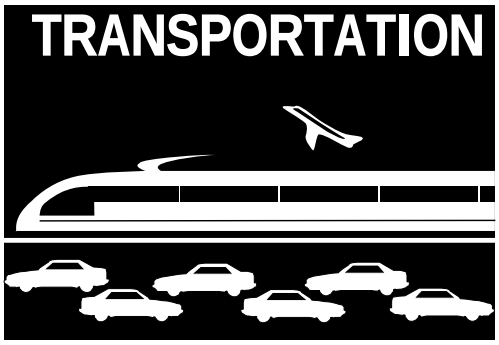


MAJOR ISSUES

Transportation Funding "In Balance" Only Because of Delays, Deletions and Denial. In order to balance projected revenues and expenditures for the state's transportation program for the seven-year period from 1996-97 through 2002-03, the state will have to (1) delete projects already scheduled for funding, (2) delay payment of some projects, and (3) use future revenues to pay for existing projects. In addition, the fund estimate does not address how seismic retrofit of state toll bridges will be funded. (See pages A-12 through A-16.)

State Highway Account (SHA) Has Significant Cash Balance. The SHA will have a large balance in both the current and budget years. The balance, however, does not provide an accurate picture of the state's transportation funding condition in the long run. The balance is due primarily to slow project delivery and construction as a result of various factors including unanticipated complexities in seismic retrofit engineering. (See pages A-18 through A-21.)

Soaring Costs for Toll Bridge Seismic Retrofit. Toll bridge seismic retrofit costs will be between $1.7 billion and $2.1 billion, rather than $650 million, as previously estimated. Voter approval of the Seismic Retrofit Bond Act of 1996 (Proposition 192) on the March 1996 ballot would provide $650 million; however, no funds have been identified for the remaining costs. Using existing revenues to retrofit toll bridges will result in delays of other transportation projects and/or non-seismic toll bridge improvements. (See pages A-16 through A-18 and pages A-37 through A-39.)

Pavement Rehabilitation Backlog Poses Significant Financial Liability. Pavement rehabilitation efforts have not kept pace with deteriorating pavement conditions, and currently 16,000 lane-miles of state highways are in need of rehabilitation. From 1996-97 through 2002-03, Caltrans plans to spend $2.5 billion on pavement rehabilitation in order to reduce the level to 10,000 lane-miles. However, most state highway pavements are over 30 years old and will begin to deteriorate at a more rapid rate, so future rehabilitation costs may be even higher. Increased expenditures on pavement rehabilitation will further squeeze available funding for new project construction. (See pages A-43 through A-44.)

Intercity Rail Operating Costs Increasing; Farebox Return Worsening. State costs to contract with Amtrak to provide intercity rail services will increase significantly in 1996-97 because Amtrak proposes to shift more of the operating costs to the state. However, ridership remains relatively flat. As a result, all three intercity rail routes will likely not meet the statutorily required farebox return ratio of 55 percent. Failure to meet that requirement means that the service cannot continue with state support without obtaining waivers from the California Transportation Commission. (See pages A-49 through A-55.)

Caltrans Proposes Smaller Capital Outlay Support Staff. Caltrans proposes to reduce staff for project development by 881 personnel-year equivalents. The reduction results from an expected decline in seismic retrofit workload, anticipated efficiencies, transfer of work to construction contractors, and a reduction in reimbursed work for local agencies. However, Caltrans is unable to demonstrate that the proposed staffing level is appropriate because its workload model is unreliable and the department freely modifies the model's results. (See page A-30 through A-34.)

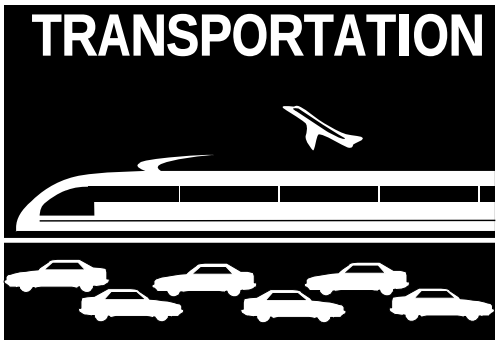
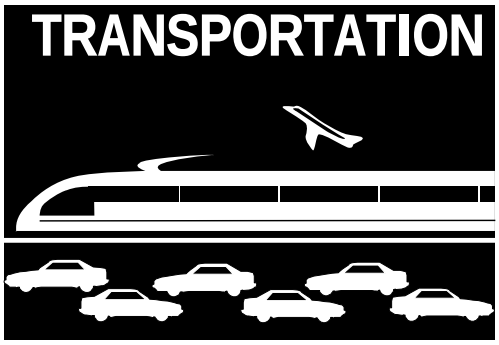


TABLE OF CONTENTS



OVERVIEW

Total expenditures from state funds for transportation programs are proposed to be slightly higher in 1996-97 than estimated current-year expenditures. The increase is due mainly to increased expenditures for highway capital outlay purposes.

For traffic enforcement, the budget proposes a slight increase in the expenditures of the California Highway Patrol, primarily to support an increase in the number of traffic officers and to cover higher salary and benefit costs resulting from the recent collective bargaining agreement with the state. The expenditure level of the Department of Motor Vehicles is also proposed to increase slightly in order to implement various new legislation.

The budget proposes total state expenditures of about $5 billion for transportation programs in 1996-97. This is an increase of $235.8 million, or 5 percent, over estimated expenditures in the current year.

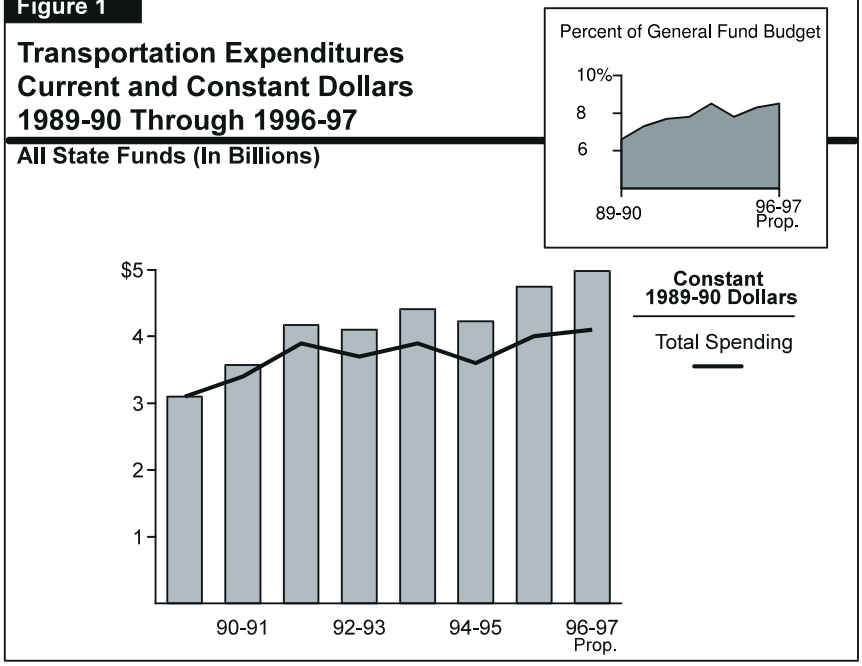
Figure 1 (see next page) shows that state-funded transportation expenditures increased by $1.9 billion since 1989-90, representing an average annual increase of 7 percent. When adjusted for inflation, these expenditures increased by an average of 4 percent annually. In addition, Figure 1 shows that transportation expenditures have increased as a share of total state expenditures over the period. This change is largely the result of the passage of the *Transportation Blueprint* legislation in 1990 which provided additional state funds for highway and mass transportation programs. In 1996-97, proposed transportation expenditures will constitute about 8.5 percent of all state expenditures.

Of the 1996-97 state transportation expenditures, about $3.8 billion is proposed for programs administered by the state, and about

$978.3 million is for subventions to local governments for streets and roads. Another $208 million will be for debt-service payments on rail bonds issued under Propositions 108 and 116 of 1990.

Figure 1

Transportation Expenditures
Current and Constant Dollars
1989-90 Through 1996-97
All State Funds (In Billions)



SPENDING BY MAJOR PROGRAMS

Figure 2 shows spending for the major transportation programs in detail. Specifically, the budget proposes expenditures of $5.5 billion (from all fund sources) for the Department of Transportation in 1996-97—an increase of $183.6 million (3.5 percent) above estimated current-year expenditures. The higher expenditure level reflects an increase of about $206 million in state-funded expenditures and reimbursements, offset by a decrease of $22.1 million in federally funded expenditures.

Spending for the CHP is proposed to increase in 1996-97 by $24.9 million, about 3.3 percent. The increase will be funded from the Motor Vehicle Account, and will cover primarily higher salary and benefit costs as well as fund 180 currently vacant traffic officer positions.

For the DMV, the budget proposes expenditures of $531 million, about 2 percent higher than in the current year. The increase will be funded with a combination of Motor Vehicle Account revenues and revenues from motor vehicle license fees.

Figure 2

Transportation Budget Summary
Selected Funding Sources
1994-95 Through 1996-97

(Dollars in Millions)

	Actual 1994-95	Estimated 1995-96	Proposed 1996-97	Change From 1995-96 Amount	Change From 1995-96 Percent
Department of Transportation					
State funds	$2,134.4	$2,508.3	$2,700.3	$192.0	7.7%
Federal funds	2,411.3	2,140.7	2,118.6	-22.1	-1.0
Reimbursements	470.5	642.7	656.4	13.7	2.1
Totals	**$5,016.2**	**$5,291.7**	**$5,475.3**	**$183.6**	**3.5%**
California Highway Patrol					
Motor Vehicle Account	$632.3	$676.4	$705.5	$29.1	4.3%
Other	51.4	89.6	85.4	-4.2	-4.7
Totals	**$683.7**	**$766.0**	**$790.9**	**$24.9**	**3.3%**
Department of Motor Vehicles					
Motor Vehicle Account	$316.3	$335.3	$340.5	$5.2	1.6%
Motor Vehicle License Fee Account	163.6	166.2	171.0	4.8	2.9
Other	18.8	19.0	19.5	0.5	2.6
Totals	**$498.7**	**$520.5**	**$531.0**	**$10.5**	**2.0%**
State Transportation Assistance					
Transportation Planning and Development Account	**$61.6**	**$71.0**	**$76.1**	**$5.1**	**7.2%**

Additionally, the budget proposes an increase in the State Transportation Assistance (STA) program in 1996-97 to reflect higher projected revenues into the Transportation Planning and Development (TP&D) Account. The STA program provides funds to local transportation agencies to operate public mass transit systems. Annual funding of the program is determined based on a statutory formula, and the level varies depending on anticipated revenues into the TP&D Account.

MAJOR BUDGET CHANGES

Figure 3 presents the major budget changes proposed for 1996-97 in various transportation programs.

As the figure shows, for the Department of Transportation the budget proposes to increase highway capital outlay expenditures by about $163.6 million over the estimated current-year level. Additionally, the budget proposes a $28.9 million increase to pay for merit salary increases and price increases. The budget also includes an increase of $7.4 million to accommodate increased highway maintenance workload and an increase of $3.8 million to pay for tort payments.

The budget proposes a reduction of $17.5 million in highway capital outlay support (design and engineering) as a result of doing less reimbursed work for local governments as well as a reduction in state transportation improvement workload and anticipated future efficiencies which have yet to be implemented. The budget also proposes to eliminate state support of the Rideshare program.

For the CHP, the budget proposes $7.3 million to fund an additional 180 traffic officer positions which are currently vacant. This is the last increment of a three-year effort to increase the number of traffic officers. The budget also proposes to eliminate the Salvage Vehicle Inspection Program. This program required that all "salvage" vehicles, as specified, be inspected by the CHP prior to registration by the DMV. Because of the unanticipated heavy inspection workload, Ch 684/95 (SB 549, Alquist) placed a moratorium on further inspection. Additionally, the budget proposes to eliminate the California Motorcyclist Safety Program. Under this program, the CHP contracts with a private vendor to provide motorcyclist training and public awareness programs. Instead of contracting for the Motorcyclist Safety Program, the budget proposes that motorcycle driving schools and driving instructors be licensed by the DMV.

For the DMV, the budget requests $5 million to implement various new legislation. It also proposes $1.9 million in order to initiate a multiyear project to redesign the department's business practices and information systems.

Figure 3

Transportation Programs
Proposed Major Changes for 1996-97
All Funds[a]

Department of Transportation
Requested: $5.5 billion
Increase: $183.6 million (+3.5%)

- $163.6 million for highway capital improvements

- $28.9 million to pay for higher salaries and operating expenses
- $7.4 million for increased highway maintenance workload
- $3.8 million for increased tort payments

- $17.5 million in highway project design and development
- $14.4 million to eliminate funding for Rideshare program

California Highway Patrol
Requested: $790.9 million
Increase: $24.9 million (+3.3%)

- $15.2 million to pay higher salary and benefit costs

- $7.3 million to fund 180 vacant traffic officer positions
- $4.3 million to replace telecommunications equipment

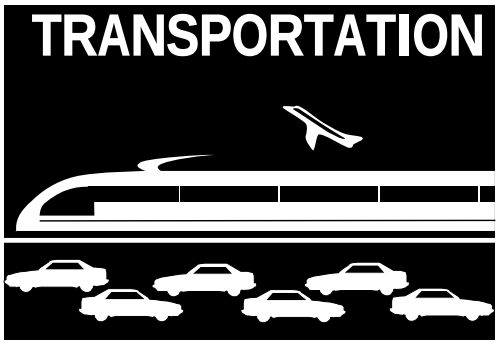
- $4.5 million to eliminate Salvage Vehicle Inspection Program and California Motorcyclist Safety Program

Department of Motor Vehicles
Requested: $531.0 million
Increase: $10.5 million (+2.0%)

- $5 million to implement various new statutes
- $1.9 million to redesign business practices

- $1.8 million to pay higher costs of verifying legal presence of driver license applicants
- $1 million to extend driver test pilot program

[a] Includes expenditures from Propositions 108 and 116 bond funds.



CROSSCUTTING ISSUES

TRANSPORTATION FUNDING

California finances its highway and mass transportation programs with a combination of state, federal, local, and private funds. The multi-year expenditure of state and federal funds for transportation capital projects is contained mainly in the seven-year State Transportation Improvement Program (STIP) which is adopted in even numbered years by the California Transportation Commission (CTC).

State law requires Caltrans to submit, every two years, a fund estimate to the CTC that projects state and federal revenues and expenditures for highway and rail projects over a seven-year period. The fund estimate is used to provide a basis for scheduling projects to be funded over the seven-year period in the STIP.

In the following sections, we conclude that:

- The 1996 Fund Estimate is in "balance", but only as a result of (1) deleting previously scheduled projects, (2) adding no new projects and using revenues from future years to fund some existing projects, (3) deferring some project costs beyond 2002-03, and (4) not addressing the costs for toll bridge seismic retrofit.
- The Legislature and Governor will need to determine how to fund the seismic retrofit of state-owned toll bridges, which Caltrans estimates to cost between $1.7 billion and $2.1 billion.
- The State Highway Account (SHA) is projected to have a sizable cash balance in the current and budget years. However, these

balances are misleading because they imply a degree of fiscal health that, in fact, is not present given the demand for transportation funding. One key reason for the large cash balance is the delay in Caltrans' delivery of projects.

- Demands for state transportation funds could increase as a result of a State Supreme Court decision making it more difficult for local governments to raise transportation funds.

1996 Fund Estimate Projects Shortfall; STIP Projects Will Be Deleted

Projected expenditures in the 1996 Fund Estimate exceed projected revenues by about $600 million. As a result, the CTC requested that regional agencies prepare a list of projects for potential deletion.

In August 1995, the CTC adopted the 1996 Fund Estimate for the seven-year period from 1996-97 through 2002-03. The 1996 STIP will be prepared based on the resource projections provided by this fund estimate.

Expenditures Are Projected to Exceed Revenues. Figure 4 summarizes the 1996 Fund Estimate projections as adopted. As the figure shows, resources are projected to total approximately $28.1 billion over the seven-year period. However, expenditures are projected to total about $28.7 billion, resulting in a shortfall of about $600 million. This projected level of expenditures includes noncapital outlay primarily for highway maintenance and operations, local assistance and subventions, and Caltrans administration. In addition, it includes the costs of engineering, and design and construction of capital outlay projects previously scheduled for funding by the CTC.

Shortfall Means No New Projects to Be Added in 1996 STIP. The $600 million shortfall results after all state and federal funds projected to be available in the 1996 STIP period are used to fund previously scheduled projects. This means that for the 1996 STIP period, no new projects will be added for funding the last two years of the period—2001-02 and 2002-03.

Additionally, Some Projects Previously Scheduled Will Not Be Funded. The CTC has also directed local and regional transportation planning agencies to identify $575 million in projects for potential deletion. At the time this analysis was prepared, Caltrans and regional transportation agencies were compiling projects to be considered for deletion. For those projects that are deleted, future funding will not be automatic. Rather, funding will be available if these projects are considered of high priority and are programmed in future STIPs. Thus, the

earliest that they could receive state and federal funding would be after 2002-03. (Deleted projects could be rescheduled in the 1996 STIP if their relative priority changes. However, doing so would displace other projects.) Because many of these projects were initially to be funded in the 1992 STIP, this means that it will take 11 to 12 years—instead of seven years—to fund all projects in this STIP.

Figure 4

1996 STIP Fund Estimate
Projected Revenues and Expenditures
1996-97 Through 2002-03

(In Billions)

	Seven-Year Total
Resources	**$28.1**
Expenditures	**$28.7**
Maintenance/operations	(5.9)
Local assistance/administration	(5.5)
Capital outlay support	(3.2)
Seismic retrofit	(0.5)
Non-STIP capital outlay	(7.7)
STIP capital outlay	(5.9)
Shortfall	**$0.6**

Funded Projects Will Be Delayed. Even projects that are funded will experience delays in construction. For example, projects originally scheduled to be funded in 1998-99 may not be funded until 2002-03. The CTC estimates that on average, funding of projects will be delayed by about two years.

Lower Priority Projects May Be Funded Over Higher Priority Projects. The deletion and rescheduling of projects could also result in some projects of relatively lower statewide priority being funded over other higher priority projects. This is because projects have been programmed to meet statutory funding requirements, such as the county minimum requirement. These requirements attempt to ensure equitable geographic distribution of funds without regard for the relative priority and need for projects amongst regions. Thus, what can be funded according to the statutory formula may not match what should be or needs to be funded.

Why Is There a Funding Shortfall?

The funding shortfall is the result of overly optimistic projections of resources coupled with underestimating expenditures. As a consequence, the state has scheduled more transportation improvement projects for funding than it has available resources.

Prior Resource Estimates Too Optimistic. Past projections of transportation resources have turned out to be overly optimistic, primarily due to the following reasons:

- ***Recession.*** The economic downturn in the past few years led to gas tax and weight fee revenues being about $1 billion below the level anticipated over the seven-year period from 1992-93 through 1998-99. However, this unexpected reduction in revenues is offset to a yet undetermined amount by lower construction costs for projects.
- ***Failure of Rail Bond Measure.*** The 1992 STIP anticipated that voters would approve $3 billion in general obligation bond funds for rail capital improvements. However, only $1 billion in bond funds were approved by the voters, leaving a $2 billion shortfall.
- ***Use of Transportation Funds for Unanticipated Purposes.*** As part of the state's overall budgetary solutions, state transportation funds were used for purposes that were not initially planned. For instance, about $323 million in transportation funds, rather than the General Fund, were used to pay the debt service on rail bonds.

Unanticipated Expenditures for High Priority Projects. In addition to significantly lower than expected resources, unanticipated events have increased transportation expenditures. In particular, the state expanded its seismic retrofit efforts to make state highway structures and toll bridges more earthquake-safe as a result of the Loma Prieta and the Northridge earthquakes. Caltrans estimates the costs of the expanded retrofitting program for state highways to be about $2 billion. Allocating resources to this high priority program reduces the amount available for other STIP projects.

The 1996 Fund Estimate also takes into consideration the increasing need for highway pavement rehabilitation. For the seven-year period, the fund estimate sets aside an additional $675 million for rehabilitation purposes. Caltrans estimates that this amount will enable it to bring the state's backlog in pavement rehabilitation down to about 10,000 lane-miles, the level that existed in 1980-81.

How Realistic Is the 1996 Fund Estimate?

While the 1996 Fund Estimate takes a more conservative approach to projecting resources, our review shows that an additional $560 million would be required to fully pay for all projects to be constructed in the 1996 STIP period. Additionally, many uncertainties still exist that may dramatically change the funding picture. In particular, the Fund Estimate does not address the funding of toll bridge seismic retrofit.

The 1996 Fund Estimate takes a more conservative approach to projecting resources than previous fund estimates. Additionally, the direction of the CTC to delete $575 million in projects also helps to provide a funding plan that is more realistic. Nonetheless, our review shows that it would require an additional $560 million to fund all projects left in the 1996 STIP, as we discuss below.

Accounting Change Masks Greater Shortfall. In preparing the 1996 Fund Estimate, Caltrans changed from an "accrual" basis of accounting to a "cash" basis for estimating state transportation revenues. We estimate that the net effect of this change is to understate the shortfall by about $560 million. This is because projects for which construction is started in the last two years of the STIP period will not be totally paid for in those two years. Instead, because project construction often takes more than one year, about $560 million in project costs will be paid in 2003-04 or later—in the 1998 STIP period.

Other Uncertainties Exist. Because the fund estimate is a seven-year projection, there are still many uncertainties. In particular, these uncertainties include the following:

- ***The Next Federal Transportation Act.*** The current federal transportation act will expire in 1997—one year into the 1996 STIP period. At present, it is uncertain what funding level the new federal program will provide. Any reduction in federal funds below the current anticipated funding level would increase the shortfall accordingly.
- ***Caltrans Support Reductions.*** The fund estimate assumes significant expenditure reductions in the support for Caltrans. Whether these reductions will materialize depends on efficiency measures to be implemented by the department, many of which are unknown at this time.
- ***Additional Future Expenditures.*** As we discuss in our write-up of Caltrans' budget (Item 2660), a federal court has ordered Caltrans to develop and implement a plan to reduce pollution in stormwater runoff in order to comply with federal law. Caltrans

indicates that several issues relating to the plan have yet to be resolved with the court. These issues, depending on the final resolution, could potentially cost the state hundreds of millions of dollars over the long run. The fund estimate does not reserve funds for these costs.

Bond Measure Would Alleviate Estimated Funding Shortfall, But Not Cover Retrofit of Toll Bridges. Proposition 192—the Seismic Retrofit Bond Act of 1996—will be on the March 1996 primary election ballot. If approved by the voters, it would authorize the state to sell $2 billion in general obligation bonds for seismic retrofit purposes, including $1.3 billion for the retrofit of state highways. Availability of the bond funds to retrofit state highways would eliminate the funding shortfall in the 1996 Fund Estimate and the need to delete projects.

Availability of bond funds would also provide $650 million for toll bridge seismic retrofit. However, that will not be sufficient to cover the costs of these retrofit activities, as we discuss in the following section. The 1996 Fund Estimate does not address the funding of toll bridge retrofit costs.

Seismic Retrofit of State Toll Bridges Requires Significant Funds

Caltrans' most recent cost estimates for seismic retrofit of state-owned toll bridges have tripled from initial estimates. Retrofitting toll bridges will cost the state between $1.7 billion to $2.1 billion. The Legislature and the Governor will need to address how to fund these costs in order that retrofit work can progress without significant impact on other transportation projects.

We recommend that Caltrans provide at budget hearings an estimate of the cash balances available in 1996-97 for toll bridge seismic retrofit from alternative fund sources.

Fund Estimate Does Not Include Toll Bridge Seismic Retrofit Costs. The 1996 Fund Estimate assumes that expenditures for the seismic retrofit of state-owned toll bridges would be paid from sources other than state and federal highway monies. The assumption is that these costs would be paid from toll revenues, bond funds or some other unidentified sources. At the time the fund estimate was adopted, Caltrans estimated the costs of toll bridge seismic retrofit to be $650 million. Proposition 192 (the Seismic Retrofit Bond Act of 1996), if approved by voters, would provide $650 million in general obligation bond funds for toll bridge retrofit.

Costs Will Be Significantly Higher. Based on consultant studies, Caltrans now estimates that the cost to retrofit seven state-owned toll

bridges will range between $1.7 billion and $2.1 billion. Specifically, the costs to retrofit four Bay Area bridges (the Richmond-San Rafael, the San Mateo-Hayward, the east span of the Carquinez, and the Benicia-Martinez Bridges) and the two southern California bridges will be between $710 million and $780 million, instead of $420 million as originally estimated. In addition, the cost to retrofit the San Francisco-Oakland Bay Bridge is now estimated at $1 billion to $1.3 billion instead of the initial $250 million.

Given the significantly higher cost estimate, $650 million in bond funds, if available, will fall far short of funding toll bridge seismic retrofit.

With No Additional Funds, Toll Bridge Seismic Retrofit Would Crowd Out Other Projects. If seismic retrofit of toll bridges is to proceed as a high statewide priority, and if no additional funds are made available, any costs not covered by bond funds would have to be paid from either state and federal highway funds or from toll revenues. Using existing toll revenues would crowd out other bridge improvement projects, such as improving approach roads to the Dumbarton and Bay Bridges and widening the San Mateo-Hayward Bridge. (These are projects included in Regional Measure 1 whereby Bay Area bridge tolls were raised for various bridge improvements.) Using state and federal highway funds instead of toll revenues, however, would require additional STIP projects to be deleted (beyond the $575 million called for by the CTC), and further delays of other projects remaining in the STIP.

Funding Issue Needs to Be Addressed. Based on the latest cost estimate, and depending on the outcome of the bond measure, the state will need from $1.1 billion to $2.1 billion in additional funding for toll bridge seismic retrofit. Caltrans maintains that its target is to construct all toll bridge seismic retrofit projects by the end of 1997, with a number of projects to begin in 1996. In order to ensure available funds for these projects to proceed, the Legislature will need to determine the relative funding priorities of toll bridge seismic retrofit, other STIP projects, and other toll bridge projects (funded from toll revenues).

Because the amount and timing of needed construction funds depends on Caltrans' ability to design and engineer projects, we think that the Legislature should know the construction schedule for bridge retrofit projects in order that it is able to determine when additional funds should be provided. In our writeup of Caltrans' budget (Item 2660), we recommend that the department provide prior to budget hearings a schedule of seismic retrofit projects for each toll bridge and an estimate of the amount of funds needed for each bridge project.

Because the budget projects large cash balances in the SHA (as discussed in the section below), the Legislature may be able to utilize such balances in 1996-97 for seismic retrofit of toll bridges while determining a long-term funding solution. Accordingly, we recommend that Caltrans provide at budget hearings an estimate of the amount of cash balances (such as from the SHA and toll revenues) that are available for these purposes in 1996-97, without adversely affecting the construction of other highway or toll bridge projects.

State Highway Account Shows Large Balance

We recommend that the department provide, prior to budget hearings, a reconciliation of the State Highway Account reserve balance estimated for 1995-96 that quantifies (1) the savings resulting from project construction costs being lower than expected and (2) the increase in cash reserves as a result of delays in project delivery.

The SHA is the primary source of state funds for the state highways transportation program. Account revenues are generated mainly from gas tax revenues and weight fees on trucks. Funds in the SHA are used mainly for highway maintenance and operations, support of the Department of Transportation, and the design, engineering, and construction of highway projects. Funds in the SHA are also used to fund rail capital improvements.

As we discussed previously, over the 1996 STIP period there will not be sufficient state and federal funds to construct all of the transportation projects that have been scheduled thus far through 2002-03. As a result, some previously scheduled projects will have to be deleted. While there will not be sufficient funds over the *long run* to pay for all planned improvements, the 1996-97 Governor's Budget shows that the SHA will have a sizable cash balance in the current year. By the end of the budget year, the balance is projected to be about $528 million.

SHA Balance Significant and Increasing. Figure 5 shows the year-end balance in the SHA from 1994-95 through 1996-97. As the figure shows, the SHA cash balance has increased significantly. In addition, the figure shows that the budget has consistently under-projected the cash reserve in the account. For instance, the projected balance for 1994-95 was $73.8 million, but the actual year-end reserve was much higher at $380 million.

Similarly for 1995-96, the SHA was initially projected to end the year with a small cash balance of $20 million, only after Caltrans borrowed $147 million short-term to fund seismic retrofit projects. However, Caltrans now estimates the balance will escalate to $495.7 million, even

without having to issue short-term notes. For 1996-97, the budget projects a reserve of $528 million.

Figure 5

State Highway Account
Projected Versus Actual Fund Balances
1994-95 Through 1996-97

(In Millions)

Fund Balance	1994-95	1995-96	1996-97
Projected	$73.8	$20.0	$527.8
Actual/estimated	380.1	495.7	—
Difference	**$306.3**	**$475.7**	**—**

Reserves Not the Result of Higher Revenues. There are three possible explanations for these higher-than-projected reserves:

- Higher-than-anticipated revenues.
- Lower-than-projected expenditures.
- A combination of both.

Our review, however, shows that the high cash balance is not caused by higher-than-anticipated revenues. In fact, gas tax revenues and weight fees have only increased by about 1 percent since 1994-95, and overall revenues into the SHA have tracked closely to projected amounts on an annual basis. Rather, the large balance is primarily the result of actual expenditures—in particular, transportation capital outlay—being lower than projected. For instance, as shown in Figure 6, in 1994-95 actual capital outlay expenditures from the SHA were $98 million lower than projected. For 1995-96, the amount is estimated to be about $424 million less, accounting for almost all of the increase in the cash balance by the end of 1995-96.

Lower Expenditures Due to Lower Project Costs and Delivery Delays. Our review further shows that the lower-than-expected expenditure levels are attributable to the following:

- ***Project Prices Are Lower.*** Bid prices on projects have been lower than estimated by between 8 to 10 percent, resulting in savings. However, Caltrans cannot estimate the amount of savings that has been realized as a result of the lower bid prices. Consequently, the amount of increase in the cash balance attributable to lower project prices cannot be determined at this time.

Figure 6

State Highway Account
Projected Versus Actual
Capital Outlay Expenditures
1994-95 Through 1996-97

(In Millions)

	1994-95	1995-96	1996-97
Projected	$357.1	$900.7	$757.9
Actual/estimated	259.2	476.9	—
Difference	**$97.9**	**$423.8**	**—**

- ***Storm Repairs Delayed Projects.*** In response to the 1995 winter storms, staff resources were redirected to highway repair in order to maximize federal reimbursement of emergency funds. While the state was reimbursed for 100 percent of the work accomplished within the first 180 days of the declared emergency, this redirection of staff resources caused a three to four month delay in other project delivery, according to Caltrans.

- ***Ready Projects May Potentially Be Deleted.*** Some projects that are ready to be awarded for construction may not be funded because they are now being considered for deletion, in accordance with the CTC's direction to balance the 1996 STIP. This reduces the pool of ready projects that Caltrans can award for construction.

- ***Seismic Retrofit Design and Engineering Has Been Delayed.*** Caltrans indicates that the design and engineering for seismic retrofit has been more complex than expected. The department now must determine the level of seismic retrofit for each bridge depending upon the period in which it was constructed. This determination adds to design and engineering workload and delays project construction.

Delayed Projects Potentially Cost More in Future. While delays in project construction will increase the SHA cash balance, delays may also result in higher project costs over time due to inflation. As projects are delayed, future costs are likely to be higher. This could in turn exert additional demand for transportation funds over the long run if the state is to construct all projects scheduled in the STIP.

Department Should Quantify Delays and Identify Real Savings. The change in the SHA cash balance picture for 1995-96 raises questions

concerning the reliability of the proposed 1996-97 capital outlay expenditure level and the projected reserves in the SHA. While the budget projects a balance of $528 million, this balance is highly sensitive to the level of project delivery and the timing of projects being awarded for construction. If delivery slows, the fund balance will rise.

In order that the Legislature is better able to assess when additional cash will be needed to fund the state transportation program, we recommend that the department provide a report, prior to budget hearings, that identifies the actual savings realized in 1994-95 and 1995-96 as a result of lower project bid prices. The report should also quantify the extent to which project delivery delays are likely to increase the cash balance in the SHA and the amount of cash needed in 1996-97 and subsequent years to fully pay for projects under construction in 1995-96.

Recent Federal Act Restores Funds and Provides More Flexibility

The recently enacted National Highway System Designation Act restores about $80 million in federal funds for California's transportation program in 1996 and 1997 and allows advance use of future federal funds. Additionally, it will enable the state to use federal transportation funds more efficiently to meet state and regional priorities. Because the act eliminates certain federal mandates, Caltrans might be able to realize an unknown amount of savings.

We recommend that Caltrans report, at budget hearings, on the activities it will not carry out as a result of federal mandates being eliminated, and the amount of savings it could potentially realize.

The 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) authorized the existing federal transportation program through September 1997. (Please see our *Analysis of the 1992-93 Budget Bill* for a summary of ISTEA, pages III-53 through III-58.) The act, among other things, also required Congress to approve a national highway system (NHS) by September 1995. In November 1995, the National Highway System Designation Act of 1995 was enacted.

Figure 7 summarizes the key provisions of the act and Figure 8 lists the mandates lifted by the act. The act designates the NHS as including about 161,000 miles of interstate and principal arterial roads nationwide, of which 7,400 miles are in California. In addition, the act amended many provisions of ISTEA. In general, these amendments seek to achieve the following:

- Provide more transportation funds to states in the short run.

- Increase flexibility in the use of federal funds.
- Allow innovative uses of federal funds.
- Reduce federal mandates.

Act Restores and Advances Federal Funds Available to the State. The ISTEA as well as federal budget actions limited the amount of federal transportation funds available in FFY 1996 and 1997. The NHS act restored a portion of those funds. As a result, Caltrans now estimates that it could receive up to $80 million more than anticipated over the two fiscal years.

Another provision of the act will also benefit California. Specifically, the new act permits states to commit to projects future federal funds that will be available in FFY 1998, or later—that is, after the current ISTEA has expired. This is advantageous to California because, as we pointed out in the *Analysis of the 1995-96 Budget Bill* (page A-15), California would be totally out of federal funds in 1996-97 if it could not continue to do "advance construction" and pre-commit future federal funds.

Act Increases Flexibility in Use of Federal Funds. The new act also broadens the use of federal funds which ISTEA has set aside for particular types of projects. For instance, states are allowed to transfer unobligated transportation funds under the Congestion Mitigation and Air Quality (CMAQ) program—funds available primarily to urban areas—to other non-CMAQ projects. The act also makes certain types of expenditures and projects—for example, capital and operating costs for traffic monitoring, management, and control facilities—eligible for NHS funding.

Act Allows Innovative Financing for Transportation Projects. In addition, the act liberalizes the use of federal funds for toll road projects. It raises from 50 percent to 80 percent the maximum percentage of project costs that may be funded with federal money. Additionally, federal funds may be used to fund debt service on bonds for toll projects.

The act also sets up a pilot program for up to ten states to form infrastructure banks, using in part federal funds as seed money, to provide loans and other assistance for transportation improvements.

Act Reduces Certain Federal Mandates. The act also eliminates certain federal mandates established in ISTEA. Figure 8 summarizes the mandates lifted in the act. Eliminating or relaxing these mandates would likely result in savings to the states. For instance, the United States Department of Transportation (USDOT) will be prohibited from requiring states to use signs in the metric system or to require project design in the metric system before October 2000. In the past few years, Caltrans has expended about $3 million

Figure 7

National Highway System (NHS) Designation Act of 1995 Key Provisions

NHS designation	• Designates 160,955 miles of interstate and principal arterial roads as the NHS, including 7,400 miles in California
Restoration of Section 1003(c) funds	• Restores portion of reduction in funding imposed by Section 1003 (c) of ISTEA by redirecting funds from demonstration projects
Advance construction	• Permits commitment of federal funds that will be available in FFY 1998 or later (beyond the current ISTEA)
Congestion Mitigation and Air Quality (CMAQ) improvements	• Freezes program funding at the FFY 1994 level regardless of subsequent changes in clean air status • Allows states to transfer unobligated funds to other non-CMAQ projects
Transportation Enhancement Activities (TEA) projects	• Allows funds to be advanced to states • Allows states to transfer unobligated funds to other highway projects
Toll road funding	• Allows federal funds to be used for up to 80% of costs of toll road projects, and to pay debt service on bonds
Infrastructure Bank Pilot Program	• Allows up to ten states to form infrastructure banks—capitalized in part with federal funds—to make loans to public and private entities for transportation projects
Intelligent Transportation Systems (ITS)	• Allows certain ITS funds to be reallocated for other ITS projects
Traffic monitoring	• Makes capital and operating costs for traffic monitoring, management, and control facilities eligible for NHS funds
Golden Gate Bridge	• Allows nonfederal funds used for bridge seismic retrofit to be credited as local match for future federal aid
Alameda Corridor	• Identifies the Alameda Transportation Corridor (from the ports of Los Angeles and Long Beach to Interstate 10 in Los Angeles) as a high priority corridor for future funding

in preparation for the conversion to metric, mandated to be effective in October 2000. Modifying the mandate will enable the state to delay the conversion and potentially not incur further expenditures on the effort.

Figure 8

National Highway System (NHS) Designation Act of 1995 Mandate Relief

Speed limits	• **Repeals 55 mph speed limit, and permits states to set higher speed limits**
Motorcycle helmets	• **Repeals sanction against states for not enacting motorcycle helmet law**
Metrification	• **Prohibits USDOT from requiring states to post metric signs**
Use of recycled rubber	• **Repeals requirement to use recycled rubber in asphalt pavement**
Emission testing requirement	• **Requires US-EPA to allow a broader range of smog inspection and maintenance programs**
ISTEA management systems	• **Makes implementation of ISTEA management systems optional**
Overweight transit vehicles	• **Extends temporary waiver for overweight public transit buses travelling on the Interstate system**
Call box signs	• **Allows corporate and civic sponsorship signs associated with motorist aid call boxes in areas adjacent to the Interstate system**

In summary, the new federal act will provide more federal funds to California, while at the same time, allowing the state more flexibility in how funds are used to meet state priorities. In order that the Legislature is informed on the impact of the federal act on Caltrans activities, we recommend that the department report at budget hearings on (1) the activities it will no longer perform as a result of federal mandates being eliminated and (2) the estimated savings that could be realized.

Future Availability of Local Transportation Funds in Question

A recent State Supreme Court decision is likely to make it more difficult for local governments to raise local tax revenues for local government purposes, including transportation, in the long run. Consequently, the demands for state transportation funds could increase significantly. The Legislature should re-examine the role of local sales taxes in funding transportation as well as examine alternative financing sources to take the place of local sales taxes.

Since 1985, local sales tax revenues have become a major source of funds for transportation. For instance, from 1985 to 1995, Santa Clara County generated about $900 million for state highway improvements. Currently, 17 counties impose at least a ½ cent local sales tax for local transportation purposes. Generally, these measures raise funds for periods ranging between 10 and 20 years. In total, they are projected to generate about $22 billion. About one-third of these funds will be used to provide local funds for STIP projects. The remaining revenues will be used for local streets and road purposes and to fund rail and transit improvements and operations.

State Supreme Court Decision Requires Two-Thirds Vote for Local Tax Measures. In September 1995, the State Supreme Court ruled that local transportation sales taxes are special purpose taxes, and therefore fall under the requirements of Proposition 62. Proposition 62, passed by voters in 1986, prohibits a local agency from imposing (1) a tax for specific purposes (a "special tax") unless it is approved by two-thirds of the voters or (2) a tax for general purposes (a "general tax") unless it is approved by a majority of the voters.

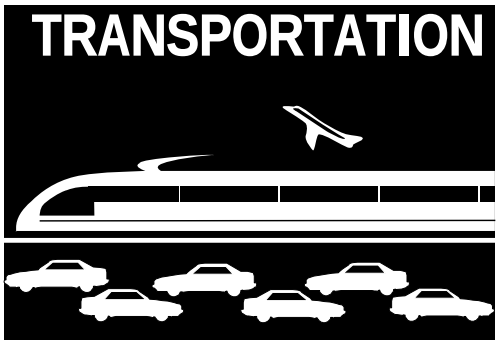
The decision specifically ruled Santa Clara County's Measure A invalid because it did not meet the two-thirds vote requirement. Measure A would have imposed a ½ cent sales tax over 20 years for transportation purposes, beginning April 1995. The measure was projected to raised about $3.5 billion primarily for capital improvements and operations of the rail system in the county.

Short-Run Impact of Supreme Court Decision. Short of getting two-thirds voter approval for another tax measure in 1996, Santa Clara County will have to reprioritize transportation projects for funding. This could mean that certain projects in Santa Clara County now scheduled to be funded in the STIP would not go forward.

The other existing transportation sales tax measures do not appear likely to be affected in the short run by the court decision. This is because for all these measures, the time periods for legal challenge as provided in each measure have expired. Additionally, in many of the counties, these tax revenues already have been obligated for project construction, or bonds backed by projected revenue streams have been issued to fund project construction.

Raising Local Funds Likely More Difficult in Long Run. As the existing measures expire (ranging from 2003 to 2010), any future extensions would require two-thirds voter approval. Based on experience to date, it appears that it would be more difficult for local governments to raise funds to supplement state and federal money for transportation improvements.

The potential loss of local sales tax revenues would eliminate a significant source of funds for transportation. This would in turn increase the demand for state transportation funds. Because local governments were given the sales tax option in order to induce more local participation in transportation funding and to provide local governments greater means to address local and regional transportation needs, the Legislature should re-examine the role of local sales tax in transportation funding in view of the State Supreme Court decision. The Legislature should also examine what alternative financing sources are available to take the place of local sales taxes.



DEPARTMENTAL ISSUES

DEPARTMENT OF TRANSPORTATION (2660)

The Department of Transportation (Caltrans) is responsible for planning, coordinating, and implementing the development and operation of the state's transportation system. These responsibilities are carried out in five programs. Three programs—Highway Transportation, Mass Transportation, and Aeronautics—concentrate on specific transportation modes. In addition, Transportation Planning seeks to improve the planning for all travel modes, and Administration encompasses management of the department.

The budget proposes expenditures of $5.5 billion by Caltrans in 1996-97. This is about $184 million, or 3.5 percent, more than estimated current-year expenditures.

HIGHWAY TRANSPORTATION

Modest Increase for Highway Program

The budget proposes a modest overall increase in expenditures for the Highway Transportation program. The increase is the net result of decreases in capital outlay support and the State-Local Transportation Partnership Program, and increases in other program areas, including capital outlay.

Of the total expenditures proposed in the department's budget, $5 billion is for the Highway Transportation program. This is an

increase of $178 million, or 3.7 percent, over estimated current-year expenditures.

As shown in Figure 9, Caltrans expects that state funds will support $2.4 billion (48 percent) of highway program expenditures. Federal funds make up $2 billion (40 percent) of the program budget, and the remaining $620 million (12 percent) is reimbursements, primarily from local governments.

Increases in Most Highway Programs. The budget proposes to increase most of the individual programs within the highway program. Caltrans proposes the largest increase—$163 million, or 6.4 percent, more than current-year expenditures—for highway capital outlay projects. The budget proposes smaller increases to other highway programs, including program development, operations, and maintenance.

Figure 9

Department of Transportation
Highway Transportation Budget Summary
1994-95 Through 1996-97

(Dollars in Millions)

	Actual 1994-95	Estimated 1995-96	Proposed 1996-97	Percent Change From 1995-96
Expenditures				
Capital outlay support	$710	$702	$660	-6.0%
Capital outlay projects	2,203	2,534	2,697	6.4
State-Local Transportation Partnership	129	181	120	-33.7
Local assistance	703	570	643	12.8
Program development	42	60	64	6.7
Legal[a]	—	49	62	26.5
Operations	128	110	126	14.5
Maintenance	596	660	672	1.8
Distributed technical & equipment services	(268)	(205)	(216)	(5.4)
Totals	**$4,511**	**$4,866**	**$5,044**	**3.7%**
State funds	*$1,736*	*$2,198*	*$2,424*	*10.3%*
Federal funds	*2,317*	*2,042*	*2,000*	*-2.1*
Reimbursements	*458*	*626*	*620*	*-1.0*

[a] Beginning in 1995-96, Caltrans has moved Legal from Administration to Highway Transportation.

Reductions to Two Programs. The budget proposes reductions in two areas: capital outlay support and the State-Local Transportation Partnership. Caltrans proposes to reduce capital outlay support by

$42 million, or 6 percent, compared to current-year levels, continuing the department's current-year reductions in engineering design staff. (We discuss the proposal for capital outlay support in greater detail in a later section.)

The budget anticipates a $61 million (34 percent) reduction in expenditures for the State-Local Transportation Partnership Program (SLTPP), a local assistance program for highway construction. The *Blueprint* legislation created the SLTPP and set funding at $200 million per year. However, as in the current year, Caltrans proposes to lower the funding for new projects to $100 million per year, in light of the shortfall in STIP funding. (See our discussion of the funding shortfall in the Crosscutting Issues section of this chapter.)

Caltrans Workload Model Is Unreliable

The department's capital outlay support workload model is unreliable and Caltrans modifies its results freely. We recommend that the Legislature adopt Budget Bill language directing Caltrans to fund an independent evaluation of its workload model.

Caltrans Workload Model Is Unreliable. Caltrans uses a statistical model to estimate its capital outlay support staff requirements, based upon the number, size, and complexity of scheduled projects. For 1996-97, this workload model calculated a higher staffing requirement than in the current year. However, Caltrans reduced the modeled workload by 19 percent in order to attain the staffing level proposed in the budget. Caltrans reports that it made the adjustments in order to account for anticipated efficiencies and shortcomings in the model. While we agree that the department's model overestimates staffing needs and fails to enforce efficiency improvements (further discussed in our 1995-96 *Supplemental Analysis*, pages 6-8), the department did not present an analytical basis for its adjustments. Thus, we are unable to evaluate whether the adjusted capital outlay support level of 7,697 personnel-year equivalents (PYEs) is appropriate to deliver programmed projects, or whether it is too high or too low.

Model Lacks Credibility. In order for the department to deliver projects on schedule, Caltrans must have an adequate level of capital outlay support staff. It is also essential that the department budget capital outlay support efficiently and without excess staff, because support expenditures reduce the level of funds available for capital outlay. Furthermore, in order for the Legislature to accept the department's budget proposals, proposed staff levels must be based upon analytically sound principles, rather than seemingly arbitrary adjustments.

In the past, the Legislature has accepted the results of Caltrans' model as a reasonable projection of capital outlay support workload and has budgeted accordingly. However, we feel that the Legislature can no longer confidently accept the department's workload projections, particularly since the department itself believes that major adjustments are necessary. As a result, Caltrans lacks any clear basis upon which to justify that its proposed level of capital outlay support staff is appropriate.

Recommend Independent Evaluation. We believe that Caltrans must, therefore, improve its workload forecasting models and practices. Accordingly, we recommend that the Legislature adopt the following Budget Bill language, directing Caltrans to fund an independent audit that will evaluate the department's workload forecasting methods and propose improvements:

> From the funds appropriated in this item, Caltrans shall fund, through interagency agreement with the Bureau of State Audits, an audit of the department's models and budgeting practices for developing capital outlay support staffing needs. The audit shall evaluate Caltrans' current budget model and practices and shall recommend improvements. The Bureau shall submit the audit report to Caltrans and the Legislature not later than March 1, 1997.

Further Reductions in Highway Capital Outlay Support

The budget proposes a reduction of 881 personnel-year equivalents (PYEs) for highway capital outlay support due to (1) less seismic retrofit engineering, (2) anticipated efficiencies in project development, (3) transfer of responsibilities to construction contractors, and (4) reduced reimbursed engineering on locally funded projects. Should efficiencies not materialize, project delivery in subsequent years may be delayed. We recommend that, at budget hearings, Caltrans clarify the need to continue accepting certain categories of reimbursed work.

Lower Staff Proposed for 1996-97. The budget proposes 7,697 PYEs of work for the highway capital outlay support program—a decrease of 881 PYEs (10 percent) from the amount estimated in the current year. Capital outlay support staff provide engineering, right-of-way acquisition, environmental clearance, technical support, and construction oversight on highway capital improvements.

Figure 10 illustrates both the source of the 7,697 PYEs, as well as Caltrans' proposed use for the PYEs. In order to achieve a reduction totaling 881 PYEs, Caltrans proposes to reduce state staff by 447 PYEs, reduce contracting out by 359 PYEs, and eliminate student assistants for a reduction of 75 PYEs.

Figure 10

Department of Transportation
Capital Outlay Support Staffing[a]
1994-95 Through 1996-97

(Personnel-Year Equivalents)

	Actual 1994-95	Estimated 1995-96	Proposed 1996-97	Proposed Change From 1995-96
Sources				
State staff	7,664	7,401	6,954	-447
Cash overtime	319	299	299	—
Student assistants	88	75	—	-75
Engineering consultant contracts	541	803	444	-359
Totals	**8,612**	**8,578**	**7,697**	**-881**
Uses				
Basic STIP program	5,916	5,261	5,308	46
Pre-STIP state projects	376	269	268	-1
Seismic retrofit	1,314	2,091	1,288	-803
Regional Measure 1	48	111	284	173
Locally funded projects	311	202	190	-13
Local tax measure projects	647	643	360	-183
Totals	**8,612**	**8,578**	**7,697**	**-881**

[a] Excludes program's share of Caltrans' administrative functions.

Less Staff for Seismic Retrofit. Figure 10 also shows how Caltrans proposes to distribute 7,697 PYEs among the various categories of transportation projects. The basic state program (STIP, State Highways Operation and Protection Plan [SHOPP], and Traffic Systems Management [TSM]) remains relatively stable, with a slight increase of 42 PYEs. Locally funded and local tax measure project staffing declines due to the policy to reduce reimbursed work. The largest change is in seismic retrofit, which Caltrans proposes to reduce by 803 PYEs because the department expects workload to decline as most retrofit projects move into construction. The reduction of seismic retrofit staff accounts for all of the reduction in engineering consultant contracts shown in Figure 10. (We discuss capital outlay support for seismic retrofit in greater detail in a later section.)

Lower Staff Based on Anticipated Efficiencies. One reason that Caltrans offers for adjusting 1996-97 workload downwards is because of anticipated efficiencies in project delivery. The department has purchased and is implementing project management software that it

believes will allow the department to more efficiently manage individual projects and allocate staff among projects, thereby reducing the overall need for capital outlay support staff. In addition, the department indicates that it intends to revise project development procedures in order to reduce overall capital outlay support costs. For instance, the department indicates that it will increase planning early in the project development cycle, in order to minimize late project scope changes that necessitate redesign and increase cost. However, Caltrans has not fully determined and implemented these efficiency improvements. The department acknowledges that, should it fail to realize the anticipated efficiency improvements, project delivery in subsequent years could be delayed due to insufficient staff.

Transferred Responsibilities May Save Little. Caltrans also reduced its workload by 81 PYEs in order to transfer two responsibilities from state staff to the construction contractors that build highway projects. Caltrans generally prepares a traffic management plan for each project in order to minimize the impact of project construction upon traffic. Caltrans proposes to reduce its staff for this function and instead require construction contractors to prepare traffic management plans. Similarly, Caltrans proposes to transfer responsibility for quality control and materials testing on construction projects from state staff to construction contractors.

While Caltrans is able to reduce its staff expenses for these two activities, we believe that contractors may increase their construction bids in order to account for their new responsibilities. Savings in Caltrans' support budget would therefore be partially or fully offset by increases in capital outlay expenditures. Furthermore, Caltrans will need to retain some staff to review contractor-developed traffic management plans and to monitor and certify contractors' ability to perform materials testing and quality control. Thus, in the short run at least, we do not believe that large savings will result from Caltrans' proposal, although ultimately, competition between contractors may result in reduced bid prices for these responsibilities.

Less Reimbursed Work. For the current year, Caltrans proposed to sharply cut reimbursed capital outlay support work that it performs for local transportation agencies. Caltrans indicated that it believes that project development for locally funded transportation improvements should be provided by local agencies or private sector engineers, rather than Caltrans. The Legislature concurred with the department's policy, and directed the department to fulfill all existing commitments for reimbursed work but not enter into any new agreements.

As shown in Figure 11, Caltrans proposes 101 reimbursed PYEs for 1996-97 in order to continue work on these commitments. This is a reduction of 163 PYEs from the estimated current-year level. In 1996-97, Caltrans' work on these projects will primarily be construction oversight, and as projects reach completion the department's workload in this area will drop to zero.

Figure 11

Department of Transportation
Reimbursed Capital Outlay Support Staffing
1995-96 and 1996-97

(Personnel-Years Equivalents)

	Estimated 1995-96	Proposed 1996-97	Change from 1995-96
Complete existing commitments	264	101	-163
Continuing program	185	149	-36
Jointly funded traffic signals	(5)	(6)	(1)
Oversight of private toll roads	(8)	(8)	(—)
Provide right-of-way expertise	(96)	(85)	(-11)
Construction oversight	(76)	(50)	(-26)
STIP projects with local contributions	(—)	(—)	(—)
Totals	**449**	**250**	**-199**

Caltrans Proposes Continuing Program. Although Caltrans will let its reimbursed involvement in large projects expire, it proposes to continue a smaller reimbursed program in five specific areas. Figure 11 shows that for 1996-97 Caltrans proposes 149 PYEs for this "continuing program" of reimbursed work. The department advises that its involvement in these areas is necessary in order to meet statutory direction and to ensure the integrity of the state highway system. For instance, the department reports that, while it will no longer fully staff construction oversight for locally funded projects, it will provide up to three PYEs of reimbursed construction oversight in order to ensure project quality.

We note that for 1996-97, Caltrans proposes no reimbursed PYEs for new STIP projects with local contributions; however, Figure 11 shows this category because under Caltrans' proposal the department would accept new reimbursed STIP work in the future if requested.

Caltrans Should Clarify Need For "Continuing Program". While we believe that the department's argument for maintaining a small ongoing program of reimbursed work has merit, we also note that the

Legislature clearly stated its intention that Caltrans not accept new reimbursed work. We therefore recommend that, at budget hearings, Caltrans clarify the need for a continuing program of reimbursed work in its five proposed categories, so that the Legislature may determine if there is any need to modify its policy.

Operating Expenses Overbudgeted

We recommend a reduction of $4.4 million in operating expenses due to Caltrans' lower level of state staff. (Reduce Item 2660-001-0042 by $4.4 million.)

Staff Reduced, But Not Operating Expenses. While Caltrans proposes to reduce the number of state staff in capital outlay support, the department did not make a corresponding reduction in operating expenses and equipment associated with these staff. In previous years, Caltrans has added operating expenses for facilities, computer equipment, training, travel, and related expenses whenever it added staff. As Caltrans reduces its staff, we believe that the department should reduce associated operating expenses as well.

Recommend Operating Expense Reduction. Caltrans argues that it has already made large reductions in operating expenses as a result of legislative budget reductions in previous years and cannot sustain a further reduction associated with these positions. However, we note that in its proposed budget the department converted 296 PYs into operating expense dollars in order to correct for what it believed to be past imbalances between the number of PYs and the operating expense budget. Having thus aligned its budget, we believe that Caltrans should reduce operating expenses along with PYs in order to maintain the correct balance. Based upon the average operating expense dollars per staff that Caltrans proposed in previous budget adjustments, we recommend that the Legislature reduce Caltrans' budget by $4.4 million.

Seismic Retrofit Phase 2 Schedule Is Overly Optimistic

Caltrans completed construction on 90 percent of Phase 1 bridges by its December 1995 target. Phase 2 bridges are currently under design, but Caltrans has delivered few for construction. We find that the department is unlikely to meet its design and construction delivery schedules for Phase 2 seismic retrofit. Additionally, the department will be unable to expend the planned $820 million for construction of Phase 2 seismic retrofit projects in 1996-97. We recommend that the department report at budget hearings on its assessment of the Phase 2 delivery schedule.

Following the 1994 Northridge earthquake, Caltrans expanded and revised its retrofit program for state highway bridges, creating a Phase 1 program and a Phase 2 program. Phase 1 includes bridges that Caltrans identified in its first screening, following the 1989 Loma Prieta earthquake. Caltrans identified 1,039 bridges for Phase 1 and set a target of December 31, 1995 to complete construction on all Phase 1 bridges.

The Phase 2 program includes bridges that Caltrans added as a result of an additional screening process that followed the Northridge earthquake. Phase 2 currently includes 1,179 bridges and Caltrans has set targets of June 30, 1996 to complete bridge retrofit design work, and December 31, 1997 to complete construction on all Phase 2 bridges. Caltrans indicates that some bridges are likely to miss this construction deadline, but believes that 90 percent delivery is an achievable goal.

Phase 1 Nearing Completion. As Figure 12 illustrates, construction is complete for 933 Phase 1 bridges, which represents 90 percent success in meeting Caltrans' construction target. An additional 97 bridges are under contract for construction. However, nine Phase 1 bridges are not yet under construction. Caltrans reports that the causes of delay vary for these bridges, including scope and cost changes, coordination with local jurisdictions, or timing in relation to other seismic retrofit or highway construction projects.

Figure 12

Seismic Retrofit Program
Scope and Progress
As of December 31, 1995

(Dollars in Millions)

	Number of Bridges	
	Phase 1	**Phase 2**
Retrofit construction complete	933	59
Under contract for construction	97	139
Design engineering complete	2	40
Engineering not complete	7	941
Totals	**1,039**	**1,179**
Estimated construction cost	$763	$1,050
Construction complete target	12/95	12/97

Phase 2 Construction Is Slow. Figure 12 shows that a total of 198 Phase 2 bridges are either under construction or have been completed, as of December 31, 1995. The majority of Phase 2 bridges are in various

stages of engineering design. Caltrans initially set targets to construct $50 million of Phase 2 bridges in 1994-95, $500 million in 1995-96, and $500 million in 1996-97. However, halfway through 1995-96, the department's reports to the CTC indicate that it has expended only $80 million. The department now indicates that it expects to expend $200 million in the current year, $820 million in 1996-97, and $20 million in 1997-98.

Caltrans reports that it has revised its approach to the Phase 2 program, and intends to concentrate on design engineering in 1995-96 and construction in 1996-97. While this shift in strategy would partially explain the low construction expenditures in 1994-95 and 1995-96, we believe that other factors contributed. Initially, Caltrans lacked a project-specific workplan for Phase 2 bridges, which we believe hindered the department's ability to accurately estimate staffing requirements and to manage the engineering effort. In addition, Caltrans repeatedly changed its staffing plan for Phase 2, which may have delayed seismic project delivery. Initially the department planned to contract out design work, but then decided to train Caltrans engineers to perform specialized seismic work. The department now indicates that it found this approach inadequate and has turned again to consultant engineers to augment Caltrans staff.

Higher Current-Year Staff. Figure 13 shows the level of capital outlay support staff that Caltrans has allocated for seismic retrofit design and construction oversight. Caltrans estimates that it will apply 1,141 PYEs towards Phase 2 seismic retrofit in the current year. This is 274 PYEs (32 percent) above the level that Caltrans initially proposed. Caltrans has not identified any previously unanticipated workload that justifies this increased current-year staffing level, nor has it accelerated project delivery schedules compared to last year. We believe that the higher current-year staffing level for Phase 2 results from slow initial progress and also from the department's initial difficulty in accurately estimating staffing requirements. In order to provide the higher current-year staffing level for Phase 2, Caltrans contracted for 250 PYEs of engineering consultants, using a one-time appropriation of funds that Caltrans received from a state anti-trust lawsuit against petroleum companies.

Lower Staff for 1996-97. Figure 13 shows that for 1996-97 Caltrans proposes a total of 1,288 PYEs for seismic retrofit capital outlay support, 803 PYEs fewer than in the current year. Caltrans anticipates reducing by 363 PYEs its use of seismic retrofit consultants while the remaining reduction will be to state staff that will be either reassigned to other areas or eliminated through attrition. For Phase 1, the budget proposes 108 PYEs to complete lingering bridges. The department also proposes 857 PYEs for Phase 2 and indicates that, because it anticipates completing bridge retrofit design in June 1996 virtually all Phase 2 PYEs in the budget year will be dedicated to construction oversight.

Figure 13

Department of Transportation
Seismic Retrofit Staffing
1994-95 Through 1996-97

(Personnel-Year Equivalents)

	Actual 1994-95	Estimated 1995-96	Proposed 1996-97
Highway bridge seismic retrofit	1,237	1,557	965
Phase 1	(749)	(415)	(108)
Phase 2	(488)	(1,141)	(857)
Toll bridge seismic retrofit	77	534	302
Local bridge seismic retrofit	—	—	20
Seismic research	—	—	1
Totals	**1,314**	**2,091**	**1,288**

Phase 2 Delivery Is Unlikely. Despite the current-year staff increase for Phase 2 design, past experience suggests that the department will be unable to achieve its optimistic schedule for project design and capital outlay expenditures. Should the department miss its June 1996 target to complete bridge design, it would require a higher staff level in 1996-97 to complete backlogged work. Furthermore, we believe that the department will most likely not accomplish $820 million in Phase 2 capital outlay expenditures in 1996-97, even if there is no slippage. As a result, capital outlay expenditures are likely to be lower than predicted in 1996-97 and higher in 1997-98, and the Governor's Budget again does not present a realistic picture of what the department will accomplish.

In order that the Legislature can better assess the department's ability to meet its target for design and construction completion, and hold the department accountable for its delivery plans, we recommend that, at budget hearings, the department provide its assessment of its progress in meeting design and construction targets for Phase 2 seismic retrofit.

Skyrocketing Costs for Toll Bridge Seismic Retrofit

The costs to retrofit toll bridges have increased from $650 million to about $2 billion, and construction is likely to extend well beyond 1997. The Seismic Retrofit Bond Act of 1996 (Proposition 192 on the March ballot), if approved by voters, would provide only $650 million for these costs, and no fund source has been identified for additional retrofit costs. We recommend that, prior to budget hearings, Caltrans provide an updated time schedule and estimate of expenditures for design and construction.

Caltrans determined that seven of the state's nine toll bridges require structural retrofit to protect against damage in a strong earthquake (the Dumbarton and Antioch bridges do not require retrofit). Due to the unprecedented complexity of retrofitting the large toll bridges, Caltrans has for several years maintained a program of research, and has recently begun retrofit design and some preliminary construction projects. Throughout this period, Caltrans has maintained that toll bridge retrofit could be completed for a total of $650 million, including both design engineering and construction costs.

Retrofit to Cost Close to $2 Billion. Caltrans now reports that its research reveals toll bridge retrofit to be much more costly than previously reported, totaling between $1.7 billion and $2.1 billion. Caltrans' new cost estimates are based upon engineering analysis of the seismic vulnerability of each bridge and should be more accurate than initial estimates. Caltrans has raised its cost estimate for retrofit of the San Francisco-Oakland Bay Bridge alone from $250 million to over $1 billion, and potentially as high as $1.3 billion. Very significant technical issues remain to be resolved, and Caltrans will not develop its final retrofit strategy until additional tests and research are completed in December 1996. However, due to the high cost and technical difficulty of retrofitting the Bay Bridge, the department reports that it will consider whether it may be more cost-effective to entirely replace the eastern span.

While the Bay Bridge will be the most complex and expensive to retrofit, the department has also raised its cost estimate for the other six toll bridges that require retrofit. These bridges are the Richmond-San Rafael, Benicia-Martinez, Carquinez (east and west spans), San Mateo, Coronado, and the Vincent Thomas. The department has raised its total estimate for these six bridges from $420 million to between $710 million and $780 million. Furthermore, this estimate does not include the cost of retrofitting the westbound span of the Carquinez bridge, because the department has determined that it will be more cost-effective to replace the span.

Peer Review Panel Recommends Slower Schedule. Caltrans has set a target to complete toll bridge retrofit construction by December 1997. Because retrofit designs have yet to be completed for any of the seven bridges, this is a very highly accelerated schedule. An independent peer review panel, created to advise Caltrans and critique the department's retrofit strategy, has indicated that it believes that the department's schedule is too rapid and will not allow time for thorough engineering analysis. The panel has therefore advised Caltrans to extend its design and construction schedule.

Caltrans indicates that it is considering the panel's recommendations and may modify its schedules. We therefore recommend that, prior to budget hearings, the department provide to the Legislature a revised design and construction schedule for each bridge including an estimate of annual expenditures to complete the retrofit of each project.

No Funding Identified for Retrofit. The increase in toll bridge retrofit costs threatens to severely disrupt the already precarious balance of the 1996 STIP. Toll bridge retrofit does not have an identified funding source, but has to date been funded from State Highway Account (SHA) revenues and toll bridge revenues. The Seismic Retrofit Bond Act of 1996 (Proposition 192) on the March ballot would provide $650 million for toll bridge retrofit. However, even if voters approve this bond, up to $1.5 billion in retrofit costs would remain unfunded. Should this amount be funded out of the SHA it would reduce funds available for STIP construction by $1.5 billion, or about 28 percent of the total 1996 STIP. Similarly, should retrofit be funded from toll bridge revenues, other scheduled toll bridge improvements would be greatly delayed.

Capital Outlay Expenditures Dip in Current Year

We find that the department has consistently overestimated capital outlay expenditures. For the current year, Caltrans has reduced its estimated level of highway capital outlay by 23 percent from proposed levels. This reduction in expenditures reflects primarily a lower level of project construction than anticipated. While Caltrans has adjusted its proposed 1996-97 level to partially account for historical overestimation, any project delivery delays are likely to result in a lower level of capital outlay from state and federal funds.

Current Year Capital Outlay Was Overestimated. For 1995-96, Caltrans initially proposed $3.3 billion in highway capital outlay expenditures from all funds. The department reported that, while it lacked funds to construct all scheduled projects, it had developed an expenditure strategy that would support $3.3 billion of project construction in that year. As shown in Figure 14, Caltrans now estimates that it will actually expend only $2.5 billion in the current year, or $741 million (23 percent) less than proposed. (In the Crosscutting Issues section, we discuss the impact of the delay in project delivery on the State Highway Account.)

Caltrans Consistently Overestimates Capital Outlay Expenditures. Actual expenditures for the current year may turn out lower yet, because Caltrans consistently overestimates its current-year capital outlay expenditures. Over the last five years for which actual expenditures are

available, Caltrans overestimated total capital outlay expenditures by an average of $753 million per year.

Figure 14

Department of Transportation
Highway Capital Outlay Expenditures
1994-95 Through 1996-97

(Dollars in Millions)

	Actual 1994-95	Estimated 1995-96	Proposed 1996-97	Percent Change From 1995-96
Flexible congestion relief	$873	$896	$719	-19.8%
Interregional road system	132	376	114	-69.7
Soundwalls	21	19	10	-47.4
Other highway construction	37	20	125	525.0
Rehabilitation and safety	711	973	935	-3.9
Seismic retrofit	406	203	684	236.9
Traffic systems management	24	47	110	134.0
Totals	**$2,204**	**$2,534**	**$2,697**	**6.4%**
State funds	*$274*	*$518*	*$743*	*43.4%*
Federal funds	*1,493*	*1,348*	*1,235*	*-8.4*
Toll bridge revenues	*78*	*102*	*149*	*46.1*
Reimbursements	*359*	*566*	*570*	*0.7*

Much of the overestimation in each year has been due to optimistic projections of reimbursed capital outlay, primarily locally funded projects on the state highway system. Because local transportation agencies often control project development for reimbursed projects, Caltrans has little ability to control project delivery dates and reimbursed capital outlay expenditures.

However, Caltrans also frequently has overestimated capital outlay expenditures for projects that the department controls and delivers. For example, over the last five years for which actual expenditures are available, Caltrans overestimated capital outlay expenditures of state and federal highway funds by an average of $199 million per year. We believe that the consistent overestimation of capital outlay is due to the department's failure to account for recurring factors, such as project delivery delays and delays in obtaining necessary permits and agreements. Thus, the department historically spends less for capital outlay, indicative of delays in project design, contract award, and construction. This delay in projects being awarded for construction in turn results in high unanticipated cash balances in the SHA.

Proposed 1996-97 Capital Outlay. As Figure 14 shows, the department proposes expenditures of $2.7 billion on highway capital outlay in 1996-97. Of this total, $570 million is to be funded by reimbursements, primarily from local transportation agencies. Caltrans indicates that in order to correct for the historical overestimation of reimbursed expenditures, for 1996-97 the department assumed that about 38 percent of scheduled *reimbursed projects* would not be delivered. This adjustment should reduce future disparity between proposed and actual levels of reimbursed capital outlay. However, the department did not make a similar adjustment in capital outlay for *state projects*; therefore, any delay in delivering projects according to schedule will likely result in a lower level of state and federal funded capital outlay for 1996-97, and again, a higher than projected SHA cash balance.

STIP Delivery Down in 1994-95

The total number and value of highway projects that Caltrans delivered in 1994-95 changed little from 1993-94. However, most of the projects that Caltrans delivered in 1994-95 were seismic retrofit and emergency repair projects. Delivery of projects according to STIP schedules declined in 1994-95.

Because of concern over project delays, the Legislature has enacted various requirements to monitor Caltrans' delivery of state highway projects. Our office is required by law to annually assess the department's progress in delivering projects according to the STIP programs: the STIP, SHOPP and TSM plan. Project delivery is defined in statute as occurring when a project is advertised for construction. However, because the California Transportation Commission (CTC) delayed construction of some projects in 1994-95 due to a shortage of capital outlay funds, we report project delivery based on when Caltrans presented project plans as complete to the CTC.

Total Delivery Stable in 1994-95. In 1994-95, Caltrans delivered 440 highway projects having a total programmed construction value of $1.2 billion. Compared to total project delivery in 1993-94 (449 projects valued at $1.1 billion), this represents a decrease of 2 percent in the number of projects delivered but an increase of 9 percent in their total construction value. Caltrans' total project delivery includes both projects in the STIP programs as well as non-STIP projects.

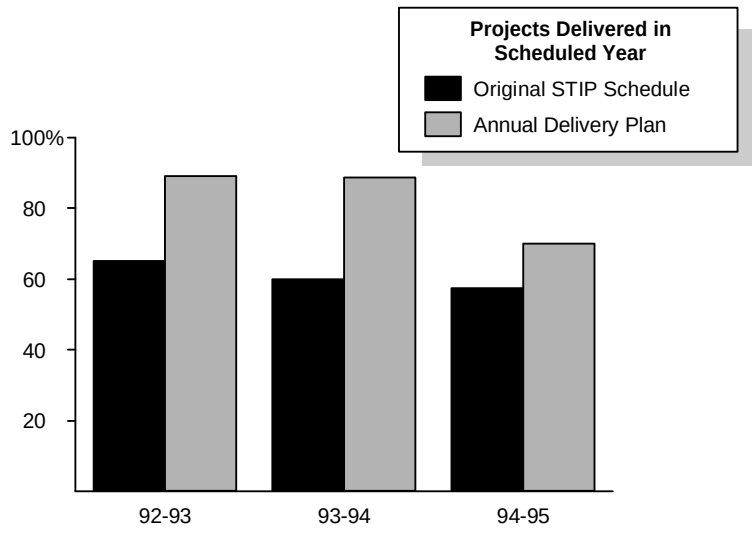
Seismic Retrofit Is Largest Component. Although total project delivery changed little from the previous year, the majority of 1994-95 delivery consisted of seismic retrofit and emergency repair projects not scheduled in the STIP, rather than projects that were scheduled in the STIP programs. Non-STIP projects delivered in 1994-95 include 116

seismic retrofit projects, having a construction value of $658 million, and 156 emergency repair projects (mostly minor storm-related repairs) worth $68 million. Although these seismic retrofit and emergency repair projects were not scheduled in the STIP programs, we include them as part of total project delivery for 1994-95 in order to provide as complete a picture as possible. In terms of their construction value, seismic retrofit projects accounted for 53 percent of total project delivery in 1994-95.

Delivery Against STIP Schedule and Annual Delivery Plan. Figure 15 illustrates two measures of Caltrans' degree of success in delivering STIP projects in the year scheduled. In 1994-95, Caltrans delivered 57 percent of the projects that were originally scheduled for that year in the STIP, SHOPP and TSM, down from 60 percent delivery in 1993-94. Projects that are not delivered in their originally scheduled year may have been delivered early or may be delayed for late delivery.

Figure 15

Project Delivery Rates Slip Further in 1994-95



Because Caltrans and the CTC make changes to the STIP schedule, to add, reschedule, or delete projects, Figure 15 also shows delivery against Caltrans' annual project delivery plan. The delivery plan includes all projects identified for delivery in a given year, without regard to the date when the projects were originally scheduled in the STIP. Figure 15

reveals that in 1994-95 Caltrans delivered 70 percent of the projects in the 1994-95 delivery plan, down from 89 percent delivery in 1993-94.

The large share of seismic retrofit in total project delivery, as well as the declining rates of STIP delivery, indicate how seismic retrofit projects are displacing STIP projects. In addition, STIP delivery may be further delayed by factors internal to Caltrans, such as the department's recent reorganization and staff reduction.

Backlog of Pavement Rehabilitation Represents Significant Financial Liability

One-third of all lane-miles on the state highway system are in need of rehabilitation. Caltrans will increase expenditures for pavement rehabilitation, but because of the advanced age of the state highways additional expenditures may be necessary. The department's target for 1996-97 is to deliver $318 million of rehabilitation projects.

Caltrans reports that the accumulated need for pavement rehabilitation on the state highway system has reached 16,000 lane-miles, and is continuing to grow. Currently, about one-third of all lane-miles in the state highway system require rehabilitation. Over the past 20 years, the number of lane miles of deteriorated pavements has increased at an average rate of 325 lane-miles per year.

Drivers perceive the backlog of rehabilitation needs as a decrease in ride quality on state highways, but the backlog also represents a tremendous financial liability and threat to the integrity of state highways. This is because rehabilitation projects cost between $150,000 and $200,000 per lane-mile but, if not addressed, repair costs will multiply as pavement deterioration becomes more serious. Some rehabilitation projects can safely be deferred for several years without substantially increasing the eventual cost of rehabilitation. Ultimately, however, the backlog must be addressed in order to avoid much more costly repairs that would result from serious pavement failure.

State Highway System Has Grown Old. Over 75 percent of the lane-miles in the state highway system were constructed more than 30 years ago. This means that most highways have exceeded their design life, and will begin to deteriorate. In addition, the volume of truck traffic on many state highways has greatly exceeded anticipated levels, leading to more rapid pavement wear. Thus, the aging, heavily used state highway system is likely to begin deteriorating at a more rapid rate, and even those pavements that do not currently show signs of deterioration are likely to require rehabilitation in the coming decade.

Increased Expenditures for Rehabilitation. In order to address the growing accumulation of rehabilitation needs, the CTC has set aside an additional $675 million for rehabilitation projects over the 1996 STIP period (1996-97 through 2002-03). This increase brings total rehabilitation funding over the STIP period to $2.5 billion—over twice as much as in the previous seven-year period. Annual capital outlay targets for rehabilitation start at $318 million in 1996-97, and increase over the STIP period to a peak of $399 million in 2002-03. Caltrans estimates that if this expenditure level is maintained for ten years it will reduce rehabilitation needs to a manageable level of 10,000 lane-miles. The most recent year in which total rehabilitation needs were 10,000 lane-miles was 1980-81; since then, 6,000 lane-miles have been added to the backlog. However, because of the advanced age of most pavements and the heavy use that they sustain, pavement deterioration is likely to accelerate in coming years. In this case, even higher rehabilitation expenditures may ultimately be necessary to restore pavement condition, which will further reduce the level of funds that is available for construction of new projects.

Contract Maintenance Proposal Needs Refinement

Caltrans proposes to convert $15.5 million from state maintenance staff to private contracts. We recommend that, if Caltrans presents an acceptable evaluation plan, the Legislature authorize a two-year pilot and adopt supplemental report language directing Caltrans to report on the cost-effectiveness of contract maintenance.

For 1996-97, Caltrans proposes to greatly increase its use of private contractors to provide roadside maintenance work. The department intends to convert $15.5 million in state personnel expenses (310 personnel-years) into contract authority. The department will then contract with private firms to provide various roadside maintenance activities, including mowing, tree trimming, guardrail repair, and landscape and irrigation maintenance. Although the department would eliminate 310 PYs from the maintenance program, Caltrans indicates that there are sufficient vacant positions in maintenance so that no layoffs would be required.

Efficiencies Anticipated. Caltrans believes that contracting for these services will increase the efficiency of the maintenance program, because the department will be able to direct contract dollars to peak maintenance needs more easily and flexibly than with state staff. For instance, by making a concentrated effort to mow weeds early in the growing season before they scatter seeds, the department believes that overall mowing costs will be lower and work quality will be improved. The department also believes that infrequent and unpredictable work,

such as guardrail repair, could be more efficiently contracted out because it would eliminate the need to maintain work crews during unneeded periods.

Cost of Contract PYEs. Caltrans reports that it has not analyzed the relative cost of state staff and contract staff, nor the potential productivity increase that would result from its proposal. The department indicates that it will be unable to analyze cost-effectiveness of roadside maintenance contracts until it has experience operating the contracting program.

The department has, however, contracted for maintenance work in the past, including some roadside maintenance. Our analysis shows that in 1993-94 Caltrans paid an average of $82,000 per PYE for similar roadside maintenance contracts. (This is equivalent to $90,000 in 1996-97 dollars.) In most cases, this cost includes not only labor but also equipment and materials provided by the contractor, so it is not possible to directly compare this average with state PY costs.

Were an average cost of $90,000 per PYE to apply to new roadside maintenance contracts, the department's proposal would provide 172 PYEs of contract work, along with contractor-provided equipment and materials. At the same time, the department would lose the service of 310 state staff PYs. The department believes that productivity increases will more than offset the higher cost of contract PYEs but has not presented an analytical justification for this position.

Recommend Evaluation Plan. Because the department is unable to quantify cost savings and productivity improvements that would be achieved, we believe that the department's proposal is not justified as a permanent program at this time. However, notwithstanding the department's incomplete analysis, we believe that contract staff may have appropriate and cost-effective uses in the maintenance program. We therefore recommend that Caltrans' proposal be implemented as a two-year pilot, contingent upon the department's development of an evaluation plan.

We recommend that, prior to budget hearings, Caltrans develop and provide to the Legislature an evaluation plan that details how the department will assess the cost-effectiveness of contract maintenance. After evaluating the success of the pilot program, Caltrans and the Legislature will in subsequent years be better able to determine whether the department should continue, expand, or terminate contract maintenance.

Should the Legislature approve the department's evaluation plan, we further recommend that the Legislature adopt the following supplemental report language:

The Department of Transportation shall submit to the Legislature, by March 1, 1998, a report evaluating the cost-effectiveness of contract maintenance. The report shall include the following: (1) a comparison of the cost of contract staff and state staff (including cost of benefits, operating expenses, equipment, and other necessary factors to enable a valid comparison), (2) a comparison of the relative quantity, quality, and timeliness of work, and (3) an evaluation of total savings or costs to the maintenance program resulting from the contract maintenance pilot.

Stormwater Cleanup Threatens Large Costs

Caltrans is under court order to control pollutants in stormwater runoff from highways and other Caltrans facilities in Los Angeles. Caltrans requests $18.4 million to continue developing and implementing a compliance plan in 1996-97, but has not finalized an expenditure plan. We recommend that, prior to budget hearings, Caltrans provide the Legislature with an updated workplan in order to justify its request for 1996-97.

In late 1994, a federal court ruled that Caltrans had failed to comply with the provisions of the federal Clean Water Act, with respect to pollution levels in stormwater runoff from highways and other Caltrans facilities in the Los Angeles area. Specifically, Caltrans was found to have violated the conditions of, or failed to obtain, wastewater discharge permits required under federal law. The court ordered Caltrans to develop and implement a plan to reduce pollution in stormwater runoff, in order to comply with federal law. The court has accepted certain provisions of Caltrans' stormwater compliance plan, but the department indicates that several issues, with potential costs in the hundreds of millions of dollars, have yet to be resolved. The 1996 Fund Estimate does not reserve funds for this potential increase in stormwater cleanup costs, and any additional expenditures will draw funds away from STIP projects and further increase the STIP fund gap.

Court Orders Retrofit Opportunity Study. Caltrans proposed a three to five year program to monitor runoff pollution, inspect drainage facilities, and analyze the most cost-effective way to comply with federal law. The court, however, rejected this approach and ordered Caltrans to immediately undertake a study to evaluate opportunities to retrofit storm drains and sewers in the Los Angeles basin. Caltrans indicates that this study will be complete in December 1996, and that it will analyze options including retrofitting drain inlets and installing various types of water filtration equipment. The department estimates that the cost of implementing these options in Los Angeles might total from the hundreds of millions to over one billion dollars. However, until this study is complete and the court subsequently issues its final

order, the department is not able to project the final cost of constructing and operating stormwater retrofit.

Reduced Costs Likely for Drain Inlet Cleaning. Another element of the court order required that Caltrans annually clean all drain inlets in the Los Angeles basin. As required, Caltrans immediately began cleaning drain inlets, at an estimated annual cost of $11 million. However, the department argued that only a small number of drain inlets account for the majority of pollutant runoff and that it would be more cost-effective to identify and target these problem inlets. Caltrans reports that the court appears willing to accept its argument and modify the order accordingly. This would reduce the ongoing annual cost of cleaning drain inlets, but Caltrans has not yet determined exactly the savings that would result.

Caltrans Seeks Statewide Discharge Permit. Many of the stormwater runoff issues that Caltrans is addressing in Los Angeles have potential statewide consequences. Throughout the state, Caltrans has discharge permits from regional water quality control boards, issued in order to regulate compliance with the federal Clean Water Act. The terms and requirements of these permits vary greatly from region to region. In order to simplify its compliance effort, and reduce the risk and uncertainty of additional lawsuits in different areas of the state, Caltrans intends to apply to the State Water Resources Control Board for a statewide discharge permit. Caltrans intends to make its application in April 1996, but until such time as the state Board issues a statewide permit, the exact terms of the permit remain unknown. However, a statewide permit might require a higher level of stormwater cleanup throughout the state, potentially including some features of the Los Angeles court order, further increasing costs to the department.

Current and Budget-Year Costs. For the current year, Caltrans' budget includes $18.4 million for expenses related to stormwater cleanup. The department initially estimated expenditures of $11.4 million for mandatory maintenance activities, primarily drain inlet cleaning in Los Angeles. Caltrans reports that it will spend most of the remaining $7 million on over 20 consultant contracts to address court-ordered actions, including:

- Retrofit opportunities study.
- Wastewater monitoring and analysis.
- Preparation of an application for a statewide discharge permit.
- Expert advice to help engineers incorporate pollution control features into new project designs and to minimize pollution runoff at construction sites.

- Development and revisions of Caltrans guidelines, policies, and specifications in order to reduce the potential for pollution runoff from new projects.
- Training sessions for Caltrans staff and construction contractors.

For 1996-97, Caltrans' budget again includes $18.4 million for stormwater cleanup and compliance costs. The department believes that drain inlet cleaning costs may decline in 1996-97; however, costs for environmental consultants may increase as the result of further court actions.

Current and budget-year costs, however, are likely minor precursors of major future expenditures. As details of a statewide permit are developed, Caltrans may be required to increase drain inlet cleaning and other activities statewide. As indicated earlier, pending court actions on drain and sewer retrofit could result in costs exceeding hundreds of millions of dollars in Los Angeles alone.

Recommend Caltrans Provide Update. At the time that this analysis was prepared, Caltrans anticipated several near-term actions that would affect future costs:

- Application for a statewide discharge permit.
- Potential reduction of drain inlet cleaning responsibilities in Los Angeles pursuant to court action.
- Potential revision of its strategy to comply with the court order and federal law pursuant to the court-ordered retrofit opportunities study.

We therefore recommend that, prior to budget hearings, Caltrans detail its planned activities and necessary expenditures in 1996-97, in light of progress in these areas.

MASS TRANSPORTATION

The Mass Transportation Program provides operating and capital support for the implementation of urban, rural, and interregional public transportation services, primarily bus and rail transportation. For 1996-97 the Mass Transportation Program will account for approximately 5 percent of Caltrans' total expenditures. The budget proposes $266.9 million in program expenditures, which is 9.7 percent higher than estimated current-year expenditures. The increase is primarily due to a projected increase in federal funds for local transit operations and capital improvements.

As Figure 16 shows, the Mass Transportation Program includes the State and Federal Mass Transit Program and the Rail Transit Capital

Program. For the State and Federal Mass Transit Program, the budget proposes $33.4 million, an increase of 15 percent over the current-year level. This program is funded mainly with federal funds to provide federal transit (bus) operating grants.

Figure 16

Department of Transportation
Mass Transportation Expenditures
1994-95 Through 1996-97

(Dollars in Millions)

	Actual 1994-95	Estimated 1995-96	Proposed 1996-97	Percent Change From 1995-96
State and federal mass transit	$25.7	$29.1	$33.4	14.8%
Rail transit capital	163.7	195.8	233.0	19.0
Interregional public transportation	4.9	—	—	—
Legal	—	0.1	0.1	—
Transportation Demand Management	39.0	18.3	0.4	-97.8
Totals	**$233.3**	**$243.3**	**$266.9**	**9.7%**

The budget proposes $233 million for the Rail Transit Capital Program, an increase of 19 percent over the current-year level. Under this program, Caltrans administers the intercity rail program, the Proposition 108 bond program for commuter and urban rail, and the transit capital program. The budget-year increase reflects an increase in projected capital outlay expenditures reimbursed by local governments.

The 1996-97 budget proposes a level of mass transportation expenditures that more accurately reflects past actual expenditures. In 1994-95 and 1995-96, program expenditures were overstated by approximately $150 million in each year because projected reimbursements from local governments for capital outlay expenditures were not realized. For 1996-97, the department lowered the projected level of reimbursements to track more closely with actual experience.

State Costs for Intercity Rail Program Will Increase Significantly

The state's costs to provide intercity rail service have been increasing rapidly, mainly because Amtrak has shifted an increasing portion of operating costs back to the state. State costs will increase to about $50 million in 1996-97.

Currently, intercity rail passenger services are provided on three main routes on a contract basis with Amtrak. (Under federal law, the state can only contract with Amtrak for such services.) All train routes are supplemented and integrated by dedicated feeder bus service. The intercity routes in California are the San Diegan in Southern California, the San Joaquin in the Central Valley, and the Capitol in Northern California.

Under federal law, Amtrak determines and allocates operating costs to the various routes. The state and Amtrak each pay for a portion of the operating costs based on a formula, set by Amtrak, which takes into account the amount of fare revenues generated and Amtrak's total operating cost of service. Our review shows that the state's costs to contract with Amtrak since 1991-92 have increased significantly. For instance, costs doubled between 1991-92 ($12 million) and 1994-95 ($25 million). The costs are estimated to double again by 1996-97 ($50 million). These increases are mainly due to Amtrak's redefinition of the state's share of costs, the effect of which is to shift a greater portion of the total operating cost to the state.

The Department Will Have Sufficient Funds to Pay Higher Amtrak Costs. The budget requests $41.7 million for intercity rail operating costs in 1996-97. Our review shows that with this amount of new funds, the department will have sufficient resources to pay the higher costs of $50 million. This is because the department has unexpended funds of about $8.1 million from past appropriations that can be used for these purposes.

Intercity Rail Operating Costs Include More Than Amtrak Costs

We recommend the adoption of supplemental report language requiring Caltrans to include in its annual operating plan for intercity rail service specified cost information for each service route in order to account for the total state costs of providing intercity rail service.

Amtrak Contract Only a Portion of Total Intercity Rail Costs. While the budget identifies the cost of the contract with Amtrak for the intercity rail program, *total* state costs to support the services are higher. This is because total costs include not only the Amtrak contract amounts, but also the costs of marketing and advertising, departmental administration, and minor capital outlay.

For instance, the total support cost of the program in 1995-96 is $62.2 million, including $40.2 million in Amtrak contract costs and about $22 million in other costs which are accounted for in the department's other programs, but not reflected in one place in the budget

document as part of the intercity rail program costs. Because these other costs are an integral part of the cost of implementing the program, to the extent that these costs are not included, intercity rail operating costs, as reflected in the Governor's Budget are understated.

Without a complete picture of total state costs for providing intercity rail service, it is difficult for the Legislature to determine whether proposed expenditures are cost-effective and justified. Accordingly, we recommend that the following supplemental report language be adopted to ensure that all costs related to the services are fully accounted:

> The department shall provide annually, in one display as part of its budget request, the state's total costs for each intercity rail route, including: (1) the Amtrak contract amount for existing and expanded train services, (2) the costs to provide connecting bus service, (3) associated capital equipment costs, (4) marketing and advertising costs, and (5) administrative costs. This information shall be included in the department's annual operating plan for intercity rail service.

Intercity Rail Farebox Return Worsening

Farebox return for all intercity rail routes has worsened and will not meet statutory requirements in 1996-97 and future years without significant increases in ridership. Continuation of state support for these services will therefore require waivers from the California Transportation Commission. We recommend that the department report, at budget hearings, on how it plans to increase ridership on intercity rail service to improve the services' farebox return ratios.

Current law requires each intercity rail route to attain a 55 percent farebox ratio—that is, passenger fares must cover at least 55 percent of operating costs—by the third year of service in order to continue to receive state operating funds. If a route does not achieve the 55 percent farebox requirement, a special waiver must be approved by the CTC for the route to continue to receive state funds. Current law allows waivers to be granted for up to three years.

Farebox ratios depend on both fare revenues and operating costs. If revenues—determined by ridership and passenger fares—decrease and operating costs increase, then the farebox ratio will decline. Conversely, if revenues increase and operating costs decrease, then the farebox ratio will improve. As Figure 17 indicates, since 1993-94, farebox ratios on all three state-supported routes have declined significantly. The primary reasons for the decline are lagging ridership and higher state operating costs.

Ridership Levels Not Enough to Achieve Farebox Recovery Requirements at Current Cost Levels. As Figure 17 shows, ridership on the Capitol and San Joaquin routes barely changed from 1993-94 through 1995-96 (estimated), while ridership declined on the San Diegan. The ridership decline on the San Diegan is primarily due to competing services provided by the Southern California Metrolink commuter rail system and the North San Diego County Transit District. In 1996-97, Caltrans projects higher ridership on the Capitol; however, this projection assumes expansion from three to four trains daily. Caltrans further indicates that at the 1995-96 operating cost levels, total ridership on all routes would have to improve by 58 percent in 1996-97 in order to achieve the 55 percent farebox recovery requirements.

Figure 17

Intercity Rail Service
Farebox Ratios and Ridership
1993-94 Through 1996-97

	1993-94 Actual	1994-95 Actual	1995-96 Estimated	1996-97 Projection
Farebox ratio (percent)				
San Diegan	90.8%	73.5%	56.4%	38.9%
San Joaquin	52.1	48.8	41.6	34.6
Capitol	36.3	38.8	37.7	22.5
Ridership (in thousands)				
San Diegan	1,700	1,465	1,597	1,676
San Joaquin	559	525	566	600
Capitol	364	349	366	411[a]
Totals	**2,623**	**2,339**	**2,529**	**2,687**

[a] Assumes four round-trip trains daily.

Farebox Performance Worsens as Operating Costs Increase. Over the past three years, Amtrak has consistently shifted an increasing proportion of service costs to the state. As a result, Caltrans estimates that, at the current ridership level:

- A route achieving the 55 percent farebox return under pre-1995-96 cost levels becomes:
  - — A 46 percent farebox return under the 1995-96 costs.
  - — A 29 percent farebox return under Amtrak's costing methodology for 1996-97.

Consequently, if ridership does not improve and the 1996-97 Amtrak costs are $10 million higher than in 1995-96, none of the three routes will meet the 55 percent farebox ratio, and none will be eligible for state funding without CTC waivers.

In view of the increasing operating costs, continued state support of intercity rail service must be justified based on ridership improvements. We recommend that the department report at budget hearings on measures it will implement to improve ridership, and the cost implications of these measures.

Potentially Higher Costs on the Horizon

In addition to the expected increase in operating costs, additional events may occur that could potentially increase intercity rail costs by an unknown amount in the future.

Future Amtrak Costs May Continue to Rise. According to its recent business plan, Amtrak intends to contain future costs for intercity rail service at 1996-97 levels. However, if Amtrak is not successful, the state's operating costs could potentially far exceed $70 million per year. This is because the proposed new formula to calculate the state's share of the operating costs incrementally shifts 100 percent of total operating costs to the state over the next three years.

Expiration of Federal Rail Contracts May Generate Higher Costs. Amtrak's 25-year operating contract with the freight rail companies to use their tracks to operate passenger rail trains expires in April 1996. At the time this analysis was prepared, no new contracts had been negotiated and potential contract price increases are unknown. If the freight rail companies raise their contract prices with Amtrak, then intercity rail operating costs will most likely be higher.

Intercity Rail Problems Raise Policy Questions for the Legislature

In view of the increasing operating costs, static ridership and falling farebox recovery, the Legislature should consider several issues relating to the state's continued support of intercity rail service. We recommend that the Legislature direct the CTC and Caltrans to evaluate whether services on existing intercity rail routes ought to be provided by Amtrak, and identify alternatives to provide similar services.

The Intercity Rail Program was established in order to provide motorists with a safe, efficient and cost-effective transportation alternative that reduces congestion and improves air quality. The program's effectiveness depends on the degree to which traffic is diverted from the

state's highways, and the cost to achieve that diversion. The increasing costs, static ridership, and falling farebox recovery raise the following policy considerations for the Legislature relating to the state's continued support of intercity rail service.

Should the State Continue to Provide Intercity Rail Service Despite Low Farebox Returns? A primary goal of intercity rail service is to divert heavy freeway traffic from specific corridors. Given the current flat ridership and increasing operating costs, it appears that intercity rail service will not meet statutory farebox requirements in the near future, and service continuation will require waivers from the CTC on a recurring basis. In view of this, the Legislature should evaluate the short- and long-term benefits and costs of providing intercity rail to determine whether state support of the service ought to be continued.

Should Intercity Rail Service Be Solely State Operated? Currently, intercity rail service is provided by the state through a contract with Amtrak. However, to the extent that alternative operating arrangements are potentially available at less cost and improved coordination, these alternatives should be explored. For example, it is possible that areas served by intercity rail could be served by commuter rail services, as has occurred along the San Diegan route. We recommend that the Legislature direct the CTC and Caltrans to re-examine whether service on existing routes ought to continue to be provided by Amtrak, and identify alternatives where similar intercity services could be provided that allow the state more control over operations and costs.

What Performance Measures Should Be Used to Evaluate Performance and Cost-Effectiveness of Intercity Rail Service? The state currently has little means to improve farebox return performance without significantly increasing ridership. Because services will likely not achieve the 55 percent farebox ratio in the near future, they cannot be operated with state support without CTC waivers. In the short term, the Legislature could consider suspending the farebox requirement in order to allow intercity rail service to be continued. The Legislature could also decide on a set of additional measures to assess service improvements both in the short and long run. Additional measures may include specified targets of ridership increases over specified time periods.

How Should Capital Improvements Be Funded? Capital improvements are often needed to enable service expansion. The failure of the 1992 and 1994 rail bond measures created a funding gap in the intercity rail program of approximately $300 million. As a result, highway funds are now the main funding source for capital improvements for intercity rail. However, given the funding shortfall, intercity rail capital projects may be delayed or not funded in order to free up funds for other highway projects.

The lack of capital funds hinders service expansion which is needed to increase ridership. To the extent that the state is to continue providing intercity rail service, the Legislature needs to determine how best to fund these improvements.

What Is the Priority of Intercity Rail Relative to Other Transportation Programs? Operations of the intercity rail program are funded primarily from the Transportation Planning and Development (TP&D) Account. The TP&D Account also funds the State Transit Assistance Program which provides state support for local transit (bus and rail) operations and the Transit Capital Improvement Program which provides state funding for rail capital improvements, rollingstock and buses. To the extent that operating costs for intercity rail increase, there will be fewer funds for other transit programs. The Legislature may want to consider the relative value of the intercity rail program as compared to other mass transportation programs in order to provide balanced transportation services in the state that satisfy transportation service demands.

Caltrans Proposes to Eliminate the Rideshare Program

The Rideshare Program has not been proven to be effective and the budget proposes to eliminate state support of the program. Alternative means are available to local governments to ensure compliance with air quality standards.

The department proposes to eliminate state support of the Rideshare Program for a reduction of $14.4 million and 25.3 PYs in 1996-97.

The Rideshare Program provides motorists access to and information about carpools and vanpools as an alternative to commuting alone. Caltrans and local governments work together with transit operators, air pollution control districts and private ridesharing organizations to administer a program that encourages motorists to rideshare in order to reduce the number of single occupancy vehicles on the road and to mitigate congestion and the deterioration of air quality.

ISTEA Provided Funding for Rideshare. The ISTEA authorized the use of federal highway funds to support rideshare programs, without having to provide any state matching funds. If the funds are not used for ridesharing, they become available for other highway purposes.

In 1995-96, the Legislature reduced the rideshare program from a $40.6 million program to a $14.4 million program. This action eliminated state support to provide administrative, marketing, education, and telecommunications services. However, it continued to fully fund local governments' contracts with private vendors to identify and

match-up potential ridesharing customers. The budget proposal would terminate funds for these local government contracts.

Caltrans' Reasons for Eliminating Program. Caltrans' decision to no longer participate in the delivery of rideshare services in 1996-97 is predicated upon two factors. First, Ch 607/95 (SB 437, Lewis) no longer requires employers in California to require employee trip reductions unless required by federal law. Second, based on a survey—which found that only 2 percent of rideshare applicants actually changed their transportation choices to utilize rideshare services—Caltrans concluded that rideshare services are not the most cost-effective use of state resources in reducing congestion and improving air quality.

Rideshare Responsibility Passed to Locals. Eliminating state funding of the program will shift the funding burden to local governments, if they choose to continue these services. They will have to use their own funds or free-up other eligible funds such as federal funds available under the Congestion Mitigation and Air Quality (CMAQ) program for the activity for these contracts.

Conformity With Air Quality Standards Will Most Likely Not Be Impacted. The existence of a rideshare program counts toward the determination of whether or not an area meets air quality standards. Local agencies indicated that elimination of the rideshare program *may* jeopardize conformity with air quality standards and they *may* need to implement other measures (such as amending their transportation congestion management programs) to achieve conformity. However, it is not definite that, absent a rideshare program, they *will* be out of conformity with federal law. This is because there are a number of factors that the federal government takes into consideration when determining state conformity with air quality standards.

Because (1) the rideshare program's effectiveness is questionable and (2) it is not clear that elimination of state support would jeopardize local area's conformity with air quality standards, we concur with the department's proposal to eliminate the program.

ADMINISTRATION

Reorganization in Progress

The department is undergoing another reorganization, with the objective to improve operational efficiency. We recommend that the department report prior to budget hearings on its estimates of savings as a result of the reorganization efforts.

In 1994, the department began to reorganize many of its functions in order to improve its operations and to reduce redundancies. The department's goal is to achieve about $1 billion in total savings in support expenditures over the 1996 STIP period. Specifically, the reorganization:

- ***Created "Service Centers."*** Caltrans centralized six functional responsibilities at the Sacramento headquarters level, including Information Services, Accounting, Administration, Equipment, Engineering, and Legal. These functions were previously performed at both the district level and the headquarters level in a way that Caltrans considers to be duplicative. The department anticipates that the centralization will also strengthen headquarters' control over district expenses.

- ***Streamlined District Functions.*** By reducing district responsibilities for the above functions, districts were streamlined to provide only program responsibilities (for example, design and engineering) while headquarters provided all functional responsibilities including planning and management.

- ***Increased Level of Responsibility of Headquarters Program Managers.*** Caltrans reduced managerial redundancies by consolidating some managerial and supervisorial functions—including administration— into program manager positions. Program managers are now responsible for overseeing the implementation and operation of their programs not only at the headquarters level but also at the district levels. The department believes that this will increase district accountability and improve coordination of district activities with headquarters.

Reorganization Will Reduce Administration Costs. Figure 18 (see next page) shows the staffing and expenditure levels of the Administration Program from 1994-95. As the figure shows, Caltrans anticipates that through 1996-97 it will have reduced direct headquarters administrative and technical services expenditures by $106.3 million below 1994-95 levels. In addition, the department projects a 26 percent reduction in staffing from 2,032 PYs in 1994-95 to 1,510 PYs in 1996-97, mainly as a result of centralizing administrative functions in service centers. As a result, administration will account for approximately 11 percent of the department's 1996-97 support expenditures, as compared to about 17 percent in 1994-95. In terms of staffing, the proportion of departmentwide personnel that are in administration will be reduced from 11 percent to 9 percent.

Also as part of the reorganization, the department indicates that it has changed various operational procedures to reduce administrative expenses. While these are not fundamental changes in the department's

operation, they will contribute to reducing administrative expenses. For instance, the department has introduced a charge card program to simplify the expense claims procedures. Additionally, the department has redefined and broadened the duties of some administrative staff to better utilize staff time and respond to workload fluctuations. The department has also reduced professional and technical services contracts.

Figure 18

Caltrans Administration
Staffing and Expenditure Levels
1994-95 Through 1996-97

(Dollars in Millions)

	1994-95		1995-96		1996-97	
	PYs	$	PYs	$	PYs	$
Administration	1,355	$127.6	1,159	$103.8	904	$98.3
Technical services	677	176.8	668	103.2	606	99.7
Total Administration	**2,032**	**$304.4**	**1,827**	**$207.0**	**1,510**	**$198.0**
Total State Support	**18,606**	**$1,840.2**	**17,746**	**$1,837.0**	**16,774**	**$1,809.1**

The department's reorganization and its administrative changes are expected to create operational efficiencies over the long run. However, the direct effect of these changes is not separable and therefore cannot be individually identified. Our review further shows that not all expected savings are real. Specifically, to the extent that changes, such as reduction in management and supervisory personnel, represent elimination of vacant positions, reclassification of position responsibilities, or shifting positions to non-administration programs, the department's savings goal will not be realized. However, to the extent that changes, such as consolidation of responsibilities, result in more efficient utilization of staff resources, the savings are more realistic.

Potential Effects in Other Programs Not Yet Identified. At the time this analysis was prepared, Caltrans had not been able to provide an estimate of the potential effect in other programs (such as highways, and mass transportation) as a result of the reorganization. We recommend that the department provide that information prior to budget hearings in order that the Legislature may be informed of the department's total efforts and expectations.

Budget Alignment Reasonable, But PY Reduction Questionable

We recommend that the department provide, prior to budget hearings, workload detail to justify the reduction of 296 PYs.

The 1995 Budget Act scheduled Caltrans' expenditures for individual program elements in the Highway Program. This action effectively limits Caltrans' flexibility to redirect funds among various program elements without notifying the Legislature.

Prior to 1995-96, funding for the support of the Highway Program was provided without limitations by program elements. This allowed Caltrans to redirect funds among elements of the program, for instance from maintenance to operations, in order to cover contingencies and still operate within the total program funding level. However, over the years, Caltrans did not reflect these internal redirections in the Governor's Budget display. As a consequence, the Governor's Budget did not provide a true picture of actual expenditures.

Legislative Action in 1995-96 Necessitates Alignment of 1996-97 Budget Expenditures. In preparing the 1996-97 budget, Caltrans aligned its expenditures as displayed in the Governor's Budget with its internal expenditure allocations. This is expected to enable the department to eliminate discrepancies and report more accurately the expenditure pattern of each program.

Our review indicates that this process is reasonable. For the past several years, Caltrans' support budget had an ongoing shortfall in the funding for personal services. As a result, the department reduced operating and equipment expenses and redirected those funds to personal services.

Reduction in PYs Not Justified. While aligning expenditures in the Governor's Budget display to more accurately reflect the department's true expenditure pattern is reasonable, we question why the department unilaterally reduced staffing by 296 PYs. Specifically, the department did not submit a budget change proposal for the deletion and was not able to provide workload detail to justify the reduction of staff. We believe that this information is essential in order to assess the validity of the alignment of expenditures. Accordingly, we recommend that the department provide workload detail to justify the reduction of 296 PYs prior to budget hearings.

Technical Adjustment

We recommend a reduction of $3,050,000 in order to correct a technical budgeting error. (Reduce Item 2660-001-0890 by $3,050,000)

For 1995-96, the Legislature directed Caltrans to restore the Local Planning program with $3 million in federal funds. For 1996-97, the budget reflects the restoration of $3 million in planning but also inadvertently reflects the same increase under the rail capital transit program. As a result, we recommend that this latter amount be deleted.

DEPARTMENT OF THE CALIFORNIA HIGHWAY PATROL (2720)

The California Highway Patrol (CHP) is responsible for ensuring the safe, lawful, and efficient transportation of persons and goods along the state's highway system and to provide protective services and security for state employees and property. To carry out its responsibilities, the department administers four programs to assist the motoring public and to protect state employees and property: (1) Traffic Management, (2) Regulation and Inspection, (3) Vehicle Ownership Security, and (4) Protective Services.

The budget requests a total of $791 million to support the CHP in 1996-97. This is approximately $25 million or about 3.3 percent above estimated expenditures in the current year. The increase is primarily the result of the following augmentations: (1) $7.3 million for the third and final year of funding for 180 additional traffic officers, (2) $8.3 million for telecommunications equipment and increases in vehicle replacement costs, (3) $1.9 million to comply with overtime provisions of the Fair Labor Standards Act of 1986, and (4) $2.2 million to staff the new Gilroy inspection facility and to relocate two CHP offices to a new facility.

The budget also proposes to eliminate the California Motorcyclist Safety Program (CMSP) administered by the CHP. Currently, the CHP contracts with a private vendor to provide motorcyclist training and public awareness programs. The budget proposes instead that these services be provided by motorcycle driving schools and driving instructors who would be licensed by the Department of Motor Vehicles (DMV). The current program is funded by a $2 surcharge on motorcycle registration, which will expire December 31, 1997.

In addition, the budget proposes to eliminate the Salvage Vehicle Inspection Program. We discuss this proposal in a later section of this write-up.

Legislature Not Notified of Increased MOU Costs

We recommend a reduction of $1.4 million for increased overtime costs because the administration did not notify the Legislature of these costs when the Legislature approved the recent collective bargaining agreement between the state and the California Highway Patrol officers. (Reduce Item 2740-001-0044 by $1.4 million.)

On September 8, 1995, the Department of Personnel Administration (DPA) changed various state pay rules to comply with overtime provisions in the federal Fair Labor Standards Act (FLSA). Specifically, the DPA determined that compliance with the federal law would require the following changes: (1) overtime payments to sergeants and traffic officers and (2) inclusion of "premium pay" in the base rate for overtime calculations. (Premium pay represents pay increases to provide incentives for officers to acquire certain attributes such as additional education or physical training.) The CHP estimates that these changes will increase its overtime costs by $1.4 million in the current year and $1.9 million in 1996-97. The department is absorbing the current-year increase but is requesting additional funding of $1.9 million in 1996-97.

Administration Fails to Inform Legislature. At the same time that the DPA communicated these new rule changes to the CHP and other departments, the DPA and the CHP were seeking legislative approval of the memorandum of understanding (MOU) negotiated with the Unit 5 representatives of CHP traffic officers. The proposed MOU included significant new premium pay provisions, including various educational incentive payments, that would boost the cost of complying with the new FLSA overtime rules. The interaction of the MOU provisions and new overtime rules accounts for $1.4 million of the $1.9 million increase in overtime costs in the budget-year request by the CHP.

The state's collective bargaining law requires legislative ratification of any MOU provision requiring the expenditure of state funds before the provision may take effect. The administration-sponsored legislation to ratify the MOU (SB 544, Dills) was heard in two committees after the DPA had promulgated the new overtime rules. (The legislation was subsequently enacted as Ch 768/95.) During these hearings and other deliberations, the administration did not inform the Legislature of the cost impact of the interaction of the new rules with the MOU's new premium pay provisions.

Failure to Inform Undermines Legislative Review. The administration's failure to inform the Legislature of these costs at the appropriate time—during consideration of the MOU—undermines meaningful legislative review and defeats the purpose of the law requiring legislative approval of MOU provisions that will require future state expenditures. (This is not the first instance we have identified where meaningful legislative review of MOUs has been impaired. See the *Analysis of the 1995-96 Budget Bill*, page H-30.) In view of this failure, and in order to improve the accountability of the administration in the process of legislative review of MOUs, we recommend that the Legislature reduce the request by the amount attributable to the MOU—$1.4 million. We believe that the department can in part accom-

modate this reduction by reducing overtime costs through better management of overtime assignments. To the extent that additional overtime costs remain as a result of the MOU and the new rules, these costs should continue to be absorbed as the department has done for 1995-96.

Consolidation Will Cost More Than Projected

We recommend that the California Highway Patrol explain at budget hearings why costs are projected to be higher than originally anticipated as a result of consolidating the California State Police with the California Highway Patrol.

In 1995-96, the California State Police (CSP) consolidated with the CHP pursuant to the Governor's Reorganization Plan Number 1. The consolidation was anticipated to save $835,000 in 1995-96 due to efficiencies and economies of scale. While most of the savings in facilities and equipment expenses, including the sale of an aircraft, were anticipated to occur immediately upon consolidation, other savings such as savings in personnel costs resulting from better workload coordination and streamlining were anticipated over several years.

However, more recent estimates provided by the CHP indicate that the consolidation may only achieve about $400,000 in savings in 1995-96. This is because the cost of providing protective services (formerly provided by the CSP) in 1995-96 are now estimated to be $300,000 higher than originally anticipated. Figure 19 (see next page) compares the projected costs of providing protective services in 1995-96 with more recent cost estimates. As the figure shows, the CHP now estimates that personnel costs—for salaries and benefits—will be lower than initially projected by $2.1 million in 1995-96. However, operating and equipment expenses will be higher by $2.4 million. The higher costs are primarily due to unplanned purchases of vehicles ($442,000), higher telecommunications costs ($1.2 million), and higher costs of facilities operations ($800,000). In addition to higher costs, the department, thus far, has not proceeded with its plan to sell two airplanes which it estimated would generate $75,000 in revenues.

Short-Term Cost Increases Versus "Tip of the Iceberg". At this time, it is not clear whether the unanticipated cost increases, specifically in telecommunications and operating facilities, are short-term increases due to first-year implementation of the reorganization, or if they represent the "tip of the iceberg" of higher ongoing costs in ensuing years resulting from the consolidation. Protective services are provided through reimbursements by client agencies that receive the services. To the extent that the costs of these services are higher, especially on an ongoing basis, costs paid by client agencies will also be higher.

Because the primary rationale for the consolidation of the CHP with the CSP was to provide better coordinated services at lower costs, we believe that the department should provide an explanation as to why the costs—in particular, telecommunications and facilities operations costs—have increased. The higher telecommunications costs are of particular concern. This is because federal regulation of telecommunications is likely to be changed in the next few years, potentially necessitating modifications in the department's telecommunications systems. Thus, how the department configures its telecommunications systems now, to accommodate departmental workload demands, could have potentially significant cost implications over the long run.

Figure 19

Protective Services Division
Projected Versus Estimated Costs
1995-96

(In Millions)

	Projected 12/23/94	Estimated 11/1/95	Change
Personal services	$24.7	$22.6	-$2.1
Operating expenses	2.9	4.7	1.8
Equipment	0.2	0.8	0.6
Totals	**$27.8**	**$28.1**	**$0.3**

Accordingly, we recommend the department explain, at budget hearings, (1) why telecommunications and facilities operations costs for protective services have been significantly higher than anticipated, and whether these costs will be ongoing, (2) why the unplanned vehicle purchase was needed, and (3) why it has not proceeded with its plan to sell two airplanes.

Workload for Salvage Vehicle Inspection Program Grossly Underestimated

We recommend that the California Highway Patrol report at budget hearings on the estimated workload necessary to conduct inspections of salvage vehicles during the first half of 1996-97, and how it plans to fund that workload.

Chapter 1008, Statutes of 1994 (SB 1833, Torres) established the Salvage Vehicle Inspection Program, and required the CHP, beginning July 1, 1995, to initiate a program to inspect all salvage vehicles. In

addition, Chapter 1008 required the CHP to verify the identity of each salvage vehicle and to ensure that the component parts installed in the vehicle were not stolen before the DMV registered the vehicle to a new owner.

Workload Grossly Underestimated. For 1995-96, the CHP underestimated the number of salvage vehicles needing inspection by at least 100 percent. Early on in the implementation of the program, the CHP was overwhelmed with inspection workload and by October could not continue to perform inspections on a timely basis, given the funding and staffing level of the program. In response, Ch 684/95 (SB 549, Alquist) suspended the program as originally designed until January 1, 1997. After January 1, 1997, the program would be reactivated.

Chapter 684 Places Temporary Moratorium on the Program, But Inspections Will Continue. While Chapter 684 suspended the requirement that the CHP inspect all salvage vehicles, it did not eliminate all inspections. Instead, the measure authorizes the DMV to either inspect salvage vehicles applying for registration or request that the CHP inspect such vehicles. In addition, Chapter 684 authorizes the CHP to inspect these vehicles on a random basis.

The CHP is currently developing legislation for a modified program of random inspections. However, until January 1, 1997 or when a modified program is in place, the CHP is likely to incur some workload costs to conduct random inspections and inspections requested by the DMV. Because no funds are included in the CHP's 1996-97 budget request, we recommend that the CHP report at budget hearings on the estimated workload necessary to conduct these inspections and how it plans to fund that workload.

DEPARTMENT OF MOTOR VEHICLES (2740)

The Department of Motor Vehicles (DMV) is responsible for protecting the public interest in vehicle ownership by registering vehicles and for promoting public safety on California's roads and highways by issuing driver licenses. Additionally, the department licenses and regulates vehicle-related businesses such as automobile dealers and driver training schools, and also provides revenue collection services for state and local agencies.

The budget proposes total expenditures of $531 million for support of the DMV in 1996-97. This is an increase of $11 million, or 2 percent, above estimated current-year expenditures. This proposed increase is primarily due to the costs to implement new legislation and to a proposal to initiate planning and analysis for a reengineering of the department's business practices and information systems. The budget estimates that most of the costs of implementing new legislation will be offset by increased revenue from existing or new fees.

DMV Initiating New Computer Improvement Project

The DMV is preparing to undertake a computer renovation project, following recommendations made by an independent consultant, and requests $1.9 million in 1996-97. The overall effort may take six years or more and is likely to cost well over $100 million. We recommend that the DMV, the Department of Information Technology, and the Technology Investment Review Unit (within the Department of Finance) report to the Legislature on measures to ensure that the project is executed successfully.

Following the costly failure of the DMV's attempted database modernization project, the department hired an independent consultant (the Warner Group) to analyze the need for the department to improve and modernize its information technology systems and to recommend an achievable implementation plan (see our 1994-95 *Analysis* and *Supplemental Analysis* and our 1995-96 *Analysis*, page A-61). The consultant submitted its final report in early 1995, and the DMV is now proposing to implement the report's recommendations and requests $1.9 million in 1996-97.

Report Urges Improvements. The Warner Group found that improvements to the DMV's information technology systems are necessary in

order to reduce the risk of system failure and maintenance backlog and to enable the department to redesign outdated business practices. The inflexibility of the DMV's information systems, the report indicates, prevents the department from implementing more efficient business practices and limits its ability to assume new responsibilities. However, the report cautioned that the DMV is not well equipped at present to successfully transition to modern information systems. The report identified a lack of project management skills and modern software development methods as well as insufficient high-level leadership for information technology.

Consultant Recommends Phased Implementation Plan. In its report, the Warner Group recommended a phased implementation plan that would begin immediately and continue for six years. Figure 20 (see next page) summarizes the 14 major components of the recommended implementation plan. To address the shortcomings in the DMV's ability to successfully manage and execute complex information technology projects, the implementation plan begins with five immediate actions to improve project management and technical skills and to strengthen leadership.

In addition, the report identified five activities to begin immediately and continue for up to four years. Central among these is Business Process Reengineering (BPR)—the effort to radically redesign business practices to achieve improvements in performance and efficiency. The Warner Group concluded that redesigning the department's business practices must precede any attempt to design and implement new information systems. In addition to BPR, the report identified four other activities that should begin immediately in order to stabilize the current system and ease the eventual transition to modern systems.

Finally, the Warner Group recommended four implementation steps that could begin in late 1996 and 1997, but only after substantial progress or completion of the activities discussed above. These final stages would entail the technical definition of new information systems, and their development, procurement, and installation.

Total Project Cost and Benefits Unknown. In the phased project approach recommended by the Warner Group, specific improvements to DMV information systems will be developed later, based upon reengineered business practices. The Warner Group suggests that total project costs could range from $180 million to $370 million. This amount would constitute about 6 to 12 percent of the DMV's total budget over the six-year implementation period. However, because specific system improvements will not be determined until after the BPR, the total costs of redesigning the DMV's information system are unknown.

Furthermore, the benefits of the project, in terms of reduced costs and improved customer service, are unknown.

Figure 20

Department of Motor Vehicles
Warner Group Information Technology Study (1995)
Recommended Implementation Plan

Recommendation	DMV Status
Immediate actions—improve leadership and skills	
Appoint DMV Chief Information Officer	• Pending
Appoint manager for Business Process Reengineering	• Completed
Develop and acquire skills in project management and software development	• FSR approved to improve software development—$0.8 million requested for 1996-97 • Other actions pending
Restructure internal DMV information technology committees	• Pending
Develop strategic technology partnerships	• Pending
Multiyear tasks to begin immediately—stabilize systems	
Initiate Business Process Reengineering	• Consultant bids being evaluated • $1.1 million requested for 1996-97
Document and reengineer mission-critical software applications	• FSR under review
Convert databases to industry standard environment	• FSR under review
Develop contingency plan for field office computer replacement	• Underway using DMV staff
Explore data communication opportunities for improvement	• Pending proposal from Teale Data Center
Future years—design and implement new information systems	
Install replacement field office computers	• Pending
Define target design for DMV databases and applications	• Pending
Upgrade DMV databases using target design	• Pending
Develop and install new application programs using target design	• Pending

The DMV Requests $1.9 Million. For 1996-97, the DMV requests $1.9 million, including $1.1 million for the first year of BPR and $0.8 million to improve the department's software development skills

and tools. Both BPR and skills development are key components of the recommended implementation plan, and the DMV's first-year BPR request falls within the Warner Group's cost estimate (the report did not provide a cost estimate for improving and acquiring skills). However, neither project will directly produce quantifiable fiscal benefits. Rather, the Warner Group believes that BPR and skills training, along with other preliminary activities, will lay the groundwork for subsequent steps to redesign and implement new information systems. Thus, the cost-effectiveness of the DMV's current request cannot be evaluated outside of the context of the overall project; however, the overall project is not yet fully defined.

The DMV and the Department of Information Technology Should Report to Legislature. The Warner Group's implementation plan is complex and aggressive. Furthermore, the plan is demanding of both managerial and technical skills, because the DMV must make many crucial decisions in subsequent years.

While our review indicates that the DMV is substantially adhering to the Warner Group's recommendations, the DMV has not yet addressed some recommendations. For example, the department lacks a Chief Information Officer and has yet to finalize the recommended strategic partnerships and skills improvement. We believe that the Warner Group's recommendations will assist the DMV; however, we note that the department has no history of successfully executing a project of comparable scope or difficulty.

Given the uncertain costs and benefits, the complexity of the Warner Group plan, and the DMV's unproven record, we believe that it is essential that the DMV and the administration clearly accept the responsibility and demonstrate the ability to ensure, through comprehensive planning, analysis, and oversight, that the project will be successfully executed and yield benefits that justify its cost. We believe that, prior to the Legislature's appropriation of funds for the DMV's project, the DMV and the administration's technology oversight agencies—the Department of Information Technology (DOIT) and the Department of Finance's Technology Investment Review Unit (TIRU)—should certify that the DMV and the administration will ensure that the DMV's project is ultimately successful.

We therefore recommend that, prior to budget hearings, the DOIT and the TIRU provide to the Legislature a report that assesses the DMV plan and clarifies respective planning and oversight responsibilities. We further recommend that the DMV provide a report indicating its response and concurrence. The reports should address, at a minimum, the following issues:

- What is the DOIT's assessment of the DMV's overall strategy and the department's ability to successfully execute the strategy?
- Does the DMV have adequate executive-level leadership for information technology that will ensure that the department successfully implements the Warner Group recommendations and achieves commensurate benefits?
- Does the DMV have adequate staff-level skills, or adequate plans to develop or acquire skills, to ensure that the project can be successfully implemented?
- Is the Warner Group report the appropriate guiding strategy for the DMV's business and information technology reengineering project?
- Should deviations from the Warner Group recommendations be permitted, and if so under what circumstances?
- What will be the role and responsibility of each agency in ensuring that the overall project, including key nontechnology components such as BPR and skills development / acquisition, is successfully executed?
- What steps has the DOIT taken and what additional steps does the DOIT plan in order to ensure that the DMV's implementation of the Warner Group report is successful?
- What are the major risks of the DMV's overall project to implement the Warner Group's recommendations? How will the DMV, the DOIT, and the TIRU minimize these risks?

Customer Wait Times Increasing

Customer wait times in the DMV field offices are below targets set in statute, but have risen in recent years. We recommend that the DMV report at budget hearings on the target wait times for 1996-97 that the department can achieve with proposed resources.

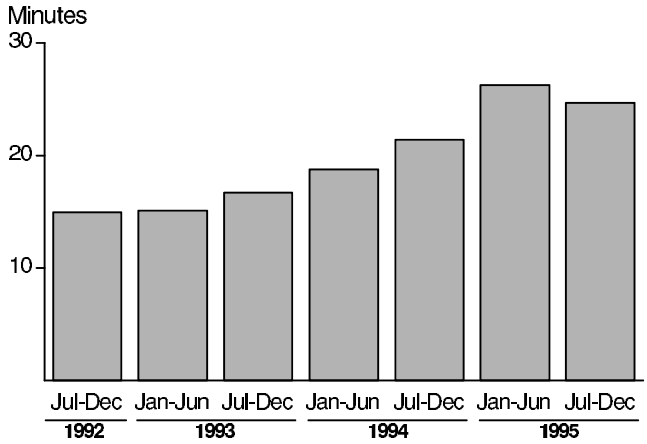
Current law states the Legislature's intent that customer wait times in DMV field offices not exceed 30 minutes. Our review of DMV data indicates that while the DMV is in compliance with this requirement, customer wait times have increased substantially in recent years.

Figure 21 illustrates the average of the maximum wait times recorded in each DMV field office. The figure reveals that wait times have risen consistently through the first half of 1995, peaking at 26 minutes, and declining slightly in the second half of 1995 to 25 minutes. Because

these data are based upon *maximum* wait times, they reflect worse case wait times, and the DMV serves most customers more quickly than is shown here. However, our analysis indicates that overall average wait times have increased along with maximum wait times. For instance, the average wait time for vehicle registration has risen from 11 minutes in 1993 to 20 minutes in 1995.

Figure 21

Department of Motor Vehicles
Customer Wait Times [a]
July 1992 Through December 1995



[a] Average of maximum wait times.

DMV Actions to Reduce Wait Times. The DMV indicates that it recently began filling 95 field office positions that it had held vacant, and as a result it expects wait times to continue the decline that began in the second half of 1995. In addition, the DMV notes that for customers that use the appointment service, the department generally provides service within five or six minutes of scheduled appointment times.

Recommend DMV Establish Targets for 1996-97. We recognize that customer wait times are partially determined by approved budget levels and new responsibilities imposed on the department. For example, the DMV reports that its field office workload was increased by recent legislation such as that requiring the verification of legal presence of applicants for driver licenses (Ch 820/93 [SB 976, Alquist]) and the Safe Streets Act (Ch 1133/94 [AB 3148, Katz]) which greatly increased penalties for driving with a suspended or revoked license. These additional workload

requirements contributed to higher wait times in 1994 and 1995. However, it is not clear how the department will bring about a continued reduction in wait time in 1996-97, given the increased workload demand. Additionally, the DMV proposes to eliminate 174 personnel-years (PYs) in 1996-97 in order to free up funds for general salary increase costs. The department has not indicated where it will make the staff reductions or the impact on customer service that will result. We therefore recommend that the DMV report, at budget hearings, on customer wait time targets for 1996-97 that the DMV can achieve with the proposed resources. This information will allow the Legislature to better assess the proposed budget and will increase departmental accountability.

Expansion of New Driver License Road Test Is Premature

We recommend that $305,000 requested for an expansion of a new driver license road test be rejected because the department has not completed an evaluation that will compare the validity of the new road test to that of the current test. (Reduce Item 2740-001-0044 by $305,000 and 7.5 PYs.)

Based upon concerns that driving in California has been made more challenging by higher traffic density and increased driving on freeways, the DMV identified a need to improve its driver licensing road test. With legislative approval, the department initiated a two-year pilot test to develop and evaluate an improved road test, known as the Driver Performance Evaluation (DPE). The DMV has completed the two-year project, and now requests $305,000 and 7.5 PYs in order to expand implementation of the test to 23 new field offices, in addition to the current 33 field offices.

DPE Longer, More Costly. The DPE differs from the current road test primarily in that (1) the test route is designed to have uniform scoring features (number of stops, lane changes, etc.) at every DMV field office and (2) the test includes a brief freeway driving segment. In order to accommodate the freeway driving segment and to ensure uniform scoring features on all test routes, the DMV indicates that the DPE takes an average of 11 minutes longer than the current test. Because of its greater length, the DPE requires additional examiners to administer the test and is therefore more costly than the current road test. We estimate additional annual costs of $2 million to $3 million, including training, to implement the test statewide.

Evaluation Partially Confirms Validity of the DPE. The department's pilot evaluation finds that the DPE has a higher failure rate and also produces more consistent scores than does the current driver test, indicating that exam scores are less likely to be influenced by the

particular examiner that administers the test. Additionally, the DMV believes that the DPE is a valid test of driving skill, because inexperienced drivers and drivers that have physical or mental limitations performed worse on the exam.

However, due to the limited sample of drivers, the department was unable to conclusively link actual driving ability (measured by the number of recent accidents) to DPE test scores. Furthermore, beyond attempting to show that the DPE is a valid test of driving skill, the department did not investigate whether it is a *more valid* test than the current test. Therefore, we do not believe that the department has proven whether, or to what extent, the DPE will improve driver testing compared to the current exam.

The DMV Proposes Expansion, Further Evaluation. The DMV proposes to continue evaluating the DPE by comparing the driving history of drivers that have already been tested under the current test and the DPE. This will allow the DMV to better determine the relative validity of the two tests.

In addition, the department proposes to expand implementation of the DPE to include all field offices in Los Angeles, Orange, San Diego, Riverside, and San Bernardino Counties. The DMV indicates that this expansion, however, is *unrelated* to its ongoing evaluation, and the department has not provided a justification for partially expanding the program.

Expansion Unjustified at This Time. The DMV has shown that in some respects—higher failure rate, and more consistent scoring—the DPE is superior to the current driver exam. However, we believe that the most important measure should be the exam's ability to accurately measure driving ability and predict a driver's future driving record. Because the DMV has not yet determined whether the DPE is superior to the current exam in this respect, we believe that expansion of the test is not justified at this time. We therefore recommend that the Legislature reject the expansion request and reduce the DMV's budget by $305,000 (7.5 PYs). The DMV indicates that it plans continued evaluation that will compare the validity of the DPE to that of the current drive test. We recommend that, if and when more conclusive results are available, the DMV present to the Legislature a new proposal to expand implementation of the DPE.

License Production Costs Overbudgeted

We recommend a reduction of $1,034,000 due to lower costs of producing driver licenses and identification cards. (Reduce Item 2740-001-0044 by $1,034,000.)

The DMV estimates that in 1996-97 it will spend $6.3 million to produce 7.9 million driver licenses and identification cards. Our review indicates that the department based its cost estimate upon current-year production costs and did not account for lower per-card costs under a new contract. Because the new contract will be phased in during 1996-97, we estimate half-year savings of $1,034,000 in 1996-97 and full-year savings in subsequent years of $2,071,000.

LIST OF FINDINGS AND RECOMMENDATIONS

Analysis Page

Department of the California Highway Patrol

Department of Motor Vehicles