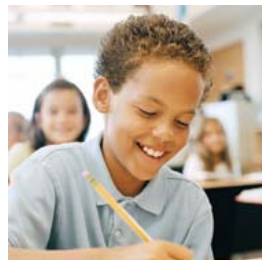


# Teaching and California's Future



## California's Teaching Force 2004 *Key Issues and Trends*

**The Center for the Future of Teaching and Learning**

California State University, Office of the Chancellor  
Policy Analysis for California Education  
University of California, Office of the President  
WestEd

*Research conducted by SRI International*



## Context

- Students and schools face ever higher standards of achievement, with short timelines for demonstrating improvement.
- The deadline for all teachers to be “highly qualified” under the federal *No Child Left Behind Act* is fast-approaching: 2005-06.
- The Williams settlement requires every child to have access to a highly qualified teacher, yet no resources have been earmarked for this purpose.



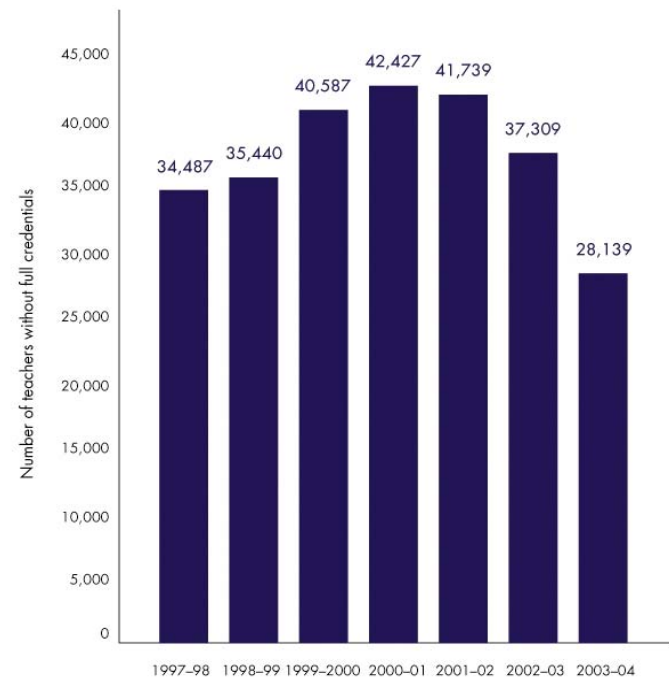
# Overview of 2004 Key Research Findings

- The number of underprepared teachers has declined from 37,311 in 2002-03 to 28,000 in 2003-04.
- A large retirement wave is expected to cause a shortage of 100,000 teachers in the next decade.
- NCLB has prompted an increase in intern certificates, not preliminary teaching credentials.
- The maldistribution of underprepared teachers persists: Economically disadvantaged students are up to five times more likely to have an underprepared teacher than their more advantaged peers.
- In middle and high schools, critical subject areas, including mathematics and science, are being taught by large numbers of out-of-field and underprepared teachers.
- Funds for teacher recruitment and professional development have been cut drastically.

# Fewer Underprepared Teachers, But...

- The number of underprepared teachers has dropped significantly from 42,427 in 2000-01 to 28,139 in 2003-04.
- Still, this number signifies that 1 out of every 11 teachers in the state is underprepared.

Number of Underprepared Teachers in California, 1997-98 to 2003-04



Source: CDE.

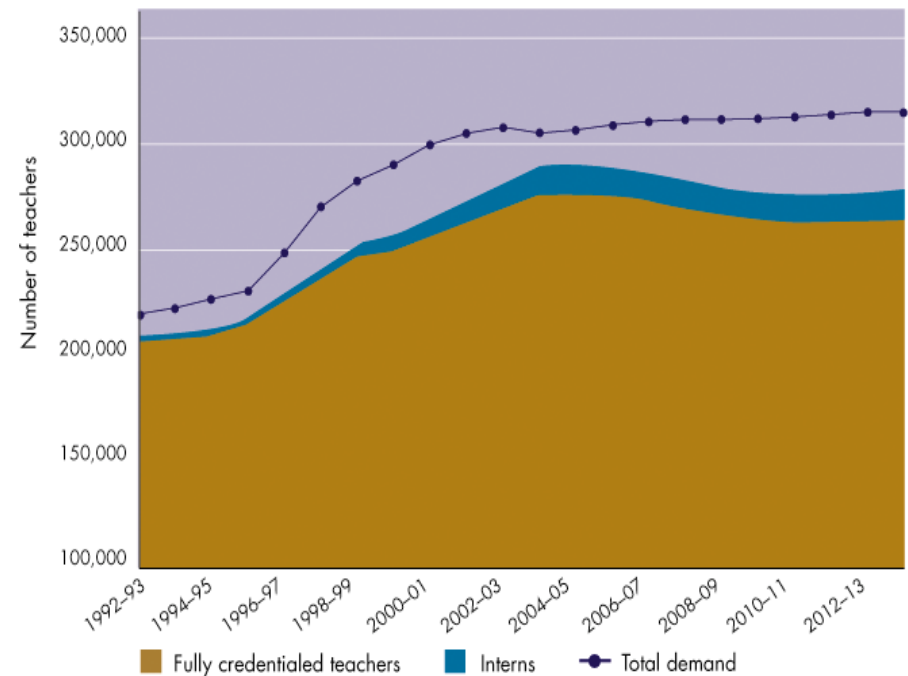
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# More Underprepared Teachers on the Way

Our projections indicate that there will be a substantial teacher shortage for three reasons:

1. Declining number of credentials issued
2. An increase in student enrollment at the middle and high school levels
3. Impending baby boom retirement bulge

Projected Teacher Workforce through 2013-14



Sources: CTC, CDE, STRS, DOF, SRI Analysis.

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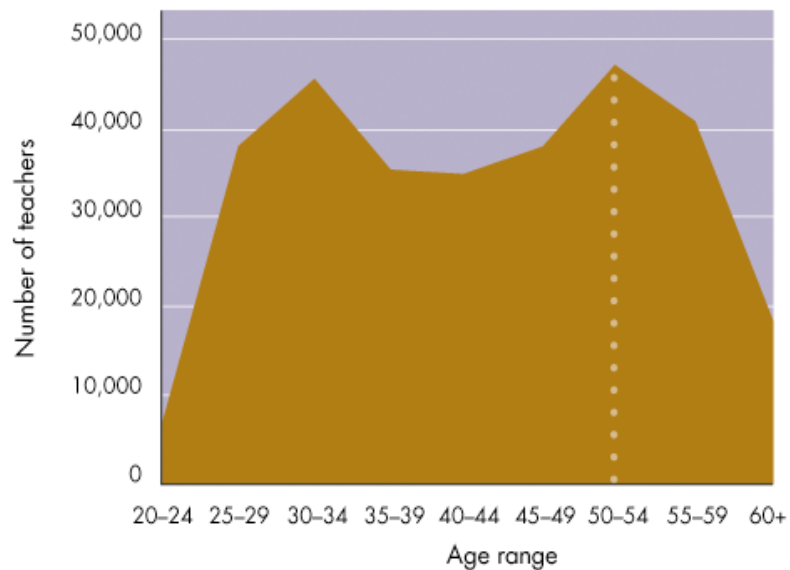


# More Underprepared Teachers on the Way

- For the first time since 1994-95, the number of preliminary teaching credentials issued by California institutions has dropped from the previous year.
- Participation in regular (fifth year) credential programs in the California State University system, the state's largest producer of teachers, declined by nearly 1,900 from the previous year.
- Budget cuts have eliminated \$150 million that California was spending to recruit new teachers.

# Impending Retirement Bulge

Age Distribution of Teacher Workforce, 2003–04



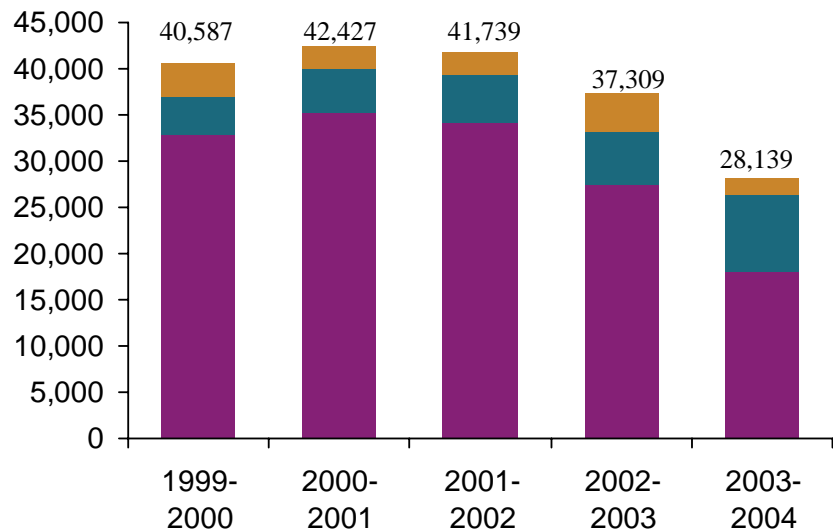
Sources: CDE, SRI Analysis.

- One in five teachers will be eligible for retirement in the next five years.
- One in three will be eligible in the next decade.
- By 2014, we anticipate the state will have to *replace 100,000 teachers* due to retirement alone.

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# Dependence on Emergency Permits

*Number of Underprepared Teachers by Credential Type, 1999-2000 to 2003-2004*



- All other non-credentialed
- University or district intern credential only
- Emergency permit, pre-intern certificate, or waiver only

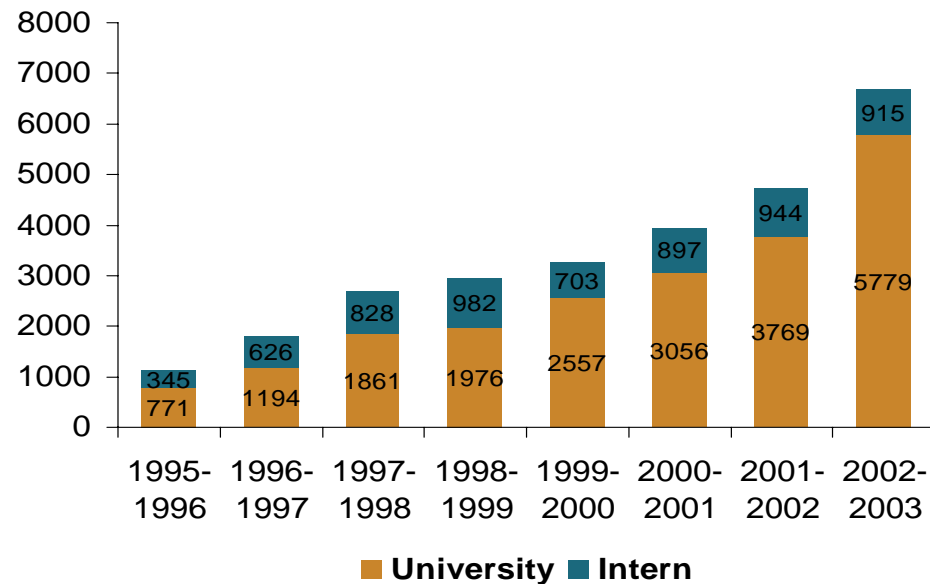
- Of the state's 28,139 underprepared teachers, 17,914 hold emergency permits (64%).
- Under the *No Child Left Behind* mandate these teachers will not be allowed to teach next school year (2005-06).



# Expansion of Intern Programs

- Because of the way California chose to define “highly qualified” teachers, NCLB has contributed to a substantial increase in intern credentials.
- Interns comprised about 30% of all underprepared teachers in 2003-04, compared with 10% in 1999-2000.

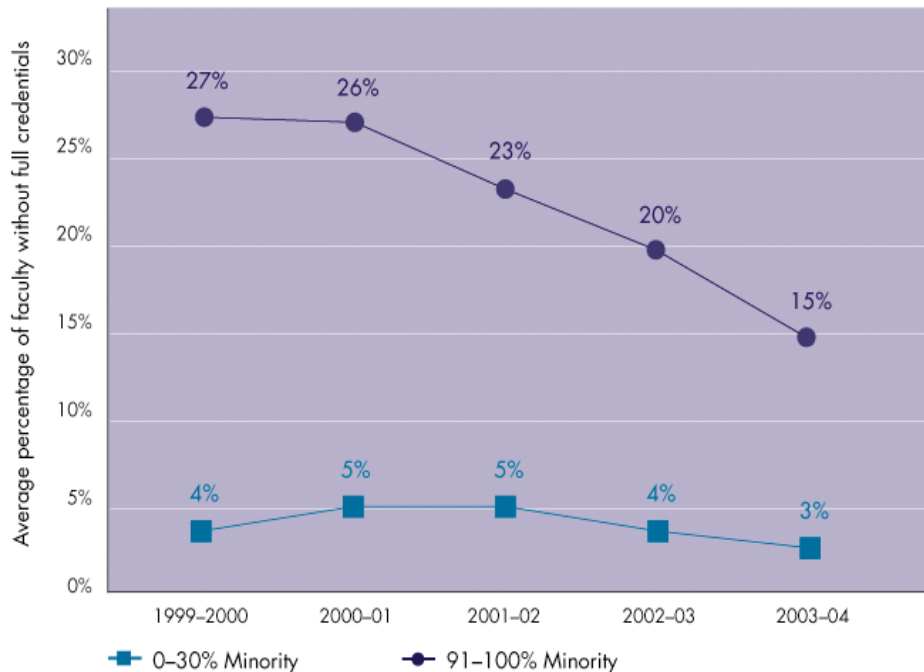
*New University and Intern Credentials,  
1995-1996 to 2002-2003*



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# Maldistribution of Least-Prepared Teachers

*Underprepared Teachers in Schools with the Highest and Lowest Percentages of Minority Students, 1999–2000 to 2003–04*



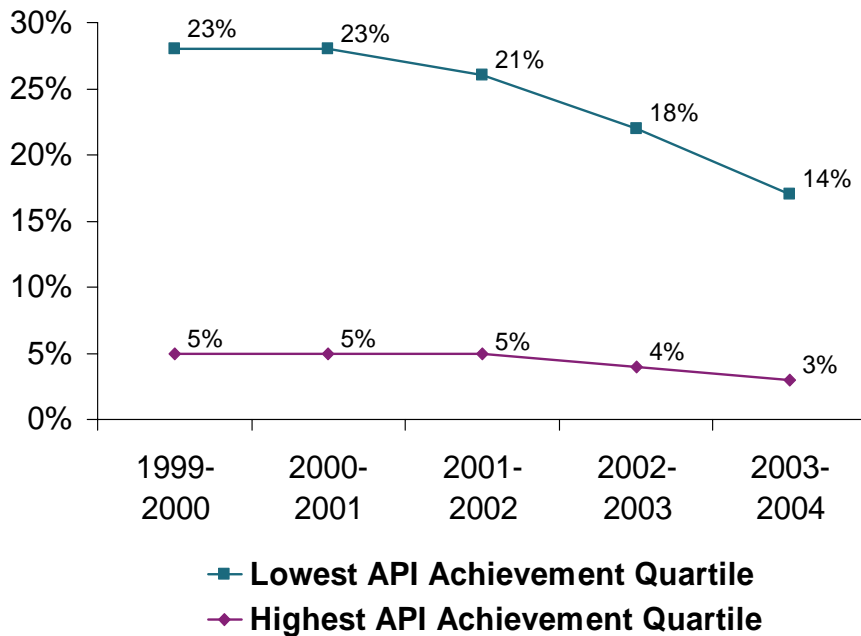
Sources: CDE, SRI Analysis.

- Schools with the highest percentages of minority students also have the highest percentages of underprepared teachers.

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# Maldistribution of Least-Prepared Teachers

*Underprepared Teachers in Schools in the Highest and Lowest API Achievement Quartiles, 1999-2000 to 2002-2003*



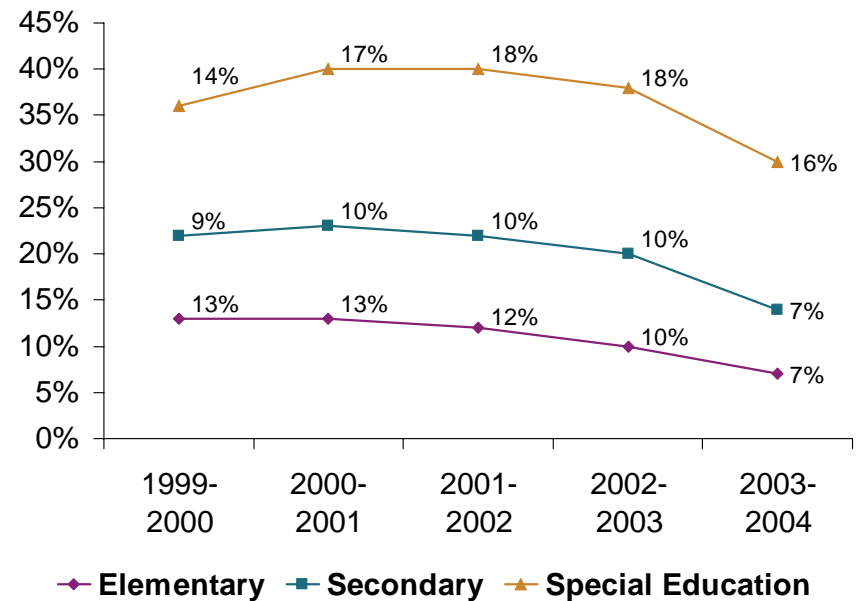
- Schools with the highest percentages of underprepared teachers perform lowest on the API, the state's measure of academic achievement.

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# Persistent Crisis in Special Education

- Percentage of underprepared special education teachers has remained relatively constant despite an overall reduction in the number of underprepared teachers in general.
- 54% of 1<sup>st</sup> and 2<sup>nd</sup> year special education teachers are underprepared.

*Percentage of Underprepared Teachers by Authorization, 1999-2000 to 2003-04*

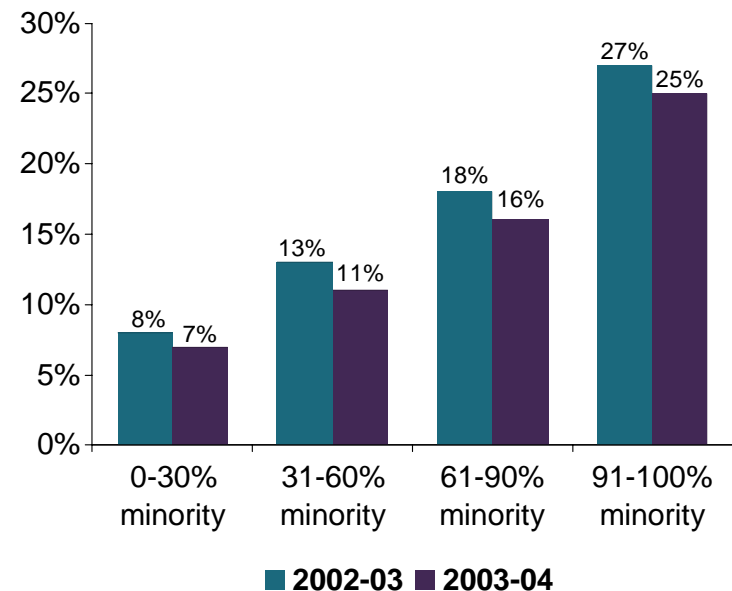


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# Persistent Crisis in Special Education

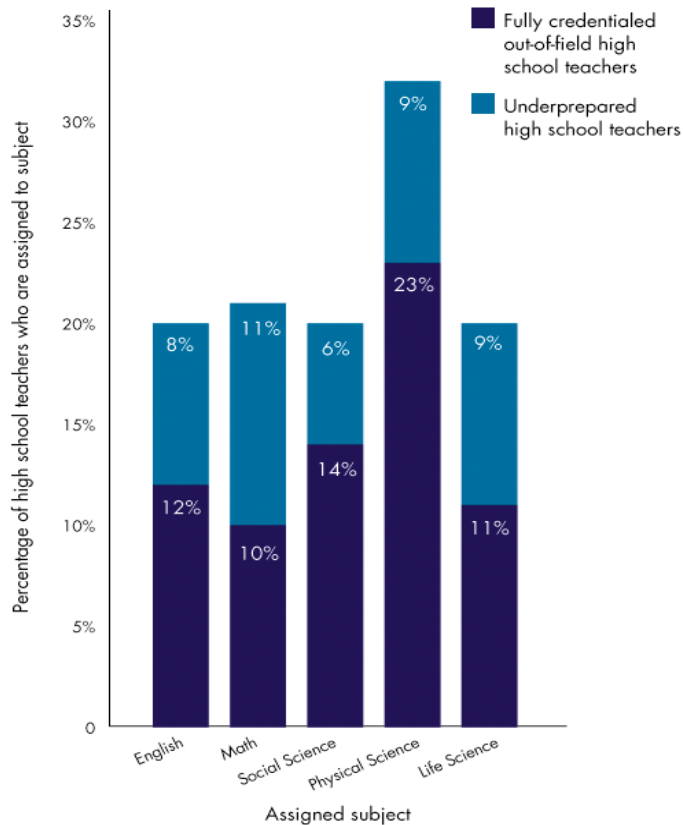
- The crisis in special education is even more pronounced in high minority schools, where *one out of every four* special education teachers is underprepared.
- In schools with high numbers of minority students, 25% of special education teachers are underprepared compared to just 7% in schools with few minority students.

*Distribution of Underprepared Special Education Teachers by School-Level Percentage of Minority Students, 2002-03 to 2003-04*



# High Stakes in Middle and High School

Percentage of Out-of-Field and Underprepared High School Teachers in Assigned Subject, 2003–04



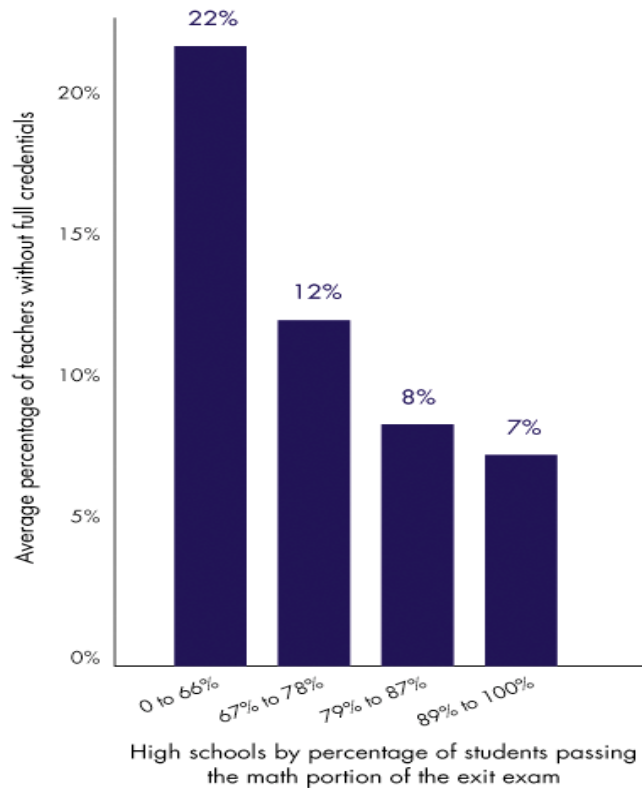
Sources: CDE, SRI Analysis.

- Just 59% of fully prepared middle school teachers assigned to teach Algebra I have the authorization in mathematics to do so.
- In English, math, social science, and life science, about *one out of every five* teachers are either underprepared or teaching out of their field of expertise.
- About *one out of every three* physical science teachers are teaching out-of-field or are underprepared.

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# High Stakes in High School

Average Percentage of Underprepared Teachers by School-Level Percentage of Students Passing the Math Portion of the High School Exit Exam, 2003–04



Sources: CDE, SRI Analysis.

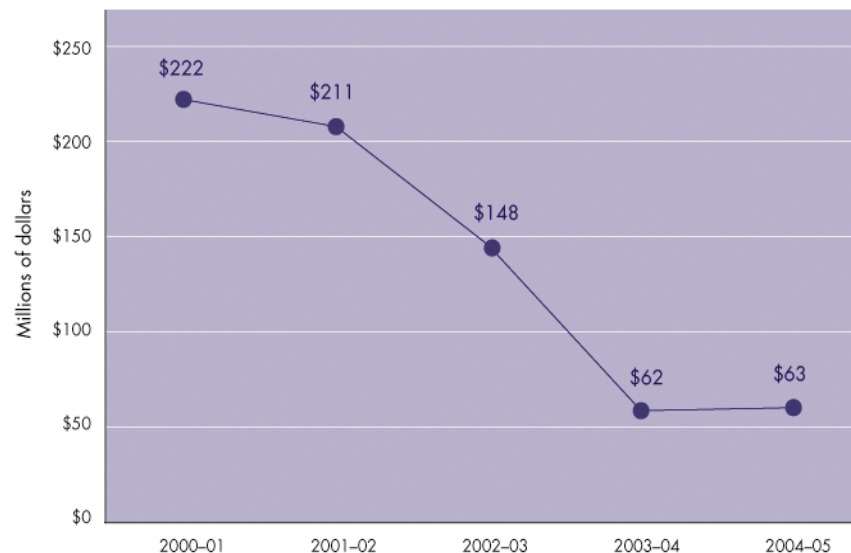
- Schools with the lowest passing rates on the California High School Exit Exam (CAHSEE) have, on average, far more underprepared teachers than schools with high passing rates.
- Students in schools with low passing rates on the CAHSEE are *three times* as likely to be taught by underprepared teachers as are students in schools with the highest passing rates.

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# Raising the Stakes, Reducing Support

- Four of the five major professional development programs realized a collective budget reduction from \$222 million in 2000-01 to \$63 million in 2004-05.
- California's curriculum-based programs have not expanded beyond reading and mathematics in the early grades.
- With the expected increase in the number of secondary students and the augmented accountability requirements, high school teachers may be less prepared to help students achieve their immediate and future academic goals.

State Allocations for Professional Development Programs, 2000-01 to 2004-05



Sources: CDE, UCOP.

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# 2004 Policy Recommendations

- Immediately address the current and future demand for truly qualified and effective teachers resulting from impending retirements by developing and implementing a plan for the recruitment of teachers in hard-to-staff schools and in critical subject matter areas.
- End the disproportionate assignment of underprepared teachers to decile 1-3 schools.
- Strengthen the teacher pipeline to ensure that community college students are provided an entry point to a clear and unimpeded pathway into the teaching profession.

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# 2004 Policy Recommendations

- Address the persistent inconsistency between the implementation of intern preparation programs and the Beginning Teacher Support and Assessment induction programs.
- Provide, on a consistent and timely basis, data on the state's teacher workforce so that California's education policy-makers can better gauge critical employment trends as well as the impact of specific initiatives and investments.