

California Postsecondary Education Commission



June  
2007

# Public Higher Education Performance Accountability Framework Report: Goal - Contributions to Economic, Civic, and Social Development Measure: Educational Attainment of Population

*This report evaluates the contribution of public higher education to raise educational attainment and the challenge of aligning postsecondary education with evolving educational needs of the State's diverse population. The report highlights migration and mobility in the State's population and presents options for improving educational outcomes.*

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*The Commission advises the Governor and the Legislature on higher education policy and fiscal issues. Its primary focus is to ensure that the State's educational resources are used effectively to provide Californians with postsecondary education opportunities. More information about the Commission is available at [www.cpec.ca.gov](http://www.cpec.ca.gov).*

Draft Commission Report

## Summary of Findings

- The educational attainment of California's population is growing more slowly than the national average, posing a significant threat to the State's long-term economic competitiveness.
- Younger groups currently have lower levels of education than the retiring baby boomers they will replace.
- There is a disparity in educational attainment based on ethnicity. This disparity is felt most acutely by the growing population of Hispanics in California.
- Migration into California is distorting the educational distribution by adding many highly-educated people to the population, but also many with less than a high school diploma.
- California's institutions of higher education lack the resources and capacity to supply enough college graduates to fill all the high-paying jobs the State's employers need to fill. Employers are paying a premium to import the talent they need; while at the same time, a large portion of the State's population lacks the education to fill these jobs.

## Why Educational Attainment Matters

Educational attainment matters for California because the State's human capital is a key competitive advantage that must be maintained and improved for the State to remain competitive. Businesses locate and develop in California because the State has

a workforce with the skills and ingenuity to make business succeed. The educational attainment of the population is a key indicator of the quality of the human capital in the State.

## Measuring Educational Attainment

To get the *30,000 foot view* of educational attainment in California, the Commission used census data from 1990, 2000 and 2005. These data allowed the Commission to examine trends over time, educational attainment of different subgroups and flows of people in and out of the State.

## Educational Attainment is Increasing in California, But the Future is Uncertain

California's workforce is better educated than the nation as a whole. However, a number of experts perceive a series of risks on the horizon. Perhaps most troubling, is that younger workers in line to replace retiring baby boomers are less educated. About 41% of California's 45-64 year olds have at least an associate level degree, compared to 38% of the 35-44 year olds, and only 36% of the 25-34 year olds. To close the educational attainment gap, younger workers will either need to earn more degrees or employers will need to import degree holders from other states or countries. The efforts of high-tech firms to expand the number of H1-B visas for highly-educated, foreign-born workers indicates that employers are already experiencing a shortage of highly-educated employees and are expecting the shortfall to grow.

The good news is educational attainment in California's population increased from 1990-2005 (see Display 1). The percentage of the population between 25 and 64 years of age with an associate degree or more increased from 33.9% to 38.9%. The population with the least education declined, as the percentage of the population between the ages of 25 and 64 with less than a high school education fell from 21.2% to 18.7%, despite a net influx of less-educated immigrants. Yet, data also show that the State's educational attainment rate has slowed compared with other states; and California risks falling below the national average if attainment does not improve. Display 5 indicates that attainment may not be increasing quickly enough to meet the needs of the market. When employers have to seek educated workers from outside of the State, it imposes costs on the employers and limits opportunities for Californians. At some point if obtaining needed workers becomes too costly, businesses will consider relocating jobs elsewhere.

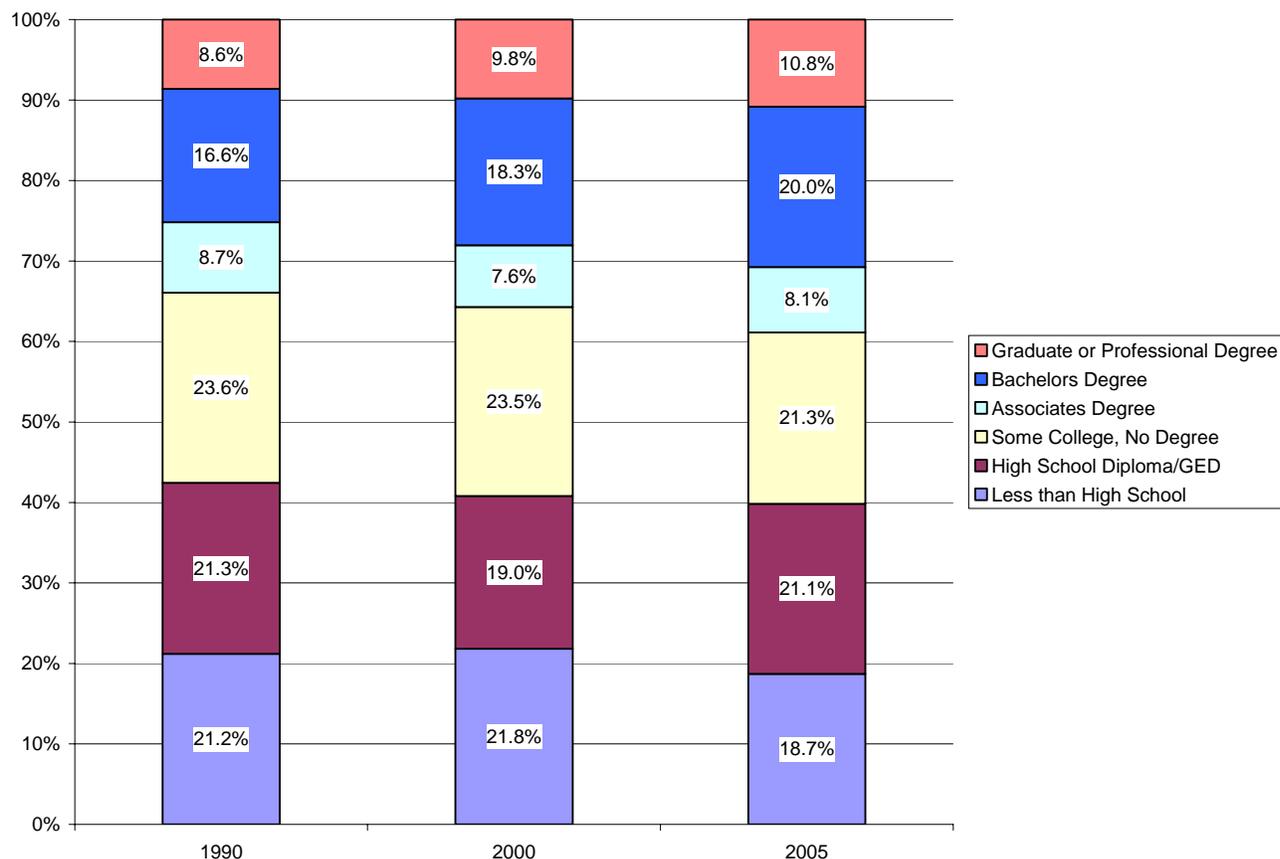
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### Public Higher Education Accountability Framework

The public's investment in higher education should be measured by outcomes. As the California's independent higher education planning and coordinating body, the Commission is in a unique position to assess performance without bias or conflict of interest. Under State law, the Commission is the only public agency with the data needed to assess student success across the University of California, California State University and California Community College systems. The Commission uses this data, coupled with other relevant State and national higher education data, to compile the performance assessment presented here. The Commission has put a priority on improving public confidence in the administration and delivery of public postsecondary education by increasing public knowledge of student outcomes, transparency of higher education decision making, and efficient achievement of the best educated and prepared workforce and population.

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**DISPLAY 1: Educational Attainment All Californians, Age 25-64, 1990-2005**

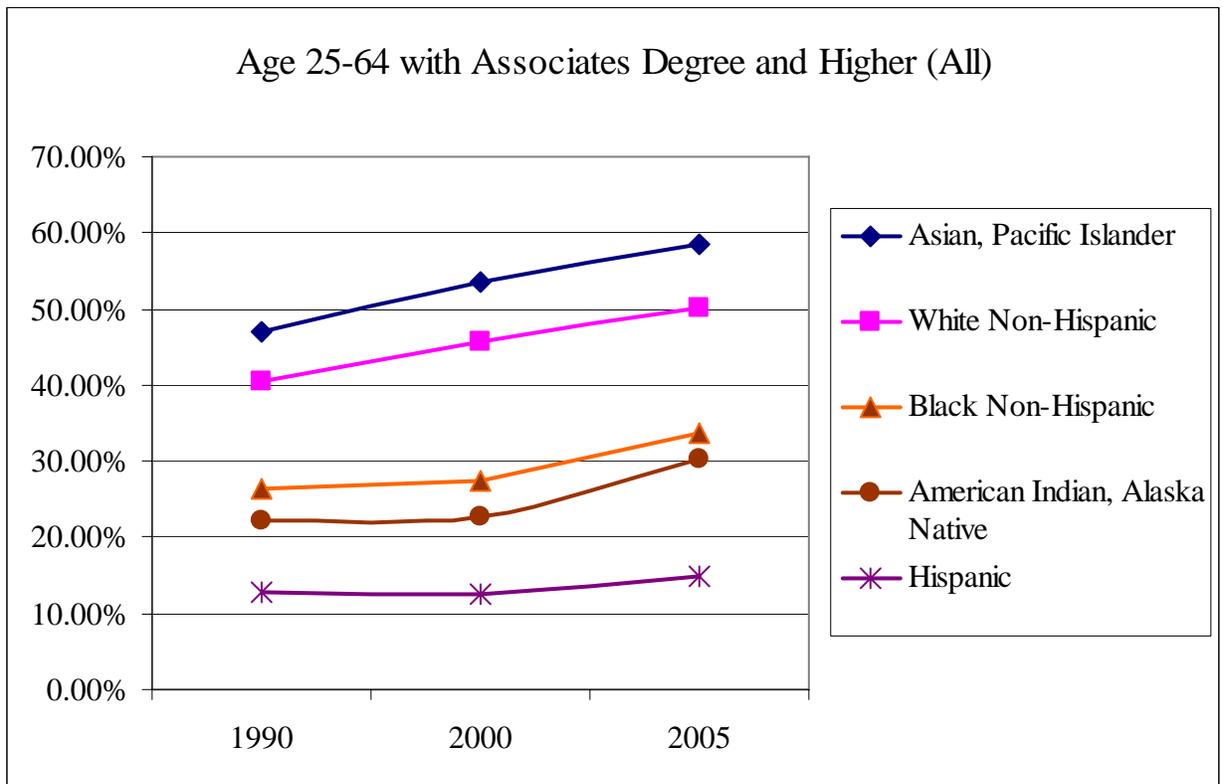


## Educational Attainment is Unevenly Distributed

Whites and Asians tend to have much more education than other ethnic groups (see Display 2). For example 50.1% of Whites and 58.6% of Asians, between 25 and 64 years of age attained an associate or higher level degree by 2005, compared to 14.9% of Hispanics and 33.7 % of African Americans. Differences are even more dramatic at lower levels of attainment. Almost 44% of Hispanics have less than a high school diploma, compared to 5.3% of Whites, 10.1% of African Americans and 11% of Asians. This gap is particularly troubling because Hispanics are the fastest growing workforce group in California.

On the plus side despite the different levels of current achievement, educational attainment is increasing for all racial groups. The percentage of the population with an associate degree or more increased for each ethnic group between 1990 and 2005. The increases for Hispanics, African Americans and American Indians, however, are far from large enough to close the gap with Whites and Asians. In fact, the gap between Hispanics and the top achieving groups has increased (see Display 2).

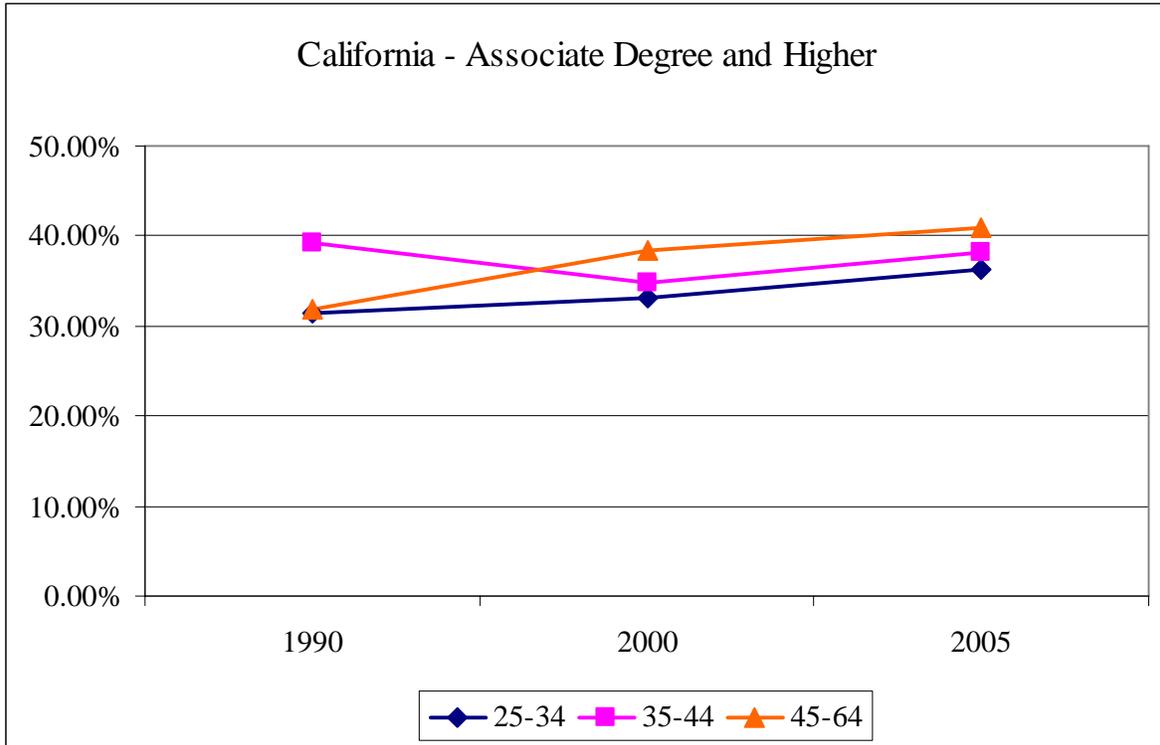
**DISPLAY 2: Percent of Population with an Associate Degree or More, 1990-2005, by Ethnic Group**



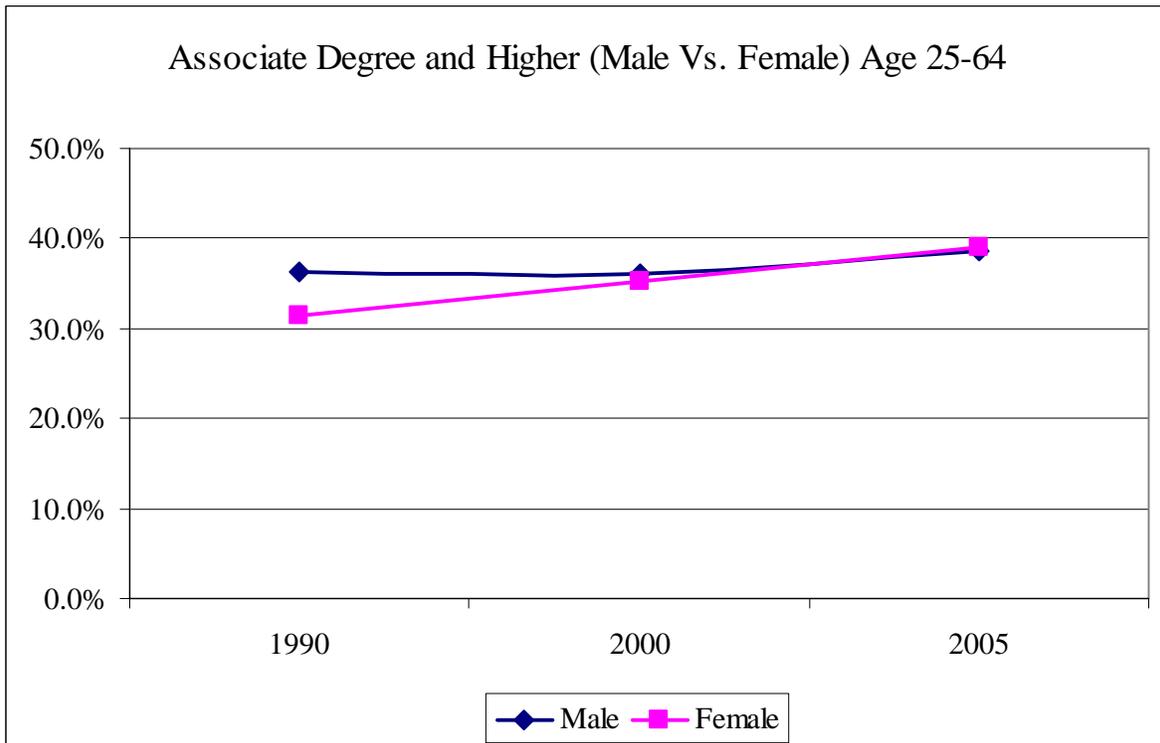
The last 15 years have seen a dramatic change in degree attainment for men and women. Women now hold more degrees than men and this trend is growing. Again, while educational attainment increased for both men and women, it has grown much more rapidly for women (see Display 4).

Women do not hold more degrees than men in all ethnic groups. For example among Whites in 2005, 41.8% of men between the ages of 25 and 64 had a bachelor’s degree or higher compared to 39.5% of women, for Asians 51.5 % of men had a bachelor’s degree or higher compared to 47.8% of women. In the case of African Americans, there were small differences, more men (22.4%) than women (22.1%) held a bachelor’s or higher degree. Hispanics were the only group where women between the ages of 25 and 64 were more likely than men to have attained a bachelor’s or higher degree in 2005, women 10.2%, and men 9.6%. For American Indians and Alaskan Natives, 21.0% of men had a bachelor’s or higher degree compared to 15.5% of women

**DISPLAY 3: Educational Attainment by Age Group**



**DISPLAY 4: Percentage of Population with an Associate Degree or More, 1990-2005, by Gender**



Educational attainment by gender for younger populations presents a different picture. In all racial groups, among people aged 18 to 25, substantially more women than men have completed a bachelor's or higher degree in 2005.

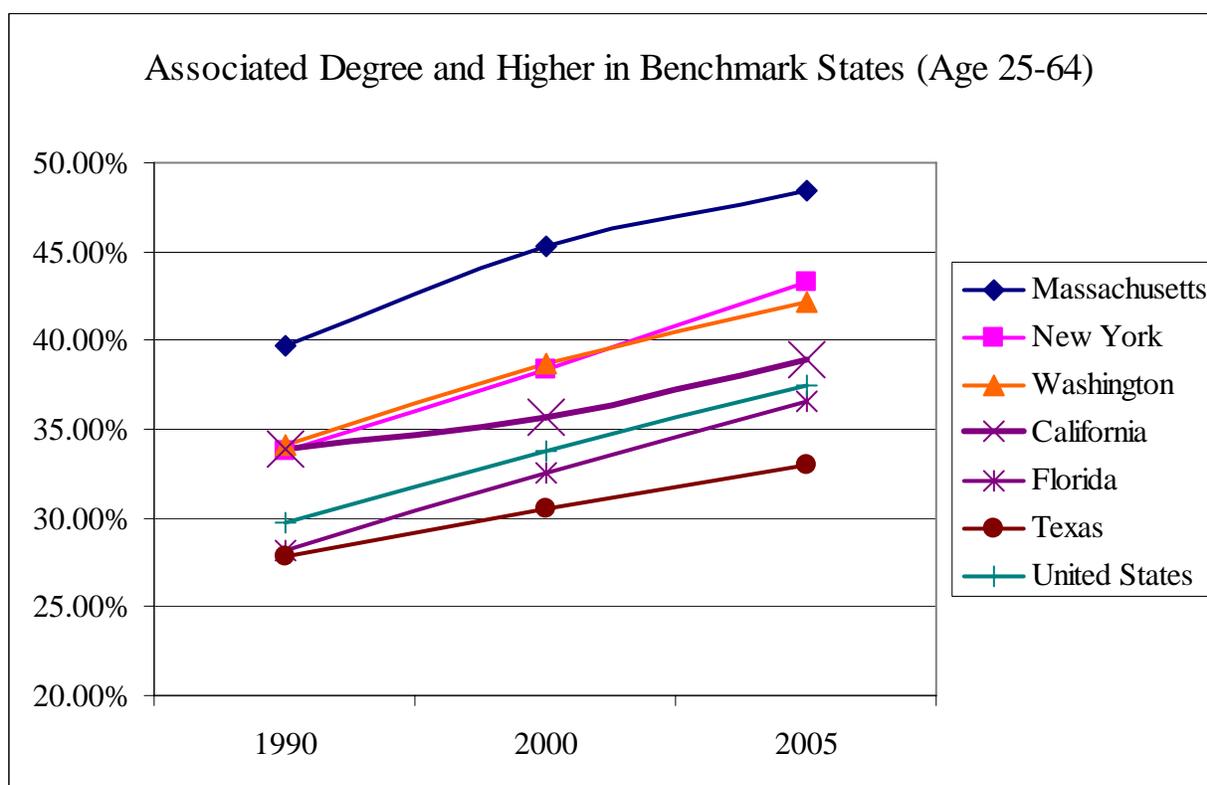
- Whites – men 9.8%, women 13.2%
- Asian and Pacific Islander – men 14.1%, women 20.4
- African Americans – men 3.7%, women 5.2%
- Hispanics – men 2.1%, women 4.0%
- American Indian and Alaska Native – men 6.6%, women 13.2%

This indicates that in the long run, women's educational attainment is likely to outstrip that of men across all groups; and enrollment data indicates this disparity will continue to grow.

### **California's Educational Attainment Advantage is Declining and Lags Key Benchmark States**

Display 5 compares California to five benchmark states and the national average. As the graph indicates, California remains slightly above the national average for the percent of the population with an associate or higher level degree; but over the 15 years studied, the gap between California and the national average has declined from 4.2% to 1.4%. This means that while educational attainment in California is growing, it is growing more slowly than the nation as a whole; and if this trend continues for even a few more years, Californians will have an educational attainment that is lower than the national average.

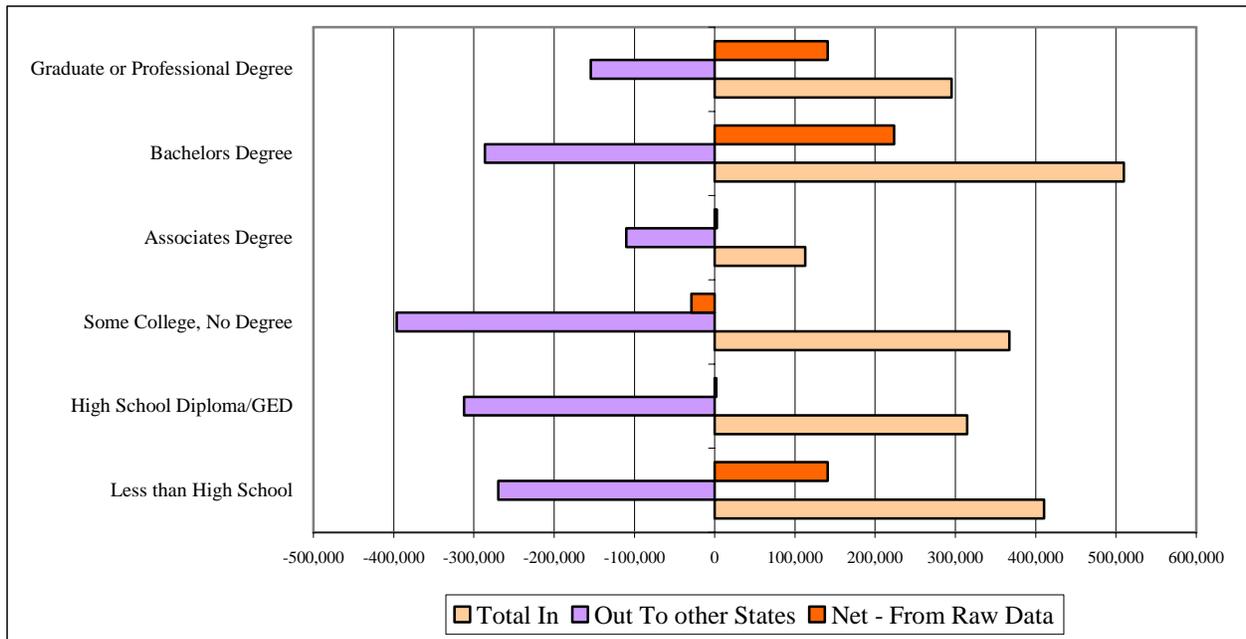
California leads Florida and Texas, but lags substantially behind Massachusetts, New York and Washington among benchmark states. It is important to note that in 1990, California had essentially the same level of educational attainment as New York and Washington, but now lags these two states.

**DISPLAY 5: Percentage of Population with an Associate Degree or More, Age 25 to 64, by Benchmark States and U.S. Overall**

## Migration Into and Out of the State Shapes California's Educational Attainment

According to census data between 1995 and 2000, 2 million people between the ages of 22 and 64 moved to California from other states and other countries, while 1.5 million left the state. The biggest gains in population were at the top and bottom of the educational distribution. California had a net gain of about 500,000 residents. The good news is that most new residents who remained had high levels of education: 224,000 had a bachelor's degree and 141,000 had postgraduate degrees. To put this in perspective, this net gain is equal to 40% of all the bachelor's degrees awarded during this period by all California universities, public and private, and equivalent to 14% of all post-graduate degrees. Net gains for associate degrees were only 2,668 graduates. The State had a net gain of only 1,972 new residents with a high school diploma or GED. At the bottom of the education distribution, California had a large net gain of 140,651 residents who had less than a high school education (see Display 6).

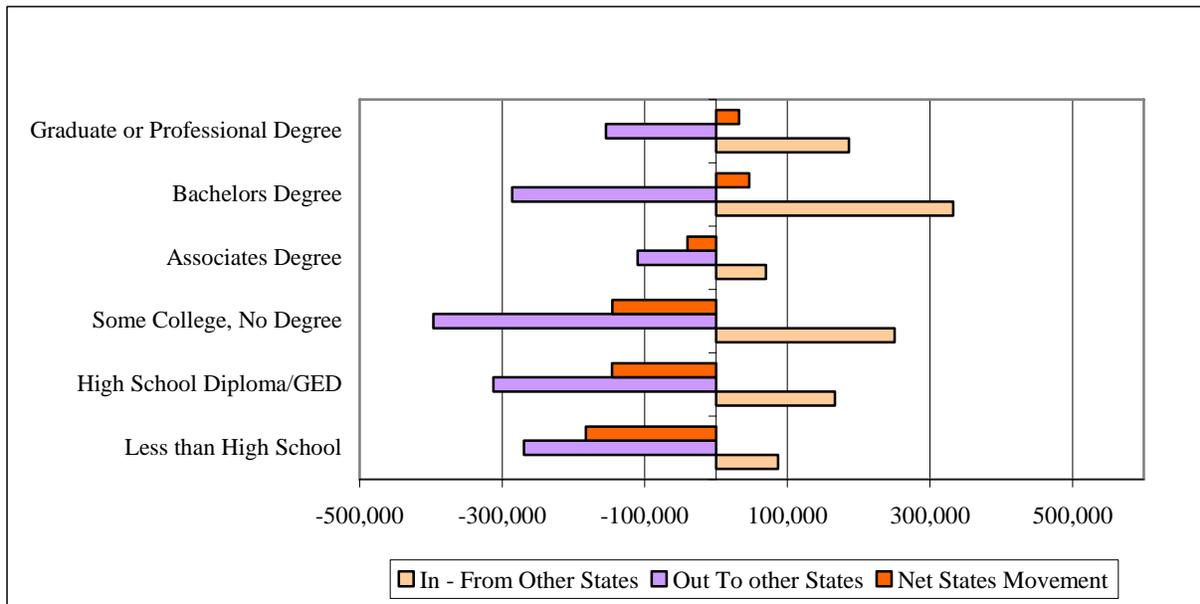
**DISPLAY 6: Migration Into and Out of California, Age 22-64, U.S. and Other Countries, 1995-2000**



It also is important to examine state-to-state migration patterns (see Display 7). Between 1995 and 2000, California had a net loss of population at every educational level except for bachelor’s and graduate degrees. This indicates that unless people had a bachelor’s or higher level degree, they were more likely to leave the State than enter it. It also indicates that the net gain in the less-than-high-school category is due to immigration from other countries. This trend could create a future very different from California’s middle-class-dominated past. If these trends carry forward, California’s population could become bifurcated into two groups—highly-educated workers from California and other states and countries earning far above average incomes, and a large population of immigrant workers with little education and low incomes.

These data demonstrate how quickly large population shifts can take place in response to economic changes.

Trends in educational attainment are affected by the large flows of people into and out of California, as well as by the degrees earned by California’s residents. Displays 6 and 7 show the relative flow of people into and out of the State. This period was the 1995-2000 boom period preceding the “tech bust” in 2000-2001, so it may not be predictive of future flows.

**DISPLAY 7: Migration Into and Out of California, Age 22-64, U.S. Only, 1995-2000**

## Policy Considerations

The data show with some clarity where California is in relation to educational attainment. While educational attainment is growing, it is growing more slowly than the national average; and soon, if current trends continue, California will have below-average educational attainment when compared to the rest of the nation. Also, educational attainment varies dramatically across ethnic groups. There is some evidence that younger population groups may end up being less educated than the baby boomers they will replace. Finally, it appears that women are achieving higher educational attainment levels than men.

The importing of highly-educated workers indicates that during the tech boom era (1995 to 2000), demand for educated workers clearly exceeded the supply available in California. It is interesting to note that despite the boom, 286,000 people with bachelor's degrees left the State during this period. Why these people left is unclear.

Between 1995 and 2000, California did not expand its higher education system fast enough to meet the demand. In fact, the State cut funding for public higher education. Importing educated workers into the State has the virtue of quickly supplying needed human resources to an expanding economy. But this movement imposes costs on California employers who must bear the cost of recruiting and relocating workers. Workers who relocate incur risks and costs when moving to find employment as well. Finally, much of this movement represents high-paying jobs that did not go to Californians. Ultimately if companies have high-costs securing the highly-educated employees they need, they may consider relocating to other parts of the country or world with a more accessible labor supply.

From the State's perspective, dramatically expanding the higher education system is costly. It takes a large investment to open new campuses, and there is a long period of development before a campus begins to produce the number and quality of graduates that can make a difference in the labor market. Many current campuses are already large and hitting the limits to which they can expand, while a few campuses struggle to meet enrollment targets. It is difficult to ramp up the production of college gradu-

ates quickly, and probably even more difficult to reduce the size of higher education when demand for graduates slackens.

Nevertheless, policy makers have a number of options to increase the proportion of jobs requiring advanced education that are filled by Californians already here in the State and to increase Californians' educational attainment.

## Opportunities to Improve Results

### Increase the Productivity of Existing Systems and Campuses

To ensure that California has a workforce that is competitive nationally and internationally, it must upgrade the education of workers already in the workforce as well as prepare future workers. This will take innovative strategies and, in the Commission's view, new incentives. To accomplish this, the Commission suggests several policy options that the Governor and Legislature might wish to consider:

1. *Reduce time-to-degree by improving articulation between community colleges, and the CSU and UC.*

Reducing time-to-degree and improving the articulation of the UC and the CSU with the community colleges has been the focus of a number of policy initiatives. The Commission believes that the change in funding formula recommended below will add energy and purpose to these initiatives. Several successful models could be ramped up. For example, the CSUs in metropolitan Los Angeles have taken the initiative to make sure that all the lower-division business curricula at all the campuses will overlap 80%. This means that community college students can take courses and know they will count toward a degree at all the LA area CSU campuses. Similarly, students who transfer from one CSU campus to another can be assured that courses completed at one campus will receive credit at another. Even more effort, however, is required in order to boost the level of transfer success of students.

2. *Tailor special programs for older and returning students to reduce time-to-degree.*

Substantial research suggests that group-based programs where students methodically move through a program together lead to higher graduation rates and improved student satisfaction. These programs seem particularly appropriate for older students. The Program of Accelerated College Education (P.A.C.E.) is already large and active in many areas of the State. P.A.C.E. allows students to move seamlessly between community colleges and CSU campuses. Students in this program take a carefully-planned series of courses on an accelerated schedule. This is an example of a program with a track record of success that could be quickly ramped up.

3. *Fully fund year-round operations at high-demand campuses.*

Most CSU campuses are now officially year-round; but in fact, summer sessions have limited offerings due to limited budgets. Furthermore, faculty are teaching on overload and students are free to opt out. With additional funding, more campuses could move to true year-round operations. This would entail expanding faculties so that faculty members could teach any two trimesters in a year. Students could be required to attend at least one summer trimester during their career. This change could be supported in part by taking low-demand campuses off year-round schedules and moving those resources to high-demand campuses. Lower-demand campuses could continue the traditional self-supported summer program run through extended learning units.

4. *Move all remedial education out of the State University and into the community colleges.*

Sixty percent of CSU freshmen continue to require remedial education. Many take multiple remedial courses in math and English, and the cost of these classes reduces the resources campuses have to offer both lower- and upper-division courses to students. The CSU has had an initiative for many years to reduce the proportion of entering freshmen taking remediation; but while there has been slow progress, remediation remains a significant cost. The Governor and Legislature should consider moving all remediation to the community colleges where costs are lower and where there are faculty with specialized skills in this area. Students could be concurrently enrolled in a community college and a CSU campus; or students could enroll after completing remedial courses. Another option would be to guarantee students admission to a CSU campus, allow for students to complete transfer courses while enrolled in a community college, and then be guaranteed a space at their CSU upon completion of their remedial coursework.

5. *Provide differentiated funding for higher-cost, high-demand fields.*

Current funding systems give campuses a fixed amount of revenue per student. This discourages campuses from expanding higher-cost programs that need specialized facilities and technology, or higher-cost faculty. The Commission suggests that the Governor and Legislature identify high-demand, high-cost fields that are linked to the State's economy (such as bio-tech, agricultural science and information technology), and develop a funding formula that would provide a higher rate of subsidy for education in these fields. This would recognize the higher costs of educating people in these fields, encourage campuses to add enrollment in these fields, and encourage responsiveness to the labor market.

6. *Change funding incentives away from rewarding enrollment and toward rewarding degree completion.*

Currently across all sectors of public higher education, funding formulas encourage campuses to enroll more students, as they are funded on a per-enrollment basis. The compacts between the Legislature and the systems tie funding growth to enrollment growth. Campuses that fail to meet enrollment targets may have to return funds to the system. However, campuses with low graduation rates, which produce relatively few graduates for the number of students enrolled are not penalized, while campuses that produce more graduates are not rewarded. The Commission recommends developing new funding mechanisms that tie increases in system and campus funding to increases in the number of graduates. This change seems particularly important in the community colleges and the CSU systems.

**Invest in upgrading the education of existing workers particularly those in the age groups with lower attainment**

Most of California's workers will still be in the State's workforce in ten years. As the data indicate, there are a large number of Californians who have some college education or an associate degree. The data also suggest that younger age groups, Hispanics and African Americans, have earned fewer degrees than Whites and Asians. Given these trends, it would be reasonable for the State to make a special effort to encourage existing workers to upgrade their educational levels and to complete degrees. This will increase the quality of the existing workforce and mitigate inequality among groups. Further, increasing the educational attainment of California's workers eliminates the need to import workers from other states and countries. The Commission sees several policy approaches to accomplish this goal:

- First, the Governor and Legislature could offer tax incentives to employers who subsidize degree completion at night for current employees in postsecondary institutions. The benefits of estab-

lished workers completing degrees accrue to the individual who will get increased earnings, the employer who gets a more productive employee, and the State which gets a more productive workforce. Thus it makes sense for each party to contribute something.

- Second, the Governor and Legislature could embrace model policies and incentives that would allow and encourage self-support degree completion programs in the UC and CSU Extension Programs that cater to the large population of incumbent workers with “some college” or associate degrees. Similarly the community colleges could design associate degree programs for populations of older students who have completed some postsecondary work. These programs can be a particular focus for online instruction and other new technologies, as these self-paced methods are a good fit for mature students. Programs may be offered in the work place for large employers.
- Third, one group which could be a particular target for other postsecondary programs would be the large number of California workers who have postsecondary education but who have limited English proficiency. These workers may have good technical skills but they lack English fluency. English as a Second Language (ESL) programs that focus on English for the workplace or English for particular occupations such as health care, or manufacturing would be particularly valuable. Employers with large numbers of employees in this category could help support programs, by providing facilities in the workplace for instruction, or by contracting with local colleges and universities to provide customized vocational ESL instruction to their employees. Again, it seems reasonable that costs for these programs be shared jointly by employers, the State and the student. Community colleges and the CSU and UC Continuing Education or Extension Programs seem to be natural units to deliver such coursework.

### **Report outcomes of graduates entering the labor market**

Managing California’s higher education systems includes knowing what becomes of its graduates. Without a systematic approach to track the experience of graduates, policy makers must rely on sporadic studies of small groups and anecdotes to assess the success of its students. Several states have addressed this problem by establishing monitoring systems that use unemployment insurance and other administrative records to track the employment and earnings of all graduates. These systems can routinely provide data on whether or not a graduate is employed, how much they earn, if they remained in the state, and in which industry they work. Accurate monitoring of student outcomes produces valuable data for policy development and for assessing performance at the system, campus or program level.

One example and the most established system is the Florida Education and Training Placement Information Program (FETPIP).<sup>1</sup> That system monitors all students who leave an educational or training program in Florida. It also follows graduates into jobs taken out-of-state and into jobs with government or the military. The results are aggregated by program, campus and system, and are readily available on the web.

In 1996, the California Legislature established the Performance Based Accountability (PBA) system, which was similar to the Florida model, FETPIP, to monitor individuals who exited public training and public higher education programs. The PBA, which operated for three years, followed the labor market experience of trainees from eight public programs including community college vocational programs. The system was managed by the State Job Training Coordinating Council, which is now the State Workforce Investment Board. Data from its analyses were available on the web and in printed reports. While the CSU and UC were included in the law establishing PBA, these two senior segments never participated. The law establishing PBA remains on the books, but the State Workforce Investment Board has closed the system.

7. *Designate the California Postsecondary Education Commission as the operating entity for an automated follow-up system for public higher education and training, in which all public higher education institutions are required to participate.*

The Commission believes such a system is a good fit with its mission. The Commission would build on the PBA's experience to create a system that regularly assesses the labor market experience of people who leave public higher education in California with or without a degree. These data will be used to evaluate the contribution of higher education to the State's workforce, provide feedback to systems, campuses and programs so they can improve their own performance and provide valuable information to students and their families when choosing programs and campuses. While the Commission would need additional funding to develop and operate the system, these costs would be offset by the improved decision making resulting from better higher education outcomes.





