

Pat Brown's Building Boom
Water, Highways,
and Higher Education

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Introduction

This report reviews California's major public works (infrastructure) growth during the Pat Brown administration, 1959-1967. In that period, California launched and built a significant part of the California Water Project, built and expanded major freeways, and built and enlarged college and university campuses.

OVERVIEW

The questions explored here are:

- What were the major components of that burst of construction?
- What was the historical context for the projects?
- What demographic trends contributed to the needs addressed by the projects?
- How were the projects funded?

The focus is on major, highly visible projects—the California Water Project; new and expanded freeways; and new university and college campuses—not on the entire range of capital expenditures and not on other state spending. Broader state spending is touched upon only incidentally.

California state government sources include budget documents, annual reports issued by the Controller's Office, and other statistical reports. Other sources include contemporary newspaper and magazine articles and legislative and administrative reports, transcripts, and analyses, as well as books on the Pat Brown administration and on water, transportation, and higher education.

Statistics cited in this report are selective and have been simplified in order not to lose sight of central issues in an excess of numbers. The more the author has delved into the background, the more it has become apparent that the story is not really the numbers. The real story is the bigger picture of what made it possible simultaneously to pursue and fund large public works projects in California.

A straight apples-for-apples comparison of what was feasible then and what is feasible now is not possible for several reasons. Some examples (not the only reasons, but important ones¹) include:

- Those projects *were* built, even where it took decades to complete the job.
- Changes in population and urbanization are more marginal now than then. Changes are still big in numbers, but not as big in percentages.
- Changes have been made in taxes (1978's Proposition 13 and its aftermath, especially) and in spending priorities. For example, Medi-Cal, California's implementation of Medicaid, did not begin until nearly the end of Governor Brown's second term, and started out relatively small.

It is not the purpose of this report to suggest policies or programs or methods of funding, but only to provide some background on a period that is of historical interest. Neither policy options nor recommendations emerge from this background. Nonetheless, it is hoped that the background will help to clarify how the projects of the Pat Brown years came to be undertaken and funded.

THE SETTING: 1958-59

Pat Brown was elected governor of California in November 1958 and took office in January of 1959. In 1958-59:

- Los Angeles County is only a few years past its heyday as the most productive agricultural county in the nation, having held that status for decades, until 1950.
- People send telegrams for urgent news, such as a death in the family. Long-distance phone calls are made with operator assistance and are expensive. AT&T—“Ma Bell”—is *the* telephone company. Computers are rare, expensive, and enormous.
- Music is produced on vinyl records and played on phonographs. “Top 40” and “top 100” record lists vary by local radio market areas within the nation and the state.
- Automobiles have unmistakable model changes every year. Fins are big, literally and figuratively, in 1958 and 1959. Gas stations have periodic price wars. Cars lack smog controls. Seat belts are a novelty.
- Commercial passenger planes are propeller-driven and do not yet serve a mass market. Jet-engine commercial passenger airplanes are first used in transatlantic flights in 1958, but not yet in domestic flights.
- The Russians had stunned America with the launch of the Sputnik satellite in 1957, inaugurating an era of anxiety about American science and education. Sputnik (but not the anxiety) falls back to earth on January 4, 1958. The U.S. responds to Sputnik with the launch into orbit of Explorer I, January 31, 1958, and with a national emphasis on science and mathematics education.
- McDonald’s, founded in San Bernardino and its methods later acquired from the McDonald brothers and franchised by Ray Kroc, has only a handful of locations.
- The Brooklyn Dodgers move to Los Angeles and the New York Giants move to San Francisco before the 1958 baseball season. They are the first major league teams of any kind on the West Coast.
- Disneyland, in Anaheim, marks its third anniversary on July 17, 1958, on what had been agricultural land before it was cleared for “The Happiest Place on Earth.”
- The State Department of Education oversees the state colleges. Junior colleges, not yet called “community colleges,” are an extension of K-12 public education (grades 13 and 14). California residents pay no tuition to attend the University of California, state colleges, or junior colleges, although students do pay some fees.

- California legislators serve part-time while holding other employment. Legislative term limits are unknown and some legislative careers span decades. The State Senate is apportioned by geography, not by population, giving rural areas a disproportionate influence.

As those snapshots suggest, one cannot understand the 1950s and 1960s only in terms of California as we see it today. Growth was constant and widespread, generating needs for water, roads, colleges, housing, and public schools. Some of those needs had been neglected during the emergency conditions of World War II. Agricultural land increasingly gave way to housing and commercial development.

Concern over the challenge of the Soviet Union led to a renewed emphasis on the need for higher education. More and more cars called for more and more roads to connect more and larger towns and cities and to meet changing patterns of employment, residence, and leisure. New technologies, especially computers and communications, were only beginning to offer the promise of a new era. Yet policy makers and planners had long looked ahead to consider the burgeoning population's requirements and expectations, providing important groundwork in key areas of water, highways, and higher education.

Note: This report was originally prepared in a somewhat different form for the California Research Bureau, California State Library.

1. Population and Economy

This section starts with some views of population trends and then turns to the economy and state budget.

POPULATION GROWTH

California's population grew quickly and steadily from 1940 to 1970 (Figure 1).² The state's total population more than doubled from 1940 to 1957, climbing from 6,950,000 to 14,177,000. California added another five million people within the next ten years, reaching 19,175,000 by 1967.

Growth of that magnitude, combined with the relative dearth of infrastructure building during the Depression and World War II, created an enormous need for construction and expansion of highways, educational facilities, and water facilities.

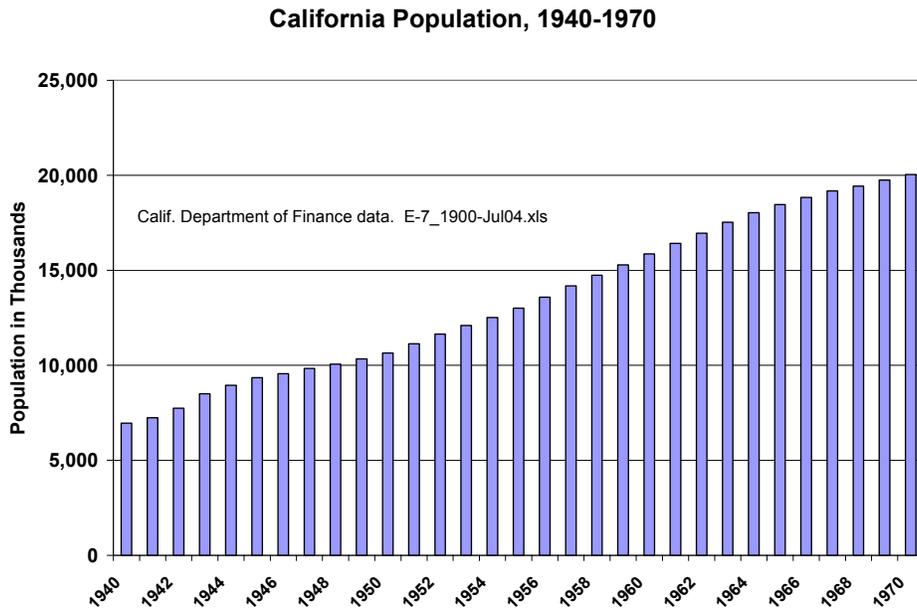


Figure 1. California Population, 1940-70.

Year-to-year population increases ranged from 416,000 to 596,000 between 1951 and 1964, and then eased somewhat (Figure 2).

For the entire period of 1951-1970, the *average* annual population increase was 470 thousand. A straight single-file line of 470 thousand persons, at one yard per person, would reach nearly from Sacramento to Bakersfield. One decade's worth of new arrivals, similarly arranged, would stretch from coast to coast across the United States.

California's population growth had long been rapid. In 1943, during the war, California's population jumped by a record 771 thousand, eclipsing the previous year's 498 thousand.

**California Population Increase over Previous Year
1951-1970 (in Thousands)**

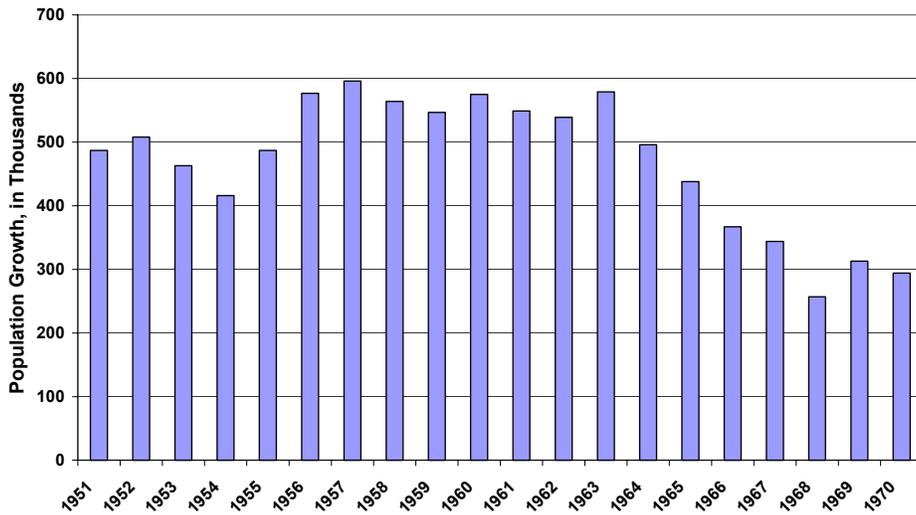


Figure 2. California Population Increase over Previous Year, 1951-70.

Year-to-year percentage increases were 3.3 percent to 4.6 percent every year from 1951 through 1963, declining thereafter (Figure 3). The increase in California’s population just in the decade of 1950 to 1960 was 48 percent, or 5.2 million residents. That number of residents—those added in one decade—exceeded the *entire* 1950 population of the state of New Jersey (4.8 million).

**California Population
Percentage Increase over Previous Year, 1951-1970**

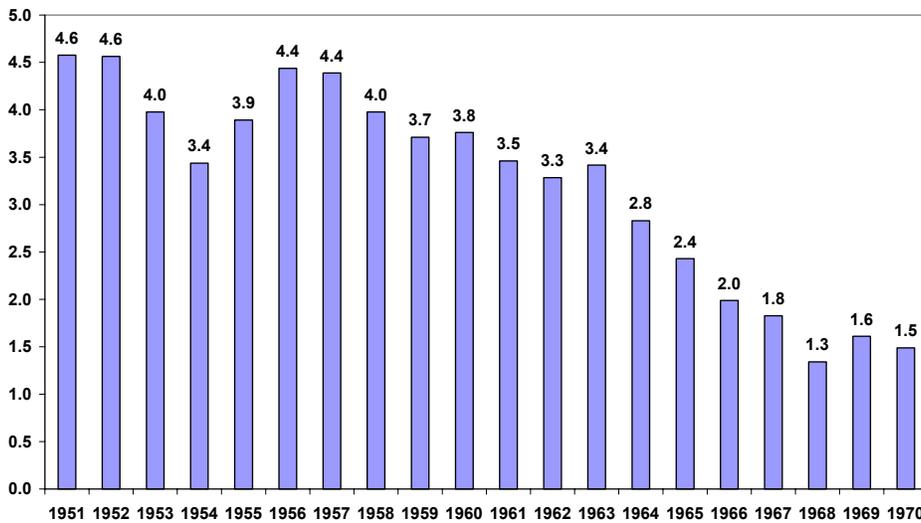


Figure 3. California Population Percentage Increase over Previous Year, 1951-70.

In other words, California's *added* population of the 1950s would have populated one medium-size state or about a half dozen small states combined. With increased population and housing for that population comes increased commercial development.

Through the entire Twentieth Century, until the 1990s, California's share of the U.S. population grew (Figure 4). That growth enhanced demand for public works, as California housed, employed, and educated an increasing share of America's population. The disproportionate growth was especially marked from 1940 to the 1960s. By 1963, California was the most populous state in the nation.

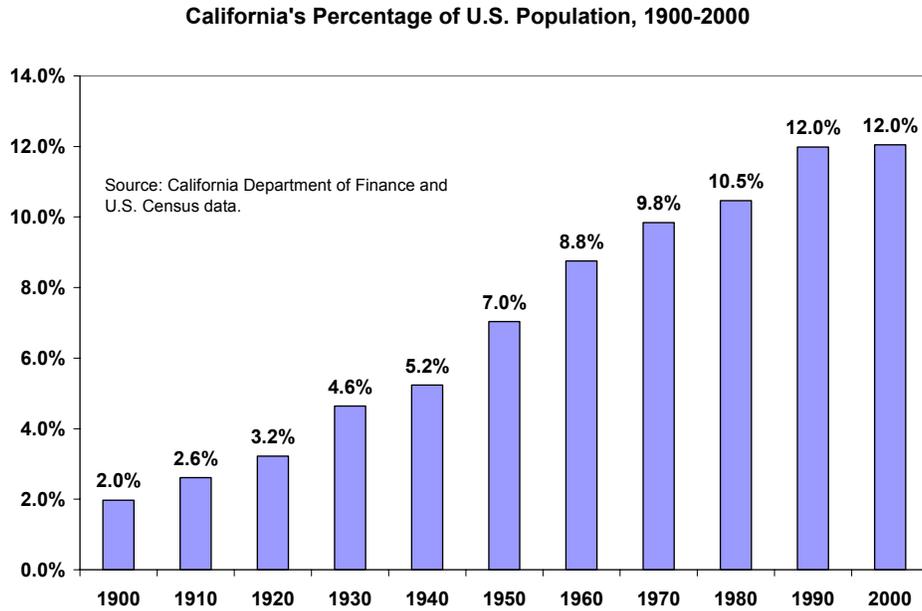


Figure 4. California's Percentage of U.S. Population, 1900-2000.

Southern California's population grew even faster than the state as a whole from 1930 to 1970. (For purposes of this report, "Southern California" includes the counties of Ventura, Santa Barbara, San Diego, San Bernardino, Riverside, Orange, Los Angeles, and Imperial.) That period, 1930 to 1970, encompassed decades in which much planning was done for transportation and water projects as well as decades in which projects were carried out.

Southern California Population Growth, 1930-1970

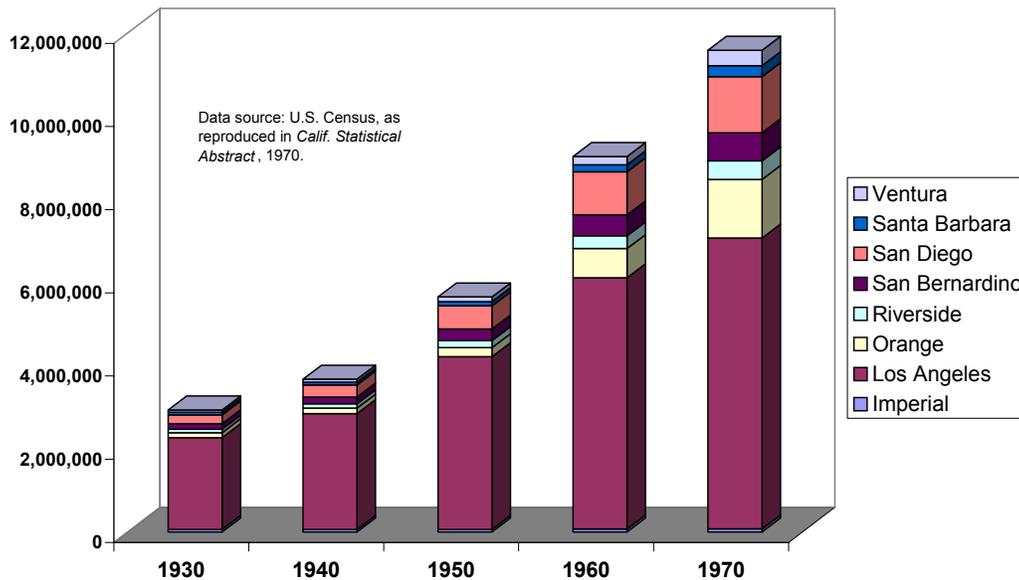


Figure 5. Southern California Population Growth, 1930-70.

Between 1930 and 1970, the eight counties of Southern California grew as a percentage of California’s population, rising from 52 percent (1930) to 59 percent (1970). Growth rates varied among those counties, with Orange, Ventura, Riverside, and San Bernardino showing especially rapid growth. During that period, 26 of California’s 58 counties, including behemoth Los Angeles, each grew by more than 200 percent—that is, at least tripled in population. Orange County jumped a phenomenal 1,088 percent.

County	1930	1940	1950	1960	1970	Percentage change, 1930-70
Orange	118,674	130,760	216,224	703,925	1,409,359	1088%
Santa Clara	145,118	174,949	290,547	642,315	1,057,032	628%
San Mateo	77,405	111,782	235,659	444,387	551,027	612%
Contra Costa	78,608	100,450	298,984	409,030	553,415	604%
Ventura	54,976	69,685	114,647	199,138	374,520	581%
San Diego	209,659	289,348	556,808	1,033,011	1,351,135	544%
Riverside	81,024	105,524	170,046	306,191	449,878	455%
Shasta	13,927	28,800	36,413	59,468	77,123	454%
San Bernardino	133,900	161,108	281,642	503,591	672,163	402%
El Dorado	8,325	13,229	16,207	29,390	41,704	401%

Marin	41,648	52,907	85,619	146,820	204,046	390%
Monterey	53,705	73,032	130,498	198,351	248,846	363%
Sacramento	141,999	170,333	277,140	502,778	636,137	348%
Solano	40,834	49,118	104,833	134,597	165,949	306%
Santa Barbara	65,167	70,555	98,220	168,962	260,313	299%
Kern	82,570	135,124	228,309	291,984	325,090	294%
Yuba	11,331	17,034	24,420	33,859	43,954	288%
Yolo	23,644	27,243	40,640	65,727	90,794	284%
San Luis Obispo	29,613	33,246	51,417	81,044	105,173	255%
Stanislaus	56,641	74,866	127,231	157,294	191,679	238%
Napa	22,897	28,503	46,603	65,890	76,819	235%
Santa Cruz	37,433	45,057	66,534	84,219	120,882	223%
Sonoma	62,222	69,052	103,405	147,375	199,360	220%
Los Angeles	2,208,492	2,785,643	4,151,687	6,038,771	6,993,371	217%
Placer	24,468	28,108	41,649	56,998	76,218	212%
Del Norte	4,739	4,745	8,078	17,771	14,432	205%

Table 1. California Counties with 200% or Higher Population Growth, 1930-1970.

Growth drove interest in and support for water development, freeway construction, and higher-education facilities. The distribution of growth influenced location of those public works. Both *experienced* growth and the *anticipated* growth influenced attitudes and choices. Some projects (roads) connected populations and commercial centers while others (water projects and college/university campuses) served local and regional populations. For example, a state college campus was planned and built in San Bernardino, in the high-growth Inland Empire area of San Bernardino and Riverside counties. Reflecting past and expected regional population growth in the San Joaquin Valley, a campus was established in Turlock, Stanislaus County. Its permanent campus opened in 1965, replacing a temporary location opened in 1960.

Conversely, construction of capital projects in the three fields (water, transportation, and higher education) also helped to encourage and facilitate further population and economic growth, providing an element of self-fulfilling prophesy.

ECONOMIC GROWTH

Aside from some periods of recession, California's economy grew rapidly during the run-up to the Pat Brown administration and during Governor Brown's time in office.³ Economic growth both stimulated and benefited from population growth.

This section highlights selected statistics on, and related to, California's economy during the 1950s and 1960s.

LABOR FORCE AND EMPLOYMENT

Not only was population growing during the 1950s and 1960s, so also was the labor force (Figure 6). Unemployment varied from year to year, ranging from 7.7 percent (1950) to 3.4 percent (1954). Some recessions reduced year-to-year growth in employment, but the trend was clearly upward in labor force and employment.

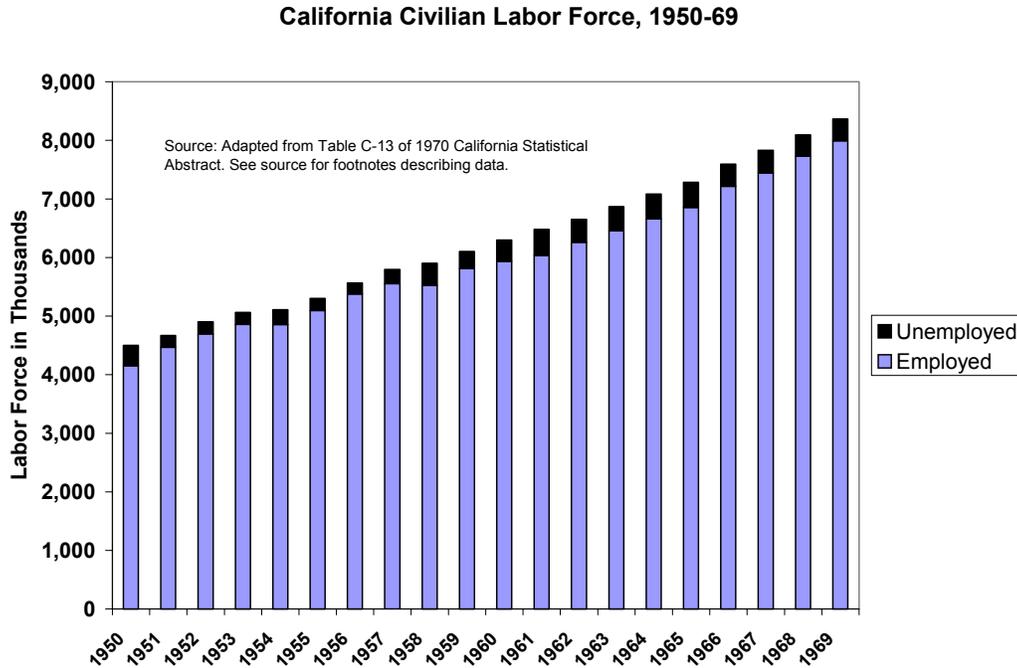


Figure 6. Civilian Labor Force, 1950-69.

A growing labor force and growing employment naturally implied a growing economy, growing tax revenues (other things being equal), and growing expectations for public works to support economic development.

INCOME

Californians' personal income moved up steadily during the 1950s and 1960s, even after adjusting for inflation (Figure 7).

**California Personal Income, 1950-69
Adjusted for National CPI (Millions of 1950 Dollars)**

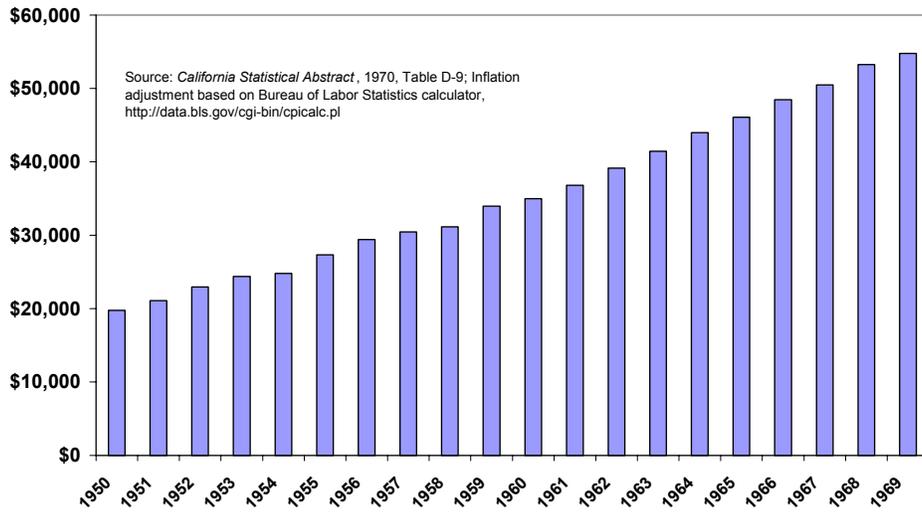


Figure 7. California Personal Income, 1950-69, in 1950 Dollars.

The rise in unadjusted dollars was of course more striking (Figure 8).

Personal Income in California (in Millions)

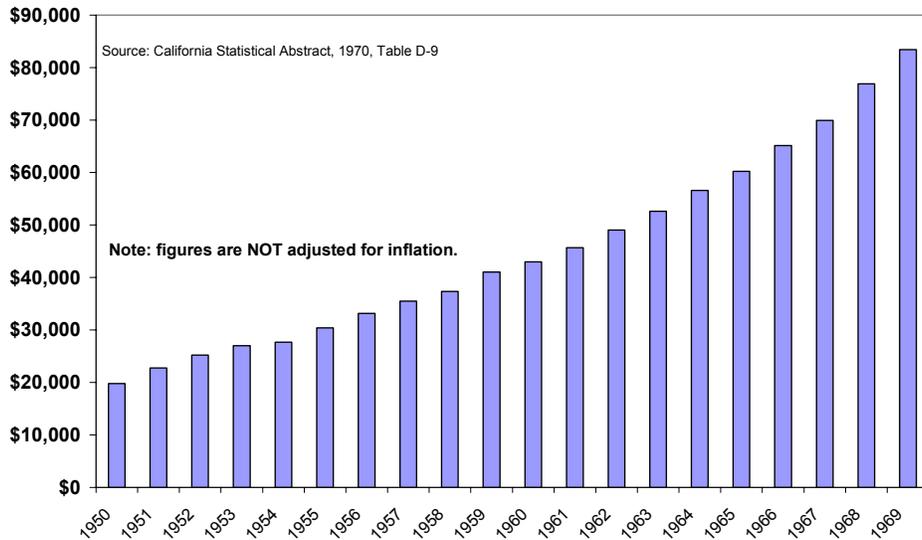


Figure 8. California Personal Income, 1950-69, unadjusted.

LAND USE

It is easy today to overlook the past extent of agriculture in parts of California that are now highly urbanized. The change is outlined by some comparisons of agricultural acreage. For example, between 1954 and 1964, harvested cropland in Los Angeles County fell by more than half (Figure 9).⁴

In square miles, the figures are 305, 198, and 142 for 1954, 1959, and 1964, respectively, for a net loss of 163 square miles of harvested cropland in Los Angeles County over the ten years. (By 2002, the figure had fallen another 77 percent, to just 38 square miles remaining.) The ten-year decrease amounted to only about 4 percent of the county's *total* land area, but it was a very visible 4 percent and was augmented by the loss of farm acreage used for other purposes besides cropland.

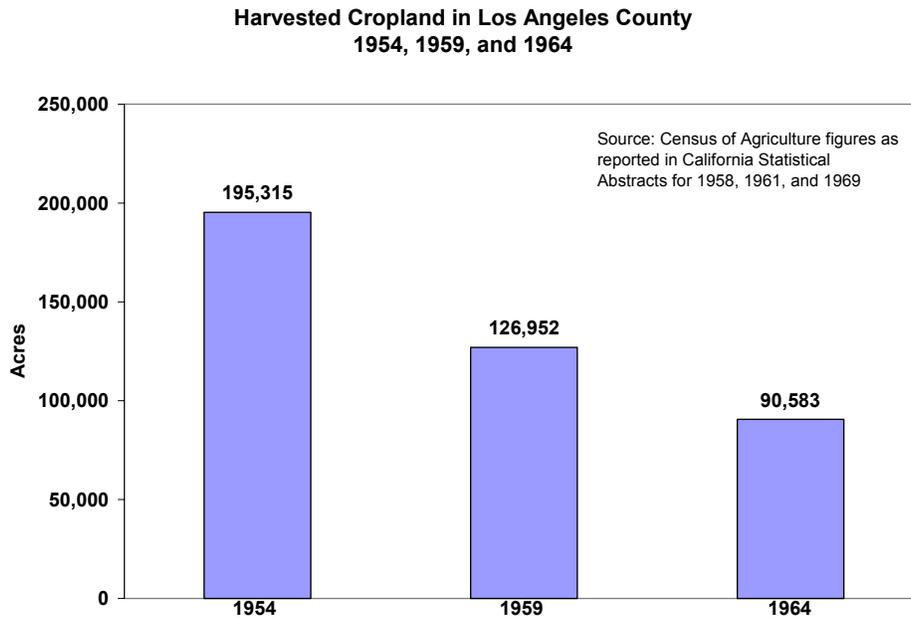


Figure 9. Harvested Cropland in L.A. County, 1954, 1959, 1964.

The decline of cropland in Los Angeles County over a ten-year period illustrates the kind of changes visibly underway in populous areas of California. Landscape changed rapidly with the influx of residents through migration and natural increase (excess of births over deaths).⁵ Land was converted to use for homes, schools and other public buildings, commercial buildings, streets, and other urban and suburban uses.

MOTOR VEHICLES

One of the factors increasing demand for new and expanded highways was Californians' brisk acquisition of automobiles, trucks, and trailers (Figure 10).

California Registrations of Motor Vehicles and Trailers Which Paid Fees, 1951-1960

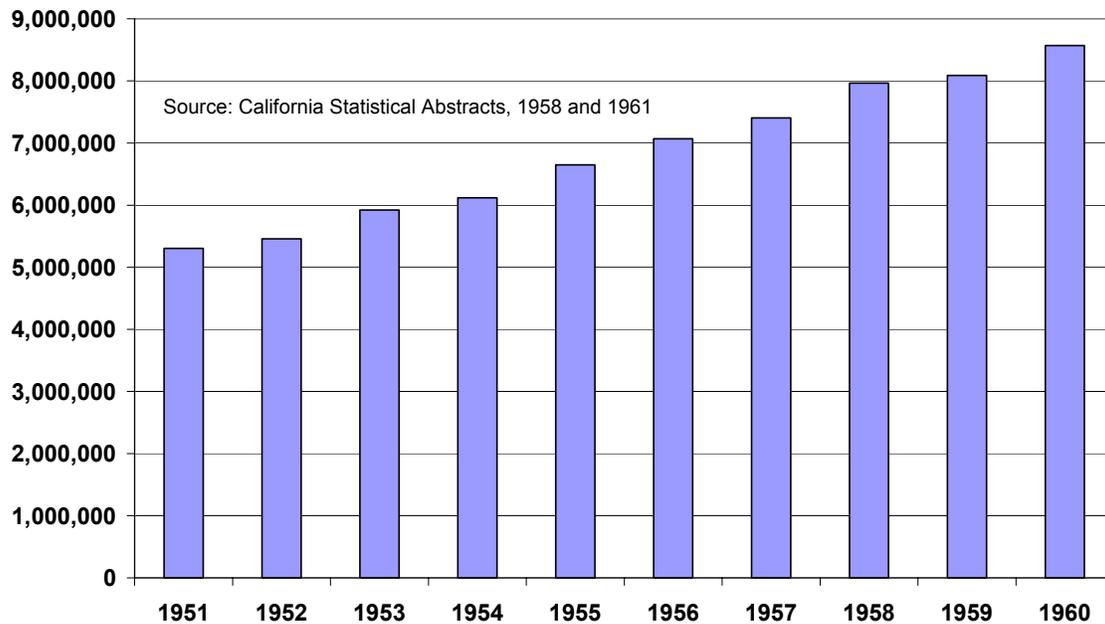


Figure 10. California Registrations of Motor Vehicles, 1951-60.

The numbers are muddled by the inclusion of motor vehicles of various types along with fee-paid registered trailers, but the upward pressure of more and more vehicles on the road is clear enough.⁶ People bought vehicles or brought them into the state when they moved to California, and they wanted to drive them.

STATE BUDGET DEVELOPMENTS

This section touches on just a few highlights of revenues and spending for context and to illustrate trends. A detailed analysis of budget issues is beyond the scope of this report.

TAX INCREASES AND REVENUES

At the start of his first term, Governor Pat Brown called for and received large tax increases. In summary, increases included:⁷

- new 3-cent-per-pack tax on cigarettes
- increases in personal income tax by narrowing brackets, new 7 percent top rate, and a reduction of personal exemptions
- increase in the corporation tax from 4 to 5.5 percent
- increases in inheritance taxes
- increase in tax on beer, from 2 to 4 cents per gallon
- increased taxes on horse racing

The result was a significant increase in revenues. (See Figure 11.)*

**California General Fund Revenues, 1957-58 through 1967-68
("Major Revenue")**

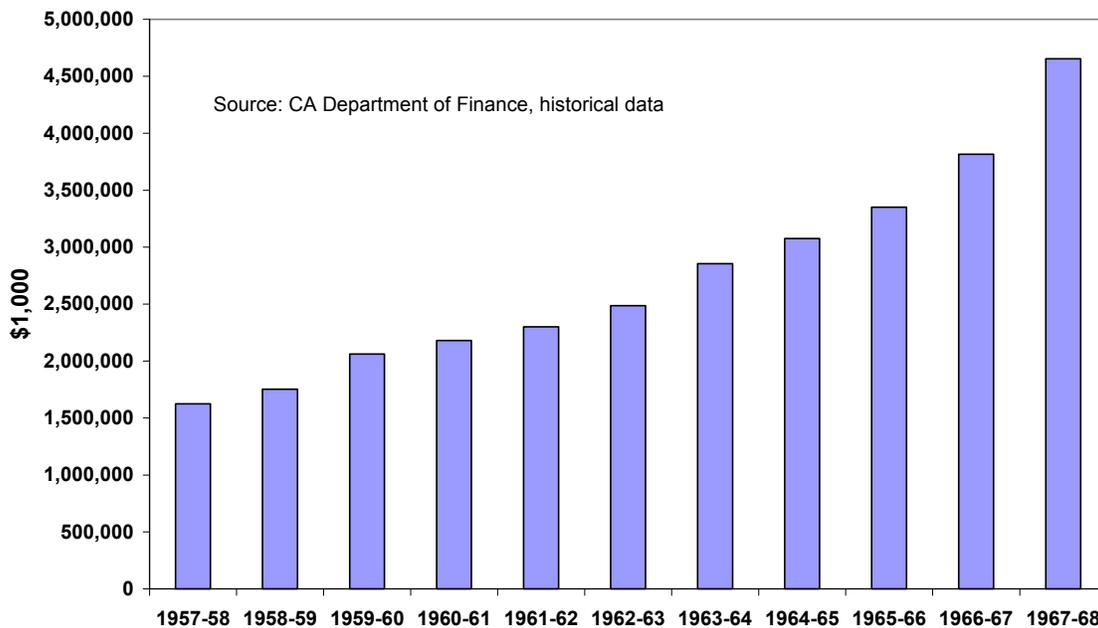


Figure 11. California General Fund Revenues ("Major"), 1957-58 through 1967-68

Another round of tax increases came in 1963, including a one-cent-per-gallon increase in gas and diesel taxes, earmarked for city and county roads, and an extension of the sales tax to include take-out food. Some additional increases followed in 1965.

By the end of the second Pat Brown term (FY 1966/67 budget), the state had adopted accrual accounting to speed up recognition of future revenues.[†] The Reagan administration found an enormous budget deficit upon taking office in 1967 and initiated economy measures (hiring freeze, across-the-board spending cuts) and large tax increases in response.

Bond funds, such as those supporting the State Water Project and higher education facility construction, were not affected by these developments[‡], as only repayment of princi-

* Figure 11 reflects only major General Fund revenue sources, not all revenues, but it serves to illustrate the pattern. The shift from cash to accrual accounting with the FY 1966/67 budget might make the graph somewhat misleading at the point of that shift.

[†] In contrast to cash accounting, which recognizes revenues when received, accrual accounting recognizes revenues when they become due. The transition from cash to accrual accounting thus enables a one-time increase in stated revenues.

[‡] Not directly, in any event. There might have been some indirect effects resulting from personnel and support cutbacks in agencies administering bond proceeds.

pal and interest are budgeted items, not the actual spending of the bond proceeds. (See “Borrowing,” below.)

SPENDING

Like California’s population, personal income, and revenues, state government spending rose sharply during the 1950s and 1960s. In nominal dollars (not adjusted for inflation), state expenditures grew by 494 percent from 1951 to 1970. Expenditures grew by 186 percent from 1960 to 1970 (Figure 12). Recessions were followed by declines, but the upward trend then resumed.

**State of California, Total Expenditures
FY 1950/51 - 1969/70**

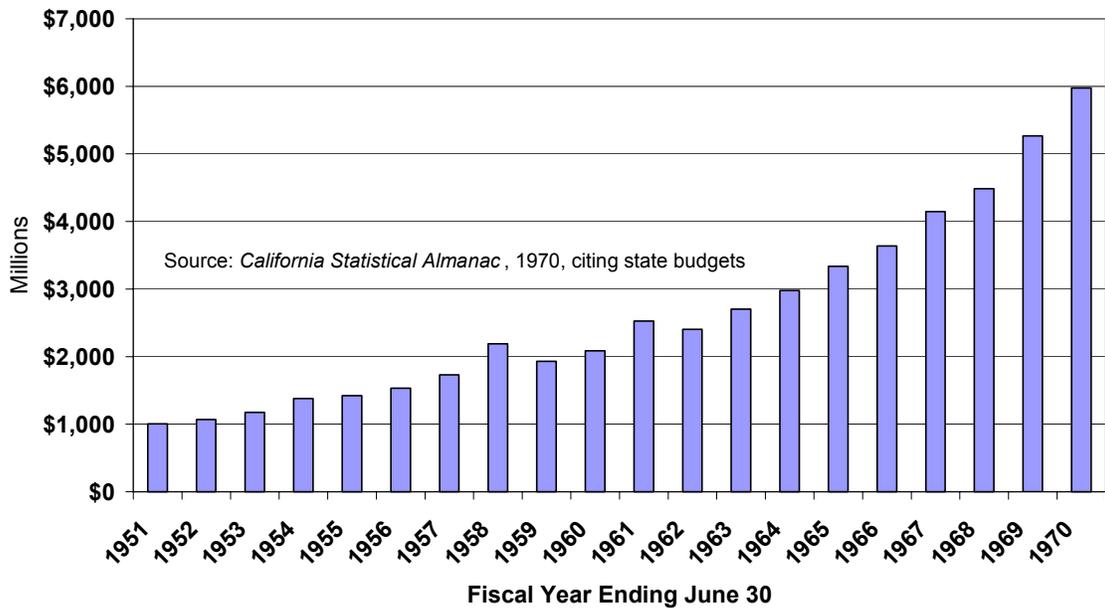


Figure 12. State of California, Total Expenditures FY 1950/51 - 1979/70.

Apparently, growth in spending had been weighing on the minds of legislators by the early 1960s, before the steady, marked increases shown on Figure 12 for 1963 onward. Senate Resolution No. 34 of the First Extraordinary Session of 1963 requested a report on financial problems. The report was to show expenditure figures adjusted for population growth and for inflation.

The brief report by the Legislative Analyst⁸ calculated that between 1946 and (estimated) 1964, “State Expenditures in constant dollars per capita of population” had increased by 217 percent. Adjusting for inflation, but not for population increases, the growth in spending was 503 percent. Unadjusted for either inflation or population, the increase was 862 percent.

The report noted that the “measures are not perfect and have many limitations,” but having so cautioned, concluded:

However, the calculation purports to show in general terms that for the period since the end of World War II until the present, the Legislature has now authorized new programs or program expansions at approximately triple the level of programs at the end of the war. Or, stated another way, had both population and price levels remained static, state expenditures (level of service) would, nevertheless, now be approximately three times their 1946 level.⁹

See page 19, below, for a longer-perspective look at the changing shape of state spending over the decades.

BONDS

Bond proceeds are not included in budgeted funds, but are shown in departmental details in annual budgets and in the Controller’s annual reports. A large bond issue can sharply boost actual spending while having little effect—and that delayed for years—on annual budgets. Rather, the budget reflects only the principal and interest to be repaid each year. Where the bond issue is repaid by non-tax revenues (user fees, proceeds from sales of water, and so on), the impact does not fall on general taxpayers.

Authorized total general obligation bonds climbed during the 1950s (school and public building and veterans’ farm and home loan issues), and then took a jump in 1960. The proposed water bond issue contributed most of an 88 percent increase in authorized general obligation bonds between 1960 and 1961. Figures compiled in 1960 by the Legislative Analyst show the trend (Figure 13).

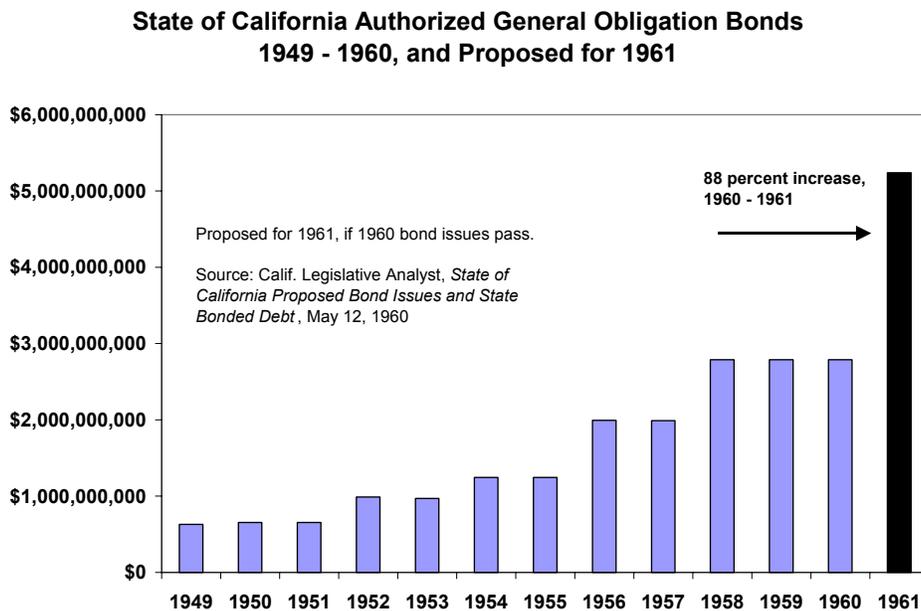


Figure 13. Authorized General Obligation Bonds, 1949-61.

The 1960 primary ballot included a \$400 million veterans farm and home bonds measure and a \$300 million school bonds measure, both of which were approved and both of

which were similar to previously approved California general obligation bond measures.* The \$1.75 billion water bond appeared on the 1960 general election ballot.

From 1962 to 1966, nearly a billion dollars of facility construction bonds would be authorized by the voters, mostly for higher education.

No bonds were proposed for funding highways, as that program was funded by gas and diesel tax and other fees and by federal funds.

The Outlook on Borrowing

Infrastructure projects could be financed through borrowing (bonds), through current revenues (“pay-as-you-go”), or through a combination of the two approaches. The sixth (1954) edition of a prominent textbook on public finance outlined the pros and cons of the pay-as-you-go approach, concluding:

Finally, there must be noted the supreme political obstacle to “pay-as-you-go” financing of state and local improvements. If a state or city administration increases tax rates, it is likely to bring upon its head the wrath of the taxpayers whose votes will decide whether it continues in office after the next election. Announcement of a bond issue to finance a government improvement has no such unwelcome political consequence, since a bond issue does not immediately take money from the pockets of the taxpayers. Even though in the long run a strict tax policy may be better for the community than a borrowing policy, holders of political office cannot be expected to injure their careers by forcing a tax levy on a public which prefers to mortgage its future rather than pay cash in the present. Enlightened public opinion is prerequisite to any form of “pay-as-you-go” program for financing government improvements. It is worthy of note that where the merits of the cash-financing of continuing government improvements have been clearly and concisely put before a body of voters, “pay-as-you-go” programs have generally been ratified.¹⁰

By 1959, when the seventh edition of that text was published, the authors revised their view:

Two special factors have recently reduced the appeal of conservative “pay-as-you-go” finance. For almost a quarter of a century a level of interest rates which, by historical standards, was low has reduced considerably the appeal of saving interest. Moreover, inflation of costs has made delay in construction depressingly expensive. Waiting to build has been more costly than borrowing.¹¹

The combination of low interest rates and high inflation did not last. The 1970/71 Governor’s Budget noted that high interest rates and the state’s constitutional 5 percent cap on bond interest prevented sales of bonds, leading to use of General Fund loans until conditions became more favorable.¹² A constitutional amendment raised the cap. Inflation be-

* The veterans’ bonds were for purposes of loans. The school bonds were for a combination of loans and grants.

came a growing concern, with the inflation rate reaching double digits by the mid-1970s (Figure 14).

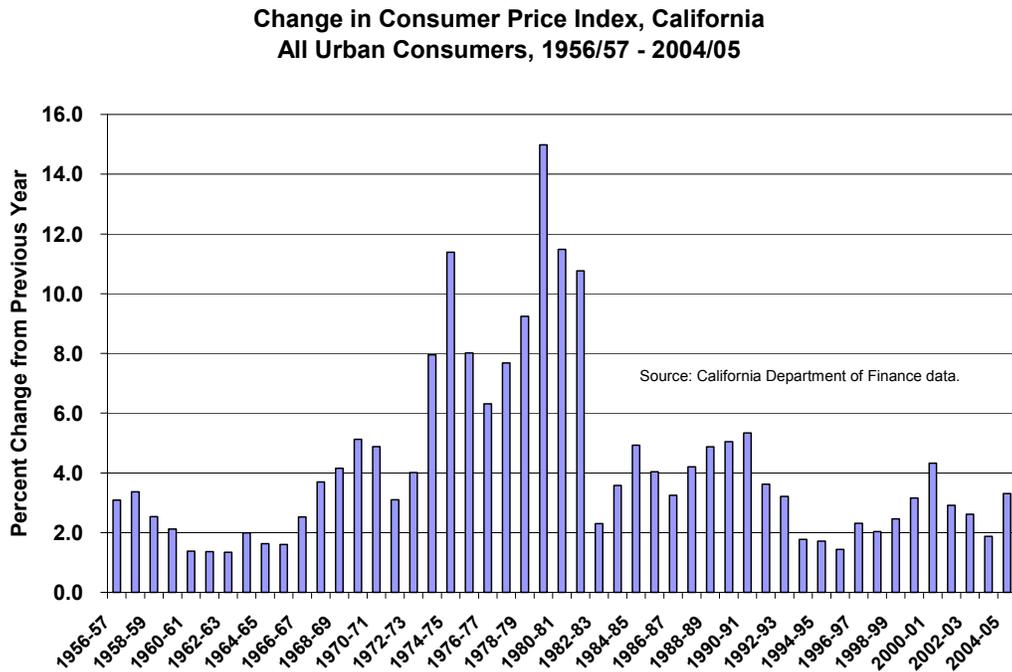


Figure 14. Change in Consumer Price Index, 1956/57 - 2004/05

The consumer price index understates the rise in the cost of goods and services purchased by government, but the pattern clearly demonstrates the changed financial environment facing policy makers by the late 1960s.

Although it is useful only for patterns in rates, not the actual rates paid on tax-exempt government bonds (which rates were lower than prime, peaking at just under 13 percent in 1981), the bank prime rate over the same period also suggests how the environment has changed over the years (Figure 15).¹³

Policy makers had to weigh a host of considerations in deciding between debt financing, pay-as-you-go financing, or a combination. Interest rates—historical, current, and anticipated—were among those considerations. Also of importance were political feasibility, urgency of projects (including backlog of deferred projects), anticipated cost increases, and anticipated population increases. The latter—population increases—helped to define expected need in coming years, reflecting residents who had not yet arrived and who therefore were not yet paying taxes.

Bank Prime Rate, 1956-2005

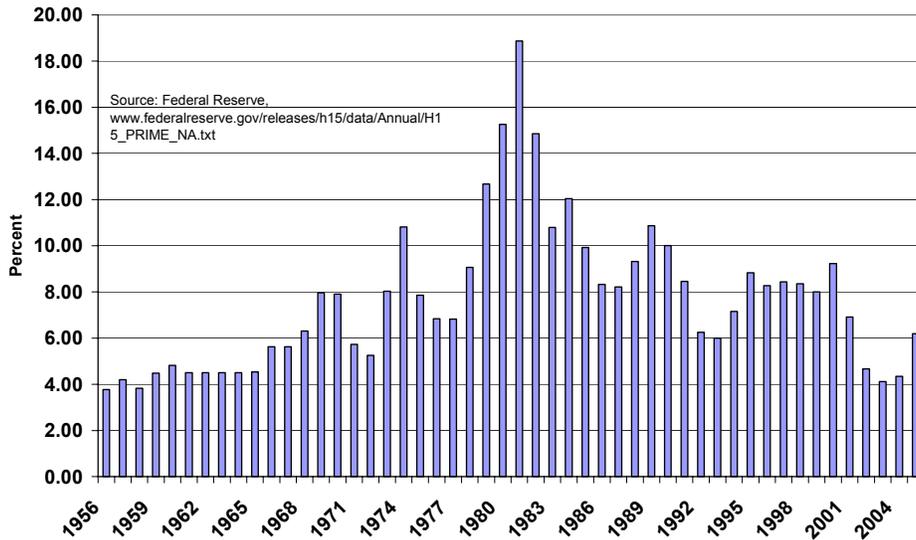


Figure 15. Bank Prime Rate, 1956-2005

California had used bond financing for some purposes, especially for veterans home and farm loans and for schools, and turned to more bond financing in the 1960s. However, the state had long financed *highway* projects on a pay-as-you-go basis. The last bond issue for highways dated from 1919. (Some of those bonds were still outstanding in 1960.) That was unusual among the states: “Based on the national average [in 1960], bonds for state highway facilities are the largest single item. California figures are well below the average in this regard due to our pay-as-you-go method of financing.”¹⁴

Growth in Outstanding Bonds

As a result of growing use of bond financing, the amount of outstanding bonds increased substantially over the 1950s and 1960s. Figure 16 shows the steady increase in outstanding California general obligation bonds from 1950 (\$243 million) through FY 1968 (\$4,610 million).

(For comparison, in FY 2000 California’s outstanding general obligation bonds totaled \$20,994 million.¹⁵ For FY 2005, the figure was \$34,643 million.¹⁶)

**California General Obligation Bonds Outstanding
Fiscal Years 1950 - 1968**

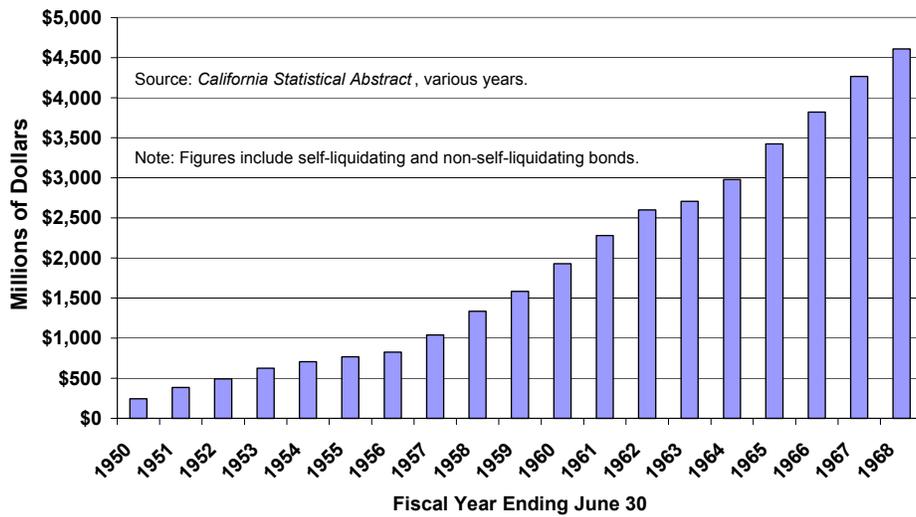


Figure 16. California GO Bonds Outstanding, FY 1950 - 1968.

THE CHANGING SHAPE OF STATE SPENDING

As Figure 17 shows, the shape of California state spending, not just its size, has changed over the last several decades, with payments to local governments and spending on day-to-day state functions growing, and spending on major public works falling as a proportion of overall expenditures.

**California State Expenditures, FY 1957/58 to 2004/05
Including Capital Outlays from Selected Bond Funds**

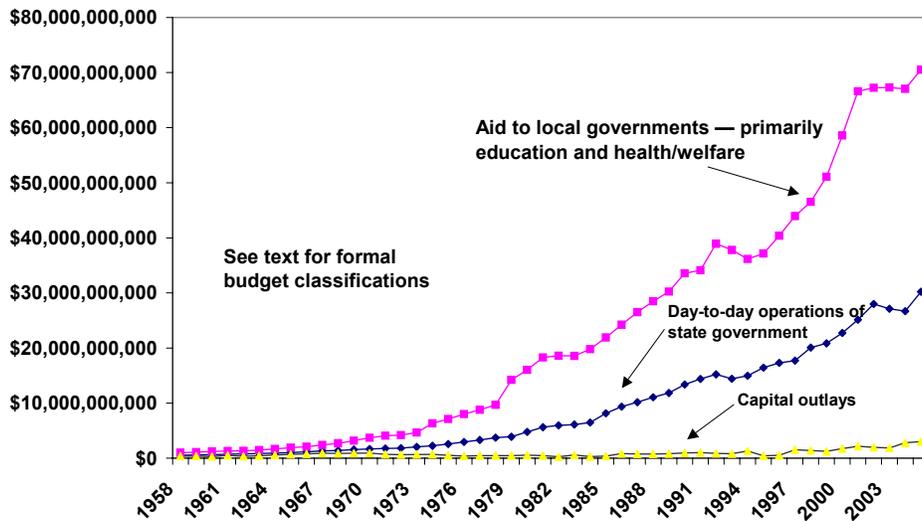


Figure 17. California State Expenditures, FY 1957/58-2004/05.

California's expenditures fall into the three broad classifications shown by the lines on Figure 17:

- Funds passed to counties, cities, school districts, and other districts, primarily for education and for health/welfare purposes, but also for other local government purposes. This is called "Local Assistance" in budget documents.
- Day-to-day activities of the state government. This is called "State Operations" in budget documents.
- Public works projects such as state buildings, roads and bridges, canals, reservoirs, and pumping plants. This is called "Capital Outlays" in budget documents.¹⁷

Much of the dollar increase in expenditures reflects inflation and much reflects growth in California's population.

When shown as percentages, the changing patterns become clearer (Figure 18). The percentage of state expenditures devoted to capital outlays, typically above 10 percent up to 1970, has been in the one-to-two percent range in recent years. (The figure spiked to 24 percent in 1949-50, after years of little capital spending during World War II.)

**Percentage Distribution of California State Expenditures Including Selected Bond Funds
Fiscal Years 1957/58 - 2004/05**

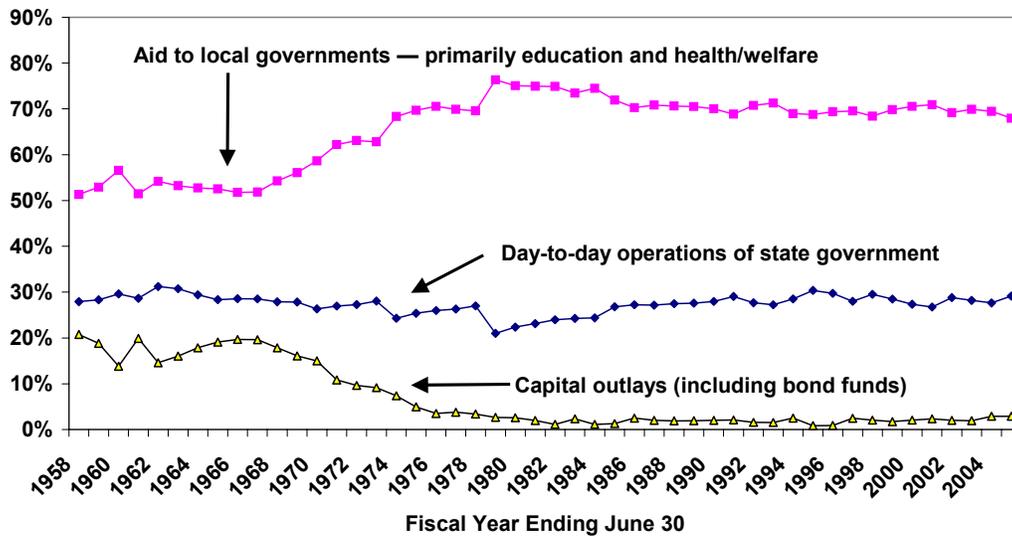


Figure 18. Percentage Distribution of California State Expenditures, FY 1957/58 - 2000/05.

To sharpen the focus, Figure 19 shows only capital outlays as a percentage of state expenditures.

**Capital Outlays, Including Selected Bond Funds, as
Percentage of California State Expenditures
FY 1957/58-2004/05**

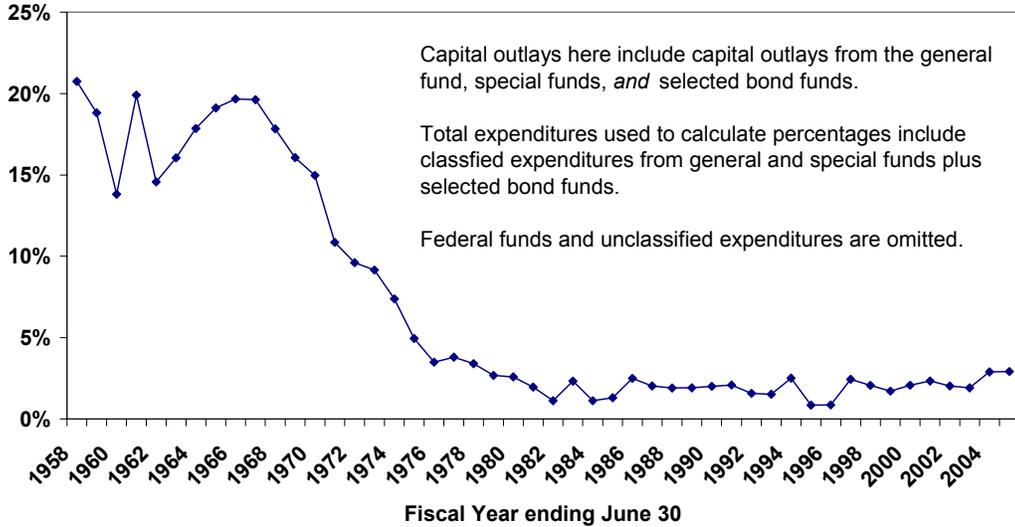


Figure 19. Capital Outlays as Percentage of State Expenditures, FY 1957/58-2004/05.

Dependence on bond funds for capital outlays has varied widely from year to year (Figure 20).

**Bond Funds Have Varied Widely as Source California State
Capital Outlay, FY 1957/58 - 2004/05**

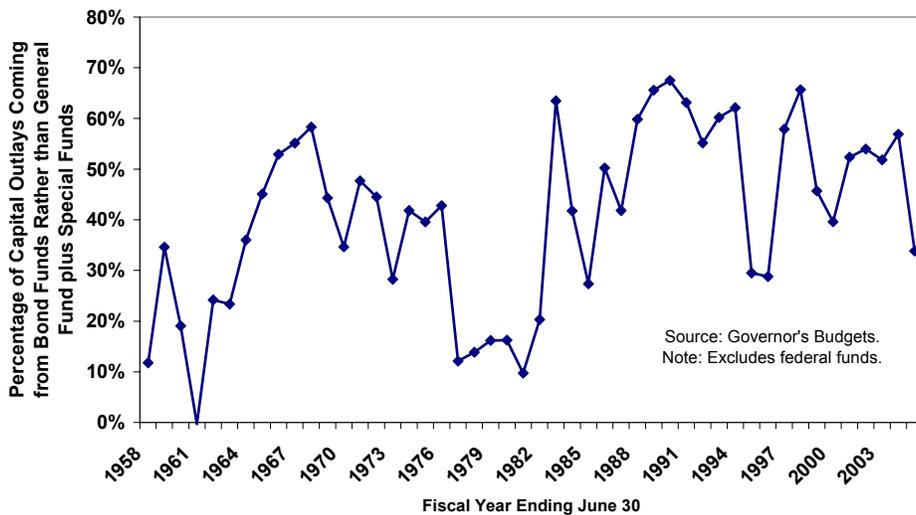


Figure 20. Bond Funds as Source of Capital Outlays, FY 1957/58 – 2004/05.

Although the percentage of state expenditures devoted to capital outlays declined, it is important to bear in mind that much was built during the 1960s and 1970s and did not

need to be duplicated. Further, much that was built had been designed to meet anticipated population growth for a number of years. However, new buildings, highways, dams, canals, pumping plants, and so on housed activities and required staffing and maintenance paid for as part of the day-to-day operations of state government.

Another perspective on changing expenditures is shown in Figure 21, which summarizes the percentage of expenditures devoted to four broad categories: Health and Human Services, Education (K-12 through university), Corrections, and All Other (everything else that the state government pays for, including general government, transportation, and regulation).

As Figure 21 shows, the Health and Human Services category nearly doubled (from 16.2 percent to 29.7 percent) as a percentage of California expenditures from 1958 to 2005. Corrections nearly tripled as a percentage of state expenditures, rising from 2.5 percent to 6.8 percent. Education rose from 40.9 percent to 43.8 percent, in part as a result of state assumption of some spending responsibilities for community colleges and growth in other higher education spending. The “All Other” category fell by more than half as a percentage of state expenditures, from 40.5 percent to 19.7 percent.

Those percentages include capital outlays as well as direct state spending on operations and state funds channeled through cities, counties, and districts, including school districts. The figures reflect the “big picture” of expenditures by broad category.¹⁸

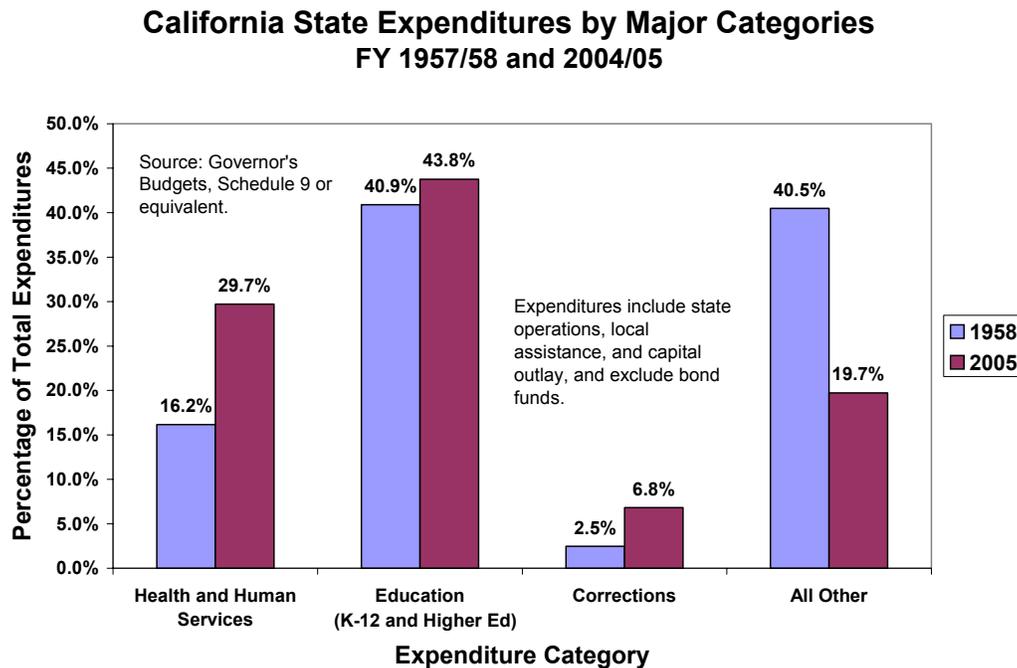


Figure 21. California State Expenditures by Major Categories, FY 1957/58 and 2004/05.

Figure 22 provides a more detailed look at changes over the decades.

California State Expenditures by Major Categories Selected Fiscal Years, 1957/58 through 2004/05

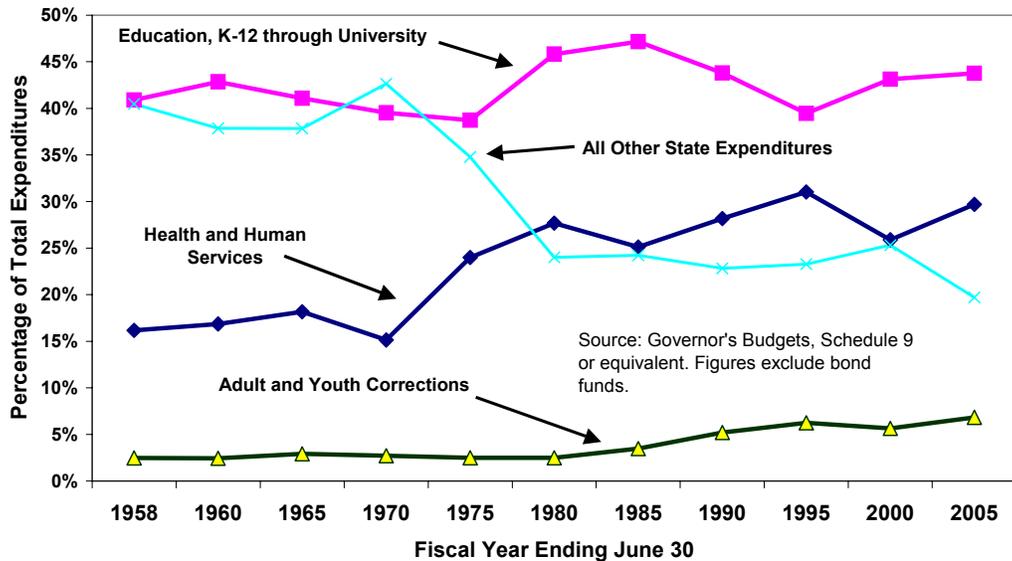


Figure 22. California State Expenditures by Major Categories, Selected Fiscal Years 1957/58 through 2004/05.

Another view (Figure 23 and Table 2) shows expenditures broken out by these categories, in order to focus on capital outlay as a distinct expenditure category in itself:

- Health and Human Services, *excluding* capital outlay
- Education (K-12 – university), *excluding* capital outlay
- Corrections, *excluding* capital outlay
- All other state expenditures, *excluding* capital outlay
- Capital outlay for all purposes

Figures for all of those categories on that chart include expenditures (capital outlay and non-capital-outlay) from selected bond funds as well as from the general fund and special funds, as reported in Governor’s Budgets.¹⁹ The chart shows Fiscal Year 1957/58 and fiscal years at five-year intervals from 1959/60 through 2004/05. Capital outlay peaked at 20.9 percent of expenditures in 1965 on that chart. Capital outlay as a percentage of all expenditures declined significantly in subsequent years.

Spending on health and human services (health and welfare) increased as a percentage of total expenditures, and so did spending on corrections, over the period. Corrections, however, started from a much smaller base. The “All Other” category, which includes non-capital-outlay expenditures on general government, transportation, regulatory functions, and many other state functions, declined over the period. Education expenditures have gone up and down as a percentage, and recently have been relatively high.

**Percentage Distribution of Expenditures, with Capital
Outlay as Distinct Category**
FY 1957/58 and at Five-Year Intervals 1959/60 - 2004/05

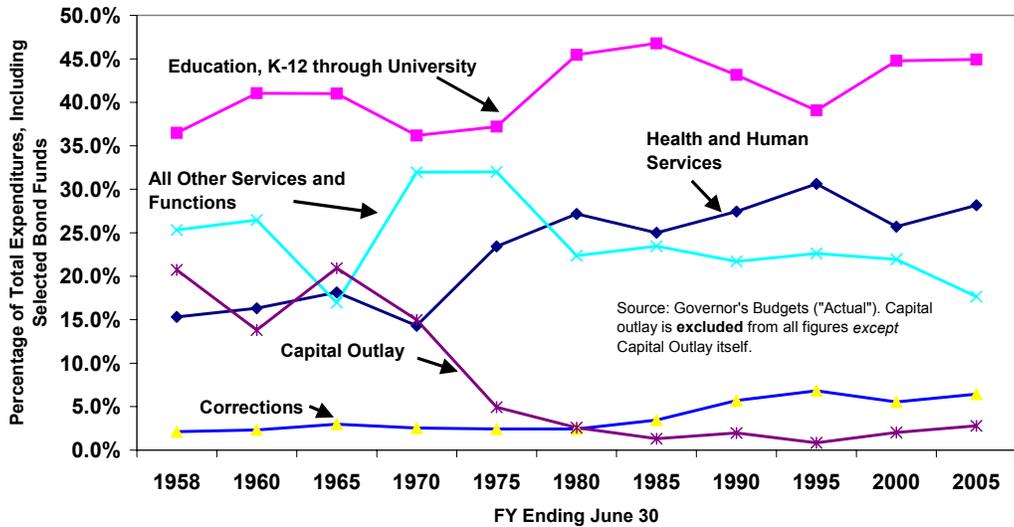


Figure 23. California Expenditures by Capital Outlay and Other Major Categories, FY 1957/58 and at Five-Year Intervals 2004/05.

The numbers on which Figure 23 is based are shown in Table 2.

Distribution of California Expenditures, by Percentage, Including Selected Bond Funds						
FY Ending June 30	Health and Human Services, Excl. C.O.	Education, Excl. C.O.	Corrections, Excl. C.O.	All Other, Excl. C.O.	Capital Outlay (C.O.)	Grand Total, Including Capital Outlay
1958	15.3%	36.5%	2.1%	25.3%	20.7%	100.0%
1960	16.3%	41.1%	2.3%	26.5%	13.8%	100.0%
1965	18.1%	41.0%	3.0%	16.9%	20.9%	100.0%
1970	14.3%	36.2%	2.6%	32.0%	15.0%	100.0%
1975	23.4%	37.2%	2.4%	32.0%	4.9%	100.0%
1980	27.2%	45.5%	2.4%	22.4%	2.6%	100.0%
1985	25.0%	46.8%	3.5%	23.5%	1.3%	100.0%
1990	27.4%	43.1%	5.7%	21.7%	2.0%	100.0%
1995	30.6%	39.1%	6.8%	22.6%	0.8%	100.0%
2000	25.7%	44.8%	5.5%	21.9%	2.0%	100.0%
2005	28.2%	44.9%	6.5%	17.6%	2.8%	100.0%

Table 2. Distribution of California Expenditures, by Percentage, Including Selected Bond Funds, FY 1957/57 and Five-Year Intervals, 1959/60 – 2004/05..

2. Water

OVERVIEW

In November 1960, California voters approved the California Water Resources Development Bond Act. (It was Proposition 1 on that ballot.) The act included an outline of major elements of the proposed water storage and movement project, including some place holders for undefined future elements. The set of projects came to be known as the State Water Project (SWP). The act also authorized a \$1.75 billion bond issue—the largest state bond issue to that date—to fund the undertaking. For perspective, that \$1.75 billion in 1960 is roughly equivalent to \$12.7 to \$14.6 billion in 2006 dollars, depending on the measure used for comparison.²⁰

Governor Brown recognized at the time that additional funding would be needed to complete construction of the entire project.²¹ The bond issue and funds advanced in anticipation of bond sales got the project started, with the understanding that the ultimate cost would be higher.

The first water was delivered by the State Water Project in 1962. Completion of the “initial facilities” of the SWP was accomplished by 1973, two years after the project began to deliver water to Los Angeles over the Tehachapis.²²

The California Water Resources Development Bond Act of 1960—also known as the Burns-Porter Act—marked the launch of a vast, costly, and ambitious project to conserve and deliver Northern California water to much of California. At the same time, the act marked a milestone in a project that had long been in planning and design stages.

BACKGROUND

The State Water Project continued processes of water control and movement in California that stretched back decades. Readers who wish to review the history can find it in Mark Reisner’s *Cadillac Desert* and Norris Hundley’s *The Great Thirst*. This section touches only on some highlights from the 1940s and 1950s.

Starting with the 1945 State Water Resources Act, movement toward the State Water Project progressed under the Earl Warren administration, the Goodwin Knight administration, and finally the Pat Brown administration, with involvement of the Legislature at all stages.

Norris Hundley outlines the background to the State Water Plan and State Water Project this way:

Nothing can be accomplished without a plan, and in 1945 the state legislature, responding to concerns about groundwater, acreage limitation, population growth, and rapid urbanization, took a major step toward creation of a state project by approving a State Water Resources Act [Chapter 1514, Statutes of 1945]. It vested in the state the authority for coordinating water development and created a new

agency, the Water Resources Board, to inventory all water supplies and “to formulate plans for . . . solutions to water problems of each portion of the State.”²³

The State Water Project was explicitly foreshadowed by a May 1951 State Water Resources Board publication, *Report on Feasibility of Feather River Project and Sacramento-San Joaquin Delta Diversion Projects Proposed as Features of the California Water Plan*. That report, under the authorship of State Engineer A. D. Edmonston, laid out major elements of what was then called the Feather River Project. That plan encompassed an enormous dam at Oroville and aqueducts all the way to south of the Tehachapis, along with many other features.

Again quoting Hundley:

The legislature advanced Edmonston’s plan with three major actions. First, it authorized the project and appropriated funds for necessary detailed studies late in 1951. Second, in 1956, following the greatest flood on record in northern and central California . . . it created a superagency considered essential to carrying out such a massive undertaking. The new Department of Water Resources brought under a single leadership the fifty-two formerly independent state agencies responsible for some aspect of water planning and development. Third, in 1959 it approved the Water Resources Development Bond Act, also known as the Burns-Porter Act . . .

Hundley goes on to outline the comprehensiveness of the authorization provided by the Burns-Porter Act (which also required a vote of the people, to come in November 1960):

[The Act authorized] \$1.75 billion in bonds to pay for a first phase (storage facilities and aqueduct system) estimated to cost \$2.5 billion. A second phase also received authorization, though the specific projects were purposely left vague so as to give water officials the widest possible latitude: the bill referred to those “additional facilities” deemed “necessary and desirable” to supply future needs, including those of the delta.²⁴

In March 1956, the State Water Resources Board published its *Preview of the California Water Plan*, a 36-page illustrated overview of what was to come. The *Preview* noted:

Construction of the Feather River Project by the State of California, acting through the Water Project Authority, was authorized by the Legislature by Chapter 1441, Statutes of 1951. The Feather River Project is the first state-wide project ever proposed for California

The Feather River Project, with an estimated capital cost in the order of \$1,500,000,000, *is but the first unit of The California Water Plan*. It is apparent that the plan will involve the eventual construction of new works throughout California. [Emphasis added.]²⁵

In May 1957, the Board published Bulletin No. 3, *The California Water Plan*, weighing in at 246 pages plus eight large fold-out maps. State water officials made speeches up and down the state explaining the California Water Plan and its benefits.²⁶

The story of the subsequent bond issue is more complex than can be discussed here. A key breakthrough, however, was the 1959 reversal of the previous assumption that water rights issues—the county-of-origin problem—had to be resolved through an amendment to the California State Constitution. That presumed necessity was reflected, for example, in Governor Knight’s 1956 Citizens’ Conference on Water Problems, held in Sacramento.²⁷ It was not possible to get wide enough agreement to allow for a constitutional amendment on the point.

The issue was instead resolved in the 1959 Burns-Porter Act. Erwin Cooper summarizes the situation in *Aqueduct Empire*. In part:

Legislators had reached a sterile stalemate trying to word an amendment to the state’s constitutions that would satisfy enough factions. . . . Mulling over these questions, some political wizard with an instinct for the fine points of law hit upon an idea: couldn’t the entire constitutional hurdle be circumvented by welding the water program to a guarantee *already* in the state constitution?

A guarantee that might be taken advantage of appeared to be contained in section 1 of Article xvi of the constitution. This section provided that a debt greater than the express limitations contained in the constitution could be authorized by a simple majority of the people. The statute authorizing the debt might prescribe the ways and means by which the principal and interest on the debt were to be repaid. Moreover, during the existence of the debt, the legislature was prohibited from changing those ways and means.²⁸

That latter provision assured that the system could be enacted with a guarantee that the rules would not be arbitrarily changed for many, many years—perhaps as many as 75 before the last of the bonds would be retired.

Public agencies all over California could sign contracts with the state in anticipation of having project water delivered to them. No subsequent legislature could, under the constitution, take any action during the life of the bonds to interfere with or abrogate these contracts.²⁹

The northern counties, sufficiently assured that only *surplus* water would be moved south, could live with the arrangement, and the intended recipients of the water could be confident of actually getting it. Not everyone was persuaded, of course—not of the guarantees, nor of the feasibility, nor of the cost. And in fact, the project as outlined in the Burns-Porter Act had been trimmed back to what was deemed feasible.³⁰ At the same time, via the separate (but interrelated) Davis-Grunsky Act, \$130 million of bond funds were provided for local projects, most presumed to be in the north.

CONTROVERSY

The controversial nature of the State Water Project is illustrated by the 1960 bond act’s approval by a margin of just under three percent—174 thousand votes out of 5.84 million cast on the measure.³¹ The vote on the act was regional, with large majorities in favor in San Diego, Imperial, Riverside, San Bernardino, Ventura and Los Angeles counties. Northern California counties (other than Butte, home to the proposed Oroville Dam)

voted lopsidedly against the act. Results were mixed in the San Joaquin Valley, ranging from strongly opposed (San Joaquin) to strongly in favor (Kern). The margin in favor in Los Angeles County (about 313 thousand votes out of nearly 1.4 million cast) was more than enough by itself to secure approval.

Northerners were wary of losing their water to an insatiable Southern California. The *San Francisco Chronicle* relentlessly opposed—even ridiculed—the Feather River Project. Southern Californians were subjected to arguments back and forth, and only at the last minute did the board of the Metropolitan Water District endorse the bond issue. The *Los Angeles Times* took a positive view toward the plan and the bond measure.

A telling contrast appears in these headlines from October 27, 1960, leading stories reporting on the same analyses of the project's financial feasibility:

Los Angeles Times: FEATHER RIVER PROJECT GETS SOUND RATING IN TWO REPORTS

San Francisco Chronicle: STATE WATER PLAN CALLED IMPOSSIBLE³²

The project remained controversial over the years on grounds of cost, equity, need, and a wide range of environmental concerns.³³ Nonetheless, the project went forward and by and large delivered on its promises, sometimes dramatically, as Erwin Cooper recounts:

The *San Francisco Chronicle* railed at the [bond measure] approval decision as financial irresponsibility. Four years later, when the stub of unfinished Oroville Dam stopped in its tracks a Feather River flood greater than the killer cataract of 1955, criticism was forever silenced. In forty-eight hours the dam paid for itself.³⁴

FUNDING

The State advanced initial funding for work on the project, via annual appropriations totaling an estimated \$111 million. Early and continuing funding was also provided by tidelands (offshore) oil revenues (see the appendix, beginning on page 50).³⁵ According to a speaker at the 1956 Citizens' Conference on Water Problems, chaired by Governor Goodwin Knight,

In the 1956 session the Legislature appropriated \$9,350,000 to reactivate work on the Feather River Project. Now, these funds were for certain specific purposes, particularly preparing contract plans and specifications for the Oroville features of the project, for the design of pumping plants, and aqueducts, and for the acquisition of certain lands, easements, and rights of way, those in connection with the relocations around Oroville Dam and Reservoir and the afterbays in the Oroville Dam site, some funds for the acquisition of a part of the San Luis lands, and for two reservoirs along the Alameda-Santa Clara-San Benito aqueduct. Also, funds were specifically earmarked for studies of alternative routes into southern California. No funds were appropriated for construction of any part of the Feather River Project.³⁶

In 1956, funding for the project remained in question. Assemblyman Francis Lindsay, for example, commented at the Citizens' Conference:

Mr. [Joseph] Jensen [president of the board of directors of the Metropolitan Water District of Southern California] has said that it is his opinion—and probably that of the people that he associates with—that you cannot build this without a bond issue. I think that there are people of equal standing in this State that are of the opinion that you cannot pass a bond issue in this day on this type of project and that you will have to build this from current funds and current revenues, that we will have to develop here in the State of California.³⁷

The Citizens' Conference also presented some support for full federal funding of the Feather River Project, an alternative that was not adopted.

By 1959, the issue was resolved in favor of a large state bond issue with bridge financing from tidelands oil revenues, and the bond issue went on the November 1960 ballot.

The first of the bonds authorized by the 1960 ballot measure were sold in 1963, a year after the first water was delivered by the project. As of June 30, 1978, nearly 18 years after the bond issue was approved, \$180 million (or just over 10 percent) of the authorized bonds had not yet been issued.³⁸

The last of the bonds to be issued were sold in 1993-94 (\$2 million) and 1994-95 (\$1.4 million). As of June 2004, \$126.6 million remained unissued. As of that date, \$771.61 million in California Water Resources Development Bonds were outstanding, with the latest maturity date being 2022—62 years after passage of the Burns-Porter act. Redemption of that bond series in 2003-04 totaled \$44.48 million, and interest paid on outstanding bonds was \$35.267 million.³⁹

The SWP bonds are general obligation bonds, not revenue bonds. The general obligation (GO) approach reflected uncertainty about viability of the project, doubts about repayment from fees, and the lower interest rate available for GO bonds. Despite being sold as general obligation bonds, the State Water Project bonds are self-liquidating, repaid from revenues for project water and power earmarked for repayment of the bonds rather than repaid from general revenues.⁴⁰ That approach was not new, although it was carried out on a very large scale with the 1960 bond proposal. Harbor bonds authorized in 1909, 1913, 1929, and 1958 were of the general obligation type, but were “to be serviced from revenues of the San Francisco Port Authority.”⁴¹

Some revenue bonds (\$170 million) originally authorized in 1933 to fund the Central Valley Project were instead used to support the State Water Project, following California Supreme Court approval of the action in 1963.⁴²

See the appendix, page 50, for a summary of financing sources for the State Water Project for fiscal years 1959/60 – 1973/74.

OUTCOMES

By 1962, the first SWP water was delivered to the East Bay, work started on Oroville Dam, and Patterson Dam was completed. Further dams, reservoirs, and pumping plants followed, year by year.⁴³

Oroville Dam was completed in 1967, shortly after Governor Pat Brown left office. In the same year, the following were completed:

- Grizzly Dam (Lake Davis)
- Hyatt Pumping/Generating Plant
- Feather River Fish Hatchery
- Bethany Reservoir Phase II
- O'Neill Dam, San Luis Dam, and Gianelli Pumping/Generating Plant

Completed in 1968:

- Oroville Diversion Dam
- Thermalito Afterbay Dam
- North Bay Aqueduct Phase 1 and Napa Turnout Reservoir
- DelValle Dam
- California Aqueduct, Banks to San Luis Reservoir
- California Aqueduct-San Luis Canal
- Los Perillas and Badger Hill Pumping Plants

Also in 1968, Lake Oroville and Oroville Dam were dedicated by Governor Reagan.

The list of projects goes on, year after year. By October 1971, State Water Project water flowed to Southern California, pushed over the Tehachapis—a 2,000-foot elevation—by the A. E. Edmonston Pumping Plant, the largest pumping plant in the system. That outcome was envisioned in the 1951 Water Resources Board report on the feasibility of the Feather River Project. By 1973, according to a California Department of Water Resources summary of milestones, “Initial facilities of the State Water Project [were] completed.”

The rest of that story, with its environmental, engineering, political, and financial complexities, falls outside the scope of this report.⁴⁴

3. Highways

The massive expansion of the freeway system during the late 1950s and the 1960s was funded by gas tax revenues (the rate rose in 1947 and 1953) and by federal highway funds (sharply rising starting in 1956). The rate of construction and of spending fell off after 1970.⁴⁵

The boom had a long history. California's freeway system had been planned in concept if not in explicit detail for decades, and much work already done before the boom period that followed enactment of the Federal Highway Act of 1956, also known as the National Interstate and Defense Highways Act. An enormous amount remained to be done, as the freeway system was patchy at best.

To drive from Los Angeles to Sacramento without going by way of the San Francisco Bay Area in 1958, for example, one had a choice of Highway 99. Period. There was no Interstate 5. For that matter, Highway 99 had cross traffic and occasional stop lights. The last such stoplight, in Livingston, was not eliminated until late in 1996 with the completion of a bypass.⁴⁶ There are still stretches with cross traffic.

Even as large as it is, the system as built has far fewer miles of freeway than originally envisioned. See page 37 for discussion of that point.

FUNDING AND POLICY-MAKING AFTER WORLD WAR II

The history of highway funding and policy-making in California is long and complicated. What follows in this section is a simplified outline of major events after World War II. For a detailed and meticulously documented history of California's freeway program to the late 1960s, see the superb 1969 doctoral dissertation in History, "California's Growing Freeway System," by Herbert Marshall Goodwin.⁴⁷ Also informative, and carrying the story further, is David W. Jones, Jr.'s 1989 report, *California's Freeway Era in Historical Perspective*.⁴⁸

1947: THE COLLIER-BURNS ACT

Although it was enacted more than a decade before the focal period of this report, the Collier-Burns Act of 1947 is essential to understanding what was to come in the run-up to the Pat Brown years and during his administration. That act was the outcome of a process started by Governor Earl Warren's January 13, 1947, call for a special session of the Legislature to be devoted to highway legislation—a session that Governor Warren believed could be completed within a few weeks, by mid-February of 1947.⁴⁹ That was not to be, as the bill—especially its tax and fee increases—was hard fought and not resolved until June.

The California Department of Transportation (Caltrans) summarizes some highlights of the Collier-Burns Act⁵⁰ this way:

Collier-Burns Act raises auto license fees to \$6. Gas, diesel and LPG [liquefied petroleum gas] taxes are raised to 4.5 cents per gallon. It also asserts the state's

obligation to complete construction of the rural highway system and build urban highways.

California Division of Highways takes over signing from the Auto Clubs.

Plans revealed for the world's first "four-level grade separation" near downtown Los Angeles, connecting the 101 (Hollywood) and 110 (Harbor and Pasadena) freeways.⁵¹

Much is encompassed within those brief statements: taxes and fees were significantly increased; the policy of large-scale, state-funded highway construction was adopted and state responsibility expanded (some taken from private entities, a move away from an earlier era); and an especially striking freeway construction project—the four-level interchange in downtown Los Angeles—was proposed. In both practical and symbolic terms, the Collier-Burns Act was significant.

The act also included other tax increases affecting truckers (weight and mileage) and a new driver's license fee. Every tax and fee was bitterly contested, and the resulting levels were less than had been sought and less than Collier and others believed necessary for the purpose.

The Collier-Burns Act addressed concerns over regional divisions of highway funds by reversing the previous allocation between north and south. It would now be 55 percent to the southern 13 counties and 45 percent to the northern 45 counties. Like much else in the act, that division was a compromise.

Of key importance to the Collier-Burns Act, in 1947:

There existed virtual agreements that additional funds were needed [for expanding California's highways], and a general convergence of favor around certain types of taxes. The big question remained, "How high should the tax be raised?" This question hinged on the answer to the question, "How much money will be needed?" Since no accurate answer was obtained to the second question, a definite answer to the first was impossible. Therefore, the question still remains alive unanswered."⁵²

Nonetheless, the question of how much was needed was at least answered enough to support the tax and fee increases encompassed in the Collier-Burns Act, leaving open the issue of future increases if needed to fund estimated higher costs. To assure that the funds went to the intended purpose, they were directed to the newly established Highway Users Tax Fund.

As Nelson C. Price's *Digest of Testimony and Reports* demonstrates, debate over the bill ranged widely over questions of cost—premised in part of course on the size of the proposed system—and questions of utility and equity of various tax and fee options. Funding options and levels were closely examined.⁵³ Oil and gas interests asserted that the new highway construction could be carried out without new funds, but ultimately—after a long, bitter struggle—did not prevail.

Senator Collier, a decade after the bill was enacted, wrote,

The 1947 Highway Act . . . was the most comprehensive single piece of highway legislation in the history of any state. [It] substantially increased the levels of financing for all highways , roads and streets. It improved county road administration . . . It provided for the movement of traffic into and through our cities by making the State fully responsible for the construction and maintenance of State highways in cities. It reached a successful compromise between the conflicting claims of the North and South for State highway funds . . . And it provided an effective formula so that every one of the counties would be assured of construction progress on the State highway system within its borders.⁵⁴

1953: CALIFORNIA HIGHWAY USER FEES RISE AGAIN

In 1953, the tax on gasoline tax increased to 6 cents per gallon, and the tax on diesel fuel increased to 7 cents, thus reaching rates originally sought in the 1947 Collier bill. The increases over the Collier-Burns Act rates were 1.5 cent (33-1/3 percent) for the gasoline tax and 2.5 cent (55.6 percent) for the diesel tax.

The tax increases were again subject to controversy, and under the 1953 law were to be reduced in 1955. However, the rates were instead extended when that time came, and extended again in 1959.

1956: FEDERAL HIGHWAY FUNDING JUMPS

The Federal Aid Highway Act of 1956 initiated a large increase in federal funding for the Interstate Highway System, giving a boost to construction and upgrading of California's freeways.

One participant in a highway-funding symposium held that year described the situation faced by highway users:

In the city, the typical highway scene is the traffic jam that is detracting from the city and from the potential services of motor transport. Vehicles designed for speed and comfort are slowed to a crawl. Trying to move in urban areas has become one of the principal frustrations of urban living.⁵⁵

Demonstrating that the more things change, the more they stay the same, those words could as well have been written yesterday as a half century ago.⁵⁶ But that aside, when the federal act was passed, highway congestion was a key concern, as was the priority given to a national system of high-capacity, high-quality highways. The act called for and funded an interstate highway system to support national defense needs as well as normal civilian travel and commerce.⁵⁷

The 1956 act increased the federal tax on gasoline and diesel fuel, also raised other highway user fees, directed the proceeds into the new Highway Trust Fund, and assumed a major role for the federal government in paying for highways. For California, the federal share was 91.68 percent of the costs for the designated Interstate Highway mileage. (As a state with large federal land holdings, California received more than the standard 90 percent federal participation.⁵⁸) The act also increased federal funding for "secondary roads," highways not themselves part of the designated Interstate Highway System.⁵⁹

Federal Highway Administration Payments to California 1950 and 1960-68

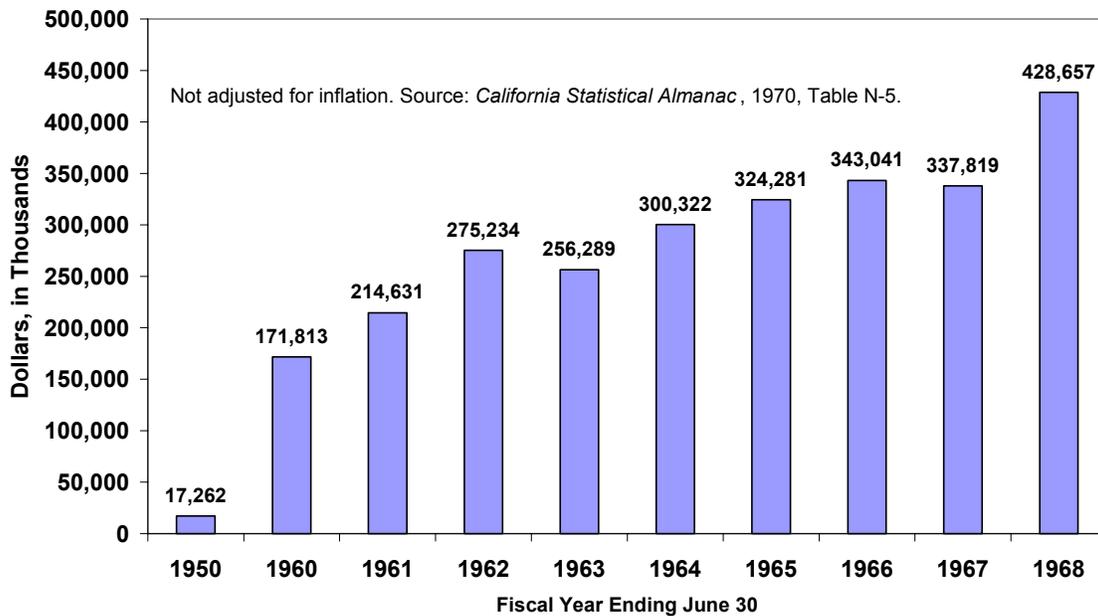


Figure 24. Federal Highway Administration Payments to California, 1950 and 1960-68.

In 1958-59,^{*} federal highway spending received a boost, with further funds added from general revenues, as a recession-fighting measure:

In addition to the increase in funds for the Interstate System, the primary, secondary, and urban federal-aid system received additional funds, and the federal government temporarily reduced the state matching requirements to one-third. The act [U.S. Public Law 85-381] required the states to issue immediately contracts which could be completed within a year in order to speed the effect of the government’s pump-priming effort. Under the measure California received an additional \$35,000,000 for fiscal year 1958-59.⁶⁰

The highway program was viewed not only as a transportation plan, but as an essential component of economic development—temporarily even as “a kind of W.P.A. project to prime the nation’s economy.”⁶¹ The Interstate Highway System had also been promoted as a contribution to national defense readiness.

1959: THE CALIFORNIA FREEWAY PLAN

Another pivotal step—this one early in the Pat Brown administration—was formal legislative endorsement of the California Freeway Plan. The plan itself had been presented to the Legislature by the Division of Highways in 1958, in *The California Freeway System: A Report to the Joint Interim Committee on Highway Problems of the California Legisla-*

^{*} That year was omitted from the table on which is Figure 24 based, which jumps from 1950 to 1960.

*ture in Conformity with Senate Concurrent Resolution No. 26, 1957 Legislature.*⁶² The bill adopting the plan was SB 480 (Chapter 1062, Statutes of 1959).

The California Legislature's Joint Interim Committee on Highway Problems noted with regard to testimony on the plan, "Questions were more often raised, not that the system was too elaborate, but rather that it might prove to be inadequate."⁶³ Considering the comprehensiveness of the plan, that is a remarkable observation.

1963: ANOTHER CALIFORNIA GAS TAX INCREASE

California's gas and diesel fuel taxes and other highway user fees were raised again in 1963:

In 1963, the Collier-Unruh Local Transportation [Development] Act [Chapter 1852, Statutes of 1963] was passed. This provide for a further 1¢ per gallon tax increase [on gasoline and diesel fuel], with proportionate increases in user fees. The revenues were to be dedicated to county and city roads.⁶⁴

That increase was not without opposition, but it passed with less commotion than the prior increases in 1947 and 1953.⁶⁵ That the increase was targeted to local roads might have made passage easier. However, there were rumblings on varied topics, notably an effort to seek legislative control over at least part of the Highway Division's budget (which had been an automatic pass-through from the Highway Commission into the Governor's budget) and interest in the possibility of using some highway user funds for mass transit.⁶⁶ The bill as enacted did allow some of the money raised by vehicle license fees to be applied to mass transit, one of the amendments that persuaded Governor Brown to sign the bill despite his no-new-taxes pledge.

In 1965, the gas tax was temporarily raised an additional cent per gallon to pay for repairs to roads damaged by 1964-65 floods. "That increase was to be only a temporary one," noted Herbert Goodwin in his study of California's freeways, "and to the amazement of the state's taxpayers, Governor Brown actually rescinded the extra cent per gallon tax on August 3, 1965."⁶⁷

MASS TRANSIT GAINS TRACTION

The place of rail transit in the transportation system had long been an issue. Early discussions of the Hollywood Freeway, for example, included consideration of rail tracks sharing the freeway right of way. "Construction Halt on Freeway Asked," read one 1948 headline, "Protesting Citizens Want Express Rail Transit to Valley Included."⁶⁸ That request was declined.

In 1962, legislators began to eye gas tax revenues as a potential funding source for mass transit. (A 1938 state constitutional amendment limited use of fuel taxes to highway and road purposes.⁶⁹) In discussing a possible larger role for the Legislature in overseeing highway projects and administration, A. Alan Post, Legislative Analyst, noted, "Now this [selective review of projects] would include such things, it seems to me, as whether the gas tax might appropriately be used in part for meeting the costs of mass transportation."⁷⁰ He listed several other areas suggested for enhanced oversight. Mass transit was more of an aside than a focus at that point.

In 1962, voters in the San Francisco Bay Area approved a \$792 million bond issue to fund a regional rapid transit system (BART, the Bay Area Rapid Transit system). The total projected cost as of that time was just short of one billion dollars (\$996 million), “the largest single public works project ever undertaken in the U.S. by the local citizenry.”⁷¹

By 1963, talk had begun of a possible property tax levy (not a popular option) or sales tax increase to fund Los Angeles area rapid transit. A *Los Angeles Times* report of a meeting among state and local officials noted,

All [at the meeting] agreed, as the Governor put it, that the Los Angeles area sorely needs a mass rapid transit system.

Freeways alone, they concluded, cannot accommodate the Southland’s increasing commuter load, nor can the community stand its worsening side effects — traffic congestion, smog and related ills.⁷²

In a sense, the surging growth in freeway construction had produced the seed for a new emphasis on mass rapid transit and a trend toward shifting allocation of funds among transportation options.⁷³

HIGHWAY PROJECTS AND ISSUES

The administration began in 1959 with many projects underway up and down the state and many more on the drawing boards. The combination of earmarked state tax revenues and the infusion of federal funds for the interstate portion of the highway system facilitated construction.

Highway projects were proposed in a budget prepared by the Division of Highways that was approved by the Highway Commission and passed along to the Department of Finance for inclusion in the Governor’s Budget. Highway route selection and funding choices were not subject to legislative decision or gubernatorial fine-tuning, but rather were presented as a whole.⁷⁴ That approach avoided the often-mentioned problem of “log-rolling,” by which choices might be traded off among legislators. Governor Warren warned against the dangers of “log-rolling” in connection with highway projects, and the phrase occasionally appeared in a poor light in legislative hearings as late as the early 1960s.⁷⁵

Freeway planning, focused on an extensive statewide system—and more than a little construction—had been underway for a decade before Governor Pat Brown took office. Legislative committee hearings in 1958 explored issues related to public meetings (a less formal alternative to public hearings) about proposed freeway routes. In a 1958 hearing, Fred Bagshaw, Assistant Director of Public Works, advised the committee that “public meetings were held by the State Highway Engineer or his representative on 156 freeway projects in a period from February 19, 1955 to December 31, 1957.” On average, that was a rate of about a meeting a week somewhere in California over those years.⁷⁶

Not everyone was satisfied with procedures or outcomes, although the Legislature sought to assure appropriate consultation on freeway routing through proposed legislation (some

of which was vetoed) and through public hearings to examine procedures in use.⁷⁷ People affected by particular routes voiced objections to those routes, but on the whole, the public agreed on the need for a robust freeway system. Over the coming years, that agreement would begin to fray.⁷⁸

ESTIMATES USED FOR PLANNING

Planning for The California Freeway System, a system outlined and promoted in a September 1958 report to the legislature, reflected a projected 1980 California population in excess of 31 million and vehicle registration in excess of 17 million.⁷⁹ The population projection was excessive by more than 7 million (in the neighborhood of 30 percent), but the actual number of registered vehicles exceeded the projection, counting all types of motor vehicles. Anticipation of growth in residents and vehicles contributed to the planned scope of the freeway system and a sense of urgency, as acquisition of rights of way could only become more expensive and routing decisions more difficult.

By 1959, shortly after publication of *The California Freeway System* plan, the California Legislature's Joint Interim Committee on Highway Problems noted, "Questions were more often raised [during hearings held by the committee], not that the system was too elaborate, but rather that *it might prove to be inadequate*."⁸⁰ (Emphasis added.)

Senator Randolph Collier estimated the cost of the proposed system to be \$10.4 billion by the time of its (expected) 1980 completion, and projected a 60 to 75 percent decline in highway fatalities as a result of the freeway system's construction.⁸¹ Safety and efficiency—travel time as well as fuel economy—were used as selling points for freeways.

PROGRESS ON THE PLAN

Construction was rapid during the 1960s, adding 2,215 miles (278 percent) to 1960's 797 centerline miles of freeway. During the 1970s, the pace slowed, with an addition of 925 miles (31 percent). During the 1980s and 1990s, added freeway mileage totaled only about 3 percent per decade (115 and 136 miles, respectively).

Funding questions arose as early as 1959—the year the freeway plan was placed into law—suggesting that funding could be a continuing issue. On September 13, 1959, for example, the *Los Angeles Times* reported, "Purchase of additional right of way for the San Gabriel Freeway has come to a halt because of uncertainty of federal funds in the immediate future . . . the project is being shelved for a year or more."⁸² A moratorium on bids for freeway work did not last long, as, according to an October 11, 1959 article, "new [federal] legislation which resulted in a one-cent boost in the federal gas tax will provide additional money to proceed with some Southland [Southern California] freeway work."⁸³

Total freeway mileage as of 2000, according to Caltrans figures, had reached only about 34 percent—slightly over one-third—of what was envisioned in *The California Freeway System*, published in 1958 and adopted into law with few changes in 1959. (That plan anticipated completion of the 12,250-mile system by 1980.) For example, the third freeway proposed through the Central Valley, the eastern route from Bakersfield to Sacramento, was not built.⁸⁴

However, the 34 percent figure understates progress toward completion of the system, as the plan enacted into law encompassed freeways *and expressways*. Expressways do not have the limited access and freedom from grade crossings that characterize freeways.⁸⁵ Figure 25 shows only *freeway* miles, not the entire state highway system, which encompassed 15,240 miles in 2004, according to Caltrans data.⁸⁶

A combination of factors—increasing costs, limited funds, interest in mass transit, and a growing aversion to more freeway construction—prohibited completion of the full vision for a California Freeway System. One sign of the times was the passage of Proposition 5, on the June 1974 ballot, authorizing use of gas tax revenues for mass transit.⁸⁷ The idea of allocating some gas tax funds for mass transit had been proposed, at least by some policy makers, for a decade by that time.

California's Centerline Freeway Miles
1960 - 2000

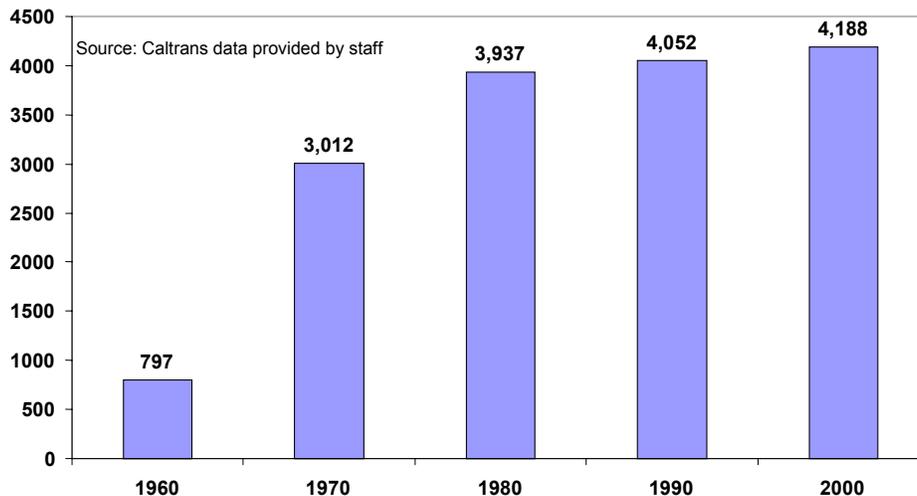


Figure 25. California Freeway Miles, 1960-2000.

INFLATION DRIVES UP COSTS

In a study of the Los Angeles Freeways published in 1981, David Brodsky described the impact of inflation on the freeway program:

The age of new freeway construction has, for the most part, ended. The demise of the program resulted from the same circumstances that nearly prevented its full-scale initiation in the first place: inadequate funds. The 7 cents per gallon collected by the state in 1963 was worth only 2 cents in real value by 1979^[*], and highway construction costs have risen at two and a half times the rate of the consumer price index. California simply cannot afford to build much of anything. The squeeze began in the early 1960s, when additional expenses of aesthetic landscap-

* In fact, approximately 2.7 cents, but nonetheless, a substantial decline.

ing and environmental protection, plus higher compensation to displaced homeowners and businesses, all aimed at appeasing opposition, began to escalate construction costs. . . . All attempts to increase highway user taxes were defeated. The price of an acceptable freeway rose as the value of the dollar fell, and state highway officials were left with the nearly impossible task of reconstructing policy from the ruins.⁸⁸

The risks of inflation—even simply of increasing costs of road construction—were clearly noted by the Joint Interim Committee on Highway Problems in its 1959 report:

It cannot be emphasized too strongly that the estimates of costs are based on 1958 price levels. In 1952, it was pointed out by the Joint Fact-Finding Committee on Highways that, over the long run, inflationary pressures built into the present economy would be likely to drive highway costs up. The fact is that the California highway construction cost index for the year 1957 is 17.5 percent higher than the comparable index for 1951

There appears to be as much, perhaps more, reason in 1958 as there was in 1952 to anticipate upward pressures on highway costs over the long run. Particularly is this likely to be the case for right-of-way costs, for the very impact of the population growth that is anticipated will have a material influence on land prices.

.....

Looking to the future, if highway costs increase as anticipated, it is not unlikely that tax rate increases will be required from time to time to finance the highway program as it has been presented here. But this will not necessarily mean that the burden of carrying the program will be greater, because it is probable that income, as well as prices, will also have risen.⁸⁹

Other factors, including residents' objection to some routes and other demands on tax dollars, contributed to the decline in freeway building clearly in evidence by 1970.⁹⁰ By that time, however, a far-reaching network of freeways had been constructed, even if it was less comprehensive than envisioned in the California Freeway Plan.

In a review of California's transportation development, the California Transportation Foundation described the transition from freeway-centric transportation to a broader yet more restrained approach:

The year 1970 ushered in a chaotic and turbulent period of change to the [California] Department of Public Works, soon to be the Department of Transportation (Caltrans). Some of the myriad of problems and challenges that confronted the Department were declining revenue, significantly increased construction and maintenance costs, a major reorganization, the "freeway revolt," environmental legislation at both the state and national levels, and the development of a state transportation plan.

In addition to the normal occurrence of slides and floods, three major earthquakes resulted in severe damage to the state's transportation system, which required ma-

jor revisions in design criteria and the initiation of a massive bridge retrofit program.⁹¹

The authors characterize 1940 to 1969 as “The Freeway Era” and describe 1970 forward as “The Environmental and Multi-Modal Era.” The conditions that enabled the freeway boom had clearly changed not long after Governor Brown left office.

4. Higher Education

PLANNING

Population growth—experienced and projected—drove plans for additional higher education capacity at all levels, junior college, state college, and University of California. The state had a distinguished history in higher education. Planners saw the need to add capacity in order to maintain that level of distinction.⁹² Highlights of the planning process include:

- **1948:** *A Report of a Survey of The Needs of California in Higher Education*, submitted to the Liaison Committee of the Regents of the University of California and the State Department of Education. (At that time, the State Board of Education oversaw the state colleges, which had originated as teacher-training institutions, or “normal schools.”) The report responded to Chapter 57, Statutes of 1947, “An act to provide for a comprehensive survey of the system of publicly supported higher education in California, including the junior colleges, the state colleges and the University of California”
- **1955:** *A Restudy of the Needs of California in Higher Education*, prepared for the Liaison Committee of the Regents of the University of California and the California State Board of Education. This report was authorized by a 1953 state budget item.
- **1956:** *A Study of the Need for Additional Centers of Public Higher Education in California*, prepared for the Liaison Committee of the California State Board of Education and the Regents of the University of California. The report was “made to meet requests of the State Legislature of 1955 for studies of the need for new public higher education facilities in several areas of the state”
- **1959:** *Report of the Subcommittee on Higher Education Beyond the Twelfth Grade of the Assembly Interim Committee on Education*, an Assembly interim committee report issued in March 1959.
- **1960:** *A Master Plan for Higher Education in California 1960-1975*, prepared for the Liaison Committee of the California State Board of Education and the Regents of the University of California, in response to Assembly Concurrent Resolution No. 88, of the 1959 session. This was the culmination of Governor Pat Brown’s and the Legislature’s effort to get the segments of California’s higher education system to agree on core principles in support of coordinated growth and development. Key principles of the plan were enacted in the Donahoe Higher Education Act, signed by Governor Brown on April 26, 1960.⁹³ A November 1960 state constitutional amendment added support for the plan by authorizing eight-year terms for members of the new Board of Trustees of the State College System of California. This report was followed by *The Costs of Higher Education in California 1960-1975* (January 1960) and *California’s Ability to Finance Higher Education 1960-1975*.

As that list shows, planning had been underway for more than a decade before the accomplishment of the Master Plan and the Donahoe Higher Education Act. The Master Plan and Donahoe Act facilitated orderly development and suggested that major new investment in facilities would be economically efficient.

Although not everyone was satisfied with the Master Plan—the state colleges rankled at the inability to grant doctoral degrees, for example—it received formal agreement from all segments and won widespread praise. John Aubrey Douglass summarizes what followed:

In stark contrast to the political battles and entrenched fighting between the University of California and the state colleges prior to 1960, California proceeded to fund a massive and orderly expansion of higher education. It is a remarkable record unparalleled by any other state. The plan also kept costs (on a per student basis) relatively low for taxpayers. Enrollment in the public segments grew from approximately 227,000 students (full-time equivalent [FTE]) in 1960 to over 1 million FTE in 1975. In fact, the authors of the Master Plan did not anticipate this rapid pace of growth. They assumed that enrollment in 1975 would be just over 528,000 students FTE within the public tripartite system.

. . . [E]nrollment in the California Community Colleges (formerly called junior colleges) dramatically exceeded expectations This was accompanied by a large increase in part-time students in the community colleges. By 1995, California public higher education had grown to 1.3 million FTE students (a headcount of 1.9 million), with the vast majority in the community colleges.⁹⁴

As of 2004, total enrollment (headcount) in California public colleges and universities had reached nearly 2.2 million. Nearly 1.6 million were in the community colleges (61 percent of them part-time), 396 thousand in the California State University system (31 percent of them part-time), and 208 thousand in the University of California system (under 7 percent of them part-time).⁹⁵

PROJECTS

Higher education facility construction moved forward in all three segments. An emphasis on the role of junior colleges and acceptance of a greater state role in financing them was especially influential in that segment, a segment in which enrollment grew much faster than planners had expected.

A key principle, stated in 1957 by the Liaison Committee of the State Board of Education and the Regents of the University of California, was that “New publicly supported institutions should be established in areas where the greatest number of eligible students will exist, and near the population center of the area to be served.”⁹⁶ That principle plus analysis of population, anticipated population growth, and current college and university location resulted in a list of recommended areas for new facilities.

JUNIOR COLLEGES (COMMUNITY COLLEGES)

New community colleges opened their doors in record numbers during the 1960s, aided by state funding that in turn was supported by higher-education bond issues. The growth in that educational segment was in line with recommendations in the 1957 “Additional Centers” report prepared for the Board of Education and the Regents of the University of California.⁹⁷

During the early decades of the junior college movement, through 1919, a dozen California junior colleges began to serve students. The 1920s saw nearly two dozen new junior colleges open, followed by a sharp decline during the Depression years of the 1930s. Only one new junior college—Napa Valley—opened during World War II (in 1942), but a dozen more opened from 1945 through 1949. The pace relaxed somewhat in the 1950s (11 new junior colleges), and then took off during the 1960s, with 26 new institutions. A total of 19 more opened from 1970 through 2004 (only five of those since 1980).

The comparison is rough, as it only counts numbers of institutions, not size of enrollment, and it neglects growth over the years within previously established institutions. Nonetheless, the years after the Master Plan were productive for California’s community college segment. Only the growth period of the 1920s was comparable.

California Junior/Community Colleges Newly Offering Classes

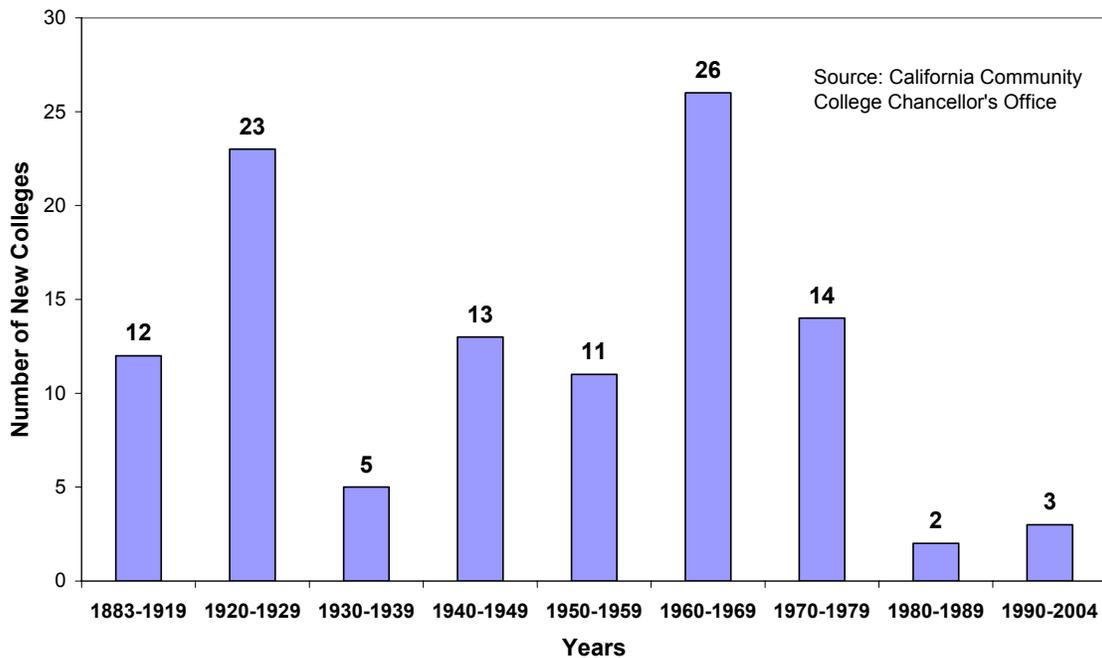


Figure 26. California Junior/Community Colleges Newly Offering Classes.

State higher-education bond issues (see below) contributed to brisk growth in the junior college sector during the 1960s, but communities also passed bond issues in support of new and expanded facilities.⁹⁸

Although they are community institutions, the junior colleges have an important role in California's spectrum of higher education. As a 1964 report on the junior college movement pointed out:

As of the fall of 1963, the public junior colleges had over 72 percent of the total lower division [freshman and sophomore] enrollment in higher education in both public and private colleges and universities in California. Of the total enrollments in higher education, including both graduate and undergraduate and public and private, 58 percent were in the public junior colleges.⁹⁹

Economic efficiency and local accessibility support that important role.

STATE COLLEGES

Four new state colleges opened during the 1960s, and another only a year later.*

- California State University, Stanislaus, opened in 1960 and moved to its permanent site in 1965. The school had been authorized by an act of the Legislature in 1957 and was originally known as Stanislaus State College.
- Sonoma State University offered its first classes in 1961 and moved to its permanent site in 1966.
- California State University, San Bernardino, primarily serving Riverside and San Bernardino counties, opened in 1965.
- California State University, Dominguez Hills offered its first classes in 1965; groundbreaking for the permanent campus took place in 1967.
- California State University, Bakersfield, opened in 1970.

In addition, California State University, Hayward, now known as California State University, East Bay, moved to new facilities in the Hayward Hills in 1961. The school was called Alameda County State College at that time. It had earlier been a two-year institution.

Until higher-education bond funds became available, site acquisition, planning, and construction were financed through annual appropriations. Plans were laid out in the "Five-Year State Building Program" reports to the Joint Legislative Budget Committee. A paragraph from the 1965-70 edition (transmitted to the Committee on March 15, 1965), gives a sense of activities planned and in progress:

The rapid growth of the college population has resulted in the establishment of six new state colleges since 1957. Thirty-four percent of the five-year capital outlay program, amounting to \$82,364,900, will be needed to continue the development of the initial instructional facilities at these colleges, which will be generally of the multiple-purpose type. Construction of specialized facilities at these new col-

* Another state college, now known as California State University, Northridge, had been founded in 1958, having begun in 1956 as the San Fernando Valley campus of what is now California State University, Los Angeles.

leges, as well as many of the older colleges, will depend largely upon the needs of the areas served by the colleges and the curriculum studies now being made by the staff of the Board of Trustees.¹⁰⁰

The total proposed five-year capital outlay program for the state colleges (July 1, 1965 to June 30, 1970) was \$287,361,830. Adjusted for inflation—CPI for California—that would be the equivalent of about \$1.9 billion in 2006.¹⁰¹

UNIVERSITY OF CALIFORNIA¹⁰²

The University of California grew significantly during the late 1950s and the 1960s. No new campus was added after that period until UC Merced opened to students in the fall of 2005.

Among the accomplishments of the period:

- UC San Diego was founded in 1959. The school was based on a nucleus of the Scripps Institution of Oceanography.
- UC Riverside, which already had a half-century history, was declared a general campus in 1959, with an expanded scope. Riverside's graduate division was established in 1959, offering graduate and professional programs.¹⁰³
- UC Irvine was founded in 1965.
- UC Santa Cruz opened with limited facilities and programs in 1965, and grew over the years.

Much was on the table for UC in 1965. Again quoting the 1965 five-year capital outlay plan:

A total of \$649,648,075 is included in this five-year building program for major construction projects for the University of California composed of \$356,239,847 from bond proceeds or the General Fund and \$293,408,228 from other funds. Of the state funds, a total of \$69,740,300 represents projects which are not yet resolved as to timing and/or method of financing.¹⁰⁴

The proposed total is roughly equal to \$4.3 billion in 2006 dollars.¹⁰⁵

BOND ISSUES

A 1956 State Construction Program bond issue authorized \$200 million for state buildings, including not less than \$60 million earmarked for state colleges. Another \$200 million bond issue was approved in 1958. Within a few years, those bond issues were funding construction. (See appendix section on Higher Education Facilities, page 50.)

Three bond issues passed from 1962 to 1966 supported major higher education construction and showed public support for California's public higher education system:

- A \$370 million bond proposal, at least 80 percent of which was for higher education facilities (the rest for other state construction purposes), was approved in the November 1962 general election. (A slightly different version of that measure was

defeated in the June 1962 primary election. The proposal was revised and resubmitted to the voters for the November election.) That issue included at least \$20 million specifically for junior college facility construction.

- A \$380 million higher education bond proposal was approved in the 1964 general election. Of that amount, at least \$50 million was earmarked for junior college facilities.
- A \$230 million bond proposal was approved in the 1966 general election. Those funds were specifically for state college and UC facilities (none earmarked for junior/community colleges).

The total for the three approved bond issues was little short of a billion dollars (\$980 million). In 2006 inflation-adjusted dollars, that total is equivalent to about \$6.8 billion.¹⁰⁶

Results for higher-education bond issues over the next few elections were mixed.

- A \$65 million junior college facility bond proposal on the June 1968 ballot was approved.
- A \$250,000,000 bond proposal for “State College, University, and Urban School Facilities” on the November 1968 ballot was defeated.
- A \$246.3 million bond proposal for UC health science facilities on the June 1970 ballot was defeated.
- A \$155.9 million bond proposal for UC health science facilities on the 1972 General Election ballot (scaled down from the 1970 proposal) was approved.
- A \$160 million community college bond proposal on the November 1972 ballot was approved.

Subsequent elections saw further bond issues from time to time, but none as large as those passed from 1962 to 1966.

5. Keys to Major Infrastructure Projects

Numbers alone do not tell the whole story of the Pat Brown administration's infrastructure investment boom. Although it was essential to find funding for the projects, important elements of that funding resulted from well-orchestrated efforts. The largest such effort was that behind the \$1.75 billion 1960 general obligation bond issue for the California Water Project. Bond proposals for construction of higher education facilities were also of key importance for highly visible projects: university and college campuses.

In each case—water and higher education—success in obtaining funding reflected long planning and growing needs as well as specific campaigns in favor of particular bond issues. None of the endeavors came without a long history.

Freeway funding, especially for elements of the Interstate Highway System, benefited from large support from the federal government. Over 90 percent of Interstate Highway funds came from the federal government, and nearly half of total spending on highways during the period examined here came from the federal government. State tax increases devoted to highway construction, enacted in 1947 and 1953, increased support for those projects. Highway construction, like the State Water Project and new university and college campuses, grew on a decades-long foundation of planning and prior developments.

In brief, the underlying processes were evolutionary, not revolutionary. The most essential lesson may be that in order to secure funding for a major undertaking, that undertaking must have been designed years earlier. The big projects of the Pat Brown administration were on the drawing boards long before construction commenced.

THE STATE WATER PROJECT

At \$1.75 billion, 1960's California Water Resources Development Bond Act (Proposition 1 on the November 1960 ballot) was at the time the largest state bond issue ever proposed. Despite its size, it was not large enough to pay for the full project, which in a sense is still a work in progress.

The origins of the State Water Project can be traced back at least to the 1930s, and the Central Valley Project, but more explicitly may be traced to a May 1951 State Water Resources Board publication, *Report on Feasibility of Feather River Project and Sacramento-San Joaquin Delta Diversion Projects Proposed as Features of The California Water Plan*. That report in turn cites the State Water Resources Act of 1945 (Chapter 1514, Statutes of 1945) and 1947 amendments (Chapter 1541, Statutes of 1947). The latter “provided for a State-wide investigation of water resources [to formulate] a plan [“The California Water Plan”] for the full practicable conservation, control and utilization of the State's water resources, both surface and underground, to meet present and future water needs for all beneficial purposes and uses in all areas of the state.”

Plate 1 of that document shows a canal as far south as San Diego. Plate 15 shows the San Joaquin Valley-Southern California Canal reaching over the Tehachapis. The document is explicit as to the ultimate reach of the project, to include “certain areas south of the Te-

hachapi mountains in Ventura, Los Angeles, Kern, San Bernardino, Orange, Riverside, and San Diego Counties.”¹⁰⁷

In short, the outline of the plan—and much detail—was on paper nearly a decade before the \$1.75 billion bond issue went to the voters.

THE FREEWAY PLAN

Decades of planning and development of California’s highway system plus large infusions of federal money underpinned freeway construction and other major road building during the Pat Brown administration.¹⁰⁸

The Collier-Burns Act of 1947 accelerated highway construction to meet accumulated and anticipated needs. Governor Earl Warren’s call for a special session of the Legislature to address highway needs was based in part on a projected California population increase of 25 percent between 1945 and 1960 and a projected licensed motor vehicle increase of 66 percent in the same period, increases expected to put large new strains on an already inadequate highway system.

In fact, California’s population grew by 84 percent between 1945 and 1960, from 8.5 million to 15.7 million.¹⁰⁹ Total motor vehicle registrations grew by 175 percent—from 3.1 million to 8.6 million—during the same period.¹¹⁰ A 1949 legislative committee report suggested that Governor Warren’s projections were “probably . . . quite conservative,” but the author could not have known just *how* conservative they would turn out to be.¹¹¹

Growing population was not the only reason given for freeway construction and for upgrading of highways. Also cited were California’s high rates of traffic accidents and related deaths and injuries, savings in time resulting from driving on better roads, and savings in gasoline resulting from freeway driving in contrast to stop-and-go surface street travel. Also important was the high volume of heavy truck traffic on California roads, and the wear and tear resulting from that traffic.¹¹²

Concerns over large-scale road building stemmed from post-war inflation, possible shortages of materials (competition with housing and other construction—although that was not considered a serious prospect), and the displacement of people from their homes in order to build freeways, in turn exacerbating the housing shortage.¹¹³ None of those concerns was sufficient to prevent passage of the Collier-Burns Act nor the later (1953) further increase in fuel taxes and other highway user fees directed to highway purposes.

A large boost to highway construction of course came from federal funds, accelerated by the Federal Aid Highway Act of 1956 and the related sense of urgency over the proposed system of interstate and defense highways.

EXPANSION OF HIGHER EDUCATION

During the 1940s and 1950s, in response to population growth, return of veterans entitled to attend college under the G.I. Bill, and with a view to competition with the Soviet Union, educators and policymakers issued studies and reports on the need for expanded

higher education facilities. However, tensions and disagreements over appropriate responsibilities remained among the segments of higher education.

A key to enhancing support for higher education facility funding in the Pat Brown administration was the agreement among higher education segments embodied in the 1960 Master Plan for Higher Education. That coherent outline of roles and responsibilities, much of which was enacted into law, helped to support the will to fund major projects in each of the key segments: University of California, the state colleges, and the junior colleges (community colleges). That plan in turn rested on the analyses and forecasts of higher education needs done in the 1940s and 1950s.

SUMMARY

This review of the major infrastructure projects of the Pat Brown era suggests a few conclusions:

- Policy groundwork, reflecting observed and anticipated needs, was laid for major projects before they received authorization. Projects benefited from substantial planning and design before they received funding for construction.
- Experienced and expected population growth drove need for projects and influenced site selection.
- Negotiations and tradeoffs among participants influenced outcomes.
- Regional balances of interests influenced feasibility and design.
- Each major area of construction—water, freeways, and higher education—proceeded on its own track and with its own history of design and development, funding, and legislative authorization.

The most important conclusion of this review may be that planning and design preceded major infrastructure undertakings by years, if not decades.

Planning and design are not sufficient conditions. Funding must also be available, and that requires economic resources, public support, and specific affirmative decisions. But planning and design are necessary conditions for major projects.

Appendix: Selected Data on Capital Outlays

Following are selected capital outlay data from the Governor's Budgets of the 1960s and 1970s. Data are reported "actual" expenditures.¹¹⁴

WATER FACILITIES

California Water Facilities Program Capital Outlays, Fiscal Year Ending June 30, 1960 to 1974

Fund	1960	1961	1962	1963
GF	\$475,845	\$144,955	-\$54,962	\$316,664
CWF	\$27,457,976	\$39,606,474	\$29,183,188	\$49,867,677
LPAF	\$87	\$1,261,921	\$75,630	\$0
CWRDBF	\$0	\$0	\$82,629	\$319,760
CVWPCF	\$0	\$0	\$0	\$0
CVWPRF	\$0	\$0	\$0	\$0
FF	\$0	\$0	\$0	\$0
Total	\$27,933,908	\$41,013,350	\$29,286,485	\$50,504,101
Fund	1964*	1965	1966	1967
GF	\$1,638,522	\$442,992	\$628,825	\$295,532
CWF	\$67,155,134	\$8,200,989	\$14,459,229	\$9,404,946
LPAF	\$0	\$0	\$0	\$0
CWRDBF	\$71,765,154	\$157,218,776	\$250,116,588	\$342,950,700
CVWPCF	\$3,446	\$564,962	\$4,452,788	\$10,307,326
CVWPRF	\$0	\$0	\$0	\$0
FF	\$0	\$0	\$0	\$0
Total	\$140,562,256	\$166,427,719	\$269,657,430	\$362,958,504

* Note: Elsewhere in the FY 1966 budget, a smaller figure appears for actual GF for FY 1964, \$821,264, with correspondingly lower total, \$139,744,998. There might be other discrepancies of that sort for other years.

Fund	1968	1969	1970	1971
GF	\$219,301	\$58,641	\$1,340,023	\$779,313
CWF	\$7,775,290	-\$576,831	\$1,337,429	\$1,649,329
LPAF	\$0	\$0	\$0	\$0
CWRDBF	\$212,254,267	\$210,189,786	\$133,860,136	\$246,401,187
CVWPCF	\$132,842,561	\$116,694,422	\$153,363,241	\$34,743,184
CVWPRF	\$0	\$0	\$0	\$14,614,098
FF	\$0	\$0	\$0	\$0
Total	\$353,091,419	\$326,366,018	\$289,900,829	\$298,187,111
Fund	1972	1973	1974	Total FY 1960-74
GF	\$511,435	\$881,360	\$3,597,497	\$11,275,943
CWF	-\$196,850	\$29,162,166	\$20,953,859	\$305,440,005
LPAF	\$0	\$0	\$0	\$0
CWRDBF	\$190,463,923	\$116,274,695	\$96,535,800	\$2,028,433,401 *
CVWPCF	\$48,070,528	\$37,820,535	\$30,671,095	\$569,534,088
CVWPRF	\$17,136,427	\$17,013,211	\$20,056,585	\$68,820,321
FF	\$0	\$0	\$1,818,342	\$1,818,342
Total	\$255,985,463	\$201,151,967	\$173,633,178	\$2,985,322,100

Table 3. Water Facilities Capital Outlays, FY 1960-1974.

Key to Funds

GF = General Fund

CWF = California Water Fund (includes tidelands oil revenues and other monies; see §12910 of the *California Water Code*)

LPAF = Local Project Assistance Fund

CWRDBF = California Water Resources Development Bond Fund

CVWPCF = Central Valley Water Project Construction Fund

* Expenditures from the California Water Resources Development Bond Fund exceeded the value of bonds sold as a result of reimbursements for water and power generated by the project (available to be used for SWP purposes in accordance with the terms of the bond act) and interest received on accumulated funds.

CVWPRF = Central Valley Water Project Revenue Fund

FF = Federal Funds

The water facilities capital outlays data of Table 3 are summarized graphically in Figure 27. The representation of the data is imperfect, as the negative figures for some funds for some years cannot be shown. See Table 3 for details and for explanation of fund acronyms.

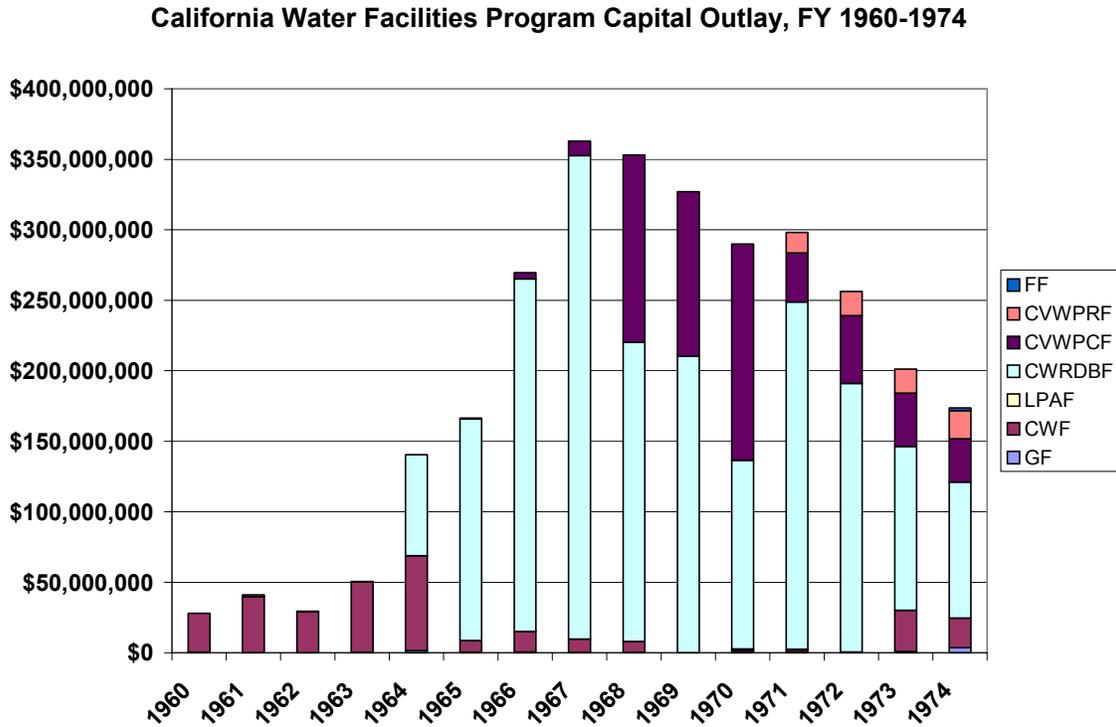


Figure 27. California Water Facilities Program Capital Outlay, FY 1960-1974.

The figures summarized above extend through completion of the “initial facilities of the State Water Project.”

HIGHWAYS

Federal funds formed a substantial part of California’s capital expenditures for highways (and for bridges, included in the totals in state budget figures). Federal funds ranged from 49 percent of the total (FY 1959/1960) to 38 percent (FY 1966/67). See Table 4 and Figure 28. The figures are as reported in Governor’s Budgets. With only one modest exception (from 1960 to 1961) total capital spending on highways grew from year to year in nominal dollars (not adjusted for inflation or for costs of such projects).

California Highway Expenditures, by Source, FY 1959/60 - 1966/67

Fiscal Year Ending June 30	State Funds	Federal and Other Funds	Total
1960	\$334,615,245	\$319,703,926	\$654,319,171
1961	\$358,956,362	\$273,570,812	\$632,527,174
1962	\$371,739,000	\$286,631,017	\$658,370,017
1963	\$386,604,036	\$305,606,000	\$692,210,036
1964	\$455,543,266	\$330,115,067	\$785,658,333
1965	\$515,245,758	\$326,043,154	\$841,288,912
1966	\$542,197,000	\$347,922,680	\$890,119,680
1967	\$658,095,785	\$403,647,067	\$1,061,742,852

Table 4. California Highway Expenditures, FY 1959/60 - 1966/67.

California Highway Expenditures FY 1959/60 - 1966/67

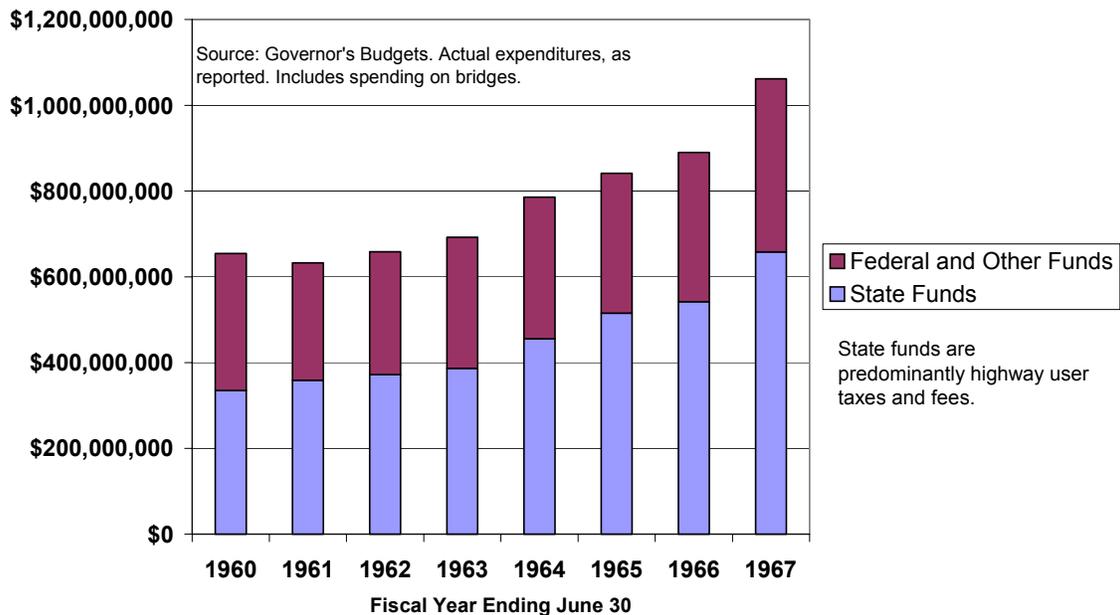


Figure 28. California Highway Expenditures, FY 1959/60 - 1966/67.

HIGHER EDUCATION FACILITIES

Capital spending for the State Colleges grew (but not always from year to year) during the Pat Brown Administration years, as shown in Table 5. The figures are as reported in the Governor's Budgets.

STATE COLLEGES

Capital Outlays for State Colleges, by Source

FY Ending June 30	General Fund	State Construc- tion Program [Bond] Fund	State Col- lege Fund	Nonstate Funds	Total
1960	\$8,449,722	\$21,655,369	\$696,429	\$0	\$30,801,520
1961	\$36,340,048	-\$5,265,158	\$42,048	\$0	\$31,116,938
1962	\$1,706,925	\$30,660,803	\$0	\$0	\$32,367,728
1963	\$3,205,856	\$32,184,127	\$0	\$0	\$35,389,983
1964	\$1,165,522	\$40,755,629	\$0	\$0	\$41,921,151
1965	\$1,096,680	\$51,712,947	\$0	\$0	\$52,809,627
1966	\$1,131,762	\$28,773,465	\$0	\$37,912	\$29,943,139
1967	\$1,036,855	\$40,992,051	\$0	\$0	\$42,028,906

Table 5. Capital Outlays for State Colleges, FY 1959/60 - 1966/67.

UNIVERSITY OF CALIFORNIA

Capital spending on the University of California grew sharply (Figure 29. Total UC Capital Outlays, FY 1959/60 - 1966/67.), but not uniformly from year to year.

Total UC Capital Outlays FY 1959/60 - 1966/67

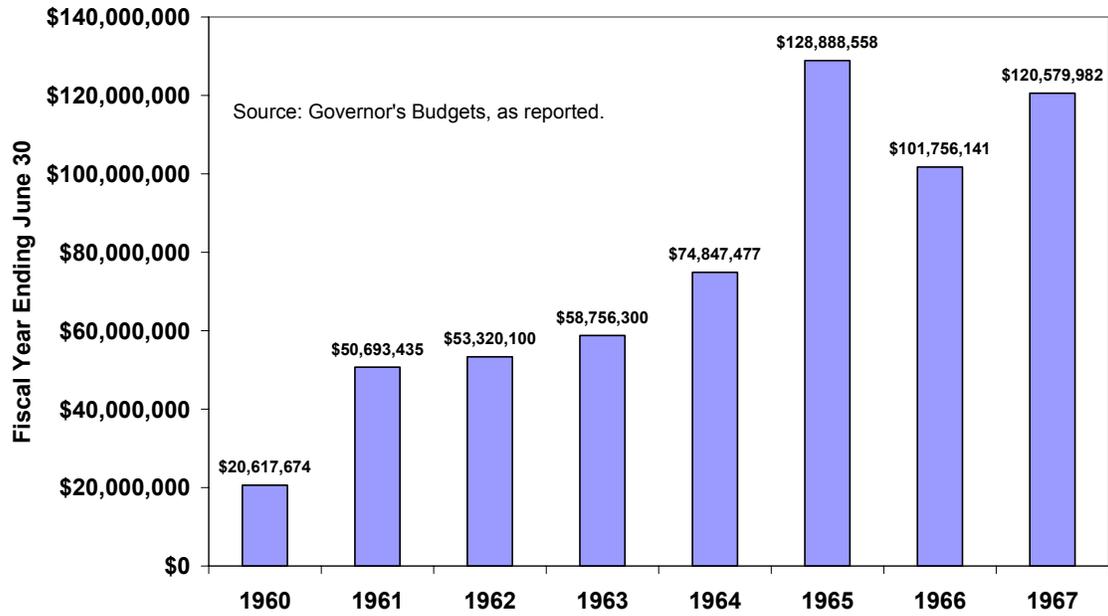


Figure 29. Total UC Capital Outlays, FY 1959/60 - 1966/67.

Sources of funds are summarized in Table 6.

Capital Outlays for University of California, by Source										
FY Ending June 30	GF	SCPF	F&EF	UOF	UPF	N-SF	FF	ARFG	Total	
1960	\$3,356,702	\$15,396,782	\$1,864,190	\$0	\$0	\$0	\$0	\$0	\$20,617,674	
1961	\$50,693,435	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50,693,435	
1962	\$1,732,000	\$46,268,000	\$0	\$5,320,100	\$0	\$0	\$0	\$0	\$53,320,100	
1963	\$3,582,700	\$52,307,300	\$0	\$2,866,300	\$0	\$0	\$0	\$0	\$58,756,300	
1964	\$1,949,400	\$69,021,328	\$0	\$3,876,749	\$0	\$0	\$0	\$0	\$74,847,477	
1965	\$2,016,100	\$61,737,400	\$0	\$0	\$0	\$65,135,058	\$0	\$0	\$128,888,558	
1966	\$1,529,600	\$57,613,450	\$0	\$0	(\$470,000)	\$31,891,591	\$10,721,500	\$0	\$101,756,141	
1967	\$1,371,630	\$65,314,200	\$0	\$14,164,993	\$0	\$24,571,687	\$5,511,758	\$9,645,714	\$120,579,982	

Figures are from Governor's Budgets, as reported. UPF for 1967, shown in parentheses, was (and is) excluded from total.

GF=General Fund. SCPF=State Construction Program Fund. F&EF = Fair and Exposition Fund. UOIF=University Operating Funds.

UPF=University Plant Funds. N-SF=Nonstate Funds. FF=Federal Funds. ARFG=Anticipated Reimbursable Federal Grant.

Table 6. Capital Outlays for University of California, FY 1959/60 - 1966/67.

JUNIOR COLLEGES

The State began funding junior college construction as of 1965, drawing on the State Construction Program Fund (bonds). Other funding came from junior college districts (required matching funds) and from the federal government.

In summary for FY 1965 to 1967:

Junior College Capital Outlays, FY 1964/65-1966/67			
	1964/65	1965/66	1966/67
State Construction Program Fund	\$7,316,858	\$25,511,003	\$9,379,129
District Funds	\$0	\$25,794,259	\$8,866,751
Federal Funds	\$0	\$7,511,003	\$6,953,420
Total	\$7,316,858	\$59,511,003	\$25,199,300

Table 7. Capital Outlays for Junior Colleges, FY 1964/65-1966/67.

The “General Analysis” summary of junior college capital outlay in the 1966/67 Governor’s Budget (part 2, page 152), is informative:

Since the 1961 tax relief program offered no permanent satisfactory solution to the shared responsibility of the state and junior college districts in meeting the expanded role of these schools under the Master Plan for Higher Education, \$20 million was included for junior college construction in the State Construction Program Fund bond program approved in November of 1962. The 1963 Legislature appropriated this \$20 million to be distributed under the Junior College Facility Construction Law of 1963 on a formula basis providing for state and local participation in the construction of necessary educational facilities.

The Junior College Facility Construction Law further provided for a joint study to develop a continuing program of state financial assistance to junior college districts for the construction of facilities based upon ability, effort and need. This study committee is composed of representatives of the junior colleges, the Department of Education, the Legislative Analyst, the Coordinating Council for Higher Education and the Department of Finance.

Bond funds in the amount of \$50 million were approved by the voters in the 1964 General Election to provide the financing of a continuing program of State Assistance to Junior Colleges. The Legislature enacted the Junior College Construction Act, Chapter 1262 of 1965, providing for a program in which the state and [the] local junior college districts share a maximum of 50 percent on the average of the cost of facilities. [Sic. Apparently the meaning is that the local districts’ share is a maximum of 50 percent.] Entitlements are computed [on the basis of] the esti-

mated growth in weekly student contact hours. In the budget year, 28 districts have submitted projects for approval. In the current year, 60 districts submitted projects.

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See endnotes for additional sources.

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Notes

¹ For another view, including additional ways in which the Pat Brown years differ from today, see Elisa Barbour and Paul G. Lewis, *California Comes of Age: Governing Institutions, Planning, and Public Investment* (San Francisco: Public Policy Institute of California, 2005).

² California's population growth was fast before 1940, too, of course, encouraged by the sort of text and images displayed in *California Calls You: The Art of Promoting the Golden State 1870 to 1940*, by K. D. Kurutz and Gary F. Kurutz (Sausalito, California: Windgate Press, 2000). California added 5.46 million people between 1900 and 1940, growing from 1.49 million to 6.95 million, or an increase of 365 percent. The promotions contributed to California's booming tourism and population. The lure of California was part of the nation's culture long before the population explosion of the 1940s (accelerated by growth of defense industries) and after (reflecting postwar relocation and the emergence of the Baby Boom generation). One amusing example of the mythos is central to a classic W. C. Fields film, *It's a Gift*, released in 1934. In that film, Fields plays a put-upon storekeeper in the Eastern United States who receives an inheritance with which he buys an orange ranch in California. In one scene, he wistfully scans a brochure picturing such a ranch. The film is a period piece that reflects both California's attractions and the efforts to publicize them, such as the brochure that hooked the Fields character. History buffs may appreciate an allusion to the Santa Anita racetrack, in Los Angeles County, which was built the year the film was released, a project that becomes a pivotal touch for the film's conclusion. One of the investors in Santa Anita was early movie industry producer Hal Roach, doubtless well known to Fields, who wrote the storyline for *It's A Gift*.

³ National recessions were officially recorded for July 1953 to May 1954, August 1957 to April 1958, and April 1960 to February 1961. Recession conditions in California do not necessarily encompass exactly the same periods as such conditions nationally.

⁴ Other measures of land use for farming are available, but are compromised by changing definitions in the agricultural censuses.

⁵ Author's comment: When my family moved to Redlands, in San Bernardino County, in 1952, Redlands billed itself as "The Navel Orange Capital of the World." We watched over the next several years as groves of orange and other citrus trees in and near the city (some a short block from our house) were torn out and replaced by housing tracts and other developments. The area's citrus packing houses closed for lack of business, and in later years mysteriously burned down.

⁶ The modest increase between 1958 and 1959 might have been a lagging response to the 1957-58 recession, associated with a spike in inflation, or both. (That is speculation on the author's part.)

⁷ Adapted from David R. Doerr, *California's Tax Machine: A History of Taxing and Spending in the Golden State* (Sacramento: California Taxpayers' Association, 2000), 57-58.

⁸ Four typed pages, dated November 14, 1963.

⁹ A copy of the report is catalogued the California State Library, under the title "Growth in State Expenditures." The quoted paragraph is from the (unnumbered) second page. The reports consists of two pages of text and two pages of tables. One of the peculiarities of the figures is the inclusion for 1958-1963 (and possibly in the estimate for 1964), "expenditures from borrowings for state building construction, less debt redemption," Thus taking cognizance of the turn toward use of bond financing.

¹⁰ William J. Schultz and C. Lowell Harriss, *American Public Finance*, Sixth Edition (Englewood Cliffs, N.J.: 1954), 576. The book went through at least three printings, 1954, 1956, and 1957.

¹¹ William J. Schultz and C. Lowell Harriss, *American Public Finance*, Seventh Edition (Englewood Cliffs, N.J.: 1959), 525. The 1965 edition (eighth) of the same book, at page 481, phrased the point this way: “Two special factors reduced the appeal of ‘pay-as-you-go’ financing from 1945 through the early 1960’s. Low interest rates reduced the appeal of saving interest on government debt. At the same time, rising costs made delay in construction depressingly expensive. Waiting to build often proved more costly than borrowing.” The question of “pay-as-you-go” was considered in a report on public issues published in 1961, Elizabeth Y. Deran, *Financing Capital Improvements: The “Pay-As-You-Go” Approach*, 1961 Legislative Problems, No. 4 (Berkeley: University of California Bureau of Public Administration, February 1961). That report is a snapshot of thinking on the topic at the time.

¹² *California Governor’s Budget*, 1970/71, Part 1, p. 1296.

¹³ For Federal Reserve data on state and local bond interest rates from the 1950s to date, see www.federalreserve.gov/releases/h15/data/Monthly/H15_SL_Y20.txt. Although the numbers differ from those for the prime rate, a generally similar pattern can be seen over the years.

¹⁴ California Legislative Analyst, “State of California, Proposed Bond Issues and State Bonded Debt,” May 12, 1960.

¹⁵ That figure excludes half a billion dollars in general obligation commercial notes, according to a footnote to Table M-9 in the 2000 edition of the *California Statistical Abstract*.

¹⁶ See Table M-9 in the 2005 California Statistical Abstract, www.dof.ca.gov/HTML/FS_DATA/STAT-ABS/tables/m9.xls. It is not clear that the comparison between 2000 and 2005 is entirely valid, as the 2005 chart, but not the 2000 chart, specified “non-self-liquidating.” (General obligation bonds include both self-liquidating and non-self-liquidating bonds. Self-liquidating bonds are repaid from earmarked revenues, such as veterans’ home loan payments and users’ payments for water and power provided by the State Water Project. Non-self-liquidating bonds are repaid from general revenues.) In any event, that \$34,643 million, adjusted for inflation (California CPI), is equivalent to about \$5,878 million in 1968 dollars. In other words, the 2005 figure for outstanding GO bonds is, after adjusting for inflation, about 28 percent higher than the figure for 1968, while the nominal (unadjusted) dollar figure for 2005 is about 650 percent higher than the 1968 total. The 2005 GO bond figure does not include any of the \$15 billion “Economic Recovery Bond Act” bonds authorized by Proposition 57 in 2004 (www.ss.ca.gov/elections/VoterGuide_Supp.pdf). The 2005 figure includes \$447.74 million of the \$12.3 billion in bonds authorized by Proposition 55 on the same March 2004 primary election ballot, the Kindergarten-University Public Education Facilities Bond Act of 2004 (www.ss.ca.gov/elections/75853_SOS_VIG.pdf). Other bonds (including \$3 billion for stem cell research and \$750 million for childrens’ hospitals) have been authorized but not yet sold and thus are not included in the 2005 figure. As of this writing (May 2006), a further \$37.3 billion in bonds have been legislatively proposed for the November 2006 ballot, for public works (infrastructure) purposes.

¹⁷ For current detail of what these classifications encompass, see Schedule 9, “Comparative Statement of Expenditures,” in the appendix to the *Governor’s Budget Summary 2006-07*, www.dof.ca.gov/Budget/Budget2006-07/FullBudgetSummary.pdf. The schedule number and placement of that information, as well as exact scope, have varied over the years. Also see the

Department of Finance's "Glossary of Budget Terms," posted at www.dof.ca.gov/HTML/BUD_DOCS/glossary.pdf. (Accessed June 26, 2006.) In some older budgets (1967/68, for example), the term "Support" was used in place of "State Operations." Small "unclassified" expenditures shown in some budgets have been omitted here.

¹⁸ Source: "Actual" as reported in Governor's Budgets, "Comparative Statement of Expenditures," Schedule 9 or equivalent. Expenditures include State Operations, Capital Outlay, and Local Assistance, excluding expenditures from bond funds. The reader should take the figures with a grain of salt, as reorganizations and reclassifications, as well as difficulty in reliably selecting appropriate numbers from the budget schedules, the design of which changed substantially over the decades, may have introduced some irregularities. The general picture is accurate, however.

¹⁹ Technical point: except for the capital outlay category, the categories in Figure 23 include only expenditures identified as "state operations" and "local assistance." The capital outlay category includes only expenditures identified as "capital outlay" in the budget.

²⁰ The \$1.75 billion would be worth about \$12.7 billion in 2006 dollars, on the basis of Consumer Price Index for California data, www.dof.ca.gov/HTML/FS_DATA/LatestEconData/documents/BBFYCPI_000.XLS. The "State and Local: Purchases" deflator, www.dof.ca.gov/HTML/FS_DATA/LatestEconData/documents/BBDEFL00_001.xls, considered a more appropriate point of reference by economists, suggests a 2006 value closer to \$14.6 billion (calculated as $(123.50/14.74) \times \$1.75$ billion).

²¹ More bluntly, as Marc Reisner points out in *Cadillac Desert* (p. 351), Governor Brown lied about the anticipated costs of completing the project. The scope and cost was not, however, secret. The cost of the entire project had been publicly estimated in 1956 at \$13 billion, with a time-frame running as long as 75 to 100 years. See Citizens' Conference on Water Problems: Convened by Governor Goodwin J. Knight, Monday, November 19, 1956, 10:00 a.m. (printed transcript); comments by Harold Kennedy, County Counsel of the County of Los Angeles, at page 35. The transcript does not indicate any disagreement with the \$13 billion figure, nor with the generations-long timeframe.

²² "State Water Project Milestones," www.publicaffairs.water.ca.gov/swp/milestones.cfm.

²³ Norris Hundley, Jr., *The Great Thirst: Californians and Water: A History* (Berkeley: University of California Press, 2001), 278-9.

²⁴ Hundley, *Great Thirst*, 280.

²⁵ California State Water Resources Board, *Preview of the California Water Plan* (Sacramento: the Board, March 1956), 12-13.

²⁶ Transcripts of some of those speeches are catalogued in the collection of the California State Library.

²⁷ A complete transcript of the session was printed as "Citizens' Conference on Water Problems: Convened by Governor Goodwin J. Knight, Monday, November 19, 1956, 10:00 a.m."

²⁸ Erwin Cooper, *Aqueduct Empire* (Glendale, California: The Arthur H. Clark Co., 1968), 221-22.

²⁹ Cooper, *Aqueduct Empire*, 222.

³⁰ See summary in Cooper, *Aqueduct Empire*, 230-31.

³¹ Even cobbling together the votes to get the measure approved and onto the ballot was not a simple matter. Perhaps the most colorful reported element of that process was the insistence of Assembly member Pauline Davis that five small lakes be specifically provided for in the law—lakes in Plumas County, in her district. The lakes, sometimes called “Pauline’s puddles,” are specified, albeit subtly, in a portion of §12934(d)(1) of Chapter 5 of the Water Code, as amended by The California Water Resources Development Bond Act. Hundley alludes to those lakes on p. 283 of *The Great Thirst*, in turn citing (among other sources), pp. 224-5 of Erwin Cooper’s *Aqueduct Empire* (Glendale, California: The Arthur H. Clark Co., 1968). According to Cooper, “Mrs. Davis announced that the price of her vote for the project was the assurance that these High Sierra lakes be built. ‘Pauline’s puddles,’ her detractors called them. They also called them political blackmail. ‘I don’t care what they call them,’ Mrs. Davis said, ‘as long as they get built.’” For a summary of compromises and commitments that went into the bond act to help secure its passage (in the Legislature and on the ballot), see pp. 283-291 of Hundley’s *The Great Thirst*. Also see chapter 13, “The \$1,750,000 ‘Octopus,’” in Cooper’s *Aqueduct Empire* and chapter 10, “Chinatown.” of Marc Reisner’s *Cadillac Desert*, revised and updated edition (New York: Penguin Books, 1987).

³² Cooper, *Aqueduct Empire*, 236.

³³ In 1968, years before SWP water reached Los Angeles County, J. Frank Beaman wrote a series of scathing articles for San Francisco’s *Daily Commercial News*. (The articles were later collected and republished as a booklet.) Beaman repeatedly referred to the “predatory interests” of Los Angeles County as instigator of “the plan to divert Northern California’s water south.” He opined that water recycling and large-scale desalination of ocean water could easily and less expensively meet Southern California’s water needs. He was mistaken about desalination, which he predicted to be a reality by 1972. The proposed Bolsa Island nuclear-powered desalination plant near Orange County would have been enormously expensive, with an estimate last seen approaching a billion dollars. The plan was abandoned long before the plant could be built. Water recycling is valuable as a water-conservation measure, but far from a large-scale solution, and in any event suited to limited purposes. See the Beaman item in the bibliography. Information on Bolsa Island is from “A Passion for Water: Hans H. Doe and the California Water Industry,” by Kyle Emily Ciani, *The Journal of San Diego History*, Volume 39, Number 4 (Fall 1993), www.sandiegohistory.org/journal/93fall/water.htm. Also see p. 82 of a Municipal Water District of Orange County document posted at www.mwdoc.com/documents/2005UWMPFinal-Section2.pdf. Web pages accessed March 28, 2006.

The history of the proposed (and, in 1982, voter-rejected) Peripheral Canal could fill its own report, but it is far outside the scope of the present report. For a summary of the Peripheral Canal issue, see the U.S. Bureau of Reclamation Central Valley Project, Delta Division page, www.usbr.gov/dataweb/html/delta.html. Also see the discussion of the Peripheral Canal in Norris Hundley’s *The Great Thirst*, and Marc Reisner’s review of the Byzantine politics of the issue in *Cadillac Desert*. (The possibility of such a canal has arisen again, according to some reports. See, for example, Argentco.com, “Recent Developments in California’s Sacramento-San Joaquin Delta: Reevaluating the Peripheral Canal,” February 2005, www.argentco.com/hm/f20050203.932307.htm. Accessed March 28, 2006.) In recent years, the CalFed process has explored water quality and supply issues. See the California Bay-Delta Authority website, <http://calwater.ca.gov/>.

³⁴ Cooper, *Aqueduct Empire*, 242. Not all criticism was silenced, as J. Frank Beaman’s scathing 1968 *Daily Commercial News* articles show.

³⁵ See Sydney Kossen, “California’s \$2 Billion Thirst, *Harper’s Magazine*, March 1961, 102: “Until contracts are signed and bonds sold, preliminary work will be financed largely by royalties the state collects from offshore oil operators. Over the years about \$111 million has been appropriated for such preparatory tasks as project planning and design, railroad and highway relocation, land buying, upstream work, and geological testing.” A smaller figure, probably reflecting a different scope than Kossen’s “preparatory tasks,” of \$62 million was stated in Department of Water Resources, “Report on State Water Project Capital Costs to December 31, 1960,” July 1966.

³⁶ Citizens’ Conference transcript, 65-66. The speaker was Walter Schulz, “of the Water Department.”

³⁷ Citizens’ Conference transcript, 99.

³⁸ California State Controller, *Annual Report of the State of California for the fiscal year ended June 30, 1978*, p.173 (portion of Statement No. 28).

³⁹ California State Controller, *Budgetary/Legal Basis Annual Report, 2004*, 400-01. The formerly-published detail on maturity dates and interest rates for specific series sold is no longer available.

⁴⁰ See California Legislative Analyst, *State of California, Proposed Bond Issues and State Bonded Debt*, May 12, 1960 (mimeographed report apparently published by the Legislative Analyst’s Office), 3.

⁴¹ LAO, *Proposed Bond Issues*, 8. Those issues—even those dating back to 1909—had maturity dates as late as 1985.

⁴² Reisner, *Cadillac Desert*, 353. The action is also mentioned in the “State Water Project History, 1956-2006,” a brochure published by the Department of Water Resources.

⁴³ See the DWR “State Water Project History” brochure for year-by-year milestones. The bulleted lists for 1967 and 1968 are adapted from that brochure.

⁴⁴ For an extensive review of California water issues, see Department of Water Resources, *California Water Plan: Update 2005*, five volumes, dated December 2005, and available via www.waterplan.water.ca.gov/cwpu2005/index.cfm. Also see <http://calwater.ca.gov/AboutCalfed/CALFEDProgram.shtml>, home page for the CALFED Bay-Delta Program.

⁴⁵ See, for example, pp. 22ff of David W. Jones, Jr., Institute of Transportation Studies, University of California, Berkeley, *California’s Freeway Era in Historical Perspective* ([Sacramento]: [California Department of Transportation], 1989).

⁴⁶ For a commentary on that stoplight and related history and traffic issues, see Peter Fimrite, “Infamous Blood Alley to Disappear: New bypass around Highway 99 stoplight,” *San Francisco Chronicle* (online edition) Monday, November 4, 1996, <http://sfgate.com/cgi-bin/article.cgi?file=/chronicle/archive/1996/11/04/MN24619.DTL&type=printable>. Accessed April 25, 2006.

⁴⁷ Herbert Marshall Goodwin, “California’s Growing Freeway System,” Ph.D. dissertation, University of California, Los Angeles, 1969, reproduced by University Microfilms, Ann Arbor, Michigan. At over 700 pages, Goodwin’s dissertation is exhaustive, and exhaustively documented, addressing everything from finance and administration to signage and ramp design.

⁴⁸ David W. Jones, Jr., Institute of Transportation Studies, University of California, Berkeley, *California's Freeway Era in Historical Perspective* ([Sacramento]: [California Department of Transportation], 1989). Jones carries the story through the 1970s and 1980s, documenting the decline of the freeway-building program that followed the boom of the 1960s.

⁴⁹ On the same date as Governor Warren's call for the special session, the California Legislature's Joint Fact-Finding Committee on Highways, Streets and Bridges issued *California's Highway Problems*, a preliminary report in response to Senate Concurrent Resolution No. 27, Res. Chap. 133, Statutes of 1945, p. 3138. Reports (dated 1946) on a proposed system of highway financing and on the background of highway taxation were appended to that one. Although Governor Warren's call for the special session launched the process that led to the Collier-Burns Act, the origins of that call went back to at least 1945.

⁵⁰ Assembly Bill No. 46, Chapter 11, Statutes 1st Extraordinary Session, 1947.

⁵¹ California Department of Transportation, "Fact Sheet: Important Events in Caltrans History," www.dot.ca.gov/hq/paffairs/about/cthist.htm.

⁵² Nelson C. Price, for Assembly Fact-Finding Committee on Highways, Streets and Bridges, *Digest of Testimony and Reports Considered in Enacting the Collier-Burns Highway Act of 1947*, Preliminary and Supplement to the Committee Report, Number 1 ([Sacramento]: [California Legislature], [1949]), 63.

⁵³ A review of *Los Angeles Times* coverage of the highway bill suggests that the debate over the program—need, size, and funding—was intense and protracted. There is not the time or space available in this report to examine that episode in detail. Suffice it to say that passage of the Collier-Burns Act was neither simple nor easy; the act as passed was much less ambitious, and raised much less money, than was originally proposed by Governor Warren.

⁵⁴ Quoted in David W. Jones, Jr., *California's Freeway Era in Historical Perspective* ([Sacramento]: [California Department of Transportation], 1989), 194. (The source citation for that quoted passage is missing from that chapter's endnotes.)

⁵⁵ Wilfred Owen, "What Do We Want the Highway System to Do?" Chapter 1 of Wilfred Owen, and others, *Financing Highways*, Symposium conducted by the Tax Institute, November 8-9, 1956, Princeton (Princeton, New Jersey: Tax Institute, 1957), 1.

⁵⁶ As if to demonstrate the point, an article appeared in the May 9, 2006, issue of the *Los Angeles Times*, headlined "Ocean of Cars Clogs PCH [Pacific Coast Highway] in the South Bay." (National edition, B2; article by Cynthia H. Cho.) In part: "Commuting in the region — where California Highway 1 doubles as a major thoroughfare through several seaside towns — has worsened in recent years largely because of residential and commercial development."

⁵⁷ Like everything else discussed in this report, the 1956 act had a long history behind it. For a summary of the background, see U.S. Department of Transportation, Federal Highway Administration, "Federal-Aid Highway Act of 1956: Creating the Interstate System," by Richard F. Weingroff, www.tfhrc.gov/pubrds/summer96/p96su10.htm. That was originally an article in the Summer 1996 issue of *Public Roads*, the bimonthly magazine of the Federal Highway Administration. For a sidebar to that article, see www.fhwa.dot.gov/infrastructure/rw96g.htm.

⁵⁸ For a contemporaneous discussion of highway finance, see Wilfred Owen and others, *Financing Highways* (Princeton, NJ: Tax Institute, Inc., 1957). That volume is a report of a Tax Institute symposium held on November 8-9, 1956.

⁵⁹ David W. Jones, Jr., *California's Freeway Era in Historical Perspective*, 18. Jones points out that, thanks to the 1953 and 1956 legislation (state and federal respectively), “the Division of Highways [had] a construction budget that allowed it to make plans virtually without fiscal constraint. In fact, engineering manpower, shelf-ready plans, and right of way were more stringent constraints on the highway program during the early sixties than funds available for actual construction.” Jones, *California's Freeway Era*, 18.

⁶⁰ Goodwin, “California's Growing Freeway System,” 343.

⁶¹ The phrase is Goodwin's, p. 343. Also see Helen Leavitt's discussion of the background of the Federal Aid Highway Act of 1956, in *Superhighway—Superhoax* (Garden City, NY: Doubleday & Co., 1970). It is clear that the contribution of the highway program to the economy—including impact on the road building industry and its suppliers, auto sales, and other auto-related industries—was influential.

⁶² The document was published by the Department of Public Works, Division of Highways, in September 1958. It featured an introductory letter from the Automotive Highway Foundation, noting the Foundation's “privilege to have participated in this study as advisors and consultants to the California Division of Highways” The Automotive Safety Foundation was a lobbying organization representing automobile manufacturers, highway construction companies, the Portland cement industry, tire and automotive parts producers and dealers, school bus manufacturers, banks, and insurance companies. The same organization played a role in pressing for the Federal Aid Highway Act of 1956, which enormously expanded federal funding for, and the proposed scope of, the Interstate Highway System. See Helen Leavitt, *Superhighway—Superhoax* (Garden City, NY: Doubleday & Company, 1970), 31-32.

⁶³ *Report of the Joint Interim Committee on Highway Problems*, published by the Senate of the State of California, 1959. The committee was chaired by Senator Randolph Collier, in his sixth term, who had been instrumental in passage of the 1947 Collier-Burns Act that initiated the modern California freeway era. The committee was created in response to Senate Concurrent Resolution No. 134, Resolutions Chapter No. 341, Statutes of 1957.

⁶⁴ California Highways, “Chronology of California Highways,” www.cahighways.org/chrphas5.html.

⁶⁵ Governor Brown viewed the proposed tax increase as being in violation of his 1962 pre-election campaign pledge not to raise taxes. He would not commit one way or the other on the bill itself, however. “Bill to Raise Gasoline, License Taxes Outlined,” *Los Angeles Times*, January 10, 1963, 7. (ProQuest Historical Newspapers, *Los Angeles Times*.) Ultimately, he signed the bill. Newspaper reports on progress of the bill suggest that it was not the tax increase *per se* that was controversial, but rather questions of north-south allocation, requirements for matching funds, and degree of emphasis on new construction versus highway maintenance. (Various articles, *Los Angeles Times*, January 1963.)

⁶⁶ The question of legislative authority over the highway budget was discussed in an August 1962 hearing, months before the highway tax increase bill was formally introduced by Senator Randolph Collier (beginning his seventh term) in January 1963. See Assembly Interim Committee on Highway Problems, *Transcript of Hearing*, Monday, August 27, 1962 (Sacramento: [the Assembly], 1962). In 1978, the California Highway Commission was folded into the California Transportation Commission, under legislation enacted in 1977 (Chapter 1106, Statutes of 1977).

See the California Transportation Commission's home page for more information:
www.catc.ca.gov/.

⁶⁷ Goodwin, "California's Growing Freeway System," 355.

⁶⁸ *Los Angeles Times*, October 12, 1948, A2 Also see "Construction Halt on Freeway Asked: Protesting Citizens Want Express Rail Transit to Valley Included," *Los Angeles Times*, October 12, 1948, A2. (ProQuest Historical Newspapers, *Los Angeles Times*.)

⁶⁹ The ballot pamphlet argument for the proposition (Proposition 3, on the November 1938 ballot), promised, "This proposed constitutional amendment, when adopted by the voters, will effectively and permanently prevent diversion of gasoline tax funds to purposes other than those now provided by law." One of the signers of that argument was State Senator William F. Knowland, who went on later to become one of California's U.S. Senators. Knowland's choice to run for governor in 1958, pushing Governor Knight (a Republican) into a run for the U.S. Senate, was followed by defeat for both and election of Pat Brown, a Democrat, as governor.

⁷⁰ Assembly Interim Committee on Highway Problems, *Transcript of Hearing*, Monday, August 27, 1962 (Sacramento: [the Assembly], 1962), 12.

⁷¹ San Francisco Bay Area Rapid Transit System, "BART Concept is Born," www.bart.gov/about/history/history_2.asp (accessed April 26, 2006).

⁷² Ray Hebert, "Sales Tax for Transit Held Likely," *Los Angeles Times*, February 17, 1963, B1. (ProQuest Historical Newspapers, *Los Angeles Times*.)

⁷³ A 1967 report by the Citizens Advisory Council on Public Transportation, *Improving Public Transportation in Los Angeles*, called for "A major improvement in public transportation . . . in Los Angeles County," and concluded, "The most feasible 'known' solution is to build a new rapid transit system." (Pp. 6 and 8 of the report.) The report looked to a "known" solution to the traffic problem in preference to hoping for some new technological breakthrough to cope with growing traffic congestion.

⁷⁴ As Assemblyman Carley V. Porter put it in 1964, "[T]he Division of Highways and the State Highway Commission enjoy complete immunity from legislative review of their expenditures. Moreover, they are immune from budgetary review by the Governor or his Department of Finance. This is no accident — this was by design and part of that design was at the Legislature's own insistence." Assembly Interim Committee on Ways and Means, *Edited Transcript of Hearing of the Subcommittee on Highway Funds*, Friday, October 2, 1962 (Sacramento: Assembly Legislative Reference Service), 2. The hearing focused on a proposal (under continuing consideration since 1962) to place administrative—but not highway construction—portions of the Division of Highway's budget under "the same budgetary and fiscal controls as expenditures of other state funds." (Legislative Counsel, quoted on page 4.) Although the focus of the hearing was to be on the topic of the administrative budget, the discussion wandered into other topics, including allocation of construction funds and definition of freeway vs. expressway.

⁷⁵ Governor Warren, in his Highway Message, January 13, 1947, cautioned, "Any reversion to procedures which experience in California and other states has proved to result in log-rolling or in porkbarrel legislation would of course make an orderly development of our highway system impossible." (Pp. 6-7 of the printed message.) In a review of Henry Jones Ford's book *The Cost of Our National Government: A Study in Political Pathology*, Professor W. F. Willoughby referred to "the vicious practice of log-rolling and the pork barrel." Emphasis added. That review was

published in *The American Political Science Review*, Vol. 5, No. 1 (February 1911), 143-145. In a 1962 review, Professor William H. Riker likened log-rolling to “bribery.” Riker was reviewing *The Calculus of Consent*, by James M. Buchanan and Gordon Tullock in the *Midwest Journal of Political Science*, Vol. 6, No. 4. (Nov., 1962), 408-411. Given the attitudes toward the practice of “log-rolling” extending over generations of political scientists, it is not surprising that the concept was held in ill-repute by governors and legislators, at least in their public pronouncements.

⁷⁶ Assembly Interim Committee on Conservation, Planning and Public Works, *Transcript of Proceedings: Subcommittee on Public Works*, August 7-8, 1958, San Francisco (Sacramento: [the Committee], [1958]) 7. That transcript, plus one of an August 5, 1958 hearing of the same committee in Los Angeles, fill nearly 400 pages.

⁷⁷ Assembly Interim Committee on Conservation, Planning and Public Works, August 7-8, 1958, transcript, 1.

⁷⁸ Goodwin’s “California’s Growing Freeway System” explores disputes over the Division of Highways’ procedures for siting freeways and acquiring rights of way. While the public in general was supportive of freeways, individuals and communities often resisted freeways in their own back yards. In putting the freeway and expressway plan into law in 1959, the Legislature specified starting and ending points in general terms, but left detailed routing to the Division of Highways and the Highway Commission. Detailed decisions reflected a combination of factors—efficiency, distance, construction cost, right-of-way cost, esthetics, safety, and community attitudes.

⁷⁹ The report was requested by Senate Concurrent Resolution 26, Chapter 80, Statutes of 1957. As published, the report was *The California Freeway System*, by the Department of Public Works, Division of Highways, September 1958. The population and vehicle registration projections, along with other statistics and analysis, are found in a report by Richard M. Zettel, “The California Freeway Program: An Economic and Fiscal Analysis,” in turn included in a 1959 report on “California’s Highway Problem,” by the Joint Interim Committee on Highway Problems of the California Legislature. (A draft of the Zettel report was issued in November 1958.)

⁸⁰ Joint Interim Committee on Highway Problems, *Report . . . on Highway Problems* (Sacramento: the Senate, 1959), 12.

⁸¹ Collier’s assertions were cited in “Traffic Toll Drop Seen in State Freeway Plan,” *Los Angeles Times*, June 5, 1959, B32. (ProQuest Historical Newspapers, *Los Angeles Times*.)

⁸² “Fund Lack Halts Freeway Work,” *Los Angeles Times*, September 13, 1959, page SG1. (ProQuest Historical Newspapers, *Los Angeles Times*.)

⁸³ “Bids Called for Work on Freeway Section,” *Los Angeles Times*, October 11, 1959, page GB 4. (ProQuest Historical Newspapers, *Los Angeles Times*.)

⁸⁴ For information on that route, Route 65, see “California Highways, Routes 65 through 72,” www.cahighways.org/065-072.html#065. Another example of interest to Sacramento residents—one of several examples in the area—is the Alta Arden Expressway, originally envisioned (apparently) as a freeway, but now a surface street. For a chronology of California’s freeway system (unofficial, but detailed), see “California Highways, Chronology of California Highways,” www.cahighways.org/chronlgy.html. (Websites accessed May 9, 2006.) Note that it is not clear that the mileage outlined in the *California Freeway Plan* was calculated on a “centerline miles”

basis, so my comparisons may be questionable. Nonetheless, much less was ultimately built than had been envisioned, and much that was built was not built to freeway standards.

⁸⁵ The *California Streets and Highways Code*, §257, defines the terms in this way: “For the purpose of this article only, and to distinguish between the terms ‘freeway’ and ‘expressway,’ the word ‘freeway’ shall mean a divided arterial highway for through traffic with full control of access and with grade separations at intersections, while the word ‘expressway’ shall mean an arterial highway for through traffic which may have partial control of access, but which may or may not be divided or have grade separations at intersections.” The term “expressways” was not used in *The California Freeway System*, published by the Department of Public Works in 1958.

⁸⁶ Highway mileage figure from California Department of Finance, *California Statistical Abstract* 2006, Table J-1.

⁸⁷ The 1971 Transportation Development Act (Mills-Alquist-Deddeh Act, Chapter 1400, Statutes of 1971) provided funding for mass transit, but did not itself tap the gas tax for that purpose. By the time that act was passed, it was clear that support was shifting away from the ambitious freeway program enacted in 1959 and toward greater reliance on mass transit.

⁸⁸ David Brodsky, *L.A. Freeway: An Appreciative Essay* (Berkeley: University of California Press, 1981), 120.

⁸⁹ Joint Interim Committee on Highway Problems, *Report . . . on Highway Problems* (Sacramento: the Senate, 1959), 45-46.

⁹⁰ The backlash against freeways was exemplified in *Superhighway—Superhoax*, by Helen Leavitt (Garden City, N.Y., Doubleday, 1970). Leavitt’s book was a scathing denunciation of the freeway program—or at least of its perceived excesses and errors. For an example of aversion to freeway development, see pages 44-45 of Assembly Interim Committee on Highway Problems, *Transcript of Hearing*, Monday, August 27, 1962 (Sacramento: [the Assembly], 1962), where San Francisco’s objections to proposed routes running through residential areas are described. Also see the exhaustive discussion “San Francisco’s Freeway Revolt,” in Herbert Marshall Goodwin’s “California’s Growing Freeway System,” and “Chapter Ten: San Francisco Repudiates its Freeway Plan,” in David W. Jones’ Jr.’s, *California’s Freeway Era in Historical Perspective*.

⁹¹ Raymond Forsyth and Joseph Hagwood, *One Hundred Years of Progress: A Photographic Essay on the Development of the California Transportation System* (Sacramento: California Transportation Foundation, 1996).

⁹² For a readable and scholarly exploration of California’s higher education system up to 1960, see John Aubrey Douglass, *The California Idea and American Higher Education: 1850 to the 1960 Master Plan* (Stanford, California: Stanford University Press, 2000).

⁹³ The principles of the Master Plan were enacted in 1960’s Senate Bill 33, passed in a special session of the Legislature called by Governor Brown. The text of the bill is available at www.ucop.edu/acadinit/mastplan/SB33ExSess1960.pdf. The bill was renamed the Donahoe Higher Education Act in honor of a key author of the 1959 resolution that called for development of the Master Plan, Assembly member Dorothy Donahoe, who died shortly before the bill enacting the result was signed. See www.ucop.edu/acadinit/mastplan/donahoe.htm for brief background and additional resources. (Worth mentioning from that site: “It should be noted that a number of key features of the Master Plan were never enacted into statute and that many of the

current provisions of the Donahoe Higher Education Act are not thought of as being part of the Master Plan.”) The definitive study of the background of the Master Plan is *The California Idea and American Higher Education: 1850 to the 1960 Master Plan*, by John Aubrey Douglass (Stanford, California: Stanford University Press, 2000).

⁹⁴ Douglass, *The California Idea*, 316-17.

⁹⁵ *California Statistical Abstract*, 2006, Table F-1.

⁹⁶ Joint Staff for the Liaison Committee of the State Board of Education and the Regents of the University of California, *Summary of a Study of the Need for Additional Centers of Public Higher Education in California* (Sacramento and Berkeley: State Department of Education and University of California, January 1957). 8. That brief document summarizes the Joint Staff’s *A Study of the Need for Additional Centers of Public Higher Education in California* (Sacramento: California State Department of Education, 1957). The latter is cited as “Additional Centers report” below.

⁹⁷ Additional Centers report, Chapter III.

⁹⁸ For some examples, see page 34 of Carl O. Winter, “History of the Junior College Movement in California,” Bureau of Junior College Education Release No. 20, revised December 21, 1964.

⁹⁹ Winter, “History of the Junior College Movement,” 35.

¹⁰⁰ California Department of Finance, *Five-Year State Building Program: July 1, 1965-June 30, 1970* (Sacramento: State Senate, [1965]), 93.

¹⁰¹ Department of Finance California CPI figures, www.dof.ca.gov/HTML/FS_DATA/LatestEconData/documents/BBFYCPI_000.XLS.

¹⁰² According to testimony to a legislative subcommittee in 1964, UC does not have to bring its construction projects before any state control agency, although it does so voluntarily: “The University of California theoretically does not have to bring its construction projects before any control agency of the State. However, they [choose] to do so on a gentlemen’s agreement. They bring them before the Public Works Board so that our office and the Department of Finance have the opportunity to review them and make suggestions and attempt to control their use of space and their use of the level of space quality the same way that we do with State Colleges.” Dave Keller, Principal Administrative Analyst, Legislative Budget Committee, as witness in Assembly. Interim Committee on Ways and Means. *Edited Transcript of Hearing of the Subcommittee on Highway Funds*, Friday, October 2, 1964. Sacramento: Assembly Legislative Reference Service, 1964. p. 59.

¹⁰³ The roots of the campus date back to 1907 when the California State Legislature established the Citrus Experiment Station to conduct research on the agricultural problems of Southern California. Graduate work was conducted early in the station’s history, and today, graduate education is central to its mission. In 1948 the Regents approved the establishment of the College of Letters and Science. Necessary legislation was passed by the Academic Senate in 1951, and the college opened for classes in February 1954. (Quoted/adapted from www.ucr.edu/about/history.html.)

¹⁰⁴ *Five-Year State Building Program: July 1, 1965-June 30, 1970*, 20.

¹⁰⁵ Department of Finance California CPI figures, www.dof.ca.gov/HTML/FS_DATA/LatestEconData/documents/BBFYCPI_000.XLS

¹⁰⁶ The inflation adjustment reflects the California CPI, using figures for 1963-64 and 2006 for purposes of approximation; www.dof.ca.gov/HTML/FS_DATA/LatestEconData/documents/BBFYCPI_000.XLS.

¹⁰⁷ California State Water Resources Board, *Report on Feasibility of Feather River Project and Sacramento-San Joaquin Delta Diversion Projects Proposed as Features of The California Water Plan*, (Sacramento: the Board, May 1951), 125.

¹⁰⁸ David Jones traces the incubation of “California’s leadership in freeway development” to the Depression years, and specifically to the ambitious “Aldritch plan” for 600 miles of parkways in the City of Los Angeles. *California’s Freeway Era*, 54, 49. More specifically, he attributes “California’s postwar leadership in freeway development [to] the [1947] Collier-Burns Act and subsequent legislation passed in 1953.” *California’s Freeway Era*, 227. Thanks to the California legislation and the 1956 federal highway act, freeway spending and construction had surged by 1958 (Jones, 240-41), and continued to surge for years thereafter.

¹⁰⁹ Data from *California Statistical Abstract*, 1958, Table F-4, and *California Statistical Abstract*, 1970, Table B-5.

¹¹⁰ *California Statistical Abstract*, 1970, Table J-11.

¹¹¹ Nelson C. Price, for Assembly Fact-Finding Committee on Highways, Streets and Bridges, *Digest of Testimony and Reports Considered in Enacting the Collier-Burns Highway Act of 1947*, Preliminary and Supplement to the Committee Report, Number 1 ([Sacramento]: [California Legislature], [1949]), 9.

¹¹² Price, *Digest*, 9-11.

¹¹³ Price, *Digest*, 12-15.

¹¹⁴ The following explanation of “capital outlay” (“capital expenditure”) may be helpful.

Capital outlay, as the terminology is used in California state government, refers to expenditures that are for construction projects to add space or to substantially modify existing facilities, as distinguished from expenditures made for normal, annual program operating expenses associated with facilities and grounds. Capital outlay projects fall into one of two categories: Minor Capital Outlay which includes expenditures for projects with a cost of \$400,000 or less, and Major Capital Outlay which includes all other projects of larger scope and cost.

The costs of a capital outlay project include acquisition of land or other real property, major construction, improvements, equipment, designs, working plans, specifications, repairs, and equipment necessary in connection with the construction or improvement project.

Repairs, renovation, and maintenance of state facilities would normally not be considered capital outlay irrespective of cost.

Source: California Polytechnic State University, San Luis Obispo, “Administration and Finance” section of draft campus administrative policies, <http://policy.calpoly.edu/cap/300/cap310.htm> (accessed July 10, 2006).