for meeting regional enrollment needs that should be examined *before* undertaking the costly (and irreversible) step of acquiring and constructing new campuses. These options include:

- ***Extending Year-Round Operations.*** Since year-round operation uses existing facilities, it has the potential to reduce future needs for additional space. Currently, four campuses (Hayward, Los Angeles, Pomona, and San Luis Obispo) have state-funded summer quarters. We recommend in our *Analysis of the 1990-91 Budget Bill* (Item 6610-001-001) that the CSU conduct a comprehensive cost-benefit analysis of this option.
- ***Raising Master Plan Ceilings.*** The CSU's growth plan projects that campus master plan ceilings will range from 8,000 to 25,000 FTE students. The CSU should consider raising some of the master plan ceilings for those campuses which are below the maximum level of 25,000 FTE.
- ***Establishing Off-Campus Centers.*** The CSU may wish to establish off-campus centers near students' homes or workplaces. Since such space can often be leased on a short-term basis, off-campus centers could also be used to meet one-time peaks in enrollment demand.

In view of statewide enrollment trends and the variety of options available to meet regional enrollment needs, we conclude that there is no demonstrated need for CSU to plan new campuses at this time. Although the need for new off-campus centers is not justified on the basis of statewide enrollment projections, we reserve judgment on CSU's proposal for five new off-campus centers pending additional information from CSU on the regional basis for these centers.

The California State University's Five-Year Capital Outlay Plan

We find that CSU's recent five-year capital outlay plan does not adequately inform the Legislature on how needs associated with projected enrollment growth are to be met. We find further that a significant portion of the plan's proposed expenditures do not address these needs.

According to CSU's five-year capital outlay plan (submitted to the Legislature August 31, 1989), enrollment at CSU campuses will increase 15,000 FTE (5.7 percent) by 1995-96.

To meet this enrollment growth and also to renovate existing facilities that may be obsolete for physical or program reasons, CSU's plan calls for the expenditure of about *$1.4 billion* of state monies during the five-year period 1990-91 through 1994-95. The proposed program includes 166 major projects at the 20 campuses, eight major projects at two off-campus centers (Contra Costa and Ventura) and ongoing programs for energy conservation and minor capital outlay (projects costing $250,000 or less). This year, CSU has improved its five-year capital outlay plan by providing more information on proposed projects. For example, the plan has been expanded to include limited descriptions of all projects and estimated costs to complete each project. While including this additional information is generally responsive to the Legislature's directive, we still have several concerns aboutthe plan.

First, CSU's capital outlay plan does *not* include any proposal for the planning or establishment of new campuses. Consequently, the current capital outlay plan will not implement the CSU Trustees' growth plan that calls for five new campuses (with the first campus to come on line in 1994). Moreover, the plan does not include any information regarding establishment of off-campus centers.

In addition, the capital outlay plan does include projects designed to meet needs associated with enrollment growth at existing campuses. The plan indicates that instructional facility capacity will increase from 98 percent (systemwide average) of enrollment to 102 percent. Our analysis indicates, however, that the plan contains inconsistencies regarding capacities associated with specific projects and campuses. These inconsistencies, which are numerous and significant, call into question the reliability of the information included in the plan. For example, the plan indicates that either 3,321 FTE capacity or 1,766 FTE capacity will be added at CSU Fresno, depending on the page of the document chosen. In another case, the document indicates in one part that proposed projects will add 4,407 FTE capacity at CSU Northridge. Yet, the plan's summary table indicates that 4,244 FTE capacity would be added at Northridge during 1991-92 through 1993-94, followed by ***deletion*** of 3,330 FTE capacity in 1994-95.

Our analysis further indicates that many of the proposed expenditures do not substantially address needs associated with enrollment growth. For example, CSU San Diego already is at its master plan ceiling in terms of both enrollment and facility capacity. Yet CSU's plan proposes spending more capital outlay funds at San Diego than at any other campus—$141 million over the five-year period.

As mentioned under the section on UC, many projects that do not contribute directly to accommodating enrollment growth may be necessary. The Legislature needs better information in the five-year plan, however, so that it can (1) assess ways to accommodate enrollment growth and other needs and (2) strike an appropriate funding balance between the two.

CALIFORNIA COMMUNITY COLLEGES

The California Community Colleges (CCC) consist of 71 locally governed districts operating 107 colleges throughout the state. In addition, the CCC provides instructional services to students at off-campus sites. The community colleges are authorized to provide associate degrees, occupational certificates and credentials, and various service instruction.

Enrollment Projections

By statute, long-term enrollment projections for use by the community colleges are prepared by DOF. The enrollment projections are formulated by applying expected participation rates to projections of future population groups, categorized according to age and gender. This method is similar to the one DOF uses for determining enrollment projections for both UC and CSU. However, this projection is also based on input from local districts (through an annual enrollment survey), and a qualitative assessment of each district's situation by DOF staff. Using this method, DOF projects community college enrollment to grow from 1,333,000 in 1988-89 to 1,873,000 by 2005-06, an increase of 540,000 students.

This represents an average annual growth of 2 percent, and growth over the period of 41 percent. This projection is also higher than DOF's 1988 projections, which estimated an increase of 400,000 students over that same period. Figure 6 illustrates the enrollment growth trend between 1988-89 and 2005-06. It shows that over two-thirds of the projected enrollment increase would occur after 1994-95. The DOF's enrollment projections appear to be reasonable for purposes of long-range facilities planning.

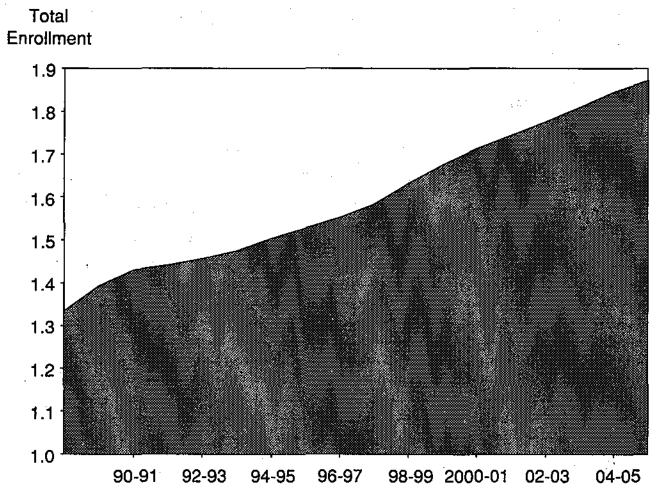
Similar to the DOF projections for CSU enrollment growth, the DOF model for community colleges does not make explicit assumptions about how participation rates for underrepresented groups will change by 2005. During the 1980s, increases in total participation rates have reflected the increased participation rates of underrepresented ethnic groups. Therefore, to the extent these trends continue, DOF's projections implicitly reflect increased movement towards meeting educational equity goals. The DOF is currently developing an alternative projection based on the attainment of equal access (participation rates of underrepresented groups equal to that of whites).

The alternative projection should provide useful information because unlike the other segments of postsecondary education,

Figure 6

California Community Colleges Projected Student Enrollment

1988-89 through 2005-06 (in millions)



the California Community Colleges have an open enrollment policy. Simply stated, no minimum criteria or standards must be met to enroll into a community college. Therefore, the possibility of the community colleges achieving equal access within the timeframe of the projections merits examination. These projections should be available for review in spring 1990.

Accommodating Increased Enrollment

We find that the community colleges' current simulation model has shortcomings which make it unreliable as an accurate predictor of the system's future capital outlay needs. As a result, we cannot at this time advise the Legislature as to either the necessary expansion of existing campuses or the number of new community college campuses that will be needed to accommodate projected enrollment through 2005-06.

To plan for the projected enrollment increase, the Chancellor's Office has developed a computer simulation model. The model employs twenty-nine different data elements about each district's enrollment and facilities. This information is processed with space utilization standards and with a series of planning assumptions about such variables as campus capacity, service area limitations, and average construction costs. For *each* of the 71 community college districts, the model projects capital outlay needs through 2005-06 for remodeling and altering existing facilities, constructing and equipping new facilities, and acquiring new sites and developing new campuses. The model aggregates district needs into regional and statewide summaries. (These projections do not incorporate future capital outlay expenditures for safety requirements, correction of hazardous conditions, and physical access for disabled persons.)

Using this model and DOF's 1988 enrollment projections, the Chancellor's Office estimated that about two-thirds of the 400,000-student enrollment growth could be accommodated in existing facilities or by expanding existing campuses. Accommodating the remaining one-third would require 16 additional campuses averaging 8,000 students. The Chancellor's Office has not run the model using the higher enrollment figures in DOF's 1989 enrollment projection (540,000 additional students by 2005-06). The office estimates, however, that accommodating this higher enrollment would require about 5.1 million assignable square feet (asf) of new facilities on existing campuses and the development of 23 new campuses (2.9 million asf).

The simulation model may be a useful tool for estimating the potential *magnitude* of long-range planning needs. The current model, however, should *not* be considered as the final determinant for expanding a campus or establishing a new campus. This is because the model includes a wide range of subjective planning assumptions that, if modified, could significantly alter the projections for the expansion of the community college system. Examples of these assumptions are discussed below.

Potential for Expanding the Use of Off-Campus Facilities. One planning assumption is that a district's current proportion of off-campus to on-campus weekly student credit hours (WSCH) will remain the same through 2005-06. (Currently, about 10 percent of all systemwide WSCH are off-campus.) Increasing the use of off-campus space could reduce the need for building new campuses *or* for expanding existing campuses. Off-campus use could be increased in part by offering more evening classes at existing secondary schools. This alternative could accommodate a substantial number of evening students in existing, and often under-used, lecture space. Using multiple, decentralized secondary schools would also offer many students an educational opportunity closer to their homes or workplaces than existing community college campuses.

Potential for Inter-District Sharing of Facilities. The Chancellor's Office model omits a key variable which must be considered when determining whether a new campus is fully justified. The model only examines the capacity at District A's existing campuses in determining the need for a new District A campus. The model does not consider whether an existing campus in District B—an *adjoining* district located within a reasonable commuting distance—has the capacity to accommodate more students from District A.

Inappropriate Criterion for Establishing New Campuses. The two conditions imposed by the model in projecting the need for a new campus are that (1) the average size of a district's existing campuses is not to exceed 750 WSCH per campus acre *and* (2) the service area of existing campuses is not to exceed certain limits—based on a 30-minute maximum travel time—for urban, suburban, and rural areas. We believe the first condition is an inappropriate criterion.

First, it is unclear to us why the 750 WSCH per acre standard is the appropriate one. We sampled 20 representative urban, suburban, and rural campuses and found that current enrollments ranged from 44 to 3,350 WSCH per acre. Additionally, ten campuses in our sample exceeded 1,100 WSCH per acre. Thus, many campuses *now* accommodate considerably more students than the capacity standard used in the model for projecting new campuses. We therefore question the use of a single, statewide campus capacity parameter for projecting each district's ability to accommodate enrollment growth. Second, and more importantly, we believe it is inappropriate to use, as a capacity standard, a variable that relates academic load to a campus *land base*. As an alternative to this parameter, the Chancellor's Office, in cooperation with the districts, should determine the capacity of the community college campuses based on what is academically sound.

Further Work. A private consultant is assisting the Chancellor's Office in refining the model. The consultant will also provide long-range planning assistance to those districts for which new campuses are projected. This process will be complete in June 1990, at which time the Chancellor's Office should have a more definitive answer as to the number, location, and timing of new campuses which they believe will be needed by 2005-06. We urge the Chancellor's Office to reevaluate the assumptions used as a basis for its projections and to incorporate the above changes, along with any other changes they may deem appropriate, prior to completing this process.

The community colleges simulation model is an important first-step in projecting the system's long-range capital outlay needs. In view of the current shortcomings of the model, however, we cannot at this time advise the Legislature as to either the necessary expansion of existing campuses or the number of new community college campuses that will be needed to accommodate projected enrollment through 2005-06. As indicated earlier, however, of total projected enrollment growth in the community college system through 2005-06, over two-thirds will occur *after 1994-95*. Therefore, existing campuses and off-campus centers should be able to accommodate the system's short-term growth. This, in turn, should give the Chancellor's Office sufficient time to refine its proposal before seeking approval by the Legislature.

The California Community Colleges' Five-Year Capital Outlay Plan

We find that the community colleges are not adequately addressing growth-related capital outlay needs, as evidenced by the lack of a systemwide five-year plan as required by the Legislature.

In accordance with the *Supplemental Report of the 1989 Budget Act,* the Chancellor's Office submitted a five-year capital outlay plan. This plan falls woefully short of the supplemental language report requirements. Rather than providing a systemwide plan showing statewide five-year priorities, as required by the Legislature, the Chancellor's Office simply included copies of *each district's* two- to five-year priority list of projects. The Chancellor's Office, however, estimates that the community colleges will be seeking state appropriations totaling *$1.0 to $1.2 billion* during the five-year period 1990-91 to 1994-95.

The systemwide five-year plan was also to include a discussion of the programmatic basis for each project and how the project contributes to accommodating needs associated with current and projected enrollments. This requirement has not been fulfilled in the plan submitted to the Legislature.

The individual district's five-year plans include a calculation of the net increase in WSCH that each capital outlay project will accommodate. Our review of these documents shows that the various projects will accommodate an additional 110,000 students over the next five years, which compares well to DOF's latest enrollment projections. On closer examination, however, it is clear that the proposed expansion is not located where the enrollment growth is expected. For example, many districts that currently have substantial capacity are planning additional facilities. In fact, two-thirds of the proposed increase in lecture or laboratory space planned for the next five years—enough for 74,000 students—is in districts whose *present* facilities can accommodate over 120 percent of their projected enrollment over the same time period.

A community college five-year plan in essence does not exist and systemwide planning for enrollment growth is totally inadequate. Judging by the current five-year plans of many individual districts, a large portion of proposed future expenditures will *not* address enrollment-related capital outlay needs. It is essential that the Legislature have a systemwide five-year plan in order to assess whether project proposals, including those associated with new campuses, address enrollment growth and other legislative priorities. The Chancellor's Office needs to provide the Legislature with the information requested by the Legislature in the *Supplemental Report of the 1989 Budget Act.*

HOW CAN THE LEGISLATURE BEST PROVIDE THE FACILITIES NEEDED FOR ENROLLMENT GROWTH?

Although there are no precise estimates of the costs to meet postsecondary education capital outlay needs over the next 15 years, it is clear from the segments' five-year capital outlay plans and other information that a *multi-billion* dollar effort will have to be funded. Given the magnitude of this fiscal commitment, the Legislature will have to consider carefully how best to plan and finance these facility needs.

Legislature Needs Better Information

We recommend that the segments provide better capital outlay planning information to the Legislature, particularly with regard to how proposed projects meet needs associated with enrollment growth, and including information on proposed new campuses or off-campus centers.

Competing Statewide Needs and Limited Resources. As discussed above, billions of dollars will be needed in the next five years and beyond for postsecondary education capital outlay. At the same time, these needs will compete with various other statewide needs for limited funding. Consequently, the Legislature needs improved information from the segments so that it can better assess, control and plan for postsecondary education capital outlay needs.

Better Information Needed on How Projects Address Enrollment Needs. The Legislature, in the *Supplemental Report of the 1989 Budget Act,* already has requested much of what we believe is needed. In attempting to follow this legislative direction, UC and CSU have made significant improvements in the informational content of their plans. Our review indicates, however, that the segments still need to refine information on how proposed projects meet needs associated with enrollment growth and changing program requirements in order to assist the Legislature in determining if proposals meet legislative priorities. For each project, the segments should: (1) indicate the extent to which the space serves undergraduate and graduate enrollments, instructional needs, and other capital improvement needs; and (2) specify the cost of providing the space for meeting enrollment needs. In addition, the segments should include in their five-year capital outlay plans information on the costs and timing of proposed new campuses or off-campus centers and how these centers are related to facilities to be constructed through capital outlay expenditures.

The Legislature needs the above information to make sure that it funds postsecondary education facility priorities as the Legislature sees them.

Legislature Will Have to Rely Heavily on Bond Financing

Improved planning information is important not only so the Legislature can establish priorities within each segment and among segments, it also is critical in preparing a financing plan for needed facilities. Given the magnitude of postsecondary education needs relative to General Fund and tideland oil resources, the state will almost certainly have to rely heavily on bond financing. In the past four years, for example, the state has financed 99 percent of postsecondary education capital outlay costs through either general obligation bonds ($1 billion) or lease-revenue bonds ($611 million). Since the state has used virtually all of its existing authorized general obligation bonds, future expansion of postsecondary education facilities will depend on *new* general obligation bond authorizations by the voters and, potentially, new lease-purchase revenue bond authorizations by the Legislature.

In comparing these two types of bonds, it should be noted that the *General Fund* provides the debt service payments in both cases. General obligation bonds, however, have two principal advantages over lease-revenue bonds. First, general obligation bonds are less expensive (currently an interest rate differential of up to 0.5 percent). Also, the state does not have to obtain insurance for facilities funded with general obligation bonds, as is required under lease-revenue bonds. (UC generally meets this requirement through self insurance.) Second, unlike the case for lease-revenue bonds, debt payments on general obligation bonds are exempt from the state's appropriations limit and therefore enhance the Legislature's ability to fund competing state needs. (Under the provisions of SCA 1, if approved by the voters in June 1990, it appears that the Legislature could exempt lease-revenue debt payments from the appropriations limit.)

Currently, the Legislature is considering SB 147 (Hart), which would authorize (as amended January 18, 1990) a $900 million general obligation bond measure to be submitted to the voters at the June 1990 primary election. Considering only the first two years (1990-91 and 1991-92) of the five-year plans, the amount proposed under SB 147 falls short of the segments' stated needs by more than $500 million. Some of the projects proposed by the segments may, upon legislative review, not merit funding during 1990-91 or 1991-92. If, however, the Legislature wishes to fund the segments' plans in the two-year period, it may wish to increase the amount of general obligation bonds to be authorized.

If the $500 million "shortfall" were instead funded through revenue bonds, we estimate it would require up to an additional $125 million in principal and interest payments (plus major unknown costs for insurance) over a 20-year period. This added cost is a result of two factors—lease revenue bonds carry a higher interest rate and, under the State Treasurer's current policy, these bonds are paid off using a different financing schedule. Given, however, the 20-year time frame for paying off the debt service, the $125 million cost would be equivalent to $40 million in 1990 dollars.

SUMMARY AND CONCLUSIONS

Above, we have reviewed the ways each segment of public postsecondary education is preparing for enrollment growth over the next 15-year horizon. The following is a summary of our findings and conclusions:

Enrollment. Enrollment for each of the segments is projected to grow steadily between now and 2005-06 (average annual growth of between 1.7 percent to 2.0 percent), resulting in significant increases in the numbers of students the state must accommodate by the end of that period.

Projections. While there is agreement that each segment will experience significant enrollment growth by 2005-06, we have identified concerns with specific projections on enrollment and existing capacity made by the segments. We believe UC and CSU have made assumptions which result in an overstatement of the need for new campuses. Data for the Community Colleges are insufficient for us to draw conclusions at this time.

Need for New Campuses. Based on our review of systemwide and campus enrollment projections, we find that:

- ***University of California.*** The university will need at least one new campus by 2005-06 and should immediately begin planning and development efforts for that facility. In addition, the university should reassess its enrollment assumptions with regard to the need for a second campus and suspend planning for a third campus.
- ***California State University.*** The system at this time should not plan for any additional campuses, as existing campuses will be able to accommodate projected enrollment growth through 2005-06.
- ***California Community Colleges.*** Given the shortcomings in the Chancellor's Office model used to project facilities needs, we cannot at this time assess their need for new campuses.

Funding Expansion of Existing Facilities. Regardless of what decisions are made on new campuses, all three segments will require significant capital outlay improvements and expansion. Over the 15-year period to 2005-06, the state will have to undertake a multi-billion dollar capital outlay program to meet these postsecondary education facilities needs.

Planning. All three postsecondary education segments should significantly improve the information provided to the Legislature in their five-year plans. This would allow the Legislature to better assess, control, and plan for the state's postsecondary education capital outlay needs.

Air Quality Improvement: An Alternative Strategy

Is the Current Regulatory Approach the Most Effective Way to Meet the State's Air Quality Goals?

Summary

California has serious air quality problems as there are many parts of the state which do not meet federal or state air quality standards. The state's reliance on "command and control" regulatory policies has resulted in significant improvements in air quality. However, policy makers are increasingly expressing concern about the ability of the current policies to provide cost-effective future gains in air quality.

Because the major sources of pollution are more difficult to regulate using command and control policies, more and more proposals are beginning to stress economic incentives. Incentives-based regulatory policies can offer a more cost-effective method for achieving air quality goals because they encourage cost-avoiding behavior, and innovative and flexible approaches to controlling pollution. In order to encourage the implementation of incentives-based policies, we recommend that the Legislature: (1) amend the California Clean Air Act to explicitly authorize the use of incentives-based regulatory policies, (2) authorize the Air Resources Board and local air pollution control districts to use fees, and (3) establish and evaluate a tradeable discharge permit pilot program in a major air basin.

California suffers from some of the country's worst air quality problems. In order to improve air quality, the state and local air quality districts have implemented some of the toughest air quality controls in the country. The state's primary approach to improving air quality has been to use "command and control" regulation of pollution sources, which relies on administrative processes to establish rules that mandate or prohibit actions, and to appeal to voluntary cutbacks in activities that create pollution. This approach has achieved significant success in reducing outputs of certain pollutants. Yet virtually every urban and many rural areas of the state remain out of compliance with existing state and federal standards.

Last year we discussed amendments to the California Clean Air Act (please see *1989-90 Budget: Perspectives and Issues,* page 111) that are designed to strengthen the authority of regulatory agencies and improve coordination between air districts. Policy makers at the federal, state and local levels, however, are increasingly expressing concerns about the current strategies for improving air quality. More and more proposals are beginning to surface that look beyond the state's current regulatory policies to ones that stress incentives and flexibility in order to improve the prospects for achieving the state's air quality goals at lower cost to society. These policies are known as incentives-based regulatory policies.

In this analysis we review command and control regulatory policies (CCR), examine the deficiencies of CCR policies, present an overview of incentives-based regulation (IBR) and discuss specific IBR policies.

BACKGROUND

California residents experience more days of poor air quality than do residents of any other state in the nation. Air pollution can cause health problems (severe ones for some people), kill trees, damage agricultural crops, and damage buildings, infrastructure and other exposed materials. One recent study by the South Coast Air Quality Management District (SCAQMD) estimates that air pollution in that region alone could cost individuals and businesses as much as $9.6 billion annually. While that study has received some criticism, most experts would agree that air pollution is very costly. Last year (please see *1989-90 Budget: Perspectives and Issues,* page 115), we identified 25 counties in California that continue to violate federal standards for at least one pollutant (such as sulfur and nitrogen oxides, particulates, hydrocarbons, and carbon monoxide).

One reason why air pollution is more serious in California than elsewhere is because of the state's weather and topography. Rapid population growth and life-style choices, which include the widespread use of automobiles, intensify the state's air quality problems. Past federal and state regulatory activity has identified and implemented most of the relatively inexpensive, known pollution control technologies on large, easily identifiable pollution sources (such as manufacturing and power plants). Future efforts to comply with state and federal air quality standards increasingly will have to deal with individually smaller and more diffused sources of pollution (such as automobiles and consumer products). This will (1) increase the costs of control efforts in order to obtain relatively modest improvements in air quality and (2) limit the ability of government to improve air quality merely by mandating specific technologies. Significant future gains in air quality are likely to require major changes both in the way we produce products and in individual life-styles.

CURRENT REGULATORY SYSTEM

In this section we review the command and control regulatory process and examine its advantages and deficiencies.

The Components of CCR

California currently relies heavily on command and control regulation (CCR) to meet air quality goals. In part, this has developed due to the role of the federal Environmental Protection Agency in implementing the federal 1970 Clean Air Act (including the 1977 amendments). The CCR approach consists of the following major processes:

- ***Planning.*** Once goals (such as pollutant standards) have been established, a planning process (which typically follows a regulatory proceeding format) is undertaken to develop particular strategies for achieving the standards. An example of such a plan is the SCAQMD plan, (released in 1988 and known as the South Coast plan) which anticipates compliance with all federal standards (except ozone) by the year 2007.
- ***Approving Control Technologies.*** Generally compliance strategies rely heavily on tailend control technologies (that is controls on the exhaust from factories and automobiles), and regulatory proceedings are used to identify those technologies. For example, the regulatory agency may determine that a particular kind of smokestack attachment (a "scrubber") is needed in order to remove additional sulfur dioxide from electric power plant exhaust.
- ***Permitting New Pollution Sources.*** A permitting process (also using an administrative proceeding format) is designed in order to site new facilities that might be sources of pollutants.

- ***Monitoring and Enforcement.*** In order to assure compliance with the foregoing decisions, regulatory agencies engage in enforcement and monitoring activities.

The unifying feature of these CCR elements is that they rely on administrative procedures which typically include: hearings with written and oral testimony, workshops where participants discuss options, analysis and evaluation of proposals by staff, decisions rendered by a governing board and challenges to the decisions pursued in the courts.

Command and Control in California

The components discussed above can be seen in the regulatory systems used in California. It is a complex system to describe for several reasons:

- Both federal and state statutes apply;
- There are regulatory agencies at the federal, state and local levels; and
- There are different types of pollution sources: stationary (such as factories and power plants), mobile (such as cars and trucks) and so-called "area" (such as paint, deodorants, pesticides, solvents, and lubricants) sources.

The mix of agency regulatory and enforcement responsibilities is somewhat different for each source. Additionally, agencies develop regulations that can require either existing technologies or not-yet-developed technologies (so-called technology-forcing). Therefore, in describing CCR in the state, we focus on its general features rather than on specific regulatory institutions (except where examples help illustrate our analysis).

The federal Environmental Protection Agency (EPA) sets ambient air quality standards for certain specified pollutants and requires states to develop state implementation plans (SIPs) for achieving compliance with those standards. Additionally, because of its more severe problems, California has set standards for certain pollutants that are more stringent than the federal standards. Under California's SIP, air pollution control districts (APCDs) prepare the local implementation plans and manage the stationary source regulatory programs and the state Air Resources Board (ARB) has primary responsibility for the mobile source regulatory program and for reviewing district regulatory programs for conformance with clean air goals.

The ARB and APCDs inventory and monitor sources of pollution, which make it possible to establish and enforce maximum allowable concentrations of emissions *at each source.* This approach is limited, however, since in many areas the relationship between the amount and pattern of emissions and the measured ambient air quality is complex and poorly understood. As a result, it is sometimes difficult to ascertain exactly what improvement in air quality would result from requirements (for example, a particular control technology) placed on a specific source. Nonetheless, the plan must make a convincing case that it would achieve compliance or the EPA is authorized to impose sanctions (such as prohibiting construction or withholding certain federal funds). A state plan can be approved, however, if it shows "reasonable effort" to achieve compliance, including the requirement that emissions sources adopt the *best available control technology* (BACT).

Since the BACT depends on specific technical features of particular facilities (such as manufacturing plants, oil refineries, automobiles and power plants), the agencies identify a BACT *for each polluter.* These decisions are based on evidence submitted during a formal public hearing process. Further, the agency bears the burden of showing that the technology is feasible and will make progress toward reducing emissions. The federal BACT standard also has an economic reasonableness component. Because of the severity of California's air pollution problem, however, the state's regulatory program places less emphasis on whether the required technology is economically feasible.

WHAT ARE THE ADVANTAGES OF COMMAND AND CONTROL REGULATION?

The regulatory process outlined in the previous section is complex, yet it has perceived advantages that make it a popular means of achieving compliance with the state's air quality standards. These include:

- ***"Fairness" And Targeted Relief.*** CCR encourages public input, requires equal compliance from all polluters, yet allows for specific implementation delays or variances from general rules. Because CCR focuses on individual concerns and because CCR results mainly in indirect costs to individuals (such as control costs that are buried in product prices, general taxes and regulatory fees), it gives the appearance of fairness.

- ***Ease of Enforcement.*** CCR typically results in requirements for particular technologies that are easily monitored because in many cases the inspector need only visit the plant to take readings from the mandated device and make inspections to determine that it is operating within defined specifications.

- ***Familiarity.*** CCR has been developed over a long period; therefore, the rules and procedures are understood by the parties that have an interest in the process. Further, a practitioner "industry" of consultants, lawyers, analysts and others have created a knowledge-base about the workings of CCR processes.

The advantages of CCR are most pronounced when (1) the regulatory goals are well-defined; (2) the problems are not susceptible to other, less intrusive, regulatory mechanisms; (3) there are relatively few, noncomplex pollution sources and (4) the administrative process can be operated in a cost-effective and timely manner. Too often, however, the world in which CCR operates is not so clear cut.

WHAT ARE THE PROBLEMS WITH THE CURRENT REGULATORY SYSTEM?

Command and control regulation has been able to achieve success in the past because the technological and behavioral changes mandated by regulatory agencies could be accommodated by most segments of the population without significant disruptions to their existing life-styles. However, the cost of additional controls is increasing dramatically and intruding more and more on current life-style choices. As a result, the regulatory process is becoming less effective in achieving further improvements in air quality. There are several reasons why direct regulation is likely to be less effective in the future than it has been in the past.

Social Costs Not Reflected in Prices

Everyone suffers substantial economic costs from dirty air. However, none of us pay the full costs of the damage that our pollution creates. Moreover, where we *indirectly* pay the cost for pollution (such as in higher car prices because of catalytic converters), we seldom think of these costs as related to pollution. Consequently, we have little economic incentive to modify our behavior. Because CCR generally imposes a technological solution, it can increase the "up front" cost of a product or facility (such as a car or a power plant), but is unlikely to affect decisions about use of the services provided by the product or facility (such as the amount of driving or electricity use). For example, once you purchase the car (with its pollution control equipment) there is little incentive to stop driving to the grocery store everyday in favor of fewer, better planned trips.

Reduced Incentives to Innovate or to Minimize Control Costs

The current regulatory model provides little incentive for *polluters* to develop alternative pollution control technologies that would reduce pollution *beyond* the levels required by regulations. Regulatory agencies also do not often encourage changes in production processes (such as the use of recirculation systems that capture polluting gases for reuse or the use of different, less harmful chemical processes for cleaning parts in factories) that could be more cost effective. Instead, the regulations typically require specific control technologies (some of which have not yet been developed) that industries must use in order to reduce specified pollutants (generally at the tailend).

If an industry develops an alternative method for controlling emissions (whether it is a change in the production process or an alternative tailend control technology), it must show, through an administrative process, that the alternative reduces emissions by as much as the control measure specified in the regulations. This can be costly and there is no guarantee that the regulatory authority will approve the measure. As a result, industries have relatively little incentive to budget significant research monies for the development of alternative technologies or processes beyond those expenditures necessary to develop the mandated technology.

Regulatory Agency Bears Burden of Proof

The burden of proving that a particular control should be imposed lies with the regulatory agency (such as an APCD or the ARB) rather than with those who pollute. While basic pollution standards exist which businesses and individuals are expected to meet, the regulatory agency must generally decide how this will be done. Thus, the regulatory agency is placed in the position of having to defend its decisions about control strategies or technologies. Polluters are not required to defend their continued violation of the standards or mandated reductions during the regulatory process that determines the control strategy. With the burden of proof on state and local agencies, polluters have incentives to postpone, or weaken regulations because they need not comply until all appeals to the proposed regulations are exhausted.

The burden placed on direct regulation can be seen in the efforts of the Air Resources Board to regulate underarm aerosol deodorants. This product group was chosen as the prototype consumer product group by the ARB since economic alternatives were already in the market (roll-on's and other non-aerosols). Thus, it was thought to be the easiest product group to regulate. Nonetheless, the proceeding took about two years from beginning to end. To repeat this process for each of the over 100 product categories identified by the ARB could last into the next century. The process would probably be more difficult for the remaining product groups because many of them do not have readily identifiable alternatives that would be considered less environmentally harmful.

Emphasis on Planning Not Achievement

The federal Clean Air Act requires regulatory authorities to place an emphasis on the development of plans that show how each political entity will meet standards. As we discussed last year (please see *The 1989-90 Budget: Perspectives and Issues,* page 116) if a district *knowingly* submits a plan that would fail to meet federal standards, the EPA is required to impose sanctions. The districts have great latitude regarding actual implementation or attainment of their plans so long as the districts can show that they reasonably thought their plans would meet the standards by the target date. Adopting a plan, however, does not guarantee either (1) that the plan will be implemented as adopted, or (2) that implementation will necessarily lead to the attainment of air quality standards.

For example, San Diego was *not* sanctioned for failing to meet federal standards for ozone and carbon monoxide by 1988 because its plan, when originally adopted, was determined to have sufficient measures to achieve the standards. On the other hand, the EPA was forced by court order to impose construction sanctions in the South Coast and Sacramento County districts because the EPA found that these district plans, when originally submitted, did not include sufficient measures to ensure a reasonable expectation of meeting the standards.

A more specific example of how focusing on technological solutions developed through regulation can divert energy from achieving mandated standards is the effort of the SCAQMD to develop rules needed to meet the 1988 federal deadlines. In 1986, we examined the stationary source control measures proposed by the SCAQMD as part of its 1982 south coast air quality plan. We found that, of the 24 rules and regulations included in the plan, 13 rules were either relaxed or deferred entirely pending further research. The deferrals came about because the technologies required by the rules were either not yet developed or were too expensive. This is not a criticism of the district, rather it shows how difficult it can be to find ways to solve an extremely difficult air quality problem within the framework of CCR.

The emphasis on planning and on developing technology also can draw resources away from enforcement. For example, in three of the largest air pollution control districts, only 14 percent of the staff actually enforce regulations. Most of the staff are employed developing plans and regulations, collecting data, and developing new technologies.

Emissions Clean-Up Cost Is Increasing Rapidly

Current control technologies, required for both stationary and mobile sources, have considerably reduced individual source emissions. But the costs of tailend control technologies offering the ability to achieve significant *additional* emissions reductions are escalating rapidly. For example, in Los Angeles, recent estimates of costs to control nitrogen oxide emissions from stationary sources are about $20,000 per ton reduced. These control costs are likely to be much higher in the future as the district is required to make additional reductions in order to attain compliance.

Further, past federal and state requirements for mobile source pollution reduction added relatively moderate costs to the base price of automobiles and resulted in engines that are about 90 percent cleaner than prior to controls. Most observers believe, however, that the cost for cleaning up the remaining 10 percent is likely to be much more expensive. In general, the notion of escalating costs makes sense because it is reasonable to expect air quality districts to impose the least costly technologies before requiring more expensive, exotic technologies.

Summary Regarding CCR

Growth is outstripping the states's ability to regulate and enforce clean air requirements using the traditional policies. Additionally, the main pollution sources in the future are increasingly becoming small, numerous, and difficult to identify mobile and area sources rather than large, easily identified stationary sources. Given tough new planning and regulatory requirements enacted by the Legislature in 1988, it appears that significant improvements in air quality will be costly and difficult to achieve. This is because future air quality improvements are going to require much greater behavioral change and more reliance on innovative technologies. CCR does little to alter the incentives individuals and firms face when making decisions that result in air pollution. In the next section, we examine an alternative regulatory strategy that offers advantages over the CCR strategies currently used.

INCENTIVES-BASED REGULATION: A COST-EFFECTIVE APPROACH

What Is Incentives-Based Regulation?

Incentives-based regulation (IBR) relies on several basic principles that complement the way individuals and businesses respond to each other during the course of their everyday activities. The basic principles of IBR include:

- ***Recognizing Full Costs of Actions.*** The most fundamental principle of IBR is that individuals and businesses must recognize the ***full costs to society*** (including damage to the environment) of the goods and services they purchase. Currently, prices of goods and services do not include a component that fully reflects damage to air quality; thus, individuals have reduced incentives to engage in more environmentally sound activities.

- ***Recognizing "Ownership" of the Environment.*** Second, IBR explicitly recognizes society's "ownership" of the environment by placing the burden of proof for damage to the environment on the polluter. Hence, the polluter must justify why it is violating society's right to clean air. By analogy, an individual has the right to seek damages from someone who disposes of garbage on his or her property.
- ***Creating Private Incentives to Comply.*** Third, IBR creates private incentives both to avoid polluting and to develop innovative solutions to the pollution problem. Individuals and businesses tend to engage in activities that are cost-avoiding. IBR would act to modify prices in a way that causes goods and services to reflect the full costs to society associated with their use. Thus environmentally harmful products or activities would become more expensive compared to less harmful products or activities; and individuals would tend to shift their purchases to relatively lower-cost "clean" products or activities.
- ***Changes the Focus of Regulatory Activity.*** Finally, IBR changes the nature of regulatory activity from its current emphasis on administrative process to an emphasis on enforcement of standards and permits, identifying problems, and crafting rules that improve private incentives.

How Would IBR Produce Cleaner Air?

Ideally, polluters should pay all of the costs of the pollution they cause, thereby imposing no costs on society. When someone drives a car, or manufactures a product, that individual faces costs associated directly with that activity (these costs usually are referred to as private costs). A motorist pays for the car, for the gasoline, and for insurance. A manufacturer faces costs for capital and labor. In the process of driving or manufacturing, these individuals also usually produce pollutants.

Under the current system of regulation, polluters do not pay *directly* for the damage to the environment caused by their activity (these costs usually are referred to as social costs). Instead, most of these social costs are borne by individuals *indirectly* either through (1) impaired life-style due to damage to the environment (such as visual impacts, damaged buildings, and poorer health), (2) higher cost for products resulting either from the use of mandated emissions control technology or from damage to products caused by pollution, and (3) tax support for regulatory agencies. But, paying for pollution indirectly through degraded life-styles, hidden costs and taxes *does not send clear signals to individuals about the air quality consequences of their choices.*

An incentives-based regulatory strategy attempts to assign the cost of pollution *directly* to those that cause it, primarily by the use of fees that are added to the prices of goods and services. These fees would be set so that they are related to the amount of damage resulting from the polluting activities. Under this approach, motorists, for example, would pay for environmental damage, just as motorists currently pay for gasoline and the wear and tear on their vehicles. They would then have clear incentives to seek less costly alternatives. Correspondingly, the manufacturer would be faced directly with the costs of pollution when making production decisions and would have greater flexibility regarding how to avoid the costs.

By confronting individuals and firms with the full social cost of their choices, they would have incentives to avoid activities, modes of transportation and production processes that cause pollution. Presumably, rational individuals will alter their behavior to reflect more environmentally sound options: car pooling, driving at non-peak hours, taking public transit, and moving closer to their work. Similarly, manufacturers and other businesses would strive to avoid costs by seeking innovations on the production floor, changing the hours of operation, or perhaps by offsetting their pollution by purchasing discharge permits from other manufacturers who can reduce their pollution at lower cost (see below). Prices that reflect the environmental costs of particular activities are *constant reminders* that individuals and businesses can reduce costs by seeking ways to reduce pollution.

There are numerous examples of how price changes can affect behavior. For example, after the oil embargo in the early 1970s, the price of gasoline increased dramatically. As a result, drivers significantly reduced their overall consumption of gasoline by changing driving habits and by purchasing increased numbers of more fuel-efficient cars. When gasoline prices dropped in the 1980s, consumption increased again. Another example concerns the rapidly increasing cost of disposing of toxic substances (both landfill costs and liability costs). The result is that manufacturers are investing in less toxic manufacturing processes and recycling toxic chemicals for reuse within their facilities in order to avoid costs.

Advantages of an IBR Policy

Our analysis indicates that society would experience a number of benefits from an IBR strategy for reducing air pollution.

Lower-Cost Approach to Achieving Compliance. An incentives-based regulatory policy offers individuals and businesses many more opportunities for reducing the costs required to meet air quality standards. The basis for this is that IBR establishes a system that, in effect, forces individuals and businesses to confront the social costs of their activities *and* offers them direct incentives to engage in activities that allow them to avoid those costs. Since these incentives are driven by individual behavior, they are more likely to be an *effective* approach to achieve compliance than is CCR. Additionally, since IBR allows for flexibility in decisions about how to achieve compliance, IBR is more likely to be an *efficient* means of achieving compliance than is CCR.

An example of how flexibility can reduce costs and achieve compliance is offered by an experiment undertaken by the EPA at the request of Du Pont. Rather than requiring a specific emissions-reducing technology, as was the traditional practice, Du Pont proposed that the EPA establish a "bubble" over one of its plants and establish the maximum allowable emissions level from the entire plant (this level was set equal to the total emissions that would have occurred using EPA mandated equipment on each source of emissions). Du Pont estimated that the more flexible approach would allow it to save about $81 million compared to the costs of using the traditional technology and still reduce emissions to the same level that would have occurred under the old system.

3M Corporation also has been actively working with the EPA and local air quality districts to allow changes in production process that would allow it to meet its required emissions reductions more cheaply than would tailend controls. 3M estimates that it has achieved cumulative savings of about $400 million since 1975 compared to its anticipated costs if it just installed required control technology.

Another example of how IBR can reduce costs by increasing flexibility is found in a recent study undertaken for the EPA. This study estimates the savings that could result from using transferable discharge permits (discussed below) to reduce the emissions of sulfur oxides at electrical generating plants in the Midwest. It found that the use of transferable permits to reduce emission of sulfur oxides by 10 million tons annually could result in cumulative capital cost savings of almost $26 billion by the year 2010 (leading to reduced consumer utility bills of about $5 billion annually by 2010). These estimates could prove to be too high.

Nonetheless, they suggest that considerable savings could result from the use of more flexible approaches to emissions reduction.

Incentives for Innovation. In addition to changing behavior, a crucial part of achieving current and future standards is to find and implement new control technologies and less polluting production processes and products. Under the current system, there is little incentive for corporations to make those research and development investments. By focusing on cost avoidance, IBR would reward manufacturers and others that make investments in emissions reducing technology research. Further, by creating a market in these technologies, IBR would encourage entrepreneurs to engage in research and development of new technologies. While it is true that some research and development activity occurs now, there is general agreement that much more could be done.

What Is the Role of the Regulatory Agency Under IBR?

Incentives-based regulation does not eliminate the need for regulatory agencies or for command and control regulation. However, since IBR relies more heavily on individual responses that avoid costs than on administrative processes, the regulatory agency would have a different role than is the case currently. These agencies would be more heavily focused on developing strategies to enhance the workings of IBR and on solving implementation problems. Additionally, they would be more oriented toward monitoring and enforcing the incentives schemes used to achieve compliance with the standards.

Finally, an important function of the regulatory agency under IBR would be to evaluate problems as they arise in order to determine the appropriate mix of regulatory strategies to pursue for any given source of pollution. These evaluations would be based on an impartial analysis of the benefits and costs of each approach. Incentives-based regulation could, in some instances, prove to be a less effective means of achieving agency goals than CCR. For example, in emergency situations (like extreme atmospheric inversion layers), the direct, prohibition or restriction of certain activities may be necessary. Consequently, there would be a continued need for some CCR, but these instances would be both more limited and better focused than is the case now.

APPLICATIONS OF INCENTIVES-BASED REGULATION

California's air quality problems come from three major sources; stationary (such as power plants and manufacturing plants), mobile (such as cars and trucks), and area (such as consumer products). Each of these major sources possesses unique characteristics. Therefore, we describe a number of possible incentives-based strategies to use in achieving air quality improvements.

Stationary Sources

Stationary sources have received considerable attention by regulators. As we discussed earlier, the command and control regulation of these sources is beginning to require large investments for relatively modest additional reductions in emissions. One alternative approach to regulating stationary sources is the IBR option of transferable discharge permits.

Transferable Discharge Permits. Transferable discharge permits (TDPs) are permits to release specified amounts of certain pollutants into the air. The holder of the TDP, which would be issued by a regulatory agency, could either use, sell, or "bank" the permits. The regulatory agency would establish the maximum level of permissible emissions for each geographic area. Then, TDPs equal in total to the permissible discharge level would be created and distributed in some manner. The Congress currently is debating proposed amendments to the 1970 Clean Air Act, and at least one version of these amendments includes a provision for TDPs for sulfur oxides (a major component of acid rain).

Once the permits are allocated, any party (including environmentalists or government agencies) could buy, sell, trade or bank the TDPs for future use. The regulatory agency's main function after the initial distribution of the permits would be to act as the recorder of all transactions and to monitor emissions from all sources to determine compliance with permit holdings (the agency would no longer be involved in approving the technologies chosen by permit holders). If properly designed, TDPs also could be used to "ratchet-down" the total allowed emissions year by year in order to meet established standards. This would be done by reducing, at regular intervals, the amount of pollution allowed by each permit.

Noncompliance Penalties. Clearly, there would be incentives for a company to violate the terms of its TDPs unless penalties were imposed and strictly enforced to ensure that companies and individuals comply with the permits they hold. It is important that these penalties be set at a level higher than the price of TDPs. If they are not, it would be cheaper for a company to pay the penalty and continue to pollute in excess of its TDP allowance.

Mobile Sources

Tradeable discharge permits also could be designed for mobile sources. Markets for these permits, however, would likely be expensive to organize and operate. Therefore, we focus on various fee systems for mobile sources. Designing a fee system that recognizes the full social cost of air quality degradation caused by mobile sources requires several strategies. Among the issues that would need to be dealt with are: (1) intensity of use of the vehicle (miles driven), (2) fuel efficiency and ability to operate without polluting, and (3) where and when the vehicle is used (particularly in congested areas).

Emission Fees. One IBR strategy is to increase the price of gasoline by adding an environmental fee. The price of gasoline currently does not reflect the full costs of the damage its use causes to the environment. Thus, an environmental fee would be established that would reflect the damage it causes. Since the social costs could be expected to change over time, the environmental fee could be adjusted periodically as estimates of environmental costs change.

Differential Registration Fees. Another IBR strategy that could be used to create incentives to purchase less polluting cars is a differential registration fee (DRF). DRFs are designed to encourage motorists to purchase less polluting cars by imposing surcharges at the time of purchase for vehicles having higher-than-average expected emissions levels. Individuals purchasing vehicles having lower emissions than the average would receive a subsidy (paid from the surcharges imposed on high-emissions vehicles), which would in effect lower the price of low-emissions vehicles. The surcharges and subsidies could be designed so that they would offset each other (except for administrative costs). The subsidies and surcharges should provide incentives both to individuals to purchase cars that pollute less and to manufacturers to produce more of the less-polluting vehicles. The DRFs could be combined with emissions fees in order to (1) reinforce the incentive for both purchasers and manufacturers to change the fleet composition and (2) to capture both up front and continuing costs of pollution.

Congestion Fees. A third IBR strategy that also could be used to encourage changes in driving behavior is the congestion fee. Delays on highways caused by congestion can significantly increase the level of pollutants compared to travel at normal speed. Congestion fees could help to "internalize" the environmental damage caused by the overuse of highways during peak times. The fee would be assessed during peak times to discourage travel then and encourage use of highways during off peak times. Crude congestion fee experiments (for example, in Singapore and Hong Kong) have been underway for a number of years and have met with some success. Presently, Caltrans is experimenting with a toll fee system on the Coronado Bridge in San Diego that allows commuters to pass the toll booth at highway speed, electronically registers the fee, and bills the commuter monthly in much the same way as one pays the telephone or electric bill. Systems like this one could also be used to reduce congestion on freeways and other roads by assessing fees based on the level of congestion at a given time and place.

Area Sources

Area sources are primarily consumer products such as deodorants, charcoal lighter fluid, felt tip pens, aerosol sprays and house paint. Collectively, these products represent a relatively small part (approximately 10 percent of total volatile organic compound, or VOC, emissions) of our current air quality problem. However, in the south coast air basin, emissions from these products are estimated to be up to half of the total allowable VOC emissions (measured in tons per year) allowed by current standards. As emissions from stationary and mobile sources are reduced and as population grows, these products are becoming a much more important focus of the state's effort to improve air quality. There are several IBR strategies that could be used for these products.

One possibility is to establish fees, collected at retail sales outlets that would be imposed on those products that cause environmental damage. This approach, however, could prove costly to operate and monitor in many cases. Another possibility, which the ARB is investigating, is the use of fees or TDPs that would be applied at the manufacturing level in order to reduce monitoring and enforcement costs. The higher retail cost of products should induce consumers to switch to less-polluting products. An example of how this could work is found in the recently imposed federal excise tax on chlorinated fluorocarbons (CFCs). This tax was set at a level that would make the cost of CFCs to purchasers equal to more environmentally sound alternatives.

WHAT ARE THE OBJECTIONS TO AN IBR POLICY?

Over the years several objections to an IBR approach to improving air quality have been raised.

Equity Considerations. Fees can place a burden on low income individuals. This is a reasonable concern. What is not often recognized, however, is that the current regulatory policies also impose costs. Under CCR, these costs often are hidden in the price of products sold by companies that are subject to the regulatory process. In any case, the equity concerns raised by an IBR approach could be addressed by the use of other policy tools such as redistributing fees back to low-income groups or by using fees to improve public transit facilities.

"Right" to Pollute. This alleged problem is heard less frequently now than was the case several years ago. The expressed concern is that polluters, by paying a fee or purchasing a TDP, are buying a right to pollute. It is true that this system explicitly recognizes that individuals and firms will continue to pollute, however, it forces them to pay the full costs of their actions. Conceptually, this is no different than paying for the use of a landfill where the landfill operator sets fees based on the type of waste. Command and control regulation also creates a "right" to pollute by issuing permits to individuals and businesses. Additionally, for mobile sources, once a car is purchased (including the cost of on-board control technologies) there is no additional fee for the pollutants discharged. In essence, individuals receive a "right" to pollute for *free* under CCR.

Difficulties in Setting Fees and Penalties. Setting the correct fees and penalties is central to the operation of a successful IBR policy. Fees and penalties that are too "low" would lead to insufficient reductions to meet air quality goals while fees and penalties that are too "high" would lead to greater costs than are necessary to meet the goals. The regulatory agency would have to be careful to adjust them regularly and in ways that did not disrupt the overall goals for which they were adopted. While setting fees and penalties could present a challenge, the basic fee levels could be determined using both data collected by regulators and criteria developed by researchers. Experience with effluent charges (fees used to control water pollution) both in the U.S. and in Europe suggest that the fee setting process can work well. Changes to fees and penalties could be done by the agencies at regular intervals.

"Hot Spots" and "Pollution Events." Geographic features or local increases in pollution sources can lead to a build up in pollutants called hot spots. Hot spots can cause health-threatening levels of pollution locally even though the air basin as a whole is not suffering from air quality problems. Weather conditions or seasonal factors also can lead to concentrations of pollution (these are known as pollution events). TDPs and fees might prove to be inefficient ways to counter these isolated or short-duration problems because it could be too costly to develop permits and fees that are sufficiently specific and enforceable to be practicable. The nature of these events could require the use of administratively imposed controls to supplement emissions and congestion fees in emergencies. This use of emergency regulations is an excellent example of the *focused use of CCR, especially in combination with IBR policies.*

SUMMARY AND RECOMMENDATIONS

We recommend the Legislature (1) amend current law to authorize the use of economic incentives (including the ability to assess fees) and (2) establish a tradeable discharge permit pilot program.

Air pollution is enormously costly to Californians. The current command and control regulatory policies that state and local agencies use to improve air quality have achieved substantial improvements but may not be effective in solving the state's remaining air quality problems. As a result, it may prove difficult to reach the state's air quality goals in a cost-effective way. If the state hopes to achieve these goals, an alternative set of regulatory policies should be considered.

Incentives-based regulatory policies offer a more cost-effective method for achieving air quality standards because they encourage cost-avoiding behavior, innovative solutions, and flexibility in achieving the state's goals. Given the advantages of incentives-based regulatory policies, we believe the Legislature should begin to implement such policies in addressing the state's air pollution problems. As some key first steps toward that end, we recommend that the Legislature take the following actions:

- ***California Clean Air Act.*** Amend the California Clean Air Act to explicitly authorize the use of economic incentives, particularly for mobile sources and consumer products.
- ***Fee Authority.*** Provide the ARB and the local districts with the authority to impose fees such as emissions fees, congestion fees, and variable registration fees in order to further the objective of developing effective economic incentives programs.
- ***Pilot Program.*** Establish and evaluate a tradeable discharge permit pilot program for stationary sources in a large air basin.

State Oil Spill Preparedness and Response

How Can the State Better Address the Problem of Small, Chronic Oil Spills?

Summary

A major offshore oil spill near the California coast is a very real possibility. Historically, however, few such events have occurred since the 1969 Santa Barbara platform blowout. Even so, the environmental and economic consequences of just one "catastrophic" spill likely would be very severe, so steps have been taken to help prevent offshore oil spills and to improve response capability to contain and clean up a major spill. New proposals at the state and federal level aim to strengthen prevention and response in this area even more.

A related but lower profile problem also needs attention from the state. Available information indicates that there are a substantial number of small oil spills that occur frequently throughout California, mostly in onshore areas. As a whole, these spills also result in significant environmental damage. The state's current system to deal with this problem may not be adequate, either for prevention or response. There are several factors the Legislature needs to consider in attempting to address the problem, including reporting systems, preventive measures (such as regulation and law enforcement), increased or redirected state resources for response and the role of local agencies in response efforts.

Since the accidental release of a large quantity of oil from the tanker *Exxon Valdez* in March 1989, much attention has been focused on the possibility of another major offshore oil spill near the United States coastline. Although California has not experienced a spill of this magnitude, the extensive amount of oil development and transport off the state coast certainly raises the question of whether such an event could happen here and what its consequences would be. The potential environmental and economic effects of this kind of accident clearly warrant serious concern and require substantial preventive and preparedness efforts.

Even before the Alaskan mishap, however, the state, local governments and private industry had begun to put significant effort into improving systems for major oil spill prevention, preparation and response. Since the consequences of a "catastrophic" spill would be quite large, this problem appears to have overshadowed a related, but less visible one: the chronic, sometimes undetected discharge of much smaller quantities of oil, often in onshore areas. Given that these smaller spills are known to occur more frequently and, in the aggregate, pose significant problems to the environment, the Legislature should consider ways to better address this problem.

In this analysis, we review the history of major *offshore* oil spills near California and the efforts to ensure a reasonable level of safety and environmental protection in this area. We then contrast this with the current system to handle smaller, mostly *onshore* oil spills in the state. Finally, we present some alternatives to consider in attempting to improve this system.

MAJOR OFFSHORE OIL SPILLS HAVE BEEN RELATIVELY FEW

Although each incident received substantial notoriety at the time, historically there have been only a few oil spills in the Pacific Ocean that can be considered "major." Apart from the *Valdez* spill, involving the release of over 11 million gallons of crude oil, the largest and most infamous was the platform blowout in the Santa Barbara Channel in 1969. Although the actual amount is uncertain, according to some estimates this accident released about 3 million gallons of crude oil into ocean waters, resulting in significant environmental damage.

Since 1969, however, there have not been any spills of this magnitude off the California coast. The next largest spill occurred in 1971, when two tankers collided in dense fog just outside of San Francisco Bay, spilling a total of 800,000 gallons of crude oil. This accident led to the use of radar as part of the onshore Vessel Tracking System. In 1984, the tanker *Puerto Rican* exploded 12 miles west of the Golden Gate Bridge, spilling 1.3 million gallons of fuel oil at sea. Although considered a major spill, its environmental impact was considered minimal, relative to its size, because there was relatively little impact on wildlife or the coastal area.

In 1987, two cargo ships collided in the Santa Barbara channel, with one of them, the *Pacbaroness*, spilling about 150,000 gallons of its own fuel oil before sinking. In 1988, a barge collided with its tug off the Washington state coast, leaking about 230,000 gallons of fuel oil into the water, much of which eventually washed up on hundreds of miles of beaches in Washington and Canada.

Most recently, the tanker *American Trader* spilled an estimated 400,000 gallons of crude oil in attempting to unload at a marine terminal near Huntington Beach in February 1990. At the time of our review, the effects of this spill had not yet been determined.

MEASURES HAVE BEEN TAKEN TO ADDRESS MAJOR SPILLS

As the preceding brief history indicates, large offshore oil spills—while posing a very real threat to the coastline—have not been common. Nevertheless, it is clear that, under certain conditions, even *one* major spill could be disastrous for the marine and coastal environments, fishing, tourism and the oil industry itself.

Recognizing this situation, governments and industry have taken steps since 1969 to (1) improve operational safety in offshore oil development and transport and (2) establish adequate preparedness and response plans aimed at cleaning up a major oil spill. For example, the State Lands Commission (SLC), which manages oil and gas leases in state waters (zero to three miles offshore), has an extensive regulatory program designed to prevent spills at platforms, marine terminals, processing facilities and pipelines within this jurisdiction. Various state and federal agencies also conduct surprise "spill drills" to test the adequacy of the industry operators' spill containment and cleanup plans. In addition, new technologies have been put into place to improve the safety of platform drilling and tanker transport.

Although it is difficult to determine how much of the safety record for offshore oil in recent years is attributable to these measures or simply to good luck, the vast majority of offshore spill incidents during this time have been very small. The SLC indicates that, during the past three years, only 21 such incidents were reported at oil facilities leased in state waters, totaling 267 gallons of oil, primarily from routine offshore oil operations. The federal Minerals Management Service, which manages oil and gas leases in Outer Continental Shelf (OCS) waters (3 to 12 miles offshore), reports that over the past 10 years, about 90 percent of oil spills from these operations in the OCS region were less than one barrel (42 gallons), averaging about five gallons each. The largest single recorded spill during this period was about 700 gallons. These amounts seem even less significant when compared to *natural* seepage of oil, occurring along fault lines under coastal waters, at an estimated rate of 2,500 to 25,000 gallons per day in Southern California alone. (There is, however, a difference ecologically between oil seeping through the ocean floor and oil spilled on surface waters.)

State Oil Spill Response Measures

A 1972 amendment to the California Emergency Services Act of 1970 allows the Governor to establish a state oil spill contingency plan. Pursuant to this authority, the State Interagency Oil Spill Committee (SIOSC) was created during the 1970s, with the aim of developing a coordinated state plan for responding to oil spills, both onshore and offshore, but primarily those from offshore oil platforms, pipelines or tankers. As described in the state's Oil Spill Contingency Plan, the SIOSC consists of representatives of 13 state agencies that are responsible for various aspects of oil spill response in the state. The SIOSC itself is responsible for: (1) establishing and maintaining liaison with federal and local agencies and with public and private organizations engaged in oil pollution prevention and control and (2) coordinating day-to-day procedures between state agencies and other organizations regarding prevention and mitigation of oil pollution.

The committee meets formally at least once a year, in part to ensure that the contingency plan is up to date. The plan was last officially revised in May 1983, and a new revision is now under way.

The SIOSC made the administrative decision to make the Department of Fish and Game (DFG) the lead state agency for oil spills, mainly because of the threat spills pose to the state's natural resources. As such, the DFG is responsible for directing the overall operations of all state agencies engaged in combating an oil spill. In addition to day-to-day response coordination, the DFG has contracted on behalf of the SIOSC for a study evaluating current oil spill response plans and technology to deal with *offshore* oil spills, as required by Government Code Section 8574.6 (Ch 1251/86—SB 2495, Marks). The DFG expects to present this study to the Legislature in March 1990.

Other Response Plans

The DFG is also the state's representative on the federal Regional Response Team (RRT), established to provide a coordinated federal response to major oil spills. The RRT also includes the U.S. Coast Guard and the U.S. Environmental Protection Agency. The Coast Guard usually is on the scene of a major offshore spill, even if it occurs in state waters.

In addition, members of the oil industry have created several privately funded cleanup cooperatives located along the California coastline, due in part to state agency requirements. Each has personnel and equipment available around the clock to respond to a major offshore spill in certain coastal areas.

Legislative Proposals

One reaction to the *Exxon Valdez* accident has been a number of state and federal proposals to address the risk of a major oil spill, in the hopes of preventing another such accident and minimizing the problems experienced with the cleanup efforts in Alaska. These are summarized in Figure 1.

SOME POSSIBILITY OF MAJOR OFFSHORE OIL SPILL WILL REMAIN

Many of those involved in spill prevention planning agree that steps such as the ones described here can and will help to lessen the risks presented by everyday oil production and transport. Despite all these efforts, however, it is also accepted that, short of halting all coastal oil activities—including drilling, extraction and transport—it would be virtually impossible to eliminate *completely* the possibility of an accidental discharge of a large amount of oil into California coastal waters.

In addition, state officials involved in oil spill response planning indicate that, if a major offshore spill does occur (that is, a release greater than 100,000 gallons), no reasonable level of preparedness would prevent at least some of the oil from reaching the beaches or other shoreline, especially given the complex variables of oil trajectory, weather and geography. As a recent California Coastal Commission staff report states, "Although improvements have been made [since its 1979 study], the Commission has found repeatedly that effective prevention of spills, or containment and cleanup of spills that do occur, cannot be provided with existing technology... [S]horeline impacts from a large spill heading toward shore cannot be eliminated."

RELATED ISSUE OF SMALL SPILLS NEEDS ATTENTION

Because several significant accidents in the past 20 years resulted in the release of oil into state coastal waters and the possibility of another such event remains, the state and other entities appropriately have taken steps to address the issue of "catastrophic" or major offshore oil spills. However, a related but less visible problem has not received the same kind of scrutiny: that is, the chronic discharge in *onshore* areas of *smaller* quanti-

Figure 1

State and Federal Measures Would Address Major Oil Spill Issue

MEASURE	STATUS (as of February 1, 1990)	MAJOR PROVISIONS
State Proposals		
AB 2603 (Lempert)	Pending (A) Natural Resources Committee	Expands the SLC's regulatory and inspection authority to improve prevention of offshore oil spills; creates a specific Office of Oil Spill Response within the DFG to direct cleanup operations and training; establishes an oil transport fee to fund $500 million oil spill "Superfund" as potential source for cleanup costs; and adds civil fines and potential criminal penalties for oil spills.[a]
SB 1194 (Marks)	(A) Inactive file	Prohibits large oil tankers from entering state bays and harbors unless accompanied by tugboat.
AB 893 (O'Connell)	Pending (S) Governmental Organization Committee	Adds areas in state waters off the Santa Barbara Coast to an existing sanctuary.
AB 36 (Hauser)	Pending (S) Governmental Organization Committee	Adds state waters off the coasts of Mendocino and Humboldt Counties to existing sanctuaries.
Environmental Protection Act of 1990—Initiative Statute	In circulation for Nov. 1990 statewide ballot	Oil spill prevention and response provisions similar to AB 2603. Also creates a Marine Resources Sanctuary in all state waters along the coast, in which any new oil or gas leasing would be prohibited.[b]
Federal Proposals		
HR 1465 (Jones)	Conference (with S 686)	Oil spill liability and compensation legislation: creates a $1 billion oil spill cleanup fund from oil fees; requires double hulls on oil tankers; and continues to allow states to set their own liability standards.
S 686 (Mitchell)	Conference (with HR 1465)	Contains many provisions similar to those in HR 1465.

[a] A virtually identical bill, SB 1482 (Keene), failed to clear the Senate before the first-house deadline. The author's office indicates that he will introduce a modified version of the bill by the end of February 1990.

[b] In December 1989, the SLC *administratively* established such a sanctuary zone, covering all state coastal waters not currently leased or already within existing sanctuary zones. In addition, the President now is considering a recent federal task force report on options for a possible leasing moratorium in *federal* coastal waters.

ties of oil, much of which is not contained or cleaned up and which can end up in the state's streams, rivers, and eventually coastal waters. These small spills result in water and air pollution, death of fish and wildlife, damage to natural habitat, and human health and safety problems. Neglect of such spills leads to continual, incremental damage to the environment. These spills are not just isolated incidents; they occur on a daily basis, throughout the state.

Extent of Small Oil Spills

Although the nature of these small spills makes it difficult to get a precise picture of the extent of the problem, the available data from two main sources suggest the general magnitude of the problem.

OES Warning Center. First, the state's Office of Emergency Services (OES) operates an emergency warning center, which receives notification of—among other things—hazardous material incidents in the state. Most of these notifications are telephoned in by the parties responsible for hazardous material discharges, as required under existing law, or by local response agencies such as fire departments. During calendar year 1988, the warning center received over 4,000 such calls. Of these, approximately one-half involved petroleum and related products (mostly diesel fuel, gasoline, or petroleum oil lubricants).

These numbers, however, understate the total number of spills. OES staff believe that many other small hazardous material spills were *not* reported to the warning center by responsible parties or local agencies. In addition, state and federal agencies that respond to such incidents, often the DFG and the Coast Guard, are not required to contact the OES warning center about these spills.

Hazardous Incident Reporting. In addition to the immediate OES spill notification required of the responsible party, a designated "administering agency" within local government is required to send a detailed form to the OES after each spill in the agency's jurisdiction. The OES compiles this data in its California Hazardous Material Incident Reporting System (CHMIRS). The draft of the latest CHMIRS summary cites 2,756 such forms filed during calendar year 1988. Although many incidents conveyed to the OES warning center clearly are not being reported through the CHMIRS, the draft report does provide revealing information on common types of conditions under which hazardous materials, including oils, are spilled. According to the summary report, about two-thirds of all the reported incidents involved a spill in one of the following circumstances: unauthorized dumping or abandonment; motor vehicle accident; in storage; normal manufacturing or end use; or loading and unloading. Assuming petroleum product incidents occur in the same proportions as other hazardous materials, it would appear that most small, onshore oil spills occur under fairly routine conditions.

The DFG, which is the state agency charged with responding specifically to petroleum product discharges (both onshore and offshore), received notification from the OES on all the over 4,000 hazardous material spills reported to the warning center in 1988. DFG staff estimate that about one-half of these incidents involved petroleum products. One hundred or so of these were large (over 1,000 gallons), and about one-half of the remainder were less than one barrel (42 gallons). The largest onshore oil spill in the state in recent years took place at a Shell Oil storage tank in Martinez in April 1988. The spill involved over 200,000 gallons of crude oil that drained into a nearby slough and then the Carquinez Strait, near San Francisco Bay.

Small, Chronic Spills Are a Serious Problem

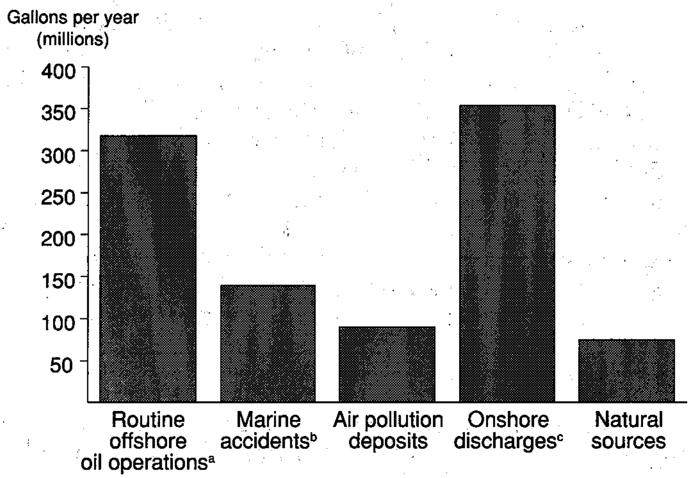
Even if small quantities of oil are spilled in most of the reported (and unreported) incidents, the sheer number of spills inevitably means that a substantial amount of harmful materials is released into the environment every year. While data are not available for California or the United States specifically, *worldwide* data largely extrapolated from United States sources illustrate the seriousness of the problem. Figure 2 shows the total average annual amounts of petroleum products that end up in the worldwide marine environment from various sources. The single largest contribution is from onshore discharges (including municipal and industrial wastes, and urban and river runoff), followed by routine offshore operations (including oil production and transport).

Based on this data, it appears that in an average year, the aggregate amount of petroleum products that make their way to the state's coastal waters from onshore discharges probably is comparable to the total amount from routine offshore oil production and transportation.

In addition, it is safe to assume that at least some of the oil that is spilled onshore remains on land or in inland waters (as opposed to ending up in state coastal waters). In these cases, the long-term environmental damage could be greater than from an offshore spill, since the oil is less likely to be diluted, dispersed, or evaporated than in the ocean. If an onshore oil spill is not contained or cleaned up, the possible results include pollution of surface water and groundwater. Unfortunately, information on these sorts of onshore spills is very incomplete at present.

Figure 2

Chronic Onshore Oil Spills Are a Significant Marine Pollution Source



Source of Petroleum in Ocean Waters (Worldwide)

[a] Includes: offshore oil production (platform drilling and extraction); tanker operations; marine terminals; and bilge and fuel oils.

[b] Includes: oil platform, marine terminal, tanker and other offshore accidents.

[c] Includes: municipal wastes; refineries; other industrial wastes; urban and river runoff including spills; and dumping of wastewater sludge.

Source: Oil In The Sea (National Research Council, 1985). Amounts are for worldwide sources, but largely were extrapolated from data for United States only.

The overall hazards posed by these ongoing small oil spills can have serious effects in many areas: contamination of water and air; loss of fish and other wildlife; and even threats to human health and safety, especially on land.

CONCERNS WITH THE CURRENT SYSTEM'S ABILITY TO DEAL WITH THIS PROBLEM

Our review of the state's current process to respond to small spills indicates several problem areas.

Communication and Reporting Shortcomings

As noted above, the state's current system to gain knowledge of small oil spills has some significant gaps. The OES warning center is not informed of every spill by the responsible party, as required by law, or by local, state or federal agencies (which are currently exempt from this reporting requirement). In addition, the affected local response agencies that eventually will have to respond at the scene of the spill (such as a fire department) often are not immediately notified of the incident. Furthermore, in some—perhaps many—cases, local agencies do not file the required CHMIRS forms with the OES after a spill, which makes later statistical analysis incomplete. Finally, while records exist in its field offices, the DFG does not keep a central record and summary of its reactions to OES warning center notifications—what was the nature of the spill, to what extent did the field staff respond, and so on. This makes it difficult to determine accurately the magnitude of the small spill problem and the overall level of state resources required for an adequate statewide response.

Lead Agency Has Few Resources

Although small onshore oil spills are a problem which is considered in the state's official Oil Spill Contingency Plan, in practice the state has allocated few resources to respond to them. As indicated earlier, the DFG is the state's lead agency for response to oil spills threatening to affect *any* waters of the state. However, the department currently has only two permanent positions dedicated to this responsibility—one for northern California and one for southern California. These two staff members rely on DFG wardens and other field personnel for most on-the-scene activities, such as the initial investigation and coordination of cleanup efforts by other entities. (Currently, the department also has one temporary position which primarily is involved in specific projects such as the contract for the oil spill report required by Chapter 1251. The department has requested in the 1990-91 budget that this position be made permanent and that two additional positions be provided to help manage oil spill response, specifically for small onshore spills.)

Because of the number of reported oil spills—again, more than 2,000 in 1988—and the other ongoing workload demands on the field staff, the DFG is able to respond only to the larger or more environmentally hazardous spills. Consequently, they must leave many "minor" spills to take care of themselves. Finally, DFG staff also believe that a number of small oil spills are not discovered at all.

Difficulty in Funding Cleanup Costs

The DFG mainly attempts to make the party responsible for a spill clean it up. Under existing law, the principle of strict liability requires the responsible party to pay for cleanup, even if another entity has done the actual work. However, in many situations, the responsible party is not always known or is not financially able to pay. In this event, the DFG may draw upon its Fish and Wildlife Pollution Cleanup and Abatement Account, funded from any recovered cleanup payments and civil penalties and continuously appropriated to the department. At the end of 1988-89, the account held about $600,000, an amount which could be depleted in cleaning up one major spill.

Other State Agencies Have Limited Involvement

In relation to the DFG, other departments currently have limited roles in responding to the small spills problem.

State Water Resources Control Board (SWRCB). The SWRCB and the regional water boards provide technical assistance on the potential impact of an oil spill on water resources, and may provide cleanup funding from several special funds under SWRCB control if surface or ground waters are threatened.

Department of Health Services (DHS). The DHS may become involved in the response to an incident if it poses an immediate threat to public health, and may contribute cleanup funds from the state Hazardous Substance Account if the oil is contaminated with a state-designated hazardous substance.

California Highway Patrol (CHP) and Department of Transportation (Caltrans). The CHP acts as the state's on-scene coordinator for oil spills on freeways, state highways, and on roadways in most unincorporated areas of the state. In addition, the CHP provides traffic control at these spills. Caltrans is responsible for ensuring spill cleanup on state roadways and their rights-of-way.

Other Agencies. Other state agencies, such as the SLC, the Division of Oil and Gas (DOG), or the Attorney General's Office, provide advice or legal assistance to the DFG in the event of a spill.

Lack of Emphasis on Prevention

Looking at the problem from the other end, it appears that the state has made relatively little effort to increase *prevention* of these kinds of oil spills. The DFG's responsibility is effectively limited to assessing a spill *after the fact* and coordinating the cleanup work of others if it deems this work necessary. Other state agencies involved in oil and gas industry safety regulation, such as the SLC, DOG or Coastal Commission, do not have the resources (or often the jurisdiction) to monitor a large number of potential sources of small oil spills. There are also a large number of potential sources that are not directly related to the oil and gas industry, such as manufacturing plants, trucking, and small storage tanks. Finally, since a sizeable portion of actual spills appear to be intentional but surreptitious, much of the burden of prevention falls on local and state law enforcement, which may not have sufficient resources to adequately serve as a deterrent.

Local Agencies Not Always Adequately Involved

Small local governments usually do not have the personnel or technical resources that would enable them to help prevent or respond effectively to small oil spills and minimize environmental damage. Additionally, local agencies do not commonly have their own specific oil spill response plans (as part of their overall emergency planning), nor do they often participate with state and federal agencies in oil spill response planning drills that can help improve interagency coordination in actual spills where this becomes necessary. Furthermore, in cases where the local response agency is not the first to learn of a spill, it sometimes is not informed of the incident until a significant amount of time has lapsed.

HOW CAN THE STATE IMPROVE SMALL OIL SPILL PREVENTION AND RESPONSE?

In addition to measures to address the possibility of another major offshore oil spill, the Legislature should give some attention to the more common, but less visible problem of chronic, relatively small oil spills. In so doing, the Legislature first needs to address the following questions:

- Is the *current* system essentially sound, needing only marginal changes to improve the state's role in preventing and responding to this problem; *or*
- Is the current system ineffective, warranting a closer look at alternative systems for small spill prevention and response?

In either case, the Legislature has options to improve small oil spill prevention and response.

Changes to the Current System

If the current system is retained, the Legislature may wish to consider the following possible changes to address the system's shortcomings.

More Emphasis on Small Spill Prevention. As in the area of major offshore oil spills, one focus of state activity should be lessening the number of actual spills to which the state needs to respond by strengthening ways to prevent small oil spills from occurring. Toward this end, it is critical that individuals and firms face strong incentives to prevent spills. This could be achieved through various means: tougher enforcement by various state agencies (such as the DFG and the SWRCB) of existing regulations and statutes concerning oil discharges; more field patrol and surveillance; and the active use of existing state liability laws to prosecute for damages when a responsible party can be identified.

Improved Communication and Reporting. As described above, complete information on the extent and magnitude of the small oil spill problem is not available under the current system. In part, this could be improved by: (1) more publicity about and enforcement of existing law requiring responsible parties to report spills immediately to the OES warning center; and (2) requiring all state agencies involved in oil spill response to report incidents to the OES, since the OES already is set up to act as a communications center. These steps would provide more timely notice of spills.

In addition, efforts to (1) increase local agency understanding of and compliance with the CHMIRS reporting requirements and (2) ensure that all DFG field reports on spills are forwarded to DFG headquarters for summation would provide better data on which to base decisions to adjust the state's response systems. Finally, for those cases where a local agency is not the first on the scene, the OES should contact the proper local agency as quickly as possible to inform it of the incident.

More Resources for Response. Although the DFG is the lead state agency for oil spill response, it lacks sufficient resources to perform this function effectively. Additional field staff would give the the DFG the ability to require the cleanup of many spills that it now must trust nature alone to take care of, and to discover spills that now go undetected. Funding for this staff could come from increased penalty revenues to the DFG's Pollution Cleanup and Abatement Account or from assessments on producers, transporters and users of specified kinds of oil. Regardless of the methods used, however, any proposals to improve the DFG's response to oil spills should include specifically the *small* spill issue as part of the plan, so that, in addition to resources to address the possibility of major offshore oil spills, resources can be focused on *this* issue.

Alternatives to the Current System

If, on the other hand, the Legislature concludes that the current system is inadequate, it may wish to consider the following alternatives.

Change in Lead Response Agency. The current organizational structure, designed primarily to cope with large coastal spills, may not be the appropriate one for coordinating a statewide response to daily small spills. The State Interagency Oil Spill Committee (SIOSC) made an administrative decision to select the DFG as the lead agency for both purposes. The Legislature, however, has not expressed its preferences. In our view, the DFG may not be the most fitting lead agency for this purpose, since fish and wildlife and their habitat is only one concern out of many. (In addition, in our review of the DFG in the *Analysis of the 1990-91 Budget Bill,* we note that the department is having some severe fiscal problems. These problems are likely to affect the department's ability to direct resources to small spill response.) Other possible lead agencies include the SLC, the OES, the SWRCB, or the Environmental Affairs Agency. Alternatively, the SIOSC could be charged with developing a new, more effective state organizational structure to improve response to small spills.

Increased Local Response Efforts. The local level may be the most appropriate one for many small oil spill prevention and response activities, since most incidents of this type begin in and often are confined to a relatively small area, and do not cross jurisdictional boundaries. The state could provide increased training and technical assistance to local agencies to help improve their efforts in the areas of prevention and response preparedness. In addition, it may be appropriate to require local governments to (1) incorporate a specific *oil* spill response plan into their local contingency planning and (2) participate in oil spill response planning drills with state agencies, to help ensure timely and suitable measures in the event of a spill. Such requirements potentially would constitute state-reimbursable mandates.

SUMMARY

Major offshore oil spills are a very real concern in California, and steps can be and are being taken to address this issue. However, the less visible issue of chronic, small oil spills, many of which occur onshore, also warrants attention because of the cumulative environmental consequences. There are several alternatives for the Legislature to consider that would improve the state's role in preventing and responding to these small spills.

Health Care in Rural California

How Can the Legislature Improve Health Care Services in Rural California?

Summary

Access to health care in rural areas is limited, in part due to long distances between isolated communities, rough weather conditions, and depressed economies. Over the years, access has been further restricted by the closure of rural facilities and the failure of rural communities to attract and retain health personnel. Existing reimbursement and regulatory policies also play a role in limiting the number of providers, and thereby restrict access to health care.

Currently, there are various state programs designed to address some of these issues. However, our review suggests that these programs have limited success in improving access to health care in rural areas, partly because these programs are not coordinated. To address this concern, we recommend that the Legislature strengthen the state's leadership role and designate a lead agency on rural health issues. In addition, we recommend that the lead agency develop a systematic approach to assisting rural health care providers and that state agencies evaluate adjustments to the regulatory and reimbursement systems affecting rural health providers.

INTRODUCTION

Over the past several years, the Legislature has taken numerous actions to address problems with rural health services. Primarily, these actions have been in response to rural hospital closures, continued financial distress of current facilities, and difficulties in recruiting and retaining health professionals. Our review indicates that, despite these legislative efforts, current state programs do not address these problems in a comprehensive way.

In the following pages, we examine health care services in rural areas within the state. Specifically, we (1) review the characteristics of rural areas and health care services in these areas, (2) discuss current state programs, (3) highlight specific problems we identified within the existing services, and (4) suggest ways the Legislature could improve the provision of health care services to rural areas.

WHAT ARE THE CHARACTERISTICS OF RURAL AREAS?

Defining "Rural"

There are numerous inconsistent definitions of "rural" in use by different state and federal programs. For this analysis, we have chosen to focus on counties that (1) are not classified as a Metropolitan Statistical Area (MSA), (2) are not part of a Consolidated Metropolitan Statistical Area (CMSA), and (3) have a total population of 200,000 or less. Under this definition, 25 of the 58 counties in California are considered rural. Figure 1 lists these counties and displays data on the population and the number of hospitals and clinics in each county.

This definition has the limitation of excluding rural areas *within* urban counties. We did not include these areas because most of the data are available only by county. We recognize that these areas within urban counties share many of the characteristics and problems of rural counties.

Low Population Density

Rural counties in California are sparsely populated. The average population density for these 25 counties is 29 persons per square mile with a range of 1 (Alpine) to 99 (Colusa) persons per square mile. In comparison, the density is 2,131 persons per square mile in Los Angeles, 568 in Sacramento, and 16,251 in San Francisco. The total permanent population living in rural counties is 4 percent of the state's population.

Population Swings

Some rural areas experience large swings in their population. Seasonal workers, for example, contribute to temporary population growth in counties where agriculture is a major economic activity. Counties with national and state parks and other resort areas also host significant numbers of seasonal tourists and workers.

Figure 1

Rural Counties in California
Population and Number of Health Facilities

County	Population[a]	Number of Hospitals[b]	Number of Clinics[c]
Alpine	1,190	—	—
Amador	29,150	1	2
Calaveras	32,400	1	—
Colusa	15,500	1	—
Del Norte	20,400	1	—
Glenn	23,600	1	1
Humboldt	116,800	6	4
Imperial	115,700	3	4
Inyo	18,200	2	1
Kings	96,000	4	—
Lake	52,100	2	1
Lassen	28,800	1	4
Madera	83,800	2	3
Mariposa	14,800	1	—
Mendocino	76,900	5	5
Modoc	9,375	2	1
Mono	9,800	2	—
Nevada	78,800	2	—
Plumas	20,050	4	2
San Benito	35,250	1	1
Sierra	3,600	1	1
Siskiyou	43,750	2	3
Tehama	47,250	3	—
Trinity	14,000	1	1
Tuolumne	49,000	3	1

a Source: Department of Finance 1989 population estimates.

b Source: Office of Statewide Health Planning and Development (OSHPD) Licensed Services and Utilization Profiles, 1988.

c Source: OSHPD 1985 Annual Report of Clinics as reported in Community Clinic Fact Book, 1987.

Most rural hospitals are small. All but two of the 51 hospitals in rural counties have fewer than 100 beds; and one-half have fewer than 50 beds. The occupancy rate for acute care beds in these hospitals is low, averaging 33 percent in 1988. In comparison, the statewide occupancy rate was 53 percent. The occupancy rate for rural hospitals varies significantly from day to day, and many facilities experience seasonal fluctuations associated with the influx of tourists and workers. Rural hospitals generally focus on primary care and emergency services. For instance, 63 percent of these hospitals have licensed intensive care units, and 55 percent have designated obstetrical beds. These hospitals generally do not have extensive specialty departments.

Many Rural Hospitals Are Financially Distressed. In 1988, 29 out of 42 rural hospitals (data were not available on the other 9) had negative operating margins. In other words, patient service revenue did not cover operating expenses. On the average, patient service revenues for 28 of the 29 hospitals were 7.3 percent below operating expenses. (We excluded Mono General Hospital because it had one-time revenue problems that gave it an extremely low operating margin.)

Generally, this gap is made up with nonpatient revenue such as district tax revenue (for district hospitals), private contributions, and county contributions (for county hospitals). Over time, operating shortfalls mean that the hospitals are unable to maintain the physical plant, replace equipment, and make other capital improvements. For some hospitals, it leads to closure. (Ten rural hospitals have closed during the last 13 years.)

The reasons for this financial distress appear to be:

- ***Difficulty in Covering Fixed Costs.*** Hospitals cannot cover their fixed costs due to low patient volume. Fixed costs are those incurred by the hospital regardless of how many patients they have.
- ***Costly Supplemental Services.*** Hospitals that are unable to cover their fixed costs may further contribute to their financial distress by adding costly supplemental services. This is in response to community demands for a full range of services, and the hospitals' attempts to attract and retain health professionals. For example, some hospitals purchase sophisticated medical equipment, such as computerized tomography (CT) scanners. In some cases, however, these hospitals do not have the patient volume to support such expenditures or services.
- ***Cash-Flow Problems.*** Rural hospitals have relatively small budgets that cannot easily absorb fluctuations in

Isolated Communities and Sparse Services

Rural counties characteristically have sparse services, and their communities are relatively isolated from one another in terms of miles and physical terrain. Travel along a limited network of roads is made even more difficult by rain, fog, or snow. For example, winter conditions in Modoc County can close the roads into Cedarville, leaving that community isolated for days at a time.

Weak Economies

Rural counties generally have weaker economies than the rest of the state. Economic growth in California has occurred in industries that, for the most part, are not located in rural counties. For example, the statewide job growth rate during the 1980s was 18 percent. Eighty percent of this growth occurred in the service (primarily business and financial services), trade, and finance industries. These sectors account for a very small part of the economic activity in rural areas. The economic base in most rural counties includes manufacturing, agriculture, tourist ser-vices, mining, and government. In the past decade, manufacturing employment grew by only 5 percent, employment in both agriculture and mining actually fell, and government employment increased only modestly.

In a large number of the 25 rural counties, the unemployment rate and the percentage of the population living below the poverty level are higher than the statewide average. Based on 1988 Employment Development Department data, 23 of the 25 rural counties had an unemployment rate higher than the statewide average. In 1987-88, 17 of the 25 rural counties had higher monthly average AFDC caseloads per capita than the statewide average.

WHAT ARE THE CHARACTERISTICS OF RURAL HEALTH SERVICES?

Our review of rural health services is based on visits to 30 facilities in 16 counties; discussions with local providers, program administrators, and other interested parties; and examination of data on rural health services. We discuss our findings below.

Inpatient Care

There are 51 hospitals in the 25 rural counties. All of the counties except Alpine have at least one hospital. Distances between hospitals can be as great as 100 miles.

revenues. These fluctuations are due to swings in occupancy and delays in Medi-Cal and Medicare reimbursements. These revenue fluctuations create cash-flow problems for many of these hospitals.

- ***High Personnel Costs.*** Rural hospitals are affected by the statewide nursing shortage. As a result, many of them hire "registry" nurses provided by personnel agencies on a temporary basis at a *higher* cost than permanent nursing staff.

- ***Difficulty Attracting Personnel.*** Hospitals have difficulty in attracting health professionals and administrators due to geographic isolation and limited resources to offer competitive wages. Without sufficient personnel, a hospital can lose patients and, therefore, revenue.

- ***Variations in Administrative Effectiveness.*** Hospital administrators have varying levels of sophistication and knowledge of state programs which, in turn, determine the extent to which they are successful in securing technical assistance and funding. Administrators also vary in their ability to deal with regulatory and reimbursement requirements, as well as the day-to-day operation of the hospital.

Emergency Medical Services

There are two components of emergency medical services: pre-hospital emergency care and hospital emergency room care. Pre-hospital emergency care includes ambulance services and emergency medical personnel. Because of the distances between hospitals in rural areas, pre-hospital emergency care is critical.

One of the primary functions of the rural hospitals is to provide emergency services. All rural hospitals have emergency rooms where patients can be stabilized prior to their transfer to a facility with comprehensive medical services.

The Availability of Emergency Vehicles and Their Staffing Vary Among the Counties. In some counties, emergency vehicles are staffed with paramedics, who are able to provide advanced life support services. In other counties, emergency vehicles are staffed with emergency medical technician-IIs (EMT-IIs), who can provide "limited" life support services, or EMT-Is, who can provide "basic" life support services only.

Outpatient Services

Rural counties have high population-to-physician ratios. The average ratio is 1,034 persons per physician in rural counties, with a range of 371 persons per physician in Inyo to 3,371 in Glenn. By comparison, the ratio is 381 in Los Angeles, 497 in Sacramento, and 161 in San Francisco. According to the Office of Statewide Health Planning and Development's (OSHPD's) 1987 California State Health Plan, 20 of the rural counties do not meet the OSHPD's standard of adequacy for primary care physicians—no more than 1,205 persons per primary care physician. (Note: These ratios do not reflect the availability of other professionals who practice in conjunction with physicians.)

Outpatient services are also provided by community clinics. As Figure 1 shows, there were 35 such clinics in 16 of the 25 rural counties in 1985. Nine of the counties did not have a clinic.

Certain Outpatient Services Are Difficult to Find. Access to specialty services such as orthopedics and obstetrics often is particularly limited. For example, during our visit to Mendocino County, we found that there are *no* practicing obstetricians providing prenatal services.

Access problems are even more difficult for Medi-Cal recipients. In Needles, for example, none of the three local physicians accept new Medi-Cal patients, nor does the hospital provide outpatient services. In this case, a new Medi-Cal patient has to travel long distances to see a physician who accepts Medi-Cal.

WHAT PROGRAMS CURRENTLY AFFECT RURAL HEALTH SERVICES?

Figure 2 provides specific information on state programs that affect rural health services. Below we discuss some of these programs.

Department of Health Services

Licensing and Certification. The Licensing and Certification Division licenses health facilities and performs certification reviews on behalf of the federal government at facilities that seek to qualify for Medicare or Medi-Cal funding.

In addition to its licensing and certification functions, the division conducts other programs that benefit rural facilities. Under the "swing bed" program, rural hospitals with up to 50 beds designate certain licensed general acute care beds that may be used as skilled nursing beds. For rural hospitals that have a low acute care patient load, the program allows filling a bed that would have been empty otherwise. According to 1988 data, the state has 202 designated swing beds located in 14 rural facilities.

The division has also had for many years the authority to allow facilities to use alternate approaches and techniques to

Figure 2

State Programs Affecting Rural Health Services

Division	Specific Programs or Activities Affecting Rural Providers	Amount of Funding 1989-90
Department of Health Services		
Licensing and certification	"Swing bed" program	—
Medical care services	1. Provides reimbursement for medical services	Unknown amount for rural areas
	2. Supplementary rates for outpatient services provided by rural hospitals	$4 million
	3. Distinct-part skilled nursing facility and swing bed reimbursement programs	Unknown amount for rural areas
Rural and community health	1. County Medical Services Program	$60 million General Fund; $10 million from AB 75 (Proposition 99) funds; $4 million from Immigration Reform and Control Act (IRCA) funds
	2. Other AB 75 provisions	Share of $82 million for county capital outlay; $7 million for hospital uncompensated care
	3. Rural Health, Indian Health, Farmworker Health, and Clinics Programs	$9 million General Fund; $23 million from IRCA funds; share of $20 million from AB 75
	4. Hospital and medical standards program	—
Family health services	Various	Unknown amount for rural areas
Office of Statewide Health Planning and Development		
	1. "Program flexibility"	—
	2. Review of state regulations applicable to small and rural hospitals	—
	3. Alternative Rural Hospital Demonstration Project	—
	4. Health professions development	—
	5. Song-Brown Family Physician Training Program	$2.9 million
	6. Rural Hospital Grant Program	Depends on amount of excess Cal-Mortgage reserves; not implemented yet

Program	Specific Programs or Activities Affecting Rural Providers	Amount of Funding 1989-90
Emergency Medical Services Authority		
	Financial support for rural regional emergency medical services agencies	$1.2 million
California Health Facilities Financing Authority		
	1. County Health Facilities Financing Assistance Fund	$10 million one-time funds
	2. Hospital Equipment Loan Program	$3.9 million one-time funds
	3. Short-term adjustable-rate taxable securities	Not fixed—depends on loan applications; started 1989
	4. Pilot program providing loans for capital expenditures required by state regulations	Total of $3 million over four years; started 1989

meet statutory requirements or regulations. Chapter 67, Statutes of 1988 (AB 1458, Jones), transferred the responsibility for reviewing "program flexibility" requests by small and rural hospitals to the OSHPD.

Medi-Cal. Medi-Cal reimburses necessary health care services provided to public assistance recipients and to other individuals who meet the program's income requirements. Medi-Cal is an important source of revenue for many rural providers. For example, on average, Medi-Cal represents 17 percent of patient revenues for the 42 rural hospitals for which data were available. Generally, Medi-Cal reimburses inpatient services in rural hospitals based on facility-specific costs. Outpatient services, including physician and clinical services, are reimbursed on a flat-rate fee-for-service basis.

In addition to these general reimbursements, the Medi-Cal Program has two provisions directed specifically towards rural providers. First, Medi-Cal currently provides supplementary rates for outpatient services provided by small and rural hospitals. Chapter 1476, Statutes of 1987 (SB 1458, Keene), established the program with a one-time appropriation of $4 million ($2 million General Fund). Each of the eligible hospitals received rate augmentations based on their share of paid outpatient services claims. This augmentation has been continued in later Budget Acts and the 1990 Budget Bill.

In addition to hospital, physician, and clinical services, the Medi-Cal Program reimburses skilled nursing services. Some rural hospitals have converted a wing to a "distinct-part skilled nursing facility" (DP/SNF). Because skilled nursing patients generally stay longer than acute care patients, DP/SNFs provide the hospital with a more stable patient base. Other rural hospitals participate in the swing bed program (discussed above).

Rural and Community Health. The Rural and Community Health (RCH) Division distributes funds to counties and local providers through various programs.

The Medically Indigent Services Program (MISP) funds counties to provide health care for indigents. Through the County Medical Services Program (CMSP), the state provides these services in counties with populations of less than 300,000 (based on the 1980 census) that wish to participate. All but two (Lake and Mendocino) of the 25 rural counties we identified for this analysis are participants in the CMSP. Funding for the CMSP in 1989-90 is $60.4 million from the General Fund and $4 million from Immigration Reform and Control Act (IRCA) funds for services to newly legalized persons.

The CMSP has been expanded in the current year under Ch 1331/89 (AB 75, Isenberg), which implemented the Tobacco Tax and Health Protection Act of 1988 (Proposition 99) and established a variety of programs. For 1989-90, AB 75 includes $10 million to expand the scope of benefits covered under CMSP and reimburse health care providers in CMSP counties for emergency services provided to out-of-county indigent patients. Some of these funds are being used to encourage innovative approaches to providing rural health services, such as rotating dentists through multi-county areas.

Assembly Bill 75 also includes $82 million for county capital outlay, a portion of which will go to rural counties, and $7 million to reimburse CMSP counties and providers for uncompensated care.

The Rural Health, Indian Health, Farmworker Health, and Clinics Programs provide grants to counties, clinics, and other providers for services to special populations primarily in rural areas. General Fund support for these programs had remained virtually unchanged for the past five years at $9.5 million, with essentially the same providers receiving grants each year. In the current year, this funding was reduced to $8.5 million due to the availability of IRCA funds. In addition to receiving a share of IRCA funds, rural clinics receive a share of AB 75 funds.

In addition to distributing funds to counties and health care providers, the RCH Division provides technical assistance to counties and facilities. Some of this assistance is provided by RCH staff in the course of administering the various grant programs. Chapter 1209, Statutes of 1988 (SB 2549, Keene), required the department to (1) establish a process for identifying strategically located, high-risk rural hospitals and (2) provide expert technical assistance for those hospitals. Although this program, called the Hospital and Medical Standards Program, provides technical assistance to rural hospitals in distress, a specific listing of strategically located, high-risk rural hospitals has not yet been developed.

Family Health. The Family Health Services Division addresses the special needs of women and children through various programs. Although funds are not targeted specifically at rural providers, they provide a major source of funds for many rural community clinics.

"Safety Net Policy." The Department of Health Services (DHS) established a "safety net" policy in 1988, under which county facilities, providers serving a disproportionate share of Medi-Cal patients, community clinics, and other "safety net" providers have priority for obtaining financial and technical assistance and flexibility in the application of licensing statutes and regulations. Under this policy, a number of financially distressed rural facilities have been assisted by licensing and certification, Medi-Cal, and public health program staff.

Office of Statewide Health Planning and Development

Demonstration Projects. In addition to transferring responsibility for reviewing "program flexibility" requests from the DHS to the OSHPD, Ch 67/88 required the OSHPD to:

- Undertake a comprehensive evaluation of small and rural hospital licensing and building regulations.
- Adopt emergency regulations waiving or modifying unnecessary or unduly burdensome requirements for small and rural hospitals.
- Report to the Legislature on whether or not alternative standards for small and rural hospitals should be adopted permanently.

Pursuant to Chapter 67, the OSHPD is also designing an alternative rural hospital model pilot project. The model would emphasize regulatory relief rather than increased reimbursement. Under this project, participating hospitals would be subject to a different set of state requirements. For example, they would provide five "core" services deemed minimally necessary to ensure basic health services in rural areas. In addition, they would employ a new health profession category. In connection with developing the model, the OSHPD is reviewing licensing requirements that apply to small and rural hospitals.

Health Professions Development. The office administers various health occupations pilot projects, some of which are specifically oriented to address rural needs. For example, 1980 pilot projects demonstrated that it was safe for ambulance drivers to perform selected medical and nursing procedures on trauma and heart attack patients before they reached the hospital. This resulted in a 1981 statute recognizing emergency medical technician IIs. Other pilot projects resulted in the recognition of nurse practitioners and nurse midwives, as well as regulations allowing appropriately trained physician assistants to furnish and dispense drugs.

The office also administers programs designed to increase and improve the recruitment and retention of health professionals. The largest program is the Song-Brown Family Physician Training Program. In the current year, the program has $2.9 million from the General Fund to support the training of approximately 300 family physicians, family physician assistants, and family nurse practitioners. The Song-Brown program is not specifically designed for rural areas. Rather, it helps rural areas to the extent that it supports the training of family practitioners. Based on our visits and 1987 OSHPD data, family practitioners provide most of the physician care in rural counties.

Facilities Development. The office reviews health facilities construction projects to assure that they conform with federal, state, and local building requirements, including seismic safety requirements. Facilities may seek "program flexibility" on building requirements from the office.

The office also administers the California Health Facilities Construction Loan Insurance (Cal-Mortgage) Program, which insures facility loans. The program is funded by annual premiums paid by insured health facility projects. Under Ch 898/89 (SB 1293, Maddy), any excess Cal-Mortgage reserve funds are available to support the Rural Hospital Grant Program. Small and rural hospital projects meeting specified criteria would be eligible for grants of up to $250,000 from this program, when, and if, it becomes operational.

Emergency Medical Services Authority

The Emergency Medical Services (EMS) Authority reviews local emergency medical services programs and establishes statewide standards for emergency personnel. The authority also administers General Fund support for certain rural regional EMS agencies. The 1989 Budget Act includes $1.2 million for five rural regional EMS agencies. Each agency may receive up to one-half of the total cost of operating a minimal EMS system for that region, as defined by the authority.

California Health Facilities Financing Authority

The California Health Facilities Financing Authority (CHFFA) issues revenue bonds to assist nonprofit agencies, counties, and hospital districts in financing the construction and renovation of health facilities. Because of its ability to issue tax-exempt bonds, the CHFFA provides lower-cost financing to qualified institutions than they would be able to secure on the open market.

In the past, some rural counties and providers have found it hard to take advantage of this source of funds due to their difficulty in proving they can repay the bonds. In some cases, the Cal-Mortgage Program has guaranteed repayment of covered facility loans in the event of a default. In addition, the CHFFA has initiated several special programs targeted at county facilities and small and rural hospitals (detailed in Figure 2). The Legislature has also passed legislation to assist rural facilities in obtaining CHFFA funding. Through these efforts, many rural facilities have received limited financial assistance.

The Federal Government

In this section, we briefly highlight four federal programs and policies that affect rural health care: the Medicare Program, the National Health Service Corps, the Rural Health Clinic Act, and the Office of Rural Health Policy.

The Medicare Program. The Medicare Program is a major revenue source for rural providers. Medicare represents, on the average, 34 percent of patient revenues for the 42 rural hospitals for which data were available. In 1983, Medicare established a fixed payment schedule for hospitals based on a patient classification system known as Diagnostic Related Groups (DRGs). This system assumes that, on average, actual costs will be covered by DRG reimbursement levels. However, low-volume providers (including most rural hospitals) face a higher degree of financial risk than high-volume providers because they see a relatively small number of Medicare patients and they experience dramatic fluctuations in patient volume. As a result, their chances of offsetting high-cost cases with profits from lower-cost cases over a given time period are diminished.

In addition, rural hospitals receive a lower reimbursement rate for the same diagnosis than urban hospitals. Overall, average Medicare payments to rural hospitals are *40 percent less* than those to urban hospitals. Rural providers and others have argued that this reimbursement differential does not reflect actual costs of providing health care in rural areas. In response to this, Congress has taken steps to narrow the differential between urban and rural reimbursement rates.

Different reimbursement formulas apply to hospitals designated as Sole Community Hospitals (SCHs) or Rural Referral Centers (RRCs). SCHs receive a partially cost-based reimbursement rate and additional payment protections. Currently, 40 hospitals in California are designated SCHs (not all of them are rural). Being designated an SCH is not always an advantage, however; a hospital with relatively low costs may get a higher level of reimbursement under the DRG system.

Hospitals qualifying as RRCs are reimbursed at the higher urban rate. However, in order to qualify, a facility must have at least 275 beds. This requirement precludes rural facilities in California from obtaining RRC status, because all have fewer than 275 beds.

Medicare is currently administering a two-year Rural Health Care Transition Grant Program to assist small rural hospitals in modifying their services to adjust for changes in service population, clinical practice patterns, and other factors. Each hospital may receive a grant of up to $50,000 a year. Four California hospitals have received grants to date, three of which are in rural counties.

For physician services, Medicare generally determines a "reasonable charge" and reimburses physicians 80 percent of this amount. To the extent that physicians' charges for the same services vary both across and within communities, Medicare reimbursements vary.

National Health Service Corps (NHSC). The NHSC was designed to provide health personnel to designated health manpower shortage areas. The NHSC consists of two programs. The scholarship program pays tuition for medical, dental, and other allied health students in return for a minimum two years of service in a designated shortage area after completion of training. The second program provides up to $20,000 a year to practitioners at the end of their training to pay off school loans. In exchange, they commit to serve a minimum of two years in a designated shortage area.

Although the NHSC has played a significant role in providing personnel to rural areas, this role has been declining dramatically in recent years because overall funding for the program has declined, the scholarship program is being phased out, and the loan repayment program is limited.

Rural Health Clinic Act (Public Law 95-210). The Rural Health Clinic Act of 1977 (Public Law 95-210) increased the Medicare and Medicaid reimbursement rates for clinics that provide services in rural, medically underserved areas and employ a nurse practitioner or physician assistant. Currently, there are 47 designated "95-210 clinics" in 39 medically underserved rural areas in California. One obstacle to expanding the number of designated clinics is the limited information about the program at both the local and state levels. Apparently, the paperwork required for qualification also discourages many clinics from pursuing this option.

Office of Rural Health Policy (ORHP). The ORHP was established in 1988 to (1) advise the Department of Health and Human Services (DHHS) on the effects that Medicare and Medicaid programs have on access to health care for rural populations; (2) coordinate rural health research within DHHS and administer a grant program; (3) provide staff support to the National Advisory Committee on Rural Health, which was established in September 1988 to advise the Secretary of DHHS on rural health issues; and (4) develop a national clearinghouse for the collection and dissemination of rural health information.

The office maintains contact with state agencies on an "ad hoc" basis.

Counties

Under Section 17000 of the Welfare and Institutions Code, counties are considered the "providers of last resort" for health services to indigent residents. The funds provided to counties through the MISP, CMSP, and other state programs assist counties in meeting this obligation. Most state program funds allocated to counties may be distributed at county discretion. Urban counties generally play a major role in providing health services to indigent persons. Although the level of involvement varies among rural counties, most of them play a more limited role in health care service delivery.

WHAT ARE THE OUTSTANDING ISSUES IN CURRENT STATE PROGRAMS?

As described above, there are many governmental programs designed to improve access to health care services in rural areas. In the following discussion, we identify problems that limit the effectiveness of these programs. We frame our discussion within the four main roles of the state: leadership, support, regulation, and reimbursement.

Leadership Role

Our review indicates that there are several problems with the way the state currently implements existing programs.

State Programs Are Not Coordinated. Current state programs intended to improve access to health services in rural areas do so in a piecemeal and fragmented fashion. As described above, there are several divisions within several state departments, all providing services to rural areas. However, the various programs are not coordinated by a lead agency, thereby resulting in duplication of certain services and gaps in others. For example, there are several programs that are aimed at rural hospitals in distress but no existing program providing ongoing funding for hospitals. Additionally, multiple definitions of the term "rural" contribute to inconsistencies in eligibility requirements between programs. As a consequence, providers have difficulties determining what programs exist and whether they are eligible for assistance.

The State Provides Limited Assistance. Providers cannot take full advantage of existing programs because, in addition to the lack of coordination and varying eligibility requirements, information regarding these programs is not readily available. From our field visits, we found that many rural health care providers were not aware of state programs designed to assist them. Currently, for example, although the RCH Division has implemented several programs for assisting rural clinics and hospitals, it provides technical assistance primarily *in response to* specific requests from facilities. Thus, facilities that are not aware that technical assistance is available from RCH may go without it. Moreover, the state has not assisted providers by making available information on federal programs. For example, no agency has taken an active role in assisting clinics to qualify for designation under federal Public Law 95-210.

The State Has Not Provided Certain Key Central Services. Certain activities, such as designing data collection systems, evaluating services, and providing technical assistance, are more efficient and effective if carried out centrally. However, the state has not done this. For example, statewide evaluation of the adequacy of emergency medical services is very difficult because the state has not yet developed a uniform, standardized data collection system for the availability and utilization of emergency medical services. As a result, although the local EMS agencies maintain some data, these data cannot be used to draw conclusions about the status of the state's EMS system.

The State Could Foster More Innovation. Various departments are currently implementing innovative programs and policies to improve health care services in rural areas, such as the DHS "safety net" policy, the OSHPD's alternative rural hospital demonstration project, and AB 75 rural health projects. Of these programs, the OSHPD's alternative rural hospital demonstration project appears to be the most promising because of its potential to permanently address some of the regulatory problems of small and rural hospitals. The future of AB 75 projects, on the other hand, will be uncertain unless funding is extended at the end of the budget year. Despite these creative steps, there are many other ways the state could help foster innovation. For instance, the state could encourage the development of third-party billing, rotating specialists, and risk pools.

Support Role

Band-Aid Approach to Assisting Hospitals. State efforts to assist hospitals through routine or emergency funding have been haphazard. The state has taken a "band-aid" approach by providing funding to hospitals on a reactive, emergency basis, as opposed to "stepping back" to assess such issues as whether the facility is critical to health care access and whether financial assistance is the solution to the facility's problem. For example, the Hospital and Medical Standards Program has not identified strategically located, high-risk rural hospitals as required by Ch 1209/88.

Problems in Program Implementation. At times, program implementation limits the impact state assistance programs could have on rural health services. For example, the clinics programs have continued to fund the same providers year after year without reexamining the need for the subsidy. There are also state programs that, for various reasons, have not been implemented. For example, the RCH Division never implemented the California Health Services Corps, authorized in 1976. This was because of limited funding and problems with the program design (that is, implementing the program through state civil service).

Some Program Requirements Preclude Participation by Rural Providers. Rural facilities have difficulties in obtaining funding under some programs due, in part, to specific program requirements. For example, some loan programs sponsored by the CHFFA have minimum loan amount requirements that rural facilities cannot meet. Although the CHFFA has taken steps to allow small and rural hospitals to take advantage of certain loan programs, these programs are generally limited in scope.

Regulatory Role

Licensing Regulations Do Not Recognize Unique Characteristics of Rural Providers. Current DHS licensing regulations make no distinction between rural and urban facilities. Given that rural facilities are a small percentage of total hospitals in California (the 51 rural hospitals in the 25 counties we examined account for only 10 percent of California's general acute care hospitals), regulations do not distinguish between urban and rural facilities. In some cases, these regulations may not address the circumstances in which rural providers find themselves. For example, by regulation, a general acute care hospital must include surgery as a basic service. However, some rural hospitals cannot economically equip and staff the number of operating rooms required by regulations because of their low occupancy rate. In addition, the hospitals may have trouble recruiting qualified surgical staff. One of the hospitals we visited has operating rooms that have not been used in years because it does not have the required staff to perform surgery. The OSHPD is currently reviewing regulations that apply to small and rural hospitals in view of this conflict.

Inconsistent Interpretation of Regulations. A number of rural hospital administrators we interviewed cited inconsistent interpretation and enforcement of regulations as a major problem. They also expressed frustration with the lack of assistance provided by inspectors in addressing regulatory problems. We have no basis for determining how widespread these concerns are. Licensing and certification staff acknowledged, however, that there have been some problems. The department indicated it is taking steps to assure consistent interpretation and enforcement of regulations.

Information Flow to Rural Providers Insufficient. Although there are a variety of programs designed to address regulatory problems of rural providers, we found that administrators are not always well informed of state regulatory changes, new legislation, and special policies like "program flexibility." Hospitals receive most of their information from organizations and associations, which require membership fees of thousands of dollars. There is minimal information that comes directly from the state.

Reimbursement Role

Reimbursement Procedures Are Complex and Technical Assistance Is Limited. Reimbursement procedures for state programs—primarily Medi-Cal—continue to be complex and burdensome for some rural providers. Billing errors result in payment delays, which contribute to the cash-flow problems of many rural providers. We found that many rural health care providers felt they had no recourse at the state level to address billing problems. They could not determine whom to call to resolve questions or billing problems in a timely fashion.

Medi-Cal Reimbursements May Not Cover Current Costs. Although the Medi-Cal reimbursement rate for most rural providers is cost-based, payments to facilities may not cover the current costs for Medi-Cal patients. This is because of two reasons. First, the payment formula includes adjustments for previous years' disallowed claims. Second, facilities' actual costs may not be covered because the maximum inpatient reimbursement level (MIRL) caps Medi-Cal reimbursements. The MIRL caps the level of increase in a facility's reimbursement rate based on a complex formula involving case mix and other factors. While these adjustments may be justified, a rural hospital may not have sufficient reserves to cover shortfalls in payments.

HOW CAN THE LEGISLATURE IMPROVE DELIVERY OF RURAL HEALTH CARE SERVICES?

Our review indicates that rural areas share common characteristics. Generally, rural areas tend to be geographically isolated, sparsely populated, and have relatively weak economies. These areas also share common problems with respect to the delivery of health care services. Specifically, they have a limited number of health care providers, hospitals are financially distressed, emergency medical services and specialty care are limited, and it is difficult to attract health professionals.

There is a strong state interest, as shown by the plethora of existing programs, in maintaining and improving access to health care in rural areas. In order to address the problem areas described above, we believe there are several steps the Legislature can take to improve health service delivery in rural areas.

Major Legislative Decisions

As a first step to improving access to health care in rural areas, the Legislature should explicitly address the following issues:

- ***Rural Areas and Rural Health Facilities.*** The existing variation in definitions of rural counties and areas and rural health facilities leads to confusing and overlapping categories. The state needs to develop a statewide definition of rural areas and rural health facilities.
- ***Adequate Access to Health Services.*** The state needs to define the *minimum level* of health services it is willing to ensure in rural areas. Adequate access needs to be defined in terms that take into account the isolation, weather, and road conditions that characterize rural areas.
- ***Distinctions Among Rural Providers.*** The state also needs to determine if all rural providers should be treated

equally. It may be that certain rural providers (for example, geographically isolated ones) should be given priority in state assistance programs.

- ***Funding Commitment.*** Finally, the state must decide the level of funding dedicated to rural health services.

Strengthen the State's Leadership Role

We recommend that the Legislature designate a lead agency to coordinate the state's rural health programs.

The state needs to exercise a greater coordinating role to ensure that existing and future programs improve health care in rural areas without duplicating services. Accordingly, we recommend that the Legislature designate a lead agency to coordinate these programs. The lead agency's mission should be to implement the major legislative decisions discussed above with respect to rural health care.

In addition, the lead agency should be responsible for overseeing technical assistance, coordinating state programs, providing information on rural health assistance programs, and ranking providers for purposes of targeting state assistance programs. Specifically, the functions of the lead agency should include, but not be limited to, the following:

- ***Provide Information on State and Federal Programs Available to Assist Rural Providers.*** For example, the lead agency could assist interested rural facilities in qualifying for programs that allow them to receive higher reimbursement rates or regulatory relief.
- ***Establish Standards for EMS Adequacy.*** To assure availability and access to EMS services, the lead agency could direct the EMS Authority to (1) establish standards of adequacy for EMS services, (2) identify "unmet" EMS needs, and (3) evaluate alternatives to address these needs.
- ***Lead in the Development of More Efficient Service Delivery Mechanisms.*** In light of the shortage of health professionals in rural areas and the limited resources available to rural facilities, it is critical that rural providers deliver services as efficiently as possible. The lead agency could identify better ways to make use of existing resources through such means as: the development of cooperative ventures to purchase equipment, the rotation of practitioners among counties, and the establishment of a referral system among providers. In addition to the self-

insurance program for clinics currently supported by the state, the lead agency could promote and support self-insurance programs for other types of providers.

- ***Develop More Alternative Service Delivery Models.*** In addition to expanding the implementation of existing pilots, the lead agency could develop pilot models for other components of health care, like rotating specialists or new licensure categories.

Improve Support to Rural Health Care Providers

We recommend that the lead agency develop a systematic approach to assisting rural providers.

In order to address the diverse needs of rural providers, we recommend that the lead agency implement existing legislation by identifying strategically located, high-risk rural hospitals. In addition, we recommend the agency develop a similar system for ranking other rural providers. This ranking would enable the state to systematically target its assistance programs.

Review of Regulatory and Reimbursement Systems

We recommend that state agencies evaluate adjustments to the regulatory and reimbursement systems.

As discussed above, some regulatory and reimbursement procedures and requirements do not take into account the unique characteristics and needs of rural health care providers. A review and adjustment of existing regulations could ease the burden for rural providers of complying with inapplicable regulations. Adjustments to existing reimbursement rates and procedures could help relieve hospitals in financial distress. The OSHPD's review of regulations that apply to rural providers is illustrative of state efforts to make adjustments in its regulatory system. Other state efforts could include:

- ***A Review of Medi-Cal Regulations That Apply to Rural Providers.*** Similar to what is currently being done by the OSHPD, Medi-Cal regulations could be reviewed to take into account existing problems and needs of rural providers. For example, rural hospitals with distinct-part skilled nursing facilities (SNFs) could be exempt from the Medi-Cal patient transfer requirements to freestanding SNFs. Distinct-part SNFs help rural hospitals maintain a more stable revenue stream and occupancy rate. This option would result in net costs to the Medi-Cal Program since Medi-Cal reimbursement rates are higher for distinct-part SNFs than freestanding SNFs.

- ***Encouraging Providers to Use Centralized Billing Services.*** To reduce the burden of cumbersome billing procedures, the state could encourage providers to use privately operated billing services or even assist rural providers in establishing contracts with a centralized billing service. This option would be an efficient billing strategy for rural providers at minimal cost to the state. Another option is for the state to expand technical assistance on billing matters. This would require additional funds.

Long-Term Health Care

What Issues Will the Legislature Face in Promoting Adequate Access to Nursing Facility Services Over the Next Decade?

Summary

One of the Legislature's challenges over the next decade is to promote adequate access to nursing facility beds for the state's population. Our review suggests that it is possible that there will be a disparity between the need for nursing facility services and the growth of bed supply over the next decade. Furthermore, the current Medi-Cal reimbursement system may be (1) contributing to low supply growth, (2) causing access problems to nursing facility beds for Medi-Cal clients, and (3) providing incentives that encourage expansion of facilities that are more costly to operate.

There are several options from which the Legislature can choose to address these issues. These options include changes in the Medi-Cal reimbursement system, expansions of community-based services that are alternatives to nursing facility services, and increased availability of long-term care insurance.

Long-term care in nursing facilities will continue to be one of the Legislature's major challenges over the next decade. The primary issue before the Legislature is how it can promote access to long-term care services in nursing facilities for the state's population. Our review indicates that the need for these services will increase in California due to a growing aged population and a growing population with long-term disabling diseases like AIDS. Growth in the supply of nursing facility beds is highly dependent on reimbursement policies of the Medi-Cal system, which provides about three-fifths of the revenues to the nursing facilities industry. Should it decide to do so, the Legislature has a good opportunity to make changes in the Medi-Cal rate-setting system in 1990-91. This is because on October 1, 1990, new federal requirements (resulting from the Omnibus Budget Reconciliation Act of 1987) that affect the Medi-Cal rate-setting methodology must be implemented.

In this section, we provide a perspective on long-term care services in nursing facilities. Specifically, we discuss (1) the state's role in long-term health care delivery, (2) the characteristics of nursing facilities, (3) the economics of the nursing facility industry, and (4) legislative options for promoting adequate access to nursing facility services over the next decade.

BACKGROUND

Long-term care refers to various social, medical, and support services provided over an extended period of time to persons who depend on others for care. These persons include those with chronic illness or disability. According to Section 9390.1(c) of the Welfare and Institutions Code, long-term care means:

> *...a coordinated continuum of preventive, diagnostic, therapeutic, rehabilitative, supportive, and maintenance services that address the health, social, and personal needs of individuals who have restricted self-care capabilities.*

Long-term care may be provided by *formal* and *informal* support systems. The more visible long-term care providers—like nursing facilities and residential care facilities—are part of formal support systems. Essentially, formal systems are those which receive payments for the services they provide. Services provided by family members, friends, and relatives are usually not paid, and are part of informal support systems.

Although long-term care has both health and social aspects, the following discussion will be limited to services that emphasize health, specifically nursing facility services, rather than social services. Hence, we will not cover social service models like in-home supportive services, residential care, foster care, and others.

WHAT IS THE STATE'S ROLE IN THE DELIVERY OF NURSING FACILITY SERVICES?

The state plays three main roles in the delivery of nursing facility services: regulation, certification, and reimbursement.

Regulation

The Department of Health Services (DHS) licenses nursing facilities that operate in the state and ensures that the facilities are adhering to regulations. The regulations cover such items as staffing, medical records maintenance, and infection control.

Nursing facilities also have to meet minimum earthquake, fire, and life safety standards established under state building standards. To assure compliance with these standards, the Office of Statewide Health Planning and Development (OSHPD) reviews all plans for construction. These reviews take a few weeks to several months, depending on the quality of the plan and the size of the project.

The state also regulates nursing facility personnel. The DHS certifies nurse aides' compliance with state training requirements. Certified nurse aides (CNAs) are the primary caregivers in long-term health care facilities. In addition, the Department of Consumer Affairs licenses nursing facility administrators, nurses, and physicians.

Certification

All health facilities that seek funding under Title XVIII (Medicare) and Title XIX (Medi-Cal) must be certified by the federal government. The DHS conducts the certification reviews to evaluate the facilities' compliance with Medicare and Medi-Cal "conditions of participation" on behalf of the federal government. Under the Omnibus Budget Reconciliation Act (OBRA) of 1987, the DHS may conduct certification reviews only for non-state-operated facilities. The federal government conducts certification reviews for state hospitals and developmental centers.

Medi-Cal Reimbursement

The California Medical Assistance program (Medi-Cal) is a joint federal-state program intended to assure the provision of necessary health care services to public assistance recipients and to other individuals who cannot afford to pay for these services themselves. Medi-Cal reimburses nursing facilities on a per diem basis. This reimbursement covers the services the facilities provide, such as nursing care, food, laundry, etc. Physician services, drugs, and acute care hospital services are reimbursed separately.

Medi-Cal is a major payor of nursing facility services in the state. According to data from a one-day census conducted in December 1988 by the OSHPD, Medi-Cal funded the stay of 62 percent of the residents in nursing facilities in the state. The DHS estimates that Medi-Cal expenditures for nursing facility services will be $1.9 billion in 1990-91. (This amount does not include the rate increases due to the facilities starting August 1990.) Nursing facility residents account for a disproportionately large share of the Medi-Cal budget relative to their numbers. They account for 25 percent of the total Medi-Cal budget for health services and 2 percent of the total Medi-Cal caseload.

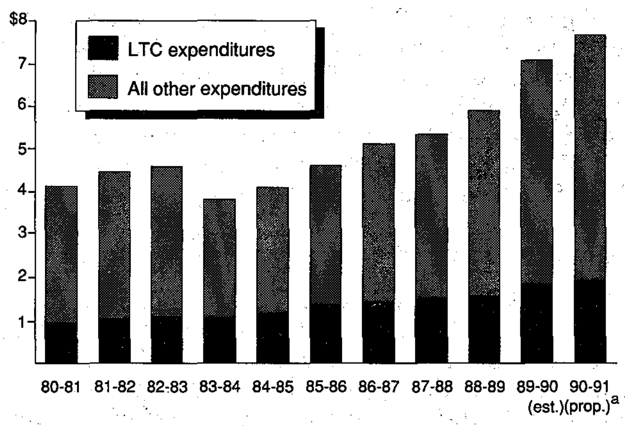
Long-term care expenditures are not only a large portion of the Medi-Cal budget, they are growing rapidly, as is the budget as a whole.

Figure 1 shows Medi-Cal expenditures for long-term care services over the past decade.

Figure 1

Medi-Cal Long-Term Expenditures and Expenditures for All Services

1980-81 through 1990-91
All Funds (dollars in billions)



[a] The budget does not reflect the cost of long-term increases that will be effective August 1990.

WHO PROVIDES LONG-TERM HEALTH CARE SERVICES IN CALIFORNIA?

Long-term health care services are available in various settings, ranging from institutions to the client's home. Nursing facilities, however, provide a majority of long-term health care. Nursing facilities include *skilled nursing facilities* and *intermediate care facilities*. According to 1988 OSHPD data, about 72 percent of the residents in these facilities are aged 75 and over. Nursing facilities admit 76 percent of their residents from hospitals. From there they go home (23 percent), go to the hospital (40 percent), or die (23 percent). (No discharge data are available on the remaining 14 percent of residents.) Seventy-one percent of those admitted stay at these facilities for six months or less.

In this section, we describe the various categories of formal long-term health care services. First, we describe 24-hour care facilities, the main providers of long-term care. Figure 2 summarizes these services and shows the number of beds licensed under each category. We then describe certain community-based services, which provide alternatives to 24-hour care.

Skilled Nursing Facilities (SNFs)

SNFs provide "continuous skilled nursing and supportive care to patients with primary need of skilled nursing services on an extended basis." Licensing regulations require SNFs to provide an average of at least three nursing hours per patient-day. Typical SNF patients include those who are incontinent, in need of tube feedings or wound dressings, and have other conditions that require 24-hour observation and constant availability of skilled nursing services. There are two general classifications of SNFs: "freestanding" and hospital-based.

Freestanding SNFs. As the name implies, freestanding SNFs are those which are not attached to a hospital from a licensing perspective. According to the OSHPD, 91 percent of the state's skilled nursing beds in 1988 were located in freestanding SNFs. During that year, there were 1,137 freestanding SNFs in the state, representing a total of 104,185 licensed beds. These facilities had a 90 percent occupancy rate.

In order to accommodate the skilled nursing needs of mentally ill individuals, the state developed a category known as *skilled nursing facility / special treatment programs* (SNF/STPs). These are freestanding facilities that provide programs designed to meet special treatment needs of mentally ill individuals. Instead of the minimum requirement of three nursing hours per patient-day, SNF/STPs are only required to provide 2.3 nursing hours per patient-day in addition to the staffing requirements of the special treatment program. SNF/STPs account for an additional 4,295 freestanding SNF beds.

Hospital-Based SNFs. Hospital-based skilled nursing services may be provided through *distinct-part skilled nursing facilities (DP / SNFs)* or *swing beds.* The DP/SNFs are those which are located in an identifiable area of an acute hospital with a set

Figure 2

Nursing Facility Characteristics

Category	Description	Staffing	Number of Facilities[a]	Number of Licensed Beds[a]
SKILLED NURSING FACILITIES (SNFs)				
Freestanding	Continuous 24-hour nursing care	Registered nurse (RN) or licensed vocational nurse (LVN) on duty 24 hours, 7 days per week, average 3 nursing hours per client-day	1,137	104,185
SNF/special treatment programs (SNF/STP)	Continuous 24-hour nursing care for mentally ill clients	RN or LVN on duty 24 hours, 7 days per week, average 2.3 nursing hours per client-day, plus STP staffing	41	4,295
Distinct-part (excluding state institutions)	Same as SNF	Same as SNF	131	7,061
Swing bed	Same as SNF	Same as SNF	14	202
INTERMEDIATE CARE FACILITIES (ICFs)				
Freestanding	Intermittent 24-hour nursing care	RN or LVN on duty 8 hours per day, 7 days per week, average 1.1 nursing hours per client-day	140	3,796
Distinct-part (excluding state institutions)	Same as free-standing ICF	Same as free-standing ICF	3	25
ICF for the developmentally disabled (ICF/DD)	Intermittent 24-hour nursing care for DD clients	RN or LVN on duty 8 hours per day, 7 days per week, average 2.7 nursing hours per client-day	33	2,730
Distinct-part ICF/DD (excluding state institutions)	Same as ICF/DD	Same as ICF/DD	1	49

MORE...

number of beds licensed for SNF services. Although most hospital-based SNF services are delivered in DP/SNFs, some hospitals that do not have DP/SNFs may provide these services through swing beds. Small and rural hospitals located in areas with a shortage

Figure 2 CONTINUED

Category	Description	Staffing	Number of Facilities[a]	Number of Licensed Beds[a]
INTERMEDIATE CARE FACILITIES (ICFs) CONTINUED				
ICF/DD-habilitative	Intermittent habilitative and nursing care for 4 to 15 DD clients	Qualified mental retardation professionals 1.5 hours per client-week; direct care hours vary from 4 to 8.5 per client-day	329	2,450
ICF/DD-nursing	Intermittent developmental and nursing care for 4 to 15 DD clients	Direct care hours vary from 5 to 7 hours per client-day[b]	—[b]	—[b]
STATE INSTITUTIONS				
Distinct-part SNF	Same as free-standing SNF	Same as free-standing SNF	10	2,911
Distinct-part ICF	Same as free-standing ICF	Same as free-standing ICF	5	3,686
Distinct-part ICF/DD	Same as ICF/DD	Same as ICF/DD	7	5,263
CONGREGATE LIVING HEALTH FACILITY				
Congregate living health facility	Continuous or intermittent nursing care for up to 6 clients; residential setting	RN or LVN 24 hours, 7 days per week, average 8 to 12 nursing hours per client day[b]	5	49

[a] As of December 31, 1988.
[b] The Department of Health Services has not yet developed permanent regulations.

of skilled nursing beds and a surplus of acute care beds may designate a certain number of their acute beds to "swing" to skilled nursing when the need arises. There were 7,061 DP/SNF beds in the state (excluding state institutions) and 202 swing beds in 1988, according to OSHPD statistics.

Intermediate Care Facilities (ICFs)

ICFs provide "inpatient care to clients who need skilled nursing supervision and supportive care needs but do not require continuous nursing care." Thus, ICF services differ from SNF services in that ICFs provide intermittent, instead of continuous, nursing care. The state requires ICFs to provide an average of at least 1.1 nursing hours per patient-day. The needs of the residents in ICFs are typically less than those in SNFs.

ICFs may be freestanding or a distinct-part (DP/ICF) of a hospital or a SNF. In 1988 there were 3,796 freestanding and 25 DP/ICF beds (excluding state institutions) in the state, with a 99 percent occupancy rate.

The state also licenses ICFs in one of three other categories.

ICFs for the Developmentally Disabled (ICF/DDs). These facilities provide 24-hour care, habilitation, developmental, and support health services to developmentally disabled residents whose primary need is for developmental services and who have a recurring, but intermittent, need for skilled nursing services. In addition to intermittent nursing care, ICF/DD services include a developmental program. On the average, these facilities provide at least 2.7 nursing hours per client-day. Patients in these facilities typically need specialized developmental and training services. In 1988 there were 2,730 freestanding and 49 DP/ICF/DD beds (excluding state institutions).

ICFs for the Developmentally Disabled-Habilitative (ICF/DD-Hs). These facilities provide habilitation, developmental, and supportive health services to 15 or fewer developmentally disabled persons who have intermittent recurring needs for nursing services but do not require continuous skilled nursing care. These facilities also provide active treatment programs. Minimum direct-care staffing requirements vary from four hours per client-day for facilities with four clients to 8.5 hours per client-day for facilities with 15 clients. The residents in these facilities typically have two or more developmental disabilities. Clients with serious aggressive or self injurious behavior or serious nursing needs are not accepted in ICF/DD-Hs.

ICFs for the Developmentally Disabled-Nursing (ICF/DD-Ns). This is the most recently established ICF category. These facilities provide 24-hour personal care, developmental services, and nursing supervision to 15 or fewer developmentally disabled persons who have intermittent recurring needs for nursing services but do not require continuous skilled nursing care. Minimum direct-care staffing requirements vary from five hours to seven hours per client-day. Typical ICF/DD-N residents include those who have two or more developmental disabilities and a need for nursing services, such as colostomy care or gastrostomy feeding, on an intermittent basis.

State Institutions

State hospitals and developmental centers provide both SNF and ICF services. In 1988, 11 institutions had a total of 2,911 SNF, 3,686 ICF, and 5,263 ICF/DD beds. They had an average occupancy rate of 84 percent. All 11 state institutions are licensed as acute hospitals because they have acute medical/surgical wards.

Congregate Living Health Facilities (CLHFs)

CLHFs provide services to six or fewer residents who need skilled nursing care on a recurring, intermittent, extended, or continuous basis. These facilities are distinct from the SNFs and ICFs in that each CLHF must specialize in serving ventilator dependent, terminally ill, or catastrophically or severely disabled persons. Presumably, the level of care provided by CLHFs is more intense than an SNF but less intense than an acute care hospital. However, Ch 1393/89 (AB 68, Polanco) redefined this category, and the DHS has not yet developed regulations in response to these statutory changes.

Community-Based Long-Term Care

All the above services are provided in around-the-clock facilities. There are other types of long-term care providers, however, serving as alternatives to 24-hour facilities. Most of these alternatives are "community-based," which means that they provide services to clients who live in their homes. These community-based alternatives evolved in recognition that some clients can avoid, or at least delay, nursing facility admission if alternatives are available.

Adult Day Health Centers (ADHCs). ADHCs provide an alternative to institutionalization for older impaired persons or those with functional impairments who are capable of living at home with the help of health care or rehabilitative or social services. ADHC services include planned recreational and social activities and rehabilitation, medical, nursing, nutrition, psychiatric or psychological, social work, and transportation services. According to the DHS, there are currently 63 licensed ADHCs in the state.

Home Health Agencies (HHAs). HHAs also fill the skilled nursing needs of those who wish to remain in the community but cannot go to ADHCs. In addition to skilled nursing services, HHAs may provide physical, speech, or occupational therapy; medical social services; and home health aide services. There are currently 449 licensed HHAs in the state. However, the DHS advises that this number may increase dramatically in the next year because of the HHA licensing requirement revisions under Ch 856/89 (AB 2266, Connelly). Under Chapter 856, additional HHAs are subject to licensure.

Licensing and Reimbursement Categories

The services discussed above are licensed by the DHS. Virtually all of them are also Medi-Cal reimbursement categories. The only exception is the CLHF, which is currently not considered a Medi-Cal benefit. Other differences include institutions for mental diseases (IMDs) and hospice services, both of which are Medi-Cal reimbursement categories but are not licensing categories. IMDs are SNF/STPs that have been designated as IMDs by the federal Health Care Financing Administration. Federal law prohibits Medi-Cal from reimbursing for IMD services provided to beneficiaries between the ages of 21 and 65. Hospice services are nursing, medical, and counseling services provided to terminally ill clients. Hospice services may be provided by hospitals, nursing facilities, HHAs, or other providers certified to provide hospice services by Medicare.

WHAT FACTORS AFFECT THE DEMAND FOR NURSING FACILITY BEDS?

There are three major factors affecting demand for nursing facility beds. Two of these involve the users of nursing facility services, while the other deals with the availability of other alternatives.

With regard to the users, the need for long-term health care services is measured by a person's dependence on others in performing activities of daily living (ADL) and the frequency of required medical and nursing attention. Activities of daily living include bathing, dressing, using the toilet, getting in or out of a bed or chair, continence, and eating. Two groups of people tend to have high ADL dependencies and require higher frequencies of medical and nursing services: the elderly and people with long-term impairments.

The Elderly

The most obvious and the greatest source of demand is the elderly population. This is primarily because more chronic problems set in as people grow older. Hence, the bigger the elderly population, the higher the demand for long-term care services.

Statistics show that the state's elderly population has been growing rapidly and this growth is projected to continue over the next decade. According to Department of Finance (DOF) estimates, the state's 75-and-older population (which accounts for almost three-fourths of the nursing facilities population) was 1.3 million in 1988, an increase of 300,000 persons, or 32 percent since 1980. The DOF projects that the 75-and-older population will grow to 1.8 million by 2000, an increase of 520,000 persons (42 percent).

The elderly population has grown and is projected to grow faster than the state's population as a whole. The 75-and-older group constituted 4 percent of the total population in 1980, 4.5 percent in 1988, and the DOF projects that the figure will reach 5.4 percent in 2000.

People With Long-Term Impairments

The other group of people who have high ADL dependencies and require frequent medical and nursing attention are those with long-term impairments. These clients may be younger. They include people in advanced stages of AIDS and Alzheimer's disease, among others. An increasing population of people with these and other chronic diseases, combined with improvements in medical technology to prolong life, will increase the demand for nursing facility services.

Availability of Alternatives

The other factor that affects demand for 24-hour nursing facility services is the availability of community-based alternatives. As we have noted in an earlier analysis of state programs for older Californians (please see *The 1989-90 Budget: Perspectives and Issues,* page 279), the availability of formal community-based alternatives may be a factor in explaining why California has a relatively low institutionalization rate among the state's elderly population. Only 2.8 percent of the state's 65-and-older population resided in nursing facilities in December 1988, compared to 5 percent nationwide. We note, however, that while community-based alternatives delay institutional placement in many cases, they do not totally eliminate the need for institutional long-term care services.

WHAT FACTORS AFFECT THE SUPPLY OF NURSING FACILITY BEDS?

In the nursing facility industry, 84 percent of the facilities are investor-owned. Consequently, as in any private market, the most important factor affecting the supply of nursing facility beds is profitability. The OSHPD reports profitability data on nursing facilities. That information indicates that, based on statewide rate-of-return figures, the industry has experienced very low levels of profitability. Unfortunately, the OSHPD data have serious shortcomings (for example, it is *unaudited* data and presented in a way that makes it difficult to assess the financial health of the company providing the nursing facility services). Consequently, we are unable to draw conclusions from the OSHPD data about the profitability of the industry.

The key factors affecting profitability are the costs the industry faces in providing nursing care services and the source of revenues (or reimbursements) to facilities.

Industry Costs

The industry incurs two types of costs: entry costs and operating costs. The industry's entry costs are affected by the direct costs of construction and construction delays resulting from extended regulatory reviews, plus uncertainties associated with regulatory processes, including zoning. Entry costs have been reduced somewhat since 1987, when certificate-of-need requirements were eliminated. Previously, health facility construction could not proceed until the OSHPD certified that the facility was needed.

The industry's operating costs are mainly a function of labor costs, its biggest operating cost component. In fact, according to the OSHPD, labor costs for nursing services alone account for 45 percent of operating expenses in nursing facilities.

Industry Revenues

There are two primary sources of nursing facility revenues in the state. The first, and by far the larger of the two, is Medi-Cal. As discussed earlier, Medi-Cal covers about 60 percent of nursing facility residents. The other is private sources, which cover about 30 percent of nursing facility residents. Medicare, the Veteran's Administration, Lifecare, private insurance, and others cover the remainder. The combined influence of the two main payor sources drives the revenue picture of the industry.

Medi-Cal Reimbursement Methodology. Medi-Cal currently reimburses nursing facility costs on a prospective, flat-rate basis. The DHS classifies nursing facilities into certain peer groups based on their category (SNF, DP/SNF, ICF, state hospital), size, and geographic location and annually sets each group's rate at the adjusted median cost of the facilities in that group.

For example, to set the reimbursement rate of peer group A, which has 75 facilities, Medi-Cal would array the adjusted costs of the 75 facilities from lowest to highest. The adjusted costs for each facility are derived from cost report data submitted by the facility, adjusted to reflect disallowed costs (based on audits of a sample of all facilities) and inflationary factors. The adjusted cost of the 38th (median) facility, say $60.00 per day, would be the

Medi-Cal reimbursement for the 75 facilities in that group, regardless of the amount each facility actually spends.

Under this reimbursement system, profitability of a given facility depends on many factors:

- The relationship of that facility's adjusted costs to the median adjusted costs (by definition, Medi-Cal reimburses about half of the facilities in a given peer group above their adjusted costs and the other half at or below their adjusted costs).
- The relationship of actual cost increases to the inflationary adjustments used in rate development (for example, a facility may not have provided staff salary increases in the amount assumed in the inflation adjustment).
- The mix of patients by type of patient (a facility with a greater proportion of "heavy-care" patients will have a more difficult time making ends meet than a facility with a lighter-care caseload due to staffing requirements).

Figure 3 shows the average Medi-Cal reimbursement rates for various nursing facility categories for the prior and current years. It shows that the reimbursement rate for freestanding

Figure 3

Medi-Cal Daily Reimbursement Rates by Service Category Weighted Averages for 1988-89 and 1989-90

Category	1988-89	1989-90
SKILLED NURSING FACILITIES (SNFs)		
Freestanding SNF	$51.84	$60.26
Distinct-part SNF	128.37	147.25
Swing bed	124.60	133.71
Distinct-part SNF (state institution)	156.76	183.75
INTERMEDIATE CARE FACILITIES (ICFs)		
Freestanding or distinct-part ICF	38.62	44.22
ICF or distinct-part ICF for the developmentally disabled (ICF/DD)	59.42	66.16
ICF/DD-habilitative	78.45	91.83
ICF/DD-nursing	—	116.01
Distinct-part ICF/DD (state institution)	164.07	179.51
OTHER		
Congregate living health facility	—	NA[a]

[a] These facilities are not eligible for Medi-Cal reimbursement.

SNFs (which account for the vast majority of beds) is $60 per day. By comparison, the rates for hospital-based SNFs are two and three times as much.

Comparison of Costs and Revenues

According to 1988 OSHPD data, freestanding nursing facilities spent an average of $57.35 daily (for all patients—Medi-Cal, private-pay, etc.) on nursing services, while Medi-Cal paid an average of only $48.32 daily. Although these averages imply that facilities which accept Medi-Cal clients operate at a loss, a 1987 study by the Auditor General on the state's Medi-Cal reimbursement system showed that the industry earned a positive margin on about two-thirds of the Medi-Cal patient-days in 1985. The study indicates that Medi-Cal patients tend to be concentrated in facilities that earn a positive margin on Medi-Cal patients. This suggests that these facilities are either more efficient (that is, lower-cost) than the average or provide fewer services than the average.

Private sources also funded a large portion of nursing facility services. On the average, reimbursements from private sources are higher than Medi-Cal reimbursements and average facility costs. While Medi-Cal paid only $48.32 per day to cover nursing services costs of $57.35 per day, private sources paid an average of $71.23 per day. If private-pay and Medi-Cal patients have similar needs and receive similar services, then the higher the ratio of private-pay residents a facility has, the greater the profit margin.

WHAT ISSUES WILL THE LEGISLATURE FACE OVER THE NEXT DECADE?

In this section, we discuss issues that the Legislature will likely face over the next decade.

Nursing Facility Bed Supply

The adequacy of the state's nursing facility bed supply will depend on the interaction of the factors discussed above. It is difficult to project the actual supply and demand dynamics over the next decade because of the lack of reliable data. However, the common perception is that the nursing bed supply has been, and is expected to remain, extremely tight. This appears to have been the case throughout the early 1980s, when statewide occupancy rates reached 94 percent.

Since that time, occupancy rates have declined, dropping to about 90 percent in 1988. OSHPD data suggest that this decline was a result of no growth in total patient-days in combination with an increase in the number of beds (between 1980 and 1988, about 20,000 beds were added to supply). One factor in this lack of growth in patient-days may have been increased availability of community-based alternatives. Despite the decline in the statewide occupancy rate, regional shortages may exist.

State agency projections of the number of new nursing facility beds needed by the year 2000 range from almost 34,000 (OSHPD, 1989) to almost 51,000 (Health and Welfare Agency, 1988). Given these demand estimates (especially at the high end), and the actual increase in bed supply between 1980 and 1988 (20,000), it is possible that the state could face a shortage of beds by the year 2000. We note, however, that certificate-of-need requirements that regulated health facility construction in the state until 1987 may have limited the growth of bed supply during most of the 1980-through-1988 period.

Access to Nursing Facility Beds for Medi-Cal Clients

The current Medi-Cal reimbursement system may be a barrier to access to nursing facility beds for Medi-Cal clients. Nursing facilities tend to favor private-pay and Medicare patients over Medi-Cal clients because of their higher reimbursement rates. Hence, Medi-Cal clients have more difficulty in finding a bed than these other two groups.

Access problems may even be more acute for heavy-care Medi-Cal clients. Heavy-care patients generally have nasal gastric tubes or decubiti (bed sores), or are incontinent or ventilator-dependent. Because Medi-Cal's flat-rate reimbursement system does not recognize various levels of care, facilities prefer to accept lighter-care patients as their care is less costly. Heavy-care clients usually remain in hospitals until Medi-Cal staff or the hospital's discharge planning staff arrange nursing facility placements.

There are no readily available data that quantify Medi-Cal clients' access problems. However, two factors suggest that these problems exist.

Relative Decline in Medi-Cal Share of Clients. First, Medi-Cal clients make up a diminishing proportion of the population in nursing facilities. In a 1980 one-day census, 71 percent of nursing facility clients were Medi-Cal clients. By 1988, this number had decreased to 62 percent. On the one hand, this decline could mean that more Medi-Cal clients are using community-based alternatives instead of entering a nursing facility. On the other hand, it could suggest that nursing facilities are filling whatever increase in bed supply there was during this period with privately sponsored patients. We believe that the decline was a result of a combination of the two factors. While more Medi-Cal clients may be taking advantage of community-based alternatives, the disparity in reimbursement rates between Medi-Cal and private sources in a predominantly for-profit industry suggests that there are significant incentives for nursing facilities to favor privately sponsored clients over Medi-Cal clients. The study by the Auditor General corroborated this hypothesis when it found that hospital discharge planners ranked Medi-Cal clients as considerably harder to place than privately sponsored clients.

High Use of Administrative Days. The second factor that suggests access problems for Medi-Cal clients is the state's high utilization of acute "administrative days." Clients are placed on "administrative status" when they stay in a facility that provides a higher level of care than the client needs. Generally, Medi-Cal places clients on administrative status in acute care hospitals when the client is awaiting nursing facility placement. In 1988-89, Medi-Cal authorized 84,000 administrative days (the equivalent of about 230 beds). These stays vary from a few days to months, depending on how difficult it is to place a client.

To address this problem, the DHS established a "subacute" reimbursement category under Medi-Cal. The subacute level of care is more intensive than skilled nursing care but not as intensive as hospital acute care. To date, only a few providers have participated in this program. The most frequently cited reason for this low participation rate is that the criteria for determining whether a facility can receive a subacute rate for a particular patient were too narrowly defined. The DHS has taken steps to revise these criteria.

Perverse Incentives in the Medi-Cal Reimbursement System

The current Medi-Cal long-term care rate reimbursement system offers perverse incentives to providers. In this section, we discuss some of the effects of the system on patient care, access, and costs.

In his 1987 study, the Auditor General found that Medi-Cal's prospective flat-rate reimbursement system, while effective at controlling costs, has several weaknesses. The system is a good cost control mechanism in that it encourages nursing facilities to spend below the reimbursement rate: the system rewards operators who run their facilities efficiently. However, a flat-rate system also rewards operators who provide minimal patient care and penalizes operators who provide additional services. The rates have no direct relationship to the level of service actually provided.

An example of the effects of the current flat-rate reimbursement system is demonstrated by the rate differential between DP/SNFs and freestanding SNFs. As Figure 3 shows, there is a wide disparity in reimbursement rates between DP/SNFs and freestanding SNFs. The average DP/SNF reimbursement in the current year is $147 per patient-day, while the average reimbursement rate for freestanding facilities is $60.

The rate differential is associated with two problems. First, the higher rates result in significantly higher Medi-Cal costs, without any requirement for a greater level of services. The differential in rates reflects differences in costs of operating the two types of facilities. On the average, in DP/SNFs patients receive a higher level of services and staff receive higher wages than in freestanding SNFs. However, DP/SNFs are subject to the same regulations as freestanding SNFs; they do not *have* to provide any additional services or to accept heavier-care patients to justify receiving a higher rate.

Second, this disparity in reimbursement rates is a problem because it provides an incentive for freestanding SNFs to become DP/SNFs by licensing in association with an acute care hospital. (We note that until recently, Medi-Cal tried to control DP/SNF utilization through a policy to approve DP/SNF stays only when a client could not be placed in freestanding facilities within a certain radius or travel time. Medi-Cal recently suspended this policy in response to a suit challenging this transfer policy.)

Without changes in the Medi-Cal reimbursement system, these problems will likely continue, and perhaps get worse, in the future.

WHAT OPTIONS DOES THE LEGISLATURE HAVE TO PROMOTE ADEQUATE ACCESS TO NURSING FACILITY SERVICES OVER THE NEXT DECADE?

The Legislature has several options to address the issues discussed in the earlier section. The Legislature could promote adequacy of nursing facility beds by either reducing demand and/or increasing supply. In this section, we provide a brief overview of some of the alternatives available to the Legislature to promote adequate access to nursing facility beds over the next decade.

Changes in the Medi-Cal Reimbursement System

The current Medi-Cal reimbursement system is primarily designed to control costs. It is not designed to ensure an adequate supply of Medi-Cal beds. In addition, the current reimbursement system (1) does not relate the level of reimbursements to the level of services facilities provide, (2) may contribute to access problems for Medi-Cal clients, and (3) creates incentives for building the more expensive distinct-part facilities.

The Auditor General study identified three alternatives to the current reimbursement system: a case-mix system, an outcome-oriented system, and a facility-specific system.

A case-mix reimbursement system sets reimbursement rates based on the level of services required by each patient. An outcome-oriented reimbursement system ties the rates to certain "outcomes," or quality of care. A facility-specific system, on the other hand, reimburses a facility based on its own costs, not on the median of its peer group. Of the three, the study recommended that the state adopt a facility-specific system. The study also recommended a supplementary rate for heavy-care Medi-Cal clients. The facility-specific system would tie reimbursement more directly to the facility's spending and provide more nursing facility bed access to heavy-care clients. A similar system is proposed by SB 1087 (Mello), which was in conference committee at the time this analysis was prepared.

The actual cost of such a system would depend on how it is structured. However, the system could cost significantly more than the current flat-rate system because (1) facilities would have incentives to spend more on care, (2) facilities would have incentives to classify clients as heavy-care in order to receive the higher reimbursement rate, and (3) this system is more complicated and, therefore, more difficult to administer.

The Legislature has a good opportunity to effect major changes in the reimbursement methodology in the budget year, should it decide to do so. This is because effective October 1, 1990, the Omnibus Budget Reconciliation Act (OBRA) of 1987 requires a consolidation of the SNF and ICF reimbursement categories into one. As Figure 3 shows, average SNF and ICF rates currently differ by about $16 daily. Under the OBRA, ICF staffing and physical plant standards would be upgraded to the SNF level. These new standards would require the DHS to make changes in its rate-setting system, as SNF and ICF rates are currently devised separately. These changes could vary from minor adjustments to an overhaul of the whole system. The Legislature has demonstrated interest in changing the whole system through the advancement of SB 1087. The Medi-Cal reimbursement methodology eventually adopted in conjunction with the OBRA-mandated changes will have a significant influence on the supply of, and access to, nursing facility beds in the state over the next decade.

Expand Community-Based Programs

In order to reduce demand for nursing facilities, the Legislature also could expand community-based alternatives to avoid or at least delay entry into nursing facilities. For example, the Legislature has encouraged such expansion in the past by providing "start-up" grants of $50,000 for each new adult day health center. We note that community-based programs are not necessarily less expensive than nursing facility services. However, to the extent that they prevent or delay institutionalization, they help reduce the pressure on nursing facility bed supply.

Expand the Availability of Long-Term Care Insurance

Another option for increasing bed supply is to expand the availability of long-term care insurance, thereby increasing the proportion of patients who are funded from non-Medi-Cal sources. Currently, private funding comes primarily from clients' own savings and other resources. Many privately funded clients become eligible for Medi-Cal within a matter of months after entering a facility because the high cost of nursing facility services depletes their resources. According to a 1987 report by the House of Representatives Select Committee on Aging, 47 percent of single Californians age 65 and older who live alone are at risk of impoverishment after 13 weeks of nursing facility stay. A long-term care insurance program would be effective only to the extent that (1) it covers the target population and (2) the premiums are affordable. Hence, financing of such a program becomes an important issue. The extent of the state's involvement in an insurance program is a policy decision that the Legislature would have to make if it chooses to pursue this option further.

Proposition 99: An Update

What Is the Status of Proposition 99 Implementation?

Summary

Proposition 99 established a new surtax on cigarettes and tobacco products, thereby generating almost $1.5 billion in new revenues available for expenditure in 1989-90 and 1990-91. Assembly Bill 75 (Ch 1331/89, Isenberg) allocated the vast majority of these funds. Our review indicates that the three major departments responsible for the implementation of AB 75 have made good progress in implementing the programs the act established in the current year.

The Legislature will face several major issues related to Proposition 99 in the coming year. Among these are (1) AB 75 will sunset in June 1991, requiring choices regarding the allocation of Proposition 99 funds beginning in 1991-92 and (2) the Governor has proposed augmentations in 1990-91 for local mental health programs and the California Healthcare for Indigents Program (CHIP) that compete with the funding necessary to implement the Major Medical Insurance Program established by Ch 1168/89 (AB 60, Isenberg).

In November 1988, the voters approved Proposition 99, the Tobacco Tax and Health Protection Act, which established a surtax of 25 cents per package on cigarettes and an equivalent amount on all other tobacco products sold in California. Proposition 99 provides a major new funding source—over $550 million annually—for health services, health education, and resources programs.

In this analysis, we (1) provide background on the provisions of Proposition 99 and the Legislature's actions in implementing it; (2) review the 1990-91 budget proposal for Proposition 99 funds;

(3) provide a status report on programs established by AB 75 (Ch 1331/89, Isenberg), which allocated 90 percent of Proposition 99 funds; and (4) identify outstanding issues facing the Legislature in 1990 regarding Proposition 99.

BACKGROUND

Proposition 99 required that revenues from the surtax be deposited in the Cigarette and Tobacco Products Surtax Fund (C&T Fund) established by the act, and allocated specified percentages of the fund to six accounts. The act further required that revenues allocated to the six accounts be expended for specified purposes. Figure 1 identifies the six accounts, the percent of surtax revenues allocated to each, and the specified purposes for each account.

Figure 1

Proposition 99 Accounts

Account	Percent of Surtax Revenues	Purposes
Health Education	20	Prevention and reduction of tobacco use, primarily among children, through school and community health education programs
Hospital Services	35	To pay hospitals for the treatment of patients who cannot afford to pay, and for whom payment will not be made through private coverage or federally funded programs
Physician Services	10	To pay physicians for medical care services provided to patients who cannot afford to pay, and for whom payment will not be made through private coverage or federally funded programs
Public Resources	5	To be equally divided between programs that (1) protect, restore, enhance, or maintain fish, waterfowl, and other wildlife habitat areas and (2) improve state and local park land recreation resources
Research	5	To fund tobacco-related disease research
Unallocated	25	May be used for any of the specific purposes described above

The surtax went into effect on January 1, 1989. However, none of the revenues raised in the last half of 1988-89 (almost $330 million) were spent in 1988-89.

During 1989 the Legislature took the following actions to provide for the expenditure of Proposition 99 funds:

- ***Assembly Bill 75*** allocated revenues from 1988-89, 1989-90, and 1990-91 from the Unallocated, Physician Services, Hospital Services, and Health Education Accounts. The act appropriated $1.2 billion ($703 million for expenditure in 1989-90 and $510 million for expenditure in 1990-91) to establish a variety of new health programs and expand existing programs.
- ***The 1989 Budget Act*** allocated funds available in the Research Account and the Public Resources Account to various programs. The Budget Act also allocated $25.3 million from the Unallocated Account.
- ***Chapter 1168, Statutes of 1989 (AB 60, Isenberg),*** established the California Major Medical Insurance Program and transferred $250,000 from the Unallocated Account to begin developing rules and regulations and to carry out other activities necessary to implement the program. Chapter 1168 also specifies that the program shall be funded by transferring $30 million first from interest accrued on unspent funds and, if necessary, from the unspent balances in the Hospital Services, Physician Services, and Unallocated Accounts. Chapter 1168 also continuously appropriates $30 million annually from the Unallocated Account, beginning in 1991-92, to fund the program.

BUDGET OVERVIEW

Overall, the budget proposes expenditures of $630 million, a reduction of $182 million, or 22 percent, from the current year. The proposed reduction results primarily from the artificially high current-year total, which included one-time funds carried over from 1988-89.

Figure 2 displays the distribution of Proposition 99 funds in 1989-90 and proposed for 1990-91. The Governor's Budget and Budget Summary contain detailed schedules for the individual accounts.

In the following sections, we discuss in greater detail the revenue outlook and outline the spending plan for Proposition 99 funds proposed in the budget.

Figure 2

Proposition 99 Revenues and Expenditures

(dollars in thousands)

	Estimated 1989-90	Proposed 1990-91
Resources		
Revenues from surtax	$576,000	$561,000
Interest income	26,100	14,900
Carry-over from previous year	329,168	118,098
Totals	$931,268	$693,998
Expenditures		
AB 75 programs		
Department of Health Services:		
California Healthcare for Indigents Program	$336,716	$350,404
County capital outlay	82,288	—
Uncompensated care assistance	61,931	—
County data systems	10,000	—
Clinics	19,719	18,265
Children's hospitals	2,000	1,896
Rural health services	6,972	6,542
County Medical Services Program expansion	9,954	9,918
Child Health and Disability Prevention Program expansion	19,696	19,445
Health education programs	91,538	61,146
Expansion of Medi-Cal perinatal services	19,894	19,788
Administration	7,455	7,579
Subtotals	($668,163)	($494,983)
Department of Mental Health	25,000	35,000
Office of Statewide Health Planning and Development administration	225	450
State Department of Education:		
Local assistance	35,100	35,100
Administration	900	900
Other programs		
Board of Equalization	554	463
Major Medical Insurance Board	250	—
Resources programs	42,019	31,202
University of California	40,923	31,949
Employee compensation	36	—
Totals	$813,170	$630,047
Carry-over to next fiscal year	118,098	63,951
Five percent reserve		*34,677*
Other reserves:		
Health Education Account		*28,879*
Physician Services Account		*232*
Public Resources Account		*163*

Revenue Outlook

Surtax Revenues. The budget estimates that surtax revenues will total $576 million for the current year. This represents a reduction of $27 million, or 4.5 percent, below the amount projected last May. Revenues are lower than anticipated because per-capita cigarette sales have diminished more quickly than anticipated since imposition of the surtax in January 1989. (Revenue from the sale of cigarettes accounts for more than 95 percent of surtax revenue.)

Data provided by the State Board of Equalization indicate that per-capita cigarette sales fell by 11 percent in 1988-89. The budget's revenue estimate for the current year is based on a decrease of 6.8 percent for 1989-90. These figures represent a substantially sharper rate of decline than the 3.6 percent average annual decrease that occurred over the period from 1982-83 through 1987-88. The primary reason for these large declines in smoking is the effect of the price increases associated with the imposition of the surtax.

The budget estimates that surtax revenue for 1990-91 will total $561 million, based on a projected decline of 4.5 percent in per-capita cigarette sales. The projected decline in smoking for 1990-91 is less than the declines in the past year and the current year because the *one-time* effect of the surtax price increases on people's behavior will have passed. Nevertheless, the 4.5 percent decline in smoking assumed in the budget estimate still represents a greater rate of decline than the pre-surtax annual decline rate of 3.6 percent. The major reasons for the anticipated faster decline in smoking include increased educational efforts to reduce smoking and additional restrictions on smoking in public places and work areas. (Because the budget expects population growth to partially offset reduced per-capita sales, the projection for surtax revenues of $561 million represents a decrease of only 2.6 percent for 1990-91.)

Over the longer term, surtax revenues are expected to gradually diminish. Based on the Department of Finance's estimates for current-year revenue, its projections for population growth, and assuming that the decline in per-capita cigarette sales it expects for 1990-91 continues at the same rate, we estimate surtax revenues would be on the order of $500 million in 1994-95 (a 12 percent reduction).

Interest Income. The budget reflects interest income of $439,000 in 1988-89, $26.1 million in the current year, and $14.9 million in 1990-91. Actual interest income on surtax revenues was much higher in 1988-89 ($4.7 million) than the $439,000 reflected in the budget. However, the General Fund received $4.3 million of the interest earnings because the administrative actions necessary for the C&T Fund subaccounts to retain interest earnings did not occur until July 1989.

Comparison to AB 75 Revenue Assumptions. The spending plan included in AB 75 assumed that available revenues for the three-year period 1988-89 through 1990-91 would total $1.5 billion ($294 million in 1988-89, $603 million in 1989-90, and $572.9 million in 1990-91), *all from surtax collections.* The AB 75 spending plan did not reflect *any* interest income.

The current projection of *surtax* revenues for the three-year period is about $4 million less—actual revenues of $329 million in 1988-89 and projected revenues of $576 million in 1989-90 and $561 million in 1990-91. The significant reductions in anticipated current-year and 1990-91 surtax revenues due to declining consumption are offset by an increase of $35 million in 1988-89 collections above the amount anticipated. This increase was due to a one-time accrual adjustment.

The budget's estimate of *total* revenues available in the three-year period is $37 million above the amount anticipated when the Legislature enacted AB 75. This is the net effect of (1) interest income of $41 million, offset by the reduction of $4 million in surtax revenue.

Expenditures

Figure 2 (above) displays the budget's spending plan for Proposition 99 funds for 1989-90 and 1990-91.

Assembly Bill 75 Programs. Assembly Bill 75 established the spending plan for funds in the Health Services, Physician Services, Health Education, and Unallocated Accounts for both the current and budget years. (Below we describe the implementation of programs supported by these funds.) The 1990 Budget Bill includes funds for administration in the Office of Statewide Health Planning and Development, the Department of Health Services (DHS), State Department of Education, and county boards of education. The Governor's Budget proposes augmentations of $10 million for local mental health programs and $34.6 million for the California Healthcare for Indigents Program (CHIP) in the DHS.

Public Resources Programs. The 1989 Budget Act appropriated $42 million from the Public Resources Account for a variety of *one-time* projects and some continuing support costs in various state agencies. The 1990 Budget Bill proposes $31.2 million for similar purposes. The proposed allocation of Public Resources Account funds in the 1990 Budget Bill is consistent with the Proposition 99 requirement that 50 percent of the funds be allocated to wildlife habitat and 50 percent to state and local park and recreation resources.

Research Programs. The 1989 Budget Act appropriated $42.6 million from the Research Account to expand the cancer registry in the DHS and support research at the University of California. The 1990 Budget Bill proposes $31.9 million to continue these expenditures.

Reserves. The budget proposes carrying over into 1991-92 a 5 percent reserve in all accounts plus $29.3 million in additional reserves. Of these additional reserves, $28.9 million are in the Health Education Account.

STATUS REPORT ON AB 75 PROGRAMS

Below we describe each program established by AB 75 and provide a status report. Generally, the three agencies involved are making good progress in implementing AB 75.

California Healthcare for Indigents Program (CHIP)

Assembly Bill 75 appropriated $336.7 million in 1989-90 and $315.8 million in 1990-91 to support the CHIP. In addition, the 1990 Budget Bill proposes an augmentation of $34.6 million for the program. Assembly Bill 75 requires that CHIP funds be distributed to counties operating MISPs based on specified percentage shares. The department reports that it is implementing the program and that approximately one-half (or about $170 million) of funds appropriated for the current year have been distributed. The department released guidelines for expenditure of program funds to counties in December 1989.

The *Hospital Services Account* funds ($200 million in 1989-90 and $188.8 million in 1990-91) are to be divided into county hospital and noncounty hospital portions within each county based on each group's share of uncompensated care costs. The county hospital portion may be used for county hospital services or noncounty hospital services, as determined by the county. Fifty percent of the noncounty hospital portion are to be allocated directly to those hospitals based on uncompensated care data. The remaining 50 percent is available to maintain access to emergency care and to purchase other necessary hospital services for medically indigent persons.

The *Physician Services Account* funds ($41.1 million in 1989-90, and $38.4 million in 1990-91) will pay for unreimbursed physician services. Counties must use at least 50 percent of the available funds to pay for unreimbursed emergency services. The measure caps these reimbursements at 50 percent of the physician's losses. Counties may use the remaining funds to pay for new contracts with physicians to provide emergency, obstetric, and pediatric services in noncounty facilities where service access is limited.

The *Unallocated Account* funds ($95.3 million in 1989-90 and $88.7 million in 1990-91) are available at the county's discretion to provide health services for patients unable to pay and services that are not covered by private insurance or by fully or partially federal-funded programs.

County Capital Outlay

The act allocated $82.3 million in 1989-90 to fund capital outlay at county health facilities. Ninety percent of the available funds goes to Medically Indigent Services Program (MISP) counties; the remaining 10 percent goes to County Medical Services Program (CMSP) counties. The act permits counties to use a portion of their allocations to replenish specified reserve funds.

The DHS reports that expenditure applications and guidelines currently are being developed but that no funds have yet been distributed.

Uncompensated Care Assistance

The act provided $37 million in 1989-90 for uncompensated care at county and noncounty hospitals, to be allocated to hospitals based on financial data reported to the Office of Statewide Health Planning and Development (OSHPD). In addition, AB 75 allocated $24.9 million in 1989-90 to MISP counties for uncompensated physician services. Counties must use at least 50 percent of their allocation for unreimbursed emergency services. The measure caps these reimbursements at 50 percent of the physician's losses. Up to 50 percent of each county's allocation may be used for new contracts with private physicians to provide emergency, obstetric, and pediatric services in noncounty facilities where service access is limited.

The DHS and the OSHPD report that all funds for uncompensated care assistance have been distributed.

County Data Systems

The act allocated $10 million in 1989-90 to develop and implement county medically indigent care reporting systems. To receive funding, counties must submit applications to the DHS. The department reports that it is currently developing criteria for distributing the funds. The department indicates it plans to disburse all funds on May 1.

Clinics

The measure appropriated $19.7 million in 1989-90 and $18.3 million in 1990-91 for medical services and preventive services, including smoking prevention and cessation health education, rendered by primary care clinics to persons with incomes at or below 200 percent of the federal poverty level. Clinics serving medically underserved areas or populations have priority for funds. Up to $10 million of the 1989-90 funds may support clinic capital outlay grants.

The department reports that all staff budgeted to implement the program in the current year have been hired. The department has issued requests for application to counties for funds appropriated by the act. However, no funds have yet been distributed.

Children's Hospitals

Assembly Bill 75 appropriated $2 million in 1989-90 and $1.9 million in 1990-91 for distribution to seven children's hospitals based on their share of the uncompensated care costs of all children's hospitals in the state. The department has issued applications to the hospitals for their use in requesting current-year funds, and expects to disburse the funds in February.

Rural Health Services

Assembly Bill 75 provided $7 million in 1989-90 and $6.5 million in 1990-91 for services in CMSP counties. Funds from the Hospital Services Account are to be distributed to hospitals based on their share of the county's uncompensated care costs. Funds from the Physician Services Account are to support unreimbursed medically necessary emergency, obstetric, and pediatric physician services. Funds from the Unallocated Account are to support expanded emergency medical transportation and public health services.

The department has set up claiming procedures and is holding workshops to assist providers in claiming additional funds. The department indicates it will begin distributing these funds in early February.

County Medical Services Program (CMSP) Expansion

The act allocated $10 million in 1989-90 and $9.9 million in 1990-91 to expand the scope of services under CMSP and to compensate hospitals and other emergency providers for emergency services rendered to out-of-county indigent patients. The department reports that in both 1989-90 and 1990-91, it is using $5 million of the funds to expand services (particularly dental services) covered under the CMSP and the remaining $5 million to reimburse providers for out-of-county care. The expanded scope of services took effect January 1, 1990. The department has set up claiming procedures for out-of-county care costs and is holding workshops to assist providers in claiming these funds.

Child Health and Disability Prevention (CHDP) Program Expansion

The act allocated $19.7 million in 1989-90 and $19.4 million in 1990-91 to extend CHDP Program eligibility to additional children. This program provides medical examinations to children. The act also adds an anti-tobacco education component in the CHDP medical examination.

The department reports that it has (1) hired five of the six positions provided for program implementation, (2) developed its revised plan requirements for county plans and provider billing, and (3) received revised plans for some counties requesting Proposition 99 funds. The department also reports that it is working with local nonprofit agencies to determine how these agencies can provide smoking education materials to local health departments in order to prevent the departments from having to develop duplicative materials.

Health Education Programs

Oversight, Data, Analysis. The act created the Tobacco Education Oversight Committee to advise the DHS and the State Department of Education on C&T-funded tobacco education programs. The act requires the committee to develop a comprehensive master plan for statewide tobacco education programs. To fund the committee's expenses, the act appropriated $2.3 million in 1989-90.

The DHS reports that it has selected a contractor to conduct a baseline survey that will be used to evaluate the effectiveness of the education programs.

Media Campaign. The act provided $14.3 million in both 1989-90 and 1990-91 for a public information campaign. The measure specifies that programs directed at children ages 6 to 14 have priority for funding and that the media used for the campaigns shall be effective in reaching this target population. The department reports that it will begin contract negotiations in February.

Competitive Grants. The act provided $41.6 million in 1989-90 and $11.4 million in 1990-91 for a grant program administered by the DHS to fund health education and promotion activities designed to reduce tobacco use and tobacco-related diseases among target groups. The act allows nonprofit organizations, including school districts, to receive grants under this program for efforts to reduce tobacco use. In school districts, these must be nonclassroom, district-wide programs. The department indicates it intends to issue requests for proposals by March, but it does not expect to encumber these funds until June.

High-Risk Programs. The act appropriated $35.6 million in 1989-90 and $35.4 million in 1990-91 for allocation to designated local lead agencies for tobacco use prevention and reduction programs for high-risk population groups. To receive funds, local lead agencies must submit local program plans to the DHS for review and approval.

The department reports that it has issued guidelines required by the act and has begun holding workshops to assist counties in developing their plans.

School Programs. The act provided $32.6 million in 1989-90 and another $32.6 million in 1990-91 for a grants program administered by the State Department of Education (SDE) to fund health education and tobacco information activities designed to reduce tobacco use among school children. (This annual amount does not include $2.5 million for local assistance to county boards of education provided in the 1989 Budget Act and proposed in the 1990 Budget Bill.) The SDE has indicated that these funds—which it expects to allocate to districts in February—will be used for *both* program planning and program implementation purposes.

Assembly Bill 75 also directed the SDE to prepare guidelines on the use of these funds that require districts to select one or more model program designs. The SDE issued guidelines in November 1989; however, the guidelines do not require the use of model programs. This situation may have resulted because of the SDE's inability to fill several staff positions. The SDE indicates that once these positions are filled, it will proceed to develop a list of model program designs. It is unclear whether the SDE intends to revise these guidelines to (1) make the use of these models mandatory—as envisioned by the legislation—or (2) otherwise include reference to these models when district plans are reviewed by county offices of education.

Expansion of Medi-Cal Perinatal Services

Assembly Bill 75 allocated $19.9 million in 1989-90 and $19.8 million in 1990-91 to extend coverage for perinatal services under the Medi-Cal Program to pregnant women with family incomes between 185 percent and 200 percent of the federal poverty level and their infants up to one year of age. The act required the DHS to conduct outreach activities to increase participation and access to these services.

The department reports that it implemented expanded eligibility for pregnancy-related services beginning October 1, 1989. The department's plan to use C&T funds for perinatal outreach has two components. First, it plans to use funds appropriated by AB 75 to permit counties to station eligibility workers at locations other than welfare offices. Second, the department is developing a request for proposals to hire a public relations contractor to (1) develop a campaign to encourage providers to participate in Medi-Cal and (2) develop and implement a statewide campaign to inform women about Medi-Cal coverage of perinatal services and to encourage them to receive early prenatal care.

Mental Health

The act appropriated $25 million in 1990-91 for local mental health services. In addition, the 1990 Budget Bill proposes an augmentation of $10 million for this purpose. The 1989 Budget Act included a $25 million appropriation from the C&T Fund for mental health services in 1989-90. In the current year, $12.5 million was allocated to counties on the basis of the poverty/population formula and $12.5 million was allocated to counties as a cost-of-living adjustment. Assembly Bill 75 does not specify how the funds will be allocated in 1990-91.

OUTSTANDING ISSUES

Assembly Bill 75 Will Sunset in June 1991

Assembly Bill 75 sunsets in June 1991. Consequently, the Legislature faces decisions regarding how to allocate Proposition 99 funds from the four accounts affected by AB 75 beginning in 1991-92. One option is to use the funds to provide health coverage to uninsured Californians. Both the Governor and legislative leaders have expressed their intent to develop legislation implementing such a program.

Proposed Budget Augmentations Compete With Health Insurance Program for Interest Funds

As indicated earlier, the amount of funds currently projected to be available for expenditure in 1989-90 and 1990-91 exceeds by $37.2 million the amount anticipated when the Legislature enacted AB 75, due to the net effect of reductions in surtax revenues and accounting for interest income.

The Governor's Budget projects that as a result of these changes, $30.5 million in additional funds will be available in the four accounts affected by AB 75. The Governor's Budget also identifies an additional $14.1 million available as a result of (1) spending $12.3 million that was not allocated by AB 75 (that is, reducing the carry-over reserve) and (2) reducing anticipated funding for administration. Thus, the budget identifies a total of $44.6 million in additional funds available for expenditure in the four accounts affected by AB 75.

The budget proposes to use these monies to fund augmentations to local mental health programs ($10 million) and the CHIP ($34.6 million). The budget does not propose to fund the Major Medical Insurance Program established by Ch 1168/89 (AB 60, Isenberg). Chapter 1168 specified that the program should be funded first by transferring $30 million from accrued interest earnings and, if necessary, from unspent balances in the Physician Services, Hospital Services, and Unallocated Accounts. However, the act did not explicitly require a transfer of interest earnings to occur in 1988-89, 1989-90, or 1990-91. Beginning in 1991-92, the act requires the transfer of $30 million annually from the Unallocated Account to the Major Medical Insurance Fund for the purpose of funding the program.

Accordingly, the Legislature faces some choices. It must decide whether it will fund the Major Medical Insurance Program at the intended level, agree to the augmentations proposed by the Governor, or use the funds available for different purposes entirely.

No Justification Submitted for Department Support Funding

The budget proposes $7.4 million from various accounts of the C&T Fund for support costs in the departments associated with implementing AB 75. Of this amount, the budget proposes $5.9 million for the DHS, $900,000 for the SDE, and $450,000 for the OSHPD.

At the time we prepared our analysis, the DHS and the OSHPD had not submitted justification for their proposed support expenditures. Specifically, the departments had not provided (1) fiscal details of their proposals, (2) information on activities proposed, or (3) estimated workload. Therefore, we have withheld recommendation on the budget proposals until the departments submit the necessary information. (Please see Items 4140 and 4260 in the *Analysis of the 1990-91 Budget Bill.*)

Allocation Method Not Specified for Mental Health and CHIP Funds

The budget proposes an augmentation of $10 million from the C&T Fund for these mental health programs. This brings total C&T funding for local programs to $35 million for 1990-91. However, AB 75 does not specify and the Department of Mental Health has not specified how these funds would be allocated to counties. Similarly, the budget proposes an additional $34.6 million for the CHIP. Assembly Bill 75 does not specify and the DHS has not specified how these funds will be allocated. (Please see Items 4260 and 4440 in the *Analysis* for additional discussion of these issues.)

Concerns Over Clinics Program Implementation

In the process of implementing AB 75, the department has established a statewide uniform reimbursement rate for outpatient visits ($65) and case management services ($6.50). It has also issued a request for application (RFA) to over 500 clinics in late December. The RFA consists of two parts: part I for funding expanded services and part II for funding clinic modernization or capacity expansion.

We are concerned that the implementation activities currently underway by the department may reduce program effectiveness. Specifically:

- The department has not established specific funding priorities.
- The department has not provided any documentation supporting the statewide uniform rates it has developed.
- The RFA specifies that a clinic may only receive as much in modernization or capacity expansion funds as it receives in expanded services funds. This precludes clinics from submitting proposals that would expand access but do not comply with this criterion.

(Please see Item 4260 in the *Analysis* for further discussion of this issue.)

Variations In County Fiscal Capacity

How and Why Does Fiscal Capacity Vary Among the State's Counties? What Options Does the Legislature Have for Improving It?

Summary

The fiscal capacity of California's 58 counties varies considerably. While all of the counties are subject to many of the same sources of fiscal pressure, our analysis indicates that the fiscal capacity of a number of counties is low and declining. As a result, their ability to deal with ongoing fiscal pressures is worsening.

Contrary to widespread belief, low fiscal capacity is not confined to the small rural counties; a number of larger counties also are characterized by low or declining fiscal capacity. While the specific contributing factors vary from county to county, low capacity counties generally experience some combination of limited revenue, low growth in revenue, and/or high or increasing costs for state-required programs. In addition, the state may aggravate the differences in fiscal capacity to the extent that the assistance it provides does not reflect the current county populations in need of services.

In 1987-88, state grants for fiscal relief had a positive impact on county fiscal capacities, particularly with regard to the smaller counties. However, given that the state has not provided a similar amount of targeted fiscal relief in subsequent years, it is likely that some counties have continued to experience a decline in fiscal capacity.

If the Legislature wishes to avert future declines in county fiscal capacity, it can provide short-term fiscal relief to counties by increasing the funding provided under the County Revenue Stabilization program. In the longer term, the Legislature may wish to examine more permanent solutions to the county fiscal dilemma, such as the reallocation of state program funding or property tax revenues, the creation of additional county revenue sources, or the realignment of county program responsibilities.

In September 1989, Butte County officials announced that the county could not balance its 1989-90 budget, and therefore planned to seek bankruptcy protection in federal court. While subsequent state relief and budgetary reductions by the county allowed it to finance projected 1989-90 expenditures, these actions did not provide a long-term solution to the county's fiscal dilemma. Butte County officials currently are projecting an $8 million deficit for 1990-91. (Please see our recent Policy Brief *County Fiscal Distress: A Look at Butte County* for more information.)

While it is tempting to isolate Butte County as a lone example of a California county in fiscal straits, our analysis indicates that many other counties are experiencing serious fiscal difficulties. Furthermore, our review indicates that this is not merely a *rural* county problem.

The state has a clear interest in maintaining the fiscal viability of county governments. They are the entities which serve all Californians through programs of statewide interest (such as health, corrections, and welfare programs). In addition, they provide to residents of unincorporated areas such local services as sheriff and library services. In this piece, we examine county fiscal capacity—the ability of counties to respond to these needs.

First, we describe the county-state relationship and discuss our framework for identifying variations in county fiscal capacity. Second, we provide our findings regarding the fiscal capacity of counties, and discuss some of the counties which rate below average in this regard. Third, we identify the primary factors that contribute to low fiscal capacity. Finally, we offer several alternatives that the Legislature may wish to use to improve the fiscal capacity of California's counties.

BACKGROUND: A FRAMEWORK FOR COMPARING COUNTY FISCAL CAPACITY

For the purposes of this analysis, we define county fiscal capacity broadly as the ability of a county to meet whatever public service needs may arise in its community with the resources it has available to it. Low fiscal capacity leads to fiscal *distress* when the imbalance between resources and responsibilities leads the county to have severe difficulty addressing service needs.

The Dual Role of Counties

Counties in California play a dual role in providing services to their residents. First, counties are charged with the responsibility to administer a variety of programs required by state law. These *state-required* programs include welfare (such as Aid to Families with Dependent Children—AFDC—and general assistance), county health services, In-Home Supportive Services (IHSS), community mental health, corrections and the trial courts. Second, the counties administer a variety of *local* programs. These include some programs of state interest, such as public health and social services, and others of primarily local import, such as the municipal-type services provided to residents of unincorporated areas (for example, fire and sheriff services).

The state provides substantial funding for many, but not all, of its required programs. In many cases, specific county contributions are also required. Such programs include AFDC, county health services, community mental health, IHSS and the trial courts. The counties bear the primary fiscal responsibility for other state-required programs, because the state in these cases does not provide funding specifically for these purposes. Such programs include general relief, probation, indigent legal defense, and corrections.

County Revenue Sources

Counties pay for their share of state-required program costs and for local programs out of the revenue they have available for general county purposes. County general purpose revenue (GPR) comes from a variety of sources, including the property tax, state general purpose subventions (such as vehicle license fees), and the sales tax. Due to the constraints imposed by Proposition 13, *counties have very limited power to increase GPR.* For example, counties cannot increase their property tax rate, and must get voter approval to increase other taxes.

As service demands or costs grow over time, state-required programs and local programs compete for the growth in the existing GPR base. Because counties have relatively limited control over the costs of state-required programs, these programs may absorb an increasing share of GPR over time. Thus, the GPR available for local purposes may decline over time, requiring counties to restrict spending on local programs.

Fiscal Capacity Indicators

Based upon our review of county financial data, we have identified three useful indicators of the fiscal capacity of counties:

- ***Local Purpose Revenues (LPR).*** The first indicator is the total GPR available for *local purposes,* after expenditures on state-required programs are accounted for. We refer to this residual as local purpose revenue, or LPR.

This measure shows the residual fiscal capacity of counties to meet local needs after meeting state requirements.

- ***Change in LPR.*** Another important indicator is the *change* in LPR over time. A decline in LPR shows that a county's revenues are not growing at the same pace as the costs of state-required programs, and suggests that the county may be faced with difficult trade-offs between state programs and local service levels.
- ***Proportion of GPR Dedicated to State-Required Programs.*** A third indicator is the percentage of total GPR spent on state-required programs. The advantage of this measure is that it enables one to compare the relative load that various counties carry in the financing of state-required programs.

For purposes of this analysis, all of these measures are computed on a per capita basis, unless otherwise indicated.

Our review of county fiscal capacity is based on county revenue and expenditures from 1984-85 to 1987-88 (the latter is the most recent year for which complete data are available). We obtained data on county financial transactions from the State Controller's Office, the Department of Mental Health, the Department of Health Services, and the Department of Social Services. Our analysis excludes San Francisco because, as a city/county, it is not directly comparable to other counties. For example, San Francisco's charter city powers allow it greater ability to raise local revenues.

FINDINGS REGARDING COUNTY FISCAL CAPACITY

Statewide, the capacity of county governments to meet local needs with local revenues did not keep pace with the growth in population and the cost of living over the period 1984-85 through 1987-88. On a statewide basis, county LPR increased 12 percent during this period. After adjusting for population growth and inflation, however, LPR *declined* 6.5 percent over the period.

Counties also bore an increasing share of costs for state-required programs. In 1984-85, counties used approximately 50 percent of their general purpose revenues to support state-required programs. By 1987-88, this share had increased to 55 percent. This trend is attributable to the fact that, statewide, the cost increases in state-required programs outpaced local revenue growth. Between 1984-85 and 1987-88, the costs of state-required programs increased 40 percent, while general purpose revenue increased by only 26 percent.

Variations in County Fiscal Capacity

The statewide trends mask considerable variation in fiscal capacity among counties. The counties vary in terms of their total LPR, as well as in the growth or decline of this funding base over time.

As Figure 1 shows, in 1987-88, the average county had LPR of $108 per capita. However, county LPR ranged from Solano County, with only $57, to Sierra County, with $599. Alpine County is an outlier in this comparison, with LPR of $1,837. Alpine County exhibits much higher per capita LPR because it receives a relatively large *share* of the local property tax (68 percent), has an extremely small population, and spends relatively lower amounts for state-required programs.

The counties also show considerable variation as to changes in their LPR over time. For example, Solano County experienced a 33 percent *decline* in LPR between 1984-85 and 1987-88, while Alameda County experienced a 50 percent *increase* during the same period. In all, 23 counties experienced a decline in LPR during this period, while 14 of these counties experienced a *double-digit* decline in this revenue. In contrast, 34 counties experienced an increase in LPR, with 20 of these counties experiencing a double-digit increase in this revenue.

Figure 2 identifies the counties which experienced a double-digit decline in LPR between 1984-85 and 1987-88. These counties are of interest because they appear to have shifted a relatively large share of general purpose revenue from local purposes to support state-required programs. It is interesting to note that many of these counties are clustered in the northern central valley.

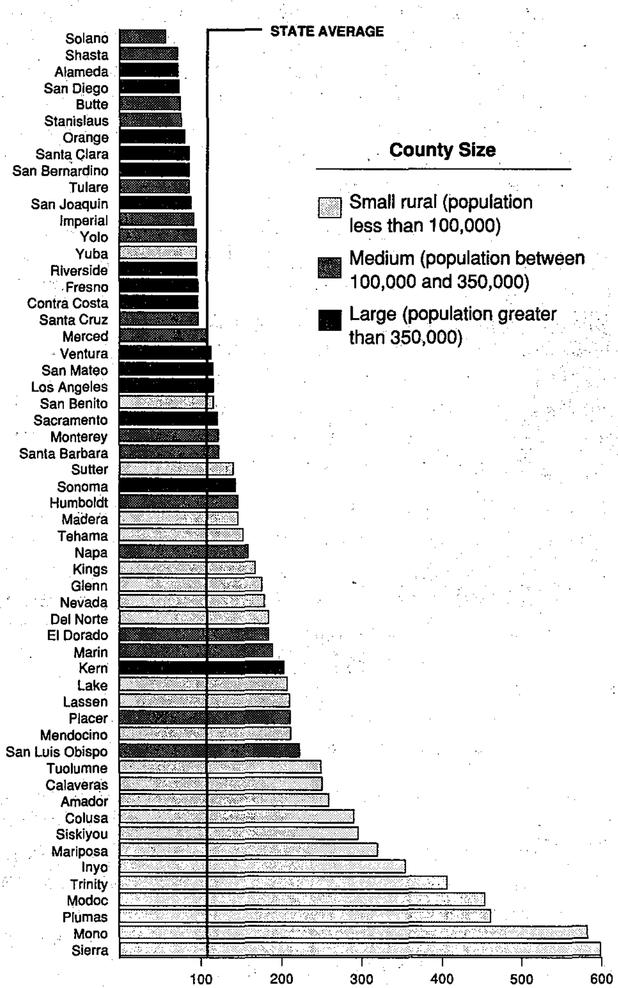
County Fiscal Capacity and Fiscal Distress

It is difficult to determine whether a county is experiencing fiscal distress based purely on these measures of fiscal capacity. Clearly, a county with low fiscal capacity is *more likely* to experience fiscal distress; however, the level of distress depends on the unique circumstances of each county. For example, a county which has a high level of LPR may be better equipped to sustain a decline in LPR without serious detriment to its residents. On the other hand, if the residents demand a high level of local services, the county may face practical difficulty in limiting services, and residents may feel deprived if traditionally local resources are shifted to support state-required programs. Conversely, a county with high *growth* in LPR may still have difficulty "making ends meet" if the *absolute level* of such resources was low to begin with.

Figure 1

Per Capita Local Purpose Revenue

1987-88 (dollars)



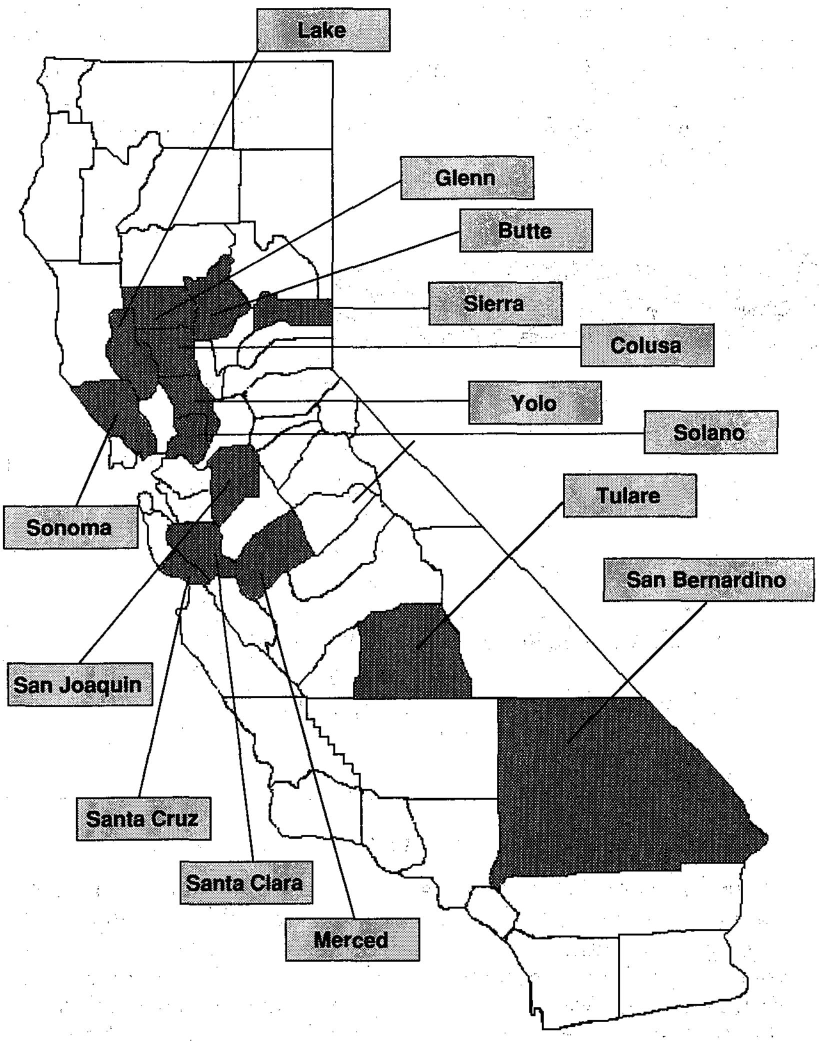
Note: Alpine County is excluded because LPR is off this chart at $1,837 per capita. San Francisco County is excluded due to lack of comparability.

Source: Legislative Analyst Office estimate.

Figure 2

Counties Experiencing Double-Digit Decline in Local Purpose Revenues

1984-85 to 1987-88



Source: Legislative Analyst's estimate.

Counties are particularly likely to face fiscal distress when they experience both a low level of LPR, and a decline in that level. For example, Butte County experienced a double-digit decline in LPR between 1984-85 and 1987-88. At the same time, Butte County had the fifth-lowest per capita LPR in the state in 1987-88. Butte County also spends less than the state average (measured on a per-capita basis) for a variety of local programs, including general administration, public health, social services, and recreation/cultural programs. Thus, the county has less flexibility to implement local service reductions in response to the increasing expenditures required in state-required programs. As Figure 3 shows, 10 counties are characterized by both a below-average amount of LPR, and a decline in LPR between 1984-85 and 1987-88.

Figure 3

Counties Characterized by Both Below-Average and Declining LPR

1987-88

- ***Butte***
- ***Fresno***
- ***San Bernardino***
- ***San Joaquin***
- ***Santa Clara***
- ***Santa Cruz***
- ***Shasta***
- ***Solano***
- ***Tulare***
- ***Yolo***

Source: Legislative Analyst estimates

Low Fiscal Capacity—Not Just a Rural County Problem

In the past, rural counties have appeared to be particularly plagued by the gap between resource availability and service requirements, and state programs have been established to address the unique problems of such counties. For example, the Homicide Trials Program primarily benefits small rural counties. The *1990-91 Governor's Budget* also reflects the perception that low fiscal capacity is a particularly rural problem, and calls for a "Rural County Review" to examine the situation. Our analysis indicates, however, that the problem of low fiscal capacity is not merely a rural county problem.

Figure 4 provides information about changes in LPR for small rural, medium-sized, and large counties. Small rural counties are defined as those with populations under 100,000, medium-sized counties as having populations between 100,000 and 350,000, and large counties as those with populations in excess of 350,000. In each category of county size the figures indicate that there are counties with improving as well as declining fiscal capacity. For example, among small rural counties (upper panel), change in LPR varies from a 31 percent decline (Lake County) to a 38 percent increase (Inyo County). Among medium-sized counties (middle panel), it varies from a 33 percent decline (Solano County) to a 36 percent increase (Monterey County). Among large counties (lower panel), San Joaquin experienced a 16 percent decline in LPR, while Alameda County experienced a 50 percent increase.

Further, some of the larger counties which show declines in LPR also have a relatively low *base* amount of LPR (please refer to Figure 1). These counties include Santa Clara, San Bernardino, and Fresno. Thus, these data indicate that the problems of low and declining fiscal capacity are not confined to the rural counties.

The Role of State Fiscal Relief in Preventing Fiscal Decline

In 1987-88, the state established one-time block grants for county fiscal relief under Chapter 1286, Statutes of 1987 (AB 650, Costa). This program provided $110 million to California's counties. Of the total, $89 million was allocated to counties based on their relative shares of certain county health services grants, discretionary COLAs, and population. An additional $21 million was allocated based on a "revenue stabilization" formula established by Chapter 1286. Specifically, these grants were intended to stabilize the percentage of county GPR expended for the county share of costs in AFDC (exclusive of Foster Care), the IHSS program, the Community Mental Health program, and the Food Stamps program. In addition to the grants provided under Chapter 1286, several rural counties received state grants in 1987-88 for the reimbursement of certain homicide trial costs ($2 million) and for marijuana eradication ($2.8 million).

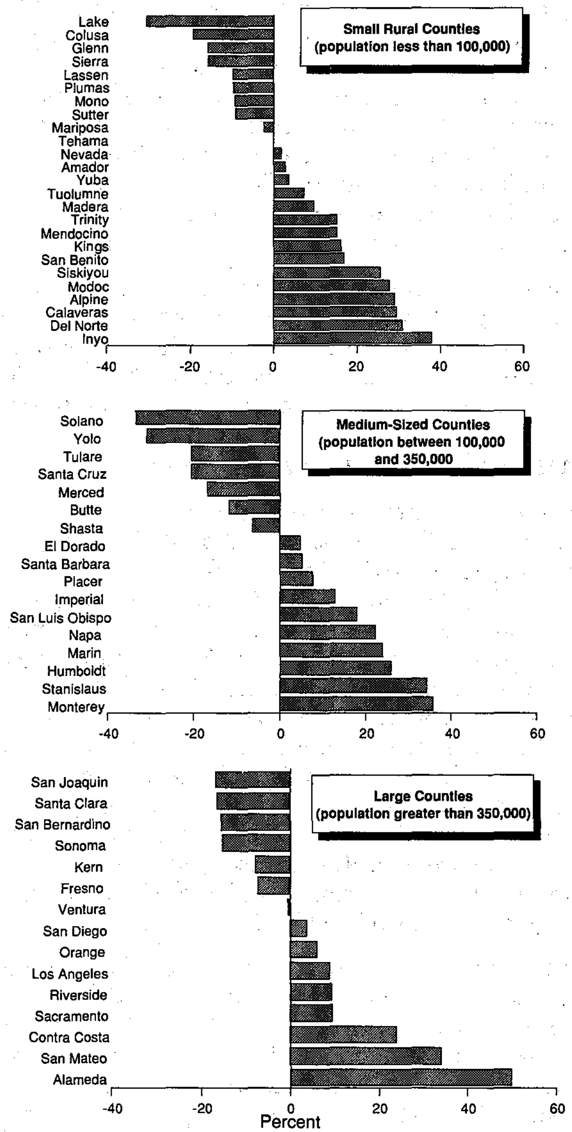
Our analysis indicates that the fiscal relief provided in 1987-88 reduced the magnitude of the fiscal decline experienced by counties between 1984-85 and 1987-88. In the absence of this relief, counties would have experienced a *10 percent* decline in inflation-adjusted LPR, rather than the 6.5 percent decline they did experience. Thus, state fiscal relief appeared to have a *marginal* positive effect on overall county fiscal capacity in 1987-88.

The state fiscal relief provided in 1987-88 played a more important role in improving the fiscal capacity of the *smaller*

Figure 4

County Percentage Changes in Local Purpose Revenue

1984-85 to 1987-88



Source: Legislative Analyst estimates.

counties. These counties were the primary recipients of the $21 million in revenue stabilization grants, as well as the grants for homicide trials reimbursement and marijuana eradication. In 1987-88, small rural counties received $16 per capita in this state fiscal relief, compared to $5 per capita received by medium-sized counties, and $3 per capita received by large counties. In the absence of this relief, small rural counties would have experienced a *5 percent decline* in LPR, rather than the *3 percent increase* that actually occurred.

It is important to note that, following 1987-88, counties did not receive large block grants for fiscal relief. In 1988-89 and subsequent years, however, counties did begin to receive new state assistance under the Trial Court Funding Program. Although information is not yet available to measure the impact of this program on individual counties, it is unlikely to provide the same level of relief to counties with low fiscal capacity. This is because the Trial Court Funding program provides its assistance in proportion to the number of judges in each county, and this bears little relationship to relative fiscal capacity.

FACTORS CONTRIBUTING TO LOW FISCAL CAPACITY

The specific factors contributing to low fiscal capacity vary considerably from county to county. For example, Butte County has experienced a decline in LPR primarily because of slow growth in local revenue sources. In contrast, San Bernardino County's declining LPR appears to stem primarily from dramatic growth in expenditures for state-required programs. Between 1984-85 and 1987-88, San Bernardino's expenditures for state-required programs grew at almost double the statewide pace—77 percent compared to 40 percent. Generally speaking, however, low fiscal capacity stems from some combination of limited revenue growth and increasing expenditures for state-required programs. As discussed below, counties have only limited control over these factors.

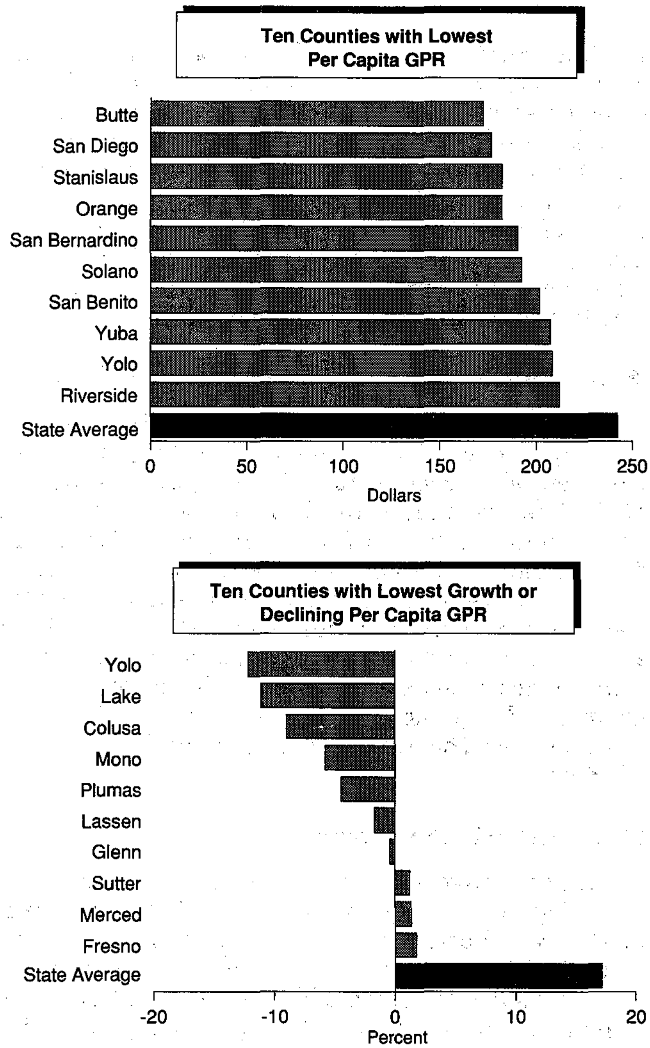
Limited or Low-Growth in Revenue

Our analysis suggests that a number of counties were characterized by low GPR, or by low growth in GPR, during the study period. Figure 5 shows the 10 counties with the lowest total GPR per capita in 1987-88 (upper panel), and the 10 with the lowest growth (or actual declines) in GPR between 1984-85 and 1987-88 (lower panel). The counties with low-growth or declining GPR include primarily smaller counties. There are, however, several large counties with low absolute levels of GPR (San Diego, Orange, San Bernardino, and Riverside Counties). Only one county—Yolo—was in the bottom 10 both in terms of absolute level and

Figure 5

Counties With Low or Low-Growth GPR

1984-85 to 1987-88



Source: Legislative Analyst Office estimate.

changes to GPR during the study period. As discussed below, a variety of factors are responsible for a county experiencing a low level of GPR, or low growth in that base.

Economic Characteristics. The county's characteristics, such as its economic base and the pace and pattern of development within its boundaries, are critical factors in determining GPR. For example, counties with primarily agricultural economies tend to have lower property values and retail sales and, therefore, more limited revenue. Even if a county has a growing economy, it will receive only limited fiscal benefit from this growth if commercial or industrial growth occurs within *city* boundaries.

Actions of Other Entities Within the County. The actions of overlying governmental entities can have an important effect on county resources. For example, Yolo County's decline in GPR during the study period is largely attributable to the incorporation of the City of West Sacramento in January 1987. While a county may experience some reduction in service responsibilities as a result of incorporation, these reductions are not always commensurate with its loss of revenues. In addition, city redevelopment policies can have an effect on county revenue. This is because current law allows redevelopment agencies to retain most of the increased property tax revenues (tax increment) occurring within a redevelopment project area.

State Policies. State policies also can affect county resource availability. One of the most important of these is the allocation of county property tax revenues established by state law. Under the AB 8 property tax allocation formula (enacted following the voters' approval of Proposition 13), the share of the property tax allocated to each local agency is based on its share of the total amount of property taxes collected in the county during the three fiscal years prior to 1978-79. Many counties imposed low property tax rates during this period and, therefore, currently receive a relatively low share of countywide property tax revenues. While counties receive on average 33 percent of total property tax revenues, county shares range from 18 percent in Orange County to 68 percent in Alpine County.

As discussed above, counties have extremely limited access to independent revenue sources. One potential revenue source for smaller counties is the sales tax. Chapter 1257, Statutes of 1988 and Chapter 277, Statutes of 1989 (both AB 999, Farr), allow counties with populations under 350,000 to increase sales taxes by one-half cent, subject to voter approval. Counties have had difficulty, however, obtaining voter approval for general sales tax increases. In all, 16 county measures have sought sales tax increases under these provisions. Only two of these measures have succeeded (in San Benito and Monterey Counties).

High or Rapidly Increasing Costs for State-Required Programs

Our analysis indicates that a number of counties expend a disproportionate amount per capita for state-required programs. Figure 6 shows the 10 counties with the highest per capita expenditures for state-required programs (upper panel), and the 10 with the highest *growth* in per-capita expenditures for state-required programs (lower panel). While many of the counties with high or increasing costs for state-required programs are small rural counties, several larger counties are also included (Alameda, Sacramento and San Bernardino Counties). Three counties show both extremely high *and* rapidly increasing costs for state-required programs (Trinity, Sierra and Mariposa Counties). Of these, only two are characterized by declining *LPR* (Mariposa and Sierra Counties). Trinity County did not experience a decline in LPR primarily because its increase in GPR outpaced cost increases during this period.

A variety of factors contribute to a county experiencing high or rapidly increasing expenditures for state-required programs.

Population Characteristics. Counties face high costs for state-required programs in large part because of local population characteristics. For example, in 1987-88, AFDC caseloads ranged from six cases per thousand residents in Marin County, to 50 cases per 1,000 in Del Norte and Yuba Counties. Counties also have differing populations in need of specialized services, such as elderly individuals or recent immigrants.

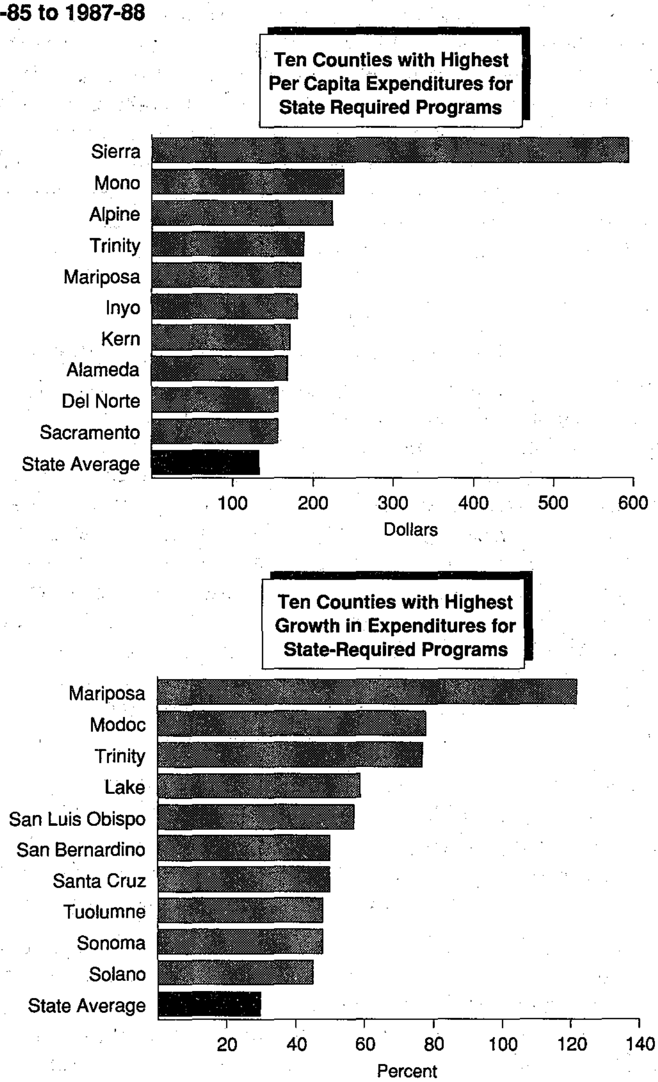
Local Program Choices. Counties can exert some influence over program costs through decisions regarding program administration, access to services and service levels. The ability of counties to determine eligibility and service levels varies, however, from program to program and from county to county. For example, counties have extremely limited control over expenditures in AFDC because the eligibility criteria and grant levels are established by the state and federal government. Counties generally have more control over general assistance expenditures because the state does not impose specific standards in this program. County decisions regarding law enforcement also have a substantial impact on their costs for administration of the courts and correctional facilities.

Court Actions. In many counties, the courts have established guidelines for state-required programs which restrict the county's ability to control program costs. For example, a number of counties face court-imposed minimum eligibility standards and grant levels for general assistance. The courts also have imposed

Figure 6

Counties with High or Increasing Costs for State-Required Programs

1984-85 to 1987-88



Source: Legislative Analyst Office estimate.

population caps on correctional facilities in 19 counties, requiring those counties to incur increased costs for staffing and operations of new or expanded correctional facilities.

Actions of Other Governments. The actions of other governmental entities also affect county expenditures for required programs. For example, the state is constitutionally required to reimburse counties for the costs of new programs or higher levels of service imposed after 1975. This requirement specifically does not apply, however, in the case of county program costs resulting from changes in crimes and infractions. Thus, county court and correctional costs are sensitive to state criminal justice policies. In addition, the law enforcement actions of cities, whose police departments operate independently of counties, can increase county costs by placing demands on the courts and jail facilities.

Variations in State Funding Affect Fiscal Capacity

As we discussed above, targeted state fiscal relief played a role in mitigating fiscal decline in 1987-88. Ironically, differences in state grants also may *contribute* to county fiscal disparities. Figure 7 illustrates the per capita state assistance provided to counties in 1987-88. This measure includes general purpose state subventions as well as state grants for programs such as mental health, county health services, and social service administration. It *excludes* payments for programs providing direct grant payments to individuals (such as the Supplemental Security Income/State Supplementary Program and AFDC). It also excludes state payments for social service program costs that are primarily caseload driven. We exclude these caseload-driven payments because they are directly related to the service population and, therefore, would distort county-by-county comparisons.

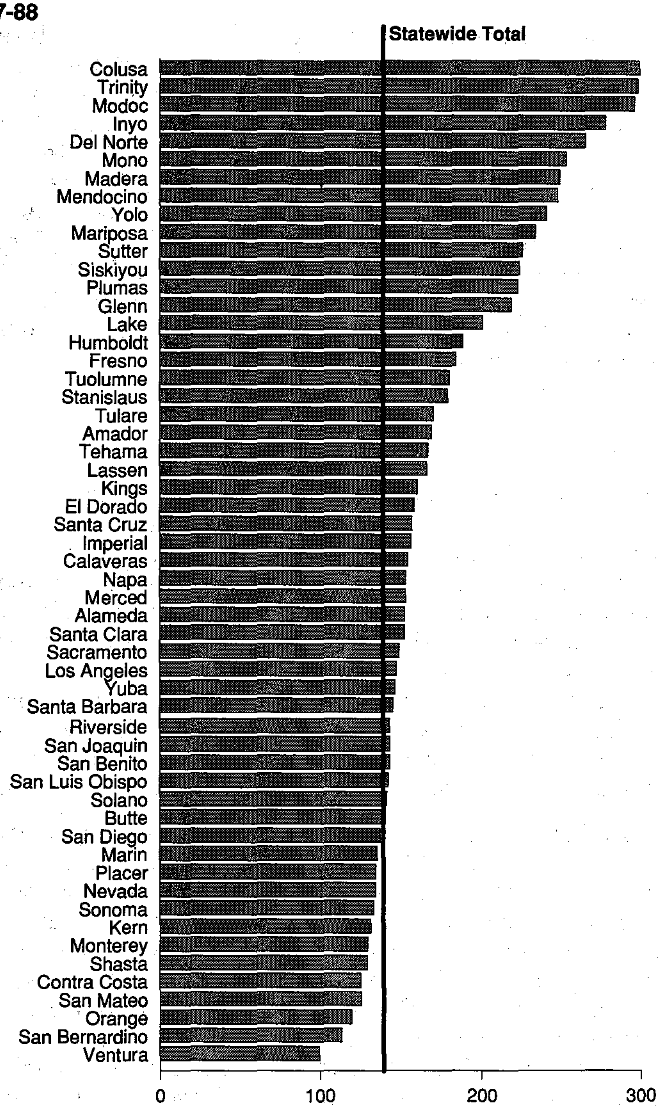
As Figure 7 demonstrates, state assistance payments vary considerably, from $100 per capita in Ventura County, to $300 per capita in Colusa County. To the extent that these variations do not accurately reflect variations in county service requirements or fiscal need, they may contribute to county fiscal strain.

Our analysis indicates that this may in fact be the case, for two reasons. First, funding for many programs is allocated in proportion to each county's relative level of expenditure during a "base year." For example, the subvention for county public health services is based partially on the level of "net county costs" for health programs during the 1977-78 fiscal year. Counties which chose to provide higher levels of service that year, at county expense, are now rewarded by higher allocations of state funds than counties that were providing lower levels of services at that time. As these allocations are fixed, they do not respond to changes

Figure 7

Per Capita State Assistance

1987-88



Note: Alpine and Sierra Counties excluded because they are off the chart at $1,094 and $831, respectively. San Francisco County excluded due to lack of comparability.

Source: Legislative Analyst Office estimates.

in service demands over time. Second, some programs, such as the state's alcohol and drug programs, provide a minimum amount of assistance regardless of population. This results in a higher per capita allocation of program funds for the less-populous rural counties.

These differences in state funding levels can have the effect of requiring counties to bear differing burdens for state programs. For example, state payments for community mental health under the Short/Doyle Act vary considerably from county to county. Until recently, these grant levels had not been adjusted to better reflect current county populations in need of these services. Counties which receive relatively low grant levels may find it necessary to increase expenditures to respond to their increasing service needs. As a result, they may bear a higher share of program costs than counties receiving higher levels of state assistance. This differential in county costs for state-required programs is responsible for some of the difference in LPR between counties shown in our data.

CONCLUSIONS

In sum, while county fiscal capacity varies considerably throughout the state, our analysis indicates that a number of counties are characterized by low fiscal capacity. Low fiscal capacity is not confined to small rural counties, as a number of the larger counties also are characterized by low or declining LPR. While the specific contributing factors vary from county to county, low-capacity counties generally experience some combination of limited revenue, low growth in revenue, and/or high or increasing costs for state-required programs. In addition, the state may contribute to fiscal disparities to the extent that the state aid it provides does not reflect current county fiscal conditions.

Low fiscal capacity can have many negative ramifications. As we describe in *The 1989-90 Budget: Perspectives and Issues* (please see p. 348), low fiscal capacity may require counties to restrict local services, or result in counties having difficulty meeting statewide objectives in programs of state interest. It also results in pressure to increase local revenue, and this may have an undue influence on local land use decisions. Moreover, counties' revenue constraints may hamper their ability to respond to future infrastructure needs and to facilitate local economic development. Fiscally distressed counties also may have difficulty providing adequate funding levels for state programs with matching requirements, which can result in them not meeting state objectives. For example, some counties may not have the fiscal resources to aggressively pursue child support collections, which may result in higher net state costs for AFDC. At the extreme, a county may consider bankruptcy action in federal court. Given the lack of precedence and the complex issues involved, the state would face considerable uncertainty as to the outcome of such an action.

How Can the Legislature Improve County Fiscal Conditions?

The fiscal difficulties faced by counties are long-term and structural in nature. They result from the programmatic relationship between the state and counties, as well as the revenue constraints imposed by Proposition 13. Given the complexity of factors involved, and the diversity of California's counties, it will not be an easy task to find *long-term* solutions to county fiscal distress. In the short term, however, the Legislature should take into account the fiscal difficulties faced by counties when considering the Governor's budget proposals, many of which may have a negative impact on counties (see Figure 8 for the major proposals).

In addition, the Legislature will need to examine its options for providing short-term fiscal relief, as well as investigate longer-term solutions to the county fiscal dilemma. Figure 9 summarizes some of the alternatives for providing fiscal relief to counties. Three of these options are shorter-term in nature, and could be implemented in the budget year. These include the provision of targeted relief, reduction in county match requirements for state-required programs (or increased funding levels), and the reallocation of program funding (or allocation of future funding) based on measures of current program service requirements.

Our analysis indicates that increased funding and expanded program coverage for the existing County Revenue Stabilization program is an effective means of providing targeted fiscal relief to counties. This is because the statutorily determined grants provided by this program are designed to reflect the impact of state-program requirements on the revenue available for local purposes. The Governor's Budget proposes to provide $15 million for this program. Our analysis indicates, however, that to fully "stabilize" revenues in the manner contemplated by the statutory formulas would require considerably more than this amount (please see our discussion of this program in the *Analysis of the 1990-91 Budget Bill*, Item 9210).

While these options may close the gap between revenue and responsibilities in the short term, they are unlikely to solve the long-term structural budget problem experienced by counties. In the longer term, the Legislature should examine more permanent solutions to the county fiscal dilemma. As Figure 9 indicates, potential longer-term options include modification of the current

Figure 8

Impact of Governor's Budget Proposals on County Fiscal Capacity

Positive Impact	Amount	Analysis Reference
+ Augmentation for open-space subventions to counties under the Williamson Act	$5 million	Item 9100
+ Increased funding for the Community Mental Health Program	$10 million	Item 4440
+ Increased funding for the California Healthcare for the Indigent Program (CHIP)	$35 million	Item 4260
+ Shift the responsibility for mental health and residential services for children, as required by Ch 1747/84 (AB 3632, Brown) and Ch 1274/85 (AB 882, Brown), from the Department of Mental Health and Department of Social Services to the Department of Education	Unknown positive impact	Item 6110
Negative Impact		
− Reduction in payments to counties under the AB 8 County Health Services Program	$150 million	Item 4260
− One-year suspension of the statutory cost-of-living adjustments for AB 8 health services grants	$23.5 million	—
− Reduction in payments to counties under the Medically Indigent Services Program	$25 million	Item 4260
− Program growth "adjustment" under the Child Welfare Services program	$24 million	Item 5180
− Deferral of payment for the prior-year costs for certain mandates until the Budget Acts of 1991, 1992, and 1993	$40 million	Item 8885

Figure 9

Legislative Options for Improving County Fiscal Conditions

SHORT-TERM OPTIONS

- ✓ Provide additional targeted relief (for example, increase funding provided under the revenue stabilization program).
- ✓ Reduce county match requirements or increase overall funding levels in state programs.
- ✓ Reallocate state program funding, or allocate future increases in funding, based on measures of current program requirements. (*Note:* Current law requires increases in funding for community mental health to be allocated based on an "equity" formula.)

LONG-TERM OPTIONS

- ✓ Modify county property tax allocations.
- ✓ Provide additional independent revenue sources (for example, extend AB 999 to large counties).
- ✓ Realign state/local program responsibilities.

county property tax allocations, provision of additional independent revenue sources, or the realignment of relative state and local program responsibilities. These options should be considered, however, in the context of the overall county-state relationship and the programmatic goals of the state social service system. As such, these options merit additional study prior to state action.

Proposition 103--One Year Later

What Has Been Done to Implement Proposition 103 During the Last Year and What Issues Are Still Outstanding?

Summary

On November 8, 1988, California voters approved Proposition 103, which called for 20 percent rate rollbacks and ongoing regulation of the insurance industry. Our review of the past year's activities by the department suggests that considerable time will pass before the regulatory process has been fully developed and implemented. The department has proceeded slowly; thus, there are many elements of the regulatory approach that have not yet been developed and numerous issues remain to be resolved. In effect, while much activity has occurred over the past year, we are in essentially the same place as when the initiative passed.

One of the stated purposes of Proposition 103 is to encourage a competitive insurance marketplace. Our analysis suggests that many competitive elements already are present. Thus, it is not clear that California's high insurance premiums are due to a noncompetitive industry. This suggests that the insurance industry may not require a very intrusive regulatory approach in order to adequately safeguard the public against noncompetitive behavior and performance, including excessive premium rates. Our analysis also indicates that, in setting the level of allowable premium rate increases, it is very important that this process be based on sound assessments of a company's current and projected financial position and of investment market conditions.

In addition, we recommend that the Legislature review the statutes establishing the California Automobile Assigned Risk Plan in order to clarify the plan's purpose so that actions by the Insurance Commissioner are consistent with legislative intent. Finally, we recommend that the Legislature continue its review of factors that affect the underlying cost of insurance claims, since we believe there are significant opportunities for gaining control over insurance costs.

Almost 14 months ago, California voters approved Proposition 103, which required insurance premium rate rollbacks, ongoing regulation of rates for all property/casualty insurance companies, and changes in the way individual premiums are set for automobile insurance. Last year we examined Proposition 103 (please see "Insurance Reform," *The 1989-90 Budget: Perspectives and Issues,* page 289) in order to assess the effects of the initiative on the automobile insurance market. We concluded then that:

- The full effects of Proposition 103 on buyers of insurance (prices and availability) and sellers of insurance (profitability and regulatory environment) would be known *only after* the measure is fully implemented.
- The insurance industry exhibits many characteristics of a competitive industry and we were unaware of evidence of persistently high or "excessive" profits on an industry-wide basis.
- Costs of insurance claims are a key factor in explaining increasing premiums.

During the last year, a number of events related to the implementation of the initiative have occurred, most involving the Department of Insurance and its Commissioner. However, for many reasons the full implications of Proposition 103 *still are not yet known.* (For a discussion of the budget implications of delays by the department, please see our *Analysis of the 1990-91 Budget Bill,* pages 238-40.) Given the far-reaching implications for insurance buyers and sellers of these implementation activities, in this analysis we update where things currently stand and identify the key issues that are being dealt with. Our analysis again focuses on automobile insurance since that remains the segment receiving the greatest amount of attention.

First, we discuss the status of the 20 percent rollbacks specified in the proposition. Second, we examine the implications of the Commissioner's regulations governing "rating methodology"—the way insurance companies price insurance to groups of drivers. Third, we review the issues under consideration during the "generic" rulemaking hearings currently underway. (The purpose of these hearings is to determine the appropriate overall level of revenues that insurance companies should be permitted to realize.) Finally, we examine two issues not directly addressed by Proposition 103 but that have an important impact on the overall level of automobile insurance rates—the assigned risk plan and factors affecting the cost of claims.

BACKGROUND

Figure 1 provides a summary of the major provisions of Proposition 103, taking into account the Supreme Court's May 1989 decision regarding the initiative. While the court upheld most of the provisions of Proposition 103, it modified the measure in several important ways. The most significant change was the determination that companies are entitled to a fair and reasonable profit. Additionally, the court ruled that during the period from November 8, 1988 through November 7, 1989, companies could change premiums upon filing a notice with the Department of Insurance (this is known as a "file and use" system). Finally, the court ruled unconstitutional the creation of a nonprofit consumer advocacy corporation.

Figure 2 provides a chronology of the significant events associated with the implementation of the initiative since its passage. Several areas of activity are especially noteworthy: (1) the Supreme Court decision (referenced above), (2) the 20 percent rollbacks, (3) the Commissioner's rating methodology regulations, (4) consolidated hearings that deal with generic issues, and (5) the assigned risk plan premium rate increase decision.

Supreme Court Decision. The court's finding that companies are entitled to a fair and reasonable return is particularly important because it overturned the "substantially threatened with insolvency" standard found in the initiative. The court found that the solvency standard was "confiscatory" in accordance with a long chain of U.S.Supreme Court rulings regarding the right of companies subject to regulation to earn "normal" profits. (The term "normal" profits essentially means that companies should be allowed to both cover their costs and also have a profit margin left over equivalent to what could be earned elsewhere in the economy.) While this ruling applied specifically to the rollbacks, it also has applicability to future "prior approval" rate filings. Thus, determination of appropriate profit levels is one of the key decisions driving the implementation proceedings discussed below.

20 Percent Rollbacks. Proposition 103 requires insurance companies to reduce their premiums by 20 percent. Once the court upheld this provision, the Commissioner issued regulations specifying the data required from companies in order to request exemptions from the rollbacks. The resulting exemption requests, which virtually all insurance companies filed by the June 5, 1989 deadline, were then reviewed by the department. Based on that review, the Commissioner ordered hearings for seven of the largest insurers to determine whether they should be required to roll back rates. These hearings were originally expected to be the primary forum for developing the basic regulations that would

Figure 1

Provisions of Proposition 103 as Upheld by the California Supreme Court[a]

Category	Key Provisions
Rate Changes:	
Initial rollback	❒ 20% below rates in effect on November 8, 1987 for all policies written or renewed after November 8, 1988, subject to a "fair and reasonable" return on investment standard
Additional changes	❒ "File and use" rates until November 8, 1989 ❒ Additional 20% reduction in auto insurance rates for all "good drivers" beginning November 8, 1989
Rate Regulation:	
Filing and justification	❒ Effective November 8, 1989, "prior review" and approval of all rate changes ❒ Justification for all rate changes
Basis for rates	❒ Rates must reflect investment earnings ❒ No consideration given to "competitive conditions"
Factors for Establishing Rate Classes	❒ Primary consideration given to driving record, miles driven, and years of driving experience, in that order ❒ Secondary consideration given to other factors as determined by the Commissioner
Antitrust	❒ Removes current exemption from antitrust and unfair business practice laws
Consumer Assistance	❒ Requires Department of Insurance to provide comparative rate information for consumers upon request
Other Features	❒ Permits sale of insurance by state-chartered banks ❒ Permits discounts and rebates by insurance agents ❒ Requires election of Insurance Commissioner ❒ Increases gross premiums tax and regulatory assessments to offset administrative costs and state revenue losses due to insurance rate reductions (the court declined to rule on the constitutionality of the gross premium tax provisions)

[a] These provisions generally apply to all lines of insurance covered by Proposition 103 (including auto, fire and liability).

Figure 2

Major Milestones in the Implementation of Proposition 103

1988	
November 8	***Initiative Passed*** Proposition 103 approved by voters.
December 7	***Rollbacks Put on Hold*** Except for the rollbacks, the state Supreme Court allows Proposition 103 to take effect pending formal review.
1989	
May 4	***Supreme Court Upholds Proposition 103*** The court, however, rules that rollbacks can be exempted if companies are denied a reasonable return and that companies can use a "file and use" process for rate increases until November 8, 1989.
June 5	***Rollback Exemption Filings Deadline*** Deadline for filing rollback exemption petitions. Virtually all companies file for partial or total exemptions.
June 19-23	***Implementation Hearings*** The Commissioner holds public hearings on general implementation issues.
August 1	***Rollback Exemption Decision*** The Commissioner announces the 11.2 percent profit rate standard, accepts many exemption requests, and rejects exemption requests of 7 large insurers.
August 14-18	***Rating Methodology Hearings*** The Commissioner holds a series of public hearings to help determine the methods by which insurers could set individual premium rates.
October 2	***Interim Rate Increase Freeze*** The Commissioner imposes a six-month rate freeze in response to almost 500 "file-and-use" requests and to provide time to develop prior approval and rating methodology regulations.
November	***Generic Issues Consolidated Hearing (GICH), Rating Methodology Phase*** The Commissioner initiates a series of hearings to determine generic regulations for rating methodology.
December 5	***Rating Methodology Rules*** The Commissioner releases emergency regulations governing rating methodology. Key provisions required reduced emphasis on territory in setting individual rates and imposed a cap on future rate increases.
December 18	***Assigned Risk Pool Decision*** The Commissioner denies the assigned risk pool rate increase request because it does not consider the new rating methodology rules and insurance affordability.
December-Present	***GICH, General Regulation Phase*** The Commissioner initiates a series of hearings to determine generic regulations for rollbacks and prior approval regulation process.

govern the industry under Proposition 103. However, the hearings have never been held.

Rating Methodology Decision. During the time that the department was reviewing the rollback exemption requests, it was also attempting to write the regulations that would govern the way insurers developed individual rates for automobile insurance (referred to as the "rating methodology"). Proposition 103 mandates specific individual characteristics that must be given precedence in the development of rates. The weighting of the mandatory factors is quite different from that used by the insurance industry prior to enactment of the initiative. The regulations were announced by the Commissioner in December of 1989 following hearings in August and November of 1989.

Generic Rulemaking Proceedings. There are two main elements to the department's new regulatory program: (1) the rollbacks and (2) the "prior approval" regulatory program mandated to begin in November of 1989. Under prior approval, insurance companies must obtain approval of proposed rates *before* they can use them. As we indicated above, the Commissioner attempted to use the seven-company rollback hearings as a way to develop the regulations that would be needed to administer the prior approval regulatory program. Once it became clear that this approach to the development of regulations would not work, the Commissioner called for a set of hearings that began in December 1989. These hearings—called the generic issues consolidated hearings (GICH)—are expected to provide the data and concepts needed to develop the basic regulatory structure to be used by the department. The hearings are expected to last into the spring of 1990.

Assigned Risk Pool Ratefiling. California, like most states, has provisions for the use of a pooling arrangement to allocate "bad" risk and otherwise uninsurable drivers among automobile insurers. The California arrangement is known as the California Automobile Assigned Risk Plan (CAARP) and is managed by the insurance industry. The CAARP's rates have long been determined using a form of prior approval regulation. In recent years, the CAARP rate increase requests have been large and the Commissioner (as well as her predecessor) has systematically authorized smaller increases than have been requested. Holding down CAARP rates relative to rate increases in the regular market has resulted in both increasing enrollments, and increasing deficits in the plan. While Proposition 103 does not directly address the CAARP, there are issues (related to the role and purpose of CAARP) raised by a December 1989 CAARP rate increase decision that affect the regulation of insurance companies pursuant to Proposition 103.

WHAT IS HAPPENING WITH THE 20 PERCENT RATE ROLLBACKS?

Under the provisions of Proposition 103 as enacted by the voters, insurance companies were required to reduce rates to a level 20 percent below the rates in effect on November 8, 1987 unless the company was *substantially threatened with insolvency*. As noted earlier, the Supreme Court ruled that the threat of insolvency was too strict a standard and replaced it with the *fair and reasonable return* standard common to other regulated industries. As noted earlier, this standard means that a company is entitled to a "normal" profit rate.

Exemption Filings

Once the court upheld the central provisions of Proposition 103, implementation of the initiative began. Within a week after the court ruling, the Commissioner released regulations specifying: (1) how insurance companies were to file for exemptions from the rollbacks and (2) the information and data needed in order to support an exemption filing. About 450 insurance companies—virtually the entire industry—filed a total of more than 4,000 individual line-of-business (such as automobile, homeowners, commercial liability) exemption requests. These requests were examined by the department and the Commissioner's initial rulings were announced August 1.

At the same time, the Commissioner announced the profitability standard the department would use for evaluating the exemption filings. The department adopted a profit rate of 11.2 percent as the basis for determining whether company profits were excessive. Using that standard, the Commissioner agreed with a significant number of the exemption requests, withheld on many others, and found that seven of the largest insurers (including State Farm, Allstate, USAA and California State Automobile Association) would be subject to rollbacks of varying amounts. Rollbacks were ordered for a number of insurance lines—including automobile insurance. The largest percentage-of-premium rollbacks, however, generally were ordered for earthquake, homeowners, and inland marine insurance. Only relatively small rollbacks (less than 6 percent) were ordered for private passenger automobile insurance (with one exception, USAA, which was ordered to reduce rates by about 16 percent). Each of the seven companies that was ordered to roll back rates petitioned for a hearing.

Rollback Hearings

The purpose of the hearing process was to determine whether the department's analysis of and conclusions regarding the exemption filing was justified. The usual practice in regulatory agencies is to have an *already established* set of basic regulations to govern the industry. Rather than issue these regulations *prior to* beginning the rollback hearings, however, the Commissioner chose to use the individual company hearings *themselves* as the forum for developing basic regulations. Among the basic issues that the hearings needed to resolve were: (1) the methods for calculating both actual and allowable profits, (2) the method for allocating owners' equity (insurance regulators and companies call this "surplus") between lines of business, and (3) the general regulatory approach (discussed below).

The Commissioner's approach to developing regulations quickly became bogged down by challenges from the companies. These challenges delayed the start of the hearings (in fact, these hearings have not yet been rescheduled) and led the Commissioner to propose a set of consolidated hearings to produce a set of generic regulations to govern both the rollbacks and future prior approval regulation. The generic issues consolidated hearings which resulted from this decision are discussed later.

Summary Regarding Rollbacks

Virtually all insurers filed for exemptions from the rollbacks for automobile insurance (and many other lines, as well). The Commissioner ordered rollbacks for a number of the largest insurers, which then requested hearings. These hearings were to be the forum for developing basic regulations governing the industry. Problems with this approach, however, put the rollbacks "on hold" indefinitely.

WHAT ARE THE IMPLICATIONS OF THE RATING METHODOLOGY REGULATIONS?

In December of 1989 the Commissioner released regulations on the subject of "rating methodology." This section discusses the possible effects of those regulations.

Why Is Rating Methodology Important?

Rating methodology refers to the techniques used by insurance companies to determine premium rates for individual policyholders. Because development of truly unique rates for each individual would be too costly and because probabilities of claims occurring must be used, insurance companies typically assign each policyholder to a group of individuals that exhibit similar degrees of risk for incurring claims costs. This process is important to the financial viability of a company. Therefore, companies use statistical techniques, usually under the direction of an experienced actuary, to evaluate various individual characteristics that would allow the company to determine a driver's approximate degree of risk.

Among the characteristics reviewed are: driving records, number of years of driving, use of vehicle, miles driven, geographic location of drivers, and automobile characteristics (such as make and model of vehicle, engine size, safety features, and company experience with the vehicle). The companies assign weights to each significant factor, which are then used in calculating actual premiums. In the past, the most significant weight (up to 50 percent) was given to "territory" (that is, where a person lives based on groups of zip codes). However, there has been disagreement about the proper relative weighing between territory and other factors.

What Are the Regulations Proposed by the Commissioner?

The rating methodology regulations describe both the mandatory and the optional factors insurers can use, and the relative weighting of these factors. The regulations also provided a cap on rate increases.

Mandated Factors Given Precedence. Proposition 103 identified three factors that must be considered *before* any optional factors could be used when developing premiums. These *mandated* factors are (1) driving record (including both traffic violations and at-fault accidents), (2) number of miles driven annually, and (3) number of years of driving experience. The Commissioner ruled that the second factor (miles driven) could have no more weight than the first factor (driving record), and that the third factor (years of driving experience) could have no more weight than the second factor.

Optional Factors Specified. The Commissioner banned the use of territory, gender, age, sex and certain other factors when making individual rates. In their place, the Commissioner identified 22 optional factors that could be used by companies to help set premiums *after* the mandated factors are considered. All of these optional factors affect the cost of paying a claim (such as cost of repairs, theft rates, litigation rates, average medical costs in an area, and vehicle characteristics—including safety features). Additionally, some factors are also territory-related (such as population density and vehicle density). Before any optional factor is used, however, companies must show that it bears a substantial relationship to the risk of loss. Significantly, the Commissioner also ruled that the *combined* weight of *all* of the optional factors could have no more weight than the third most important mandated factor listed above. This effectively limits the total weight of *all* optional factors to less than 25 percent.

Cap on Rate Increases. As we discuss below, it is likely that any given individual's premium rates under the Proposition 103 rating methodology will be different from what they are now. Arguing that Proposition 103 called for lower—not higher—rates, the Commissioner ruled that no rate could be increased in any year by more than the California Consumer Price Index (CCPI).

How Will These Regulations Affect the Price of Auto Insurance?

The rating methodology is the basis for all individual premium rates. Substantially changing the existing rating methodology is likely to have significant effects on the rates some individuals pay. We have identified two such effects: (1) potentially substantial cross-subsidies between different groups of insurers (due to the reduced weighting of the optional factors), and (2) overall limitation of premium increases to less-than-actual increases in the cost of providing coverage.

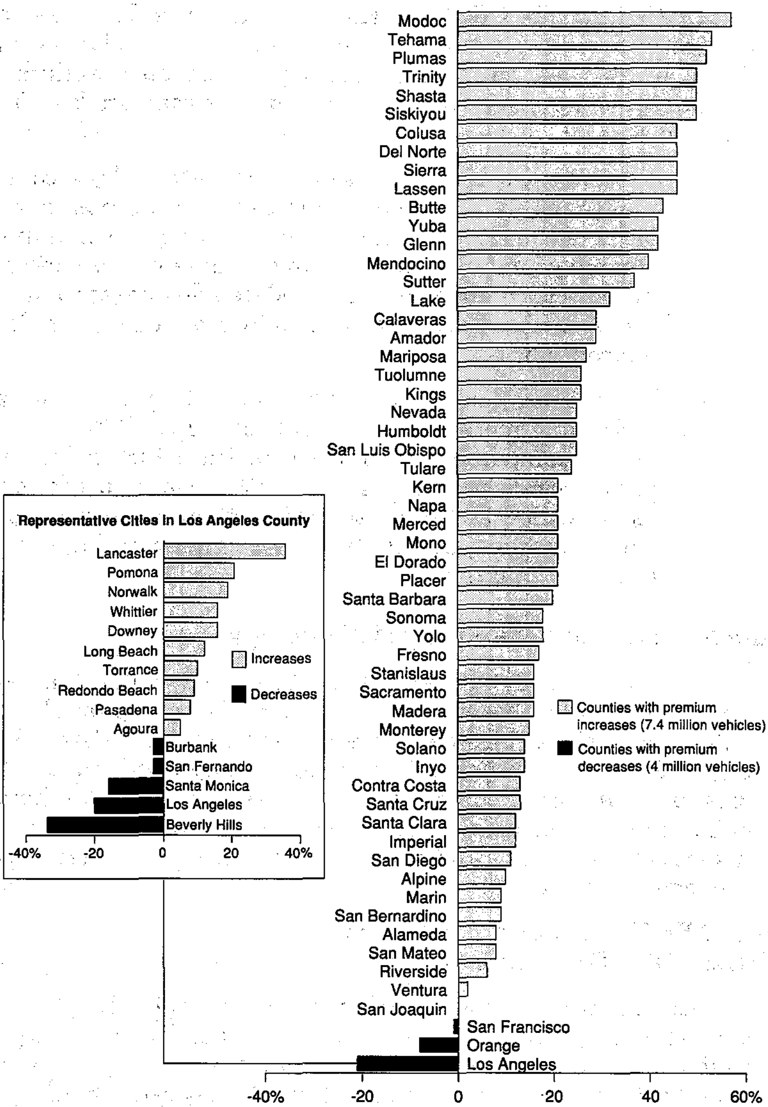
Cross-Subsidies. Cross-subsidies occur when one group of consumers is charged a premium that exceeds the cost of providing coverage to that group, while another group of consumers is charged a premium that is below the cost of providing that group's coverage. The group that pays insurance premiums that are in excess of the cost of providing coverage, in effect, helps to pay for (that is, subsidize) the below-cost coverage provided to the other group.

There is wide agreement among actuaries that territory (as a surrogate for certain of the optional factors discussed above) should have a greater weight than is allowed by Proposition 103. The greater the difference between the true weight of the optional factors and the allowed weight, the greater the extent of the cross-subsidy between consumers.

Figure 3 shows the department's rough estimate of county-by-county average premium changes that would result by reducing the importance of territory as a rating factor under the proposed regulations. We must caution the reader that it is impossible to predict the precise impact of the proposed changes for any given policyholder. Nonetheless, the figure provides an indication of the *general magnitude* of the premium changes. It indicates that drivers in all but three counties would experience premium increases and that the increases would be *quite large* in some

Figure 3

Automobile Insurance Average Premium Changes Due to Reduced Effect of Territory [a]



[a] This estimate applies to liability coverages and assumes that the weight of territory as a rating factor is reduced to 24.7 percent.

Source: California Department of Insurance 1987 Premium Data.

counties (primarily rural counties). The figure also provides a breakout of premium changes for selected locations within Los Angeles County. It shows that even within the county that would, on average, benefit the most from the change in methodology, there are still many drivers who would experience premium increases.

CCPI Cap. The CCPI cap was imposed by the Commissioner primarily to limit premium increases in counties adversely affected by the new rating methodology. A cap on premium increases could, however, threaten an insurance company's profitability in several ways:

- In response to the changes in rating methodology, companies probably would need to increase premiums in some parts of the state by many times the CCPI (which in the current year is expected to be in the range of 4 to 5 percent) in order to compensate for mandated decreases in premiums elsewhere if they were to maintain their current level of profitability.
- Many of the underlying costs of providing insurance are increasing more rapidly than the CCPI. If the cap prevented companies from recovering these increasing costs in future rate proceedings (using the prior approval process specified in Proposition 103), then company profits would decline, potentially resulting in some firms withdrawing from the market.

Summary Regarding the Rating Methodology

Proposition 103 required changes in the way individual rates are set. Except for the rate cap, the Commissioner's regulations follow the basic requirements mandated by the initiative. These regulations do, however, result in potentially significant subsidies to certain buyers of insurance at the expense of other buyers of insurance. Additionally, the rate cap could make it difficult for insurers to earn a "fair and reasonable" profit without challenging the legality of the cap.

WHAT ARE THE KEY REGULATORY ISSUES STILL TO BE RESOLVED?

As we indicated above, the Commissioner originally attempted to develop regulations for the industry using individual company rollback hearings. It quickly became apparent that this process would not work, so the Commissioner next proposed a separate set of hearings (announced in October of 1989) to determine generic rules for regulating the industry. The first phase of the GICH ended with the promulgation of the rating methodology regulations discussed above. The second phase, currently underway, is expected to end in March of 1990 and to result in regulations governing both the rollbacks and future prior approval rate filings. This section presents an overview of the more fundamental issues that must be resolved before regulation can begin.

What Regulatory Approach Should Be Taken?

The first step in developing a regulatory process is establishing the kind of oversight of insurance companies to be exercised by the department. This issue must be resolved before the other issues under consideration during the GICH can be addressed. Since regulation generally is used to approximate the results one would expect to find in a competitive market, the choice of regulatory approach should be guided by (1) the degree to which the industry is already subject to competitive forces, (2) the extent to which "excessive" profits exist, and (3) the degree to which the initiative allows competitive forces to be considered in regulatory proceedings.

Degree of Competition. Last year (please see *The 1989-90 Budget: Perspectives and Issues,* pages 293-294) we examined the insurance industry and found that competitive elements are present. Specifically, we found that there are many companies selling insurance and there is significant freedom of "entry and exit" in the industry. Additionally, a survey of industry studies (produced by academics, consultants, and government agencies) indicates that most experts agree that the insurance industry generally exhibits competitive characteristics.

Profitability. In last year's review we also examined a number of automobile insurance profitability studies. We found that these studies do not support the view that the industry has been earning excessive profits. This industry has a history of volatile profitability, and in any given year some companies could be earning larger profits than would be normal for the long-run. However, over time, the industry as a whole appears to exhibit competitive performance. During the past year, we examined additional studies and have been unable to find evidence of persistent excess profits. The department's review of rollback exemption filings (discussed above) provides additional support to the view that automobile insurance profits have not been excessive.

Consideration of Competition. While the evidence suggests that competitive elements are present, the Commissioner may be prevented from considering these elements in the regulatory program. One of the *stated* purposes of Proposition 103 is "...to encourage a competitive insurance marketplace...." Elsewhere in the initiative, however, the Commissioner is instructed to give

"...no consideration to the degree of competition..." when approving insurance rates. If, in fact, the industry is competitive and the Commissioner must ignore that fact, an inappropriate type of regulatory oversight could result.

What Ratemaking Approach Is Appropriate? Some participants in the GICH argue that insurance companies require very close scrutiny during rate review because the industry has been exempt from antitrust oversight for many years (the initiative removed these exemptions). The regulatory approach proposed by this group would include: (1) a formal public utility rate-of-return ratemaking proceeding (perhaps some variation of the way in which the California Public Utilities Commission—CPUC—regulates electric or gas utilities), (2) a close and detailed review of all company records, and (3) so-called "social" regulation (use of the regulatory process to achieve specified public policy goals such as income redistribution, caps on certain expenses or "good service incentives").

Other participants in the GICH argue that insurance companies exist within a basically competitive environment, thus requiring relatively less intrusive oversight by the department (such as the way the CPUC regulates the trucking industry). The regulatory approach proposed by this group would give the department much more discretion about the intensity of individual company reviews. In essence, this approach would include more emphasis on general policies to guide reviews and the use of bands of rate flexibility within which companies could set their premiums without in-depth review.

There are many regulatory approaches that would fit within these two relative extremes. It is not clear at this time, however, what regulatory approach the Commissioner will choose.

As we noted last year, regulation of the insurance industry, like any industry, should proceed from a neutral perspective and focus on the underlying economic realities of the industry. *In our view, the available evidence on the competitive forces in the industry suggests that a less intrusive regulatory approach is warranted.*

How Will Profits Be Measured?

The court ruled that insurance companies are entitled to a fair and reasonable return. This requirement establishes the importance of profit calculation in the regulatory process since the regulator must know both the standard to be used to determine *allowed* profits and the method for calculating *actual* company profits. There are many technical factors that must be resolved in order that these calculations are performed in a manner that is consistent with good economic analysis. The principal issues are:

- ***How to Measure Profits?*** In prior-approval ratemaking, profits must be determined so the regulator can determine whether proposed premiums are too high or too low to allow firms to earn an adequate rate of return. Several major issues need to be resolved before actual regulation can proceed in an appropriate manner. These include determination of: (1) the appropriate accounting standards to use in measuring profits, (2) rules for allocating "owner's equity" and overhead costs between lines of insurance when computing their profitability, and (3) the appropriate time frame for calculating profit rates (for example, should the focus be on past or projected future profits).
- ***How to Establish the Level of Allowable Profits?*** In order to determine whether an individual company is earning a fair and reasonable return, the regulator also must define a standard (so-called *allowable* profits) against which to compare a company's actual profits. Some of the issues yet to be resolved include: (1) whether different standards should be used for rollback and for future rate proceedings, (2) whether allowable profits should be an industry average versus company or line-of-business averages, and (3) what an adequate profit return is in order for an insurance company to remain economically viable over time.

What Is a Fair and Reasonable Profit Rate? A fair and reasonable profit rate is that which is sufficient to attract needed financial capital to an industry and keep it there. Stated another way, it would be the profit rate that would make investors earn as much by investing in an insurance company as they would in other industries having a similar degree of risk. This suggests that proper regulation of the insurance industry requires ongoing adjustments of the allowable profit rate because economic forces change from year to year and would affect investment decisions. Additionally, since premiums in regulatory proceedings are set for the *coming* year, it is important that allowable profits take into account future (that is, prospective) profits, rather than simply on how companies have performed in the past.

As noted earlier, the Commissioner adopted an *allowed* profit rate of 11.2 percent for use during the department's reviews of the rollback exemption filings. This profit rate was arrived at by taking a 15-year average of industry-wide return on equity—including all investment income.

The department's decision to use return on equity as a measure of allowable profits is appropriate. It is not clear to us, however, whether the department's approach in arriving at the 11.2 percent figure gives:

- Adequate consideration to the longer-run profitability requirements of the industry;
- The proper recognition to future economic conditions; and
- Proper consideration to differences in the riskiness of individual lines-of-business.

The department's methodology in arriving at this standard currently is under review as part of the GICH.

How Will Reserves, Surplus, and Expenses Be Measured?

Once the regulatory approach and a method for measuring profits are determined, another set of issues must be resolved. These issues generally relate to the treatment of certain critical accounting variables such as loss reserves, surplus, and expenses.

Loss Reserves and Surplus. Loss reserves (funds set aside to pay claims) and surplus (under regulatory accounting rules surplus is roughly equivalent to owners' equity) represent large pots of money which, some parties allege, could be subject to manipulation by the companies to the detriment of policyholders. Specifically, these parties contend that insurance companies frequently place more funds into loss reserves and surplus than is required on actuarial grounds. If true, the premiums paid by consumers would be higher than they otherwise would be while reserves and surplus are being built up. On the other hand, regulators (and good business practice) require companies to set aside an appropriate level of funds to assure that monies are available to pay off all claims. Specifically, unduly holding down the size of reserves and surplus could increase the danger that a company might be unable to pay off claims in a timely fashion or might not be able to survive a large catastrophe.

Allocation of Surplus. Accounting issues have been raised regarding the *allocation* of surplus among the lines-of-business for the purposes of determining the profitability of individual lines. Companies typically do not organize their accounting records in a way that directly allows for a line-of-business division of the surplus; consequently, some method must be devised for doing the allocation. Since surplus is treated as backing for premiums written (much the same way as banks hold loan reserves), a natural method for allocating surplus among lines would be to use the degree of risk faced by each line-of-business. This kind of allocation, however, is apparently very difficult to accomplish.

Hence, some other method for allocating the surplus must be devised.

The department proposes to use so called "premium-to-surplus norms" to allocate surplus among lines-of-business. A premium-to-surplus norm represents the number of dollars of premiums a company can write for each dollar of surplus held. Some parties have proposed the use of premium-to-surplus ratios that were developed by regulators as "rules-of-thumb" to trigger closer examination of companies during solvency reviews. Hence, these norms represent the limit beyond which a company is thought to become sufficiently risky to merit closer evaluation. While this approach has some surface appeal because the norms are easy to use, the department has provided little analytical support for the use of these norms. There are at least two problems with their use:

- Norms, in effect, establish a standard for the "correct" level of surplus and make no allowance for operating differences between companies.
- Companies that choose to hold "extra" surplus (to reduce their exposure to large unanticipated losses) would be disadvantaged by having to accept a lower profit rate. This is because regulators would not permit premium increases large enough to maintain this excess.

Should Companies Be Held to Efficiency Standards? Some participants in the GICH argue that expenses also should be evaluated using industry norms. Thus, all companies would, in effect, be reviewed based on the behavior of the "average" or, alternatively, the lowest-cost (the most efficient) company. Use of norms or "efficiency standards" are proposed as a way to force less efficient (higher cost) companies to improve their performance. Other participants argue that each company must be reviewed based on its individual choices regarding the level of expenses it incurs. This view is based on the notion that companies in the industry are diverse in many ways, and thus face different costs. Hence, norms could reduce incentives to innovate by forcing all companies to become more alike.

Should Certain Expenses Be Excluded or Capped? Some participants argue that certain expense items should be capped or excluded when setting rates and computing profits. These items include political contributions, executive salaries, image advertising, and bad faith judgments. Other participants argue that the department does not need to cap or exclude any expense categories because the market would exert discipline over management to contain these, and all other, costs. In January of this year, the Commissioner announced her intent to use such caps and exclusions.

Summary Regarding the Key Regulatory Issues

There are many generic issues yet to be resolved before Proposition 103 can be implemented fully. The previous discussion touched on only the more important and, perhaps, contentious issues. The GICH process is only the beginning. Once the Commissioner issues her generic regulations sometime in spring 1990, she must then apply them to individual company rollback and prior approval rate filings. It is not yet clear how difficult it will be to make the generic rules workable in the context of everyday company regulation. Most observers expect challenges both to the generic regulations and to their application to individual companies. Resolving those challenges likely will take some time.

OTHER KEY ISSUES RELATED TO PROPOSITION 103

While we have focused above on the implementation of Proposition 103 during the last year, there are two closely related insurance issues that are deserving of the Legislature's attention. These include:

- The role of the California Automobile Assigned Risk Plan (CAARP).
- How to gain control over the rising cost that companies incur in order to provide insurance.

What Is the Purpose of CAARP?

We recommend that the Legislature review the statutes establishing the California Automobile Assigned Risk Plan to clarify the Legislature's intent whether (1) the CAARP was established as a self-supporting pool, (2) its purpose is to insure only bad drivers, and (3) it is to subsidize insurance to low-income drivers.

CAARP Deficits Are Large and Growing. As described earlier, the CAARP was established to provide insurance for "bad" drivers (that is, drivers with extremely poor driving records). In recent years the number of policyholders insured through CAARP has been growing rapidly because of the plan's relatively low rates. As recently as 1986 the CAARP provided insurance coverage for about 423,000 drivers (approximately 3 percent of all insured drivers in California). The department estimates that at the end of 1989 about 1.2 million drivers were in CAARP (more than *10* percent of all insured drivers), and it further estimates that the enrollment could reach about 1.5 million by the end of 1990. In recent years, the relatively low rates have caused the plan to change so that many, perhaps most, of the drivers currently insured through the CAARP would be considered "good" drivers under Proposition 103 (that is, no more than one moving violation during the previous three years). As mentioned above, these drivers appear to be choosing the CAARP, in part, because: (1) it offers *lower* premiums for basic coverage than does the regular market and (2) insurers providing regular coverage are reluctant to serve some of these customers. Currently, this practice is limited primarily to Los Angeles County but could become a concern in other urban areas in the future.

The CAARP administrators estimate, and department staff concur, that in 1989 the expected cost of claims and expenses associated with settling those claims from the CAARP policies *exceeded* premium revenues by at least $600 million. The department staff estimate that the deficit could reach $1 billion in 1990 given present trends. The funds needed to cover these deficits come from the premiums paid by drivers purchasing insurance in the regular market. In effect, the regular market is subsidizing insurance coverage for both the good and bad drivers in CAARP. Those subsidized drivers, however, are not necessarily low-income individuals.

1989 CAARP Rate Proceeding. In February 1989 the CAARP administrators filed a request for an approximately 112 percent increase in the average assigned risk pool premium. Actuarial estimates done by the industry and confirmed by department actuaries indicate that this increase in average rates is required in order for the plan to cover its costs. The request was then set for hearings which focused on a number of issues including:

- Whether concerns about the ability of drivers to afford insurance should affect the CAARP premiums, and
- Whether passing the CAARP deficits through to non-CAARP policyholders would establish "unfairly discriminatory" premium rates for the regular market (because of the cross-subsidies).

On December 4, 1989, the presiding Administrative Law Judge (ALJ) found that the CAARP rate increase request was justified because disallowing the request would result in a subsidy of CAARP policyholders by non-CAARP policyholders (the regular market). This subsidy would violate provisions of Proposition 103 which mandate that voluntary market premiums cannot be unfairly discriminatory. Thus, the ALJ concluded that the current CAARP rate structure is inadequate and the premium increase is justified.

The Commissioner, in her decision filed December 18, 1989, disagreed with the ALJ (whose findings are advisory only) and denied the CAARP rate request on the grounds that it did not adequately take into consideration affordability concerns raised during the hearings. Additionally, she found that the CAARP administrators did not adequately justify their premium increase request since they failed to consider changes in rating methodology mandated by Proposition 103. The deficits identified in the premium increase request could be partially offset by these changes. The Commissioner ordered the CAARP administrators to submit a rating plan within 60 days that includes two rate tiers: (1) a lower, subsidized tier for low-income drivers and (2) a second, nonsubsidized tier for other CAARP policyholders. The decision, however, did not address whether lower-income bad drivers should be subsidized.

Summary Regarding CAARP. Proposition 103 does not directly address the CAARP. The relationship between the initiative and the CAARP ratefiling became more explicit, however, when parties to the proceeding raised issues regarding the purpose of the CAARP and its use as a means to redistribute the cost of insurance among policyholders. Nevertheless, significant questions remain regarding (1) whether the CAARP was established as a self-supporting pool, (2) whether its purpose was to insure only bad drivers, and (3) whether it is to subsidize insurance to low-income drivers. Because CAARP was created by statute, these are basic policy issues which the Legislature can address.

Therefore, we recommend that the Legislature review the statutes establishing the CAARP and enact whatever changes are appropriate to clarify the Legislature's intent regarding the above issues. This would provide the necessary guidance to the Commissioner in regulating the CAARP.

How Can the Cost Side of Insurance Be Addressed?

Proposition 103 primarily focuses on: (1) improving competition (such as requiring the department to provide comparative premium quotes, subjecting companies to antitrust statutes, and removing some restrictions on who can sell insurance policies), and (2) regulating premiums charged by insurance companies. The costs of providing coverage and paying claims is not directly addressed by the initiative. Yet, as we concluded last year, these costs play an important role in the high and rapidly increasing cost of insurance in California.

There are many factors that make up the cost of insurance. These include repair costs, medical costs, theft, fraud, type of car insured, legal fees, wage loss, pain and suffering, selling expenses and operating expenses. Individual companies can directly affect some of these cost components. Other cost components are not so easily controlled by either insurance companies or drivers.

Because there are many factors that affect insurance costs, a variety of different approaches must be pursued to control costs. The following are most often identified as ways to gain some control over insurance costs.

Double Payments. Currently, individuals involved in an auto-related personal injury lawsuit may receive awards which include medical costs even though they have already received payment from their medical or disability insurer. This is because under the "collateral source rule," juries must ignore such payments when determining awards. The problem is that the medical or disability insurer has no direct way of knowing about the lawsuit award (the second payment). One way of addressing the problem of double payments is to require notification of medical and other insurance companies of these awards. They could then recover their costs by placing a lien on the award. This kind of insurance coordination currently exists for workers' compensation insurance. Eliminating double payments could reduce the incentive for individuals to bring suit hoping to profit from an award by pocketing that part of the payment representing economic damages already paid by other insurers. Department staff feel it is a significant cause of litigation in some areas of the state. It is difficult to estimate the extra costs due to double payments. However, one actuarial consulting firm estimated in a recent study that double recoveries could have increased the cost of automobile insurance in California by between $176 million and $374 million in 1989.

Fraud. Insurance fraud (including faked accidents, faked injuries, false repair cost estimates and other false statements) is often mentioned as a significant factor affecting the cost of insurance. Many kinds of fraud are difficult and costly to investigate and prosecute; therefore, it is often cheaper to pay suspect claims than to pursue them. Chapter 1609, Statutes of 1988 (SB 2344, Lockyer) established a surcharge on insurance *policies* that would be used by local prosecutors and the department to investigate and prosecute fraud cases. Chapter 1119, Statutes of 1989 (SB 1103, Robbins) increased the surcharge and applied it to insured *vehicles,* in order to double the amount of money available for fraud investigations and prosecutions. This increased attention by investigators and prosecutors should help to reduce the incidence of these crimes, thereby helping to reduce premium costs.

Theft Prevention and Stolen Vehicle Tracking Equipment. Some insurance companies give premium discounts for the use of theft prevention equipment (in fact, some companies make the use of this equipment a condition of coverage for certain high-theft-rate vehicles). Technology currently exists that may make it feasible for police to track stolen vehicles, though installing and operating the equipment is costly. Greater use of these devices and greater incentives for the use of theft prevention devices could help reduce the cost of comprehensive insurance coverage if this equipment proves to be cost effective.

No Fault Insurance. No fault insurance removes the need to determine fault before insurance claims are paid to injured parties. The U.S. Department of Transportation reviewed no fault plans and concluded that *well-designed* plans *could* help to limit the rate of growth in costs. They concluded, however, that even with good plans it is unlikely that insurance costs would decrease in absolute terms since reduced litigation costs would be offset by larger average payments to injured parties. Clearly, these plans would trade more frequent and higher average payouts to injured parties for the loss of the right of a party to bring personal injury suits (except for very serious injury or for death). No fault plans sometimes are criticized for reducing economic incentives to be a good driver. While this could occur, insurance companies could take account of accidents by increasing premiums for the parties cited in accidents. Thus, some incentive to avoid accidents would continue to be reflected in insurance premiums.

As far as we know, there is no strong empirical record for or against the ability of no fault to control auto insurance costs. Given the cost constraining potential of a well-designed and implemented plan, however, no fault deserves more in-depth study to determine if an economically beneficial plan can be devised.

Improved Information. One of the basic requirements of competitive markets is that consumers must have enough comparative product information to make informed decisions. Better decisionmaking and more effective shopping could put pressure on insurance companies to be more efficient and innovative, thus holding premium costs below what they otherwise would be. Proposition 103 mandates that the department make available to the public an extensive comparative premium data base. (This data base is expected to be available later in 1990.) This data base should help consumers become more effective shoppers.

Another area in which the information available to consumers might be improved is in reporting of complaints. Many consumers base insurance purchase decisions on service provided by insurers. Currently, it is difficult for consumers to obtain information about the behavior and service quality of insurance companies at the time they make purchase decisions. Improved monitoring and frequent, periodic reporting of complaints received by the department (cross-referenced by company, by type of complaint and by manner resolved) could provide important information to: (1) consumers, when shopping for insurance; (2) consumer groups, when evaluating companies; and (3) the Attorney General and local prosecutors, for use during consumer protection investigations. Regular reporting also could encourage companies, brokers and agents to improve their performance.

SUMMARY AND CONCLUSIONS

Our analysis of the past year's effort by the department to implement Proposition 103 suggests that considerable time will pass before the regulatory process has been fully developed and implemented. The department has proceeded slowly in developing the basic regulations needed to govern the industry. Thus, there are many procedures needed to regulate the industry that have not yet been developed. In effect, while much activity can be identified over the past year, the public is in essentially the same place as when the initiative passed. The GICH process, however, offers some expectation that basic regulations ultimately will be formulated.

As we discussed above, one of the stated purposes of Proposition 103 is to encourage a competitive insurance marketplace. Our analysis of the industry suggests that competitive elements are present in this industry and that it is not clear that California's high insurance rates are due to a noncompetitive insurance industry. Consequently, we feel that the insurance industry may not require a very intrusive regulatory approach in order to adequately guard against noncompetitive performance. Whatever approach is used should take account of a company's current and projected financial position.

With regard to issues related to Proposition 103, we recommend that the Legislature review the statutes establishing CAARP to clarify the Legislature's intent regarding the plan's purpose. In addition, we recommend that the Legislature continue to review the factors that affect the costs of insurance.