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Conditions of Education in California, 1986-87

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Executive Summary and Highlights

Growth, Progress, and Uncertainty Characterize Public Schools

Continuing growth and sustained progress on educational reform characterize California's public schools, but the Gann spending limit, which potentially restricts state dollars for education, and projected shortages of highly qualified teachers dampen prospects for continued educational improvements.

Indications of important educational progress in California, which PACE documented in *Conditions of Education in California, 1985,* continue on many fronts. This is particularly true when compared to the recent decade of serious decline in California's public school system. In 1986, student performance, especially in elementary grades, is improving, the rise in dropouts has peaked, the high school curriculum is becoming more rigorous, the state has enacted landmark legislation providing $4-$5 billion for much-needed school construction, and spending per pupil is approaching the national average.

Despite these hopeful signs, there are threatening clouds. There is likely to be a shortage of highly qualified teachers in the next few years. Quite apart from sheer numbers of new teachers needed to meet projected enrollment increases, further progress in raising student performance will be difficult unless California can accomplish the widely discussed upgrading of its teaching profession. Moreover, securing the fiscal resources necessary to upgrade teaching or, indeed, even to maintain present educational service levels, is seriously threatened by the Gann limit on public expenditures.

Highlights of PACE's annual collection and analysis of California educational data include:

Continuing Growth

1. Elementary and secondary enrollment is now 4.26 million.

2. Total K-12 enrollment grew 2.5 percent since 1985.

3. Minority enrollment stands at 48 percent of total enrollment.

4. Enrollment is projected to grow by 100,000 per year for the next five years. By 1995, total enrollment is predicted to exceed 5.4 million students, an increase of 1.25 million, or 30 percent, over 1985.

5. This rate of growth has not been experienced since the early 1960s and has dramatic implications for school finance, construction, and teacher recruitment.

6. The diversity of California's student population continues to increase. Since 1971, the proportion of blacks is virtually unchanged (at about 10 percent), while the proportion of Hispanics has nearly doubled (from 16 percent to 28 percent). Asian students have tripled their proportion of total enrollment (from 2.2 percent to 7.1 percent), and white students have dropped from 70 percent to 52 percent.

7. A quarter of all kindergarten through 12th grade students have a primary language other than English, and half of these participate in a limited-English-proficient (LEP) school program.

Sustained Progress

8. California continues to gain ground in school funding. Expenditures per pupil increased three percent between 1985 and 1986 and 37 percent since 1982-83.

9. Spending per pupil is now only $16 below the national average.

10. The state enacted a record-breaking $4-$5 billion school construction package.

11. Test scores for reading, writing, and math are higher in most grades. Compared with the nation as a whole, elementary students in California generally score above average, while secondary students rank at or below national norms.

12. Secondary students are enrolled in increasingly more academic courses. Continuing the trend reported last year, and controlling for enrollment growth, the number of class sections offered in science increased 13.3 percent; in math, 3.4 percent; in foreign language, 4.7 percent; in social studies, 1.1 percent; in art, 1.4 percent; and in English, 0.6 percent.

13. The State Board of Education rejected proposed science and mathematics textbooks due to a lack of sufficient rigor, and directed textbook publishers to include more problem solving, critical thinking, and higher order thinking skills in the texts they submit for state adoption.

14. The average salary of California teachers in 1985-86 was $29,084, an increase of 7.6 percent over the preceeding year.

15. Larger proportions of prospective teachers pass the California Basic Educational Skills Test (CBEST); 75 percent in 1985-86 versus 73 percent in 1984-85.

16. The percent of blacks and Hispanics employed in teaching continues to increase, from 12 percent in 1975-76 to 20 percent in 1985-86.

17. California compares favorably to the nation in the proportion of its students progressing to postsecondary education.

Future Uncertainty

18. Over the coming decade, the Gann spending limit (Proposition 4 of 1979) will be the paramount factor affecting policy decisions regarding public revenues and expenditures. It's likely result will be a cumulative adverse impact on the state's ability to expend tax revenues. If the Gann limit is not altered, California will need to reduce expenditures by a cumulative total of 7.2 percent, or about $30.4 billion, between 1986 and 1995.

19. Given projected enrollment increases through 1995, simply to maintain current per-pupil funding will require an annual fiscal increase of between seven and nine percent in the next five years. These increases do not include funding for major initiatives such as teacher professionalization and reductions in class size.

20. Growing numbers of at-risk children may require added and expensive school services.

21. If revenues for K-12 education in California had kept pace with growth in personal income from 1977-78 to 1985-86, school districts would have received approximately $4 billion more than was actually apportioned, an amount equivalent to about $27,000 per class. Today, California ranks 46th among all states on this measure.

22. California will need to hire 85,000 new teachers in the next five years. If legislation to reduce class size and other often discussed reforms are enacted, this number rises to 135,000. Hiring needs are likely to outstrip schools' ability to recruit and training institutions' ability to prepare highly qualified teachers.

23. More than 40 percent of California teachers possess an emergency credential or are assigned to instruct in subject areas outside their major subject matter field. One out of every five classroom teachers (one out of four secondary teachers) enter the workforce for the first time equipped with an emergency credential.

24. The number of class sections offered in vocational education continued a decline which began in 1978. Office education courses, the largest of the program areas, declined 4.4 percent in the last year; industrial arts, trade and industrial, and consumer and home making classes declined between 2 and 2.5 percent each. These enrollment trends suggest that a major state-authorized review of vocational education is appropriate.

25. With the focus of continuing school improvements shifting from the state to local schools and districts, the inability of school districts to generate revenues locally may jeopardize local commitment and ability to sustain school reform.

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Foreword

This is the third annual edition of PACE's *Conditions of Education in California* . Readers familiar with one or both of the previous efforts will note several new sections. We continue our effort to compile and synthesize statistical information on educational dimensions such as enrollment, school finance, teachers and administrators, curriculum and instruction, and student performance. Also, in the section titled "The Evolving Context of California Education," we again provide readers with our judgment regarding the dynamic interplay of economic, demographic, social, and policy conditions surrounding California schools.

Our perspective on the context of California education led us to several additions. First, we broadened our description of student characteristics to include poverty and other conditions of children. A growing number and proportion of children are considered to be at risk in terms of health, safety, family organization, poverty, and the like. Increasingly, schools must cope with these changing social and economic conditions of children, and this portends intense educational challenges for California's future. Our intent here is simply to portray the broader context in which education occurs. It also previews a new publication PACE will issue in 1987 titled *Conditions of Children in California*, which is intended as a companion to the *Conditions of Education in California* series.

Second, we added a section summarizing state legislative decisions affecting education. Recent programmatic and fiscal initiatives have both driven school changes and provided local educators flexibility to address unique needs. This year the legislature enacted a $4-$5 billion school construction package. Yet, indications from Sacramento suggest that the period of large state educational initiatives is waning, leaving to local educators the task of continuing educational improvement.

Third, as state-focused activities subside, questions arise about enhancing local capacity to continue educational reform. In a new section regarding school and district organization and control, we examine the shifting balance of state/local governance of California's public schools.

Educational reforms of the 1980s often overshadow categorical program reforms of the 1960s and 1970s. Yet categorical programs continue to provide needed services to many public school students. Moreover, reform strategies in California have integrated categorical supports with the core curriculum. Our fourth addition, regarding curriculum and special programs, discusses school programs both in terms of the added rigor encouraged by new standards and continuing strategies for addressing special needs.

Finally, we attempt to anticipate and describe significant emerging policy issues. Looking ahead, many believe that the focus of effective school improvement is shifting to classrooms. Accordingly, in this edition we concentrate our analysis on proposals to professionalize California's teacher corps.

Our alterations and innovations are a consequence of productive comments and criticisms we have received from those who utilized past editions of this publication. Consequently, we again welcome the counsel of readers.

We wish to acknowledge the substantial assistance of the following individuals: Helen Cagampang, Todd Greenspan, Mark Ventressca, James Fulton, Greg Bender, Julie Koppich, René Verdin, Marge Plecki, and Donna Kay LeCzel.

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The production of this volume is in substantial measure due to the patience, diligence, and hard work of Phyllis Flagg and Jean Thompson. Unwavering assistance was provided by Judy Snow, Norma Needham, Rabiya Tuma, Darren Wong, Suzan Liao, and Jackie Douglass.

Finally, we wish to acknowledge our appreciation for the financial support that has been generously provided by the William and Flora Hewlett Foundation.

This publication is the result of efforts by dozens of individuals. However, whatever shortcomings exist are the complete responsibility of the PACE co-directors, James W. Guthrie and Michael W. Kirst.

Policy Analysis for California Education

Policy Analysis for California Education, PACE, is a university-based research center focusing on issues of state educational policy and practice. PACE is located in the Schools of Education at the University of California, Berkeley and Stanford University. It is funded by the William and Flora Hewlett Foundation and directed jointly by James W. Guthrie and Michael W. Kirst. PACE operates satellite centers in Sacramento and Southern California. These are directed by Gerald C. Hayward (Sacramento) and Allan R. Odden (University of Southern California).

PACE efforts center on five tasks: (1) collecting and distributing objective information about the conditions of education in California, (2) analyzing state educational policy issues and the policy environment, (3) evaluating school reforms and state educational practices, (4) providing technical support to policy makers, and (5) facilitating discussion of educational issues.

The PACE research agenda is developed in consultation with public officials and staff. In this way, PACE endeavors to address policy issues of immediate concern and to fill the short-term needs of decision makers for information and analysis.

PACE publications include Policy Papers, which report research findings, the Policy Forum, which presents views of notable individuals; and Update, an annotated list of all PACE papers completed and in progress.

The Evolving Context of California Education

The contours of California's educational landscape continue to change, directions of change continue to evolve and sometimes even reverse themselves, and the speed of changes is fast, with reversals occurring within time spans of much less than a decade. This section outlines the evolving context of educational conditions in California by discussing recent trends, summarizing the current status, and identifying emerging issues. It is both a summary of issues and an overview of the broader context within which educational policies develop.

To begin, the magnitude and complexity of education in California are in constant flux and difficult to understand. Public schools in the state now serve more than four million students. Although secondary student enrollment continues to decline, total enrollment has been rising since 1983, and elementary enrollment is rising at a rate faster than that of the early 1960s. The ethnic diversity among public school students is greater now than at any time in history and expands each year; still some districts are predominantly majority. While secondary student performance declined dramatically in the recent past, it now seems to be improving. Performance at the elementary level continues to increase, though it is declining for junior high students. Moreover, while new jobs in teaching were scarce only a few years ago, the state now needs to employ 85,000 new teachers over the next five years, thus expanding employment in education at an unprecedented pace.

Finally, in a state which once had strong local control, there have been significant changes in school finance and governance, all reflecting a rising state dominance. Except for federal revenues, the state determines the level of funding for each local school district; districts are virtually precluded from taxing local property. While the financial squeezes of the early 1980s have been reversed by the funding of educational reform since 1983, which has pumped more than an extra $1 billion of state funds into public schools each year for the past four years, revenue increases are predicted to wane in the near future, and districts now have no recourse to the local property tax. Last, the state has assumed a preeminent role in governance; more key policy decisions are being made in Sacramento, including those on curriculum and instruction.

Education and the Changing Economy

The linkage between education and the changing economy was a major rationale propelling enactment of educational reforms in California and across the country in 1983 and 1984. The business community still believes strongly in this linkage. In 1986 the

Committee for Economic Development, a national organization of chief executive officers of large corporations, issued a major report, titled *Investment In Our Children*, calling for continued educational improvements as vital to restoring the nation's competitiveness in national and international markets.

Analyses of the changing U.S. economy reinforce the rationale for these proposals. The service portion of the economy continues to expand and provide new jobs while the manufacturing portion, at least in terms of numbers of jobs, continues to decline. The manufacturing portion, moreover, is increasingly becoming highly automated which requires skilled workers to assemble and monitor equipment. Recent Bureau of Labor Statistics (BLS) projections[1] reveal that the number of white collar workers will exceed the number of blue collar workers within the next decade. White collar categories include not only managerial, technical, and professional workers, but also people in international finance, trade, marketing, computers, and other high technology jobs. These jobs are characterized by high levels of worker knowledge, on-the-job analysis and problem solving, broader latitude for creativity, independent thought and action, and disciplinary knowledge, all of which obviously require substantial education and training. While there is still debate about trends in the emerging economy--both in California and the nation--these recent BLS data support an argument for increasing skill requirements for the changing nature of jobs, which reinforces the need to continue improvements in the nation's and California's educational systems. The emerging economy necessitates adaptable employees, prepared for a working life of continual learning, problem solving, and communicating.

The Recent Past

Educational reform has been a response to systemic declines in school enrollments, student performance, and financial resources. Represented in California by Senate Bill 813, educational reform sought to reverse these trends, to improve all local schools, and to return California's overall state educational system to a level of excellence and national prominence. It was part of the national response to calls for reform from several reports released in 1983. It signaled a return of education to a priority position on the state's policy agenda after enrollment drops, falling student performance, and fiscal pressures from Proposition 13 and a national recession had eroded the quality and substance of California's schools.

In *Conditions of Education in California, 1985*, PACE documented the substantial progress local schools and districts were making in response to reform initiatives. Contrary to skeptical opinion, numerous studies from PACE and others disclosed that, in the first two

[1]Janet L. Norwood (U.S. Commissioner of Labor Statistics), "The Growth in Service Jobs" (New York: New York Times, August 28, 1985).

years after educational reform enactment, local educators were implementing widespread changes, all in directions specified by Senate Bill 813. Students were attending school for longer days and more days during the year, they were receiving better counseling on a program of studies leading to high school graduation and the learning of bodies of knowledge, they were taking additional and more rigorous academic courses, and they were performing better on tests of academic performance. Teacher salaries had improved significantly, and a mentor teacher career rung had been created as a first step in expanding roles and responsibilities for California's best teachers. Several new accountability measures had been developed providing policy makers with more information on how the system was functioning than at any time in history. The financial condition of schools had reversed the declines of the early 1980s and showed promise of returning to national prominence. In short, by the fall of 1985, it was fair to conclude that educational revitalization seemed to be on track and moving in the direction intended by those who framed California's reform programs. Reform efforts seemed to be reversing systemic fiscal declines and addressing curricular and performance deficits.

While improving the quality of education has been the driving educational policy issue in the past three years, both in California and nationally, several other issues, of perhaps equal significance, have begun to emerge. In *Conditions of Education in California, 1984*, PACE described the changing demographics and rising minority enrollment in California's public schools. Today and in 1984, minorities comprise more than 50 percent of elementary school enrollment. While PACE predicts a "majority minority" enrollment percentage by 1990, such probably would exist today if the minority high school dropout rate was not so high. Minorities in California, moreover, include not only blacks and Hispanics, but also rapidly rising proportions of Asians--Chinese, Japanese, Koreans, Vietnamese, Laotians, and Filipinos. The state, and especially Southern California, is becoming a multi-ethnic community in which no specific ethnic group comprises a majority. In addition, many of these new minority students come from homes with incomes below the poverty level; in fact, nearly one of every five students comes from a poverty background, with the poverty incidence of public school pupils rising. For the public school system, increasing student diversity portends expansion of programs for special-needs students at a time when educational excellence seems to have more political salience than does educational equity.

A related theme, and an additional issue addressed in the 1985 issue of *Conditions of Education in California*, was that of growth. Just as everyone became aware of and began to adjust to the enrollment declines of the 1970s, California suddenly reversed itself and began what appears will be at least a decade and a half of enrollment growth. Fueled by a baby "boomlet" of the post-war generation and immigration from Latin America and the Pacific Rim, California is experiencing public school enrollment growths that rival the rate of the 1960s. On average, more than 100,000 new students are predicted to enroll in California's public schools each year for the next decade. This growth not only requires large infusions of operating revenues (about $400 million per year) but also requires

building new schools and refurbishing and modernizing old schools. The cost of capital outlay is estimated at an extra $1 billion each year for at least the next five years. Thus, on top of the reform thrust and increasing student diversity, enrollment growth adds additional complexity and further expands the system's fiscal needs.

In this issue of *Conditions of Education in California,* PACE outlines three new and evolving issues, all of which add to the complexity of California's educational policy making: (1) the need to develop teaching into a full-fledged profession, (2) projected waning fiscal support for education, and (3) rising dominance of state agencies in educational governance in matters of curriculum and instruction. The latter is a theme cutting across several issues and highlights a need to reinvigorate and strengthen the local role--fiscally, educationally, and politically. Before outlining these topics, we address the continuing and politically important issue of sustaining the educational reform momentum.

Sustaining Educational Reform

While *Conditions of Education in California, 1985* identified several structural changes brought about by educational reform--creation of model curriculum standards, increased enrollment in academic courses, longer days (six periods in every high school) and longer school years (180 days), participation in the Mentor Teacher Program, certification of administrators in skills for teacher evaluation, creation of new administrator training centers, development of additional and more rigorous state assessment tests, and publication of 28 quality indicators for each local school district--long-term implementation of the letter and spirit of Senate Bill 813 requires qualitative and substantive changes along several dimensions.

In fact, structural changes can be relatively straightforward. For example, expanding the number of mathematics and science courses is relatively easy. However, determining the content of those courses, selecting adequate textbooks, purchasing appropriate materials, recruiting qualified teachers, training teachers in the necessary skills, changing district policies and school structures to nurture the teaching of those courses, and ensuring that new courses produce improved student learning is a long-term, complicated, and difficult process, the existence and success of which are not assured by structural changes alone. While the lack of obvious structural changes would suggest that the system has not taken initial steps, their existence means only that necessary first steps have been taken.

Full and effective implementation of the goals of educational reform--better curriculum, improved teaching, successful schools, and rising student knowledge and ability to think--requires changes in teachers' attitudes and skills, in administrators' expertise, and in school organization and culture, all of which are difficult, time consuming to produce, and dependent upon local enthusiasm, commitment, and effort. *Put differently, the locus of action and responsibility for improving California's educational system now shifts to the*

local level. Increasingly, it is the responsibility of school board members, central district office staff, site administrators, and especially teachers to transform local schools and render them institutions of excellence. While the state can initiate and nurture these processes, it cannot mandate their outcomes; while the state can provide resources and encouragement for these processes, it cannot implement them. In short, the state now depends upon actions of those at the local level, persons who actually manage and deliver educational services to students, to implement the hopes of educational reform and improvement.

As this implementation process unfolds, there are at least three supportive roles for state officials. First, the state can gather information on how the reform process operates in schools and districts successful in deepening the curriculum, improving pedagogical skills of teachers and curriculum leadership skills of administrators, strengthening school cultures, and raising student performance. State officials can then use this information to modify state policy, both to change elements of policy that impede this local process as well as to strengthen or add policies that support it. The state also can disseminate information as well as train people in the content and skills needed to implement change processes in their schools.

Second, the state needs to assess the manner in which educational reform affects special-needs students--the poor, limited-English-proficient, and handicapped. Many fear that successful educational reform implementation might derail the level and quality of services provided to poor students. Based on preliminary research, a forthcoming PACE study indicates, however, that educational reform is actually strengthening services provided to poor students in federal and state compensatory educational programs.[2]

Third, as reform implementation proceeds, the state needs to provide reliable data on the high school dropout rate. Again, many believe higher standards and added academic requirements will drive more students out of high school and at least elevate enrollment in continuation school. More facts are needed on this issue, and a first step is better data. If expectations of rising high school dropout rates are confirmed in the future, sound policies will be needed to provide the additional services to help at-risk students meet new standards. Educational reform cannot progress with a rising high school dropout rate.

[2]Allan Odden, Educational Reform and Services to Poor Students: Win-Win in California (Berkeley: Policy Analysis for California Education (PACE), forthcoming).

Professionalizing Teaching

Perhaps no place is the local dimension of educational reform implementation more apparent than in the quality of public school teachers, and California (like many other states) has allowed the teaching profession to decline. The need to address this issue becomes painfully obvious as reformers realize that, ultimately, the success of educational reform is in the hands of teachers.

In California and across the United States, several comprehensive proposals to develop teaching into a full-fledged profession were made in the past year. California's Commission on the Teaching Profession, chaired by Dorman Commons,[3] the Holmes Group of School of Education Deans,[4] and the Carnegie Forum on Education and the Economy[5] all released comprehensive reports with proposals to reform, expand, and strengthen teacher preparation; tighten requirements and standards for being admitted into the teaching profession, including a national test; improve working conditions in schools along several dimensions (including lower class sizes in California); expand teacher roles within schools beyond just classroom teaching; and improve salaries and total economic compensation, including 12-month teacher contracts.[6]

Two factors propel these sweeping and comprehensive proposals. First, supply and demand forces have been moving in opposite directions and, if unaddressed, will create a shortage in the supply of highly qualified teachers. Retirements and rising student enrollment are increasing demand, creating the need for 85,000 new teachers in California over the next five years. Employment opportunities for women and minorities (traditional supply pools for teaching) created by affirmative action, widening opportunities in an expanding service economy which offer better salaries and working conditions for service-oriented individuals, declines in the number of students entering postsecondary education, and diminished percentages of those entering teacher training programs illustrate the major forces restricting teacher supply. These factors, combined with increasing information on the decline in academic talent of individuals entering and remaining in the teaching profession, have heightened sensitivity in California and the nation to the crisis in the teaching profession. Not only might there be insufficient numbers of teachers in the near future, but also the quality of those teachers might be less than desired.

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[3]Who Will Teach Our Children? (Sacramento: California Commission on the Teaching Profession, November 1985).

[4]Tomorrow's Teachers: A Report of the Holmes Group (East Lansing: Michigan State University, 1986).

[5]A Nation Prepared: Teachers for the 21st Century (New York: The Carnegie Forum on Education and the Economy, May 1986).

[6]Geraldine Clifford and James W. Guthrie, Ed School: A Brief for Professional Teacher Training (Berkeley: University of California Press, in press), provides a historical and contemporary analysis of teacher training in the United States.

Second, the success of educational reform hinges on what teachers do in classrooms. Both an insufficient number and a drop in the quality of teachers threaten successful attainment of educational reform goals.

Thus, reformation of the teaching profession has become in California and several other states the "after burner" of educational reform, the new issue on which the long-term success of reform may rest. More talented individuals can be attracted to teaching if preparation is reformed, standards for formal entry are stiffened, working conditions are improved, and economic rewards enhanced. High quality teachers also can continue to implement educational reform and, over time, institutionalize a more productive educational system.

This issue also could become the rationale for continued increases in educational funding. The Carnegie Forum's recommendations would require $46 billion nationally; Common's Commission recommendations require between $1 billion and $2 billion in California. While expanding requirements and strengthening standards were the hallmark of the educational reforms of 1983 and 1984, and were sufficient rationales for increased general funding, improving teaching as a profession may become the key focus for attention and increased funding at least through the end of the decade.

Funding Schools

Educational excellence can be achieved, but it requires consistent provision of adequate resources. The up-and-down pattern of school funding of the past 10 years is a hindrance to long-term improvement. California policy makers have treated public education well in the past four years, since the 1983 reform. Per-pupil revenues increased by $165 between 1983 and 1984, by $245 between 1984 and 1985, by $305 between 1985 and 1986, including approximately $120 from the California lottery, and by $160 between 1986 and 1987. These figures are impressive. In addition, it appears that additional funding has bought important changes in the educational system. The 1983 strategy of tying funding increases to reforms is succeeding.

But recent history is not complete history, and events before 1983 and projections for after 1987 modify the optimism embodied in the foregoing fiscal figures. First, school funding in California declined significantly in the years before Senate Bill 813. In fact, by 1986 funding increases accompanying educational reform had merely made up previously incurred losses; *put differently, funding per pupil after adjusting for inflation in 1986 almost matched what it was in 1980.* Further, projections of likely educational funding over the next few years reveal per-pupil funding increases declining rapidly from the 1986 figure to below $100, and less than that if inflation continues its low level. *In other words, the fiscal growth of the last few years may halt abruptly.*

There are several factors behind this possibility. First, education may move out of the priority funding position it has held for the past few years, and reform and the lottery have fueled the revenue rises. It is difficult, however, for governmental leaders to continue to channel large funding increases into the same function year after year, even if it warrants the dollars. There is sentiment in Sacramento that "education has had enough." Thus, politically, it will be difficult for education to garner increasing allocations from limited state resources.

Second, education received the bulk of revenues from the new lottery. Even though this source does not produce large amounts of revenues (about $100-$120 per pupil) and is unlikely to increase in amount per pupil after 1987, there is a widespread impression in both policy making and lay circles that education has benefited enormously from a new revenue source. Few people realize that K-12 education receives only about 28 cents of each dollar that is spent on the lottery, that this increases per-pupil expenditures by only three percent, and that despite this and other revenue increases, per-pupil funding in real dollars has only just returned to the 1980 level. Thus, even if Californians spend $2 billion on the lottery, public education funding rises just over $500 million--a little above what is needed to cover *one* year of enrollment growth. Moreover, lottery revenues were never intended to finance traditionally funded educational needs, such as those associated with enrollment growth. Rather, lottery revenues were envisioned as a resource for improving existing programs or adding new programs.

Finally, the 1979-enacted Gann limit, if not altered, will further depress educational funding as well as funding for many governmental services. The fact is that the service population for education is rising at a faster pace than California's total population, which is one major variable in the Gann limit. Second, the cost of providing governmental services rises faster than the inflation rate (the other variable in the limit) when inflation is low. Since inflation is now low, both variables function to limit state expenditures to a level below that needed to maintain current service levels. Unless changed, the state will simply be unable to fund education on an even basis, unless revenues are allocated to education from other functions which also need scarce revenues.

The effects of these limiting factors on school finances are intensified by additional educational needs, all increasing the revenue requirements of schools. First is enrollment growth, which requires at least $400 million new dollars each year. Second is the increasing numbers of poor, limited-English-proficient, and learning-disabled students, all of whom typically require more than the base level of educational funding. Third is professionalizing the teaching profession, which could require as much as an extra $1 billion to $2 billion in 1986 dollars.

In short, California school financing will require concerted attention over the next four years. Continuing to implement educational reform, upgrade the teaching profession, fund enrollment growth, and build classrooms requires substantial per-pupil funding increases,

while the Gann limit and the short issue-attention cycle in many political circles combine to make steady-state per-pupil funding a more realistic prediction.

This cloudy future for California school financing reflects an additional element of the change in the state and local role in California educational policy, namely, the loss of local revenue discretion. In most other states, property taxes can be levied by local officials to provide additional resources. In California, this decision-making authority was eliminated in 1978 by Proposition 13. Yet local revenues have played important roles in financing educational reform in several other states. In the Southeast, the increase in the local fiscal role was larger in several states that increased state funding for educational reform, even in states with a one-penny increase in the state sales tax. In Texas, the local property tax provided $700 million in new educational revenues in addition to the $1 billion of new state funds.

The absence of local district access to the property tax in California means that the decision and the burden is shifted to the state, with all the fiscal and political implications that follow. There are a variety of ways to cope with the reality of declining revenues at a time when educational needs are increasing, but they all involve extremely difficult political decisions, e.g., allocating a larger share of state revenues to education, changing the Gann limit, and altering Proposition 13 to allow greater local access to the property tax. The inescapable conclusion, however, is that the present course of events may not provide the resources necessary even to sustain present educational reform efforts.

A Broader Context: Conditions of Children

Formal education and the individuals in it do not exist in a social vacuum. They and their educational prospects and accomplishments are profoundly affected by their position and experience in the larger society, and a growing number of children are considered to be at risk. The incidence of poverty, teen suicide, crimes by and against children, malnutrition, and substance abuse has been climbing. Family organization has changed dramatically, creating unmet needs for childcare and a growing number of latchkey children. Increasing numbers of disadvantaged and limited-English-proficient children are entering California's public schools.

More and more, these environmental factors outside classrooms are changing the nature of schooling and thus the focus of state educational policy making. Increasingly, changing demographic characteristics and student social conditions may drive policy decisions. This

argues for a broader public policy perspective regarding children and schools as well as closer linkages among public and private institutions.[7]

Schools are perhaps the most familiar of the public institutions charged with serving children, though they are by no means alone. By virtue of numbers of people involved, the amount of time spent, and education's share of the social resources allocated to children's services,[8] schools tend to come quickly to mind in thinking about children's issues. Scores of other public agencies at the federal, state, and local levels have responsibility for various facets of children's services, in addition to many nonprofit and private ventures. The current arrangement of public schooling and other children's services, and the fragmentation by level of government and service sector which characterizes it, are the historical result of many social, economic, demographic, and political factors. The result is that the children's needs often fall through the gaps of various service deliveries.

Increasingly, schools must cope with the evolving demographic characteristics and social conditions of children. These changing conditions mean, in part, that schools must educate a growing percentage of students--minorities, limited-English-proficient, and poor--with which they have not always been successful. In the case of single-parent families and latchkey children, no data exist that indicate whether or how students are affected by these changes and, therefore, what additional educational needs they have. Thus, social and economic conditions of children portend intense educational challenges for California's future.

In order to educate these students, integrate them into the core academic program, and continue the momentum and success of school reform, it is imperative that policy makers and educators understand the close connection between the conditions of education and the conditions of children. The broader context of schooling is noted here briefly to illustrate future policy challenges for state and local decision makers.

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[7]Accordingly, PACE is beginning a major effort to collect available indicators on the conditions of children in California, identify needed but unavailable data, and stimulate discussion regarding new approaches to child and youth policy in light of the current and projected situation. We are compiling these materials in a forthcoming document, *The Conditions of Children in California*, in an attempt to provide a comprehensive profile of the aggregate and particular conditions affecting children's lives. Following the lead of *Conditions of Education in California*, we will assemble and analyze information from varied sources, rather than propose particular policy actions. The mission of the PACE *Conditions* series is to provide an organized and high quality data base to inform public and policy decisions.

[8]Children's services in its broadest meaning comprises the array of activities geared to providing for the health, education, and welfare of children and youth. These tend to be expressed most often in terms of the public sector service clusters: elementary and secondary education, health, juvenile justice, child protective services, income support, and social welfare. We use the term in this broad sense.

Summary

The need for a better school system is more apparent today than in 1983. Every year, reports highlight the need for an increasingly educated work force for an evolving economy. If Senate Bill 813 initiated the process of improving California's schools, then accomplishing educational reform goals remains a major piece of unfinished business, and the state may already have exhausted much of its leverage in furthering those goals.

A major theme of *Conditions of Education in California, 1986-87* is that local roles need to be revitalized. Full reform implementation depends on teachers exerting commitment and effort toward reform objectives; adequate school funding may turn on a revived local role in school finance; and more effective schools will evolve only if teaching is developed into a full-fledged profession, administrators cooperate collegially with teachers in the process, and the state assists local educators in continuing to create the needed renaissance in California education.

State Government Actions Affecting Public Schools: The Year in Review

Passage of a massive school facilities package (see page 55) was the major accomplishment of the 1985-86 legislative session. Its enactment was one of the most important educational initiatives in California history. Also, reform initiatives originally contained in Senate Bill 813 in general were fully funded as was the cost-of-living adjustment initially proposed in the governor's budget.

The 1985-86 legislative session marked the end of a period of dramatic state educational reform initiatives and served as a harbinger for future uncertainty. For the first time since the national resurgence of interest in educational issues and the state emphasis on reform and standards, there were no fundamental structural or programmatic state initiatives enacted. Legislative proposals to extend the law relating to beginning teacher salaries failed to pass. In addition, the "Cash for CAP" program, which provides monetary incentives for high schools to improve standardized test scores, was slashed in a dispute over use of public employee retirement funds.

Reaction to the newest round of reform proposals initiated by the California Commission on the Teaching Profession, designed to improve the quality and quantity of public school teaching, was, as one veteran Sacramento political pundit described, "a giant yawn." None of the commission's most important recommendations were enacted, and even a much diluted version of the commission's proposal regarding a new governance mechanism for teacher credentialing was scuttled. The legislature did send a $60 million class size reduction measure to the governor, which he vetoed, just as he had in 1985.

A second indication that the recent period of dramatic growth may be ending is the steady-state school budget (see page 45) adopted for 1986-87, though the gap between California per-pupil expenditures and the national average continued to close.

A prominent cause of the waning enthusiasm for increasing educational expenditures is the looming presence of the Gann limit (see page 64). No other issue so pervasively dominated legislative discussions in the budget committees. In this sense, 1986-87 may have been, at least for a while, the last of the "good" budgets, a precursor of more difficult fiscal times to come.

Less obvious, but of equal importance, is a marked shift by the legislature toward greater fiscal conservatism, most notably in the Senate. There, in response to the increasing power and influence of more conservative members of the Democratic Caucus, the Senate Rules Committee divided the Finance Committee, establishing separate

committees for the budget and for bills containing appropriations. The new Appropriations Committee is chaired by Senator Dan Boatwright, who has never voted for a general tax increase and who is a forceful advocate for strict limits on governmental spending.

Selection of Senator Boatwright as chairman of the Appropriations Committee reflects a growing fiscal conservatism among members of the Senate as well as a growing concern that past legislative practices on budgetary issues have been unsuccessful. It was once accepted political practice that one could vote for appropriations bills with impunity, leaving them for the governor to veto. That strategy has not had the expected result of rendering the governor the "villain." Instead, the legislature has sometimes appeared to the general public to be fiscally irresponsible. In addition, by not being selective regarding bills it forwards to the governor, the legislature is effectively precluded from establishing priorities. On the other hand, the governor is able to sign only those measures he supports, effectively promoting his own priorities.

Any immediate sense of fiscal crisis has been assuaged by the substantial infusion of public funds for education, including lottery revenue. Also, to the degree that reform proponents assert that reform is working, the perceived necessity for additional corrective efforts diminishes. Herein resides the reform irony: as one reform appears to succeed, support for another ebbs. It is also a political axiom that policy issues follow predictable cycles. The California legislature may be moving to other crises, such as prisons and toxics, as its attention to educational reform subsides.

The California Commission on the Teaching Profession is renewing efforts to encourage enactment of its recommendations. It is in the process of preparing a comprehensive reform package which the commission intends to advocate vigorously. The efforts of the commission have been buoyed by national reports, most notably from the Carnegie Commission, the Holmes Group, and the National Governors Association.[9] Establishment of a national board for professional teaching standards, as recommended by the Carnegie Commission, could be a powerful stimulus for continued educational reform in California.

Finally, there appears to be a growing realization among key state policy makers that the state may be reaching its limit in promoting school reform. In order for reform to become an integral part of schooling, local involvement, commitment, and capacity will be critical. Accordingly, there is evidence that local school boards may gain increased fiscal authority over their districts. These changes, described below, cannot be characterized as a trend, nor are they part of a well-articulated plan to increase local autonomy and reduce state power and influence on educational issues. However, these changes, cumulatively, may well have a significant long-run impact on school governance.

[9]Time for Results (Washington, D.C.: National Governors Association, 1986).

First, ACA 55, adopted in June 1986, provides that local governing boards may, with approval of two-thirds of district voters, incur bonded indebtedness for site acquisition and capital outlay, and retire bonds by temporarily increasing property tax rates. Although a two-thirds vote is seldom easy to attain, this new provision does permit school districts to seek voter approval to supercede the limit placed on property taxes by Proposition 13.

Second, of far greater importance, is the authorization granted by the legislature in the school facilities package which permits school district governing boards, by a simple majority vote, to impose limited developer fees for site acquisition and school construction. This newly acquired power to levy fees marks the first significant revenue-raising power granted to local school boards since 1978 enactment of Proposition 13. With these changes, school district elections may assume added significance now that trustees have greater revenue-raising authority.

The 1986 legislative session also resulted in enactment of a provision permitting school district trustee elections to occur simultaneously with general elections. This innocuous measure may have greater implications for governance than is initially evident. School district officials contend that trustee elections are currently characterized by extremely small voter turnouts because of the lack of interest in off-year local issues. Low turnouts in turn allow relatively small special-interest constituencies to control elections, thereby eroding public credibility of local school boards. By consolidating trustee elections with general elections, larger voter turnouts may be induced.

The combined effects of consolidated elections and new revenue-raising authority may enhance power and visibility among local trustees. In contrast, the legislature again restricted local control by forbidding school districts from authorizing student smoking areas, and establishing minimum grade point averages for participation in interscholastic activities, issues that most other states regard as local school board prerogatives.

In sum, after a period of substantial growth, fiscal resources have stabilized and the prognosis for the immediate future is decline. The legislature, partially in response to the upcoming shortage of revenues, has become more fiscally conservative. Reform efforts appear to have lost their early momentum, and the locus of future change, primarily because of limited resources, may have shifted to local districts and to the private sector at the national level. In spite of the negatives, the 1986 legislative session may be remembered positively for enactment of a school construction package that addressed the most pressing problem currently facing many schools: housing California's growing number of students.

Enrollment and Student Characteristics

Student enrollment in California's public elementary and secondary schools totaled 4.26 million in the 1985-86 school year (Figure 1). More students attend public schools in California than in any other state in the nation. In fact, over 10 percent of the nation's school-age children are enrolled in California elementary and secondary schools. California enrolls more than a million more students than Texas, which has the next largest school enrollment at about three million. Following Texas are New York, Illinois, Ohio, and Michigan (Figure 2).

The figure of 4.26 million students represents a 2.5 percent increase in enrollment over the previous year, and a 5.2 percent enrollment increase since the beginning of the decade (Figure 1). Although almost all counties are experiencing enrollment increases, most of the growth is occurring in a few southern counties--San Bernardino, Riverside, Los Angeles, San Diego, and Fresno. Over 34 percent of all K-12 enrollment is found in California's 25 largest school districts.

Enrollment in California varies across grade levels (Figure 3). The largest number of students is enrolled in grades 9 and 10, but the high school dropout rate reduces the totals for grades 11 and 12, thus grade 12 enrollment is only 70 percent of grade 9. There is an unexplained jump in enrollment between grade eight and grade nine, and the leap has been increasing since 1980-81. For 1985-86, enrollment is almost 60,000 students more in grade nine than in grade eight. Several factors could account for this phenomenon. For example, students could be transferring from private elementary schools to public high schools. While data in Figure 5 show that this occurs, they do not account for the large number involved. Also, otherwise unclassified students could be counted as ninth graders, thus arbitrarily increasing grade nine student counts. Whatever the combination of explanations, the numbers shift dramatically between grades eight and nine.

Other features of Figure 1 should be mentioned. First, enrollment increased between 1984-85 and 1985-86 for all elementary grades, K-6. Second, for grades K-8, the lower the grade, the higher the enrollment. This reflects increasing student enrollment fueled in part by new births from the baby-boom cohort reaching adulthood and by immigration. Results will be twofold. First, enrollment increases will be observed in elementary grades as rising numbers of kindergartners move into higher grades. Since upper elementary enrollment is less than current secondary enrollment, the second effect of the current enrollment by grade pattern will be continued enrollment decreases in secondary schools at least over the short term; it will take about five years for elementary enrollment increases to produce enrollment increases at the secondary level.

FIGURE 1

Public K-12 Enrollment by Grade, 1980-81 to 1985-86

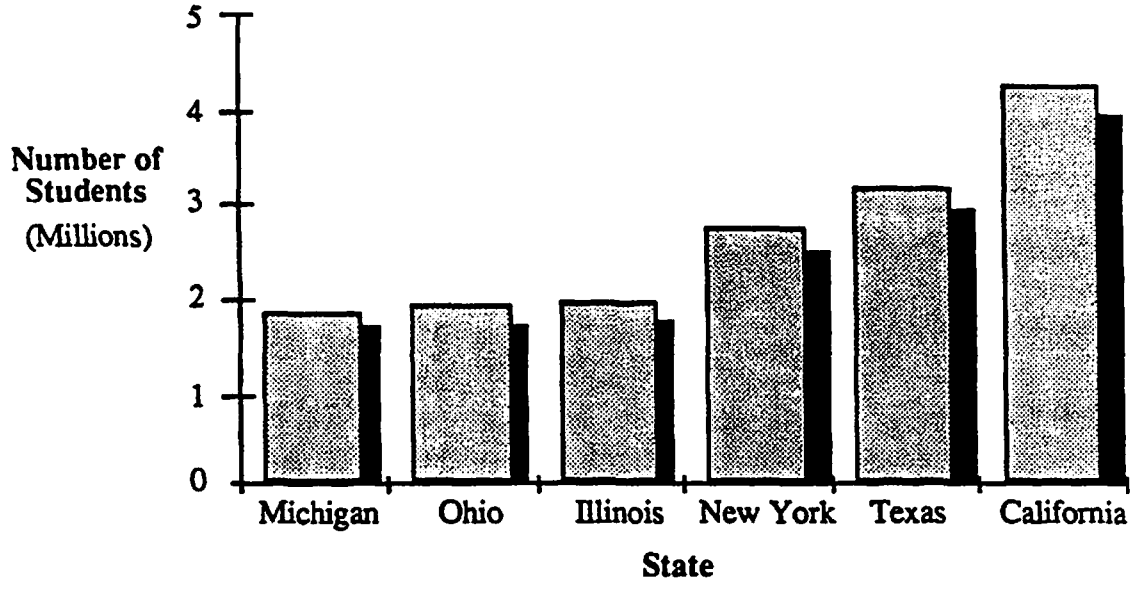
Level	1980-81 Enrollment	1981-82 Enrollment	1984-85 Enrollment	1985-86 Enrollment	Percent Change Between 1981-82 and 1985-86*	Percent Change Betwen 1984-85 and 1985-86
State Total	4,076,421	4,046,156	4,151,110	4,255,554	5.2	2.5
K	288,101	300,239	336,766	360,210	20.0	7.0
1	291,179	298,341	330,089	350,046	17.3	6.0
2	278,041	287,652	315,807	325,825	13.3	3.2
3	285,299	282,464	303,547	320,083	13.3	5.4
4	305,299	290,323	298,081	308,202	6.2	3.4
5	319,418	310,874	294,265	303,277	-2.4	3.1
6	315,095	324,324	290,546	299,902	-7.5	3.2
7	304,795	322,264	306,763	304,180	-5.6	-0.8
8	302,739	307,429	324,432	307,778	0.1	-5.1
Other Elementary	67,201	45,878	45,666	47,202	2.9	3.4
Subtotal Elementary	2,757,708	2,769,788	2,845,962	2,926,705	5.7	2.8
9	327,029	326,143	364,166	363,733	11.5	-0.1
10	332,489	334,287	352,756	367,941	10.1	4.3
11	317,141	311,518	307,314	325,690	4.5	6.0
12	274,831	280,818	254,211	243,398	-13.3	-4.3
Other Secondary	67,223	23,602	26,701	28,087	19	5.2
Subtotal Secondary	1,318,713	1,276,368	1,305,148	1,328,849	4.1	1.8

*The year 1981-82 represents the recent low point of K-12 enrollment. Comparisons of enrollment growth using 1981-82 as a base more accurately reflects total enrollment growth experienced in the 1980s.

SOURCE: California Basic Educational Data System (CBEDS).

FIGURE 2

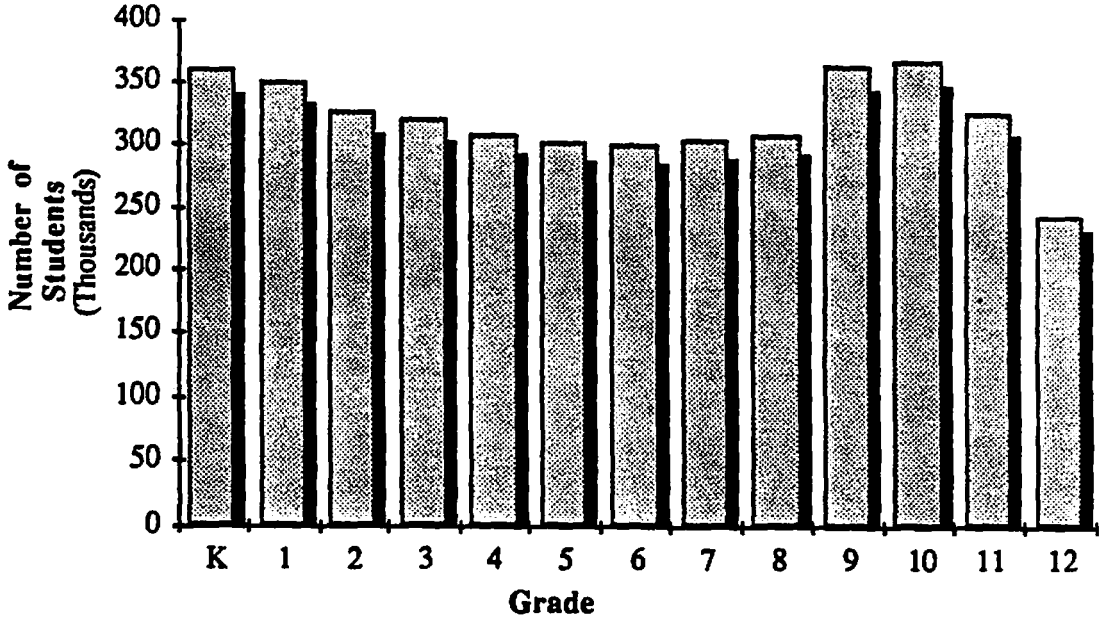
Six States with the Largest Public School Enrollment, 1984-85



SOURCE: "Estimates of School Statistics, 1985-86," National Education Association (NEA).

FIGURE 3

Public K-12 Enrollment by Grade, 1985-86



SOURCE: California Basic Educational Data System (CBEDS).

Enrollment Projections

State Department of Finance enrollment projections reveal total graded public school enrollment increasing at least through 1995, as shown in Figure 4. By 1995, total enrollment is predicted to exceed 5.4 million students, an increase of 1.17 million or 27.5 percent over 1985. Those figures represent large increases and match the pace of enrollment hikes experienced in the 1960s.

Again, projected enrollment increases vary substantially by county, with southern and central valley counties predicted to experience the bulk of enrollment rises: Riverside (+62.7%), San Bernardino (+58.0%), San Joaquin (+55.6%), Kern (+42.2%), Sacramento (42.1%), Stanislaus (+38.7%), Tulare (+35.7%), and Fresno (+35.5%). While Los Angeles County student enrollment is predicted to increase by "only" 24.8 percent between 1985 and 1995, this represents more than 300,000 new students, a monumental increase in absolute numbers. While enrollment growth is a key characteristic of the landscape of California education, the growth curves are higher in the south and the central valley than in the northern part of the state.

Private School Enrollment

Private school enrollment totaled 536,920 students in 1985-86, down more than 3,000 students from the previous year (Figure 5). Whether this dip will represent a long-term trend is unknown at this time. It does, however, reflect continuation of an inverse relationship between the trends in private and public school enrollment. Private school enrollment increased during the first half of this decade, while public school enrollment dropped; now public school enrollment is rising while private school enrollment may have begun to decline.

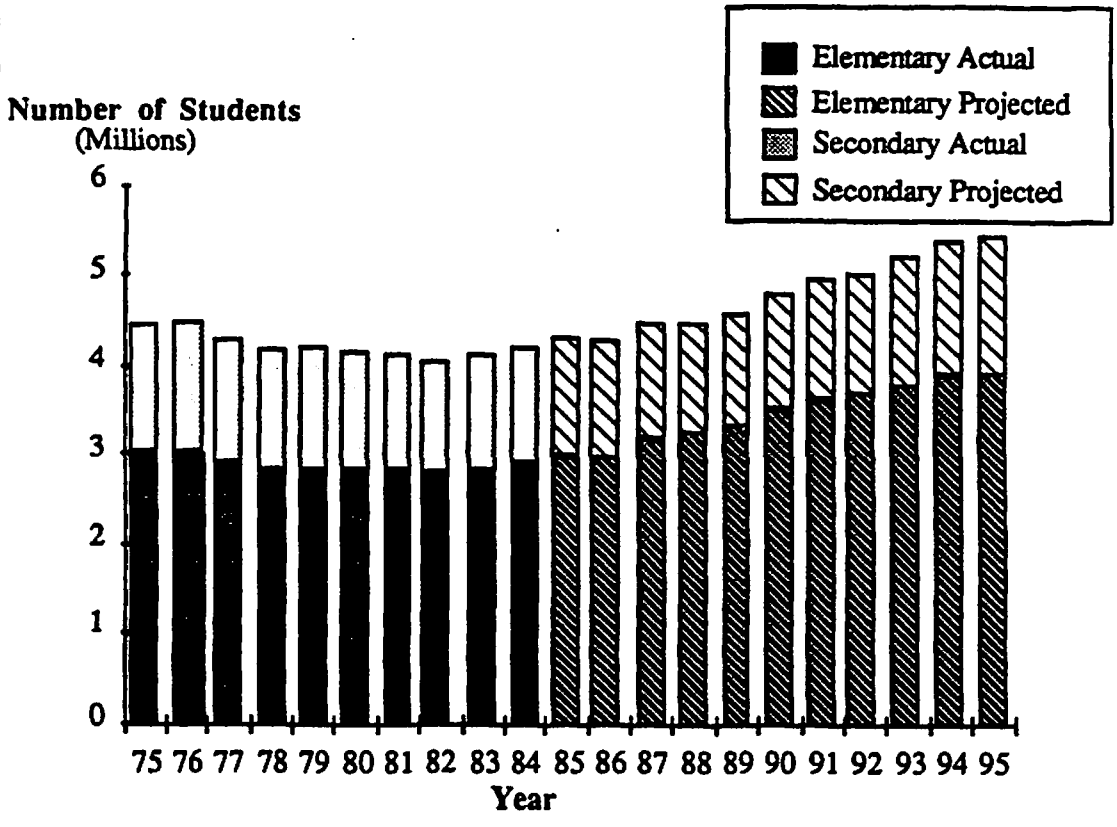
There does appear to be a reversal in the percentage of total school enrollment represented by enrollment in private schools, as displayed in Figure 6. While this percentage grew from 8.7 percent in 1975 to 11.7 percent in 1983, it now seems to be on the decline, having fallen to just over 11 percent in 1985. This trend would reflect a public school enrollment growth that exceeds that of private schools, a phenomenon that seems to be characteristic of the recent past, and probably of the next 10 years as well.

Los Angeles County, with a private school enrollment of over 207,000, accounts for approximately 39 percent of all students attending private schools. This high percent not only reflects the concentration of total population in Southern California but also indicates that private schools are more concentrated in the southern part of the state.

Private school enrollment differs by grade level, with the largest enrollment in the early elementary grades and the smallest enrollment in high schools (Figure 7). The differences are dramatic, with private kindergarten enrollment more than double that of grade 12.

FIGURE 4

Public School Enrollment Trends and Projections, 1975-1995



SOURCE: California Basic Educational Data System, CBEDS (actual), and Population Research Unit, California State Department of Finance (projected).

FIGURE 5

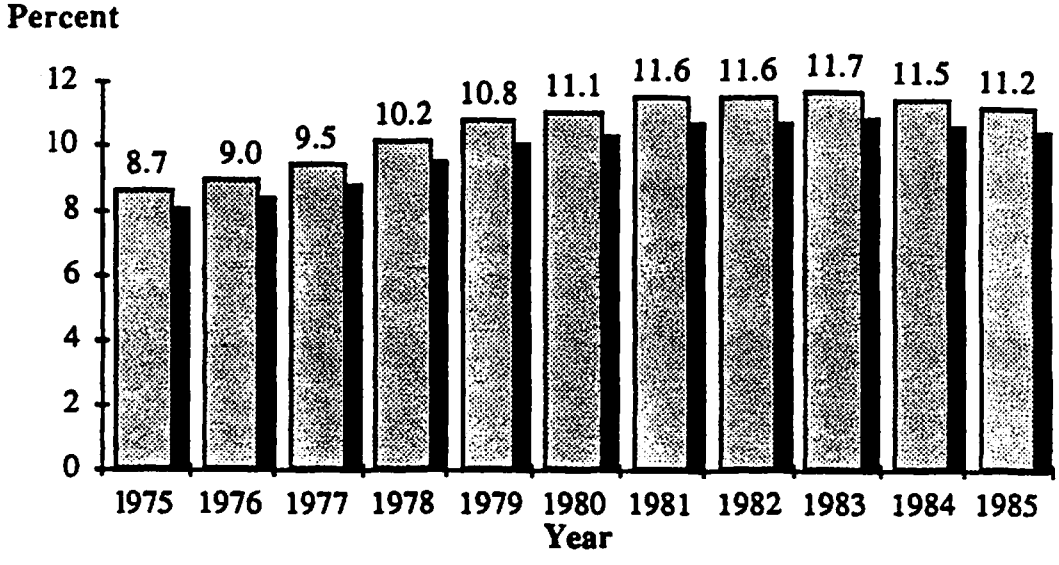
Private K-12 Enrollment by Grade, 1980-81 to 1985-86

Level	1980-81 Enrollment	1984-85 Enrollment	1985-86 Enrollment	Percent Change Between 1980-81 and 1985-86	Percent Change Between 1984-85 and 1985-86
State Total	507,400	540,127	536,920	5.8	-0.6
K	44,763	60,795	64,010	43.0	5.3
1	47,071	55,400	55,571	18.1	0.3
2	42,915	50,126	50,137	16.8	0.0
3	41,840	46,162	46,717	11.7	1.2
4	42,023	42,992	43,084	2.5	0.2
5	41,993	40,791	40,438	-3.7	-0.9
6	40,906	38,490	38,685	-5.4	0.5
7	39,737	38,034	36,318	-8.6	-4.5
8	36,581	38,102	35,312	-3.5	-7.3
Ungraded Elementary	12,297	6,371	5,583	-54.6	-12.4
Subtotal Elementary	390,126	417,263	415,855	6.6	-0.3
9	32,830	34,777	32,812	-0.1	-5.7
10	29,537	31,398	31,301	6.0	-0.3
11	26,873	27,855	28,275	5.2	1.5
12	23,434	25,612	25,601	9.2	0.0
Ungraded Secondary	4,600	3,222	3,076	-33.1	-4.5
Subtotal Secondary	117,274	122,864	121,065	3.2	-1.5

SOURCE: California Basic Educational Data System (CBEDS).

FIGURE 6

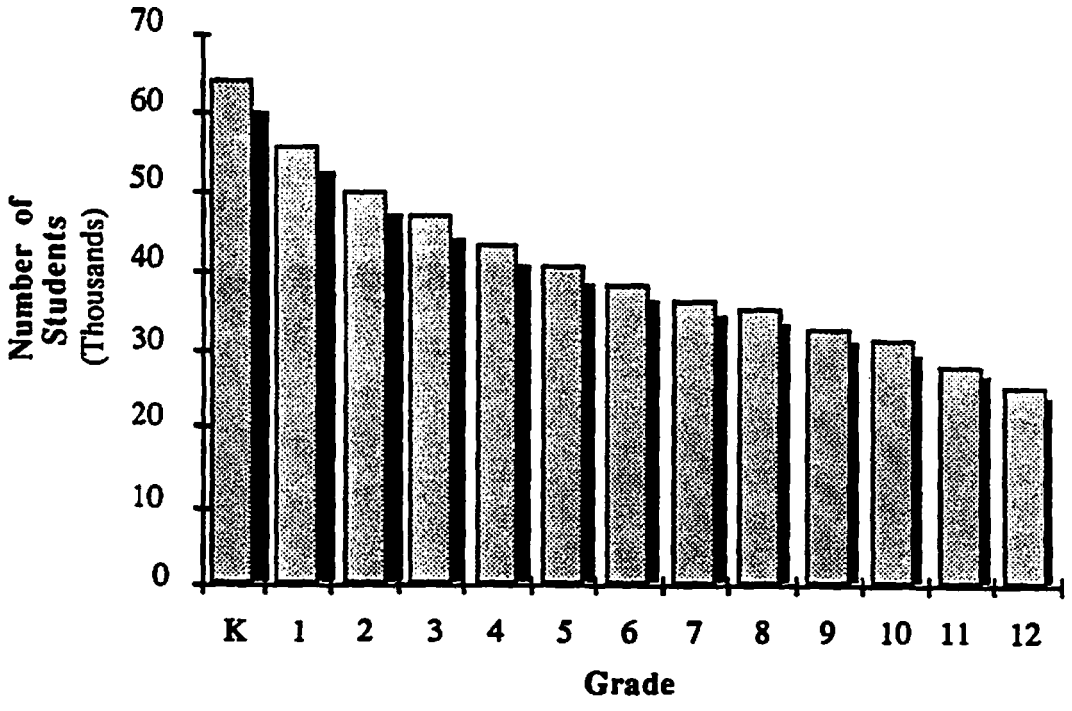
Private K-12 Enrollment as a Percent of Total Enrollment



SOURCE: California Basic Educational Data System (CBEDS).

FIGURE 7

Private K-12 Enrollment by Grade, 1985-86



SOURCE: California Basic Educational Data System (CBEDS).

This pattern probably reflects both preference and price issues. Many families prefer to send their children to private schools for preschool and early elementary, and subsequently to transfer them into public schools. Further, private school costs increase by grade level, thus making private secondary education more expensive than its elementary counterpart. Whatever the causes, private school enrollment drops as students move up grade levels.

Almost 76 percent of students enrolled in private schools attend church-affiliated schools. Of those students, 61.5 percent (or 47 percent of all private school students) attend Roman Catholic schools; this percentage is down from 61.9 percent in 1984-85 and reflects a downward trend for Roman Catholic school attendance.

Even though private school enrollment dropped slightly in 1986, the long-term projection is for it to increase, since total school enrollment--both public and private--is predicted to rise at least until 1995 (Figure 8). How the relationship between private and public school enrollment evolves is difficult to predict. Larger portions of school-age children increasingly are from poor, minority, and immigrant families, which historically have been underrepresented in private school enrollment. Thus, private school enrollment as a percent of total enrollment may not rise, even though future private school enrollment may rise in absolute numbers.

Minority Enrollment

Ethnic and racial minorities comprise a large number and proportion of California's public school enrollment. In 1985-86, minority representation in public schools totaled 2.04 million students or 48 percent of total public K-12 enrollment.

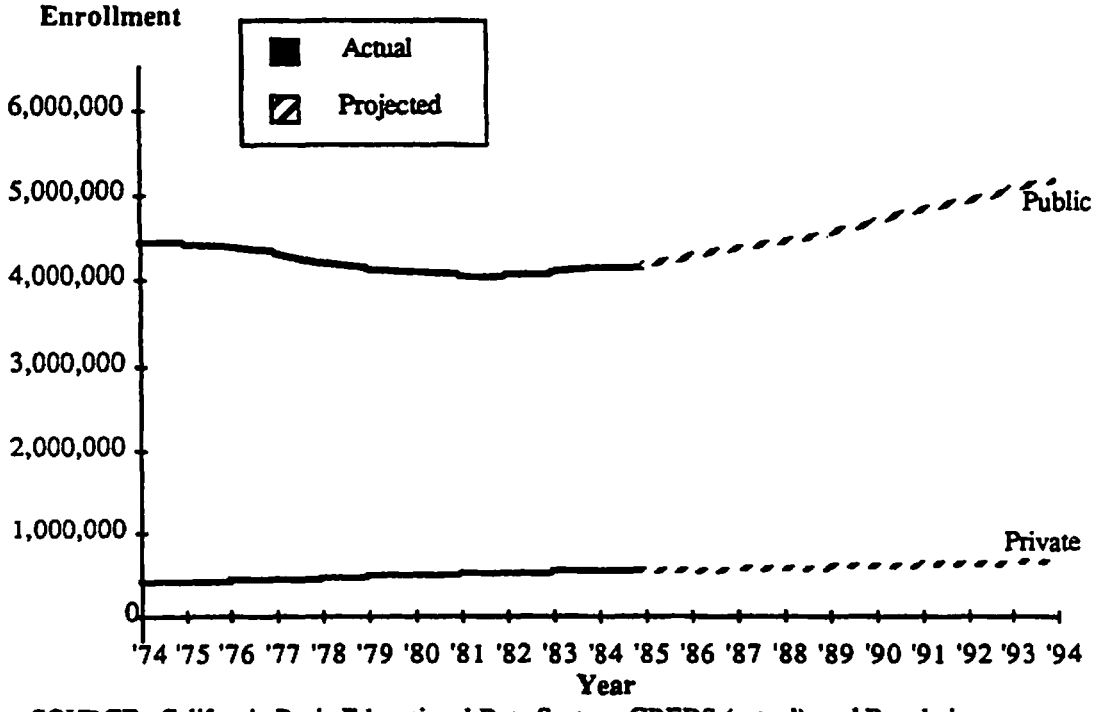
Indeed, as shown by Figure 9, the percentage of minorities enrolled in California's public schools has increased consistently since 1967, rising each year to its high water mark of 48 percent in 1985-86. Further, in recent years minorities have accounted for the bulk of new enrollment. While the rate of growth of minority enrollment seems to be declining, minorities as a percent of total enrollment probably would exceed 50 percent today if minority dropout rates were not so high. The white, non-Hispanic majority is currently 52 percent, falling from just over 70 percent in 1971; this percentage is likely to fall below 50 percent sometime in the next to five to ten years, which will make California public school enrollment comprised of a "majority of minorities."

As indicated in Figure 10, the percentage of minority enrollment differs by grade level. It is above 50 percent in elementary grades and drops significantly through secondary grades.

Figure 11 shows that the minority composition of school enrollment has changed markedly between 1971 and 1985. The proportion of blacks is virtually unchanged at just under 10 percent. Hispanic representation has increased from 16 percent in 1971 to 28.7

FIGURE 8

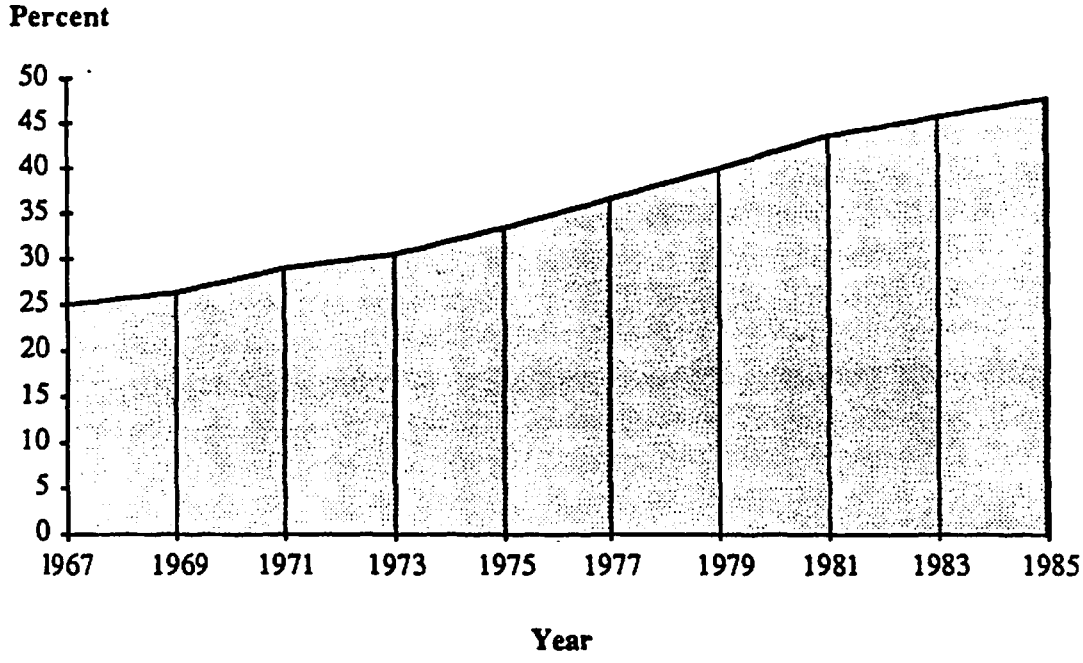
Public and Private School Enrollment Trends and Projections, 1974-1994



SOURCE: California Basic Educational Data System, CBEDS (actual), and Population Research Unit, California State Department of Finance (projections).

FIGURE 9

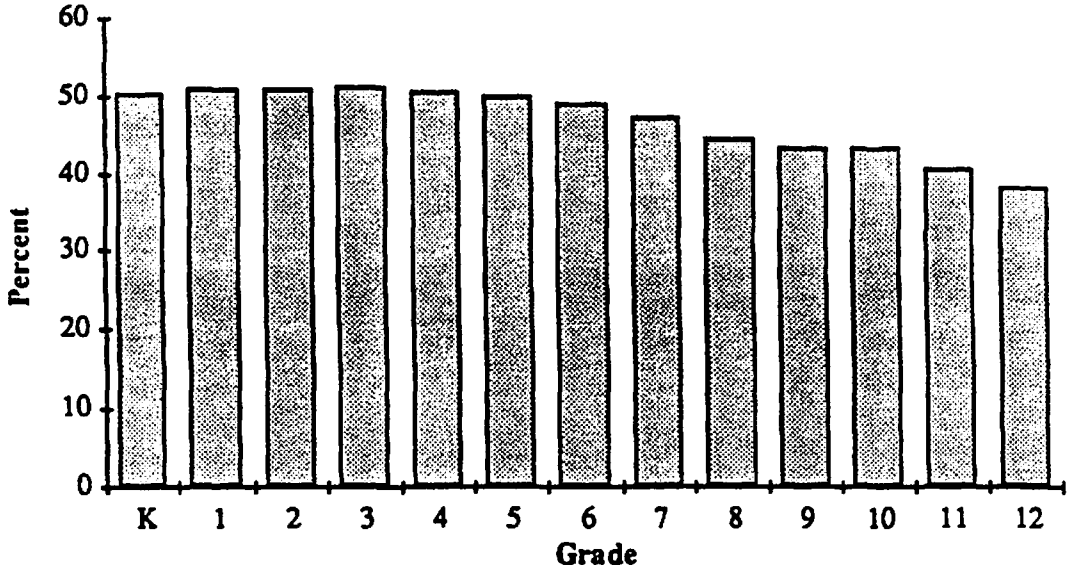
Trend in Total Minority Enrollment, 1967-1985



SOURCE: Unpublished California Basic Educational Data System (CBEDS) data, and "Selected Education Statistics, 1984-85" (Sacramento: California State Department of Education, 1985).

FIGURE 10

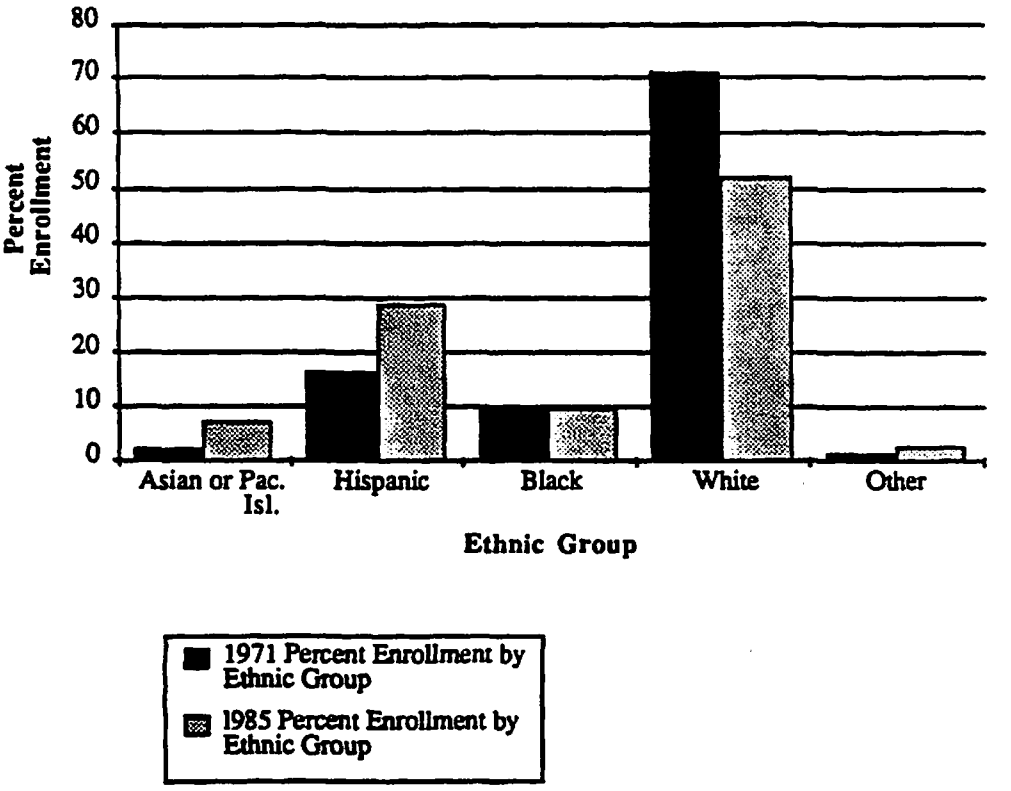
Percent Minority Enrollment by Grade, 1985



SOURCE: California Basic Educational Data System (CBEDS) unpublished data.

FIGURE 11

1971 and 1985 Percent Enrollment by Ethnic Group



SOURCE: "Selected Statistics, 1984-85" (Sacramento: California State Department of Education, 1985), and unpublished California Basic Educational Data System (CBEDS) data.

percent in 1985, nearly a twofold increase. Further, the proportion of Asians and Pacific Islanders has grown from 2.2 percent in 1971 to 7.1 percent in 1985, an increase of more than 300 percent. Indeed, the largest rate of increase in school enrollment is for students of Asian and Pacific Island backgrounds, followed by Hispanics. Filipino enrollment also has been growing at a rapid rate.

While there has been much discussion of the performance of minorities in the public school system, little analysis has been conducted of minority performance disaggregated by generation. This segmentation is important because many of the new minorities are immigrants and need to learn both a new language and a new culture before being able to perform well in school.

Figure 12 displays enrollment rates for students of Mexican-born parents. The numbers reveal that performance improves each year toward the norm for all Californians, and by the second generation, students of Mexican descent enroll in public schools at just about the same rate as all Californians with the exception of preschool. This means that overall enrollment rates for Hispanics mask improvements over the generations by mixing new immigrant enrollment patterns, comprising the bulk of these students, with the behavior of second, third, and higher generations. In short, Figure 12 suggests that enrollment in public elementary and secondary schools for children of Mexican-born parents reflects the norm for all Californians by the second generation. Similar data for other immigrant subgroups could help identify enrollment patterns and trends across generations and sort out long-term effects from short-term difficulties shared by all new immigrants.

Language Minorities

Reflecting the diversity of California's public school student enrollment, Figure 13 shows that about one-quarter of the student population speaks a language other than English. About half of these students are English-proficient and half limited-English-proficient (LEP). As a result, about 13 percent or 524,082 students were limited-English-proficient in 1986. The majority of these students--67.6 percent--attended school in nine southern counties. Los Angeles County alone enrolled more than 240,000 LEP students, accounting for 46 percent of the statewide total.

Again reflecting the rising number of immigrants into California, Figure 14 displays that the number of LEP students in California's public schools has been growing steadily and rapidly over the past decade, more than doubling from about 230,000 in 1977 to approximately 525,000 in 1985. While approximately 50,000 students become English-proficient each school year (or are reclassified as English-proficient), more than 70,000 LEP students enroll in kindergarten each year, and additional students are identified as limited-English-proficient in upper grades.

FIGURE 12

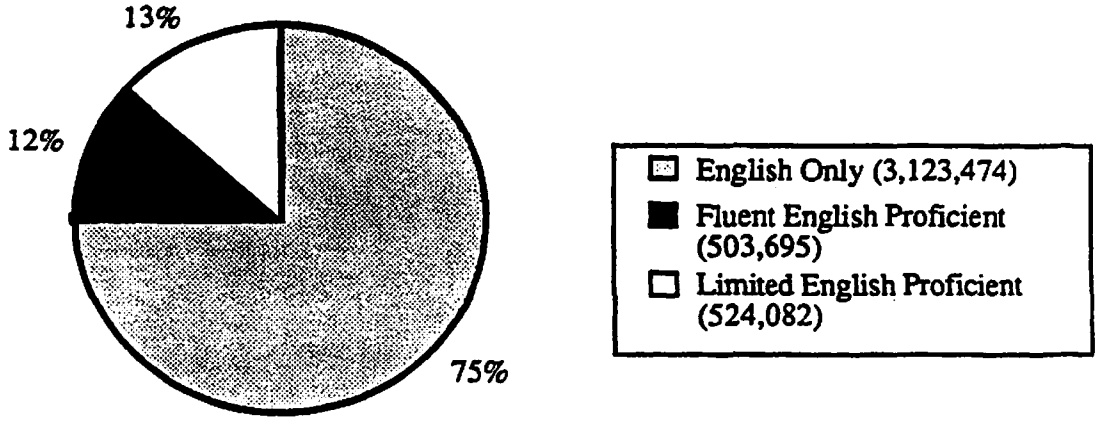
Mexican-American Enrollment Rates by Generation and Age (percent of age group enrolled in school)

Age	Mexican Born	First Generation	Second Generation	All Californians
≤ 4	15	11	14	41
5-6	83	88	89	90
7-13	97	98	99	99
14-15	89	95	97	98
16-17	62	76	86	88
18-19	27	32	46	51
20-21	12	17	27	33

SOURCE: Kevin F. McCarthy and Valdez R. Burciaga, Current and Future Effects of Mexican Immigration in California (Santa Monica: The Rand Corporation, 1985).

FIGURE 13

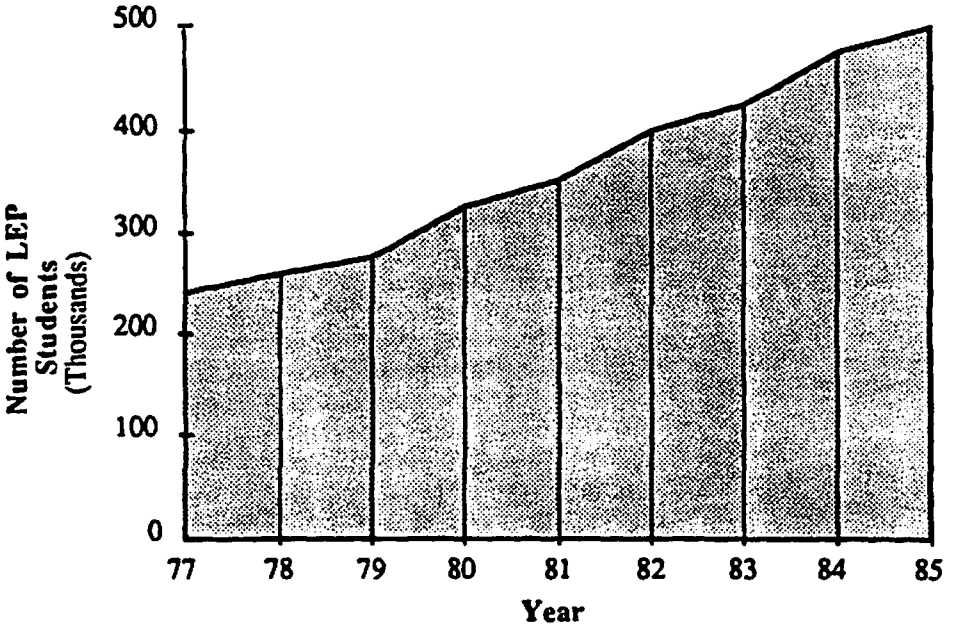
Language Proficiency of California Students, 1985



SOURCE: Sunset Review Report on the Bilingual Education Program, 1985 (Sacramento: California State Department of Education, 1985).

FIGURE 14

Growth of Limited-English-Proficient (LEP) Students in California's Public Schools, 1977-1985



SOURCE: Language Census Reports, 1985 (Sacramento: California State Department of Education, 1985), and unpublished California Basic Educational Data System (CBEDS) data.

The number of LEP students will almost certainly continue to increase, at least over the next five to ten years. Predictions have been as high as 650,000 by 1990 and almost 900,000 by the year 2000. Of course, these figures are determined to a large degree by immigration policies and practices. If immigration patterns change, LEP student populations will change also.

Figure 15 indicates, moreover, that there is great diversity among the limited-English-proficient population. Not all LEP students speak the same primary language, and not all speak Spanish. While Spanish is the primary language of approximately three-fourths (380,375) of all limited-English-proficient students, thousands of LEP students also speak Vietnamese, Cantonese, Tagalog, Cambodian, Korean, and a host of other languages. Thus, the educational system is faced not only with large and growing numbers of students who are not fluent in English, and need additional help, but also with a need to train teachers in a variety of primary languages in order to serve these students.

Poverty and Other Conditions of Children

A growing number of children and growing proportions of the child population are found to be at risk in terms of health, safety, poverty, family stability, work opportunities, or life chances generally. Newspaper headlines chronicle upsurges in social ills that affect more and more children at younger and younger ages. High-level commissions, academic research, and citizen task forces have focused on emerging problems and gaps in service delivery systems. National reports have determined:

- One in five children (over 20 percent) live in families with incomes below the poverty line--nearly one in four of children under six years of age--according to recent estimates. After nearly two decades of decline, the poverty rate increased rapidly between 1979 and 1984, and children comprise the largest group in poverty.

- Federal policies in recent years have massively redistributed public expenditures from children and youth to people over age 65.[10]

- Children and youths are increasingly victims and perpetrators of homicide and other violent crimes; child abuse--physical, sexual, and emotional--has become more commonly acknowledged as a serious threat to the well-being and lives of many children.[11]

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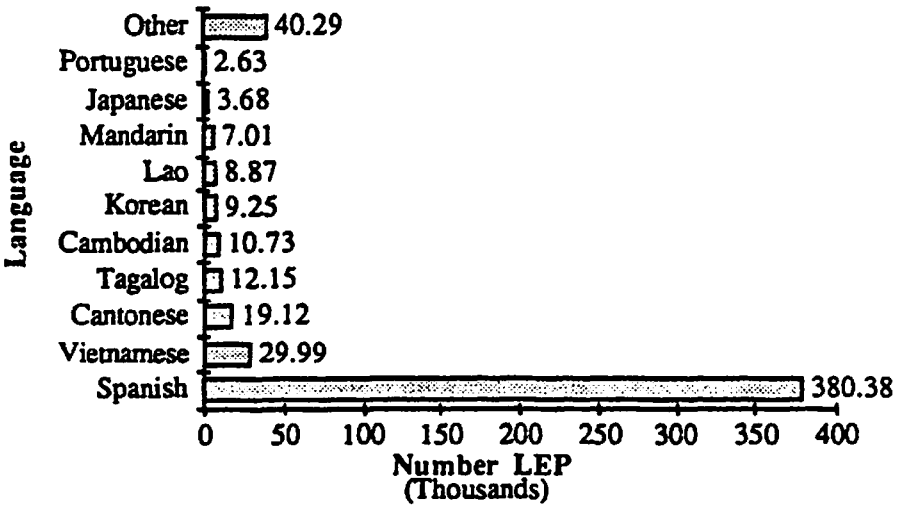
[10]For example, Harold A. Richmond and Matthew Stagner, "Children in an Aging Society," Daedalus 115(1): 171-189.

[11]"Domestic Violence and Public Health," U.S. Senate Committee on Labor and Human Resources, Subcommittee on Children, Families, Drugs, and Alcoholism, October 1985; State of California, Department of Health Services, Death Records; "Crime and Delinquincy in California, 1985" California Department of Justice, 1986.

FIGURE 15

Number of Limited-English-Proficient Students by Primary Language, 1985



SOURCE: Sunset Review Report on the Bilingual Education Program, 1985 (Sacramento: California State Department of Education, 1985).

Reports specific to California have concluded:

- The incidence of teenage suicide increased sharply between 1960 and the early 1970s and has shown a somewhat erratic but slightly downward trend since. Recent slight declines remain unexplained, and the higher incidence among boys persists.[12]

- Though infant mortality has declined in recent years, other indicators of child health portray a less sanguine picture--for example, over 20 percent of pregnant women still do not receive early prenatal care, substantial numbers of young children have not received basic immunizations, and supplementary nutrition programs are being scaled back.[13]

- The incidence of substance abuse--alcohol, cigarettes, and illegal drugs--occurs regularly among children as young as eight and rises rapidly with age through the mid teens.[14]

- Both the shelter/foster care system and the juvenile justice system have experienced sustained increases in the numbers of young people with which they deal.[15]

- Dramatic shifts in family organization that yield a growing proportion of single-parent families, and increased labor participation of women, have increased the demand for affordable, quality child care far beyond the supply and made "latch-key" children a policy issue.[16]

- Despite repeated attempts over the years by various groups, there is no comprehensive plan for the efforts of multiple state and local public agencies that provide health, educational, and welfare services to children; coordination with nonprofit and private agencies occurs even less frequently.

- Disparities and inequities between localities (cities, counties, and other local jurisdictions) in the provision of children's services appear to be much greater than more commonly discussed differences in per-pupil spending among school districts.[17]

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[12]State of California, Department of Health Services, Death Records; Nancy H. Allen, "Suicide in California, 1960-1970," State of California, Department of Health, 1974.

[13]"Trends in Prenatal Care by Race, 1970-84," data summary from the Health Data and Statistics Branch, Department of Health Services, May 1986; Child Health and Disability Unit, Department of Health Services; New Directions in Child Health Finance: California's Changing Health Care Market (San Francisco: Institute for Health Policy Studies, University of California at San Francisco, November 1985).

[14]Final Report of the Commission on the Prevention of Drugs and Alcohol Abuse (Sacramento: Office of the Attorney General, State of California, 1986).

[15]Children's Research Institute of California, Foster Care Network News 3(2) June 1986.

[16]"Socio-Economic Trends in California, 1940-80," State Employment Development Department, 1986; Report of the Governor's Child Care Task Force, March 1985.

[17]Michael W. Kirst and Theo Opperman, "State Services to Children: An Explanation of Who Benefits, Who Governs," Public Policy 18(2) Spring 1980: 185-206.

Of course, wide variations exist in the overall conditions of California's children. A focus on problems and pathologies can provide a misleading portrait of what it is like being a child in California today. However, analysis of aggregate trends suggest that conditions are deteriorating for a portion of California's children, and this renders the schools' job more difficult. Examples of these conditions are included in Figures 16-21.

Summary

Two fundamental characteristics describe California's public school enrollment today and for the next decade: growth and diversity. School enrollment is growing rapidly, matching the pace of growth exemplified by the post-World War II baby-boomers. Enrollment in California is not only larger in absolute number than in any other state, but is also increasing at a faster rate than in any state except Utah. Further, the composition of California's public school students is fascinatingly diverse. Minorities likely will represent a majority of students in the near future, limited-English-proficient students are rapidly rising in numbers, numbers of students from poverty backgrounds seem to rise each year, and a growing proportion of the child population is considered to be at risk. Growth and diversity, finally, pose difficult challenges for public schools, both fiscally and programmatically.

FIGURE 16

California Children Under 18 in Families by Family Type And Ethnicity (Numbers and Proportions), 1940-1980 (Thousands)

	1940	1950	1960	1970	1980
			NUMBERS OF CHILDREN		
TOTAL CHILDREN	16,103	43,357	53,874	65,589	63,020
Couple	14,088	39,610	48,412	55,165	49,810
Female*	1,551	3,080	4,733	9,099	11,282
Male+	464	667	729	1,325	1,928
WHITE			42,735	48,562	37,039
Couple			39,056	42,185	30,489
Female*			3,199	5,486	5,536
Male+			480	891	1,014
BLACK			3,413	5,659	5,900
Couple			2,512	3,450	2,953
Female*			810	2,031	2,680
Male+			91	178	267
HISPANIC/SPANISH SURNAME*			6,310	9,237	14,606
Couple			5,542	7,654	11,760
Female*			643	1,377	2,365
Male+			125	206	481
ASIAN AND OTHERS			1,416	2,131	5,475
Couple			1,302	1,876	4,608
Female*			81	205	701
Male+			33	50	166
			PERCENT OF CHILDREN		
TOTAL CHILDREN					
Couple	87.5%	91.4%	89.9%	84.1%	79.0%
Female*	9.6%	7.1%	8.8%	13.9%	17.9%
Male+	2.9%	1.5%	1.4%	2.0%	3.1%
WHITE					
Couple			91.4%	86.9%	82.3%
Female*			7.5%	11.3%	14.9%
Male+			1.1%	1.8%	2.7%
BLACK					
Couple			73.6%	61.0%	50.1%
Female*			23.7%	35.9%	45.4%
Male+			2.7%	3.1%	4.5%
HISPANIC					
Couple			87.8%	82.9%	80.5%
Female*			10.2%	14.9%	16.2%
Male+			2.0%	2.2%	3.3%
ASIAN AND OTHERS					
Couple			91.9%	88.0%	84.2%
Female*			5.7%	9.6%	12.8%
Male+			2.3%	2.3%	3.0%

SOURCE: Paul Ong, Jorge Chapa, Werner Schink, Greg Jones, and Tre Braun, "Socio-Economic Trends in California, 1940-80," State of California, Employment Development Department, 1986. PACE calculations.

*Single parent or other single female relative.

+Single parent or other single male relative.

FIGURE 17

Poverty Rates 1969-1985
(Percents)

	1969	1979	1980	1981	1982	1983	1984	1985
Persons								
U.S.	13.7	12.4	13.0	14.0	15.0	15.2	14.4	14.0
California	11.1	11.4		11.7	14.3	14.8	15.8	14.1
Families								
U.S.	10.7	9.6	11.5	12.5	13.6	13.8	11.6	11.4
California	8.4	8.7		8.5	10.7	11.8	12.0	10.4
Children Under 18								
U.S.	15.1	16.0	17.9	19.5	21.3	21.7	21.0	20.5
California	12.7	15.2	15.7	17.9	22.5	23.4	25.6	22.8

Note: Data on children in poverty exclude children in institutions, foster care, and unrelated to families.

SOURCE: Statistical Abstracts of the United States, 1982-83 and 1986; U.S. Census, California State Reports, 1960, 1970, and 1980; California State Census Data Center, 1986: Current Population Reports, Series P-60, no. 154, August 1986.

FIGURE 18

National Poverty Rates By Age Group, 1969-1984

Year	All	0-5	6-17	18 and up
1969	12.2%	15.3%	13.5%	11.2%
1970	12.6	16.6	14.3	11.3
1971	12.5	16.9	14.3	11.2
1972	11.9	16.1	14.4	10.4
1973	11.1	15.7	13.6	9.6
1974	11.6	16.9	14.9	9.8
1975	12.3	18.4	16.2	10.3
1976	11.8	17.7	15.1	10.0
1977	11.6	18.1	15.1	9.7
1978	11.4	17.2	15.0	9.6
1979	11.6	17.9	15.1	9.9
1980	13.0	20.3	16.8	11.1
1981	14.0	22.0	18.4	11.9
1982	15.0	23.3	20.3	12.7
1983	15.2	24.6	20.2	12.9
1984	14.4	23.4	19.7	12.1

SOURCE: Barriers to Excellence: Our Children at Risk (Washington, D.C.: Children's Defense Fund, 1985).

FIGURE 19

Percent Use of Each Substance at Least Once During Previous Six Months

	Grade 7	Grade 9	Grade 11
Beer	41.1%	61.0%	69.2%
Wine	40.1	56.1	62.0
Liquor	20.8	43.7	53.1
Marijuana	9.7	32.3	42.1
Cocaine	2.8	9.7	17.6
Amphetamines	2.2	10.5	15.3
Inhalants	17.6	16.3	13.8
Hashish	1.7	9.8	13.1
Other Narcotics	1.9	5.8	9.4
Mushrooms	3.4	5.8	8.8
Tranquilizers	2.7	7.2	8.1
LSD	1.4	4.1	6.0
Sedatives	1.0	3.9	5.4
Barbiturates	1.2	4.3	4.0
PCP	1.5	3.1	3.1
Other Psychedelics	1.2	2.0	2.5
Heroin	1.1	1.1	1.2

SOURCE: Final Report of the Commission on the Prevention of Drug and Alcohol Abuse (Sacramento: Office of the Attorney General, State of California, 1986).

FIGURE 20

Frequency of Alcohol and Drug Use by Selected Grades

	Grade 7	Grade 9	Grade 11
Weekly or More Often			
Beer	2.4 %	11.9 %	20.1 %
Liquor	1.2	7.0	9.6
Marijuana	0.9	9.3	13.4
Cocaine	0.4	1.4	3.0
Amphetamines	0.2	1.2	2.4
Inhalants	0.8	1.1	0.9
Daily or More Often			
Beer	0.7 %	2.4 %	3.0 %
Liquor	0.2	1.4	1.4
Marijuana	0.4	5.2	7.4
Cocaine	0.2	0.7	1.1
Amphetamines	0.1	0.4	1.0
Inhalants	0.5	0.6	0.2
Mushrooms	0.2	0.3	0.1
Polydrug Use in Previous Six Months			
Once or Twice	7.7 %	15.3 %	17.8 %
3 to 6 Times	2.1	7.0	9.1
7 to 10 Times	0.5	2.5	5.4
10 or More Times	0.5	4.2	7.0

SOURCE: Final Report of the Commission on the Prevention of Drugs and Alcohol Abuse (Sacramento: Office of the Attorney General, State of California, 1986).

FIGURE 21

Alcohol and Other Drug Experimentation and Intoxication: Percent Trying and Percent Intoxication by Age and Grade

	% by Age 11	% by Age 12	% by Age 14	% by Age 16
Alcohol Experimention				
Grade 7	50.8	57.8		
Grade 9	41.0	56.2	77.5	
Grade 11	29.1	37.9	57.4	85.0
Alcohol Intoxication				
Grade 7	11.7	15.8		
Grade 9	12.8	22.3	47.1	
Grade 11	9.0	15.2	42.5	65.2
Other Drug Experimentation				
Grade 7	6.6	10.7		
Grade 9	7.0	14.3	35.7	
Grade 11	5.8	10.8	29.9	51.4
Other Drug Intoxication				
Grade 7	4.4	8.0		
Grade 9	5.7	11.4	30.3	
Grade 11	5.2	8.8	25.1	45.1

SOURCE: Final Report of the Commission on the Prevention of Drug and Alcohol Abuse (Sacramento: Office of the Attorney General, State of California, 1986).

Fiscal Resources

California school finance in the post-Proposition 13 era can best be described as unstable and uncertain. The first part of this period, 1979-80 through 1982-83, was marked by a precipitious decline in expenditures per pupil, adjusted for inflation. Passage of 1983's omnibus school finance and reform measure, Senate Bill 813, halted a downward spiral and initiated a dramatic reversal. The California State Department of Finance (DOF) reports that adjusted school expenditures per pupil increased by 19.3 percent in the years from 1983-84 through 1985-86 (Figure 22). However, in spite of massive infusions of state dollars and the addition of substantial revenues from the new lottery, California ended this period still slightly below the national average in per-pupil expenditures and substantially below other comparable, heavily urbanized states. Fiscal year 1986-87 represents a *status quo*, or workload, budget with additional dollars available to provide for increased numbers of pupils, inflation, and little else. Figures 23 and 24 demonstrate this same trend using the legislative analyst's definition of K-12 funding.[18] This year of relative stability may well mark the end of a period of rapid growth and may be a precursor of difficult fiscal times.

The major obstacle to continued growth in funding is likely to be the 1979-enacted Proposition 4, the so-called Gann expenditure limitation initiative. In addition, heightened uncertainty is created by the unknown impact of the Gramm-Rudman amendment on federal funding, the potential impact of federal income tax reform on state tax policies and receipts, the projected shortage in tideland oil revenues, and the apparent decline in lottery sales. This uncertainty contrasts with the fact that in the next five years California's school attendance will grow at an average of over 100,000 students per year. Declining or unstable revenues combined with massive enrollment growth and substantial revenue requirements to improve the quality of education suggest that the next period in California school finance history may be a difficult one for policy makers and public school educators.

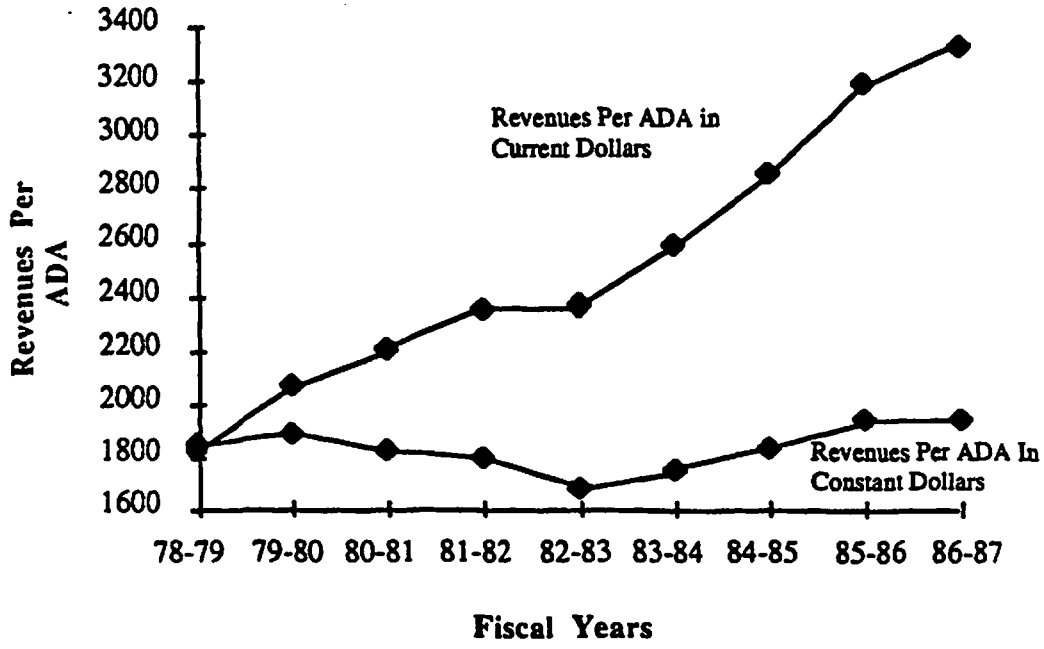
National Comparisons

California finds itself slightly below the national average in real expenditures. California spent $140 per ADA less than the average in 1984-85, $69 less in 1985-86, and may spend as little as $16 less in 1986-87 (Figure 25).

[18]Disparities between DOF and legislative analyst figures are due to differences in their definitions of K-12 education. Department of Finance numbers are restricted to funding for K-12 education, while the legislative analyst's definition includes funding for child development, adult education, school-related food distribution, and state libraries.

FIGURE 22

Average Total K-12 Revenues Per ADA, Current and Constant Dollars, 1978-79 to 1986-87



Note: Implicit Price Deflator for Government Goods and Services index used to deflate revenues to constant dollars.

SOURCE: Governor's Budget 1986-87 as updated by School Services of California, Inc.

FIGURE 23

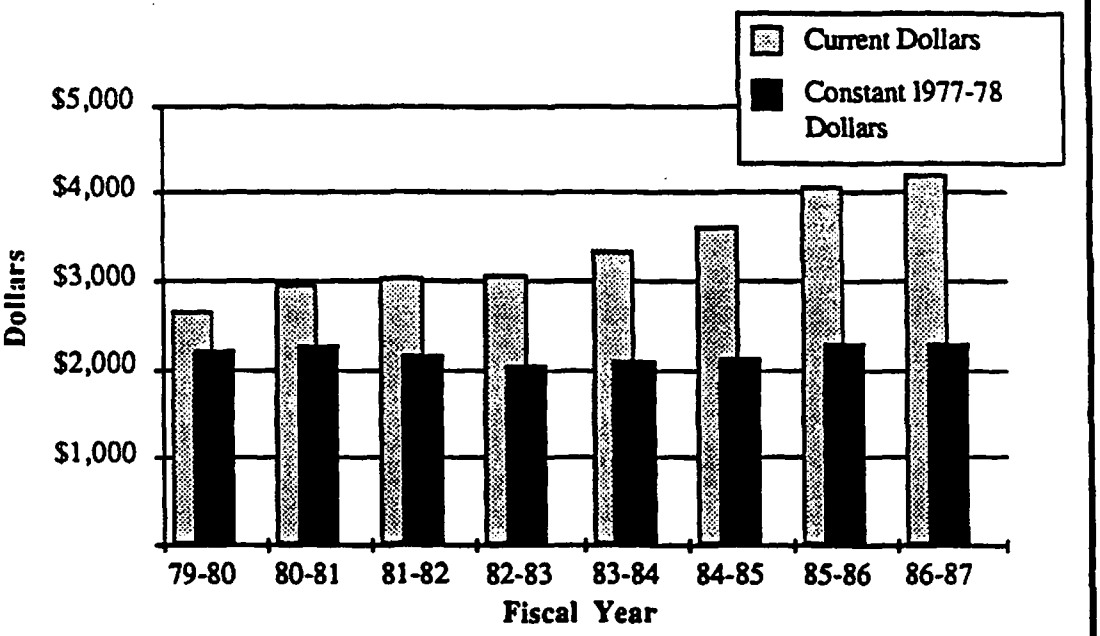
K-12 Total Revenues, 1979-80 through 1986-87

Year	Total Funding (Millions)	ADA	Total Funding Per ADA	Percent Change	Implicit Price Deflator for Goods and Services (1985 = 100)	Total Funding Per ADA (Adjusted for inflation) (1985 Dollars)	Percent Change
1979-80	10,981.6	4,206,150	2,611	18.3	66.5	3,926	
1980-81	12,341.2	4,214,089	2,929	12.2	73.3	3,995	1.8
1981-82	12,615.4	4,200,678	3,003	2.5	79.7	3,768	-5.7
1982-83	12,864.1	4,230,065	3,041	1.3	85.3	3,565	-5.4
1983-84	14,144.2	4,259,631	3,321	9.2	89.7	3,702	3.8
1984-85 (Est.)	15,674.2	4,355,850	3,598	8.4	94.5	3,808	2.9
1985-86 (Est.)	18,133.4	4,472,261	4,055	12.7	100.0	4,055	6.5
1986-87 (Budgeted)	19,215.7	4,599,212	4,178	3.0	103.2	4,050	-0.1
Cumulative Change							
	Amount	8,234.1	393,062	1,567		124	
	Percent	75.0	9.3	60.0		3.2	

SOURCE: Legislative Analyst's Report, 1986.

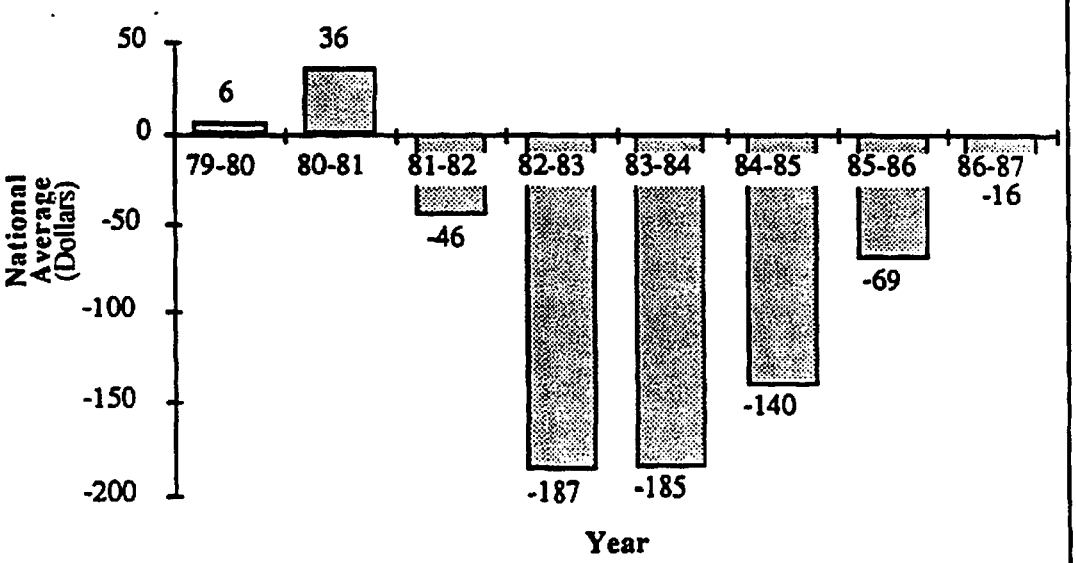
FIGURE 24

K-12 Funding Per Pupil in Current and Constant (1977-78) Dollars



SOURCE: Legislative Analyst's Report, 1986.

FIGURE 25
California Funding Per Pupil in ADA Compared to the National Average, 1979-80 through 1986-87



SOURCE: California State Department of Education analysis.

Comparing California to the five states closest in enrollment presents an interesting picture (Figure 26). Of the five, only Texas has a lower expenditure per pupil. New York, Michigan, Pennsylvania, and Illinois all rank in the top 16 states and spend substantially more than California. California ranks 31st among all the states. Moreover, California spends a smaller proportion of per capita personal income on education than any of the five other states. Indeed, at 3.75 percent, California ranks 46th among all states on this measure and has shown a substantial decline since a high point of 4.7 percent in fiscal year 1977-78 (Figure 27). If revenues for K-12 education in California had kept pace with growth in personal income from 1977-78 to 1985-86, school districts would have received approximately $4 billion more than was actually apportioned, an amount equivalent to about $27,000 per class or almost $1,000 per pupil.

Current Expenditures

District-Level General Fund Expenditures

District-level general fund expenditures totaled $11.968 billion in 1984-85 (Figure 28). Of this amount, $5.4 billion went for teacher salaries (45.21%), approximately $1.1 billion for administrative and certificated support personnel salaries (8.93%), and $2 billion (16.8%) for classified salaries (aides, custodians, secretaries, and the like). Altogether, personnel costs--salaries and benefits--account for 86.25 percent of local school district general fund expenditures.

Recent reform efforts have focused on producing change through funding tied to specific performance. For example, revenues tied to longer day and longer year reforms are included in a district's revenue limit and may be used for any educational purpose. Unlike prior funding philosophies, current approaches usually allow a school district great latitude in budgeting these reform revenues.

Ultimately, program success depends on the manner in which individual districts utilize these and other revenues. Typical accounting categories include teacher salaries, administrator/other certificated, classified salaries, employee benefits, books/supplies, and services/operating expenses (i.e., noneducational expenses such as interest on loans, contract bidding, advertising, judgments, bus transportation, libraries, and consulting for noninstructional purposes). It is difficult to determine exactly how revenues are spent locally. Allocation of funds varies greatly from district to district. A recent study of five San Francisco Bay Area elementary districts within a ten-mile radius found wide differences in their spending. For example, differences between two districts in six expenditure categories are outlined in Figure 29.

FIGURE 26

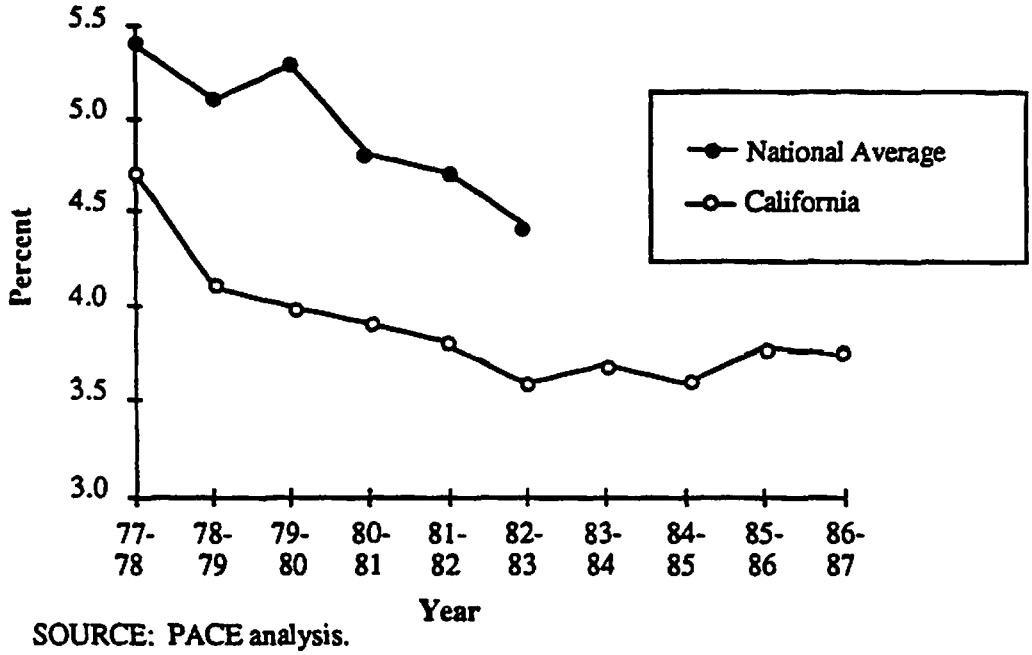
Six States Compared, 1983-84

	California (4.1 Million)	Texas (3.0 Million)	New York (2.7 Million)	Illinois (1.9 Million)	Michigan (1.7 Million)	Pennsylvania (1.7 Million)
Expenditures Per Pupil in ADA	$2912	$2670	$4845	$3397	$3498	$3725
(Rank)	31	39	3	16	15	10
State and Local Revenues for Public Schools in 1981-82 as a Percent of Personal Income in 1981	3.75	4.31	4.93	3.99	5.01	4.49
(Rank)	46	30	11	39	10	26
State and Local Expenditures for Local Schools as a Percent of Total State and Local General Expenditures 1980-81	22.16	27.48	22.08	24.65	25.77	27.09
(Rank)	41	6	42	32	23	9
Teacher Salary	$26,403	$20,100	$26,750	$23,345	$23,877	22,800
(Rank)	5	30	4	12	2	18
Students Enrolled Per Classroom Teacher	24	18	16	18	23	17
High School Graduation Rate (Percent of 9th Grade Enrollment Four Years Earlier)	66-70%	66-70%	66-70%	71-75%	71-75%	76-80%

SOURCE: Will S. Myers, Compiler, et al., How States Rate: Measures of Educational Excellence (Washington, D.C.: National Education Association, 1984).

FIGURE 27

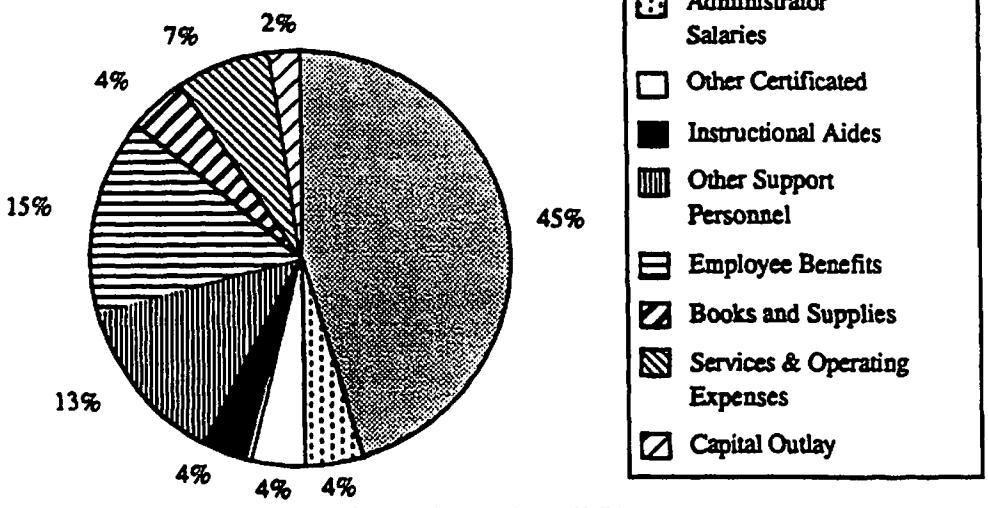
California Expenditures for K-12 Education as a Percent of Personal Income



SOURCE: PACE analysis.

FIGURE 28

Expenditures from School Districts' General Funds, 1984-85



Total District Fund Expenditures =$11.968 Billion

SOURCE: "Selected Financial and Related Data for California Public Schools, Kindergarten through Grade Twelve, 1984-85" (Sacramento: California State Department of Education, 1986).

FIGURE 29

District Expenditure Comparisons

District Expenditures (Percent)

	District A	District B
Teachers Salaries	38.2	51.0
Administrator/Other Certified	9.4	7.9
Classified Salaries	18.8	14.9
Employee Benefits	17.3	14.7
Books/Supplies	4.4	3.2
Services/Operating Expenses*	12.1	8.2

*Noneducational expenses such as interest on loans, contract biddings, advertising, judgements, bus transportation, libraries, and consulting for noninstructional purposes.

SOURCE: PACE analysis.

The fact that spending patterns can differ so profoundly between districts found within a ten-mile radius, suggests that there may be a greater difference in expenditure patterns of districts in different regions of the state. Because individual schools within (particularly larger) districts may have vastly diverse student populations and faculties, their spending patterns might also vary. A more detailed picture of how educational funds are allocated locally will depend on new state-developed budget and accounting practices that provide more detailed information regarding school-by-school expenditures within districts.

Expenditure Requirements

Enrollment Increases

Enrollment growth is predicted to rise at least through 1995. If the number of dropouts is reduced, ADA may increase even faster. Using Commission on State Finance ADA projections, which do not adjust for changes in the dropout rate, revenues for education must rise to $28.2 billion by 1991-92, a five-year increase of 46.5 percent. In other words, simply to maintain existing per-student funding, taking into account anticipated inflation, requires an annual increase over the previous year of between seven and nine percent for each of the next five years (Figures 30 and 31).

Capital Outlay

Enrollment increases, especially in Southern California counties, have caused overcrowding and a need for new school construction. Estimates of the magnitude of this need differ considerably. A recent study by DOF suggests a need for new construction of $2.8 billion over the next five years. This study also estimates the cost for rehabilitating existing structures at $1.9 billion over six years beginning in 1985, and $228 million for special day-class construction. The State Allocation Board and State Department of Education estimate these numbers at $2.6 billion for new construction and $3.5 billion for reconstruction over the next five years. Both sets of estimates indicate a requirement of at least $5 billion over the next five years in order to house students in appropriate facilities.

Prior to Proposition 13, general obligation bonds backed by the property tax were the usual method of raising local funds for school construction. Proposition 13 prohibited property tax increases, and use of these bonds was eliminated. Passage of ACA 55 in June 1986 authorized school districts again to incur bonded indebtedness for site acquisition and capital outlay and to retire the bonds by temporarily increasing the property tax. The two-thirds approval requirement makes these bond measures difficult to pass, and it is too soon to judge ACA 55's impact on school construction.

FIGURE 30

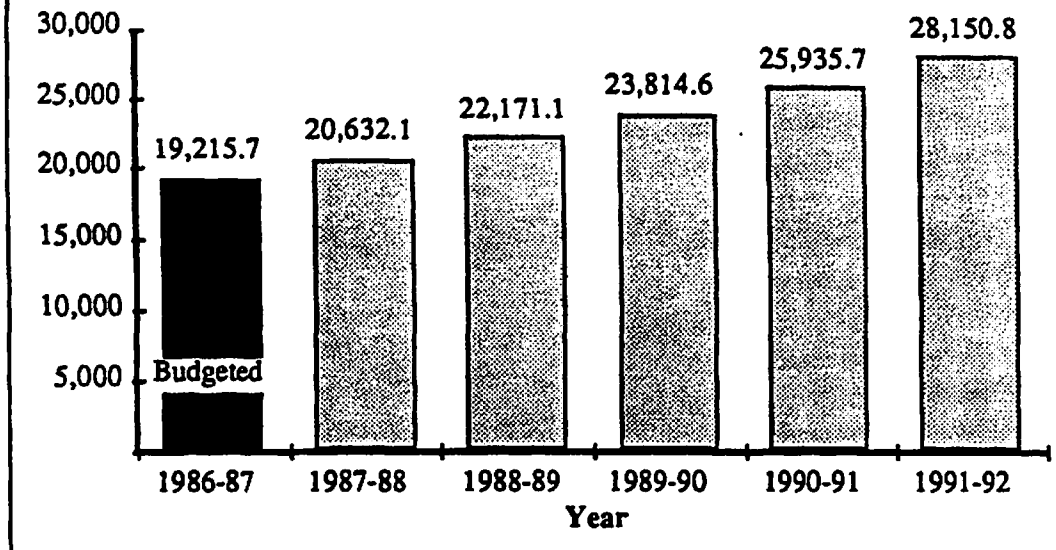
Projections of Revenue Requirements, 1986-87 through 1995-96

Year	Comm. on State Finance ADA Projections	Annual Increase Over 1986-87 for Enrollment Growth (inflated $) (Millions)	Total Annual Revenue Requirement (Inflated $) (Millions)	Increase Over 1986-87 Budget (Millions)	Percentage Increase Over 1986-87
1986-87	4,572,000		19,215.7		
1987-88	4,658,000	378.7	20,632.1	1,416.4	7.4
1988-89	4,727,000	722.8	22,171.1	2,955.4	15.4
1989-90	4,827,000	1,251.0	23,814.6	4,598.9	23.9
1990-91	4,979,000	2,108.5	25,935.7	6,720.0	35.0
1991-92	5,099,000	2,894.0	28,150.8	8,935.1	46.5
1992-93	5,242,000	3,907.4	30,730.1	11,514.4	59.9
1993-94	5,374,000	4,976.6	33,516.0	14,300.3	74.4
1994-95	5,510,000	6,198.8	36,593.3	17,377.6	90.4
1995-96	5,640,000	7,523.8	39,924.2	20,708.5	107.8

SOURCE: PACE analysis based on California Commission on State finance projections.

FIGURE 31

Revenues Required for Projected Enrollment Growth and Inflation



SOURCE: PACE analysis.

The State Allocation Board is the agency primarily responsible for receiving applications for state construction funding from local school districts. Processing applications is an extraordinarily complex, cumbersome, and time-consuming endeavor involving at least four different state agencies. From initial application to completion of construction commonly takes several years, even if sufficient monies are available. The legislature recently appropriated $150,000 to study the allocation process in hopes of streamlining it.

By far the most important education-related issue enacted during the 1985-86 legislative session was a four-part school facilities program. Using a combination of authorized but as of yet unsold bonds, tideland oil revenues, future bond issues, developer fees, and cost avoidance by encouraging year-round education, the package is projected to generate approximately $5 billion over the next five years. The program also increases square footage construction allowances, adds to district flexibility, greatly enlarges the number of districts eligible for the state program, expands the enrollment projection period which should assist in getting schools built in a more timely manner, and increases state fiscal support for deferred maintenance.

The school construction package also authorizes local districts to levy developer fees on new construction not to exceed $1.50 per square foot for residential property and $0.25 per square foot (annually adjusted for inflation) on industrial and commercial property. The amount generated by this fee can constitute the local share of project costs. The balance is paid by the state. Districts are also given an option, if they do not wish to impose a developer fee or if they wish to impose a smaller fee, to use a variety of other income sources to arrive at their local match. This provision is expected to generate between $300 million and $500 million annually, depending on the rate of new construction and number of districts choosing to levy the fee.

Although the concepts introduced in this new construction program mark a departure from past school facilities laws, uncertainties remain. First is the unreliability of the funding sources. Tideland oil revenues fluctuate widely with the price of oil, and it may be overly optimistic to conclude that the $150 million annual revenue assumed in the legislation will actually be available. Since developer fees are assessed on new construction and the construction industry is highly cyclical, it is difficult to project revenues from this source.

The possibility exists that voters will approve Proposition 62 which forbids taxes to be levied by any local agency of government, including school districts, without a two-thirds vote of the local governing body, i.e., school board, and a majority vote of the electorate. If Proposition 62 is approved, and if the courts should rule that the developer fee is a tax, a major funding source from the legislation would disappear. In addition, the program is dependent upon successful passage of two $800 million bond measures, one in 1986 and another in 1988. If either (or both) of these bond issues is defeated, a major funding

shortfall will occur. Finally, given the currently cumbersome process for approving construction projects, the increased complexity of this method of funding schools, and the greatly increased number of eligible districts, a question arises regarding the ability of the State Allocation Board and its administrative arm, the Office of Local Assistance, to respond in a timely manner.

Year-Round Education

One approach to combatting the school construction costs involves conversion to year-round schooling in districts facing sizable enrollment increases. Multiple-track schools, which operate all year with students on staggered vacations, typically serve 20 to 33 percent more students. Depending on a district's enrollment, the year-round approach may reduce or entirely eliminate costs of new school construction.

Prior to the new school facilities construction act, a few year-round incentives had been enacted. In 1983, the legislature enacted Senate Bill 81 and Senate Bill 813 which provide incentives for districts experiencing overcrowding to use existing facilities for year-round programs. Senate Bill 81 provides $235 for K-6 students, $320 for 7th and 8th grade students, and $365 for 9th through 12th grade students who are housed beyond an existing facility's capacity, no matter what approach is followed. These amounts equal one-half the interest amount the state would have paid on the bonds necessary to build a new school. Senate Bill 813 provides $25 for every pupil attending a year-round school which is operated in order to alleviate overcrowding.

Year-round school incentives are now expanded. An important element of the newly enacted school facility construction reform is a provision to enhance incentives for schools to enter into year-round operation. In order to be eligible for increased funding, schools or districts must be substantially overcrowded and demonstrate that use of year-round education will increase school capacity and thereby reduce the need for new facilities or more costly alternatives. Districts are eligible for additional funding of from $25 to $125 per pupil, the precise amount determined by a cost avoidance formula which takes into account the number of students above capacity, costs of land acquisition and/or new construction, and the percentage of capacity recaptured by operating year round.

A complaint of school district officials that previously impeded implementation of year-round operation in the past was that incentives were simply too weak to overcome costs of year-round schools and were inadequate to dampen the deep reluctance to alter the traditional nine-month school calendar. Senate Bill 327 greatly improves incentives, makes it economically feasible to adopt a year-round configuration, and should substantially reduce the need for new construction. Legislative staff estimate that the year-round provision will result in a five-year reduction in demand for new school construction and a resulting savings of $1 billion dollars. Projected five-year costs of the program are $150 million, producing a net cost avoidance to the state of $850 million.

Dropping Out

Few topics are of greater current interest to educational policy makers. Regrettably, few topics are more confusing. Several studies indicate that approximately 29 percent of school-age youth drop out of school before 12th grade. Approximately 71 percent, then, continue as seniors, but even 10 percent of these do not graduate. Thus, up to 36 percent of students entering first grade may leave school before graduation. While dropout rates are high among minorities, the rate has been rising among whites. On the other hand, census data display the dropout rate as remaining virtually constant since 1968 at approximately 14-16 percent of 18-19 year olds.

Another appraisal suggests that many dropouts subsequently complete high school through an alternative avenue, e.g., community college or the General Educational Development (GED) test. Rumberger reports that 38 percent of students who drop out of high school ultimately complete a degree through an alternative avenue[19]

In focusing on this problem of indeterminancy and vague definition, the legislature encouraged districts to develop strategies for coping with the local factors contributing to the problem. Senate Bill 65 provides districts with funds intended to (1) design local dropout prevention programs and (2) hire an outreach consultant at each school to administer these programs. The governor's budget proposes $4.3 million to fund these programs in 1986-87. An adequate process for evaluating prevention programs is still lacking. The legislative analyst's office recommends that the State Department of Education develop more precise measures of district dropout rates and an approach to evaluation which assesses cost-effectiveness and transferability to other settings.

If reforms are successful in reducing dropouts, ADA increases could add substantially to state schooling costs. Some estimates have run as high as $300 million to $500 million in added funding over the next five years.

Continuing Reforms

The reforms contained in Senate Bill 813 tied to funding increases have been implemented in most districts, and some changes can be noted. The school day and school year are longer, high school graduation requirements are more rigorous, new teachers are receiving higher salaries, mentor teachers have become more commonplace, and each school is being asked to monitor its performance with state-specified quality indicators. However, new programs often require several years to implement, and, while initial signals appear positive, a thorough evaluation of the effects of reform is needed. Because maintenance costs of some programs, notably minimum teacher salaries and longer school

[19]Russell W. Rumberger, High School Dropouts: A Problem for Research, Policy, and Practice (Stanford: Stanford Education Policy Institute, September 1986).

day, are folded into the revenue limit, costs are not readily apparent. The 1986-87 budget includes $107 million for third-year funding of the longer school day reform.

Attracting & Retaining High Quality Teachers

PACE teacher supply and demand projections suggest that shortages of between 21,000 and 35,000 will occur over the next five years if no changes occur in current policy or class size (Figure 32). Discrepancies between the supply of qualified teachers and positions open will be most acute in math, science, and Spanish bilingual education. A survey conducted by the legislative analyst's office confirms that districts are experiencing shortages in these disciplines as well as in special education. In 1985, individuals competent in math and science areas could command average starting salaries of $29,500 in jobs outside education. By comparison, 1985 beginning teacher salaries averaged between $19,000 and $20,000. The legislative analyst estimates that raising only beginning teacher salaries to $30,000 would cost the state nearly $1 billion over five years. Other possible options include increasing salaries in shortage disciplines only, increased use of the teacher trainee certificate which allows prospective teachers to teach in grades 7-12 under the guidance of a mentor teacher, and year-round programs which could be designed to allow teachers to instruct all year and which might attract into the profession individuals seeking the higher salaries commensurate with a longer teaching year.

Costs of Reform

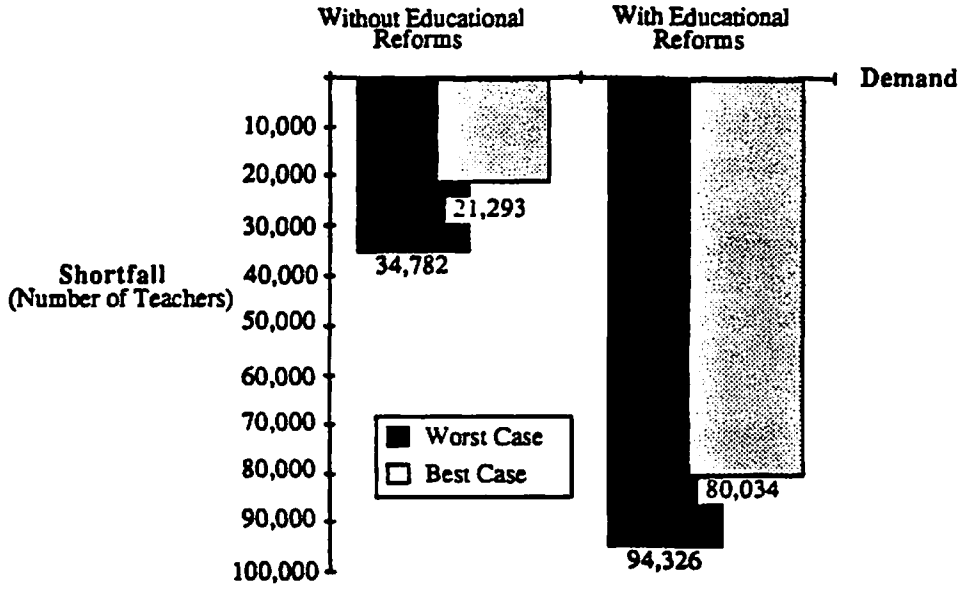
Perhaps the most pressing requirement for K-12 education, construction and refurbishment of school facilities, has been addressed by the legislature in a timely fashion. There are, however, a number of other issues for which funding requirements have been estimated. As mentioned above, additional state-schooling costs that result from reducing dropout rates have been estimated at between $300 million and $500 million. Full funding of programs for pupils with special needs has also been estimated at an additional $300-$500 million over the same period. The California Commission on the Teaching Profession has proposed a five-year cost of approximately $1 billion, without class size reduction, for strengthening the teaching profession and thus attracting and retaining more high quality individuals into education. In addition, continued implementation of reform measures has been estimated at $1.7 billion.[20]

Reducing class size from 28 students per class to 23 students would require approximately $1.2 billion per year in teacher salaries and benefits (Figure 33). This figure does not include capital costs for housing the increase in classes nor does it include the salaries and benefits of additional teacher aides. Despite its expense, this option has been supported by teachers' organizations. However, a survey conducted by PACE indicates

[20]Allan Odden, School Finances, Reforms, and Revenue Needs (Berkeley: Policy Analysis for California Education (PACE), May 1986).

FIGURE 32

Projected Shortfall in Teacher Supply through 1989-90 With and Without Educational Reforms*



*Includes three often discussed educational reforms: reducing pupil-teacher ratios to 20 to 1, eliminating emergency credentials, and requiring teachers to instruct only in their fields of expertise.

SOURCE: Helen H. Cagampang, Walter I. Garms, Todd J. Greenspan, and James W. Guthrie, Teacher Supply and Demand in California: Is the Reserve Pool a Realistic Source of Supply? (Berkeley: Policy Analysis for California Education, August 1986.)

FIGURE 33

Cost of Reducing Class Size

	Yearly Cost to Reduce Class Size from 28 to 23, Adjusted for Enrollment (Millions)
1986-87	$1,172.0
1987-88	1,196.0
1988-89	1,225.4
1989-90	1,265.4
1990-91	1,308.1

Note: Calculations are based on 1984-85 data except for beginning teacher salary which is estimated at $20,000 plus 1984-85 benefits. Teacher salary calculations include all benefits.

SOURCE: PACE analysis.

that salary increases are more rewarding to teachers than smaller class sizes, a trade off policy makers must consider in seeking cost-effective ways to improve education.[21]

Sources of Revenue

Fifty-five percent of California's 1986 total general fund appropriations are allocated to education; of that, 39 percent is allocated for K-12 funding and 16 percent for higher education (Figure 34). Other major general fund expenditures are for health and welfare (30%) and correctional programs for youth and adults (5%). The growing assignment of funds for educational programs is roughly proportional to the enrollment growth detailed previously. In addition to state apportionments (64%), education receives funds from local property tax levies (19%), federal aid (7%), and other miscellaneous sources (9%).

Over time, the proportion of funds derived from local, federal, and state sources has changed markedly (Figure 35). For example, local sources accounted for 57.9 percent of revenues for education in 1970-71, dropped to 24.1 percent in 1980-81, and are now rising (26.6 percent), due to growth in the property tax base and to property sales which result in reappraisal at current values. Local revenues are expected to continue rising in the near future. Federal aid for education was 7.4 percent in 1970-71, over 10 percent in 1980-81, and is now falling (6.6 percent in 1986-87). Federal funding is expected to decline slowly. Replacement revenues, to offset declines in local and federal revenues, have been provided by the state. State contributions comprised only 34.7 percent of total revenues in 1970-71; that percentage has risen to 66.8 in 1986-87.

The Gann Limit (Proposition 4 of 1979)

Background

In November 1979, California voters approved Proposition 4, constitutionally limiting the amount of money that state and local agencies can spend. Subsequently in 1980, the legislature passed and the governor signed Senate Bill 1352 and related trailer legislation defining which revenues are considered for purposes of establishing a state limit and which counted for establishing local limits. Once state and local agencies limits' were established, the initiative called for an annual adjustment based on California population change and inflation. The applicable inflation adjustment is the change in either (1) the United States Consumer Price Index or (2) the California Personal Income Index, whichever is lower. The initiative specifies that revenues collected in excess of the limit be returned to the taxpayers by tax credit or refund, temporary suspension of tax rates or fee schedules, or other means consistent with the constitutional amendment's intent.

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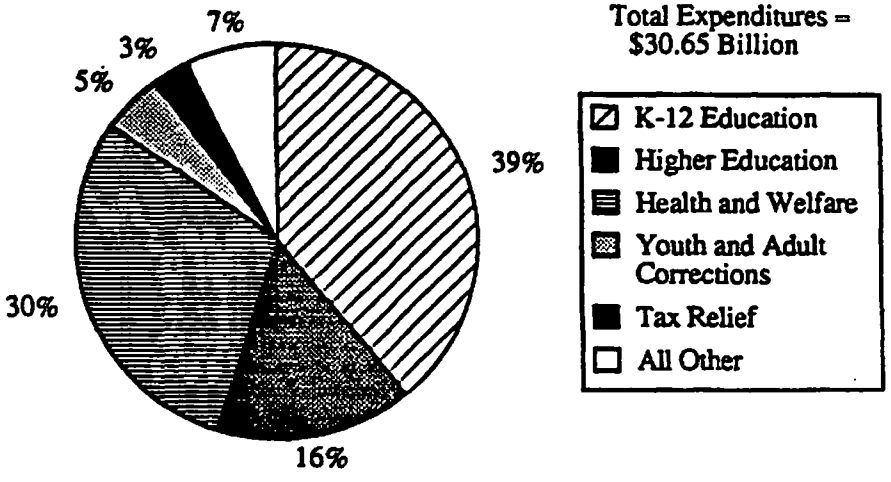
[21]Helen Cagampang, Walter I. Garms, Todd J. Greenspan, and James W. Guthrie, Teacher Supply and Demand in California: Is the Reserve Pool a Realistic Source of Supply? (Berkeley: Policy Analysis for California Education (PACE), August 1986).

FIGURE 34

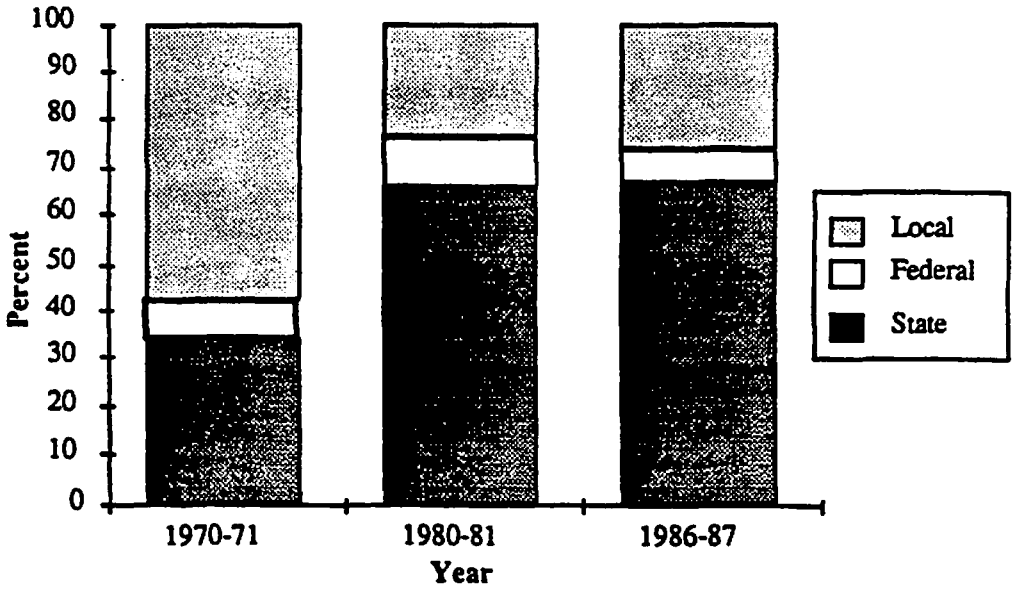
California General Fund Expenditures, 1986-87



SOURCE: The 1986-87 Budget: Perspectives and Issues (Sacramento: Office of the Legislative Analyst, 1985).

FIGURE 35

Percentage Distribution of Local, Federal, and State Revenues for K-12 Education



SOURCE: PACE analysis based on multiple sources including Legislative Analyst's Report, 1986.

State Limit

In its first six years, the Gann limit had little impact because average inflation rates were substantially higher than appropriations budgeted by the legislature and the governor. However, over the coming decade, absent a constitutional amendment or substantial legislative revision, the state's appropriation limit will be the paramount factor affecting policy decisions regarding revenues and expenditures (Figure 36). In the past, analysis of the state's long-term fiscal situation was fairly straightforward and traditionally involved comparing growth in revenues under existing tax structures to increases in expenditures needed to maintain current legislative and administrative policy objectives over time. Because of the continuing projected health of the state's economy, California will face a situation in which projected state expenditures will be less than projected state revenues, normally a healthy prospect. However, because of the Gann limit, appropriations will be limited to such an extent that merely to maintain current programs may prove difficult.

The fiscal squeeze is caused by the fact that in the next decade (as projected by the California Commission on State Finance):

- Revenues from taxes currently imposed will grow by 109.3 percent.
- General fund expenditures needed to sustain current programs will grow by 103.7 percent.
- Appropriations will be limited by the Gann initiative to growth of 77.6 percent.

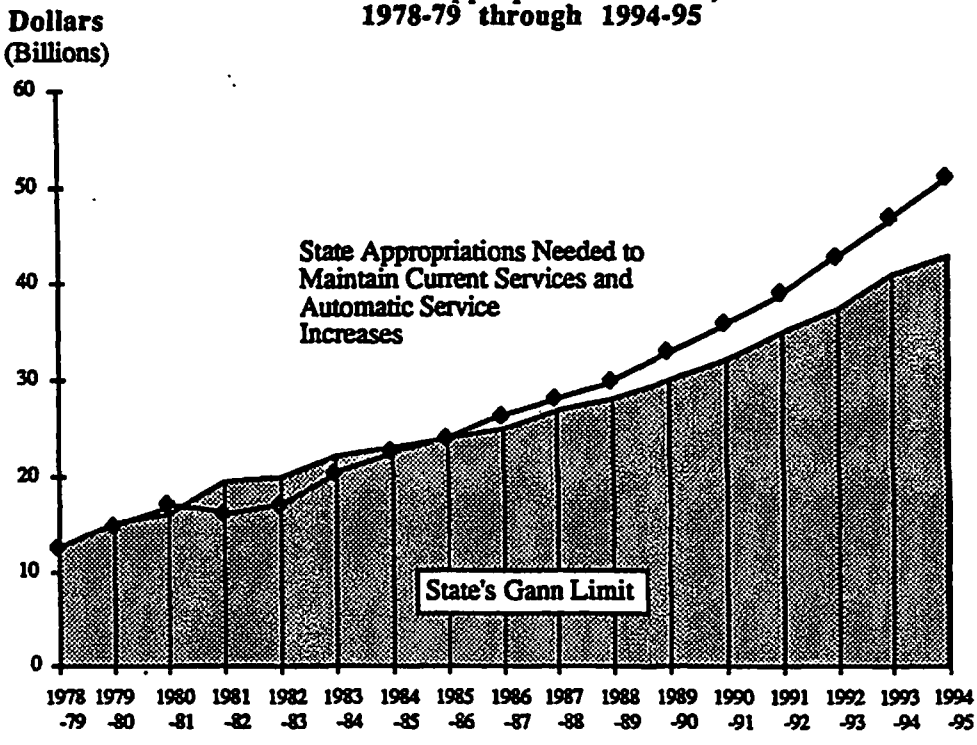
This phenomenon is a function of two factors linked to the Gann limit:

1. Service populations (e.g., numbers of public school pupils and numbers of aged, blind, disabled, and children eligible for AFDC) will be growing at a rate much faster than the growth in total state population.
2. Statutory cost-of-living indices (primarily the implicit price deflator for state and local government services) are projected to grow at a rate far in excess of the consumer price index. The implicit price deflator normally grows at a slower rate than the consumer price index when inflation is high and at a faster rate when inflation is relatively low, as is now projected.

The likely result of these interactions will be a cumulative adverse impact on the state's ability to expend tax revenues. If the Gann limit is not altered, California will need to reduce expenditures by a cumulative total of 7.2 percent, or about $30.4 billion, between 1986 and 1995.

FIGURE 36

Gann Appropriations Limit, 1978-79 through 1994-95



SOURCE: Commission on State Finance as augmented by School Services of California, Inc.

School District Limits

School districts, like the state and other local agencies, also have Gann limits. However, the legislature defined Gann limits for school districts in a manner that has minimized their impact. Some districts have already exceeded their Gann limits. But because of the way the limit was adjusted by the legislative provisions implementing the initiative, whenever a local school district exceeds its limit, the limit is raised to accommodate the increase. In addition, most districts have not reached their limits and there is some local unused capacity which, if so authorized by the legislature, might modestly ease the pressures on the state's Gann limit.

Lottery Revenue

Although 1985-86 lottery proceeds added welcome revenue to school district coffers, and were appreciably higher than originally projected in the governor's budget, lottery commission staff currently estimates that gross receipts will decline in 1986-87. That, coupled with increased costs related to the new Lotto games, is predicted to result in a decline of 14 percent in school district lottery revenue, from $121.72 to $104.37 per ADA. Adjusted for inflation, the decline equals 22.45 percent. Based upon the experience in other states, lottery revenues can be expected to continue to decline and to become a smaller portion of school districts' budgets. Lottery revenues, not a result of taxation, are exempt from the Gann limit.

Tidelands Oil and Gas Revenue

Although California has historically relied primarily on a series of school construction bond acts to assist in funding K-12 school facilities, tideland oil revenues have recently been allocated for this purpose. The rapid increase in oil prices over the last few years has generated substantial funds, usually ranging from $400-$450 million per year, providing a source of funding for capital outlay both for K-12 and higher education.

Declining 1986 world oil prices and a consequent decrease in output as production becomes less economical have induced the State Lands Commission to forecast less than $100 million available for these purposes. Although declining oil prices do result in lowered district costs, school construction is heavily dependent on this source of revenue.

Federal Policies

Efforts to reduce the federal deficit by capping expenditures through Gramm-Rudman face an uncertain future. However, since federal defense spending accounts for 9.3 percent of total private output in California, the Commission on State Finance estimates that deep cuts in federal defense outlays could have a negative effect on California revenues. California schools will receive approximately $1.25 billion in federal funds in the current year, about seven percent of total expenditures. Strict federal compliance with the provision of Gramm-Rudman would place these funds at risk.

Another area of uncertainty for California is the potential impact of Congressional tax reform legislation. Economists differ on its potential impact on the California economy, and much of the effect will be determined by future actions of the California legislature as it deals with tax simplification in the upcoming legislative session.

Human Resources

Despite the rapid pace of technological advancement, teaching remains a largely labor intensive activity and is likely to continue to be so for the foreseeable future. When the debates have been held and the actions taken on issues of funding, standards, and curricula, it is the teacher in the classroom who is responsible for making education happen.

California's 186,000 teachers reflect many of the changes going on in society at large. Eighty percent of them are white, but the proportion of minorities has increased substantially in recent years. The number of male teachers in the classroom continues to decline (now down to 34 percent), and teachers are older (the average age is now 43.2 years). A third of them have Masters degrees. California's average teacher salary ($29,084) ranks fifth in the nation. But despite recent increases, teachers' purchasing power is not yet restored to the 1970 level.

Teachers' scores on the California Basic Educational Skills Test (CBEST) have risen since its inception, but while the debate continues on whether and how to formulate and fund a major effort to upgrade the teaching profession in California, demographic and fiscal realities portend a teacher shortage in the coming years. Those and other issues regarding human resources in California's schools are detailed below.

Staff Characteristics

In 1985-86 California public schools (K-12) employed 223,552 full-time and part-time certificated personnel (Figure 37). Of these employees, 85.6 percent are classroom teachers, and the remainder are site and district administrators, special education and other specialists, and other nonteaching professionals. Part-time certificated employees make up 6.1 percent of the workforce, down from 6.3 percent in 1984-85. The teaching force continues to increase in size, up 7,622 full-time-equivalent (FTE) positions over 1984-85, reflecting increases in student enrollment that began in 1982.

Although most certificated employees are white (80.2%), minorities continue to increase their participation in the teaching profession, with blacks and Hispanics each now constituting 6.7 percent of the professional ranks. In 1975-76, minorities comprised approximately 12 percent of the state's certificated employees; now they constitute 19.8 percent.

FIGURE 37

Characteristics Of School Professionals

ASSIGNMENT	Number of Employees[1]	Number of FTEs	Average Salary	Years of Education Experience	Average Age	% Female	% Male
TEACHING							
Preschool	124	114.9	$24,233	13.41	42.0	98.4%	1.6%
Kindergarten	11,767	11,636.7	28,750	15.15	43.2	96.7	3.3
Grade 1	10,801	10,701.9	27,760	13.68	41.7	96.4	3.6
Grade 2	9,679	9,562.9	28,506	14.56	42.6	94.0	6.0
Grade 3	9,524	9,391.7	28,716	14.66	42.6	87.9	12.1
Grade 4	8,834	8,739.7	28,761	14.71	42.8	77.4	22.6
Grade 5	8,471	8,379.0	29,121	15.24	43.0	68.8	31.2
Grade 6	7,173	7,062.9	28,854	14.61	42.1	63.8	36.2
Grade 7	309	296.4	27,352	13.23	40.7	55.0	45.0
Grade 8	235	215.2	27,897	13.69	40.5	40.4	59.6
Other[2]	12,593	12,352.9	27,913	13.43	41.7	79.0	21.0
English	19,749	17,241.0	29,364	15.01	43.2	69.2	30.8
Foreign Language	3,749	3,264.5	30,032	15.89	44.1	62.8	37.2
Humanities	74	109.4	31,394	17.99	45.1	55.4	44.6
Mathematics	11,474	10,249.4	29,954	16.12	43.5	36.5	63.5
Computer Education	1,000	1,029.1	30,528	15.17	42.6	35.7	64.3
Physical Education	7,922	7,298.1	30,078	16.17	41.6	44.1	55.9
Health Education	853	854.1	29,986	15.65	42.3	41.3	58.7
Safety Education	603	603.1	32,868	21.52	47.7	6.0	94.0
Science	8,466	7,342.1	29,213	14.60	41.7	31.3	68.7
Social Science	11,090	9,932.2	30,931	17.09	44.3	29.9	70.1
Art	2,676	2,330.7	30,713	17.20	44.7	47.2	52.8
Drama/Theatre	424	464.2	28,803	13.66	40.9	51.2	48.8
Music/Dance	3,158	2,718.2	27,881	13.72	40.0	40.1	59.9
Special Education	19,396	18,144.2	28,317	12.00	40.4	80.5	19.5
Vocational Education	14,145	10,920.3	29,423	14.75	44.4	42.9	57.1
Other Teaching Assignment[3]	7,060	15,068.5	29,594	15.07	43.1	71.2	28.8
All Teachers	**191,349**	**186,023.2**	**$29,084**	**14.72**	**42.6**	**66.2%**	**33.8%**
NON-TEACHING							
County-District Level							
Superintendent	679	662.1	$56,431	26.53	51.2	6.3%	93.7%
General Administration[4]	2,683	2,641.0	48,780	22.61	48.7	38.1	61.9
Program/Subject Area Admin.	2,134	2,053.8	41,616	20.08	46.8	49.5	50.5
Student Support Services	6,389	5,992.2	32,948	15.42	44.5	70.9	29.1
School Level							
Principal	6,125	6,052.5	44,937	22.75	48.1	31.6	68.4
Associate/Assistant Principal	3,446	3,451.7	40,977	19.82	45.4	39.3	60.7
Program Administration	755	738.5	37,579	18.62	45.7	48.5	51.5
Student Support Services	8,329	8,005.2	33,198	17.60	46.3	64.7	35.3
Other Non-teaching Assign.	447	528.8	33,120	17.72	44.5	60.4	39.6
All Administrators	**16,269**	**16,128.5**	**$44,062**	**21.61**	**47.4**	**37.2%**	**62.8%**
All Student Support Services	**14,718**	**13,997.4**	**$33,100**	**16.64**	**45.6**	**67.4%**	**32.6%**
ALL PROFESSIONAL STAFF	**223,552**	**216,149.1**	**$30,439**	**15.35**	**43.2**	**64.4%**	**35.6%**

[1]Includes full time and part time employees, grouped by major assignment.

[2]Includes combination of grade levels and continuation education classes

[3]Includes non-special education resource specialists, skills center specialists mentor teachers, extra-instructional duties (home-room, study hall, preparation period), alternative education, independent study, etc.

[4]Includes deputy or associate superintendent and administrator (including associate or assistant superintendent, supervisor, director, coordinator) for finance/business, instructional/curriculum services, public relations, personnel services, program evaluation, staff development, etc.

SOURCE: PACE analysis of unpublished California Basic Educational Data System (CBEDS) data.

Two-thirds of California's teachers are female; only slightly more than a third of the state's administrators are female (Figure 37). Nearly 32 percent of the state's principals are female and 6.3 percent of superintendents are female.

Male involvement in classroom teaching continues the decline noted in 1984-85, slipping another 0.7 percent to 33.8 percent. Of particular interest is the continued erosion since 1982-83 of the male teaching force in science (from 71.6 percent to 68.7 percent), mathematics (from 66.0 percent to 63.5 percent), and computer education (from 71.6 percent to 64.3 percent).

The average age of California's educators continues to increase, from 41.6 years in 1980-81 to 43.2 years in 1985-86. This trend reflects a steady decline in the number of younger educators: in 1980-81, 29.7 percent of the state's certificated personnel were 34 years old or younger, compared to 20.2 percent in 1985-86. Not surprisingly, the average years of educational experience has increased since 1980-81, from 14.0 to 15.6 years.

Over a third (36.8%) of California's teachers have attained at least a Master's degree, and nearly two-thirds of these teachers have earned 30 or more units beyond the Master's. Most principals have earned at least a Master's degree (82.1%), and 9.4 percent of them have earned Doctorates. Nearly half (48%) of the state's superintendents now have Doctorates, and 22.6 percent of the deputy, associate, and assistant superintendents have Doctorates.

Salaries

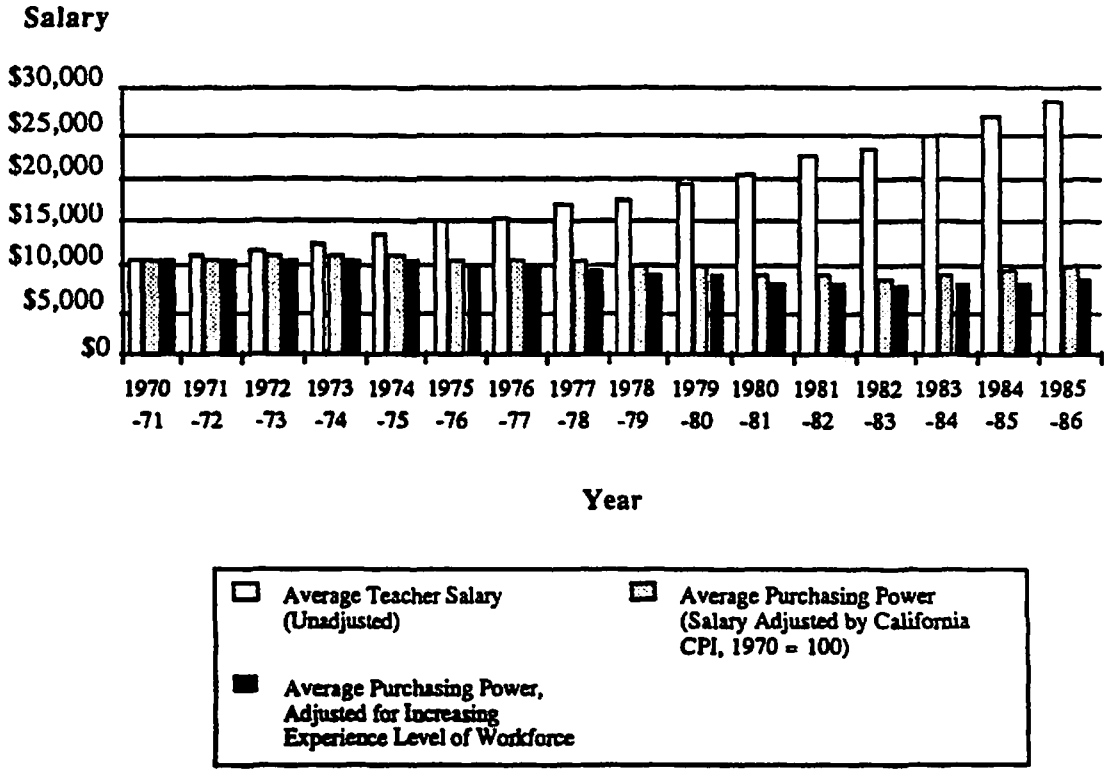
The National Education Association's (NEA) most recent calculations indicate that the national average teacher salary is $25,257 and that California's teacher salaries rank fifth in the nation.[22] Analysis of data supplied by California Basic Educational Data System (CBEDS) suggests that the average California teacher salary for 1985-86 was $29,084, an increase of 7.6 percent over 1984-85.[23] Figure 38 illustrates that although California teacher salaries increased 164 percent from 1970 to 1985, actual purchasing power of teacher salaries has decreased. Adjusting salaries by the California Consumer Price Index reveals that teachers' purchasing power increased slightly from 1970 to 1973 and dropped until 1982. Since 1983, teachers' buying power has again been increasing, but it still remains more than five percent below its 1970 level.

[22] Estimates of School Statistics, 1985-86, National Education Association.

[23] These and other 1985-86 data attributed to CBEDS are derived from PACE analyses of data tapes certified and supplied by CBEDS. Due to differences in aggregation or in statistical procedures, the figures reported here for 1985-86 may therefore differ slightly from those to be published by CBEDS.

FIGURE 38

Average California Teacher Salaries, 1970-1985, Adjusted for Inflation and for Increasing Experience Level of Workforce



SOURCE: PACE analysis of California Basic Educational Data System data.

It should be noted, however, that some of the improvement in teacher salaries can be attributed to the previously noted aging of the educator workforce. The only promotion that teachers can earn in their careers as instructors (with the exception of the recently enacted Mentor Teacher Program which is available to 3.75 percent of California's teachers) consists of movement along a salary schedule that provides a small increase (typically around 2.5 percent) for each year of service (typically up to 8 to 13 years). Additional increases are awarded if teachers attain additional professional preparation beyond the minimum level required for employment. A typical salary schedule has levels beginning at the Bachelor's degree and continuing through the Bachelor's plus 30 semester units (the usual minimum for employment), 45, 60, and 75 graduate units. Additional bonuses often are available for earned Master's degrees (typically under $500) and earned Doctorates (typically under $1,000). Thus, teachers who provide the maximum number of continuous years of service to a district and who earn the maximum number of postgraduate units can expect to improve their salaries by approximately 80 percent over the course of their careers, excluding the effects of inflation.

Since all available data indicate that the average teacher today is more experienced and more educated than his or her counterpart in 1970, it becomes clear that teachers have been able to nearly keep up with inflation by sacrificing some of their expected salary gains as they progress in their careers. Although precise data are unavailable, estimates suggest that California's teachers are between 3.4 and 6 years more experienced now than in 1970.[24] In other words, while today's teachers are more experienced and more educated than in the past, their earning power has not improved. On the contrary, if we compare today's teachers with teachers of similar experience levels over the past 15 years, we see that teachers' purchasing power is between 13.3 percent and 19.4 percent less than it was in 1970.

In addition, the longer school day and longer school year reforms of SB 813 made available to districts added money which was intended to rebuild programs that had been eroded or eliminated after passage of Proposition 13 in 1978. Many districts added new courses, added a period to the school day, and hired new teachers, but a large number of districts, particularly those that had been able to restore program cuts gradually, chose to add minutes to existing class periods. While data that disaggregate district use of longer-school-day-and-year money are not available, it is clear that a substantial portion of that money was translated directly into teacher raises for working longer days and years.

Thus, while it appears today that teachers have regained most of their purchasing power lost over the past decade and a half, it should be noted that this accomplishment was partly financed by teachers as they became more experienced, more educated, and as they agreed to work longer days and years. To ignore this fact is to risk assuming that fundamental adjustments have been made to the compensation structure of the teaching profession that

[24]Based on California data supplied by State Teachers Retirement System (STRS) and on national data gathered by National Education Association (NEA) and American Federation of Teachers (AFT).

again make it attractive to capable graduates, when, in fact, this is hardly the case. In all likelihood, there will continue to be problems with the recruitment and retention of new teachers, who may notice that their earning power will plateau early in their careers (Figures 39 and 40) and that salaries significantly higher than the average are rare (Figure 41).

Teacher Roles

On the whole, California allocates its secondary teaching personnel consistent with national trends (Figure 42). In two crucial areas, however, English and math, California lags behind, while in special education and physical education the state outpaces the nation.

Mentor Teacher Program

The State Department of Education (SDE) reports that 6,891 teachers in 857 of the state's 1,028 school districts are participating in the Mentor Teacher Program. The 229 nonparticipating districts account for fewer than 10 percent of the state's students and teachers.

Although Senate Bill 813, enacted in 1983, authorizes districts to designate up to five percent of their teachers as mentors, last year's fiscal appropriation allowed districts to award mentor grants to only 3.75 percent of their teachers. Full funding would have permitted participating districts to name an additional 2,235 mentor teachers.

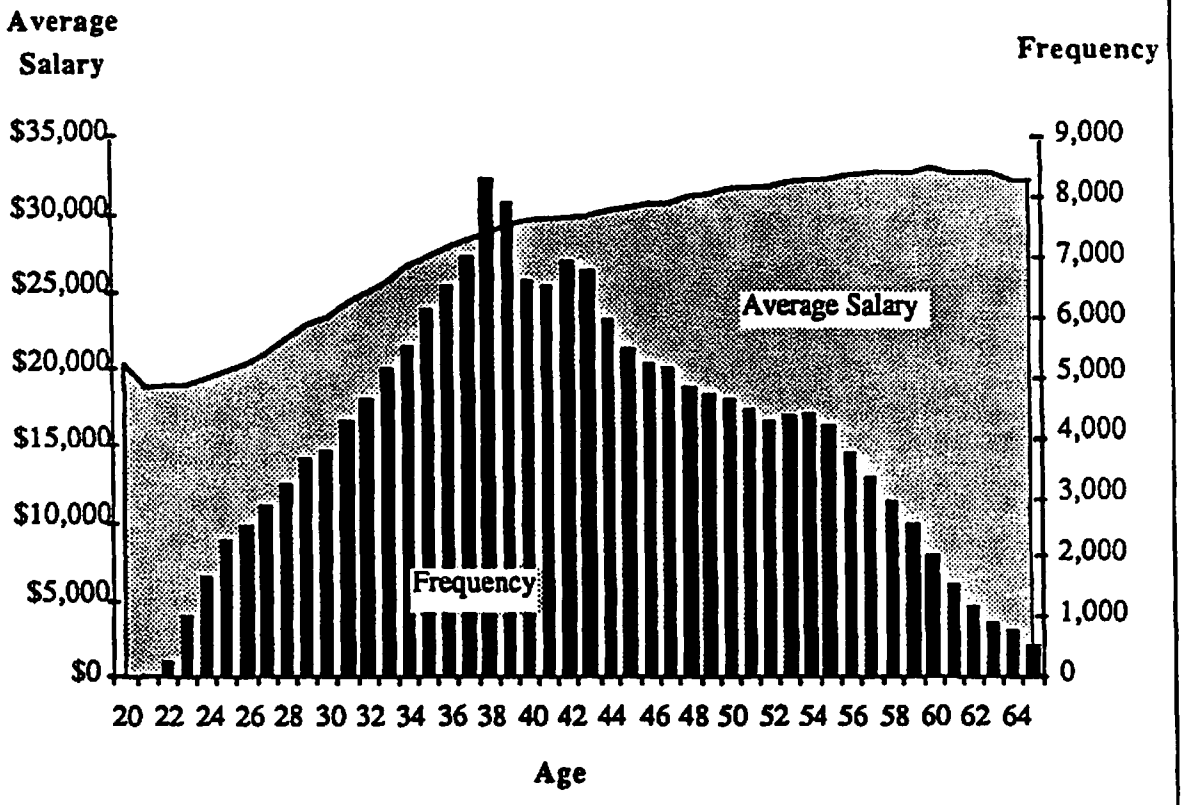
A study of the Mentor Program by SDE reveals that most districts treat the program as "extra work for extra pay," with mentors typically completing projects, performing under general supervision, and submitting logs detailing their work and the hours spent on it.[25]

A typical mentor spends 23 hours a month in addition to regular teaching duties and uses between 8 and 15 days of release time per year to receive training or to assist other teachers. Although the law permits mentor teachers to spend as little as 60 percent of their time teaching students, they actually spend more than 90 percent of their time with students, chiefly because each mentor position is allocated only $2,000 per year for all administrative costs of the program. In fact, districts spent an average of only $397 of the allotted funds on release time for mentors.

[25]Laura A. Wagner, "A State Perspective on Teacher Leadership Roles: The Potential of the California Mentor Teacher Program," Unpublished report prepared for the California State Department of Education, 1986. This study used data generated by the Far West Laboratory for Educational Research in a survey of 740 districts participating in the 1984-85 mentor program. Two-hundred and ninety-one districts responded.

FIGURE 39

Average Teacher Salary and Frequency Distribution of Teachers by Age, 1985-86

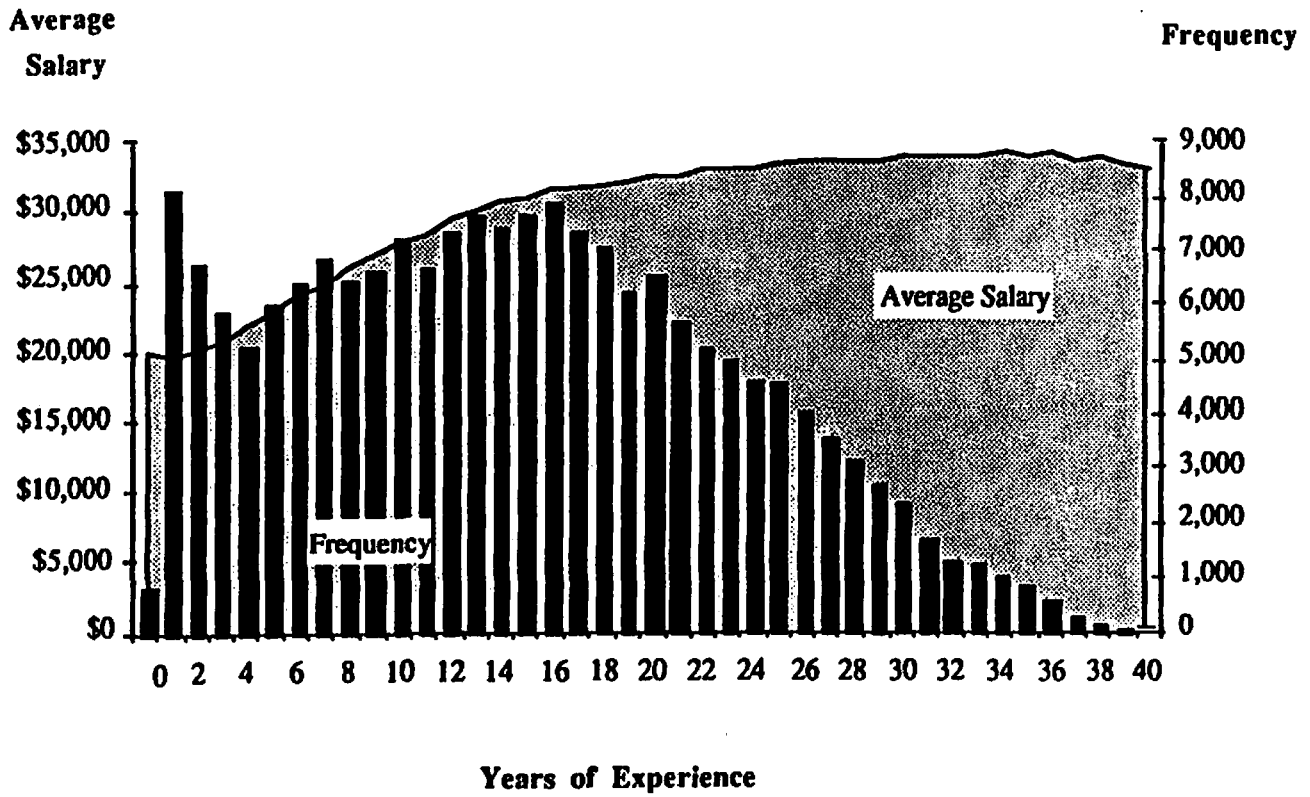


Note: Includes Mentor Teachers. Excludes teachers who hold partial assignments as administrators, department chairs, or in pupil services.

SOURCE: PACE analysis of California Basic Educational Data Systems (CBEDS) data.

FIGURE 40

Average Teacher Salary and Frequency Distribution of Teachers by Years of Experience, 1985-86

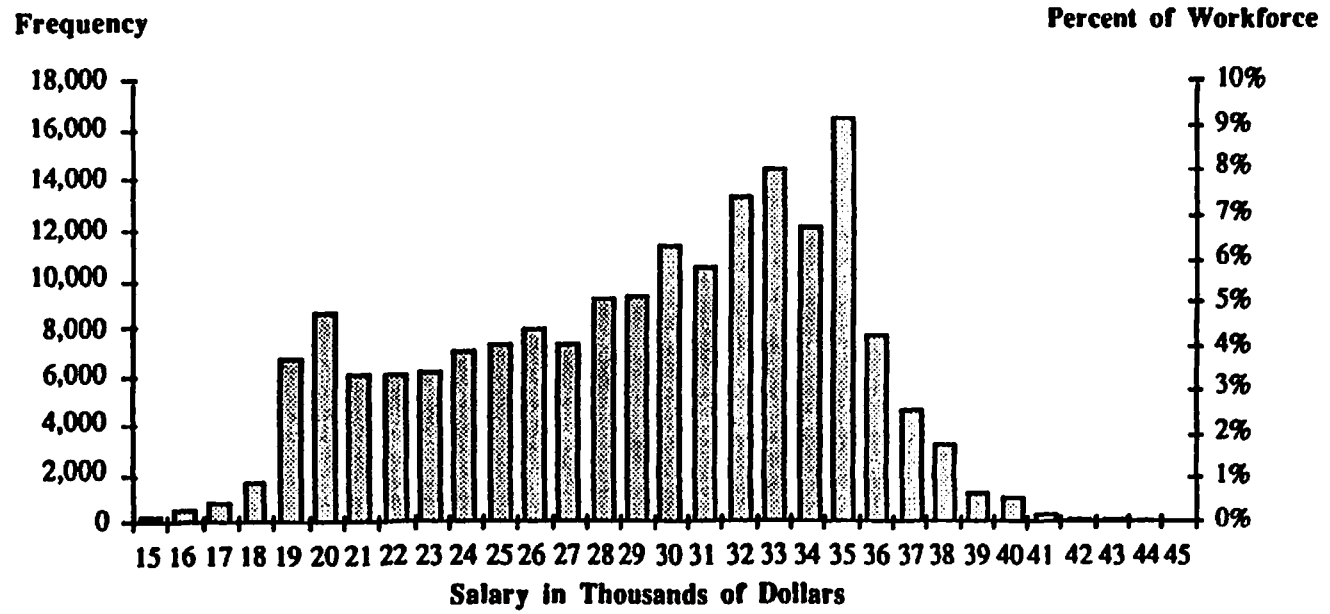


Note: Includes Mentor Teachers. Excludes to partial assignments as department chairs, administrative pupil services.

SOURCE: PACE analysis of California Basic Educational Data System (CBEDS) data.

FIGURE 41

Frequency Distribution of Teacher Salaries, 1985-86

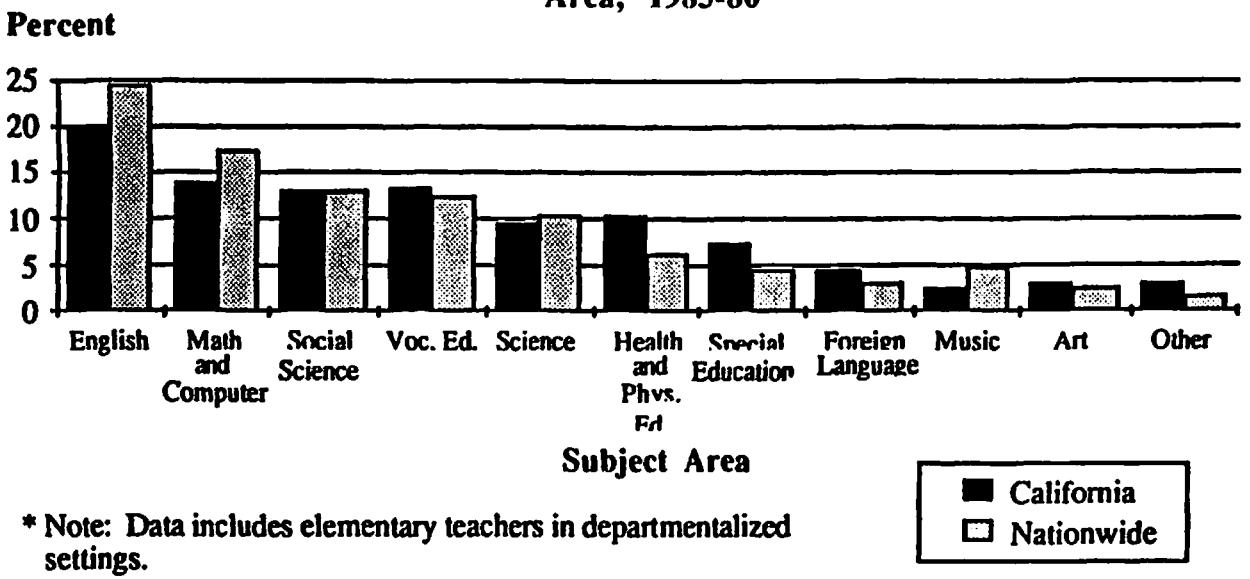


Note: Includes Mentor Teachers. Excludes teachers who hold partial positions as department chairs or administrators.

SOURCE: PACE analysis of California Basic Educational Data System (CBEDS) data.

FIGURE 42

Distribution of California Secondary Public School Teachers and Teachers Nationwide by Subject Area, 1985-86*



* Note: Data includes elementary teachers in departmentalized settings.

SOURCE: National data courtesy of National Education Association California data from PACE analysis of California Basic Educational Data System (CBEDS) data.

The majority of mentor time (47%) is spent developing curriculum, instructional materials, lesson plans, tests, and syllabi. The second largest use of mentor time (30%) is allocated to instructional methods, lesson delivery, student grouping, learning theory, and critical thinking. Mentor coordinators report that the initial tendency of mentors to engage in projects is giving way to a trend towards assuming collegial responsibilities such as teacher training, conducting workshops, peer observation, and peer tutoring. Mentors tend to assist individual teachers or small groups rather than whole faculties. On average, mentors spend about 19 percent of their mentoring time assisting new teachers.[26]

Indications are that participants in the Mentor Teacher Program are often uncomfortable with their roles; for example, are they merely teachers receiving merit pay, are they quasi-administrators, are they experts, are they supervisors, or are they leaders? How are they to maintain their credibility as exemplary teachers while devoting significant time and energy to nonteaching activities? Questions such as these illustrate the need for further role clarification, development of a technology for mentoring, and development of effectiveness indicators.

Bilingual Educators

California employs 7,891 certified bilingual teachers and another 4,792 who are granted waivers.[27] An additional 16,207 bilingual aides are employed in the state. While the number of bilingual teachers employed has increased 5.5 percent since 1983, the number of bilingual teachers with waivers increased 7.9 percent. The steadily increasing need continues to outstrip the state's production of certified bilingual teachers; consequently, districts remain obliged to hire teachers who hold waivers. The vast majority of these employees (88%) are Spanish-proficient, although over 20 other languages are represented, including Cantonese (2.3%) and Tagalog(1%).[28]

Teacher Supply and Demand

Although California employed 186,023 FTE teachers during 1985-86, or 4.3 percent more than the previous year, the state is still experiencing significant teacher shortages. According to data reported to CBEDS by district superintendents, the statewide teacher shortage reached 9,893 teachers in 1985-86 (Figure 43). While almost half of this shortage can be explained by the scarcity of credentialed bilingual teachers, major shortages are also occurring in primary self-contained classes, special education, and several subject areas, including math, English, and science.

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[26]Tom Bird, "The Mentor's Dilemma: Prospects and Demands of the California Mentor Teacher Program," A report prepared for NIE, Contract # 400-83-003 to the Far West Laboratory for Educational Research, 1986.

[27]Waivers allow teachers who agree to learn the language within six years to teach bilingual classes when certificated bilingual teachers are unavailable.

[28]The Language Census Report (Sacramento: California State Department of Education, 1985).

FIGURE 43

Teacher Shortage and Demand, 1985-86

Subject Area	Emergency Credential or Waiver	Positions Vacant, Cancelled, or Transferred	Total Shortage 1985-86	Estimated Number of Hirees, 1986-87
Agriculture/Ind Arts	14.6	12.7	27.3	77.1
Art	11.8	3.9	15.7	44.5
Business	23.0	7.8	30.8	97.0
English/Drama	702.8	59.4	762.2	944.2
Foreign Language	103.3	10.8	114.1	247.0
Home Economics	13.5	11.4	24.9	51.3
Life Science	419.2	21.0	440.2	583.0
Mathematics	766.4	54.3	820.7	940.8
Music	41.4	14.6	56.0	109.8
PE/Health Ed/Dance	70.1	7.4	77.5	164.1
Physical Science	181.9	15.8	197.7	426.2
Reading	20.0	12.8	32.8	192.1
Social Science/Studies	126.9	29.3	156.2	369.3
Special Education	832.8	265.3	1,098.1	1,278.9
Bilingual Education	4,200.6	166.5	4,367.1	1,691.4
Vocational Education	8.4	9.2	17.6	99.1
Self Contained Classes	1,312.1	207.7	1,519.8	4,087.1
Other Specializations	102.5	33.9	136.4	233.8
TOTAL	**8,949.3**	**943.8**	**9,893.1**	**11,637.0**

SOURCE: PACE analysis of California Basic Educational Data System (CBEDS) data.

Superintendents also report that their districts expect to hire 11,637 teachers in 1986-87 to replace expected retirees, resignations, transfers, and teachers on leave, and to fill currently vacant positions.

A recent PACE analysis suggests that between 15,000 and 17,000 new teachers will be needed in each of the next five years to meet demand for growth and attrition.[29] Using conservative estimates of the state's ability to train new teachers, to attract out-of-state teachers to California, and to induce reserve-pool teachers to re-enter the profession, and by using more liberal projections based on historical data, these same researchers forecast a shortfall of between 21,300 to 34,800 for the period through 1989-90.

The effects of three proposed educational reforms (reducing pupil/teacher ratios to 20 to 1, eliminating emergency credentials, and requiring teachers to teach only in their field of expertise) would have dramatic effects on the teacher shortage, producing a shortfall of 80,000 to 94,100 by 1989-90 (see Figure 32, page 62).

One provision of Senate Bill 813 designed to address the teacher shortage problem, the Assumption Program of Loans for Education (APLE), is currently undergoing revision. Originally, the program allowed teachers in shortage areas to qualify for up to $8,000 in loan assumption benefits over three years. In 1984-85, 244 applicants from 186 of California's schools (about 2.5 percent) were found eligible for the program (Senate Bill 813 authorized up to 500 participants). Preliminary studies suggest that the program has been successful in attracting minority participation and that it may well be effective in combatting attrition among young, shortage-area teachers.

Current law now requires all APLE applicants to be prospective teachers enrolled at designated postsecondary institutions, so full-time teachers will no longer be eligible for the program. This change was implemented in order that the program might direct into teaching college students who otherwise would not consider it. The APLE Commission did not accept any applications during 1985-86 while it implemented regulatory and procedural revisions.

The California State University (CSU) system, which prepares approximately 68 percent of the state's teachers,[30] reports that the number of full-time-equivalent students who sought single- and multiple-subject teaching credentials in 1985-86 increased approximately 18 percent over 1984-85. Applications for the 1986-87 academic year are up by an estimated 20 percent over last year. On the other hand, the University of California system, which prepares approximately six percent of the state's teachers,

[29]Helen H. Cagampang, Walter I. Garms, Todd J. Greenspan, and James W. Guthrie, Teacher Supply and Demand in California: Is the Reserve Pool a Realistic Source of Supply? (Berkeley: Policy Analysis for California Education (PACE), August 1986).

[30]Based on recommendations for the basic credentials (multiple and single subjects) cited in Monica Murphy, "Teacher Preparation in California, A Status Report," paper submitted to the California Commission on the Teaching Profession, April 1985.

reports a total of 841 students enrolled in programs leading to teaching credentials during 1985-86, virtually unchanged over the past several years.

In the fall of 1986 the California State University system inaugurated a systemwide database to record the number, characteristics, and educational preparation of its teacher trainees. The database is intended to enable planners to respond more quickly and more accurately to the state's changing needs for educators.

Credentials Granted

The Commission on Teacher Credentialing (CTC) grants an enormous number of credentials every year; in 1984-85, the most recent year for which data are available, the number was 75,202, a slight decrease over the previous year and a substantial decrease over 1981-82's total of 110,090. These totals include all first-issue, additions, and renewals of teaching, services, specialist, and child care credentials, and by themselves cannot be used to measure the changing condition of the teacher workforce.

Although the total number of credentials granted was relatively unchanged over the previous year, 1983-84, there was a 27 percent increase in the number of first-issue multiple- and single-subject teaching credentials and a 45 percent increase in the number of teachers who added new types of teaching authorizations to their existing credentials. These two categories represent newcomers into the pool of licensed prospective teachers, and their increasing numbers represent a reversal of a trend.

However, what appears to signal an encouraging development in the supply of teachers is clearly attributable, in large part, to the increased granting of emergency credentials. In 1984-85, 16.2 percent of all Ryan multiple- and single-subject credentials (first-issue, renewal, and added elementary and secondary teaching credentials) were limited or long-term emergency credentials, compared to 11.2 percent for the previous year and 9.6 percent in 1981-82. In other words, nearly one out of every six credentials granted in 1984-85 authorizing employment in the regular elementary or secondary classroom was an emergency credential.

Examining first-issuance multiple- and single-subject credentials, the category representing the new teachers entering the profession, the proportion of emergency credentials is even higher at 21.6 percent. *In other words, one out of every five classroom teachers (one out of every four secondary teachers) entering the workforce for the first time is entering equipped with an emergency credential.* In 1983-84, 13.6 percent of first-issued credentials were emergency, and in 1981-82 the figure was 5.8 percent.

When teachers desire to expand the subjects or grade levels they are authorized to teach, they may add a new credential type to their exisiting one. Normally, this is accomplished by completing a prescribed course of study and/or passing examinations. In 1984-85, however, nearly one third (32%) of added teaching credentials granted were emergency. This compares to 30.4 percent the previous year and to 25 percent in 1981-82.

Thus, if first issue and added credentials represent a year's supply of new prospective teachers, *in 1984-85, 25.9 percent of California's first-time authorizations to provide regular classroom or subject matter instruction were accomplished through the issuance of emergency credentials* (Figure 44).

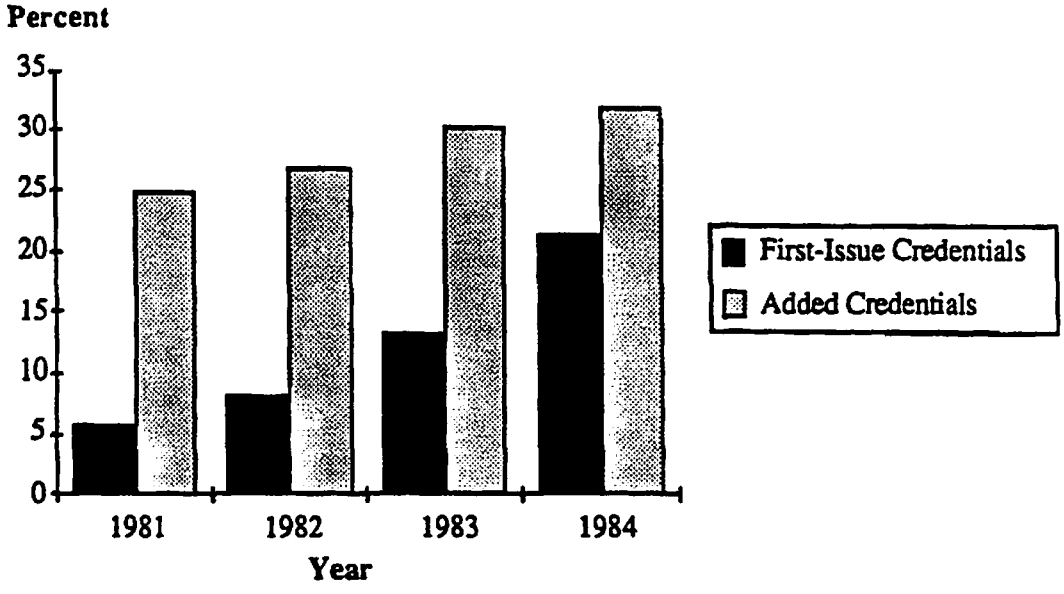
Subject areas for which emergency single-subject teaching credentials are most frequently issued are mathematics, followed by English, life science, social science, and physical science. Twenty-six percent of all bilingual/cross cultural specialist credentials granted were also emergency credentials, as were 16.8 percent of special education specialist credentials.

The 4,310 administrative services credentials granted last year represents an 8 percent decline over the previous year and a decline of over 52 percent since 1981.

Only a few, 189, teachers have earned their credentials through participation in the Teacher Trainee Program, an alternative certification program administered by CTC for individuals who want to become teachers. Passed as part of Senate Bill 813, the legislation is intended to alleviate subject area teaching shortages while also providing a route into teaching for people who already hold baccalaureate degrees and who desire to make a career change. An interim study of the program indicates that over 90 percent of the program's participants were employed in Los Angeles and that half of them were upgrading emergency credentials. There are also indications that graduates of the program are more inclined to remain in a district, perhaps because they are generally older and more experienced than traditionally trained beginning teachers. Formal evaluation of the program will be submitted to the legislature in January 1987.

FIGURE 44

Percent of Elementary and Secondary Teaching Credentials that are Emergency



Note: First-issued credentials are granted to teachers who have completed a teacher training program and who have never been licensed to teach. Added credentials are granted to licensed educators who have become authorized to teach in new subject areas or to perform additional services.

SOURCE: "Credential Profile, 1981-84" and "Credential Profile, 1984-85" (Sacramento: Commission on Teacher Credentialing, 1985).

Performance on the California Basic Educational Skills Test (CBEST)

Recent statistics indicate that prospective teachers are faring better on the CBEST (Figure 45).[31] Seventy-five percent of the 42,774 first-time test takers passed in 1985-86, up from 73 percent (of 41,645 takers) in 1984-85 and 68 percent (of 33,586 takers) in 1982-83. Improved passing rates for Mexican-Americans may reflect the results of self-selection; as Figure 46 illustrates, this group has been taking the test in smaller numbers since 1982. Blacks, however, have increased their passing rates while also increasing the numbers taking the test.

Predictably, passing rates decrease the more often a person takes the test. In 1984-85, 46 percent passed on the second attempt, 32 percent passed on the third attempt, and 25 percent of those who took the test four or more times passed (some have taken portions of the test at least 12 times).

Nearly half (43%) of those who take the test for the first time are enrolled in teacher training programs and take the test to qualify for the teaching credential. In 1985-86, 74 percent of these first-time test takers passed; in 1983-84, the rate for this category was 68 percent. Another 32.4 percent of first-time test takers are seeking admission to a professional preparation program; in 1985-86, 77 percent of this group passed, compared to 68 percent the previous year. Eighty-one percent of those seeking inclusion on a substitute list passed,[32] compared to 79 percent the previous year. Seventy-seven percent of those taking the test as a requirement for employment passed, up from 71 percent in 1983-84, and 76 percent of those applying for a service credential passed, up from 72 percent in 1983-84.

Individuals applying for teaching credentials with a bilingual emphasis continued to improve their performance. Forty-eight percent of 1985-86 first-time takers passed, compared to 37 percent in 1983-84. Minority group members continue to show lower passing rates than whites, but most made gains over previous years. Asian takers displayed a 62 percent passing rate in 1985-86, up six percent over the previous year. Blacks showed a 36 percent passing rate, up three percent. Mexican-Americans increased their passing rate four percentage points to 50 percent, Other Hispanics increased seven percentage points to 48 percent, and 82 percent of whites passed on the first attempt, an increase of one percent over 1984-85.

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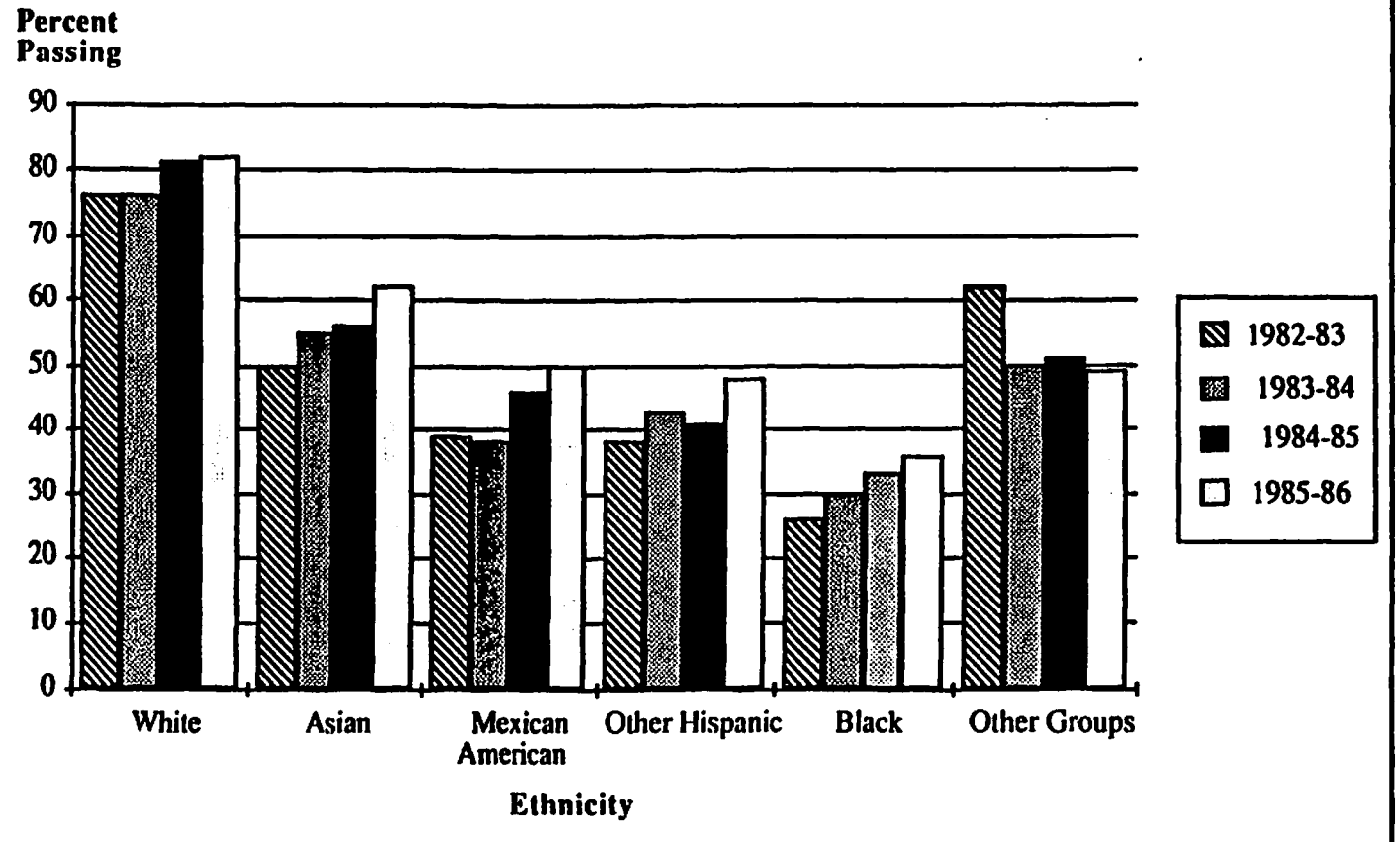
[31]Richard W. Watkins,"Fourth Year Passing Rates on the California Basic Educational Skills Test (CBEST) and Passing Rates By Institution Attended," California Commission of Teacher Credentialing, October, 1986.

[32]But for some reason, takers were told to mark this category only if they already held a California teaching credential. Other potential substitute teachers were told to indicate that they were taking the test to qualify for a teaching credential. Thus, it is impossible to determine how many noncredentialed, would-be substitute teachers actually passed the test. It is also likely that the inclusion of would-be substitute teachers in the "seeking teaching credential" category artificially lowers the passing rate of the group assumed to represent the next year's new teachers.

FIGURE 45

CBEST Passing Rates by Ethnicity



SOURCE: Richard W. Watkins, "Fourth Year Passing Rates on the California Basic Educational Skills Test (CBEST) and Passing Rates by Institution Attended" (Sacramento: California Commission on Teacher Credentialing, October 1985).

FIGURE 46

CBEST Attempts by Ethnicity, 1982-83 through 1985-86

Ethnic Group	1982-83 Number Tested	1983-84 Number Tested	1984-85 Number Tested	1985-86 Number Tested	% Change Previous Year	% Change 1982 to 1985
Asian	1,259	1,124	1,213	1,125	-7.25	-10.64
Black	2,040	1,963	2,287	1,997	-12.68	-2.11
Mexican Americans	2,133	2,116	1,720	1,759	2.27	-17.53
Other Hispanic	741	665	653	754	15.47	1.75
White	24,540	30,553	32,110	33,563	4.53	36.77
Other Groups	1,326	1,505	1,630	1,421	-12.82	7.16
TOTAL:	**32,039**	**37,926**	**39,613**	**40,619**	**2.54**	**26.78**

Year

SOURCE: Richard W. Watkins,"Fourth Year Passing Rates on the California Basic Educational Skills Test (CBEST) and Passing Rates By Institution Attended" (Sacramento: California Commission of Teacher Credentialing, October 1985).

Organization and Control

District Characteristics

California's public school districts generally are of three types: elementary, high school, and unified. There has been a dramatic reduction in the number of school districts, from 2,817 in 1940 to 1,028 in 1985 (Figure 47). This reduction was accomplished mainly through consolidation of elementary and high school districts into larger unified school districts. Today, district enrollments range from five students to over half a million students. Figure 48 displays the distribution of school districts by size over the past three years.

California's 25 largest school districts account for almost 34 percent of the state's public school enrollment and employ 35 percent of the state's local district teachers and administrators (Figure 49). Los Angeles Unified School District, the largest in the state, educates more than one-eighth of the state's public school students in over 600 schools at an annual cost exceeding $1.5 billion. Average teacher salaries vary from a low of $24,100 to a high of $32,460. Mean administrator salaries display a similar variance, from a low of $36,050 to a high of $49,472.

School Board Characteristics

A study conducted by the California School Boards Association (CSBA) in 1982 reveals that most school board members are male (54.6%), white (88.6%), and have college degrees (76%, with 30% completing post-graduate work).[33] Forty percent report having been members of a Parent Teachers Association prior to serving as board members, and many served as classroom volunteers (29.9%), on school advisory committees (28.4%), and on district advisory committees (25.2%).

Many school board members have direct experience as classroom teachers--16.5 percent claim to be former teachers, 5.5 percent are retired teachers, and 3.5 percent are employed as teachers. More than four percent are married to teachers, while 4.6 percent are employed as higher education teachers. One and a half percent are employed as school administrators.

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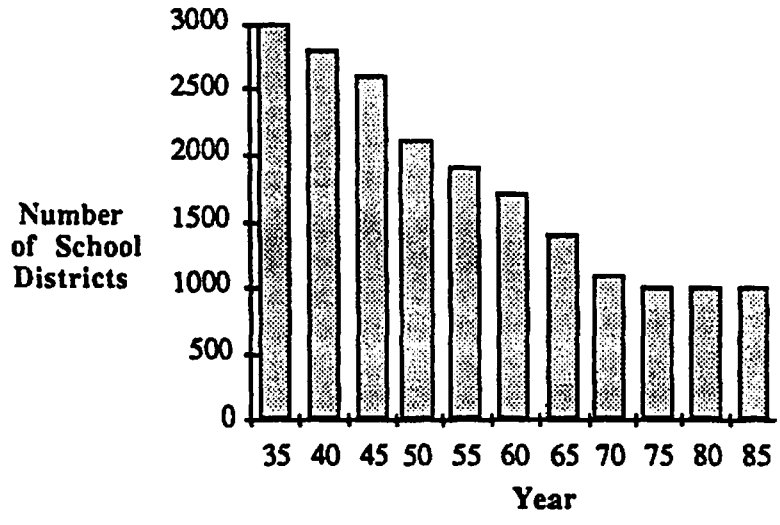
[33]Jean DeWitte, Joan Gorfain, and Elain Levy, "1982-83 CSBA Survey of School Board Members' Characteristics and Opinions" (Sacramento: California School Boards Association, April 1983). This survey was mailed to 150 districts chosen to represent a cross-section of size, location, and type; about half (345) of the board members responded. Since this survey was conducted, districts will have had one election; a new survey is being prepared for late 1986.

FIGURE 47

Number of California School Districts for SelectedYears, 1935-36 through 1984-85



SOURCE: California Basic Educational Data System (CBEDS). "Selected Education Statistics, 1984-85" (Sacramento: California State Department of Education, 1985).

FIGURE 48

Number of School Districts by Enrollment, 1980-81 through 1984-85

Enrollment	1984-85		1983-84		1982-83		1981-82		1980-81	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
50,000 and over	6	0.6	6	0.6	5	0.6	4	0.4	4	0.4
30,000 - 49,999	6	0.6	6	0.6	7	0.7	8	0.8	9	0.9
10,000 - 29,999	87	8.4	84	8.2	83	8.0	82	7.9	85	8.1
5,000 - 9,999	103	10.0	103	10.3	105	10.1	108	10.4	106	10.2
1,000 - 4,999	298	29.0	300	29.2	296	28.6	285	27.4	279	26.7
500 - 999	128	12.4	126	12.2	132	12.8	144	13.8	151	14.5
100 - 499	277	26.9	279	27.1	279	27.0	283	27.1	286	27.1
Less than 100	124	12.0	125	12.2	127	12.3	127	12.2	126	12.1
TOTAL	1,029	100.0	1,029	100	1,034	100.0	1,041	100.0	1,042	100.0

SOURCE: "Selected Education Statistics, 1984-85" (Sacramento: California State Department of Education, 1985), and California Basic Educational Data System (CBEDS).

FIGURE 49

Selected Statistics on California's 25 Largest School Districts by Enrollment, 1984-85

District	County	Statistics on public schools										Statistics on Private Schools		
					Number of Staff		*Expenditures*		*Average Salary*					
		Number of Schools	Total Enrollment	Number of Graduates*	Certificated	Classified	Total (in Thousands)**	Current (per ADA)	Teachers	Administrators	Student Services	Number of Schools	Total Enrollment	Number of Graduates*
Los Angeles Unified	Los Angeles	618	562,793	25,170	28,503	28,714	$1,538,609	$2,802	$26,901	$38,993	$31,536	596	103,403	4,738
San Diego Unified	San Diego	153	111,363	6,475	5,850	4,650	313,324	2,884	26,973	42,345	28,176	140	16,237	896
San Francisco Unified	San Francisco	109	62,957	3,520	3,518	2,491	165,739	2,795	27,902	39,832	29,852	144	26,947	1,879
Long Beach Unified	Los Angeles	77	61,788	3,033	3,024	4,046	153,303	2,560	28,813	44,727	34,766	50	7,423	194
Fresno Unified	Fresno	83	54,397	2,547	2,816	4,675	127,432	2,485	27,417	39,992	31,283	35	4,635	270
Oakland Unified	Alameda	95	51,492	2,144	2,781	2,136	136,233	2,784	24,100	36,050	27,930	82	9,328	536
San Juan Unified	Sacramento	84	44,156	3,006	2,321	1,766	107,117	2,506	25,545	28,973	28,909	107	7,874	383
Sacramento City Unified	Sacramento	71	42,746	1,947	2,169	2,351	109,034	2,728	26,161	39,179	28,030	60	6,805	448
Garden Grove Unified	Orange	56	36,569	2,463	1,722	1,472	91,905	2,555	32,328	45,627	34,056	30	3,215	96
Santa Ana Unified	Orange	40	35,255	1,153	1,716	1,220	83,402	2,518	25,581	39,325	29,705	22	4,903	510
Mt. Diablo Unified	Contra Costa	45	30,756	2,281	1,610	1,034	77,675	2,529	28,656	39,987	29,345	32	5,915	431
San Jose Unified	Santa Clara	37	30,565	1,863	1,520	1,922	82,015	2,658	30,347	41,596	28,824	39	6,063	474
San Bernadino City Unified	San Bernardino	49	29,742	1,229	1,364	1,719	73,925	2,642	27,806	41,163	30,785	46	4,062	172
Montebello Unified	Los Angeles	28	29,636	1,494	1,340	1,208	69,553	2,444	30,522	42,897	35,005	15	4,128	412
Richmond Unified	Contra Costa	37	27,340	1,677	1,421	1,364	69,149	2,615	26,826	38,867	30,697	30	3,674	99
Stockton City Unified	San Joaquin	42	26,893	853	1,317	2,452	66,472	2,661	25,003	37,478	30,912	24	3,076	242
Compton Unified	Los Angeles	35	26,856	1,459	1,373	1,458	82,608	3,091	25,386	38,227	29,673	20	2,745	91
Orange Unified	Orange	38	25,023	1,829	1,165	1,154	65,553	2,625	27,291	41,648	32,769	37	4,576	109
Riverside Unified	Riverside	36	26,411	1,329	1,202	1,035	58,273	2,436	27,037	46,780	32,520	43	4,680	215
Fremont Unified	Alameda	38	24,526	1,621	1,208	812	59,124	2,345	30,039	42,268	32,494	24	2,752	64
Sweetwater Union High	San Diego	23	24,240	2,726	1,145	754	56,138	2,452	29,704	42,097	32,732	7	769	159
Anaheim Union High	Orange	19	23,419	2,852	1,077	690	63,205	2,486	32,460	49,472	35,983	6	1,443	342
East Side Union High	Santa Clara	12	22,434	3,475	1,050	596	55,323	2,470	31,430	47,679	35,701	1	1	0
Pasadena Unified	Los Angeles	31	22,338	1,238	1,095	1,077	57,633	2,668	26,745	37,480	31,950	57	1,412	557
ABC Unified	Los Angeles	30	22,070	1,461	1,032	854	56,681	2,510	29,188	43,856	33,467	8	1,412	110

* 1983-84

** Current expenditures include general operating expenses (excluding expenditures for food services, community services, and capital outlay).

SOURCE: California Basic Educational Data System (CBEDS), and "Selected Education Statistics, 1984-85" (Sacramento: California State Department of Education, 1985).

The most commonly cited occupation of school board members is that of homemaker (18%), followed by professional (17.1%). Over eight percent are employed in office work, and 7.8 percent are retired. Approximately 30 percent of school board members are over 50 years old with about the same percentage being under age 40.

School board members report standing for election because they have children in schools, they want to improve school quality, they were requested or encouraged to run, and they have a high interest in public service. Nearly two-thirds have served fewer than five years, and only 17.2 percent say they would not run for re-election.

The majority of school board members believe that the school day and school year should be lengthened, that districts should be allowed to charge fees to students for participation in sports, that the state should pay for all programs mandated by the legislature, and that strikes by school employees should be outlawed. They are nearly unanimous in their belief that changes are necessary in the current method of funding public schools, and they support the idea that business and industry should provide extra support to public schools.

The majority of school board members are opposed to the concept of a statewide teacher salary schedule, and they do not believe that teachers should join a certificated bargaining union. School board members are also opposed to prayer in public schools. They state that finding qualified teachers will be an increasingly serious problem in coming years, and many of them indicate that "something needs to be done about teacher tenure and evaluations."

School Characteristics

At 7,338, the number of public schools in California increased slightly (1.3%) since 1985. This still is significantly lower than the 1980-81 figure of 7,582. The bulk of the increase is accounted for by the growing number of county-operated schools, regional occupational programs, juvenile hall schools, and home/hospital schools.

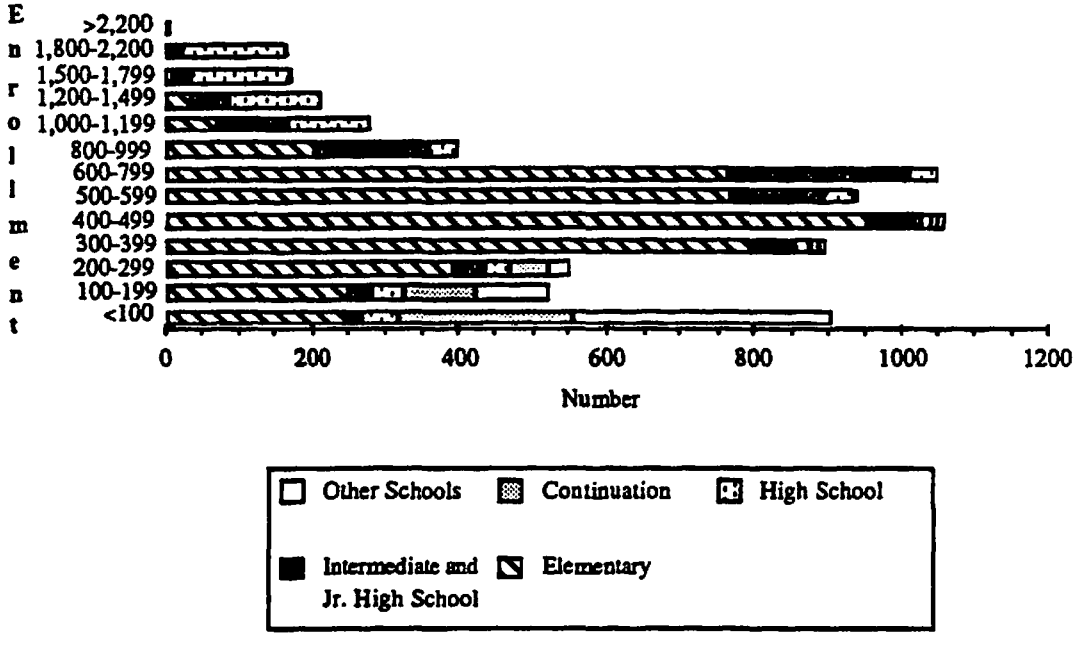
The median enrollment for the state's elementary schools is approximately 450 pupils, for intermediate and junior high schools about 650 pupils, and for high schools about 1,500 pupils.[34] Continuation schools usually enroll smaller numbers of students; 56.8 percent of such schools report enrollment of fewer than 100 pupils (Figure 50).

Contrary to expectations, enrollment in continuation education classes has decreased since 1980-81, from 103,761 total cumulative enrollment to 101,021 in 1984-85, the most recent year for which data are available. While the 1984-85 enrollment represents an increase of 1.4 percent over 1983-84 figures, it is impossible to tell, given the larger

[34] 1984-85 estimates.

FIGURE 50

Number of California Public Schools by Enrollment and Type of School



SOURCE: "Selected Education Statistics, 1984-85" (Sacramento: California State Department of Education, 1985), and California Basic Educational Data System (CBEDS).

trends, whether this small increase is related to more rigorous graduation requirements mandated by Senate Bill 813 in 1983.

California has 4,969 private schools, twice as many as a decade ago, but most of this increase can be attributed to a surge in schools that enroll fewer than 10 pupils. Indeed, 1,290 of the state's private schools (26%) enroll four or fewer students; these schools generally are "home schools."

In 1984-85 a third of the state's private schools enrolled fewer than 10 students, a third enrolled between 10 and 99 pupils, and a third enrolled over 100 (but rarely over 500) students. The majority of private schools are elementary schools (78%), 22 percent are K-12, and 6 percent are secondary (Figure 51).

In 1984-85, the latest year for which complete statistics are available, 40 percent of the state's private schools were church affilitated and enrolled 76 percent of the state's 540,127 privately educated K-12 students. An additional 21 percent of private schools were religious but were not affiliated with a church (Figure 52). The vast majority of church affiliated schools are Roman Catholic (61.9%), followed by Baptist (7.6%), Lutheran (6.0%), Seventh-Day Adventist (3.9%), and Assembly of God (3.7%) (Figure 53).

Class Sizes

Data supplied to the National Education Association by CBEDS indicate that California public schools have a pupil-teacher ratio[35] of 22.9 to 1, but when all instructional staff are considered[36] the ratio falls to 20.6 to 1. These ratios can be compared to national averages of 18.1 pupils per teacher and 16.0 pupils per instructional staff.[37]

For a number of reasons, however, actual class sizes in California are much higher than the calculated pupil-teacher ratios. Because California employs many specialist teachers and subject matter teachers at the elementary level who pull out pupils from regular classrooms for individualized and specialized instruction, usually on a once-a-week basis, the ratio of pupils to teachers is lower than the average class size that the typical teacher faces. Indeed, as Figure 54 indicates, average class size reported by all California teachers

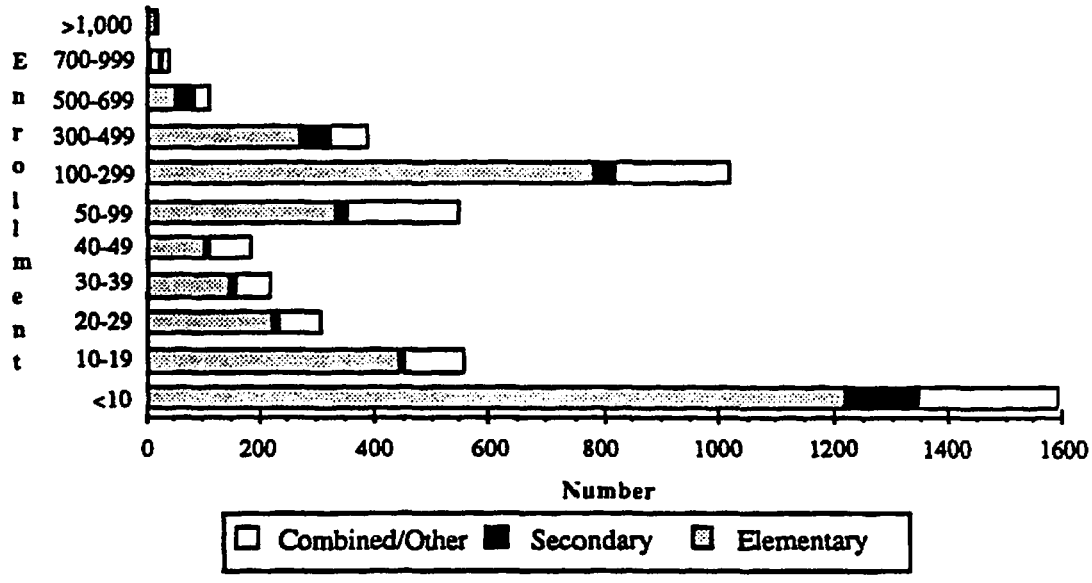
[35]For this calculation teachers were defined as FTE teachers employed in teaching or instructional-related duties; certificated personnel performing administrative, support, or nonteaching duties were excluded. These ratios are based on reported student enrollment and not on ADA or ADM.

[36]Includes all FTE teachers, curriculum specialists, counselors and guidance personnel, librarians and media specialists, remedial specialists, principals, assistant principals, and supervisors. Excludes superintendents, assistant superintendents, nurses, social workers, and psychologists.

[37]Figures derived from "Estimates of School Statistics, 1985-86," National Education Association (NEA), 1986.

FIGURE 51

Number of California Private Schools by Enrollment and Type of School, 1984-85



SOURCE: "Selected Educational Statistics, 1984-85" (Sacramento: California State Department of Education, 1985), and California Basic Educational Data System (CBEDS).

FIGURE 52

Enrollment In Church-Affiliated and Nonchurch-Affiliated California Private Schools, 1981-82 to 1984-85

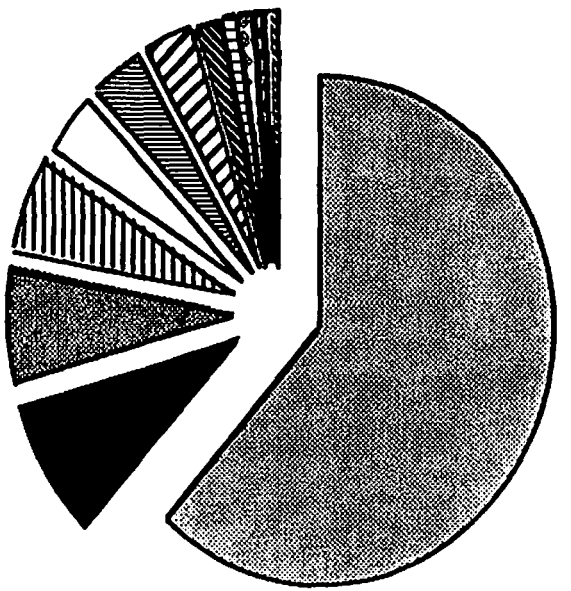
Affiliation	Number of Schools			Enrollment		
	1981-82	1984-85	% Change 81 to 84	1981-82	1984-85	% Change 81 to 84
NONCHURCH	2,205	2,965	34.5	124,053	130,113	4.9
Religious, Nonchurch	485	1,059	118.4	n/a*	n/a*	
CHURCH AFFILIATED	1,871	2,004	7.1	404,960	410,114	1.3
Roman Catholic	750	746	-0.5	261,739	253,906	-3.0
Baptist	214	225	5.1	31,036	31,358	1.0
Other Affiliations	215	341	58.6	24,261	35,890	47.9
Lutheran	170	192	12.9	23,706	24,762	4.5
Seventh-Day Adventist	142	145	2.1	17,051	16,094	-5.6
Assembly of God	93	97	4.3	14,795	15,058	1.8
Interdenominational	108	84	-22.2	11,728	12,683	8.1
Episcopal	47	46	-2.1	7,055	7,475	6.0
Christian (Desciples of Christ)	34	19	-44.1	4,005	2,449	-38.9
Hebrew	15	14	-6.7	3,154	3,079	-2.4
Methodist	27	29	7.4	3,029	3,195	5.5
Pentecostal	31	38	22.6	1,827	2,232	22.2
Presbyterian	25	28	12.0	1,574	1,993	26.6
TOTAL:	**4,076**	**4,969**	**+21.9%**	**529,013**	**540,127**	**+2.1%**

* Enrollment figures for Religious, Nonchurch Affiliated schools unavailable.

SOURCE: "Enrollment and Staff In California's Private Elementary and High Schools, 1981-82" and "1984-85" (Sacramento: California State Department of Education, 1982 and 1985), and California Basic Educational Data System (CBEDS).

FIGURE 53

Church-Affiliated Private School Enrollment, 1984-85



- Roman Catholic
- Other Affiliations
- Baptist
- Lutheran
- Seventh-Day Adventist
- Assembly of God
- Interdenominational
- Episcopal
- Methodist
- Hebrew
- Christian (Disciples of Christ)
- Pentecostal
- Presbyterian

SOURCE: "Enrollment and Staff in California's Private Elementary Schools and High Schools, 1984-85" (Sacramento: California State Department of Education, 1985), and California Basic Educational Data System (CBEDS).

FIGURE 54

Class Sizes in K-12 Public Schools

ASSIGNMENT	Number of Sections	Average Pupil Count
Self-Contained/Elementary:		
Preschool	124	22.05
Kindergarten	11,811	28.69
Grade 1	10,881	27.77
Grade 2	9,770	27.43
Grade 3	9,554	27.62
Grade 4	8,902	27.89
Grade 5	8,545	28.18
Grade 6	7,498	28.71
Grade 7	447	28.42
Grade 8	322	27.75
Other[1]	14,910	26.72
Total Self-Contained/Elementary	82,764	27.79
Departmental/Secondary[2]:		
English	89,908	27.40
Foreign Language	18,530	28.74
Humanities	571	27.00
Mathematics	57,566	28.86
Computer Education	5,639	28.03
Physical Education	40,562	41.13
Health Education	4,923	31.06
Safety Education	3,294	31.54
Science	41,289	29.65
Social Science	56,273	29.57
Art	13,214	27.64
Drama/Theatre	2,666	27.77
Music/Dance	12,331	48.36
Vocational Education	52,374	25.29
Total, Departmental/Secondary	399,040	30.08
Total, All Regular Classroom Sections	**481,804**	**29.63**
Other Instructional Programs:		
Special Education	41,754	11.70
Other Teaching Assignment[3]	49,217	9.44
Department Chair	1,965	19.53
Total Other Instructional Programs	92,936	10.69
Total, All Instructional Sections	**574,740**	**26.58**

[1]Includes combination of grade levels and continuation education classes.

[2]Includes some elementary classes taught in a departmental setting.

[3]Includes non-special education resource specialist, skills center specialist, mentor teacher, extra instructional duties (homeroom, study hall, preparation period), alternative education, independent study, etc.

SOURCE: PACE analysis of unpublished California Basic Educational Data System (CBEDS) data.

is 26.58. This figure, too, is misleading because it includes a large number of teaching assignments that by necessity carry an unusually low student load. Special education teachers, for example, report an average class size of 11.70. Similarly, nearly 50,000 sections of "Other Teaching Assignments," a category that includes mentor teaching, study hall, preparation period, independent study, and non-special education resource specialist, carry an average of 9.44 pupils.

Excluding teaching assignments that are atypical of the normal classroom setting reveals that the vast majority of California's teachers routinely face classes that average 29.63 pupils. For departmental and secondary teachers, the figure is 30.08 pupils per section; for self-contained and elementary classrooms, 27.79. Physical education and music teachers average over 41 and 48 students per class, respectively. Site administrators attribute the heavy loads of these teachers to the unique instructional requirements and flexibility of these subjects and also explain that heavy loading of these teachers allows schools to operate crucial academic classes (particularly remedial classes) at sizes significantly lower than the average.

The Balance of Control

Public education in California is at a critical juncture, with public and policy attention focused on state-mandated reforms to improve quality and provide more funds. Though the clamor for reform of education has identified several critical local issues, the most visible energy and initatives have emanated from the state level through myriad mandates and incentives. This increased state role is a legacy of steady but disjointed migration of control over educational policy away from local districts to Sacramento during the last 20 years.

The social and political trends affecting the governance of California public education include:

1. A gradual, unplanned, and perhaps unintended shift during the past 20 years from local control to increased state centralization.

2. Increased use of state categorical grants to meet the requirements of special-needs populations, changes in state funding patterns and practices, and a growing legalization of the educational process.

3. A jeopardization of the public's ability to satisfy its educational preferences through local discretion and control over education.

4. Emergence of operational problems within the state's educational system as a result of the conflict between increased state control and the public's desire to maintain local autonomy.

Two broad implications for California state educational policy are suggested by this analysis. In the long term, recognition and review of the *de facto* added centralization of educational governance at the state level (without a popular mandate) is essential. The roles of state and local educational agencies in fostering excellence and equity deserve more systematic thought by educational leaders, policy makers, and the people of California. In the short term, it is essential to revitalize the capacity of local educational agencies to implement reforms mandated by the state while remaining responsive to local needs.

Shift in State/Local Relations

Though the primary organizational units of California public education are the 1,028 local school systems, legal responsibility for provision of educational services rests ultimately with the state. Yet important decision-making power has traditionally been delegated by states to local school district officials. Local control, the use of authority by lay governmental boards to operate, tax, spend, and establish policy on behalf of educational programs planned and staffed by local boards, includes the areas of curriculum, facilities, personnel, finance, testing, program definition, and assignment of authority within the local organization. Despite recent criticisms, local control of schools remains a powerful value in American society.

During the late 1950s, federal and state government reliance upon local school administration began to fade. During this period, *Brown vs. Board of Education*, Sputnik, National Defense Education Act (NDEA), and the Elementary and Secondary Education Act (ESEA) were all indicators that federal government officials doubted that local districts always had the ability to fulfill educational goals. In the mid 1960s, the California legislature mandated various local accountability schemes such as state testing, teacher evaluation, and spending controls. The spate of reports during the early 1980s on the perilous state of education nationwide and increased concern about perceived declines in test scores are only the most recent evidence of state and federal policy makers' loss of confidence in the capacity of local educators to provide effective schooling.

Rise in Categorical Programs

A number of states, in efforts to ensure local compliance with 1960s' federal programs for the disadvantaged and handicapped, imposed additional requirements on local schools. California, along with 15 other states, developed programs of its own to enhance local commitment to disadvantaged and minority populations.

Twenty-five percent of the nation's current immigrants settle in California, and minorities are a majority of primary school enrollment, causing a plethora of special state initiatives aimed at meeting their special educational needs. Designating funds for particular purposes has become an integral part of California's K-12 school finance system, and over

the past two decades, categorical aid programs and the percentage of state and federal funds allocated to them have grown in magnitude and complexity.

By the mid 1980s, California had 79 distinct federally and state funded categorical programs, accounting for over 30 percent of total K-12 revenues. The amounts available to individual districts vary considerably. Although several state programs were consolidated through legislative actions in 1977, 1981, and 1983, most programs still require local districts to adhere to regulations which cover eligibility, application, evaluation, funding, and reporting.

Changes in Financing

Dramatic changes in the ways California schools are financed underscore the influence of finance mechanisms on the locus of policy control. The state funding role has increased significantly since 1972 when the legislature enacted Senate Bill 90, a statute which severely limited the authority of local school districts to tax and spend. What had been largely a local fiscal responsibility rapidly became a growing proportion of the state budget and purview (see Figure 35, page 66).

A key legacy of Senate Bill 90 is a provision whereby local school boards may no longer establish property tax rates. Rather, the state directs, through computed revenue limits, how much a district can spend per student from both local and state tax revenues. The state subsidizes the difference between the total base revenue limit for the district and revenues generated from local property taxes.

In 1976 California's supreme court upheld a Los Angeles County Superior Court decision declaring the state's school finance system in violation of the California constitution *(Serrano v. Priest)*. The result was subsequent legislative reinforcement of a system of local district revenue limits which, over time, have compressed per-pupil spending into a relatively narrow dollar band. By 1986, 90 percent of California's public school students were enrolled in districts with spending limits within a $100-per-pupil band. A subsequent trial court decision affirmed the constitutionality of this equalization approach. In September 1986 the state supreme court again declared its intent to review the lower court decision. This is but one more milestone in a now almost two-decade-long odyssey of California school finance instability.

Educational funding patterns in California changed further in 1978 with passage of Proposition 13, which virtually eliminated all remaining local discretion in taxation and imposed more restricted state revenue limits on local educational agencies. Since 1978 education is *de facto* financed completely by the state: the state dictates revenue limits for each district and, in effect, provides almost all the money to support that limit. Since the proportion of the local property tax received by the district is substantially less than the

revenue limit (and cannot be changed by the district), the effect is the same as if the state provided all the money and raised a portion of it through a statewide property tax.

In 1979 voters approved the Gann spending limit which links growth in local school expenditures directly to increases in population and inflation. With inflation currently at two percent, the California state government is beginning to restrict spending for essential needs in some localities.

Legalization of Educational Policy

Another cause of the shift toward state centralization of educational governance in California is the increasing "legalization" of educational policy over the past 15 years. In a report written with Donald Jensen, Thomas Griffin, former chief counsel for California's State Department of Education, argues that over the last decade and a half courts have been asked to decide an increasing number of educational cases.[38] The scope of these cases has also changed, as plaintiffs have sought to involve the courts in areas which have been traditionally reserved for the legislative process. Hence, during the 1970s and 1980s, courts have become more involved in assessing educational programs.

There are an increasing number of educational cases requiring the state to regulate local schools, In 1986, for example, there were 101 active suits filed against the California State Board of Education. These lawsuits involve almost every area of local school operations and include the basic curriculum as well as the alleged lack of state enforcement of categorical program requirements.

Future of State/Local Relations

Senate Bill 813 represents another dramatic shift toward state initiative in areas where local districts historically have maintained the most autonomy: what should be taught, how it should be taught, and who should teach the instructional core of education. Critical to the current state agenda is the notion of state curricular alignment: common academic content that is enforced through state-adopted texts, a model state-developed curriculum to influence local curricula, and state tests aligned with content in state-adopted texts and curriculum guides.

Although political and social forces may be moving toward more court and state intervention in local policy making, local control is still a principle cherished by many citizens and educators. To ignore the political importance of local control is to risk a

[38]Donald N. Jenson and Thomas M. Griffin, "The Legalization of State Educational Policy Making in California" (Stanford: Institute for Research and Educational Finance and Governance (IFG), Stanford University, January 1982).

pendulum swing of negative public reaction regarding citizen inability to tailor educational policy to distinctive local needs.

An Evolving Model Of School Governance

Much is known about how to blend state and local control in a sophisticated and balanced way. Recent changes in state categorical program administrative procedures are providing a better mix of state top-down regulations and bottom-up flexibility to merge supplementary categorical curriculum for special-needs students with core academic content for all students.

The School Improvement Program (SI) perhaps provides the most encouraging example of a new model of school governance. One of California's longest lived and most emulated educational reforms, SI has undergone a major shift in direction over the past several years. Originally conceived as a response to community concerns during the 1960s and early 1970s that schools were isolated from their clients and thus exacerbated social problems, the Early Childhood Education (ECE) programs (precursors of SI) developed school governance mechanisms that encouraged local involvement in school management. These mechanisms--school site councils, needs assessments, and discretionary funding at the site level--encourage parents and community leaders to become directly involved with school officials in the identification of a school's problems and design of remedies.

While originally focusing on individual student needs and on providing assurances that educators would tailor programs to meet these needs, Early Childhood Education also sought to reverse the fragmenting effect that rapidly growing categorical programs were having on the educational environment. Thus, as it focused school attention on students as individuals with different needs, ECE also directed community attention to schools as comprehensive, integrated organizations rather than as collections of unrelated programs. It was reported that in the process, teachers began to act more collaboratively, schools became more introspective, and change became more active and less reactive.

The evolution of ECE into SI was accompanied by both a narrowing of focus and a broadening of scope. SI began to focus wholly on the educational change process, and it became available at secondary as well as elementary schools. The goal became to create a self-renewing system that would be locally driven, that would secure high community and teacher commitment, and that could be fine tuned as local conditions warranted. Hence, SI moved away from some strategies embraced by ECE (lowering student/adult ratios, for example) in favor of more versatile and cost effective strategies such as staff development.

Eventually, state-level monitoring and reviewing of SI proposals and programs was pared back as district level officials began to assume those functions. The central office came to be viewed as an agent for improving efforts across a district and for helping

schools implement SI, while individual schools and their communities (respresented on the school site council) assumed primary responsibility for improving education.[39]

Since the 1982 election of Bill Honig as superintendent of public instruction, SI has come to be seen as a vehicle for implementation of many educational reforms. The content or focus of educational change is now being specified by the state; relying totally on local specification is now seen as misguided while specifying priority areas for local school change is seen as needed and appropriate.

The success of SI notwithstanding, only a few policy makers are discussing the overall governance balance in California or projecting the long-term consequences of the past 25 years of state initiatives.[40] Indeed, to many, it is becoming increasingly clear that without some ability to raise revenues, there is little likelihood that local districts will be able to reverse the erosion of their control. In this regard, the 1986 enactment of school construction legislation with provisions for local level revenue generation (from developer fees) is a sign of concern for local decision making.

[39]Today, 87 percent of California's eligible K-6 students are participating in SI programs. Only 22 percent of the state's secondary population is covered by SI.

[40]The Commission of School Governance and Management (COSGAM), authorized by Senate Bill 813, issued a report that received scant attention.

Curriculum and Special Programs

Curricular Change

Senate Bill 813 increased high school graduation requirements to: three years of English, two years of mathematics, two years of science, three years of social studies, and one year of foreign language or fine arts, in addition to the two years of physical education previously required. Those changes, plus model graduation requirements adopted by the State Board of Education and increased entrance requirements adopted by the trustees of the California State University (Figure 55), have created pressures on school districts to implement changes aimed at meeting state curricular standards. Last year PACE reported significant increases in numbers of class sections in social studies, music, English, art foreign language, mathematics, and science for the period 1982-83 to 1984-85 (Figure 56).

The current year also finds growth across the academic curriculum, suggesting that districts are still moving to meet the more rigorous standards. Comparing California Basic Educational Data System (CBEDS) information from 1984 with 1985, and correcting for enrollment growth, total classes in each departmental area (except music) display continued expansion in the number of classes offered. English (+0.6%), social science (+1.1%), and art (+1.4%) show modest growth; mathematics (+3.4%), and foreign languages (+4.7%) reveal moderate growth; drama (+13%) and science (+13.3%) display significant increases. Only music declined slightly by 0.4 percent, after correcting for enrollment increases (Figure 57).

In English, comprehensive English classes offered in grades 9 through 12 (+5.3%), literature (+2.2%), and advanced composition (+1.5%) displayed increases greater than English as a whole, continuing the changes begun in 1983-84. Advanced placement English declined slightly (-1.3%), which is not unexpected given its remarkable growth in the last two years.

The most significant finding in the category of foreign language is the huge growth rate in advanced (beyond the first two years) foreign language classes. These classes increased by 18.1 percent in a single year, with the largest increase occuring in Spanish (22.4%).

Science also had spectacular growth in chemistry (+20.6%), advanced chemistry (+17.9%), and the physical science, earth science, and life science courses (+29.5%), a clear response to increased graduation requirements.

In the social sciences, economics had the most dramatic growth (+24%), generated by Senate Bill 1213 which added a semester of economics to other graduation requirements.

FIGURE 55

Graduation Requirements Established by SB 813 and Recommended by the State Board of Education, Admission Requirements CSU and UC

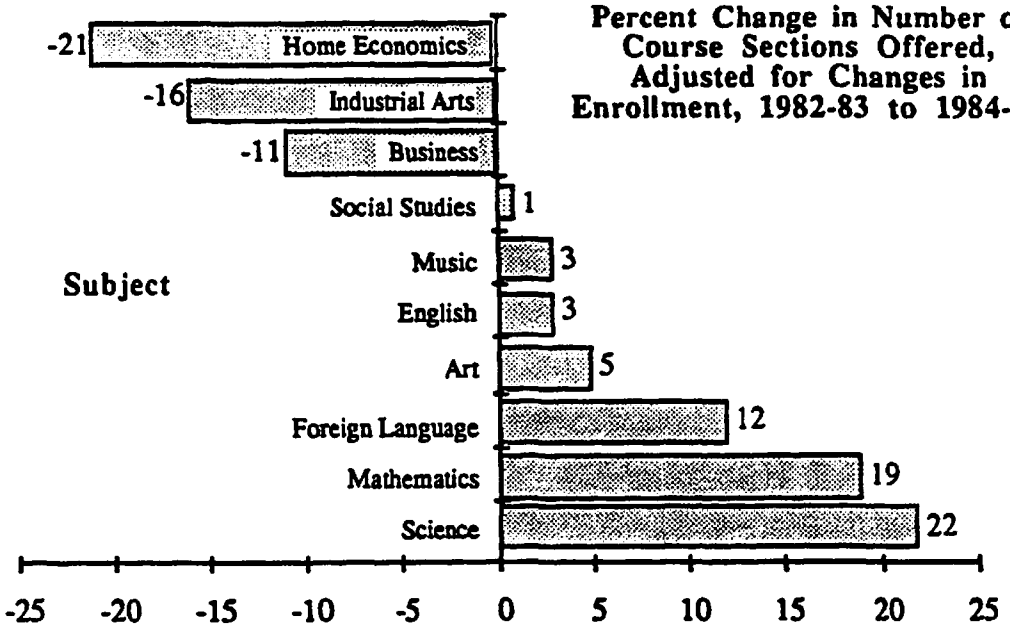
Subject	SB 813	State Board of Education	CSU Required 1988	UC Required 1986
English	3	4	4	4
Mathematics	2	3	3	3
Algebra		(1)		
Geometry		(1)		
Science	2	2	1[d]	1[d]
Physical	(1)	(1)		
Life	(1)	(1)		
Social Studies	3	3	1[e]	1[e]
World Civ.	(1)	(1)		
U.S. History	(1)	(1)	(1)	(1)
Ethics		(.5)		
American Gov.	(1)[a]		(1)	(1)
Economics		(.5)		
Foreign Language	1[b]	2[c]	2[c]	2[c]
Fine Arts	1[b]	1	1[f]	
Computer Studies		.5		
Physical Education	2			
Electives			3	4

[a]Including civics and economics
[b]One year foreign language or fine arts
[c]Must be in same language
[d]Lab required
[e]U.S. History/Government
[f]Visual and performing arts

SOURCE: California Postsecondary Education Commission, and California State Department of Education.

FIGURE 56

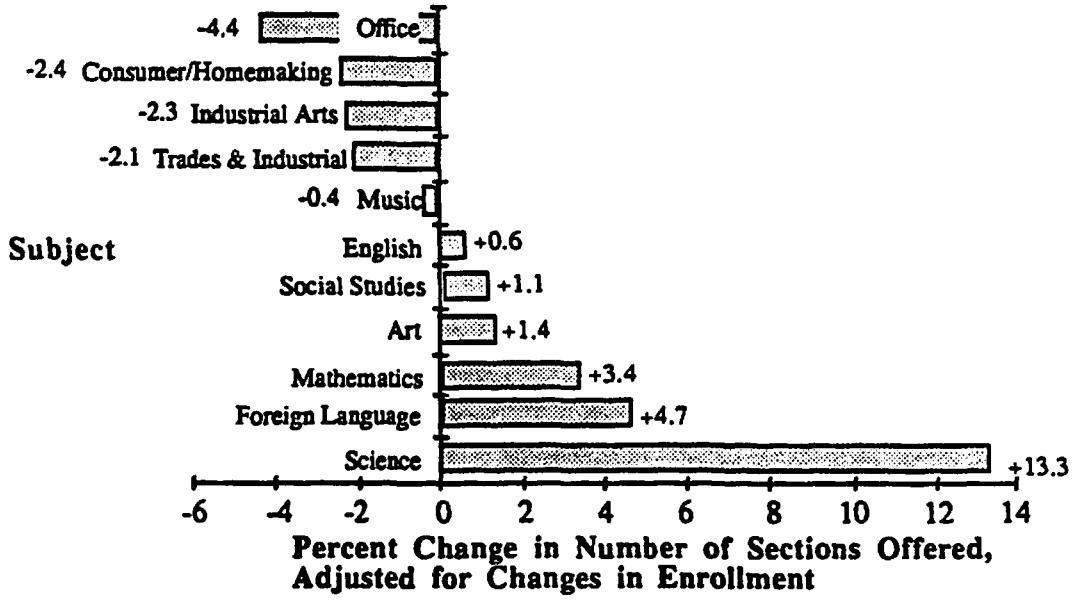
Percent Change in Number of Course Sections Offered, Adjusted for Changes in Enrollment, 1982-83 to 1984-85



SOURCE: Pam Grossman and Michael W. Kirst, et al., Study of Curricular Change in California Comprehensive High Schools: 1982-83 to 1984-85 (Berkeley: Policy Analysis for California Education (PACE), July 1985).

FIGURE 57

Percent Change in Number of Course Sections Offered, Adjusted for Changes in Enrollment, 1984-85 to 1985-86



SOURCE: PACE analysis of California Basic Educational Data System (CBEDS) data.

In mathematics, the largest increases occured in courses beyond beginning algebra (i.e., geometry, trigonometry, and calculus). The combined rate of increase for all mathematics courses above beginning algebra totalled 10.7 percent. As was the case last year, courses relating to computers continued to demonstrate substantial increases. Computer literacy classes grew 25.8 percent. Other computer-related classes grew at a lesser, but still significant, rate of 13.4 percent.

These growth rates suggest little regarding the quality of the courses offered. They also do not generate information about whether promulgation of higher standards will increase dropout rates and enlarge the number of students failing to receive diplomas, nor do they answer the question about whether these growth rates will continue over time. However, they do suggest that district responses to increased graduation requirements, higher expectations, stricter standards, and more rigorous admission requirements have generated a substantial and continued movement toward a more academic curriculum.

Textbooks

California's State Board of Education is statutorily empowered to select and adopt textbooks. State-adopted textbooks are supplied to districts at no cost. Local school districts are free to use additional books if they choose. To do so, however, means spending their own discretionary funds. Thus, the selection of texts is a major avenue through which the state can exercise influence over the quality of schooling. The objective of the Honig administration in cooperating with the State Board of Education has been to upgrade the intellectual quality of textbooks and to ensure that texts are consistent with model curriculum standards and California Assessment Program tests. The state has established new criteria intended to encourage publishers to include more problem solving, critical thinking, and higher order thinking skills in the texts they submit for state adoption.

In 1985 the State Board of Education rejected all initially submitted science texts because their coverage of content areas such as evolution and human reproduction, and ethical considerations such as noise and air pollution, was judged inadequate. Texts were subsequently adopted, but not until publishers had altered the content to satisfy criticisms. In September 1985 the state board acted similarly toward mathematics texts. Only one publisher's initial mathematics texts submissions were judged sufficiently rigorous to warrant adoption. This issue is still under consideration, and no final decision has yet been achieved.

Changes in Vocational Education, 1984-85 to 1985-86

Vocational education enrollment and course offerings continued a pattern of decline. Although the rate of decline between 1984-85 and 1985-86 subsided, it is still substantial and appears to permeate the vocational education curriculum. Comparing CBEDS data for 1984 with 1985 and correcting for enrollment growth, classes offered in seven of the ten

programmatic areas which meet state requirements for vocational education showed declines. Only distributive education, health education, and technical education displayed increases, and these are three of the smaller program areas in the vocational education curriculum.

Office education, the largest of the program areas, declined by the greatest amount, 4.4 percent. Each of the next three largest program areas--industrial arts, trade and industrial, and consumer and homemaking education--declined somewhere between 2 and 2.5 percent (Figure 57).

Attempting to explain the continued decline in vocational education enrollment and classes offered is difficult. It is possible that schools deleted sections of these courses in order to offer more academic courses. It is also possible that teachers were shifted from vocational courses to other courses in which they were credentialed and in which the schools faced a shortage. An alternative explanation might be that sections declined because students had less room in their schedules for these traditionally elective courses as general education graduation requirements increased.

While associating vocational education class offering declines with increased academic requirements does bear further study, it does not account for the fact that vocational education enrollment began decreasing shortly after Proposition 13 in 1978, long before imposition of new academic standards. It may well be that the first round of declines occurred because of general reductions in classes occurring after Proposition 13, and that when dollars were restored by passage of Senate Bill 813 and subsequent budget bills, schools simply did not restore vocational courses, but instead focused on offering courses which would satisfy new graduation and higher education entrance requirements. In any event, substantial erosion of vocational education electives may have significant impact on noncollege-bound students and their high school completion rates. These enrollment trends suggest that a major state-authorized review of vocational education is appropriate.

Categorical Programs

The 1960s and 1970s experienced substantial fiscal support for special programs designed to meet the needs of handicapped, immigrant, and disadvantaged students. Although several of these programs were consolidated through legislative actions in 1977, 1981, and 1983, a plethora of programs remain, many targeted at distinct populations and each accompanied by regulations covering eligibility, application, evaluation, funding, and reporting (Figure 58). More recently, under the aegis of educational reform, categorical funding has been provided not for designated populations but for specialized programs such as mentor teachers or administrator training. In some instances, funding may be general in nature but tied to specific performance, as under the longer year and longer day provisions of Senate Bill 813.

FIGURE 58

Selected State Categorical and Special Purpose Programs

Program	1986-87 State Funding (millions)		1986-87 Federal Funding (millions)
Special Education	$1,021.4		$98.9
Desegration	350.6		
Child Care	319.8		2.1
Transportation (incl. special education)	288.8		
School Improvement Program	224.9		
Adult Education	216.8		216.8
ROC/ROP	209.5		
Economic Impact Aid	197.0		
ECIA Chap. 1			323.4
Migrant			79.8
Refugee			20.3
ECIA Chap. 2			40.4
Instructional Materials	92.6		
Urban Impact Aid & Meade	42.9		
Child Nutrition	38.6		426.4
Educational Technology Program	26.2		
GATE (Gifted and Talented)	21.2		
Miller-Unruh Reading	19.9		
Driver Training	19.5		
Classroom Teacher Mini-grants (CTIIP)	17.1		
Dropout Prevention	13.7		
Teacher Education Computer Centers (TECS)	12.6		
Small School District Transportation	10.0		
Counseling for Tenth Graders	7.6		
Staff Development	4.5	Math/Sci. Teachers	5.4
Demonstration Programs in Reading & Math	4.4		
Administrator Training & Evaluation	4.2		
Year Round Incentives	3.6		
Small District Bus Replacement	3.2		
Agricultural Vocational Education Incentive	3.0		
Vocational Education			65.2
Specialized Secondary Schools	2.1		
Indian Education	1.2		

SOURCE: Assembly Subcommittee on Educational Reform, California Coalition for Fair School Finance, and PACE analysis.

California began significant categorical programs even before the federal government initiated its major involvement through the Elementary and Secondary Education Act of 1965. In 1975, the federal Education for All Handicapped Act was enacted, providing federal funds for special education and spurring the state to adopt the Master Plan for Special Education. Through the 1970s, legislators continued to support categorical programs and to adopt specific domains as their areas of particular concern in education.

This burgeoning growth of special-purpose programs has given rise to policy concerns regarding state and federal involvement in the continued implementation of these programs. For instance, one persistent policy debate has centered around the consolidation of categorical program funds so that more local flexibility is provided. A related debate focuses on the proposed elimination of restrictive regulations within the larger categoricals such as special education.

The California legislature has responded to this desire for local flexibility not by repealing categories but by increasing the authority of the State Board of Education to approve local waivers of restrictions. An additional response, passing the School-Based Program Coordination Act of 1981 (AB 777),[41] allows the merging of categoricals at the school site level. Opponents of the act fear that special-needs funds may be diverted to other purposes. Supporters argue that the act allows services to be better tailored to the actual needs of students in the school. A PACE analysis reveals less use of AB 777 and waivers than the legislature expected. Another change regarding categorical programs was establishment of sunset dates for individual programs. However, reauthorization appears to be virtually certain; few programs have been discontinued.

An analysis by SRI International of the cumulative effect of all categorical programs in several states suggests that, over several years, administrative complexities at the local level have been reduced and are no longer viewed as a burden that outweighes program benefits.[42] As a result of this and similar indications, political pressure for a major overhaul of California's categorical structure has waned and dissent currently focuses on particular programs such as Gifted and Talented Education (GATE), mentor teacher programs, and funding categories leading to bilingual education.

Experience over the past 15 years has demonstrated that administrative stuctures and procedures can be designed that both deliver appropriate services to targeted populations and shape reforms. Questions remain regarding the extent to which program quality has suffered due to an excessive focus on administrative structure and compliance. If teachers

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[41]For an analysis of this act, see David R. Pacheco and Peter Birdsall, Seeking Flexibility in School Management. (Berkeley: Policy Analysis for California Education (PACE), November 1985), pp. 85-117.

[42]See Michael Knapp, et al., "Cumulative Effects at the Local Level," Education and Urban Society. 15(4) August 1983, pp. 479-499.

and school administrators have key decision-making roles for ensuring quality, they should also have the authority and flexibility to enact those decisions. State administrators, on the other hand, may restrict classroom flexibility in order to ensure fidelity to state legislative intent. Clearly, some resolution of this conflict is needed.

Recent actions of the State Department of Education (SDE) have emphasized a strengthened core curriculum. Categorical programs directed at target populations are now being viewed as supplemental to the base curriculum. Senate Bill 813, for example, focuses on improvement of the central academic program. In addition, recent SDE reviews of local operations and grant applications require schools to demonstrate the degree to which categorical programs enable students to learn the regular, core academic curriculum.[43]

California is, in effect, maintaining its large array of categorical programs but redefining program quality as dependent on the quality of the core academic curriculum. This concept shift may not be embraced by local categorical program coordinators for whom program quality has historically been defined entirely separately from core academic programs. As an example of this conflict, compliance with categorical requirements has, in the past, been assured through use of pull-out programs which, by removing students from regular classes to be taught by specialists, provide a clear trail for categorical fund auditors. However, these pull-out provisions are often insufficiently coordinated with the regular class, and may even be disruptive to the continuity of the curriculum presented by a classroom teacher.

Current state strategies include: diversion of funds to general programs through specific performance such as lengthening the school day, funding for teacher and administrator development and other program-oriented categoricals, and the integration of existing, population-oriented categoricals with regular educational curriculum and teaching programs.

Compensatory Education

Since the mid 1960s, in California as elsewhere in the nation, substantial efforts have been made and funds expended on compensatory education--special programs aimed at redressing or compensating for the educational disadvantages experienced by low-income students.

These efforts were initiated and have continued to be financed largely through Title I of the 1965 Elementary and Secondary Education Act (now Chapter I of the revised Educational Consolidation and Improvement Act of 1981). All states continue to receive

[43]Allan Odden, Education Reform and Services to Poor Students: Win-Win in California (Berkeley: Policy Analysis for California Education (PACE), forthcoming).

substantial federal funding under this program. In addition, California has its own compensatory education program under the Economic Impact Aid Act (EIA) which supports State Compensatory Education (SCE) and Limited English Proficient (LEP) programs.

School districts receive funds under these programs through a formula based on factors such as number of families receiving assistance under Aid to Families with Dependent Children (AFDC), concentration of poverty, transciency, and the size of the LEP population. Schools have considerable latitude in the definition and measures of educational need they employ to select pupils for compensatory education programs and in the manner in which they structure their compensatory education programs.

During 1984 and 1985, California schools received from both state and federal sources approximately $500 million for compensatory education and LEP. Approximately 1.4 million students received services or were somehow involved in a compensatory education program. Thus, California, through its own and federal resources, spent on average an additional $300 (or 10%) per pupil for the 1.4 million students involved. The State Department of Education conducts a research program aimed at identifying and disseminating information about effective compensatory education projects to school districts.

In summary, compensatory education programs address a major and expanding educational need in California. There is a large and increasing number of economically, educationally, and linguistically disadvantaged students who present a major challenge to California public schools. These students often arrive at first grade with a measurable educational deficit which widens as they proceed through the traditional school system. Even assuming that improvements in basic school operations are achieved as a result of the various educational reform efforts now under way, it will be, as it has been in the past, extremely difficult for the regular school program to compensate for the home- and environment-based educational disadvantages that these students continue to experience through their school life.

Second, the major compensatory education programs (Head-Start, Follow-Through, Chapter I of ECIA, and others) have been subject to substantial research, evaluation, and debate since their inception in the mid 1960s. Results of these assessments are mixed. In general, when the large national or statewide programs are appraised as a whole, their ability to increase achievement scores of disadvantaged children has rarely been more than marginal. This is doubtless due to the fact that the large programs contain many poorly structured and ineffective projects which in the overall statistics often mask projects which are producing significant benefits. When individual programs are examined, they range widely in their ability to produce achievement gains, but an important fact for strategic educational planning is that many individual compensatory education programs, even when subject to the most rigorous evaluation, have produced substantial achievement gains.

Third, it appears, therefore, that given the expanding need for such programs that future population changes portend, the likely inability of even improved regular school programs to compensate for the substantial disadvantagement of these youngsters, and the well-documented fact that effective programs can be devised and implemented, a continued effort to identify and distribute information about such programs should be a key part of an overall state educational plan.

Bilingual Education

Approximately 25 percent of California's students have a primary language other than English. Just over half (524,000) of these language-minority students have been identified as limited-English-proficient (LEP). The remainder of the language-minority pupils are considered to be fluent in English. The majority (73%) of LEP students have Spanish as a primary language. Six percent speak Vietnamese, three percent Cantonese. Spanish, Vietnamese, Cantonese, Cambodian, Tagalog, and Korean account for over 88 percent of the total number of LEP pupils.

The Bilingual Education Reform and Improvement Act of 1980 and subsequent legislation provide that all LEP students in grades K-12 must be offered bilingual learning opportunities. Bilingual instruction is intended to teach students English and to provide educational opportunities in content areas that are as effective as those offered to children whose primary language is English. While school districts must provide bilingual programs or services to limited-English-proficient students even in the absence of state or federal funding, funding is available from various sources including Economic Impact Aid, Chapter I, School Improvement, Migrant Education, and ESEA Title VII.

There are currently six different programs approved for elementary bilingual instruction. With ten or more LEP students with the same primary language in one grade at a school, the school must implement one of the five programs designed for group instruction: Basic Bilingual Education, Bilingual Bicultural Education, Innovative Bilingual, Impacted Language, or Planned Variation Program. Any student not enrolled in one of the above must be provided with an Individual Learning Program. The majority of LEP students at the elementary level are either enrolled in Basic Bilingual Education (44%) or have Individual Learning Programs (38%). Approximately nine percent of elementary LEP pupils are not included in any program. In some cases this is at the request of parents; in other instances, districts fail to provide required services.

Bilingual programs intended for group instruction are of two basic types typified by Basic Bilingual Education and Bilingual Bicultural Education. The first seeks maintenance of acadmic achievement through instruction in the primary language while students are acquiring proficiency in English. Primary language instruction may occupy up to 70 percent of the instructional day when students enter the program and is usually eliminated entirely by the end of the third year. Bilingual Bicultural Education, on the other hand, provides

continuous instruction in both English and the primary language. Percent of instruction in the primary language decreases from approxiamately 75 percent to less than 25 percent over a period of six or seven years. The purpose of this program is to increase overall academic performance and to increase proficiency in both English and the primary language. About six percent of LEP students are currently enrolled in such programs, although, in some cases, non-LEP pupils are also enrolled in this type of bilingual program.

At the secondary level, districts may select an Individual Learning Program, Language Development Program, or, for students whose primary language is Lao, Hmong, or Cambodian, an Impacted Language Program. The vast majority of LEP students, 74 percent, are enrolled in Individual Learning Programs. An additional 18 percent attend a period or more per day of English language development taught by bilingual crosscultural teachers or language development specialists assisted by bilingual aides. Impacted Language Programs usually employ English-only approaches, allowable when sufficient instructors are unavailable for the impacted primary language. Currently, seven percent of secondary LEP students are not enrolled in any bilingual program.

Migrant Education

Education of migrant preschool and school-age children is funded by the federal government and implemented through programs administered by the state under the California Plan for the Education of Migrant Children. Currently, over 121,000 migrant children in 42 counties receive services under this program, nearly triple the number served 10 years ago and the largest number of migrant children served in any state.

California's migrant education funding allocation for 1985-86 is over $73.8 million, approximately 29 percent of the total appropriation for the nation. This represents a growth of almost 400 percent over the $18.8 million allocated in 1976. Despite this increase, funding per pupil has declined slightly over the 10-year period when adjustment is made for inflation.

Programs include an individual assessment and individual learning plan for each migrant pupil, supportive health and nutritional services, a summer program, a preschool program, and various special programs designed to meet the needs of specific groups of migrant children. Funding also supports the dissemination of information to personnel assisting migrant students and to parents.

Of particular concern is the difficulty many migrants encounter in meeting requirements for high school graduation, for differing district proficiency tests, or for college entrance. In addition, migrants are often retained at the same grade level, sometimes for several years. The high migrant dropout rate reflects this failure to make normal progress through the system, as well as an immediate need to contribute to family income. A number of special programs supported by migrant education funding address these problems. The

Portable Assisted Study Sequence (PASS), for instance, provides students with individual learning activity packets containing an accredited high school curriculum. The program is designed for students who may be deficient in credits or who encounter difficulty in progressing toward a high school diploma. Because several adjacent states have similar programs, students traveling to these states may continue to use the PASS curriculum.

Special Education

The number of students enrolled in special education programs totaled 378,852 in 1985-86. The percentage of students in these programs has remained constant over the last five years at just under nine percent of the student population, compared to a national representation of 10.98 percent of students in special education programs. Handicapping conditions of the vast majority of students are either "specific learning disability" (212,055) or "speech impairment" (95,767). Many of these students are receiving a primary education in the regular classroom with support services provided by a resource specialist or speech and language specialist. The range of instructional settings is shown in Figure 59. Speech and language services are included under Designated Instruction and Services along with psychological and social services and several other categories of service.

Students in K-12 public schools receive special education and related services under the Master Plan for Special Education. Under the Master Plan, each district or county office administers its special education programs through one of the regional organizations called special education local plan areas (SELPAs). Each SELPA develops a local plan for the provision of special education services for member districts and county offices, thus allowing some economies of scale for more specialized services. The numbers of students with severe handicapping conditions requiring these highly specialized forms of service appear to be declining (Figure 60). On the other hand, the number of students with conditions served primarily at the school site, such as specific learning disability and speech impairment, are increasing.

Total funding for special education in California is proposed at approximately $1.6 billion for 1986-87. This figure includes $1 billion from the state general fund and $102 million from federal funds, with the remainder derived primarily from property taxes and local revenue limits. State contributions have increased from $221 million in 1976, a year in which 325,000 students were served. Despite the substantial increase in state support, continual pressure is applied to increase state apportionments to the level of reported costs of special education. The discrepancy between reported costs and actual state apportionments is often viewed as an encroachment on regular eduational funding. The State Department of Finance, examining the Master Plan for Special Eduation in 1983, found the concept of encroachment inapplicable because "reported costs are calculated differently by each of the over 1,000 providers and generally exceed the actual incremental costs of operating Special Education Programs."

FIGURE 59

Individuals With Exceptional Needs by Instructional Setting* (ages birth through 21 Years)

Instructional Setting	1981	1984	1985
Special Classes	107,175	114,289	118,579
Resource Specialist	130,305	140,165	146,319
Designated Instruction and Services	115,761	110,470	110,151
Nonpublic School	4,438	3,342	3,803
TOTAL	357,679	368,266	378,852

*Must meet eligibility criteria, CAC Section 3030(a)-(j).
Does not include all children with disabilities.

SOURCE: California State Department of Education, Special Education Division.

FIGURE 60

Individuals With Exceptional Needs by Handicapping Condition* (ages birth through 21 Years)

Handicapping Condition	1981	1984	1985
Mentally Retarded	28,266	27,790	26,843
Deaf	3,318	3,331	3,285
Multihandicapped	5,688	5,614	5,587
Orthopedically Impaired	7,595	7,287	7,297
Other Health Impaired	15,083	12,554	12,750
Deaf/Blind	171	161	160
Hard of Hearing	2,938	3,229	3,404
Speech Impaired	92,770	92,398	95,767
Visually Handicapped	2,311	2,294	2,498
Severely Emotionally Disturbed	8,743	8,705	9,206
Specific Learning Disability	190,796	204,903	212,055
TOTAL	357,679	368,266	378,852

*Must meet eligibility criteria, CAC Section 3030(a)-(j).
Does not include all children with disabilities.

SOURCE: California State Department of Education, Special Education Division.

The legislative analyst's office has recommended that the State Department of Education develop a long-range plan for analyzing local cost data, collecting additional data concerning funding processes for special education, and creating alternatives to the existing funding model. It is hoped that study and careful structuring can improve the collection and analysis of cost data and adjust differential funding rates between districts in order to reflect actual differences in costs rather than differences in service levels.

Vocational Education

Vocational education is a large and complex program in California that is experiencing increased criticism and significant enrollment declines. In 1983-84, 230,000 students were enrolled in vocational education courses in public comprehensive high schools at the 11th and 12th grade levels.[44] But an even larger number of 9th and 10th graders took courses termed vocational education but often considered exploratory because they do not lead to specific careers. These courses include typing, home economics, and industrial arts. Between 1982-83 and 1984-85, the latter two courses suffered enrollment declines of 16 percent in industrial arts and 21 percent in home economics.[45]

In addition to this comprehensive high school enrollment is a program that enrolls approximately 62,000 high school students and 30,000 adults in regional occupational centers and programs (ROC/Ps). There are 67 ROC/Ps in the state to provide specialized, intensive vocational education training that cannot be provided easily by a single high school. High school pupils are provided transportation between their schools and ROC/P facilities. A PACE analysis estimates that one million hours per day are spent by 11th and 12th grade students in some type of vocational education program.[46]

With regard to depth or intensity of instruction, ROC/P programs provide considerably more than most comprehensive high school programs. However, ROC/P must convince many students to leave their schools voluntarily and travel to another school site for reasons such as special equipment or establishing contacts with prospective employers. Vocational education programs in comprehensive high schools increasingly face competition from the heavier academic demands required by new high school and college requirements. This trend once again evokes the question of whether comprehensive high schools should provide skill training for entry-level jobs, or should vocational education in comprehensive schools stress academic skills required for a working life of continual

[44]David Stern, E. Gareth Hochlander, Susan Choy, and Charles Benson, One Million Hours A Day (Berkeley: Policy Analysis for California Education (PACE), 1986).
[45]Pam Grossman, Michael W. Kirst, Worku Negash, and Jackie Schmidt-Posner, Curricular Change in California Comprehensive High Schools: 1982-83 to 1984-85 (Berkeley: Policy Analysis for California Education (PACE), July 1985).
[46]David Stern et al., One Million Hours A Day.

learning, problem solving, and communicating.[47] The future role of vocational education within the comprehensive high school is under greater reconsideration now than in recent years because of enrollment decline and changes in the U.S. job structure.

Funding for vocational education is difficult to analyze because earmarked federal funds provide less than 10 percent of the total. The bulk of funding results from local decisions about allocating unrestricted state aid in terms of vocational or other subjects. The State Department of Education estimates that local school districts spend $800 million from their unrestricted state grants on vocational education. Federal aid has become increasingly earmarked for special purposes such as disadvantaged and handicapped students, and guidance and program improvement. In 1986-87, federal funds will provide $65,197,898 to California, but there is $8,778,851 less for the on-going support of existing vocational education programs because of increases in federal set-aside provisions for the purposes mentioned above (Figure 61).

Regional occupational centers and programs received $209 million in state categorial funds for 1986-87. Under federal law, California must prepare a state plan for vocational education, but the plan has little impact because the overwhelming amount of vocational education funds are locally determined. Vocational educators are devising courses that will help satisfy academic high school graduation requirements as well as provide vocational content. Some science requirements, for example, can be satisfied through a course with vocational emphasis, but such courses have not been prominently featured in the past. Indeed, a few educators are concerned that vocational courses are being crowded out of the curriculum because of lack of student time, given increased state, local, and post-secondary academic requirements. They also are concerned about the loss of support from large businesses that now contend that they want less specific vocational education and more general academic skills in their prospective employees.[48]

Attempts to evaluate the impact of high school vocational education are difficult because of lack of agreement on objectives and major data gaps. One standard is job placement after graduation, but a state study suggests that "the current definition of the replacement rate concept is too narrow and limited for determining all of the positive outcomes for students."[49] Many students use vocational education for career exploration or improvement with no expectation of short-run job placement. Nevertheless, a PACE paper by Stern, Hochlander, Choy, and Benson concludes that:

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[47]Ibid.

[48]Investing in Our Children (New York: Committe for Economic Development, 1985).

[49]Carvel Education Management Planning, Placement Rate Concept (Sacramento: Carvel, 1984).

FIGURE 61

California Vocational Education, Federal Aid Under Public Law 98-524, 1986-87

Total Federal Grant		$65,197,898
Part I -	Administration	$ 4,563,853
Part II -	Grants to local school districts (includes set asides of $13.3 million for disadvantaged and $6.0 million for handicapped)	$34,561,406
Part II -	Program Improvement (curriculum development, staff training, guidance, exemplary programs, etc.)	$26,072,639
Part III -	Consumer and Homemaking Education	$ 2,990,225
	Community Based Organizations	$ 709,010

SOURCE: California Advisory Council on Vocational Education, Sacramento, 1986.

> Previous research has not found strong or consistent gains in employment or earnings for graduates of high school vocational programs. Gains appear to be greater for students who take a concentrated set of vocational courses in a particular area and then find employment in that area. However, gains from vocational training appear to diminish over time[50]

Vocational education has also been featured as a dropout prevention alternative for many pupils, but once again its effectiveness is clouded by controversy and disputed data. Increasing the number of vocational education programs that are open to 9th and 10th graders deserves attention as a way to reduce dropouts. Most programs are not available until the 11th or 12th grades--a point when many students may be predisposed to drop out. All of these enrollment trends and inconclusive studies suggest a major state-authorized review of vocational education is appropriate.

School Improvement Program

The School Improvement Program (SI) (part of AB 65 in 1977) was designed in part to combine categorical programs in a comprehensive school site plan through a school site council. In a major break with prior categorical approaches, SI provided discretionary money to school sites (about $100 per ADA) rather than a grant tied to specific state purposes. The funding is for neither basic maintenance nor categorical projects. Instead, SI supports an individual school's assessment of its own priority needs and implementation of a program to address them. The fundamental concept is that the school and its local community, rather than the district or the state, should take primary responsibility for setting local improvement objectives.

There are two key components of SI: a school site council and the program review. The school site council is composed of parents, staff, and students (in secondary schools). The council governs the way SI funds are used in schools. The council prepares a review of the school program and develops a plan for improvement that combines categorical funds with SI's flexible allocation.

The program review is an assessment of a school's SI program conducted by a consortia of local educators from outside the district. The review is structured by the program quality review criteria promulgated by the State Department of Education. Several research reports reveal that the program quality review criteria determine what is addressed in a school's improvement program.

While SI's key planning elements remain, the Honig administration has revamped the program to emphasize curriculum improvement, core academic program, and redesign of programs for special populations to reinforce and complement the general educational program of schools. In addition, state department program advisories have urged local

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[50]David Stern et al., One Million Hours a Day, p.11.

districts to use SI funds to purchase supports needed to engage in a continuing change and improvement process--training, staff development, coaching, curriculum materials and supplies, new technologies--and not to restrict all funds for permanent staff such as teacher aides. Moreover, the program quality review criteria recently have been changed to focus attention on the substance and quality of a school's curriculum and to require that categorical programs provide services that reinforce that curriculum program. In short, SI is now conceived as an implementation vehicle for improving local schools, with Senate Bill 813 providing the content and focus for those improvement efforts.

Student Performance

There are a variety of indicators available for assessing the educational performance of California students--test scores, dropout rates, college attendance, and the like. We examine available data with an eye to answering three major questions:

1. What are the trends in California? Are achievement levels improving, declining, or remaining the same?

2. How does California compare with the nation as a whole?

3. How is California performing with respect to the achievement levels of important subgroups, particularly women and minorities, and what trends are observable with respect to these groups?

Elementary and Secondary Education

A cautionary note is in order. Virtually all available data are descriptive statistics, not longitudinal studies where individuals of known characteristics have been followed and measured over time. It is therefore difficult to know what educational meaning should be given to comparisons between groups and to changes over time. This is so, of course, because differences between, for example, California and the nation, or between California students at different points in time, may be the result of changes or differences in the effectiveness of the education which they have experienced; or they may, on the other hand, reflect differences or changes in the composition of the student population, e.g., the presence of larger numbers of disadvantaged or minority students, or greater or less rigor in college admission standards. Keeping this important consideration in mind, the available data seem to support the following conclusions.

Educational performance appears to be improving in California schools. Figure 62 presents data from the California Assessment Program (CAP) from 1979 through 1985 for four grade levels and three subjects. These data indicate that reading, writing, and math scores have improved in three of the four grades tested (grades 3, 6, and 12). Only in grade eight have there been, in light of the more general trend, puzzling declines. As noted above, we cannot be sure whether this is a direct result of various educational reform actions; changes in socio-economic status, composition, and dropout rates in the school population; increased emphasis on education in the home; or a combination of these and other factors. Nevertheless, improvements, most of which are modest in size, are being registered in most subjects in most grades. Given what we know generally about the increase in the proportion of disadvantaged minority students in the school population, it is

FIGURE 62

Average Test Scores by Grade Level and Content Area, and Difference in Scores by Year, 1979-80 through 1984-85, California Assessment Program

Grade level and content area	Average test score, by year					Difference, by year					
	1979-80	1980-81	1981-82	1982-83	1983-84	1979-80 to 1984-85	1980-81 to 1980-81	1981-82 to 1981-82	1982-83 to 1982-83	1983-84 to 1983-84	1984-85
Grade 3											
Reading	250	254	258	263	268	274	+4	+4	+5	+5	+6
Written Language	250	255	260	266	272	279	+5	+5	+6	+6	+7
Mathematics	250	254	261	267	274	278	+4	+7	+6	+7	+4
Grade 6											
Reading	250	252	254	253	249	253	+2	+2	-1	-4	+4
Written Language	250	253	257	259	260	265	+3	+4	+2	+1	+5
Mathematics	250	253	258	260	261	264	+3	+5	+2	+1	+3
Grade 8											
Reading	---	---	---	---	250	240	--	--	--	--	-10
Written Language	---	---	---	---	250	246	--	--	--	--	-4
Mathematics	---	---	---	---	250	251	--	--	--	--	+1
History-Social Science	---	---	---	---	---	250	--	--	--	--	--
Grade 12											
Reading	63.1	63.4	63.2	63.1	62.2	62.9	+0.3	-0.2	-0.1	-0.9	+0.7
Written Language	62.4	63.1	63.2	63.0	62.6	63.2	+0.7	+0.1	-0.2	-0.4	+0.6
Spelling	68.8	69.0	69.5	69.5	69.4	69.7	+0.2	+0.5	0	-0.1	+0.3
Mathematics	66.8	68.0	67.7	67.7	67.4	68.3	+1.2	-0.3	0	-0.3	+0.9

Note: The scores for grades three, six, and eight are reported in scaled score units. These scores range from approximately 100 to 400, with a statewide average of 250. The base year for grades three and six was 1980. The grade eight test was first administered in 1983-84. History-social science was added to the grade eight test in 1984-85. The scores for grade twelve continue to represent the percentage of questions answered correctly.

SOURCE: California State Department of Education.

not unreasonable to infer from these increases in achievement scores in the basic areas of reading, writing, and mathematics that authentic gains in students' educational proficiency are taking place, because those scores are rising at a time when the composition of the student population is presenting a greater rather than a lesser challenge to the school system.

Second, California lower-grade students are generally above national norms, while the upper-grade students generally rank at or below national norms. Results of a study conducted by the State Department of Education (SDE) in which CAP scores were equated with several nationally normed tests are presented in Figures 63-66. This special analysis indicates that third grade students are at or slightly above the national average in reading and language, and significantly above it in mathematics. Students in grade six have moved above the national average in reading and written language, and remain substantially above it in mathematics. California students lose considerable ground from grade six to grade eight, especially in reading. Twelfth grade students are below national norms in written language, reading, and mathematics.

Figure 67 presents a comparison of math and verbal Scholastic Aptitude Test (SAT) scores for California and the nation from 1971 through 1986. The 1986 differences between California and the nation on both parts of the SAT are not large. California students score six points higher on the math portion of the test and eight points lower on the verbal portion.[51] In both cases, the widely discussed pattern is present: the 17-year decline has apparently bottomed out, and there are indications that scores may be rising.

However, the SAT is a test of general aptitude designed to predict initial success in college. It is, therefore, not well suited as a measure of curricular or subject-matter performance. Far better for this purpose are the College Board Achievement Tests. Figure 68 presents the average College Board Achievement scores for California and the nation for 1986, and Figure 69 displays the differences between California and the nation on the 14 tests in this battery for the past 6 years. While the pattern is not uniform across subject-matter areas, there were declines in many of the basic areas--English Composition, Mathematics, Biology, Chemistry, and Physics--between 1981 and 1985.

Once again, it is not possible to infer from these descriptive data whether the composition of the different cohorts taking these tests across the five years is sufficiently different to account for the decline, or whether students have been receiving progressively poorer preparation. We do know that both the number and percent of California high school students taking the Achievement Tests have increased significantly over this five-year period. Such increases are usually accompanied by a decline in average scores because they involve enlarging the test-taking population beyond the most able, highest-scoring students.

[51]One standard error on this test is approximately 30 points.

FIGURE 63

Estimated National Percentile Ranks of Median California Student Performance, 1966-67 through 1984-85

Grade Three

Content area/test and norms	Test Administered																	
	Stanford Achievement Test					Cooperative Primary Reading Test (CPRT)		CAP Reading Test*	CAP Reading Test**					CAP Survey of Basic Skills***				
						(1966 norms)			(Revised)									
	66-67	67-68	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85
Reading																			
Stanford 1963 norms	34	34	36	36	38														
CPRT 1966 norms						52	52	52											
CTBS 1973 norms									55	55	56	57	58	58	59	60	62	64	69
1981 norms																41	45	46	54
Stanford 1982 norms																45	47	49	50
Language																			
CTBS 1973 norms														53	54	56	57	59	64
1981 norms																40	42	43	49
Stanford 1982 norms																44	47	50	53
Mathematics																			
CTBS 1973 norms														51	52	55	59	62	63
1981 norms																44	50	53	56
Stanford 1982 norms																52	53	57	60

* The Reading Test was first administered in 1973-74. The percentile ranks are based on an equating study of the Reading Test and the Cooperative Primary Reading Test, Forms 23A and 23B, normed in 1966.

** The revised Reading Test was administered to all California students in 1974-75, 1975-76, 1976-77, 1977-78, and 1978-79. The percentile ranks are based on equating studies of the revised Reading Test and the Comprehensive Tests of Basic Skills, Form S, normed in 1973.

*** The new Survey of Basic Skills: Grade 3 was administered to all California students in 1979-80 through 1984-85. The estimated national percentile ranks are based on an equating study of the new test and the Comprehensive Tests of Basic Skills, Form S, normed in 1973. For 1981-82 through 1984-85, the percentile ranks are also given for the 1981 edition of the CTBS and the 1982 edition of the Stanford Achievement Test.

SOURCE: California State Department of Education.

FIGURE 64

Estimated National Percentile Ranks of Median California Student Performance, 1969-70 through 1984-85

Grade Six

Content/area test and norms	Test Administered															
	Comprehensive Tests of Basic Skills (CTBS) (1968 Norms)					Survey of Basic Skills*	Survey of Basic Skills**									
	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	75-76	76-77	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85
Reading																
CTBS																
1968 norms	48	46	44	44	44	48										
1973 norms							53	53	55	55	56	57	58	57	56	57
1981 norms													53	52	51	53
Stanford																
1982 norms													52	52	52	52
Language																
CTBS																
1968 norms	43	43	39	39	37	43										
1973 norms							49	51	51	52	53	55	57	58	58	60
1981 norms													48	49	49	52
Stanford																
1982 norms													49	50	51	57
Mathematics																
CTBS																
1968 norms	47	43	38	38	38	44										
1973 norms							50	51	53	54	55	56	58	60	61	62
1981 norms													59	60	61	62
Stanford																
1982 norms													52	52	56	57

* The new California test, the Survey of Basic Skills: Grade 6, was first administered to all California pupils in 1974-75. The percentile ranks are based on an equating of the Survey of Basic Skills and the Comprehensive Tests of Basic Skills (CTBS), Form Q, which was normed in 1968.

** The revised version of the Survey of Basic Skills: Grade 6 was administered from 1975-76 through 1980-81. A second version of the test was first administered in 1981-82. The percentile ranks, since 1974, are based on equating of the Survey of Basic Skills to three editions (1968, 1973, 1981) of the Comprehensive Tests of Basic Skills (CTBS) and the latest edition (1982) of the Stanford Achievement Test.

SOURCE: California State Department of Education.

FIGURE 65

Estimated National Percentile Ranks of Median California Student Performance, 1984-85

Grade Eight

Content area/ test and norms	Estimated norm	
	1983-84	1984-85
Reading -- CTBS, 1981	39	34
Written expression -- CTBS, 1981	50	49
Mathematics -- CTBS, 1981	48	48

NOTE: The Survey of Academic Skills: Grade 8 was first administered in 1983-84. The estimated national norms are based on an equating study of the new test and the latest edition of the Comprehensive Tests of Basic Skills, Form U, normed in 1981.

SOURCE: California State Department of Education.

FIGURE 66

Estimated National Percentile Ranks of Median California Student Performance, 1969-70 through 1984-85

Grade Twelve

Content/area test and norms	Test Administered: Iowa Tests of Educational Development Form X, normed in 1962					Survey of Basic Skills*	Survey of Basic Skills* (Revised)									
	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85
Reading																
IIED																
1962 norms	52	49	49	47	47	43	43	42	42	41	41	42	42	41	39	41
1978 norms												44	44	44	41	43
TAP																
1970 norms						33	35	33	32	32	32	33	32	32	29	31
1978 norms												42	42	41	40	41
STEP																
1970 norms						34	38	36	35	34	34	35	35	34	33	34
1978 norms												47	47	47	45	47
Language																
IIED																
1962 norms	42	40	38	36	34	32	34	33	34	34	34	35	35	34	30	35
1978 norms												43	43	43	40	43
TAP																
1970 norms						25	27	26	26	27	27	29	29	28	27	29
1978 norms												40	41	40	38	40
STEP																
1970						27	29	28	28	28	28	30	30	30	29	30
1978 norms												57	57	57	55	57
Mathematics																
IIED																
1962 norms	48	48	48	48	48	41	44	43	43	43	44	46	46	46	45	47
1978 norms												46	45	45	45	47
TAP																
1970 norms						38	43	41	41	41	42	44	44	44	43	45
1978 norms												41	41	41	40	41
STEP																
1970 norms						41	44	43	43	43	43	47	47	47	45	48
1978 norms												55	55	55	55	59

* The California test, the Survey of Basic Skills: Grade 12, was administered to all California students from 1974-75 through 1984-85. The percentile ranks are based on equating studies of the Survey of Basic Skills and three other tests with national norms: (1) Iowa Tests of Educational Development, normed in 1962 and 1978; (2) Tests of Academic Progress, normed in 1970 and 1978; and (3) the Sequential Tests of Educational Progress, normed in 1970 and 1978.

SOURCE: California State Department of Education.

FIGURE 67

Scholastic Aptitude Test (SAT) Scores, California and the Nation, 1971-72 to 1985-86

Year	National		California	
	Verbal	Math	Verbal	Math
1971-72	452	484	464	493
1972-73	445	481	452	485
1973-74	444	480	450	484
1974-75	434	472	435	473
1975-76	431	472	430	470
1976-77	429	468	427	470
1977-78	429	468	427	466
1978-79	427	467	428	473
1979-80	424	466	424	472
1980-81	424	466	426	475
1981-82	426	467	425	474
1982-83	425	468	421	474
1983-84	426	471	421	476
1984-85	431	475	424	480
1985-86	431	475	423	481

SOURCE: College Board.

FIGURE 68

1986 Average College Board Achievement Scores for California and the Nation

Subject Area	Mean California Score	Mean National Score	Difference (US - Calif)	No. of California Test Takers
English Composition	496	522	-26	39,563
Mathematics I	518	541	-23	32,087
American History	509	528	-19	13,469
Mathematics II	646	660	-14	10,079
Spanish	543	535	8	7,325
Biology	517	551	-34	6,370
Literature	497	525	-28	7,644
Chemistry	554	571	-17	4,359
French	523	541	-18	2,999
Physics	574	594	-20	2,074
German	572	574	-2	477
European History	534	550	-16	412
Latin	565	545	20	193
Hebrew	620	604	16	55

SOURCE: College Board.

FIGURE 69

Differences Between National and California College Board Achievement Scores, 1981-86

Subject Area	Difference Between California and the Nation					
	1986	1985	1984	1983	1982	1981
English Composition	-26	-29	-26	-21	-21	-17
Mathematics I	-23	-25	-25	-22	-23	-20
American History	-19	-19	-20	-19	-22	-21
Mathematics II	-14	-15	-12	-9	-6	-3
Spanish	8	4	-2	-1	-11	-12
Biology	-34	-41	-31	-26	-7	-11
Literature	-28	-28	-25	-21	-36	-34
Chemistry	-17	-22	-16	-7	15	14
French	-18	-24	-18	-15	-20	-21
Physics	-20	-19	-20	-5	22	9
German	-2	2	-4	-5	-5	-18
European History	-16	-28	-28	-26	-28	-32
Latin	19	20	5	7	7	9
Hebrew	16	12	29	-8	26	-31

SOURCE: College Board.

Whether declines have been mainly a result of a change in the composition of the test-taking population or due to poorer preparation, declines in average scores seem to have stopped in 1986.

On another measure importantly related to student performance, the dropout rate in California public schools is higher than the nation but appears to be improving. Dropping out of school before graduation continues to be a major problem nationwide. In 1984, the District of Columbia had the highest dropout rate, based on ninth grade enrollment four years earlier, at 45 percent. Minnesota had the lowest, 11 percent. California ranked 44th, with 37 percent failing to graduate.

Considerable effort has been expended over the last few years in attempts to determine accurately the extent to which California students leave school before graduation. There is disagreement over the magnitude of the dropout problem and how best to measure it. Statewide attrition, the loss of students from the system between ninth grade and graduation, has been used as a proxy for a dropout rate. Unfortunately, this figure may understate the magnitude of the problem. First, net immigration, both from other states and from outside the United States, may replace loss of some students. Second, at least some students, often Hispanic, leave school before the ninth grade and, thus, are not included in attrition rates. Third, transfers to the public system from private high schools are greater in number than public to private transfers. Finally, figures for public high school graduates have, in the past, included graduates from continuation and adult schools who probably were not counted as ninth graders four years earlier. A counterbalancing factor is the failure to record transfers to continuation schools as distinct from dropping out.

While imperfect, measures of attrition indicate that approximately 30 to 36 percent of ninth graders do not graduate four years later. The Assembly Office of Research (AOR) identified much higher rates for minorities--40 percent for blacks and American Indians, and 39 percent for Hispanics. AOR also estimated that 39 percent of those who apparently dropped out of high school received the equivalent of a high school diploma or entered trade school or community college directly upon leaving high school.[52]

A second approach, comparing the number of high school graduates with the estimated number of 17-year-olds in the population, provides roughly similar figures. According to this approach (Figure 70), the dropout rate increased in California from 1972 through 1983, but in 1984 and 1985 has declined to 1978 levels.

Failure to graduate increases chances of unemployment. As the data in Figure 71 indicate, this is the case across racial groups. Even if employed, a dropout can expect to

[52]Dropping Out, Losing Out: The High Cost for California (Sacramento: Assembly Office of Research, September 1985).

FIGURE 70

High School Graduates in California and Nationwide as a Percent of All Seventeen-Year-Olds, 1972-73 through 1984-85

School Year	California					Nationwide
	Population Seventeen Years Old*	Number of graduates by type of school: Public	Private	Total	Graduates (in percent)	Graduates (in percent)**
1984-85	372,511	225,448	25,695	251,143	67.4	73.8
1983-84	381,799	232,199	25,434	257,633	67.7	74.2
1982-83	412,689	236,897	25,097	261,994	63.5	73.4
1981-82	415,151	241,343	24,581	265,924	64.1	72.9
1980-81	426,119	242,172	21,217	263,389	61.8	71.8
1979-80	422,385	249,217	22,654	271,871	64.4	71.4
1978-79	421,297	250,708	22,877	273,585	64.9	72.0
1977-78	417,019	261,698	22,143	283,841	68.1	73.0
1976-77	410,642	264,625	20,735	285,360	69.5	73.8
1975-76	397,099	268,425	20,266	288,691	72.7	73.7
1974-75	388,528	273,411	19,375	292,786	75.4	73.6
1973-74	378,218	268,493	21,377	289,870	76.6	74.4
1972-73	378,696	268,050	18,781	286,831	75.7	75.0

* Projected by the California State Department of Finance.
** Preliminary data from the National Center for Education Statistics.

SOURCE: "Selected Education Statistics 1984-85," and "California Public and Private Schools, 1986" (Sacramento: California State Department of Education, 1986), updated and corrected by National Center for Education Statistics.

FIGURE 71

U.S. Unemployment Rates Among Persons 16 to 24 Years Old, Not Enrolled in School, by Ethnicity and Education, 1980-82

Year	Less Than 4 Years of High School			4 Years of High School		
	Black	Hispanic	White	Black	Hispanic	White
1980	44.9	18.9	21.6	26.2	12.3	10.8
1981	48.3	18.0	22.7	29.6	15.0	11.6
1982	52.9	24.7	27.8	35.7	19.9	14.6

SOURCES: Anne McDougall Young, "Labor Force Patterns of Students, Graduates, and Dropouts, 1981," Monthly Labor Review, September 1982: 39-42.

Anne McDougall Young, "Youth Labor Force Marked Turning Point in 1982," Monthly Labor Review, July 1983: 29-32.

earn 7 to 21 percent less per hour than a high school graduate, according to the California Employment Development Department. A recent study by David Stern at the University of California at Berkeley estimated lifetime earnings of dropouts at 70 percent of a high school graduate's earnings. Dropping out also presents a serious economic cost to society. Nearly one-third of California families receiving Aid to Families with Dependent Children have a head of household who did not complete high school.

The State Department of Education has established 1990 targets for districts: to reduce 1985-86 dropout rates by 25 percent, to increase the number of dropouts brought back into educational programs by 25 percent, and to implement programs or strategies designed to retain potential dropouts at the school level. Senate Bill 65 provides $3.1 million to assist schools address the dropout problem. A special unit of the State Department of Education provides technical assistance, organizes regional conferences, and disseminates information on successful programs and practices. Additional plans include a statewide public awareness campaign, legislation to remove barriers for returning dropouts, and a uniform reporting system designed to provide improved information for evaluating program efficacy.

Postsecondary Education

Data which allow an examination of historical trends in California, and a comparison of California to the nation are much more limited for postsecondary than for elementary and secondary education. However, the California Postsecondary Education Commission (CPEC) has assembled and is continuing to expand a major data base. The following summary conclusions are drawn directly from the December 1985 *CPEC Director's Report:*

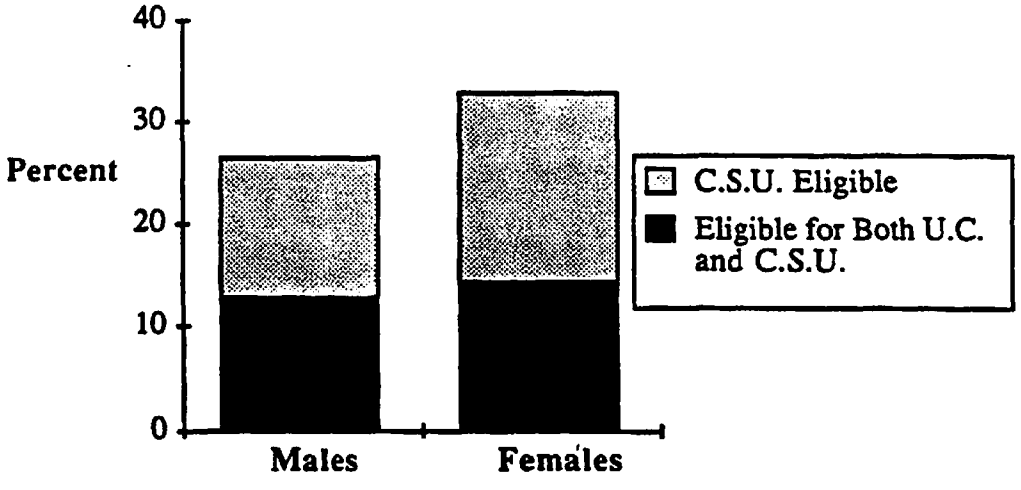
1. The higher than average dropout rate among California high school students largely eliminates roughly one-third of the college-age cohort from access to postsecondary education.

2. Despite the high dropout rate and an increasing percent of disadvantaged and minority students, California compares favorably to the nation in participation in postsecondary education.

3. While this is true for the student population as a whole, eligibility, participation, and graduation rates for blacks and Hispanics remain substantially below those for whites and Asians, (Figures 72-74).

FIGURE 72

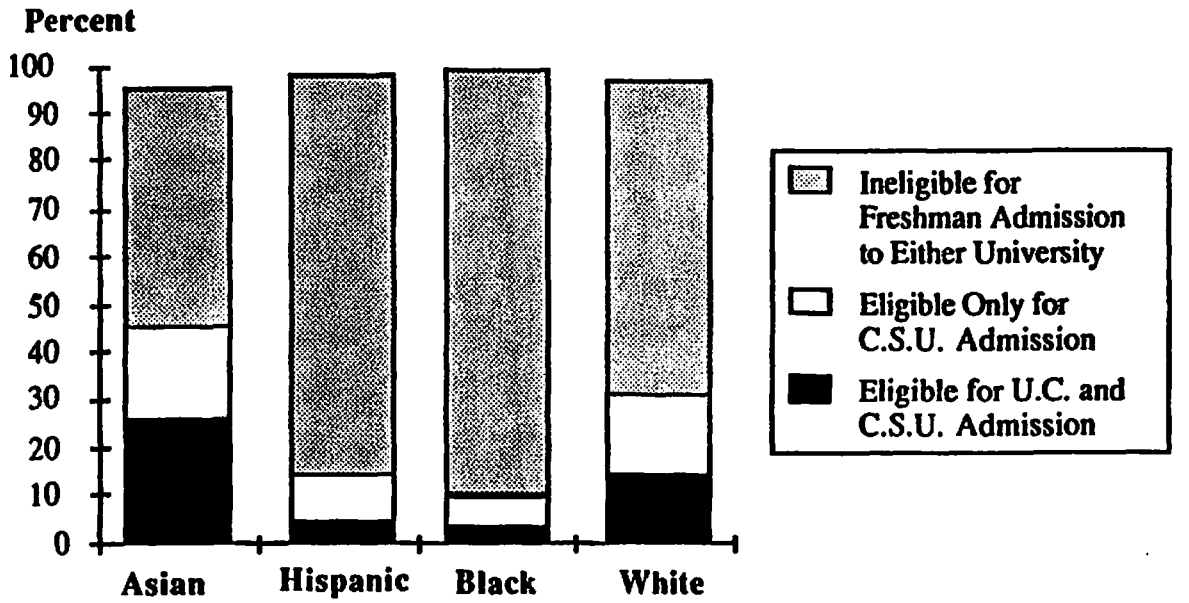
Differential Eligibility Rates of Male and Female Graduates, 1983



SOURCE: California Postsecondary Education Commission Director's Report, December, 1985.

FIGURE 73

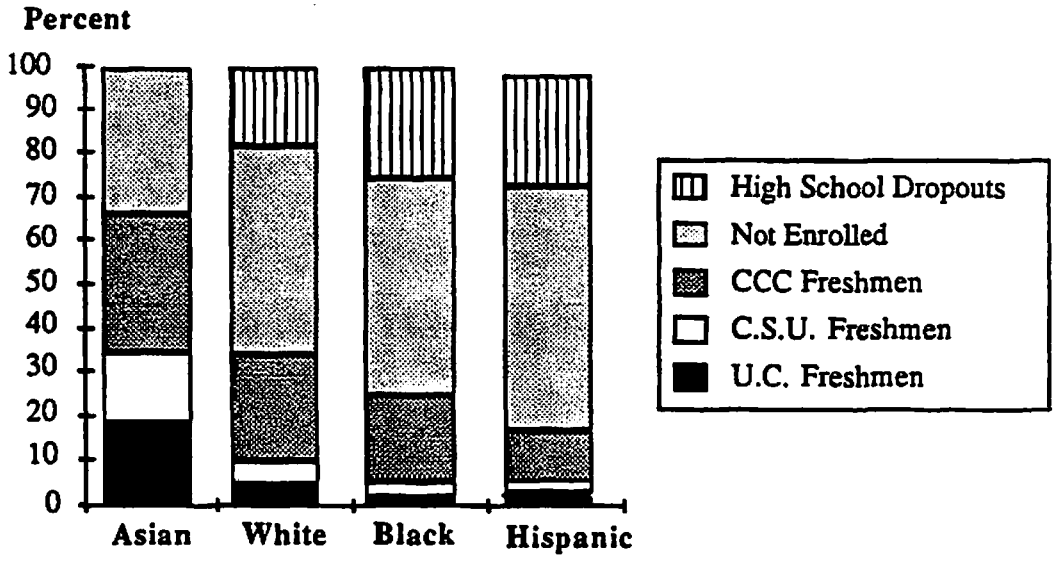
Eligibility Rates of California 1983 High School Graduates by Major Ethnic Group



SOURCE: California Postsecondary Education Commission Director's Report, December 1985.

FIGURE 74

Enrollment Rates of California 1979-80 Ninth Graders by Major Ethnic Group



SOURCE: California Postsecondary Education Commission Director's Report, December 1985.

Emerging Policy Issues: Professionalizing Teaching in California[53]

Steps to enhance teacher professionalism continue to be among the most significant items remaining on the state's public school policy agenda. Moreover, this agenda item is also one that is being reinforced by a substantial wave of national interest. Our purpose in this section is to discuss the major teacher-related policy components and decision challenges facing California's public officials.

Beginning in 1978 and continuing through the early 1980s, teachers' salaries suffered badly in terms of purchasing power and relative to other occupations requiring comparable academic preparation. Working conditions deteriorated as school districts repeatedly found higher priorities for inflation-diluted revenues. Mid 1970s' enrollment declines diminished demand for new hires and contributed to an aging teacher workforce. The advent of formalized collective bargaining frequently ignited intense labor-management conflict. Teaching was losing its appeal as a dynamic career opportunity for able individuals with professional and public service aspirations.

Teaching is a prime public policy challenge because no matter how imaginative, inspirational, and engaging the spectrum of contemporary curricular and instructional reforms, educational reform proposals depend crucially for their implementation upon cadres of classroom teachers. The present day preparation, performance, personal character, and professional commitment of the teaching force will determine not only the short-run nature of schooling but also will shape the personal lives and social conditions of Californians for decades to come. Probably no other large occupational undertaking can stake as legitimate a claim to influencing the long-run future as can classroom teachers.

In 1986, California's public schools employed 223,552 licensed educators.[54] Private schools are estimated to employ over 38,000 additional teachers. It may someday be the case that new forms of interactive electronic technology will dramatically enhance teaching. Until such a time occurs, however, classroom instruction will continue as a remarkably labor intensive undertaking. Moreover, estimates suggest that California will need to employ approximately 160,000 new teachers between now and the mid 1990s in order to meet anticipated enrollment growth and attrition. The sheer numbers are staggering.

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[53]A prior section of this report, Human Resources, provides a statistical description of California's teachers and their working conditions. The purpose of this Emerging Policy Issues section is to describe and analyze a major policy challenge facing the state.

[54]Includes teachers, administrators, student support services, full- and part-time. The number exceeds the total of all engineers, physicians, architects, accountants, optometrists, veterinarians, and pharmacists in the state.

However, the exciting opportunity made available to reform the system by the infusion of a large proportion of new employees should not be lost on policy makers and the public.

Recruitment and Preparation

Recruitment

PACE projections suggest a substantial demand for new teachers in California over the next decade (Figure 32, page 62). Teacher training enrollments are reported to be increasing. Consequently, the shortfall between anticipated demand and supply may be narrowing. Even so, it is unlikely that the gap will be closed. It appears, at a minimum, that the state will experience an annual shortage of fully qualified teachers approximating 4,000 to 5,000 individuals.

> *The policy challenge regarding recruitment is twofold. First, to enhance the quantity of able individuals flowing into teaching while simultaneously elevating the quality of professional entry standards. Second, to secure funds for higher entry-level teacher salaries when the state is already under financial pressure from many other sources.*

Preparation

The dynamics of public education are such that, regardless of the shortfall severity, there is seldom a classroom without an assigned teacher. The problem of quantity almost invariably manifests itself as one of quality. There are numerous loopholes which permit school districts to employ less than fully licensed teachers. For example, it is estimated that 26 percent of California's new teachers are presently entering their positions via so-called emergency credentials. Another 15 to 20 percent of the state's public school instructors are presently assigned to teach classes outside their major fields of academic preparation.

In effect, California has a two-tier licensing structure with dual standards for teacher preparation. The formal system appears rigorous. It requires an undergraduate college major in a field other than education, passage of the California Basic Educational Skills Test (CBEST), and a fifth year of pedagogical preparation, including supervised practice teaching.

In contrast, an increasingly relied upon informal licensing system permits local districts to utilize instructors with emergency credentials and long-term substitutes, and to rely upon teachers instructing outside their subject matter strengths. Some proportion of these less than fully licensed individuals may be good instructors. Undeniably, however, they are less well trained pedagogically and perhaps academically.

There are few visible defenders of the dual system. Teacher union officials are outspoken in their opposition. School administrators acknowledge the drawbacks philosophically, but nevertheless lobby for its continuation on pragmatic grounds. In the absence of sufficient numbers of fully licensed teacher candidates, and in the face of a teacher shortage, administrators contend they have little choice but to employ stopgap measures.

Regardless of its relative merits, the dual entry system for teachers constitutes a hypocritical policy which undermines educational professionalism particularly and engenders cynicism about government generally.

> *The policy challenge is to eliminate the dual licensing system while simultaneously implementing sufficient incentives to ensure that the supply of qualified teachers matches demand.*

Preservice Preparation

There is a seemingly never ending stream of controversy regarding the proper elements and appropriate mix of preservice preparation activities for teachers. In a recent speech, the U.S. Secretary of Education, William Bennett, expressed a frequently voiced view that teacher training need be but minimal. ". . . Teachers should demonstrate competence in their subject area, have good character, and have the interest and ability to communicate with young people."[55] William Bennett's pronouncement contained no reference to pedagogy.

Conversely, many educators, particularly those connected with schools of education, contend that added levels of professional preparation better enable a teacher to handle a wide range of children's learning abilities and problems. Also, they believe that more preparation for teachers would assist them in gaining the respect paid to full professions, e.g., medicine and law.

A 1984 PACE report by Stoddart, Losk, and Benson advocated two years of graduate professional preparation prior to entering teaching.[56] More recently, the Holmes Group of School of Education Deans reached a similar conclusion. California now generally requires a fifth year of schooling, one beyond the Bachelor's degree, for a full teaching license. Most states require only four years of college to become a teacher. Against this backdrop, the controversial nature of the Stoddart et al. and Holmes proposals become more evident.

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[55]Quoted in Education Week, 5, no. 6 (March 12, 1986), p.15.

[56]Trish Stoddart, David J. Losk, and Charles S. Benson, Some Reflections On The Honorable Profession Of Teaching (Berkeley: Policy Analysis for California Education (PACE), August 1984).

Opponents fear that added amounts of preservice training risk reducing and delaying the number of teacher candidates readily available for employment. Consequently, proposals for added preparation time and rigor typically face stiff opposition during periods of teacher shortage.

Also, more intensified preparation portends higher teacher salary levels. In a state the size of California, adding even $1,000 to teachers' average salaries accrues annually to hundreds of millions of dollars statewide. Adding $5,000 to each *beginning* teacher's salary would cost an additional $80 million in the initial year. By year 10, such a plan would increase annual educational costs by approximately $1 billion.

The policy challenge is to intensify professional preparation while sustaining or enlarging the pool of eligible teacher candidates.

Regulation

Program Approval Versus Candidate Appraisal

College and university teacher training programs may appraise prospective public school instructors. Ironically, the state does not. Presently, if the curriculum of a California teacher training institution meets state-specified standards, the program is approved. (The state agency responsible for setting standards is the Commission for Teacher Credentialing, CTC.) All candidates successfully completing program requirements, in the eyes of an approved institution, are then granted a credential by the state. The state relies upon colleges and universities to determine professional eligibility of prospective teachers through program approval. Review teams comprised of faculty from other teacher training institutions periodically, every three to five years, visit colleges and universities to assess the fit between preparation programs and state requirements.

A credential is a license certifying that its holder meets at least minimal standards for employment in a public school setting. (Private schools are not legally required to employ credentialed individuals.) Public school agencies employ candidates from the available pool of credentialed teachers. School districts are free to establish hiring standards more rigorous than those specified by the state.

Controversy surrounds the extent to which program approval sufficiently protects the state's interest in having well prepared and able teachers. The state is unwilling to accept such a *laissez faire* process in determining the eligibility of an individual to practice in other professional fields such as medicine, law, architecture, engineering, and accounting. Candidates for entry into these other professions must pass a state authorized examination administered on an individual basis. Simply graduating from an approved institution is insufficient.

The policy challenge is to determine an appropriate balance between program approval and individual appraisal and to make the necessary statutory alterations.

Testing and Licensing

State teacher certification is complicated by the presence of the California Basic Educational Skills Test (CBEST). A credential candidate must achieve an overall passing score on each of three parts of this examination: writing, reading comprehension, and mathematics. The examinations are developed and administered under contract to the state by the Educational Testing Service (ETS). Most teacher training programs require that a candidate pass the test prior to admission.

Critics contend that the test bears no proven relationship to good classroom teaching. Proponents grant this point but assert in response that the examination attests to the basic literacy of the candidate, a *sina qua non* of teaching in their view.

During the initial years of CBEST, black and Hispanic credential candidates have fared worse on passing test scores than whites and Asians. Some claim this signals the racist nature of the examination. While the research on the test indicates this is unlikely, almost all parties seek productive means for redressing the discrepancy in scores.

The policy challenge is to identify recruitment incentives and better professional preservice preparation whereby the pool of minority teaching candidates can at once be certified as literate and expanded in number.

The Timing of Tenure

Following an initial probationary period of successful instruction, local school districts are obliged by state law to grant teachers tenure. Realistically, this means that an individual can only be dismissed from his or her teaching position because of some serious rule infraction or because of declining enrollment.

There is a twofold historical rationale for such substantial employment security. First, to be effective, teachers must have protection when conveying ideologically controversial material. If schools are in fact to be a market place for ideas, then those who explain ideas must be free of political intimidation and the threat of economic reprisal. Second, tenure has been justified historically because of prior connections between teacher job security and partisan political outcomes. In an earlier era, when school board elections were more greatly politicized than at present, teacher positions frequently were part of a patronage system. A winning school board candidate might attempt to remove previously employed teachers and hire new ones who had been loyal to his or her campaign. Tenure was viewed as a means for eliminating this practice.

Until recently, a California teacher was on professional probation prior to three years of successful employment in a school district. Senate Bill 813, enacted as California's omnibus educational reform act in 1983, altered these rules. In exchange for provisions intended to make it easier for a school district to dismiss an allegedly incompetent probationary teacher, tenure can now be granted after only two years of employment.

There certainly exist individuals and interest groups opposed to teacher tenure altogether. However, most public officials accede to a view which contends that at least in the near future teacher tenure is not about to be abolished. Hence, the greater debate pertains to the appropriate balance between employment security for the individual and the right of school districts to dismiss incompetent instructors.

The equity and efficiency embedded in the Senate Bill 813 compromise--easier probationary dismissal for more rapidly reached job security--is now questioned. Opponents of the current arrangement contend that dismissal is not any easier than before. In their view, the legislative language of Senate Bill 813 is flawed and, consequently, courts are continuing to grant probationary teachers the same intense degree of due process protection as was the case in a prior era. Their reform rallying cry has become, "It should be as difficult to acquire tenure as it is to lose it."

> *The policy challenge is to reassess the tenure question and determine if the correct balance has yet been struck between an individual's property right to employment and the public's interest in having competent teachers.*

Governance

Teacher training program requirements and other matters related to educator professional standards are presently under the auspices of the Commission for Teacher Credentialing (CTC). This is an executive branch agency established by the Ryan Act in 1970. Prior to its hotly debated formation by the legislature, its functions were performed by the State Department of Education (SDE) under the jurisdiction of the superintendent of public instruction and the State Board of Education.

The 22 CTC members currently are appointed by the governor according to a complicated formula which balances lay members; several categories of professional educators (teachers, counselors, administrators); and representatives of teacher training institutions, other agencies of government (e.g., SDE), and local school boards.

Since its inception, CTC has remained a focal point of substantial controversy. Inept leadership, strained legislative relations, and bureaucratic inefficiency are among the weaknesses attributed to it by critics. However, a root problem is governance: who should control the licensing of teachers?

When credentialing was an SDE function, licensing was treated as a bureaucratic process. Teacher credentialing was governmentally regarded in a manner similar to state regulation of building contractors and barbers. The 1970s' reforms which created the relatively independent CTC were motivated, in part, by a desire to give educators a larger voice in governing their profession. Hence, education-related positions are represented on CTC in virtual parity to public lay members. This can be considered as a mixed public/professional governance model.

Many educational interest groups contend that teaching is due parity with full professions such as medicine and law, which are substantially self-regulating. They advocate a governance model whereby educators themselves control standards for entry into the profession and sit in judgment regarding alleged violation of professional ethics.

Self regulation for teachers is an idea currently receiving widespread attention in the rhetoric of teacher unions, discussions of professional educators, and in a series of national reports. In California, several legislative proposals already have been submitted which would alter substantially the current structure of CTC. Indeed, proposals have been seriously considered which would have abolished CTC altogether and substituted other governmental mechanisms in its stead, e.g., the 1986 legislative proposal, Senate Bill 1605.

> *The policy challenge is to balance the historic principle of lay control of public education with the growing aspirations of educators for professional parity and self regulation.*

Professionalization

Remuneration and Working Conditions

Figure 38 (page 74), graphically captures teacher pay comparisons in California. The figure displays statewide average teacher salary in constant dollars at yearly intervals since 1970. These numbers reveal the purchasing power loss that California's teachers experienced in the late 1970s and early 1980s. (This period not only coincides with dramatic national economic instability, inflation, and recession, but also with the height of the state's public school enrollment decline and teacher surplus.)

In the period since 1983, California's teacher salaries have begun the climb to purchasing power parity. The state's restored economic conditions and the intensified public school demand for additional instructors have begun to create more favorable conditions. By 1986, teachers' salaries had recaptured approximately 95 percent of their 1970 purchasing power.

Beginning teachers' salaries have become increasingly competitive. Most everywhere in California, an entry level teacher is paid a minimum of $20,000. Average teacher

salaries have also improved, and, generally, these salaries are paid for 10 months of work. Moreover, average teacher salaries are not wildly out of line when compared with other professions. The problem, discussed below, is one of aspiration and distribution.

> *The policy challenge is to maintain the momentum of salary increases while balancing the awesome costs involved. (Each one percent increase, statewide, in teacher salaries and related benefits costs approximately $60 million.)*

Professional Advancement

Teacher salary schedules typically take into account only years of employment in the district and level of academic training beyond the Bachelor's degree. This two dimensional scale seldom embraces measures of added professional responsibility or any judgment regarding an individual teacher's productivity. Two teachers having been employed the same number of years in a school district and possessing similar levels of college preparation will be paid similarly, regardless of their respective performances as teachers. Current patterns do not acknowledge individual effort or professional capability. Existing economic incentives motivate individual instructors only to seek longevity in the system and accrue added units in college.

Another failing of conventional teacher salary schedules is their compacted nature. Annual salary increases for a classroom teacher can be expected for approximately 12 years. Subsequent increases are generally tied to whatever cost-of-living adjustments result from local collective bargaining agreements. An individual who begins teaching at age 22 or 23 will reach the top of the district salary schedule in his or her middle thirties. This is the mid-career point when many successful professionals in other fields find their compensation increasing dramatically. They may well have sacrificed a decade of relatively low compensation as an associate in a law firm, or as some other kind of apprentice or journeyman professional, in order thereafter to qualify for substantially greater financial rewards.

An ambitious classroom teacher reaching the top of the salary schedule is faced with but three prospects, no one of which may be particularly attractive. One is to leave teaching altogether and seek another vocation. Recent polls of former teachers reveal that large numbers have left employment as public school instructors and have found financially rewarding work in people-oriented positions such as sales, insurance, corporate training, and real estate.[57] A recent survey of California teachers by PACE and Metropolitan Life Insurance Company revealed that 51 percent of California teachers have seriously

[57] The Metropolitan Life Survey of Former Teachers in America (New York: Metropolitan Life Insurance Company, 1986).

considered leaving teaching; more than one-quarter expect to leave in the next five years.[58] Contrary to conventional wisdom, those who can, do teach, and if their pay and working conditions are poor, they find something to do other than teach. Another PACE poll discovered that these former teachers enjoyed instructing children, but they simply were unwilling to sacrifice materially to remain in teaching.[59]

Another alternative for the mid-career teacher is to follow the perverse incentive system which characterizes most American public schooling. For a teacher, the way to get ahead is to get out of the classroom. The greater the organizational distance between one's self and students, the greater the rewards--more pay, more prestige, more control over one's time, more interaction with adults, and the like. This upside down reward system attracts many of the most able instructors out of the classroom and into careers such as counseling and administration, which are also important. However, classroom instruction is arguably the most important function in a school, the single most important purpose around which the institution is formed. It seems strange not to reward that function more highly.

The remaining alternative for mid-career teachers is to continue as classroom instructors hoping that personal interaction with students and subject matter will somehow compensate privately for the stagnant reward system and absence of opportunity. There is little to look forward to professionally. Small wonder that an awesome proportion of teachers, approximately 40 percent, often the most able, leave the classroom after 5 or 6 years.[60] The prospect of high compensation, creative expression, and professional fulfillment is slender.

In 1983, as a provision of Senate Bill 813, the state offered $10.8 million in financial incentives to encourage districts to establish mentor teacher positions. This funding level eventually allowed districts to appoint approximately two percent of their teachers as mentors. In the 1986-87 budget, this amount has been expanded to $45.75 million. These funds will enable districts to appoint 3.75 percent of California's teachers as mentors.

Mentor teachers, while having to maintain at least 60 percent of their time as classroom instructors, may utilize remaining hours for assisting new teachers, developing curriculum, working on special projects of importance to their school or district, and so on.

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[58] Survey of the California Teacher 1985, Metropolitan Life Insurance Company in Collaboration with Policy Analysis for California Education, 1986.

[59] Julia Koppich, William Gerritz, and James W. Guthrie, A View From The Classroom: California Teachers' Opinions on Working Conditions and School Reform Proposals (Berkeley: Policy Analysis for California Education (PACE), March 1986).

[60] According to one study, 34.9 percent leave after four years, 39.7 percent after five years, 41.7 percent after six years. Philip C. Schlechty and Victor S. Vance, "Do Academically Able Teachers Leave Education? The North Carolina Case," Kappan 63 (2): 106-112.

The procedure for nominating and selecting mentors and determining their duties depends upon a collectively bargained arrangement in a local district. Regardless of such variety, the underlying intent is to expand the career opportunity available to classroom teachers.

There are criticisms made of the existing program, e.g., a true mentor teacher should be assisting new teachers, not developing curriculum. Also, many critics of the Mentor Teacher Program simply believe that it does not proceed sufficiently to overcome the stifling absence of a full professional career ladder. Advocates of expansion desire a career ladder which, in addition to acknowledging added duties, also rewards instructional performance. Merit pay proposals for teachers, which tie higher compensation to intensified classroom results, are repeatedly made. Teachers are conventionally wary of such suggestions, and few merit pay plans have ever been implemented; fewer still have lasted.

A more promising alternative may be in the form of national professional speciality board examinations for teachers. Such proposals, widely publicized in recent national reports[61] and promoted by teacher union officials, necessitate formation of a national professional agency. Such an agency would be outside of government and operated by teachers. It would certify levels of added professional preparation, subject matter knowledge, and pedagogical understanding.

National boards would be patterned after professionally operated procedures used to certify medical specialists such as surgeons and pathologists. Candidates for a speciality license would be required to meet minimum preparation and experience qualifications. Added certification, presumably, would result from both paper-and-pencil tests and through less conventional avenues such as board interviews, recommendations, and candidate responses to simulated instructional problems. A nationally certified teacher, arguably, would then be more valuable in the employment market, command a higher salary from local school districts, and thereby contribute to an expanded professional career ladder.

Substantial momentum is building for formation and use of a national professional standards board for teachers, and such an agency is likely to be created. If selected states and local school districts begin to employ nationally certified teachers, and if such teachers are widely perceived as able, then pressures will evolve to spread the procedure more widely. This could be the most significant elevation of professional teacher standards in the nation's history. Currently, greater enthusiasm for the idea appears outside California than within the state. Nevertheless, California officials cannot easily afford to be insensitive to the general trend.

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[61] A Nation Prepared: Teachers for the 21st Century (New York: The Carnegie Commission on Education and the Economy, 1986).

The policy challenge is to correct weakneses in the current Mentor Teacher Program and simultaneously leave California in a posture to accommodate to whatever transpires nationally regarding professional speciality boards for teachers.

Professional Responsibilities

Whereas there are many advocates of greater professional rewards and opportunities for teachers, a counterveiling contingent asserts that teachers must reciprocate by assuming a larger share of professional responsibility. The dimensions most frequently specified in this regard are peer evaluation, school site decision making, participation in training apprentices, and responsibility for student achievment levels. These issues create a chicken-and-egg problem. Teachers frequently contend that they will gladly assume such added responsibilities if treated and compensated in a full professional manner. Reluctant supporters of professionalization suggest that their complete advocacy awaits teachers' assuming such additional duties.

The policy challenge is to frame incentives which simultaneously provide added professional opportunity and remuneration in exchange for teachers assuming added professional responsibility for the welfare of the state's public schools.

Working Conditions

Teachers repeatedly report that physical conditions in their schools impede effective instruction. Polling results reveal that teachers have to utilize out-of-date textbooks and maps; lack access to telephones, typewriters, and copying equipment; are faced with inadequate storage space for supplies and instructional materials; and have little room to use for preparation or for meeting privately with pupils and parents.[62]

Class size comprises another facet of teachers' working conditions. In California, class sizes now are among the largest in the United States. The state average is reported to be 23 students per instructor. This figure takes into account many small classes for special education students. The actual size of most classes in both elementary and secondary schools is larger than 23. Researchers have seldom been able to identify a tight link between class size and school outcomes. So many potential influences upon student achievement exist that the size of a class is sometimes swamped by other variables. Identifying a statistically significant performance difference between a class size of 31 and 32 students is difficult. Consequently, proponents of smaller public school classes have had a difficult time gaining the attention of state and local school policy makers.

[62]Julia Koppich, et al., A View From the Classroom.

Advocates of smaller classes have also had difficulty because of the large costs involved. In California, a reduction of each single pupil in average class size is projected to cost $200-$250 million. Moreover, this does not take into account the relative shortage of school facilities. In many districts, smaller classes could not easily be accommodated at present because of insufficient space.

Researchers have reached something of a consensus regarding large differences in class size. Whereas a reduction of one pupil per teacher may not make a noticeable difference, a decrease of five or six pupils per class may.[63] Also, policy makers outside California have repeatedly exhibited a common-sense view that smaller class size does make a difference. The national average is 18 pupils per class. Parents, when they have the opportunity, express a preference for smaller classes. Thus, despite the large costs involved, California appears destined to continue to grapple with class size reduction issues as it has in the last two legislative sessions.

The policy challenge regarding working conditions and class size reductions is to fabricate a set of phase-in incentives and financing formulas which permit practical progress toward a healthier instructional climate in California's schools while remaining within reasonable revenue boundaries.

Problems and Prognosis

What is the likelihood that these challenges can be resolved? An honest response must acknowledge the complexity and costs involved. Even one of the 11 policy challenges described here is capable of provoking prolonged political debate. More troublesome yet is the awesome interconnected nature of the professionalization issue. Everything seems connected to everything else.

Not only are the issues complex and intertwined, they also hold the prospect of costing a great deal to achieve. The California Commission on the Teaching Profession estimates that its slate of 27 reforms--changes which addresss most every challenge described above--would cost approximately an additional $842 million to implement.[64] In a time when the state may be reaching a revenue ceiling imposed by the 1979 Gann initiative[65] added funds of this magnitude will be hotly contested.

A piecemeal, patchwork policy approach is unlikely to solve problems systematically, will too easily be criticised by opponents, and will not attract sufficient political support

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[63]Gene V. Glass and Mary Lee Smith, "Meta-Analysis of Research on Class Size and Achievement," Educational Evaluation and Policy Analysis 1(1) 1979: 1-16.

[64]Who Will Teach Our Children? (Sacramento: California Commission on the Teaching Profession, November 1985).

[65]See page 64.

from professional educators themselves. If solution is possible, it might best result from omnibus legislation which addresses many facets of the problem simultaneously.

On the more positive side, much of the important analytic groundwork and policy research has been done regarding fundamental impediments to professionalization. Seldom in history has greater attention been given at state and national levels to the issues involved. The Carnegie Commission report is provoking excitement for teacher reforms in many other states. There may be greater national concensus regarding solutions to teacher professionalization now than ever before. Moreover, much of the thought and publicity regarding possible solutions has been accomplished by the California Commission on the Teaching Profession. Its report, *Who Will Teach Our Children,* was issued in November 1985.

Political leadership will be crucial to fulfillment of the professionalization challenge. Important members of the business community may be available to champion reform ideas, if assured that teachers reciprocally will assume heightened levels of professional responsibility. Similarly, the superintendent of public instruction and significant legislative leaders in both houses may be persuaded of the reforms' significance. The governor will be an important actor, and here the overall financial costs of reform may become the critical issue.

The political process, however flawed, is the best available mechanism for sorting such complexity. The outcome is uncertain. The objective, however, a fully professionalized teaching force for California, is assuredly one of the most potent answers to furthering school reform, increasing the skills and abilities of future generations of California students, and enhancing the state's position nationally and worldwide.