

**CALIFORNIA STUDENT AID COMMISSION
STRATEGIC PLANNING RETREAT
MARCH 27, 2008**

**Californians and Higher Education
A Presentation by Ms. Jennifer Paluch, Research Associate, Public Policy
Institute of California (PPIC)**

The PPIC Statewide Survey series provides policymakers, the media, and the general public with objective, advocacy-free information on the perceptions, opinions, and public policy preferences of California residents. Inaugurated in April 1998, this is the 81st PPIC Statewide Survey in a series that has generated a database that includes the responses of more than 178,000 Californians. The Higher education survey, made possible with funding provided by The William and Flora Hewlett Foundation, is the first PPIC Statewide Survey on the topic of public higher education.

This survey seeks to inform state policymakers, encourage discussion, and raise public awareness about a variety of higher education issues. Today, higher education faces many challenges, including the state's rapid population growth, projections on future needs for college-educated workers, the rising costs of a college education, and government funding in the context of state budget constraints. Copies of this report may be ordered online (www.ppic.org) or by phone (415-291-4400). For questions about the survey, please contact survey@ppic.org. View our searchable PPIC Statewide Survey database online at <http://www.ppic.org/main/survAdvancedSearch.asp>.

PPIC Statewide Survey

Californians and Higher Education

Jennifer Paluch
March 2008



Outline

- **PPIC Statewide Survey/Hewlett Foundation**
- Perceptions of Higher Education
- Attitudes and Policy Preferences
- Conclusions



PPIC Statewide Survey Mission

- Provide timely, relevant, nonpartisan data on political, social, economic attitudes
- Inform and improve state policymaking, raise awareness, encourage discussion,
- Public opinion surveys provide a voice for all Californians in the state's policy debates
- 172,000+ Californians interviewed since 1998
- General survey, regional surveys, and special topics such as budget, environment, and K-12



Californians and Higher Education

- First PPIC Statewide Survey on higher education, funded by The Hewlett Foundation
- Perceptions of affordability and performance, attitudes about cost and access, preferences about funding and importance for the future
- 5 regions, 4 racial/ethnic groups
- Multilingual interviewing
- Telephone interviews, October 10th – 23rd
 - 2,503 adults
 - +/- 2% margin of error



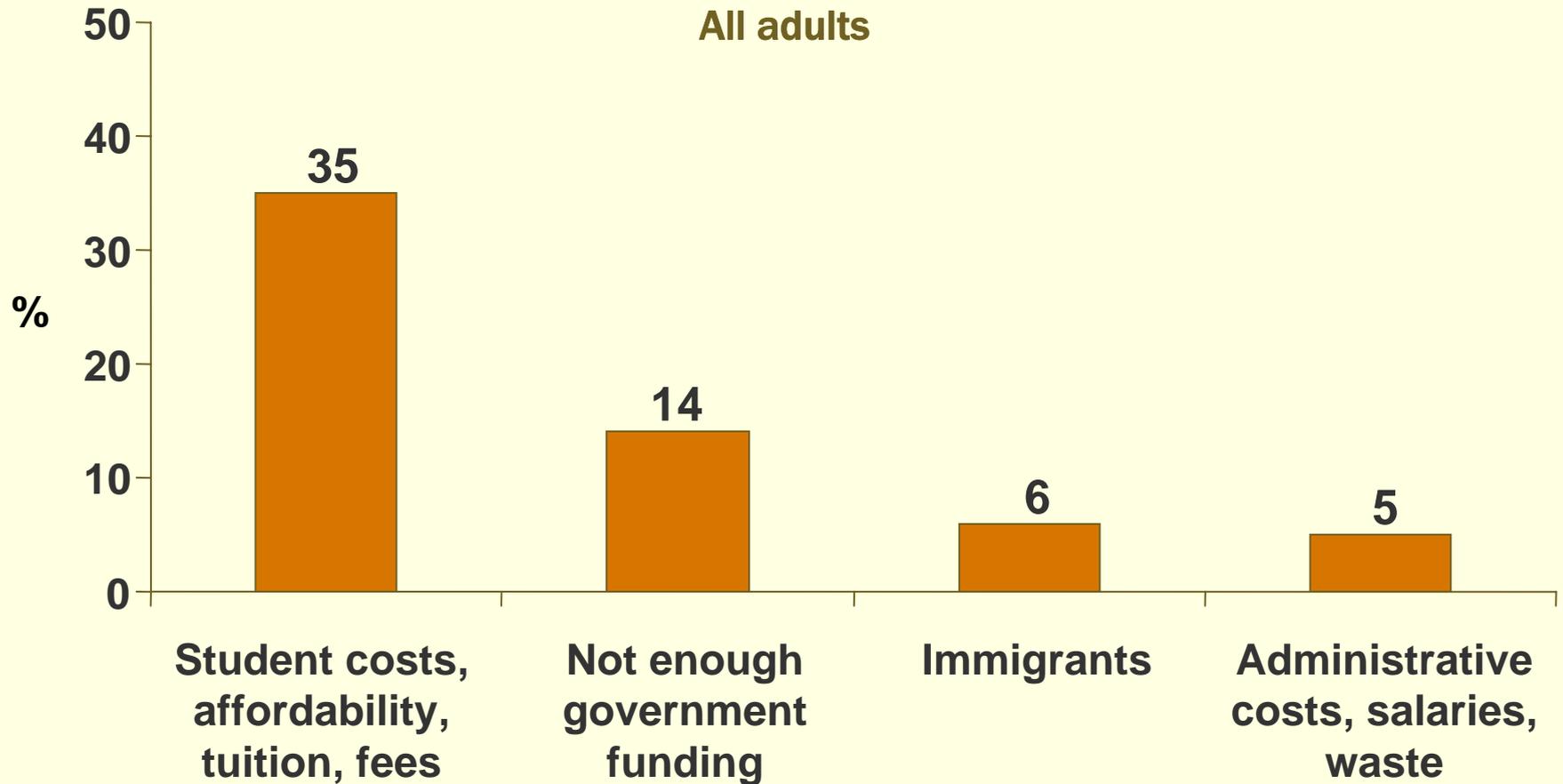
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Most Important Higher Ed Issue

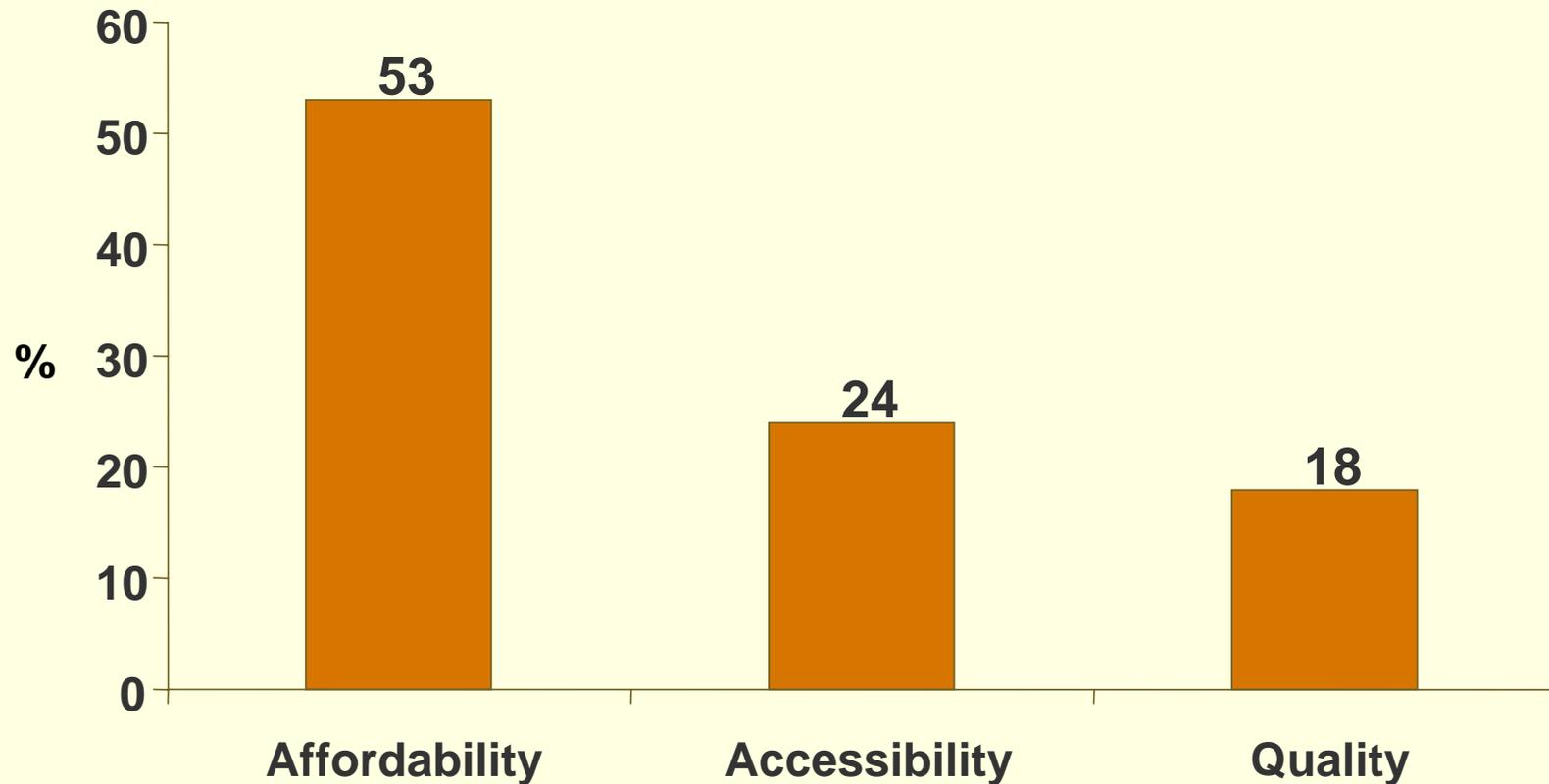
What do you think is the most important issue facing California's public colleges and universities today?



Overall Conditions for Students

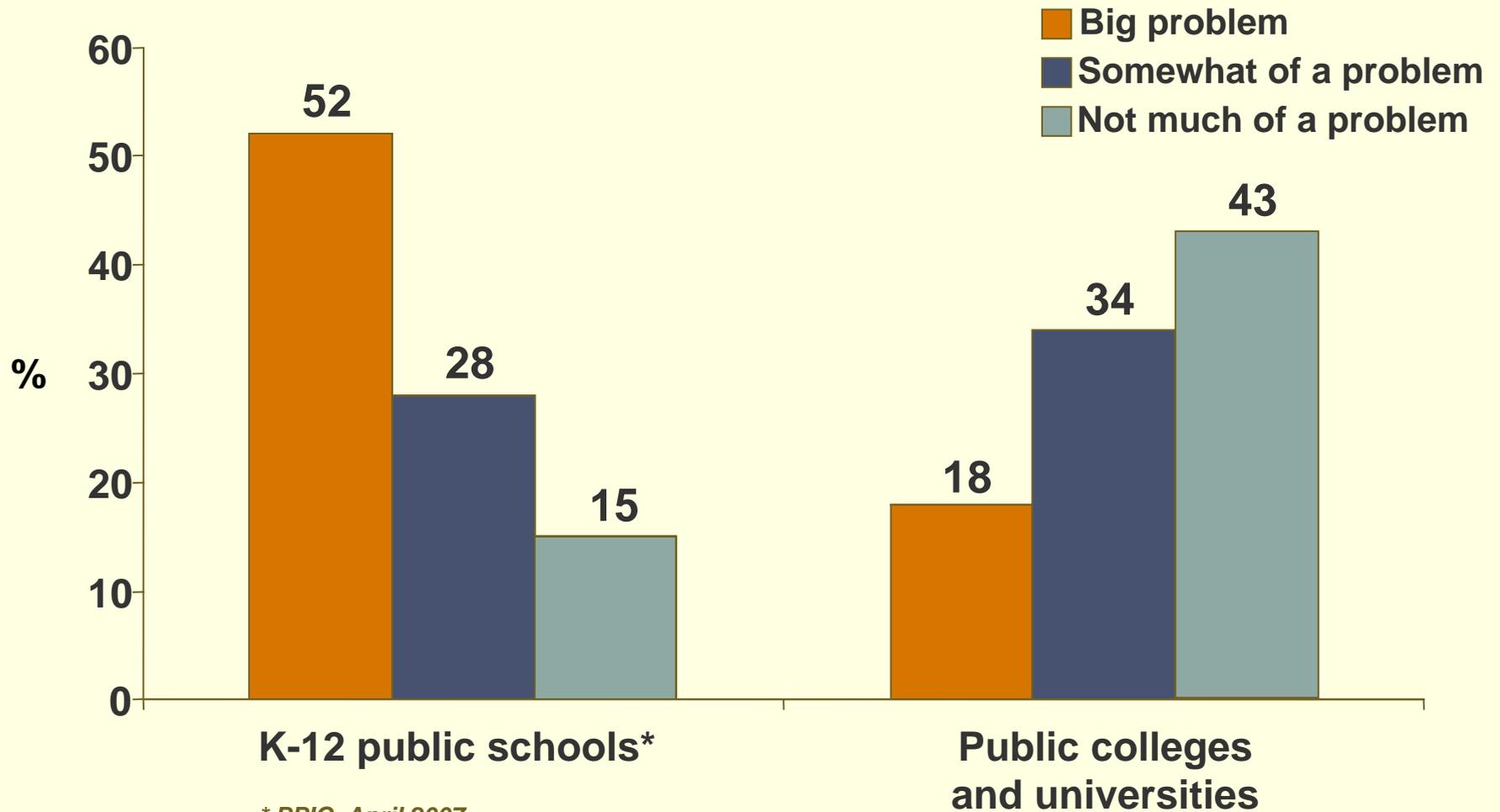
How about the overall _____ of education for students in California's public colleges and universities today?

% saying big problem



K-12 and Higher Education Trends

How about the overall quality of education in California's _____?

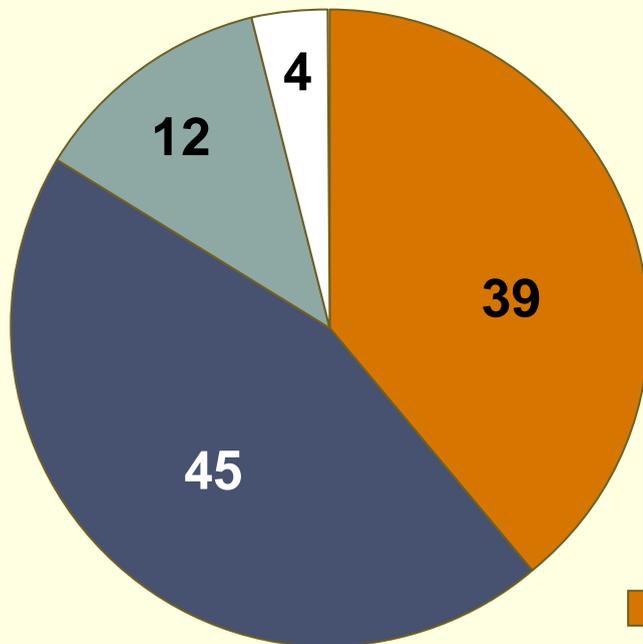


* PPIC, April 2007

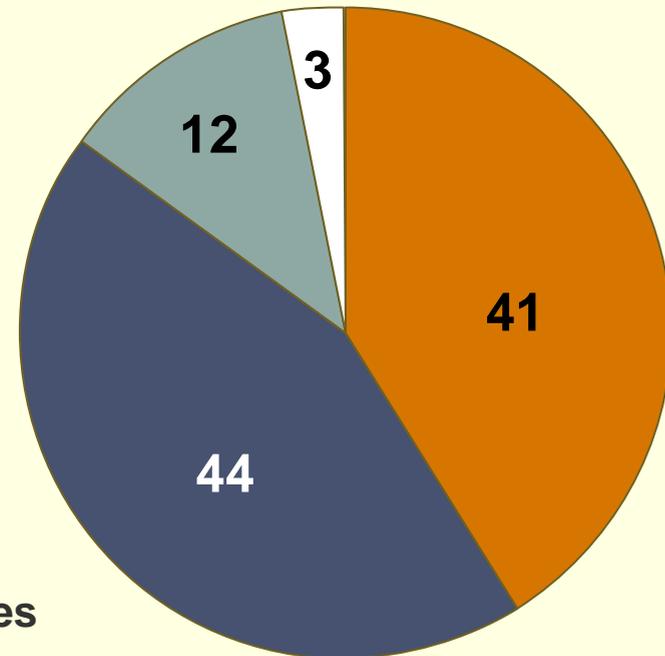
Perceived Need for Change

Overall, do you think the higher education system in California—including public colleges and universities—is in need of major changes, minor changes, or that it is basically fine the way it is?

All adults



Parents



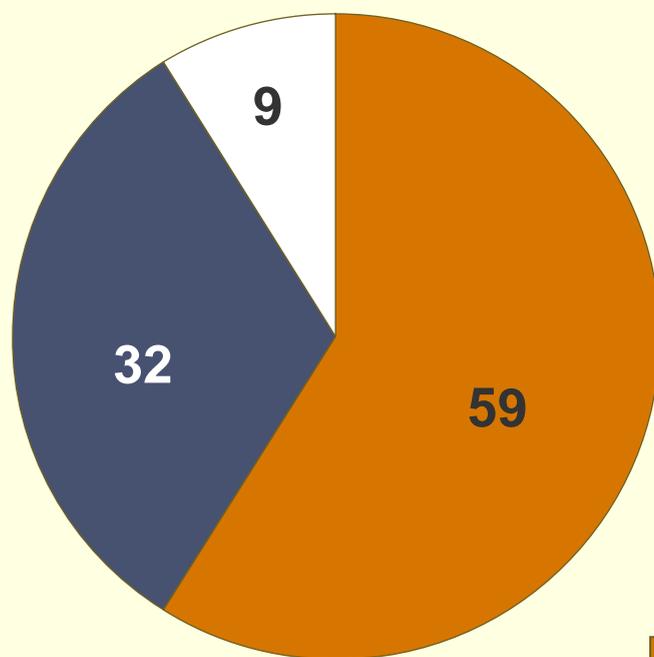
- Major changes
- Minor changes
- Fine the way it is
- Don't know



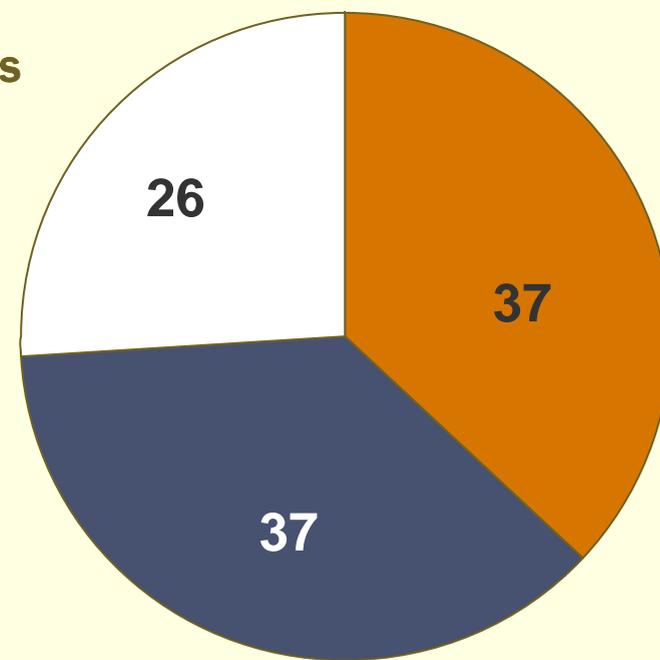
Governor's Approval Ratings

Do you approve or disapprove of the way that Arnold Schwarzenegger is handling...

... his job as governor of California?



... California's public college and university system?



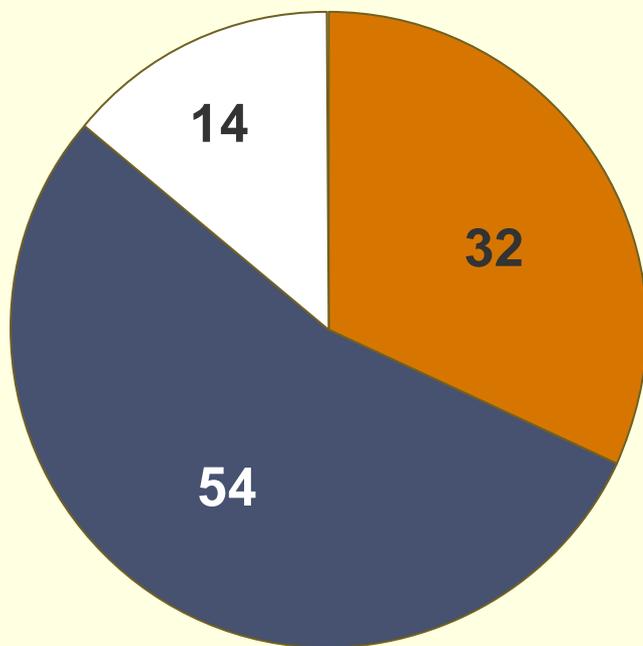
Likely voters



Legislature's Approval Ratings

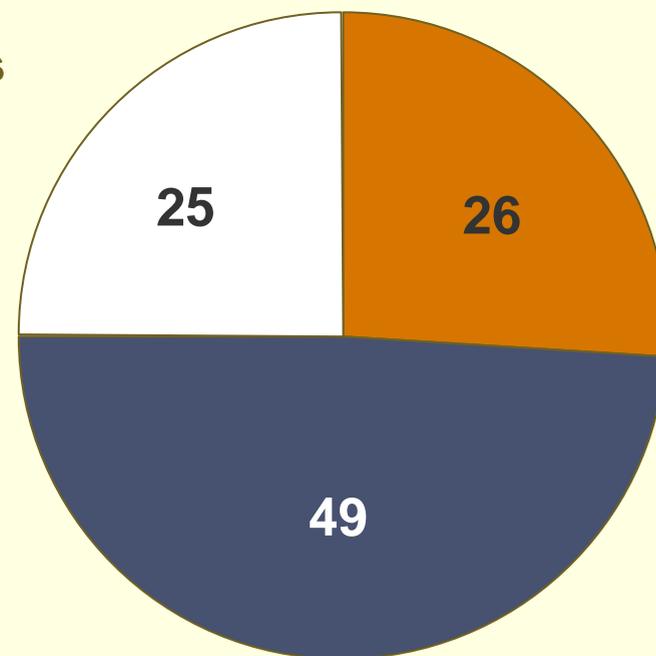
Do you approve or disapprove of the way that the California legislature is handling ...

... its job?



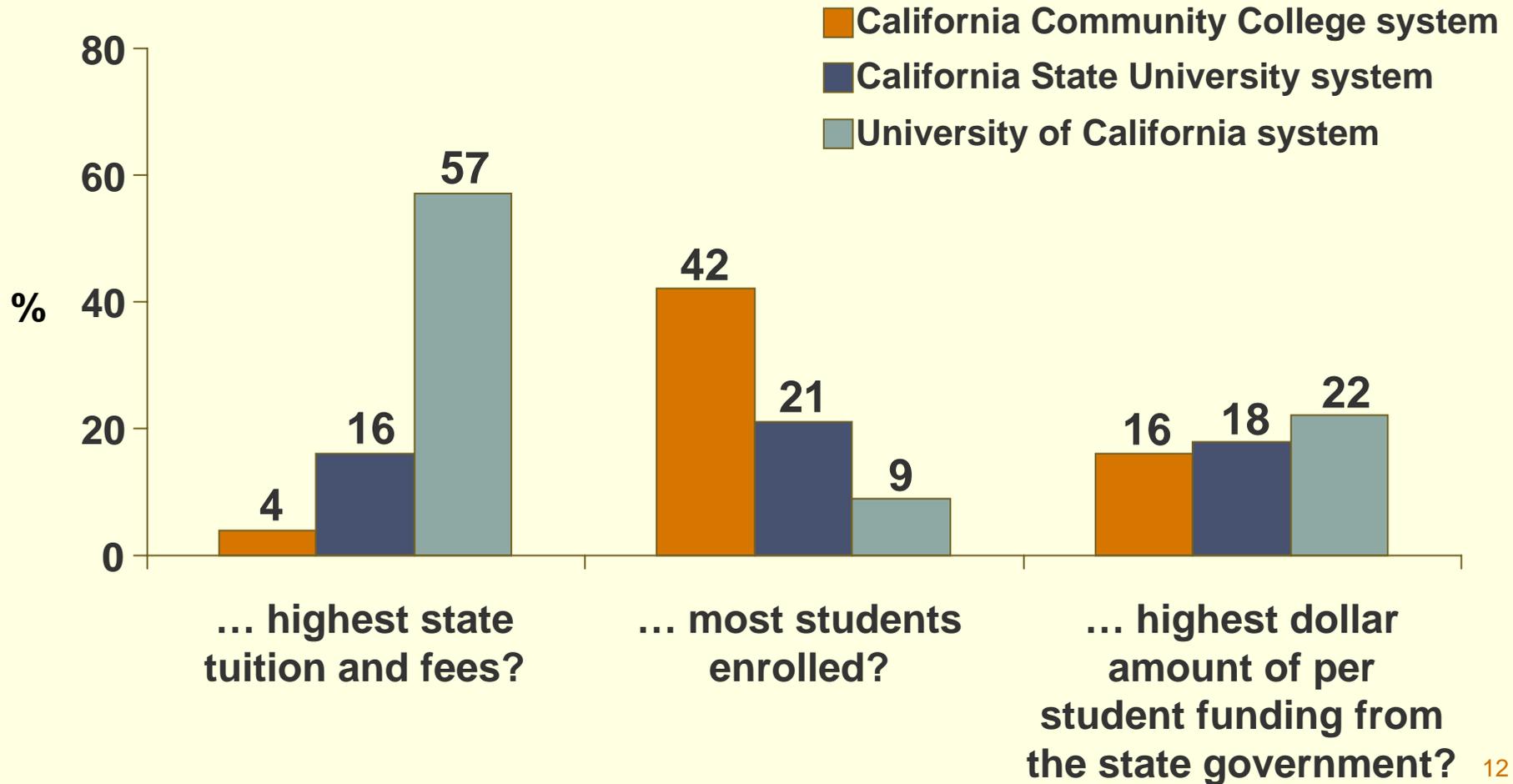
... California's public college and university system?

Likely voters



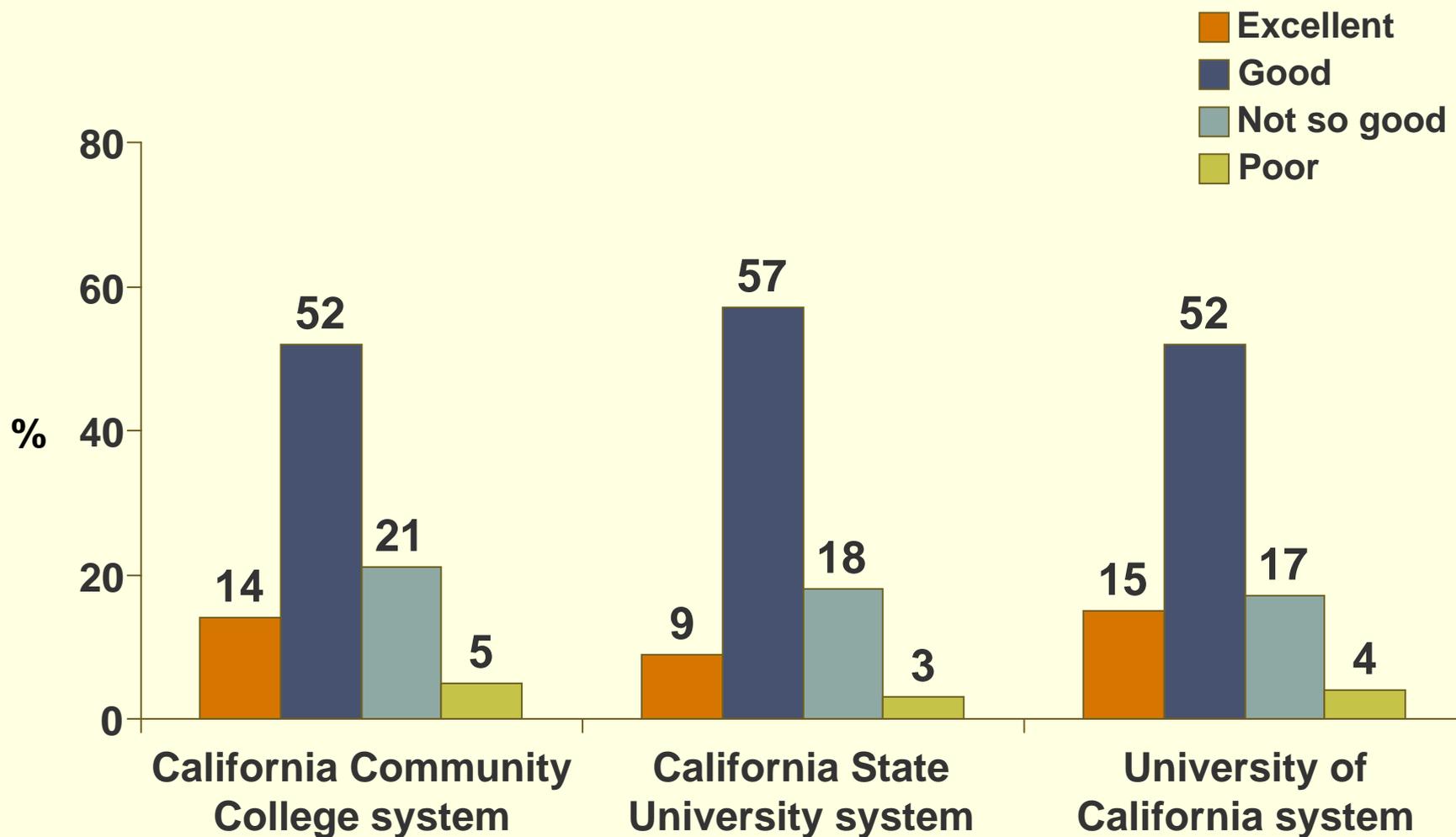
Institutional Knowledge

Do you happen to know which branch has the ...



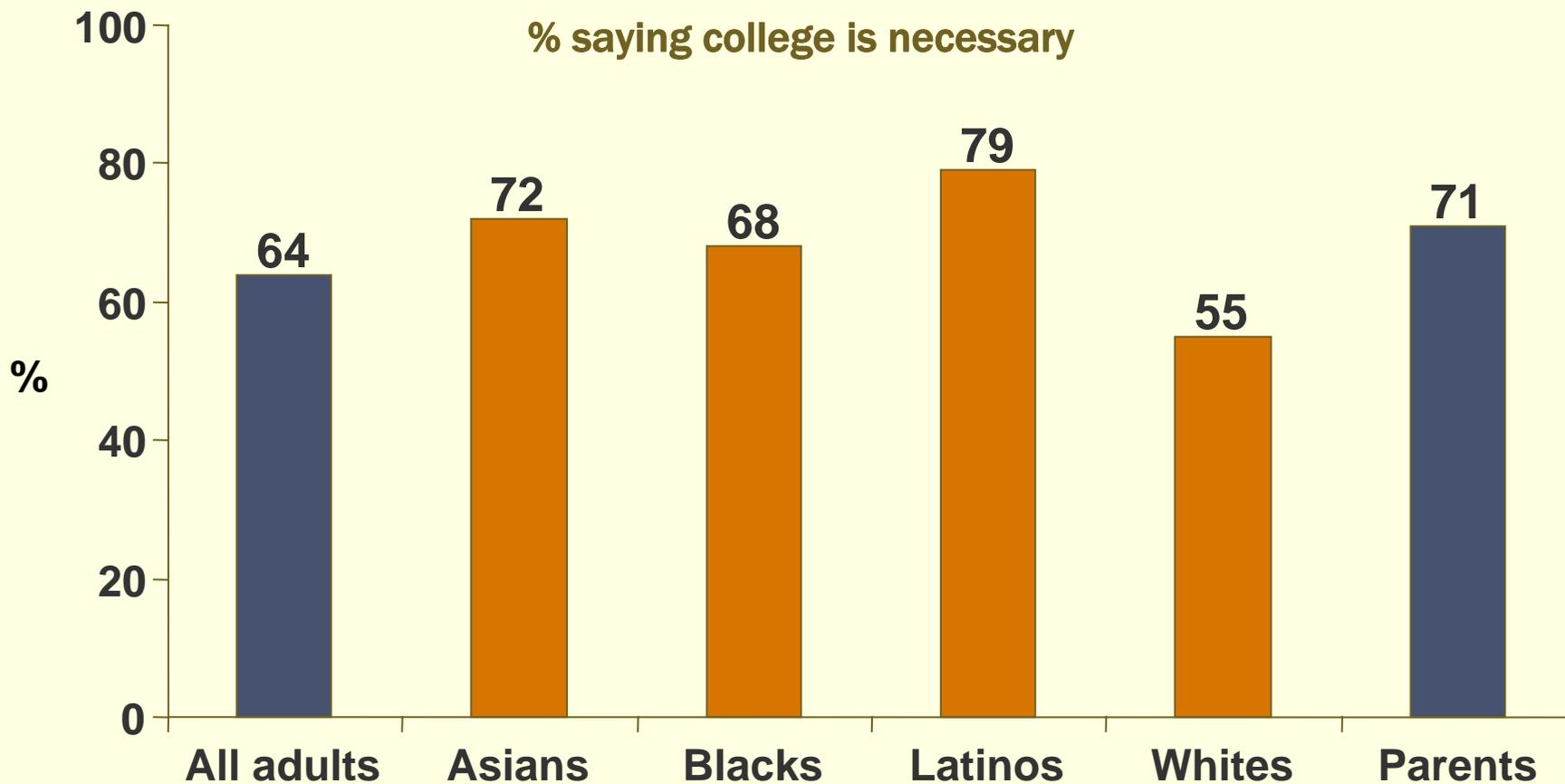
Institutional Ratings

Overall, is the _____ doing an excellent, good, not so good, or poor job?



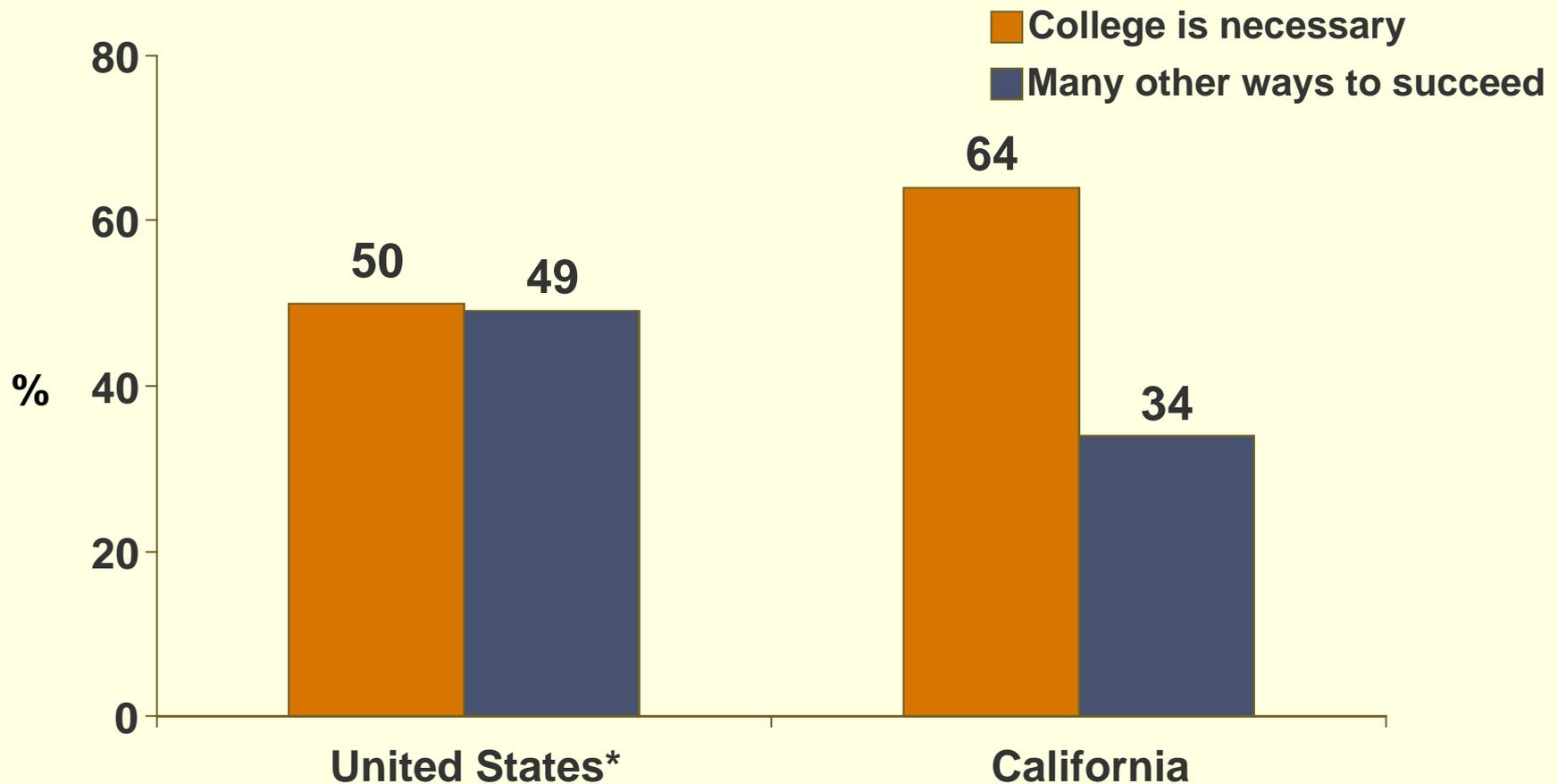
Is a College Education Necessary?

Do you think that a college education is necessary for a person to be successful in today's work world, or do you think that there are many ways to succeed in today's work world without a college education?



U.S. and California Trends

Do you think that a college education is necessary for a person to be successful in today's work world, or do you think that there are many ways to succeed in today's work world without a college education?

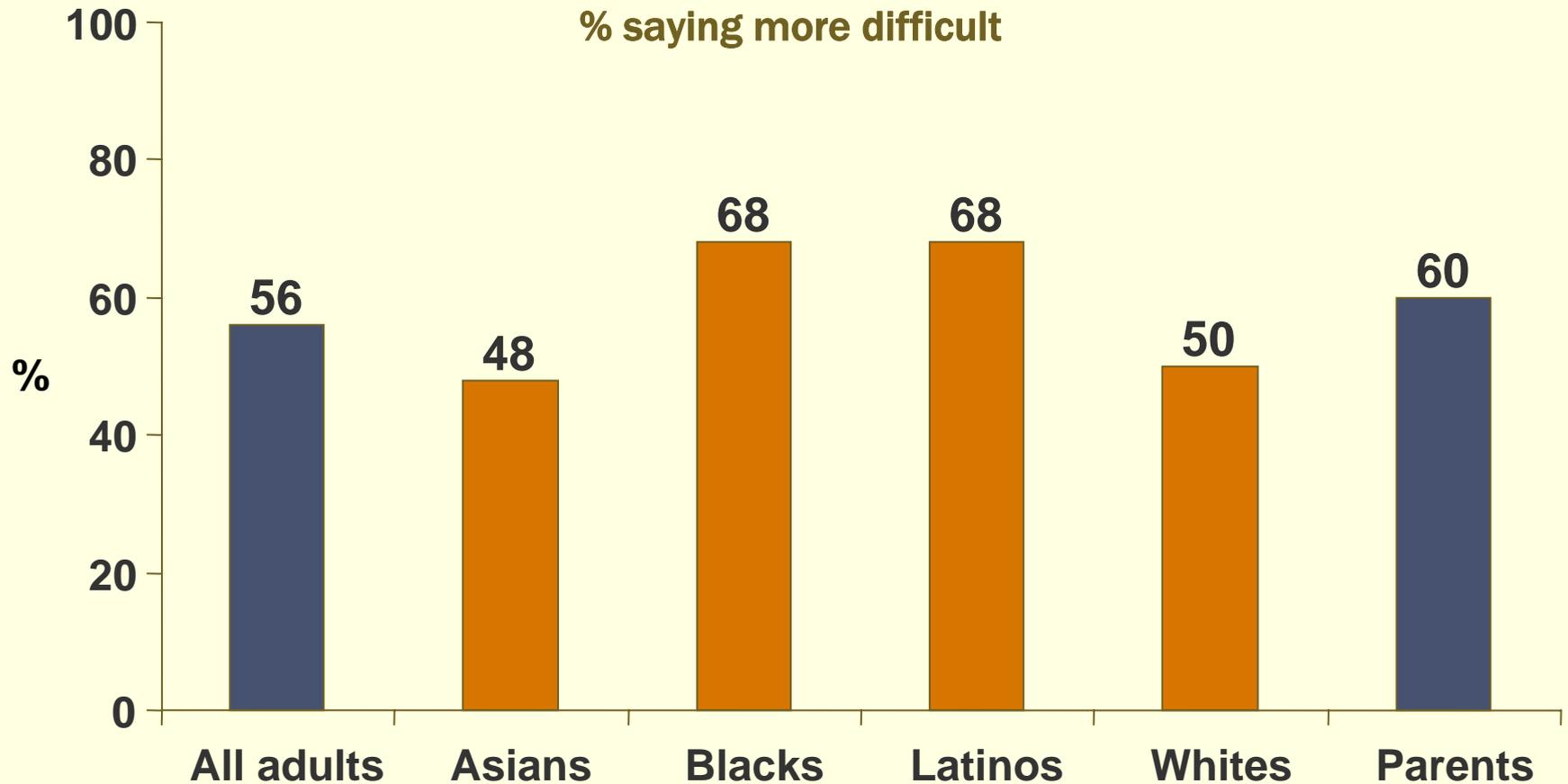


* Public Agenda/National Center, 2007



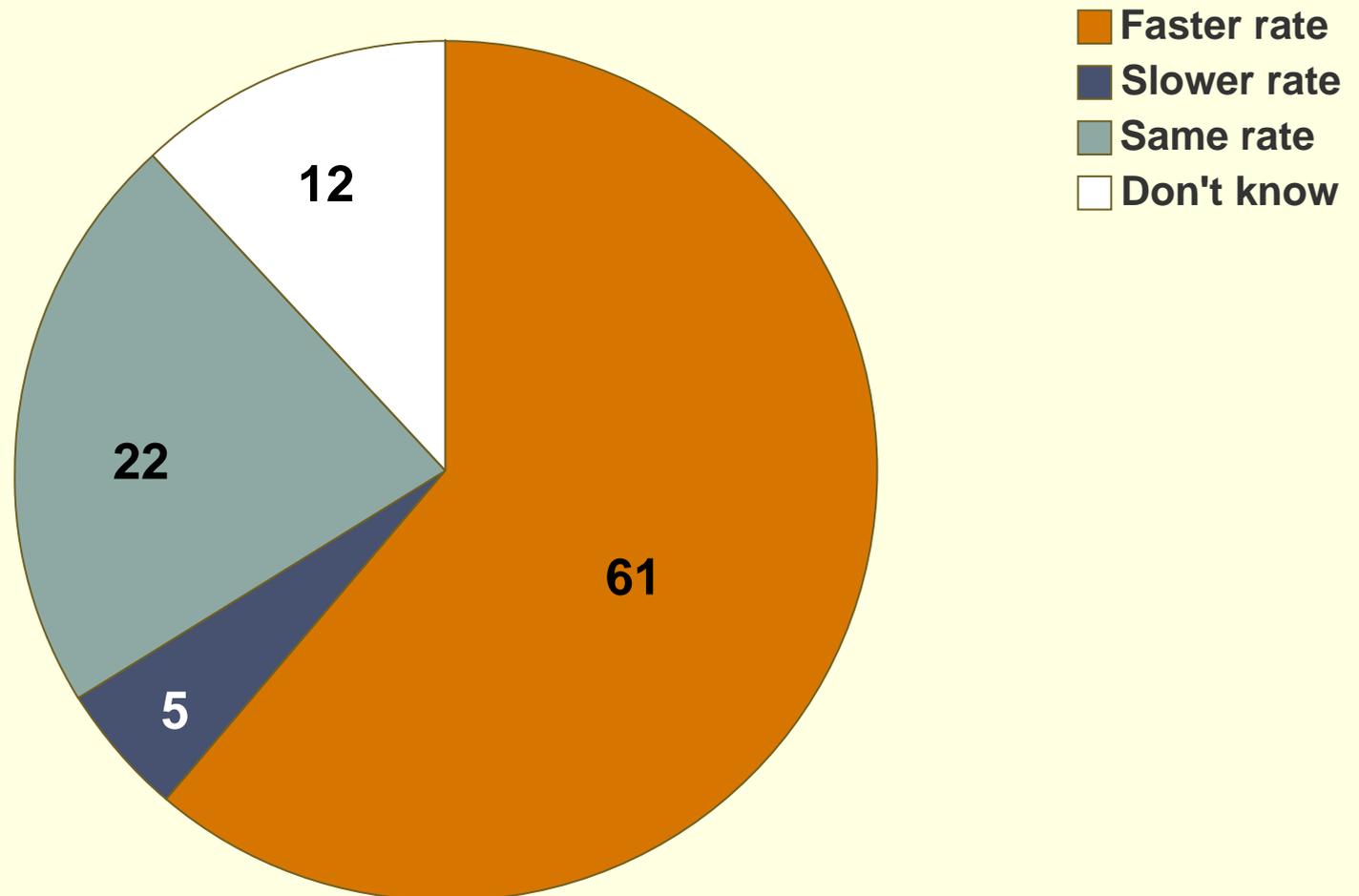
Trends in Getting to College

In your view, has getting a college education become more difficult than it was 10 years ago, less difficult than it was 10 years ago, or is it about as difficult as it was 10 years ago?



Trends in College Prices

Compared to other things, are college prices going up at a faster rate, at a slower rate, or at the same rate?

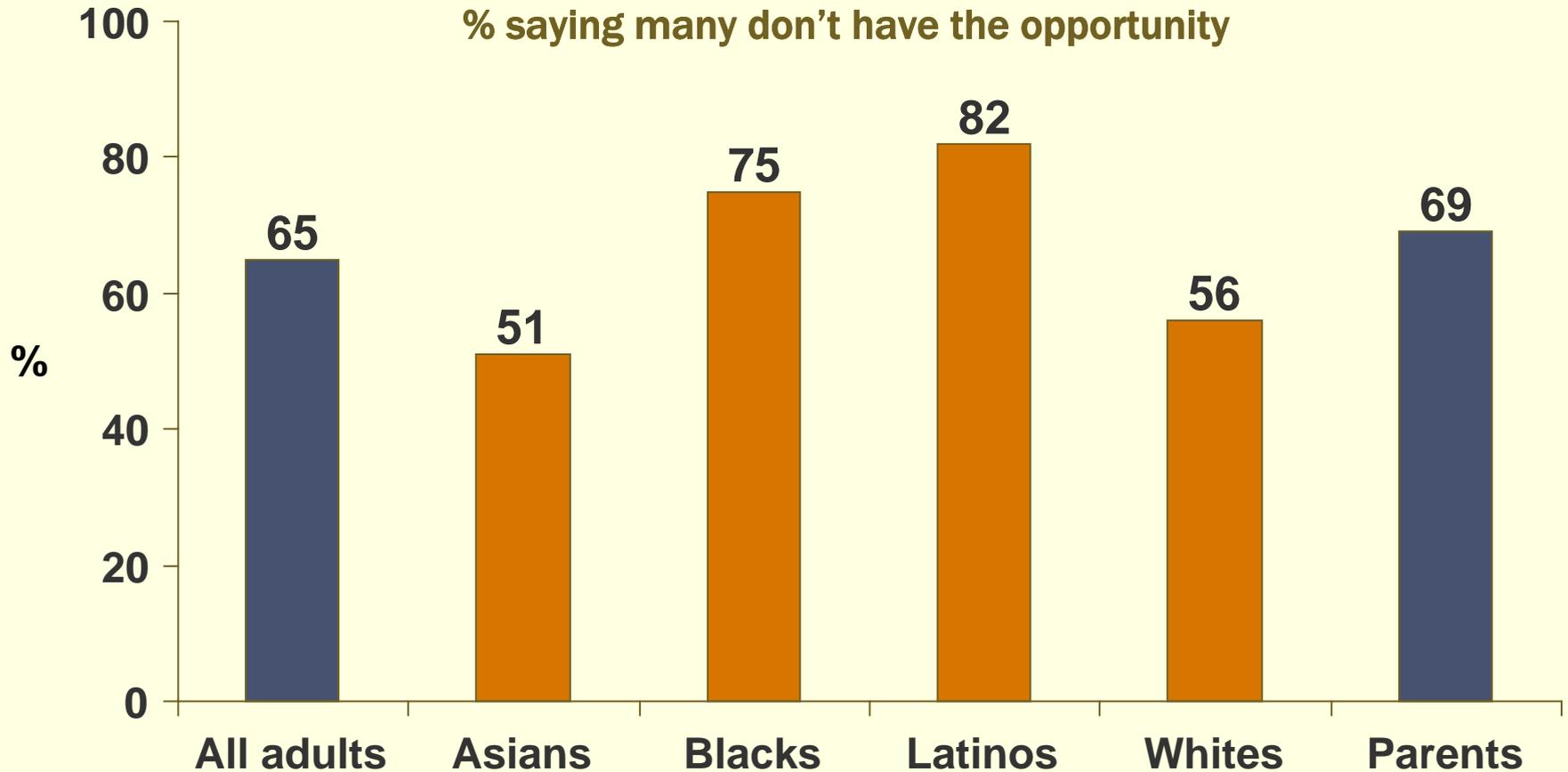


All adults



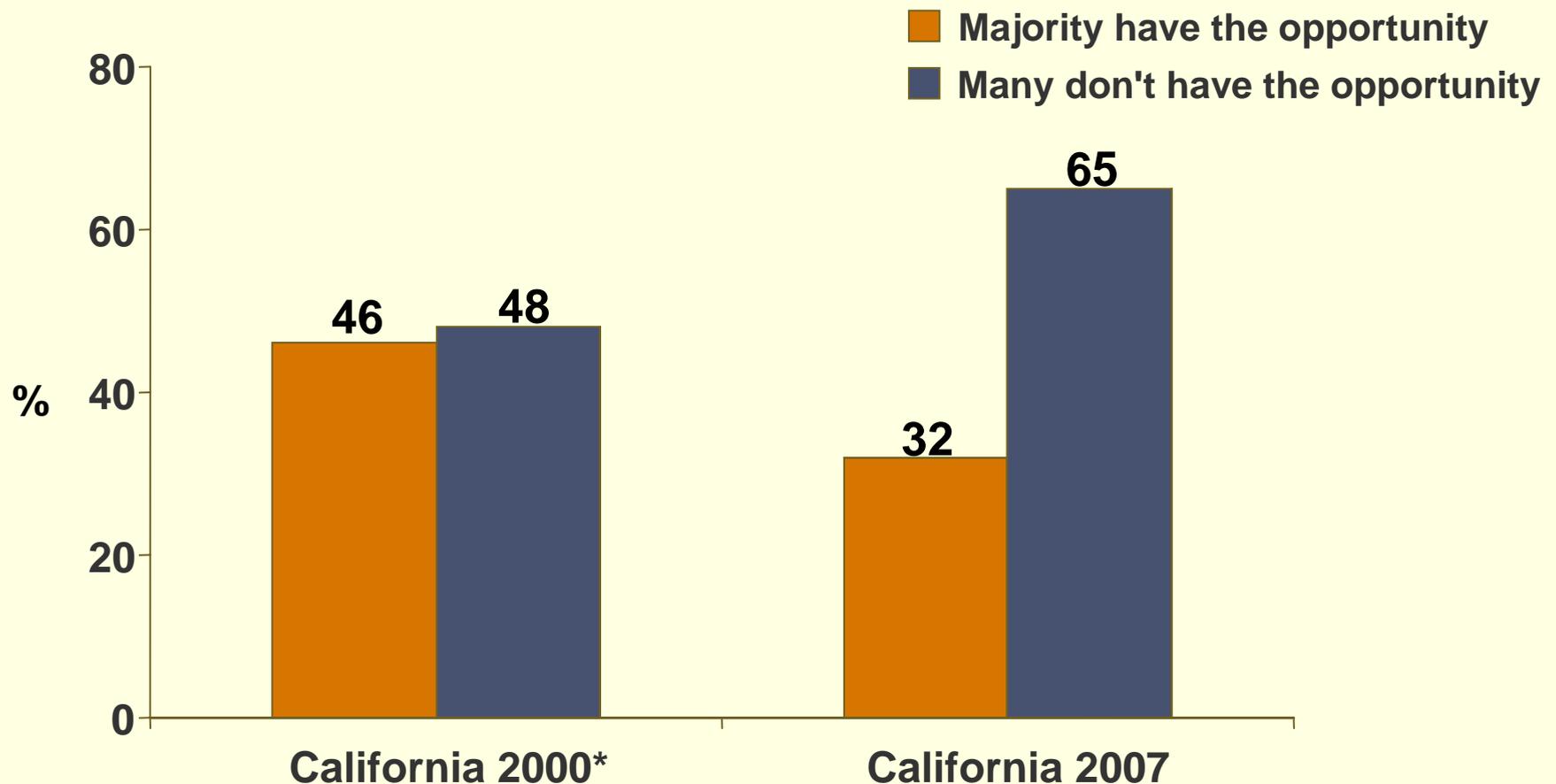
Trends in College Opportunities

Do you think that currently, the vast majority of people who are qualified to go to college have the opportunity to do so, or do you think there are many people who are qualified to go but don't have the opportunity to do so?



California Time Trends

Do you think that currently, the vast majority of people who are qualified to go to college have the opportunity to do so, or do you think there are many people who are qualified to go but don't have the opportunity to do so?



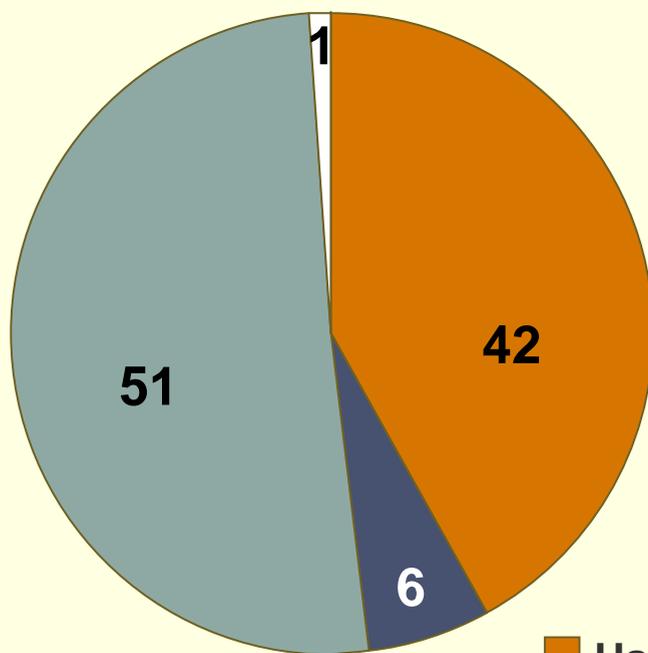
*Public Agenda/National Center, 2000



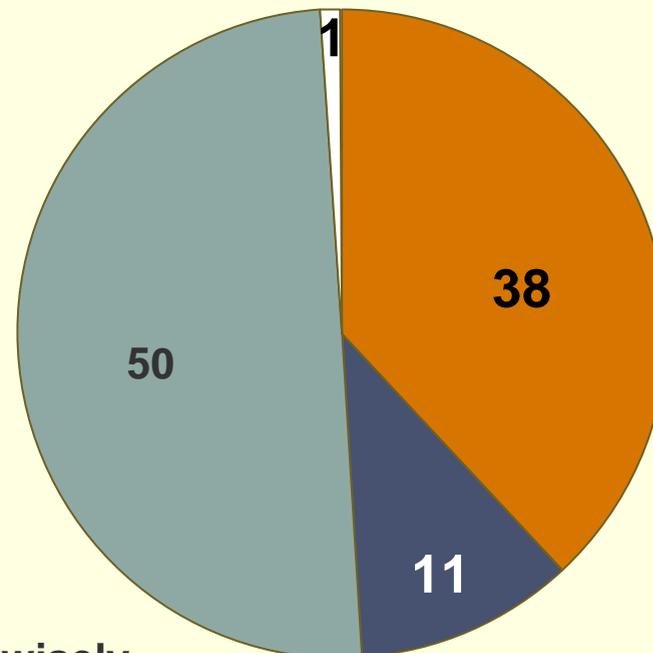
Improving the Higher Ed System

To significantly improve California's higher education system, which of the following do you agree with the most? We need to use existing state funds more wisely, we need to increase the amount of state funding, or we need to use existing state funds more wisely and increase the amount of state funding?

Likely voters



Parents



- Use funds more wisely
- Increase state funding
- Both
- Don't know



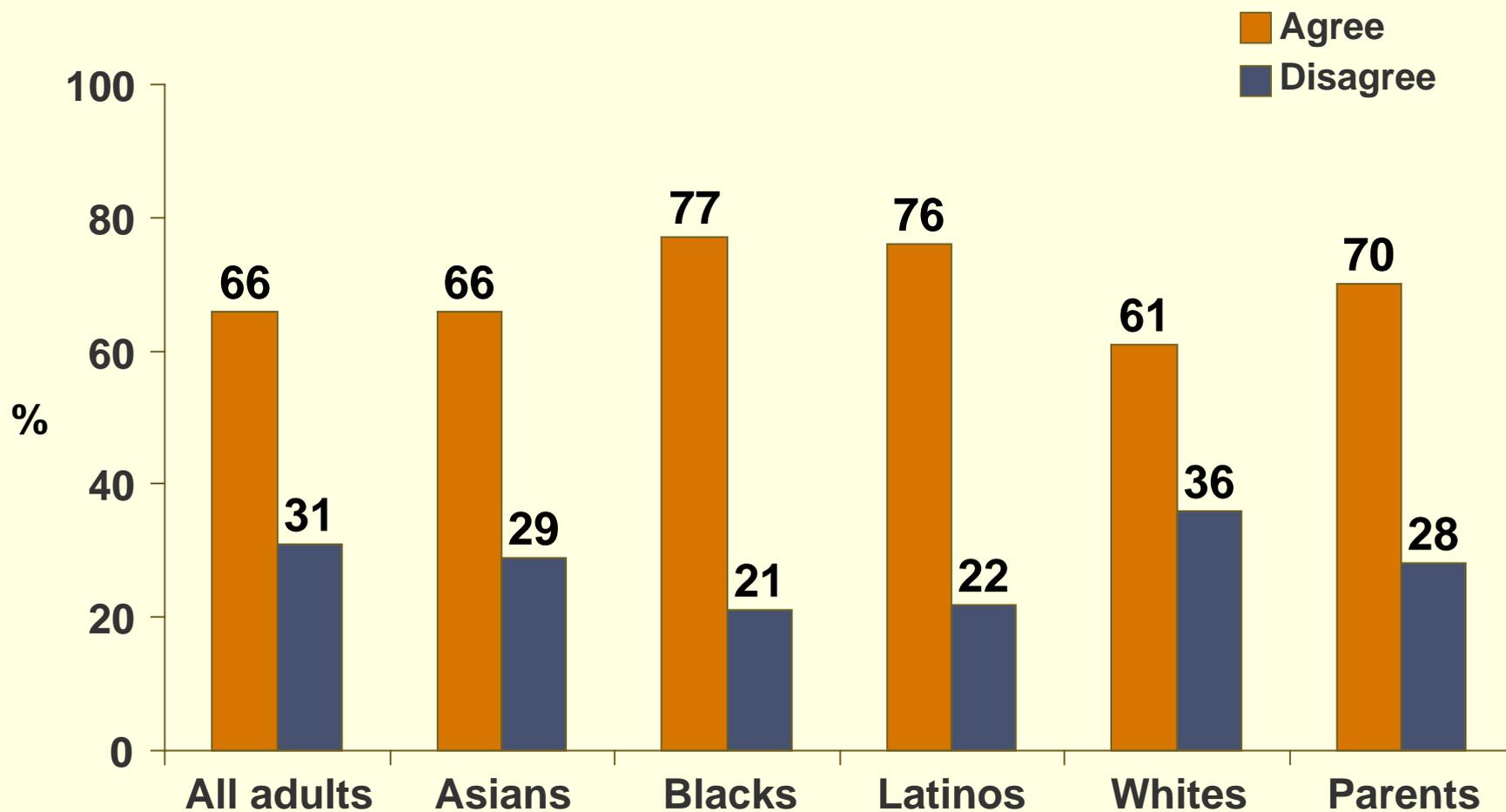
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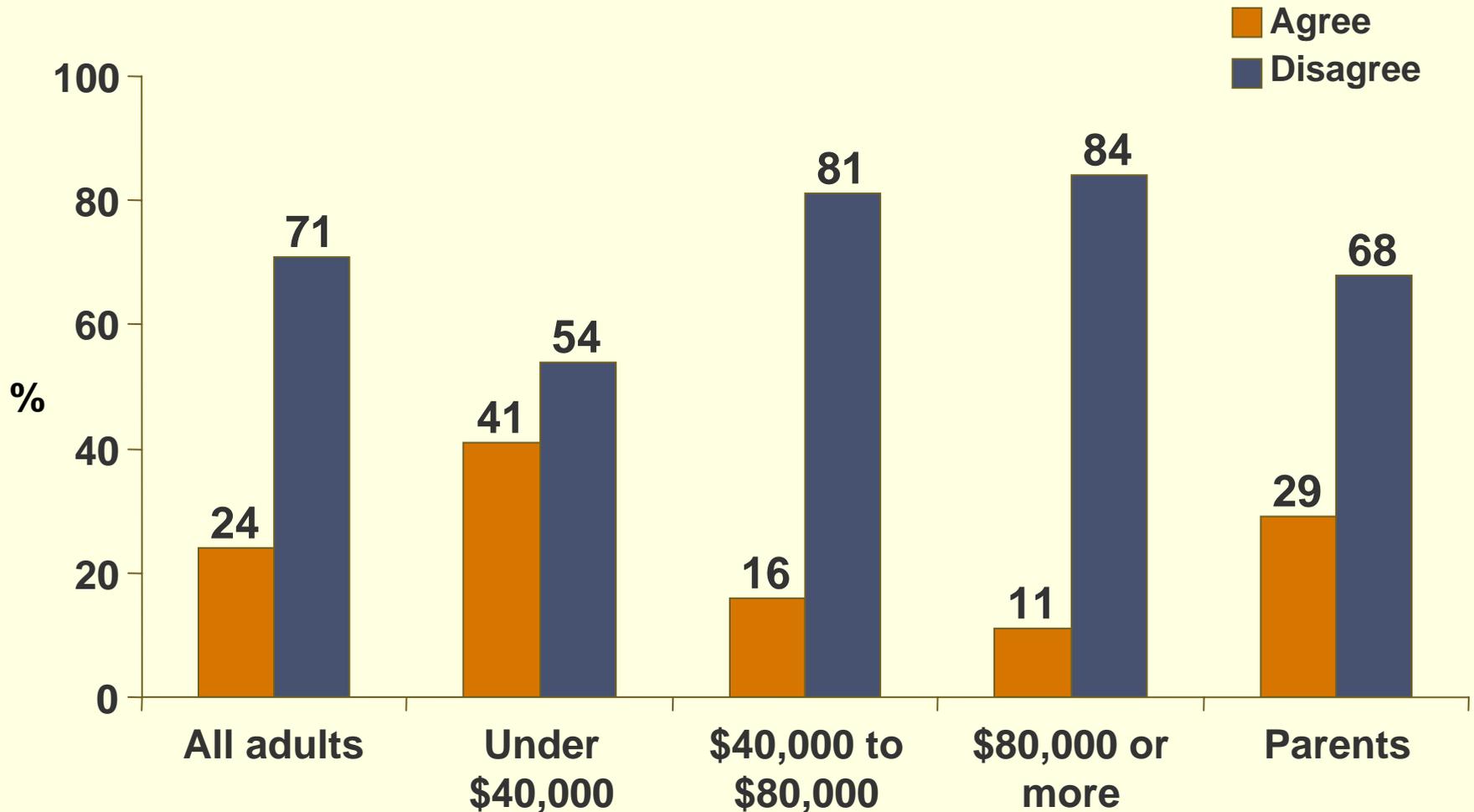
Role of Student Costs

The price of a college education keeps students who are qualified and motivated to go to college from doing so.



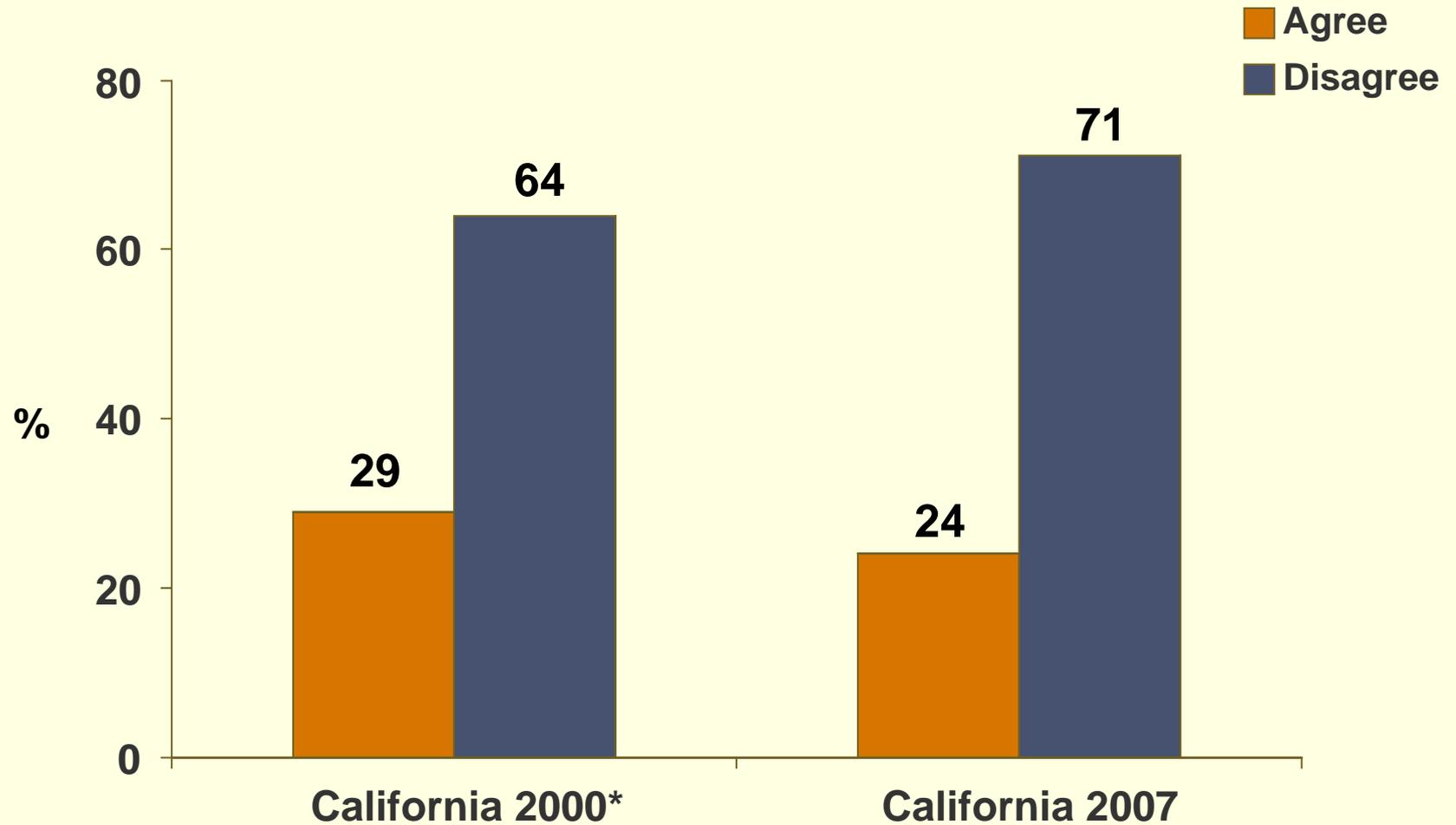
Role of Family Savings

Most families today do a good job of saving for their children's college education.



California Time Trends

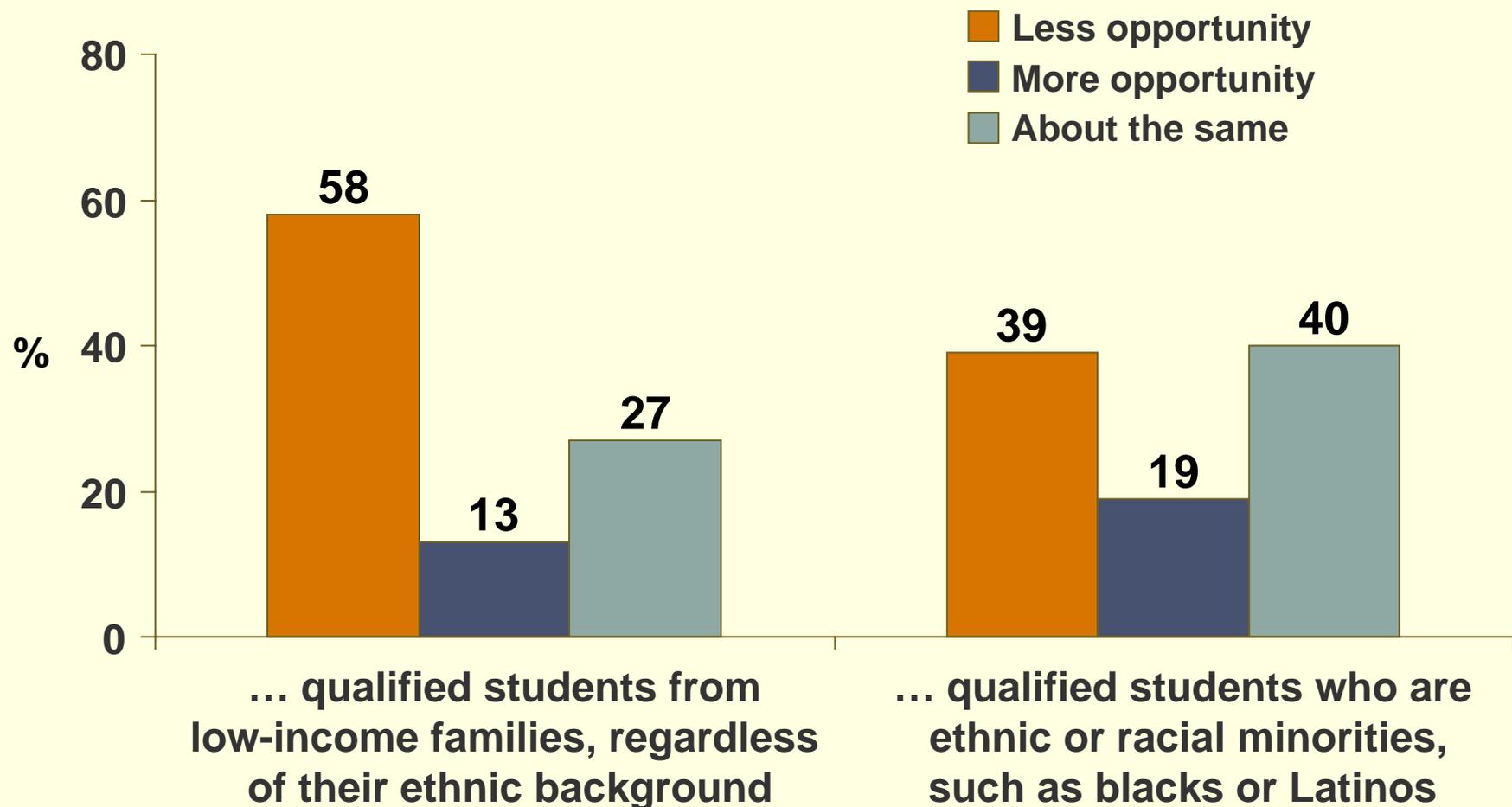
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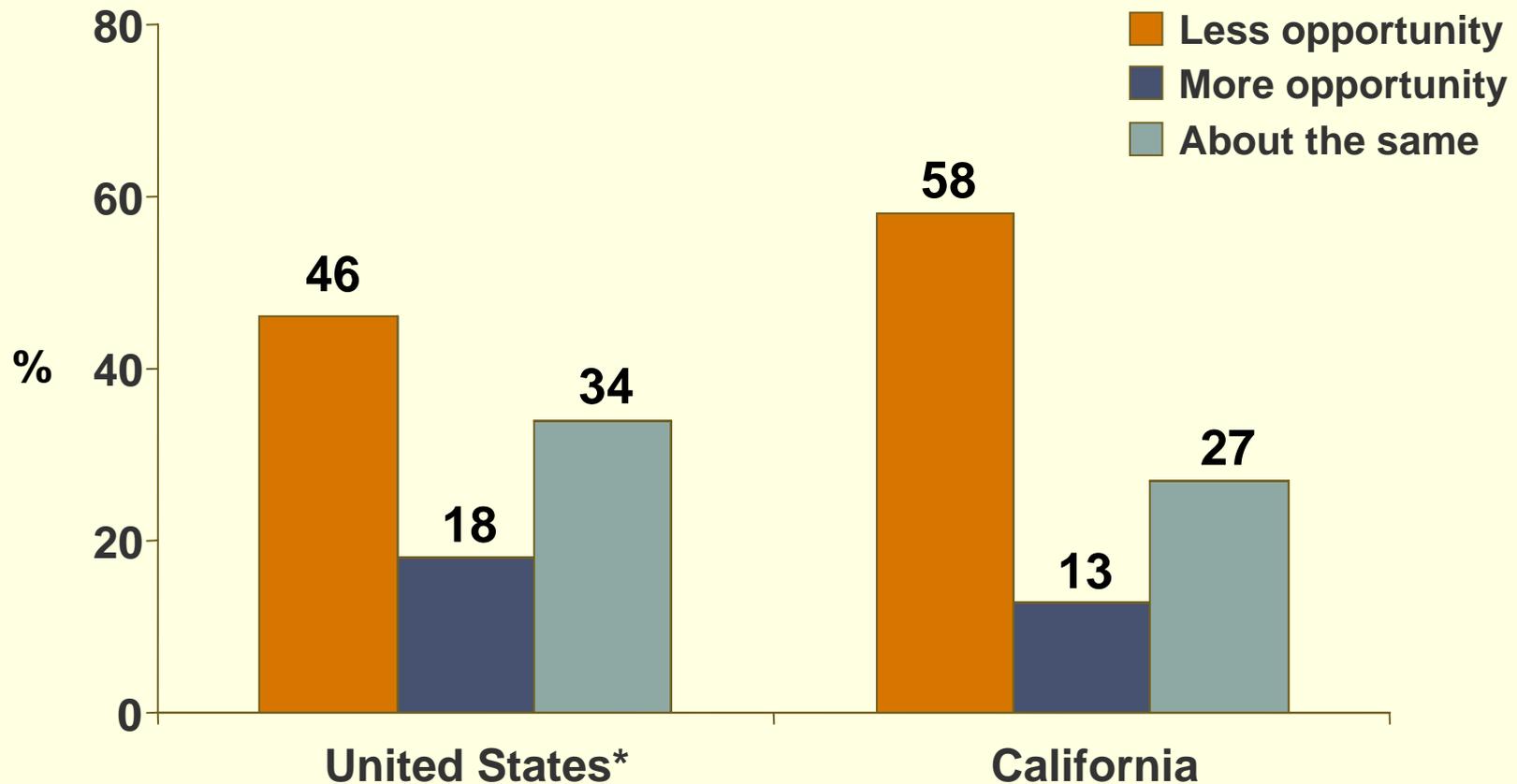
Disparities in College Opportunities

Do you think _____ have less opportunity, more opportunity, or about the same opportunity as others to get a college education?



U.S. and California Trends

Do you think qualified students from low-income families, regardless of their ethnic background, have less opportunity, more opportunity, or about the same opportunity as others to get a college education?

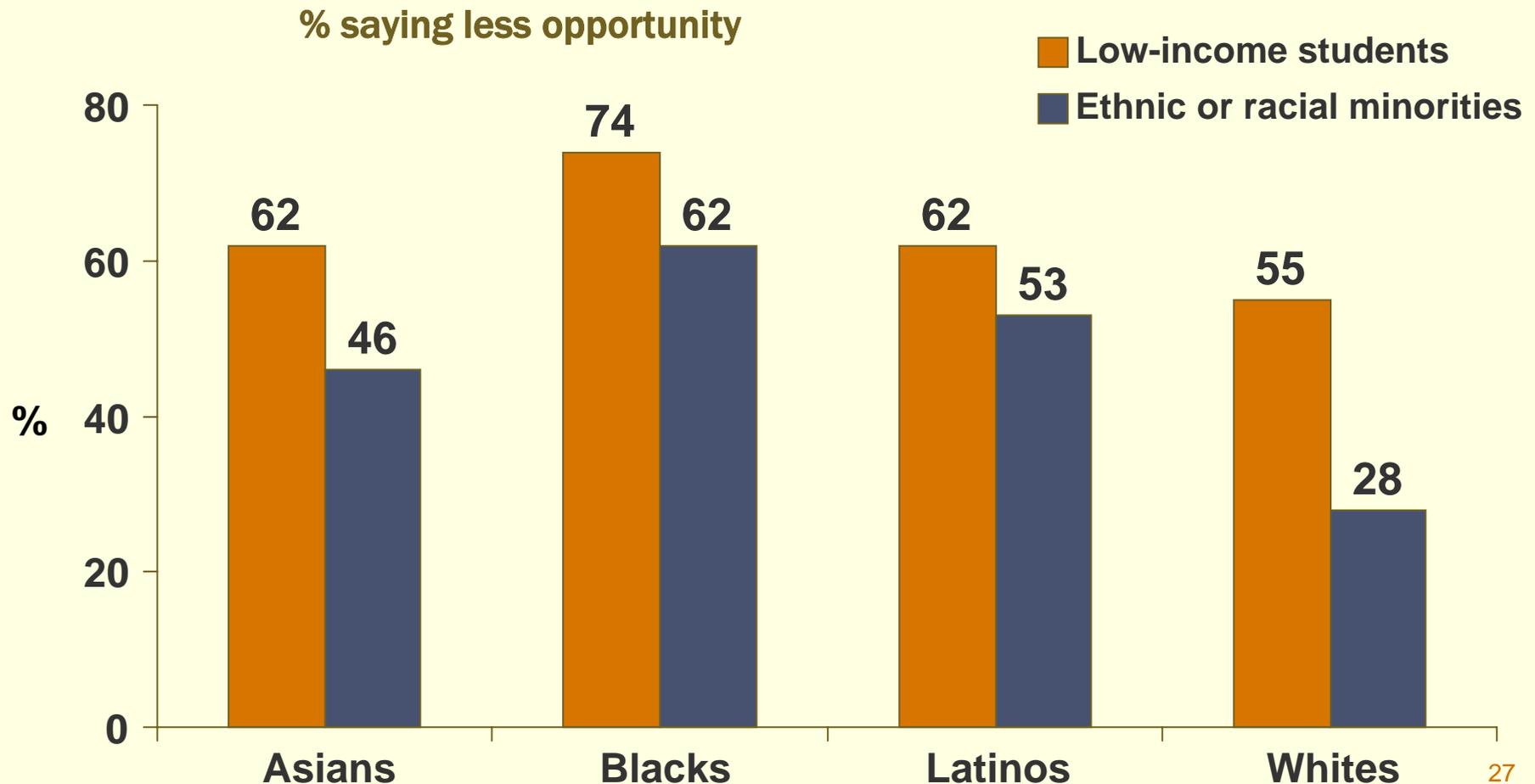


* Public Agenda/National Center, 2007



Perceptions by Racial/Ethnic Group

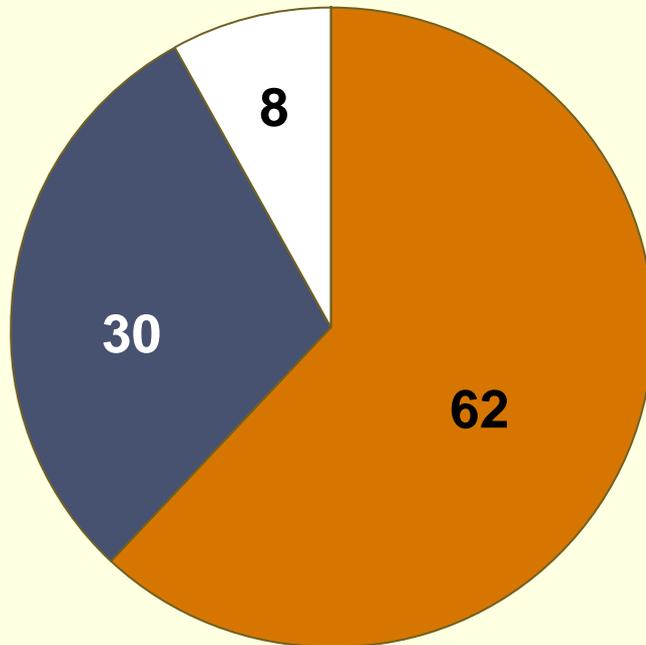
Do you think _____ have less opportunity, more opportunity, or about the same opportunity as others to get a college education?



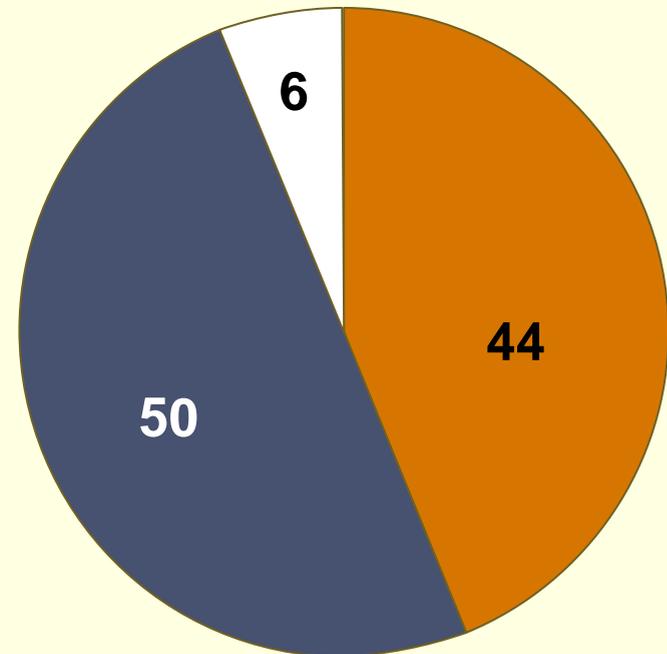
Role of Government Policy

How about spending more state government money to keep down tuition and fee costs, even if it means less money for other state programs?

Democrats

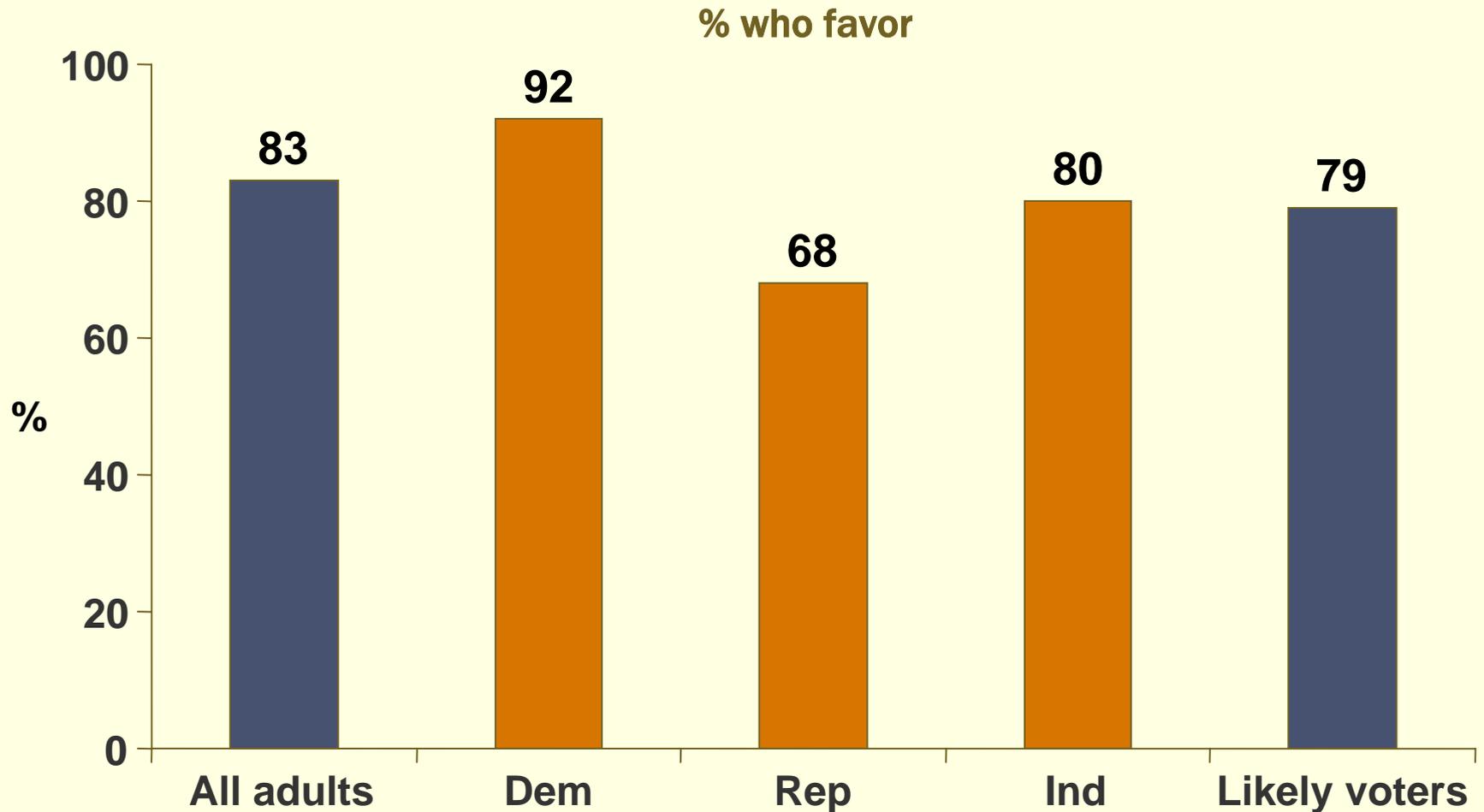


Republicans



Role of Government Policy

How about increasing government funding available for scholarships or grants for students?

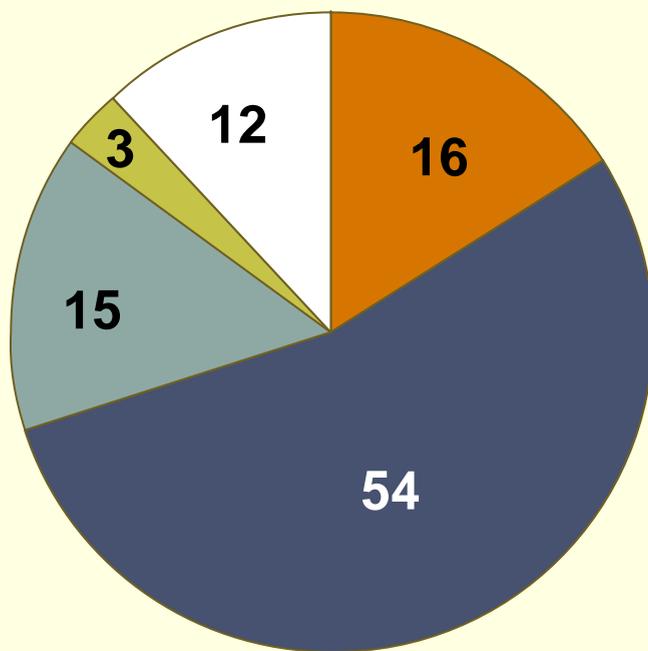


Ratings of Community Colleges

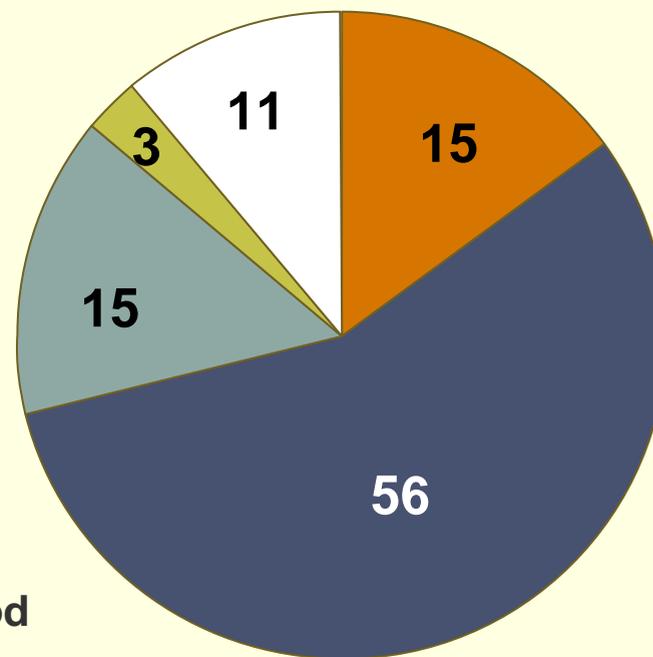
How would you rate California's Community Colleges overall in achieving the following goals?

How about in training students for career technical or vocational jobs?

How about in preparing students to transfer to four-year colleges and universities?



All adults



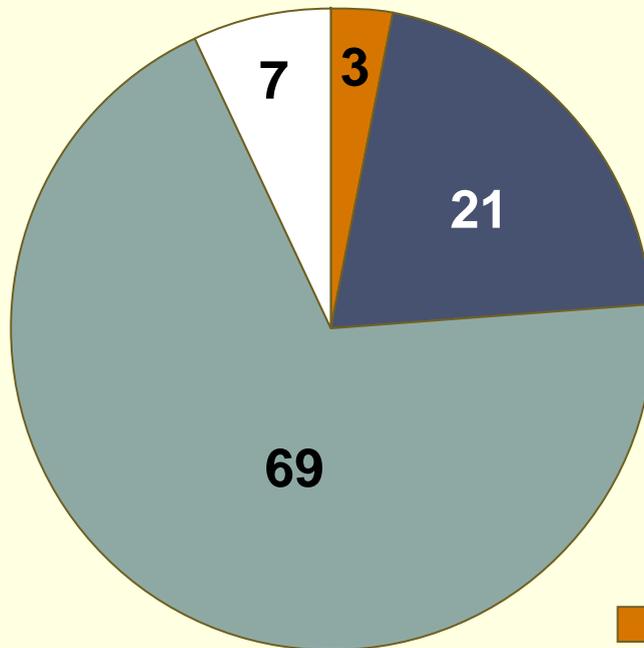
- Excellent
- Good
- Not so good
- Poor
- Don't know



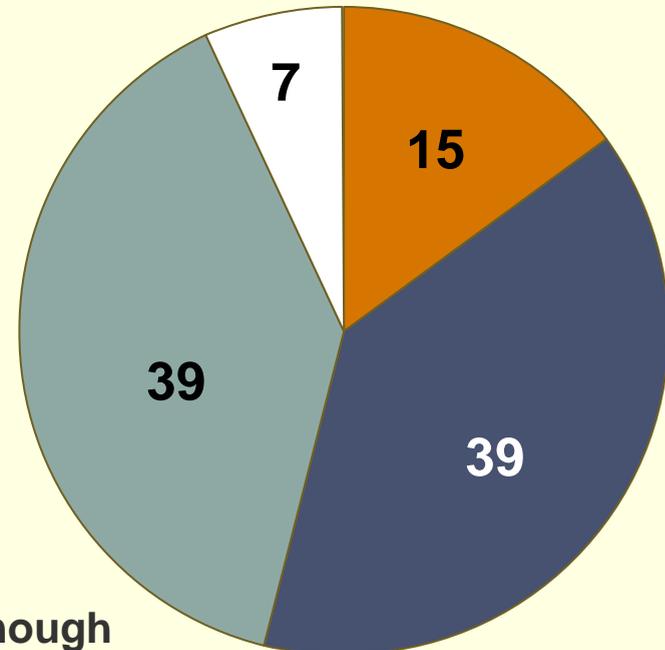
State Budget and Revenues

Do you think the current level of state funding for California's higher education system is _____?

Democrats



Republicans



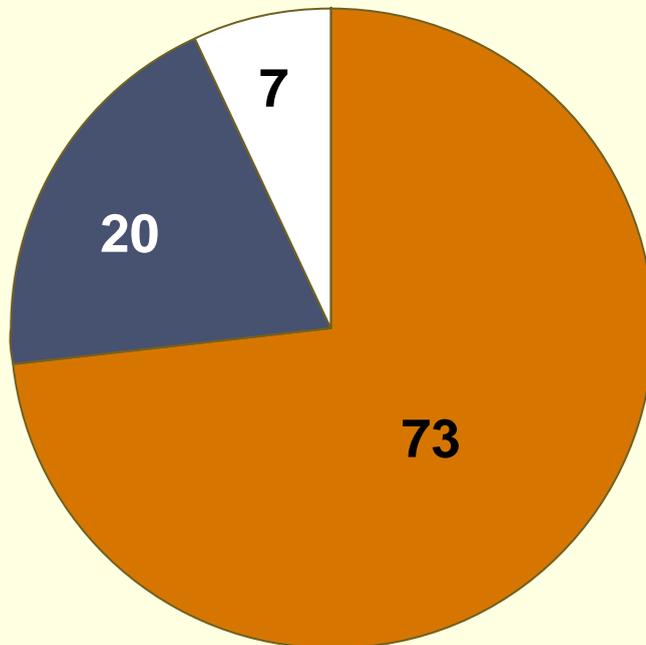
- More than enough
- Just enough
- Not enough
- Don't know



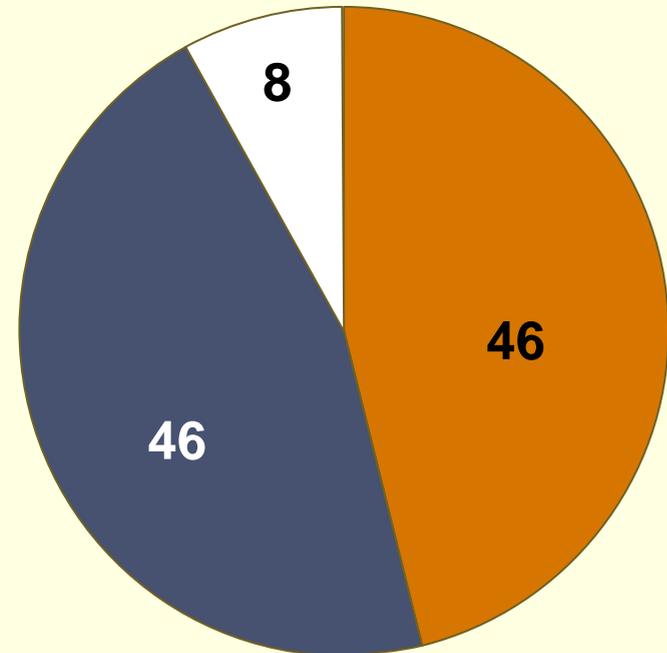
State Bonds for Higher Ed Projects

If there was a bond measure on the state ballot in 2008 to pay for construction projects in California's higher education system, would you vote yes or no?

Democrats

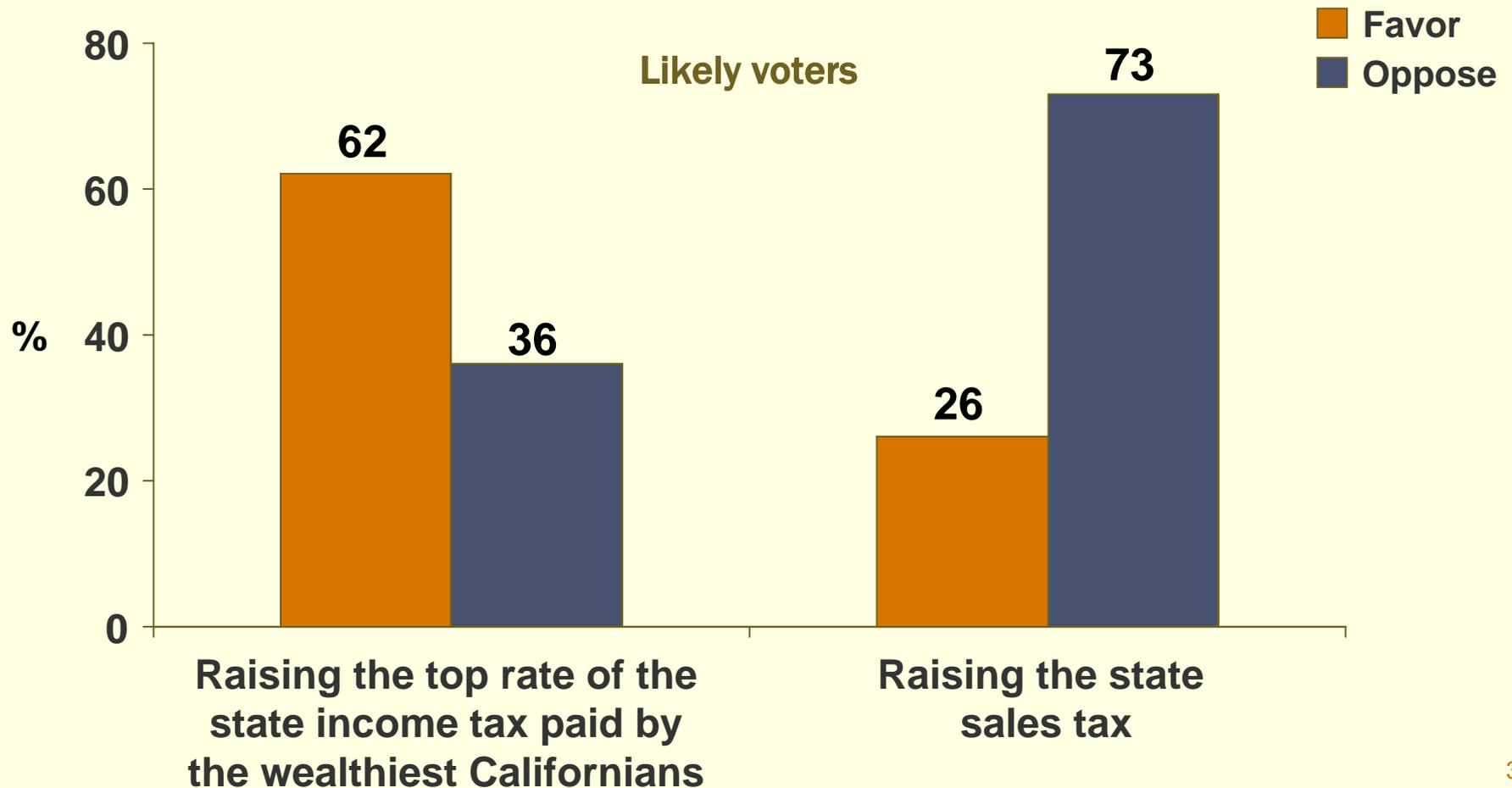


Republicans



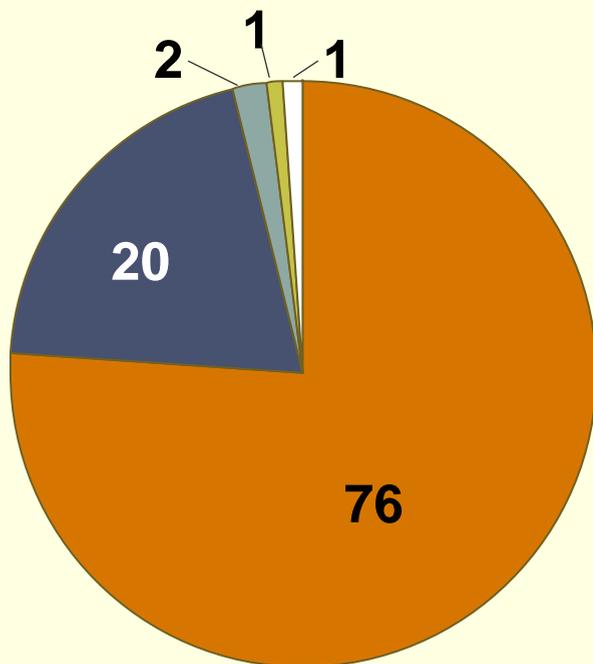
Raising State Revenues

Here are some ideas that have been suggested to raise state revenues to provide additional funding for California's higher education system.



Higher Ed and California's Future

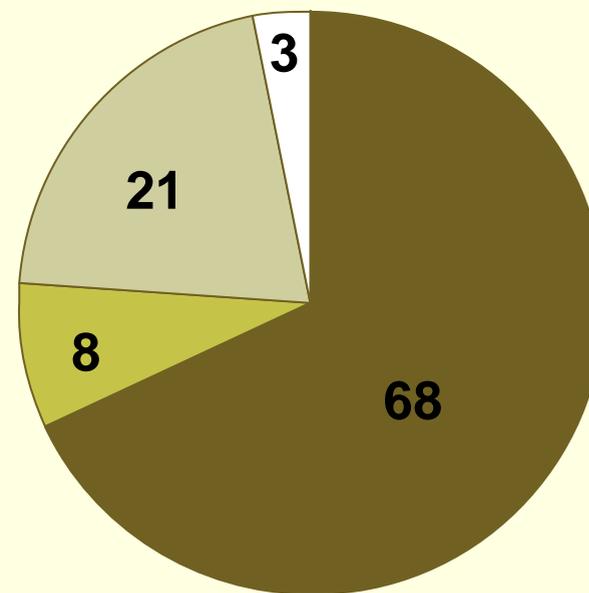
How important is California's higher education system to the quality of life and economic vitality of the state over the next 20 years?



- Very important
- Somewhat important
- Not too important
- Not at all important
- Don't know

In thinking ahead 20 years, if current trends continue, do you think California's economy will need a _____ of college-educated workers than today?

All adults

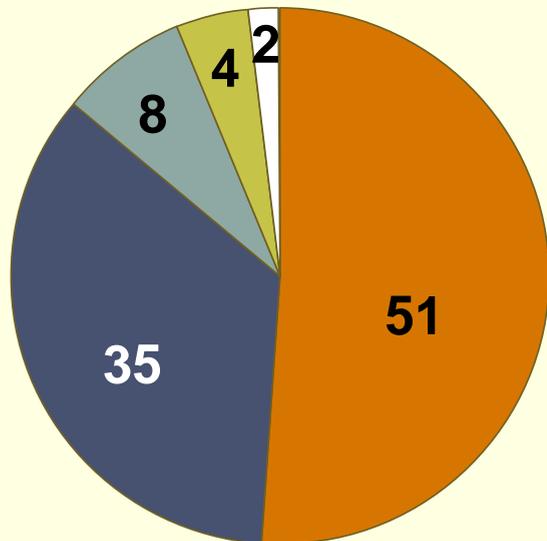


- Higher percentage
- Lower percentage
- About the same percentage
- Don't know



Higher Ed and Government Efforts

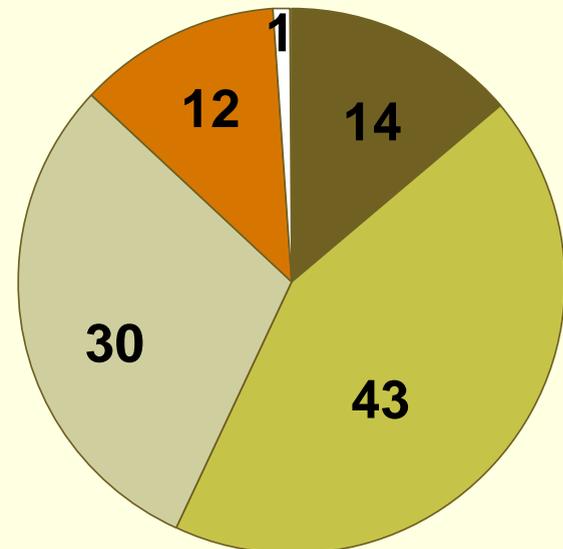
In thinking ahead 20 years, how important do you think it is for the state government to be spending more public funds to increase capacity in public colleges and universities?



- Very important
- Somewhat important
- Not too important
- Not at all important
- Don't know

How much confidence do you have in the state government's ability to plan for the future of California's higher education system?

All adults

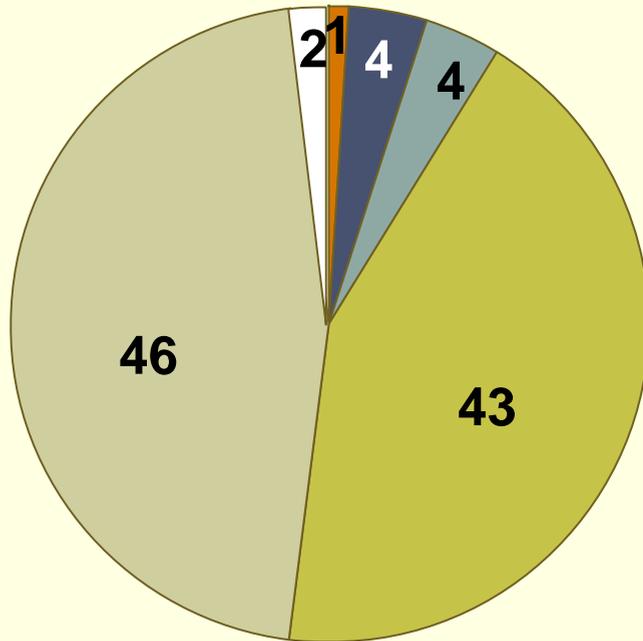


- A great deal
- Only some
- Very little
- None
- Don't know



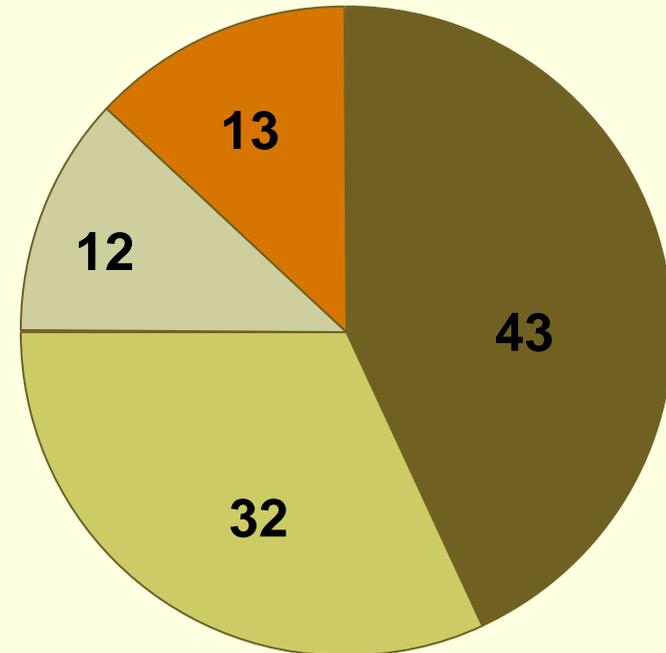
Parental Expectations and Concerns

What do you hope will be the highest grade level that your youngest child will achieve?



How worried are you about being able to afford a college education for your youngest child?

Parents



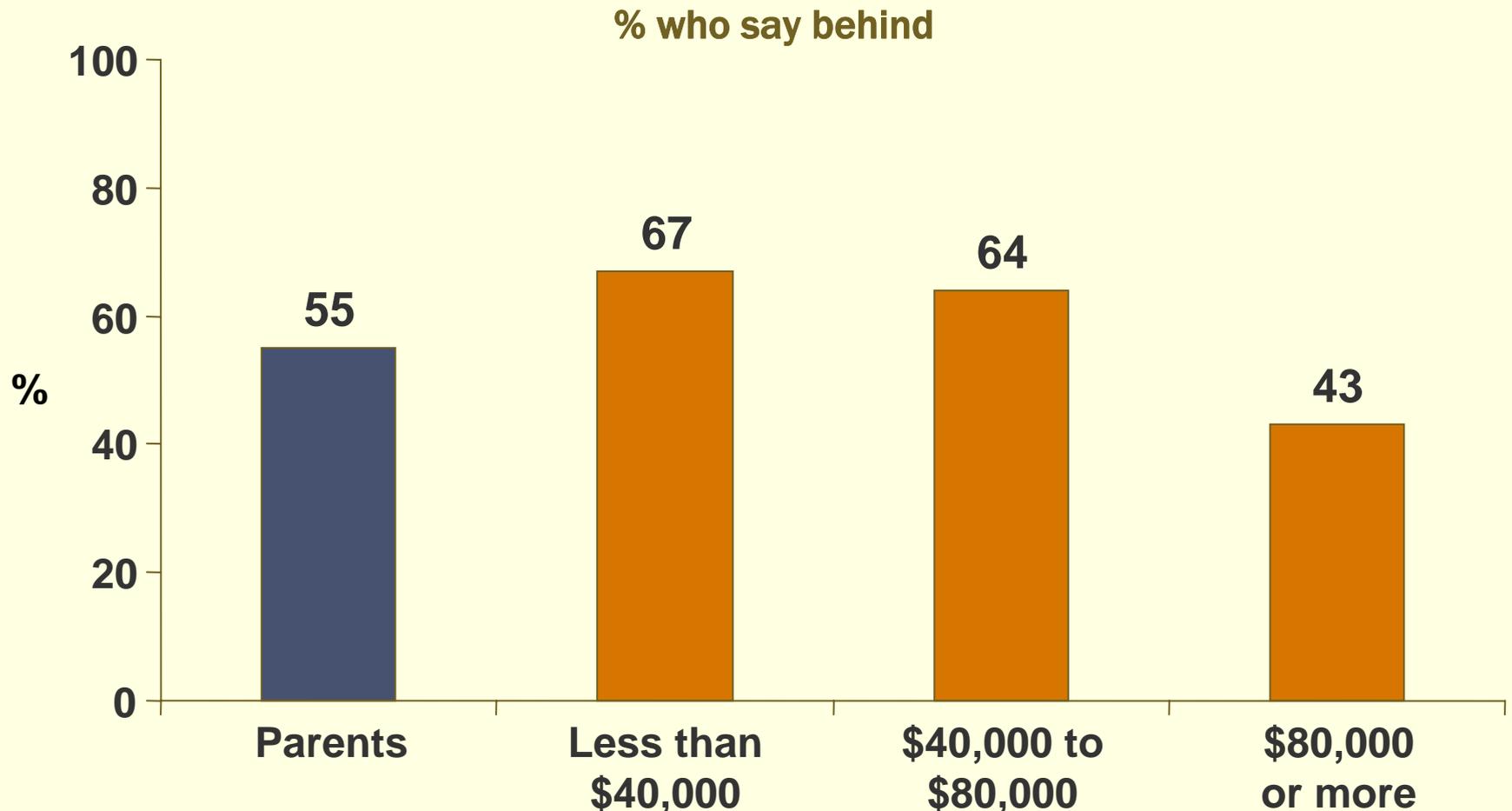
- Some high school
- High school graduate
- Some college
- College graduate
- Graduate degree after college
- Don't know

- Very worried
- Somewhat worried
- Not too worried
- Not at all worried



Parental Savings for College

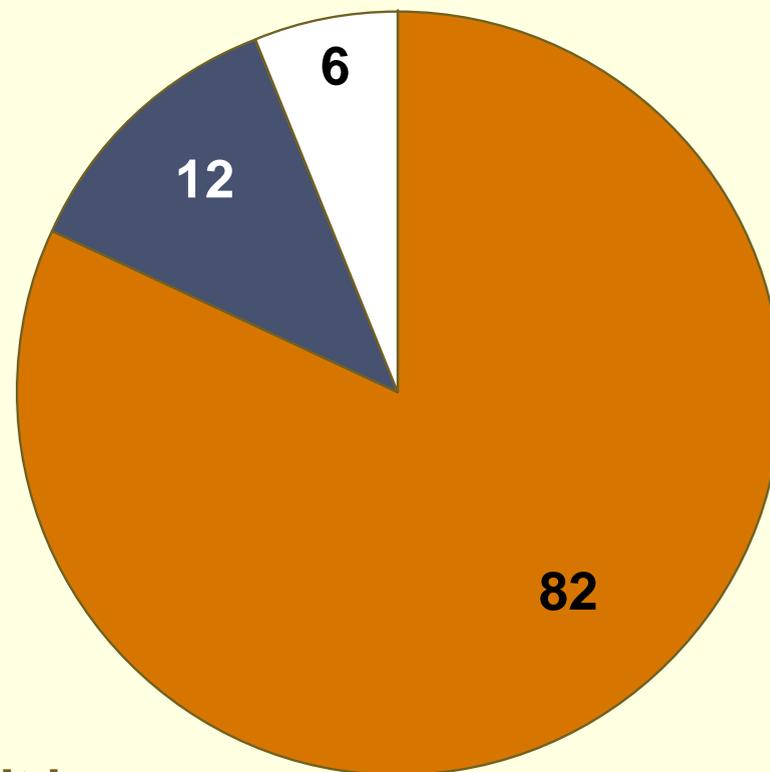
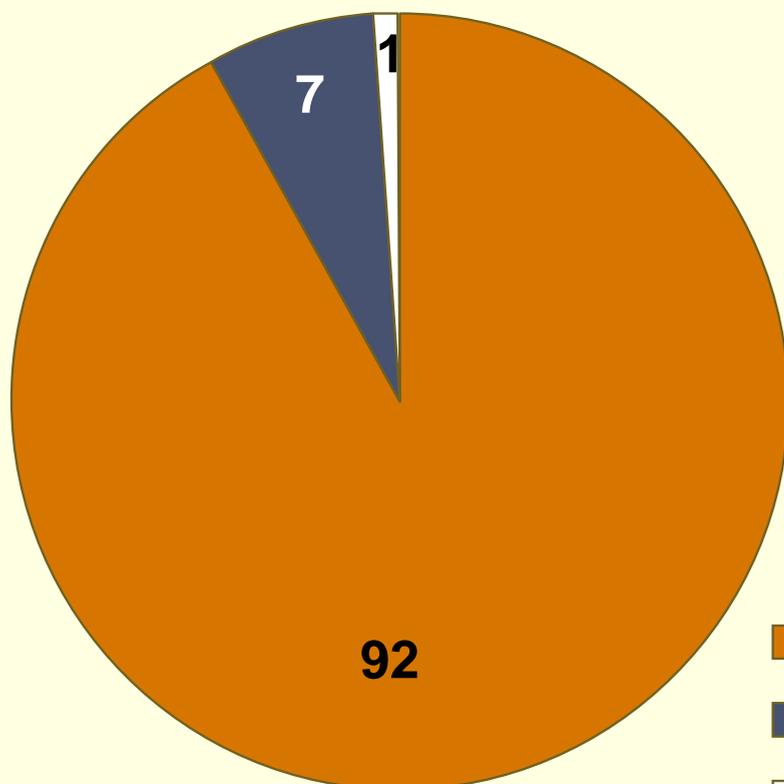
How do you feel about the progress, if any, that you have made so far in saving to help pay for your child's college education?



Reflections on Higher Education

Do you think that getting a college education was money and time well spent, or not?

Would you recommend one of California's public colleges and universities to a friend or family member who was considering which college to attend?



- Yes
- No
- Don't know



Outline

- PPIC Statewide Survey/Hewlett Foundation
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- **Conclusions**



Conclusions

- Majority of Californians say college education is necessary for success and important to state's future
- Rising student costs and affordability are big concerns
- Public gives high grades to California's three public college and university systems (UC, CSU, CCC)
- Many believe low-income students and racial/ethnic minorities have less college opportunities than others
- Majority say more funding is needed for higher ed but many lack confidence in state-level planning
- Most parents want their children to go to college but worry about cost and are behind in college savings



PPIC Statewide Survey

Californians and Higher Education

Jennifer Paluch
March 2008



OCTOBER 2007

PPIC STATEWIDE SURVEY

CALIFORNIA

Californians & higher education

in collaboration with
The William and Flora Hewlett
Foundation

Mark Baldassare
Dean Bonner
Jennifer Paluch
Sonja Petek



PPIC

PUBLIC POLICY
INSTITUTE OF CALIFORNIA

The Public Policy Institute of California is dedicated to informing and improving public policy in California through independent, objective, nonpartisan research on major economic, social, and political issues. The institute's goal is to raise public awareness and to give elected representatives and other decisionmakers a more informed basis for developing policies and programs.

The institute's research focuses on the underlying forces shaping California's future, cutting across a wide range of public policy concerns, including economic development, education, environment and resources, governance, population, public finance, and social and health policy.

PPIC is a private, nonprofit organization. It does not take or support positions on any ballot measures or on any local, state, or federal legislation, nor does it endorse, support, or oppose any political parties or candidates for public office. PPIC was established in 1994 with an endowment from William R. Hewlett.

Mark Baldassare is President and Chief Executive Officer of PPIC.
Thomas C. Sutton is Chair of the Board of Directors.

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ABOUT THE SURVEY

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This survey seeks to inform state policymakers, encourage discussion, and raise public awareness about a variety of higher education issues. Higher education in California comprises the third largest spending area of the state budget – over \$14 billion. It is guided by a master plan adopted in 1960, which calls for making a college education available to every qualified high school graduate. Currently, 3.5 million students take part in California’s higher education system, which includes the California Community College (CCC) system, California State University (CSU) system, and the University of California (UC) system. These institutions are charged with diverse missions, including providing basic career and life skills, offering postsecondary and graduate instruction, and pursuing research and development to enhance and serve the well-being of the state’s residents as well as advance the state’s economy. Today, higher education faces many challenges, including the state’s rapid population growth, projections on future needs for college-educated workers, the rising costs of a college education, and government funding in the context of state budget constraints.

This survey presents the responses of 2,503 adult residents throughout the state. We asked about the following topics:

- Perceptions of California’s public college and university system, including the quality, accessibility, and availability of higher education today; whether changes are needed to improve the higher education system and what most needs improvement; approval ratings of the governor and legislature on their handling of California’s higher education system; perceptions of the adequacy and efficiency of funding for higher education; societal trends in higher education; affordability of higher education; ratings of UC, CSU, and CCC, and general awareness of these institutions and their funding levels; and perceived opportunities for getting a college education across different socioeconomic and demographic groups.
- Attitudes and policy preferences, including support for increasing state and federal funding to make California’s higher education system more affordable to students; importance and ratings of California’s community college system for students; adequacy of current state funding levels for higher education and preferences for increasing state funding; importance of higher education to the state’s quality of life and economic well-being in the next 20 years, including the perceived need for college-educated workers; and importance of investment in higher education and confidence in the state’s ability to plan for the future of higher education.
- Variations in perceptions, attitudes, and preferences regarding California’s public colleges and universities across the five major regions of the state (Central Valley, San Francisco Bay Area, Los Angeles County, Inland Empire, and Orange/San Diego counties), among Asians, blacks, Latinos, and non-Hispanic whites, across socioeconomic and political groups, and among parents of children age 18 or younger.

Copies of this report may be ordered online (www.ppic.org) or by phone (415-291-4400). For questions about the survey, please contact survey@ppic.org. View our searchable PPIC Statewide Survey database online at <http://www.ppic.org/main/survAdvancedSearch.asp>.

PRESS RELEASE

Para ver este comunicado de prensa en español, por favor visite nuestra página de internet:
<http://www.ppic.org/main/pressreleaseindex.asp>

PPIC STATEWIDE SURVEY: CALIFORNIANS AND HIGHER EDUCATION

California's Higher Education Angst

RESIDENTS SEE COLLEGE AS ESSENTIAL BUT ACCESS ELUSIVE, COSTS RISING, AND STATE SYSTEM UNDERFUNDED; PARENTS BEHIND IN COLLEGE SAVINGS FOR CHILDREN

SAN FRANCISCO, California, October 31, 2007 — Most Californians believe that a college education is necessary for individual success, but they also believe it is out of reach for many—including a large proportion of people who are highly qualified and motivated. And the implications for the state's future seem clear to them, according to a survey released today by the Public Policy Institute of California (PPIC) with funding from The William and Flora Hewlett Foundation.

Nearly two-thirds (64%) of Californians say a person must have a college education to succeed in today's workplace; only about one-third (34%) say there are other ways to succeed. Nationally, the stakes evidently don't seem as high: Half of U.S. adults (50%) say college is necessary, but half (49%) say there are other paths to success (Public Agenda/National Center for Public Policy and Higher Education, 2007). In Californians' minds, the state's economic vitality is also closely tied to higher education, with three-fourths (76%) calling the state's college system "very important" to California's future. This reflects the belief of most residents (68%) that the state's economy will need a higher percentage of college-educated workers in 20 years.

In disconcerting contrast, over half (56%) of Californians think that getting a college education is more difficult than it was 10 years ago. And a strong majority (65%) say that many residents who are qualified don't have the opportunity to attend college. Pluralities across demographic groups think California will suffer from a shortage of college-educated workers in the future. "This makes for a high-anxiety issue," says PPIC president and CEO Mark Baldassare. "People are saying that the very thing they need to be successful, that their children need to be successful, and that the state needs to be successful, may not be attainable."

COLLEGE CONUNDRUM: AFFORDING ACCESS...

The pessimistic attitudes seem related to questions of accessibility—specifically in terms of cost. An overwhelming share (84%) of residents say that affording college is at least somewhat of a problem for students today, with 53 percent calling it a big problem. In fact, two-thirds of adults think that the cost of college prevents qualified, motivated students from pursuing higher education. Student costs, tuition, and fees are most often cited (35%) as the number one problem facing the state's public colleges, far outpacing other issues (not enough government funding 14%, immigrants 6%, administrative costs/salaries/waste 5%).

Californians also think the price of college is outpacing other costs: Six in ten (61%) adults – and the same share of parents with children age 18 or under – say college prices are going up faster than prices of other things. This perception is reflected in the clear-cut anxiety among parents with children age 18 or under: Forty-three percent say they are very worried and 32 percent say they are somewhat worried about being able to afford college for their youngest child. Across most of the survey's affordability questions,

parents are more anxious than residents overall. Still, nine in ten California parents hope their child will be a college graduate.

Perceptions on affordability also differ – sometimes sharply – between people of various income levels. For example, when it comes to whether cost prevents qualified students from going to college, those households making under \$40,000 a year are far more likely to believe it does than those making \$80,000 or more a year (75% and 56%, respectively). Racial and ethnic differences also emerge: Latino parents (53%) are far more likely than white parents (35%) to be very worried about affording a college education for their youngest child.

... AND GETTING ACCESS

The survey also reveals stark differences across demographic groups in attitudes about the broader opportunity to attend college. Sixty percent of all adults say accessibility to higher education is at least somewhat of a problem, but whites (56%) are much less likely than blacks (67%) to hold this view. When asked if the vast majority of people who are qualified to go to college have the opportunity to do so, 42 percent of Asians and 40 percent of whites say yes, while 82 percent of Latinos and 75 percent of blacks say no.

One of the widest racial and ethnic chasms emerges over whether qualified minority students have more or less opportunity to attend college: Most blacks (62%), Latinos (53%), and Asians (46%) believe they have less opportunity, while only about one-quarter (28%) of whites agree. This question also elicits different responses from different income groups; for example, households making under \$40,000 are more likely (45%) than those making over \$80,000 (34%) to say minority students have less opportunity.

Generally, Californians are more likely to believe low-income students, regardless of their ethnic background, have less opportunity (58%) than qualified students of a particular ethnic or minority group (39%) to go to college.

MONEY IN THE BANK... OR NOT?

Adding to angst over the accessibility and affordability of college, seven in ten (71%) do not believe families do a good job of saving for their children's education today – a view shared by most parents with children age 18 or under (68%). In fact, parents with children age 18 or under are dissatisfied with their progress. Over half (55%) say they are behind where they should be, while only 9 percent say they are ahead, and one-third (33%) say they are at the right point. Lower (67%) and middle-income (64%) parents are much more likely than higher-income (43%) parents to say they are behind in their child's college savings. Indeed, only one in four parents with incomes under \$40,000 (25%) and incomes between \$40,000 and \$80,000 (28%) say they are about where they should be in their savings. Scant numbers in either bracket say they are ahead.

"There's a real disconnect here – parents overwhelmingly think college is necessary for success, want their own child to go to college, are clearly worried about being able to afford college, yet don't – or can't – save at the rate they think they should," says Baldassare.

A MATTER OF QUALITY: HIGHER EDUCATION BESTS K-12

While many Californians may question the accessibility and affordability of college, they are largely pleased with the job that the state systems of higher education are doing. Two-thirds say that the California Community College system (66%), the California State University system (66%), and the University of California system (67%) are doing good or excellent jobs. Ratings among likely voters and parents are similar or slightly higher.

Residents give much higher quality ratings to higher education than to K-12 education in California. Only 18 percent of adults and 16 percent of parents with children age 18 or under think the quality of education in California's public colleges is a big problem. When the PPIC Statewide Survey asked this same question about the K-12 system in April 2007, about half (52%) of adults said education quality was a big problem. Looked at another way, substantial shares of adults (43%) say education quality is not much of a problem in colleges, but only 15 percent of adults said the same about the K-12 system.

Higher levels of satisfaction don't, however, prevent residents from seeing room for improvement. Close to half (45%) say the state's higher education system needs minor changes, and four in 10 (39%) say it needs major changes. The latter number seems directly linked to affordability: Seventy percent of those who believe major changes are needed also say affordability is a big problem.

FAILING GRADES FOR GOVERNMENT, STATE LEADERS; FOLLOW THE FUNDING

Although they believe changes are needed, Californians aren't putting much stock in the state government's ability to make those changes. More than eight in ten (85%) adults and nearly nine in ten (88%) likely voters say they have only some, very little, or no confidence in the state government's ability to plan for the future of higher education. Consistent with that judgment, both Governor Schwarzenegger and the state legislature receive low approval ratings when it comes to their handling of public colleges and universities (all adults 34% and 29%, likely voters 37% and 26%, respectively). For the governor, this is much lower than his overall approval ratings (51% adults, 59% likely voters).

What would improve public opinion about the state's handling of higher education? More and better managed funding may be one way. Majorities of adults (57%) and likely voters (55%) do not think the current level of funding for higher education is high enough. Almost identical majorities (57% adults, 54% likely voters) would support spending more state money to keep college tuition and fees down, even if it meant less money for other programs. "In past PPIC surveys, higher education has ranked relatively high on the public's list of funding priorities," says Baldassare. However, when asked how to improve the system, half of adults (50%) and likely voters (51%) favor a combination of both increased funding and a better use of existing funds—only 9 percent of adults favored increasing state funding alone.

If the issue of increased funding did make it to the state ballot, success would depend on who's footing the bill. A strong majority (62%) of likely voters say they would support raising the income tax paid by the wealthiest Californians; an even stronger majority (73%) would oppose raising the state sales tax to provide additional funding for higher education. And the ever-popular bond approach? If a bond measure appeared on the 2008 ballot to pay for construction projects in the higher education system, 56 percent of likely voters would support it.

A LITTLE KNOWLEDGE...

Are Californians basing their policy and other judgments about the state's higher education system on accurate information? Partly. Almost six in 10 (57%) residents correctly identified the University of California system as the branch of higher education with the steepest tuition and fees. A significant share (42%) also correctly named the California Community College system as the branch that enrolls the most students. But on one key question – which branch receives the most per student funding from the government – there were far more "don't knows" (44%) than correct answers of the University of California (22%). Similar numbers of residents erroneously believe that the California State University system (18%) and the California Community College system (16%) receive the most per student funding from the state government.

MORE KEY FINDINGS

- **Latinos' college focus** — Page 14
Of all racial and ethnic groups, Latinos are the most likely (79%) to say a college education is necessary for success in the workplace. In comparison, only 55 percent of whites say the same.
- **Drowning in debt** — Page 18
Three in four residents (74%) believe students today have to take on too much debt in student loans to pay for their college education.
- **Community colleges crucial...** — Page 21
Huge majorities of Californians say it is very important to them that the state's community colleges include career technical or vocational education (76%) and prepare students to transfer to four-year institutions (81%).
- **... And doing a good job...** — Page 21
Seven in ten state residents say community colleges are doing a good or excellent job in career technical training (70%), and a good or excellent job in preparing students to transfer to four-year colleges (71%).
- **Worth it and worthy...** — Page 35
A whopping 92 percent of Californians who have attended college think that getting a higher education was money and time well spent. And in a nod to the state's system, 82 percent would recommend one of the California's public colleges or universities to a friend or family member.

ABOUT THE SURVEY

This edition of the PPIC Statewide Survey is the first to focus on the topic of public higher education. It is supported by funding from The William and Flora Hewlett Foundation. This survey is intended to raise public awareness, inform decisionmakers, and stimulate public discussions about Californians' attitudes toward a variety of higher education issues. Findings are based on a telephone survey of 2,503 California adult residents interviewed between October 10 and 23, 2007. Interviews were conducted in English, Spanish, Mandarin, Cantonese, Vietnamese, and Korean. The sampling error for the total sample is +/- 2%. The sampling error for subgroups is larger. For more information on methodology, see page 27.

Mark Baldassare is president and CEO of PPIC, where he holds the Arjay and Frances Fearing Miller Chair in Public Policy. He is founder of the PPIC Statewide Survey, which he has directed since 1998.

PPIC is a private, nonprofit organization dedicated to informing and improving public policy in California through independent, objective, nonpartisan research on major economic, social, and political issues. The institute was established in 1994 with an endowment from William R. Hewlett. PPIC does not take or support positions on any ballot measure or on any local, state, or federal legislation, nor does it endorse, support, or oppose any political parties or candidates for public office.

This report will appear on PPIC's website (www.ppic.org) after 10 p.m. on October 31.

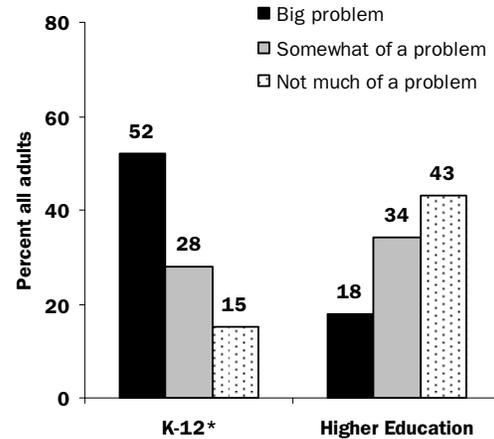
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PERCEPTIONS OF HIGHER EDUCATION

KEY FINDINGS

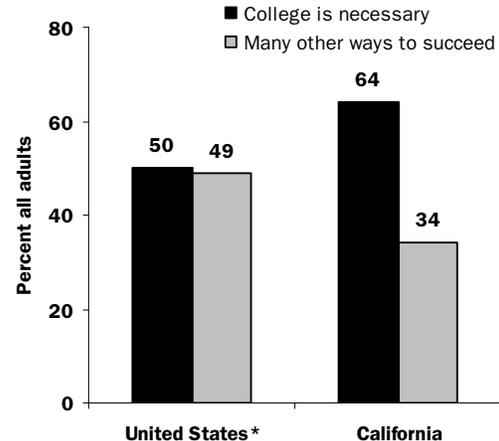
- Student costs and affordability (35%) top the list of the most important issues facing California’s public colleges and universities in all demographic, racial/ethnic, political, and regional groups. (page 8)
- Half of Californians (53%) say affordability is a big problem, 24 percent perceive accessibility as a big problem, but just 18 percent think educational quality is a big problem in California’s public colleges and universities today. Over eight in 10 residents say that changes (39% major, 45% minor) are needed in California’s higher education system. (pages 9, 10)
- Six in 10 likely voters approve of the governor’s overall job performance, but they are divided on his handling of the state’s higher education system. Half of likely voters disapprove of the legislature, both overall and in its handling of the state’s higher education system. (page 11)
- Solid majorities of Californians across demographic, political, and regional groups give positive ratings to the state’s three higher education systems, but many lack knowledge about relative costs, funding, and student population sizes. (pages 12, 13)
- Most residents think that a college education is necessary for work success (64%), but that getting a college education has become more difficult (56%), college prices are going up at a faster rate than other things (61%), and many who are qualified to go to college don’t have the opportunity (65%). (pages 14, 15)
- One in 10 say that more spending alone will improve higher education, while half say that both more funding and better use of existing funding is needed. (page 16)

Quality of Education in California?



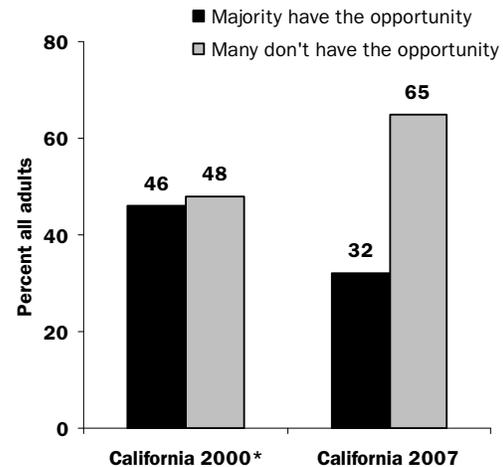
*PPIC, April 2007

Is a College Education Necessary?



*Public Agenda/National Center, 2007

Access to Higher Education



*Public Agenda/National Center, 2000

MOST IMPORTANT ISSUE

When asked to name the most important issue facing California’s public colleges and universities today, costs and affordability are first on the list (35%), followed by not enough government funding (14%). Fewer than one in 10 adults say immigrants (6%), or administrative costs, salaries, and waste (5%), or name any other issue as their top concern.

Student cost is the top issue named by residents in all political and demographic groups. Democrats (42%) are more likely than independents (35%) or Republicans (34%) to name student cost. Blacks (50%) are more likely than other racial/ethnic groups and women (40%) are more likely than men (30%) to name student cost. One in three parents of children age 18 or younger (35%) cite student cost as the most important issue, while 13 percent say not enough government funding.

Men (17%) are more likely than women (11%) to say that not enough government funding is the most important issue. Government funding is also more likely to be named by college graduates (18%) than by those with some college (12%) or a high school education (10%). Latinos (11%) are more likely than those in other racial/ethnic groups, and Republicans (9%) are more likely than other voter groups, to name immigrants as the most important issue.

“What do you think is the most important issue facing California’s public colleges and universities today?”

<i>Issues mentioned by at least 5% of all adults</i>		Student costs, affordability, tuition, fees	Not enough government funding	Immigrants	Administrative costs, salaries, waste
All Adults		35%	14%	6%	5%
Likely Voters		40	15	5	5
Party	Democrat	42	16	4	5
	Republican	34	13	9	5
	Independent	35	14	5	5
Race/Ethnicity	Asians	36	12	3	3
	Blacks	50	12	2	1
	Latinos	26	11	11	5
	Whites	39	15	5	5
Gender	Men	30	17	7	6
	Women	40	11	6	4
Age	18-34	35	14	6	4
	35-54	36	13	7	5
	55 and older	33	14	6	5
Income	Under \$40,000	28	13	9	5
	\$40,000 to under \$80,000	43	13	5	3
	\$80,000 or more	38	15	5	6
Education	HS or less	26	10	10	5
	Some college	42	12	4	4
	College graduate	37	18	4	5
Parents of Children Age 18 or Younger		35	13	8	4

OVERALL CONDITIONS

When asked about the overall condition of three aspects of California's public colleges and universities today, Californians are much more likely to cite the affordability of education (53%) as a big problem for students than to name the accessibility (24%) or the quality (18%) of education as a big problem.

Over eight in 10 Californians view overall affordability as a big (53%) or somewhat of a problem (31%). Parents of children age 18 or younger hold similar views. Those with a household income of \$80,000 or more are less likely than those with lower incomes to say affordability is a big problem.

Democrats (62%) are more likely than independents (52%) and Republicans (45%) to perceive that affordability is a big problem. Women (57%) are more likely than men (50%) to hold this view. Across regions, residents of Orange/San Diego counties (44%) are less likely than others to view affordability as a big problem. Blacks (69%) are more likely than Latinos (59%), whites (51%), and especially Asians (37%) to say that affordability is a big problem today.

“How about the overall affordability of education for students in California's public colleges and universities today?”

	All Adults	Income			Parents of Children Age 18 or Younger
		Less than \$40,000	\$40,000 to under \$80,000	\$80,000 or more	
Big problem	53%	57%	57%	48%	54%
Somewhat of a problem	31	29	29	33	30
Not much of a problem	14	11	13	18	14
Don't know	2	3	1	1	2

Six in 10 Californians think overall accessibility is a big problem (24%) or somewhat of a problem (36%). Parents of children age 18 or younger hold similar views. Blacks (33%) and Latinos (28%) are more likely than whites (21%) and Asians (18%) to see accessibility as a big problem. Women (28%) are more likely than men (20%) to hold this view.

Democrats (27%) and independents (24%) are more likely than Republicans (18%) to say accessibility is a big problem for students. Residents in the Central Valley and Orange/San Diego counties (20% each) are less likely than others to say it is a big problem. The belief that accessibility is a big problem increases with age, but decreases with higher education and income.

“How about the overall accessibility of education for students in California's public colleges and universities today?”

	All Adults	Race/Ethnicity				Parents of Children Age 18 or Younger
		Asians	Blacks	Latinos	Whites	
Big problem	24%	18%	33%	28%	21%	23%
Somewhat of a problem	36	38	34	38	35	38
Not much of a problem	37	40	31	31	40	37
Don't know	3	4	2	3	4	2

OVERALL CONDITIONS (CONTINUED)

About half of Californians view the overall quality of education in California’s public colleges and universities as a big (18%) or somewhat of a problem (34%). Parents of children age 18 or younger hold similar views. College graduates (13%) are less likely than others to say quality is a big problem. Men (17%) and women (18%) hold similar views on this issue. Blacks (25%) are more likely than other racial/ethnic groups to say the quality of public higher education is a big problem.

Fewer than one in five Democrats (16%), independents (17%), or Republicans (18%) say quality is a big problem. Across regions, one in five or fewer say it is a big problem. This belief declines with higher income. Views are similar among those who have attended a California public college or university and those who have not.

“How about the overall quality of education in California’s public colleges and universities today?”

	All Adults	Education			Parents of Children Age 18 or Younger
		HS or less	Some College	College Grad	
Big problem	18%	22%	18%	13%	16%
Somewhat of a problem	34	35	36	31	34
Not much of a problem	43	36	41	51	45
Don't know	5	7	5	5	5

Over eight in 10 Californians say that the higher education system in California needs major (39%) or minor changes (45%), while only 12 percent say it is fine the way it is. Across racial/ethnic groups, Latinos (53%) and blacks (41%) are more likely than whites (31%) and Asians (26%) to say that major changes are needed. Across age groups, about four in 10 residents say major changes are needed.

Over eight in 10 parents of children age 18 or younger believe that major (41%) or minor changes (44%) are needed. Democrats (40%) are more likely than independents (35%) and Republicans (30%) to say that major changes are needed. The belief that major changes are needed is greater among women (43%) than men (35%) and decreases as education and income increase.

Of those who say that major changes are needed in California’s higher education system, 70 percent say that affordability is a big problem, 42 percent say accessibility is a big problem, and 34 percent say that quality is a big problem.

“Overall, do you think the higher education system in California—including public colleges and universities—is in need of major changes, minor changes, or that it is basically fine the way it is?”

	All Adults	Race/Ethnicity				Parents of Children Age 18 or Younger
		Asians	Blacks	Latinos	Whites	
Major changes	39%	26%	41%	53%	31%	41%
Minor changes	45	51	50	31	53	44
Fine the way it is	12	15	7	13	12	12
Don't know	4	8	2	3	4	3

ELECTED OFFICIALS' APPROVAL RATINGS

Today, half of Californians (51%) and six in 10 likely voters (59%) approve of the way Governor Schwarzenegger is handling his job overall. Since January, his ratings have declined somewhat among all adults (58% to 51%), but they have remained similar among likely voters (61% to 59%). Seven in 10 Republicans (69%) and 56 percent of independents approve, while Democrats are divided (46% approve, 43% disapprove). Residents of Orange/San Diego counties (59%) are the most approving, followed by those in the Central Valley (55%), the Inland Empire (53%), the San Francisco Bay Area (53%), and Los Angeles (43%). Asians (64%) and whites (61%) are more approving than blacks (40%) and Latinos (34%).

When asked about the governor's handling of California's public college and university system, the approval ratings are mixed among all adults (34% approve, 39% disapprove) and likely voters (37% approve, 37% disapprove). Significant percentages of Californians have no opinion of his handling of this issue. About half of Republicans (51%) approve, compared to 33 percent of independents and 25 percent of Democrats. Fewer than four in 10 residents across regions approve of the governor on this issue. Asians (43%) and whites (38%) are more approving than Latinos and blacks (27% each).

"Overall, do you approve or disapprove of the way that Arnold Schwarzenegger is handling..."

		All Adults	Party			Likely Voters
			Dem	Rep	Ind	
<i>... his job as governor of California?</i>	Approve	51%	46%	69%	56%	59%
	Disapprove	37	43	23	32	32
	Don't know	12	11	8	12	9
<i>... California's public college and university system?</i>	Approve	34	25	51	33	37
	Disapprove	39	50	21	38	37
	Don't know	27	25	28	29	26

Approval ratings of the state legislature are not as positive as the governor's ratings. Only one in three residents (33%) and likely voters (32%) approve of the way the legislature is handling its job. Since January, the legislature's approval ratings have declined somewhat among all adults (40% to 33%) and likely voters (37% to 32%). Democrats (36%) and independents (35%) are more approving than Republicans (26%). Roughly one in three across regions approve of the legislature. On the issue of handling California's public college and university system, fewer than three in 10 residents (29%) and likely voters (26%) approve, and fewer than three in ten across parties approve. Again, significant percentages have no opinion regarding the legislature's handling of public colleges and universities.

"Overall, do you approve or disapprove of the way that the California Legislature is handling..."

		All Adults	Party			Likely Voters
			Dem	Rep	Ind	
<i>... its job?</i>	Approve	33%	36%	26%	35%	32%
	Disapprove	50	48	60	51	54
	Don't know	17	16	14	14	14
<i>... California's public college and university system?</i>	Approve	29	26	26	29	26
	Disapprove	47	54	44	48	49
	Don't know	24	20	30	23	25

INSTITUTIONAL KNOWLEDGE

How familiar are Californians with some of the basic facts about the three branches of California’s public college and university system? Today, the University of California (UC) system has the highest state tuition of the three systems, followed by the California State University (CSU) system and the California Community College (CCC) system. About six in 10 Californians (57%) correctly identify the UC system as having the highest state tuition and fees, while about one in four are unsure.

In recent years, the CCC system has had the highest enrollment, followed by the CSU system and the UC system. When asked which system has the most students enrolled, four in 10 Californians (42%) correctly identify the CCC system, while about three in 10 (28%) are unsure.

Today, the UC system has the highest dollar amount of per student funding from the state government, but only 22 percent of Californians correctly name the UC system, while 44 percent are unsure.

“Do you happen to know which branch has the...”

	...highest state tuition and fees?	...most students enrolled?	...highest dollar amount of per student funding from the state government?
California Community College system	4%	42%	16%
California State University system	16	21	18
University of California system	57	9	22
Don't know	23	28	44

INSTITUTIONAL RATINGS

California’s public colleges and universities receive positive marks from many Californians. Two in three Californians say that the CCC system (66%), the CSU system (66%), and the UC system (67%) are doing an excellent or good job overall. Far fewer Californians give each branch a not so good or poor rating, while relatively few (i.e., between 8% and 13%) say they don’t know.

“Overall, is the _____ doing an excellent, good, not so good, or poor job?”

	California Community College system	California State University system	University of California system
Excellent	14%	9%	15%
Good	52	57	52
Not so good	21	18	17
Poor	5	3	4
Don't know	8	13	12

The CCC system receives high marks from all Californians (66%), parents of children age 18 or younger (68%), and likely voters (70%). Across regions, residents in Orange/San Diego counties (72%) and the San Francisco Bay Area (70%) give the most positive assessment, while residents in Los Angeles (60%) are the least positive. Across political groups, Republicans (74%) are more likely than Democrats (66%) and independents (65%) to give positive ratings. Whites (72%) and Asians (64%) are more likely than Latinos (60%) and blacks (56%) to offer an excellent or good rating. Positive assessments of the CCC system increase with higher education and income. At least eight in 10 Californians who give positive reviews to the UC or the CSU system give the CCC system high marks as well.

INSTITUTIONAL RATINGS (CONTINUED)

The CSU system also receives high marks. Two in three Californians (66%), 69 percent of parents of children age 18 or younger, and 70 percent of likely voters give excellent or good ratings to the CSU system. Asians (74%), whites (69%), and Latinos (64%) are more likely than blacks (54%) to give positive marks. Across regions, over six in 10 give positive assessments, as do about seven in 10 across parties. Men (69%) are somewhat more likely than women (64%) to give positive marks, and CSU ratings rise as education and income increase. Once again, a large majority of Californians who give positive reviews to the CCC or the UC system also give the CSU system high marks.

Finally, the UC system receives positive ratings from a strong majority of all Californians (67%), parents of children age 18 or younger (71%), and likely voters (71%). Asians (81%) are more likely than whites (69%), Latinos (64%), or blacks (55%) to offer positive assessments. Across regions, residents of Orange/San Diego counties (73%) and the San Francisco Bay Area (72%) are most likely to give positive ratings; however, six in 10 in the other regions also offer positive assessments. Majorities across parties give high marks to the UC system, with Democrats (73%) more likely than Republicans (68%) and independents (64%) to do so. Excellent or good ratings of the UC system rise as education and income increase. Again, more than eight in 10 residents who give positive assessments to the CCC or the CSU system also give positive marks to the UC system.

“Overall, is the _____ doing an excellent, good, not so good, or poor job?”

<i>% saying excellent/good</i>		California Community College system	California State University system	University of California system
All Adults		66%	66%	67%
Likely Voters		70	70	71
Race/Ethnicity	Asians	64	74	81
	Blacks	56	54	55
	Latinos	60	64	64
	Whites	72	69	69
Region	Central Valley	66	67	65
	San Francisco Bay Area	70	68	72
	Los Angeles	60	62	62
	Orange/San Diego	72	69	73
	Inland Empire	67	68	65
Income	Less than \$40,000	60	60	61
	\$40,000 to under \$80,000	73	69	69
	\$80,000 or more	70	76	76
Education	HS or less	62	60	59
	Some college	67	66	64
	College graduate	70	74	78
Parents of Children Age 18 or Younger		68	69	71

SOCIETAL TRENDS IN HIGHER EDUCATION

Over six in 10 California residents (64%) and likely voters (61%) believe a college education is necessary to succeed in today’s work world, while 34 percent of residents and 38 percent of likely voters believe there are many ways to succeed in the work world without a college education. In a survey conducted in 1996 by Public Agenda and the California Higher Education Policy Center (“Public Agenda/CHEPC”), California residents expressed nearly identical attitudes in a similar question (64% necessary, 32% not necessary). Today, Californians are much more likely than adults nationwide to believe in the necessity of a college education: A survey conducted this year by Public Agenda and the National Center for Public Policy and Higher Education (“Public Agenda/National Center”), found that adults nationwide are divided on the issue (50% necessary, 49% other ways to succeed).

Still, not all Californians place equal importance on a college education. For instance, Latinos (79%) are the most likely to believe college is essential, followed by Asians (72%), blacks (68%), and whites (55%). Foreign-born adults are far more likely than U.S.-born adults (81% to 57%), and parents of children age 18 or younger are far more likely than others (71% to 59%), to place high importance on college education. Two in three Democrats (68%) and independents (67%) think college is necessary, while 53 percent of Republicans do. The belief in the necessity of a college education is held by over six in 10 adults across education and income groups and is higher among adults under 55 (68%) than older adults (56%).

“Do you think that a college education is necessary for a person to be successful in today’s work world, or do you think that there are many ways to succeed in today’s work world without a college education?”

	All Adults	Race/Ethnicity				Parents of Children Age 18 or Younger
		Asians	Blacks	Latinos	Whites	
College is necessary	64%	72%	68%	79%	55%	71%
Many other ways to succeed	34	27	32	20	43	28
Don't know	2	1	-	1	2	1

While most Californians believe college is essential to success in today’s work world, over half (56%) say getting a college education today is more difficult than it was 10 years ago. Another 24 percent say it is about as difficult as it was 10 years ago, while just 13 percent say it is less difficult today. In 1996, a similar proportion of California residents (54%) believed that it was more difficult to get a college education at that time than it was 10 years prior, according to the Public Agenda/CHEPC survey. Today, blacks and Latinos (68% each) are far more likely than whites (50%) or Asians (48%) to express this view. Lower-income residents, those with less education, and parents of children age 18 or younger are more likely than others to agree. Over six in 10 Democrats (63%) believe this, compared to 50 percent of independents and 46 percent of Republicans. Among those who say college is necessary in today’s work world, 61 percent say it has become more difficult to get a college education today.

“In your view, has getting a college education become more difficult than it was 10 years ago, less difficult than it was 10 years ago, or is it about as difficult as it was 10 years ago?”

	All Adults	Race/Ethnicity				Parents of Children Age 18 or Younger
		Asians	Blacks	Latinos	Whites	
More difficult	56%	48%	68%	68%	50%	60%
Less difficult	13	17	9	13	12	13
About as difficult	24	21	14	15	31	22
Don't know	7	14	9	4	7	5

SOCIETAL TRENDS IN HIGHER EDUCATION (CONTINUED)

In the minds of Californians, one major impediment to getting a college education is the price tag. About six in 10 Californians (61%), likely voters (62%), parents (61%), and residents across regions, age, education, income, gender, and homeownership groups believe the price of college is rising at a faster rate than the prices of other things. Just five percent of residents say college prices are increasing at a slower rate, while 22 percent say college prices are increasing at the same rate as other things. Californians are similar to adults nationwide: In the Public Agenda/National Center survey conducted this year, 58 percent of U.S. adults said college prices were going up faster than the prices of other things.

Across racial/ethnic groups, over six in 10 blacks (70%), whites (62%), and Latinos (61%), and half of Asians (52%), believe college prices are increasing faster than prices for other things. Asians are more likely than others to believe college prices are increasing at a slower rate. Majorities across California's political parties say college prices are increasing faster than other things, although Democrats (65%) are more likely than Republicans (59%) to express this view. Those who believe that the affordability of public college is a big problem in California are much more likely than others to think college prices are increasing faster than the prices of other things.

“Compared to other things, are college prices going up at a faster rate, are college prices going up at a slower rate, or are they going up at the same rate?”

	All Adults	Income			Parents of Children Age 18 or Younger
		Under \$40,000	\$40,000 to under \$80,000	\$80,000 or more	
Faster rate	61%	59%	63%	61%	61%
Slower rate	5	6	5	4	6
Same rate	22	23	22	24	23
Don't know	12	12	10	11	10

Opportunity is another important issue for Californians. A solid majority of residents (65%) believe that many people who are qualified to go to college do not have the opportunity to do so; one in three residents (32%) disagree. Again, on this issue, Californians and adults nationwide are similar in their assessments. The Public Agenda/National Center survey this year found that 62 percent of U.S. adults thought many qualified people do not have the opportunity to go to college.

Large differences among racial/ethnic groups emerge on this issue, with 82 percent of Latinos and 75 percent of blacks saying many qualified people do not have the opportunity to attend college, compared to 56 percent of whites and 51 percent of Asians. The belief that many qualified candidates cannot attend college declines sharply as age, education level, and income level rise. An overwhelming majority of Democrats (71%) and 59 percent of independents believe there are discrepancies in opportunity, while Republicans are divided (46% vast majority have the opportunity, 51% many lack the opportunity).

“Do you think that currently, the vast majority of people who are qualified to go to college have the opportunity to do so, or do you think there are many people who are qualified to go but don't have the opportunity to do so?”

	All Adults	Race/Ethnicity				Parents of Children Age 18 or Younger
		Asians	Blacks	Latinos	Whites	
Majority have the opportunity	32%	42%	24%	16%	40%	28%
Many don't have the opportunity	65	51	75	82	56	69
Don't know	3	7	1	2	4	3

ADEQUACY AND EFFICIENCY OF STATE FUNDING

When residents are asked what they think would lead to positive changes in California’s higher education system, most agree that additional state funding would lead to major improvements (69%) and that better use of existing state funds would lead to major improvements (83%). When asked to choose among these approaches and a combination of the two, 50 percent choose a combination of the two, 39 percent choose better fiscal management, and just 9 percent choose increasing state funds. When a similar question was asked about the state’s K-12 public education system in PPIC’s April survey, residents gave similar responses: 48 percent chose a dual approach, 37 percent said better fiscal management, and 11 percent said additional funding.

Across political parties today, a solid majority of Democrats (62%) and about half of independents (53%) believe a combined approach is needed to improve California’s higher education system. A majority of Republicans (58%) believe that existing state funds need to be used more wisely. About half of parents of children age 18 or younger and residents across regional, gender, and income groups believe improvements will result from a dual approach. Pluralities in other demographic groups express the same viewpoint. This perception increases with higher education and decreases with age. Blacks (59%) are more likely than whites (51%), Asians (50%), or Latinos (48%) to believe the dual approach would work best. Among any demographic or political group, additional funding alone is the least popular approach for significantly improving the higher education system.

“To significantly improve California’s higher education system, which of the following statements do you agree with the most? (1) We need to use existing state funds more wisely, (2) We need to increase the amount of state funding, or (3) We need to use existing state funds more wisely and increase the amount of state funding.”

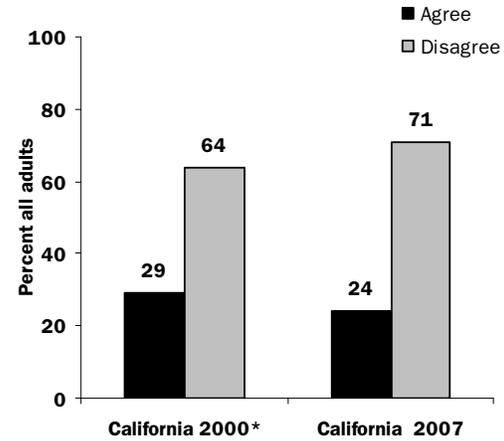
		Use funds more wisely	Increase state funding	Both	Don't know
All Adults		39%	9%	50%	2%
Likely Voters		42	6	51	1
Party	Democrat	28	10	62	-
	Republican	58	5	36	1
	Independent	40	5	53	2
Race/Ethnicity	Asians	37	10	50	3
	Blacks	26	15	59	-
	Latinos	34	16	48	2
	Whites	43	5	51	1
Age	18-34	34	11	54	1
	35-54	38	9	51	2
	55 and older	44	7	45	4
Income	Under \$40,000	36	12	49	3
	\$40,000 to under \$80,000	38	9	51	2
	\$80,000 or more	42	6	51	1
Parents of Children Age 18 or Younger		38	11	50	1

ATTITUDES AND POLICY PREFERENCES

KEY FINDINGS

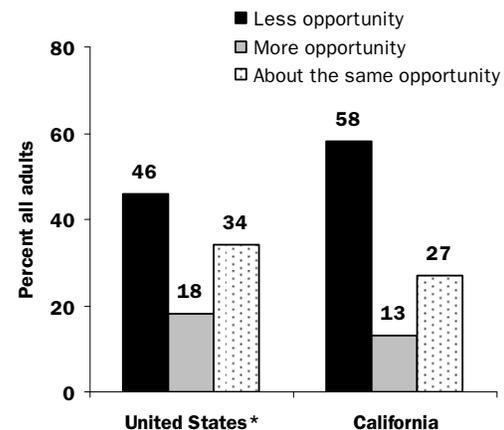
- Sixty-six percent of Californians agree that the price of a college education keeps qualified and motivated students from going to college, while just 24 percent say families today do a good job of saving for their children’s college education. *(page 18)*
- Many residents say the opportunity to get a college education is unequal: 58 percent of all adults think qualified students from low-income families have less opportunity than others, and most non-whites believe that racial and ethnic minorities have less opportunity than others. *(page 19)*
- While over half of all adults (57%) want more state funding to keep down tuition and fees, overwhelming majorities favor increasing government funding for students through work study (86%), grants and scholarships (83%), and students loans (78%). *(page 20)*
- Strong majorities say California’s community colleges have an important role in both training students for jobs and preparing students to transfer to four-year colleges; most give them positive ratings in these two areas. *(page 21)*
- A majority of likely voters say there is not enough state funding for California’s higher education system and would support a state bond to pay for construction projects. *(page 22)*
- Three in four residents think California’s higher education system is very important to the future quality of life and economic vitality of the state, but just 14 percent say they have a great deal of confidence in the state’s ability to plan for the future of higher education. *(pages 23, 24)*
- Over four in 10 parents with children age 18 or younger (43%) are very worried about being able to afford college for their youngest child, and 55 percent say they are behind in saving for their children’s college education. *(page 25)*

Most Families Do a Good Job of Saving for Their Children's College Education



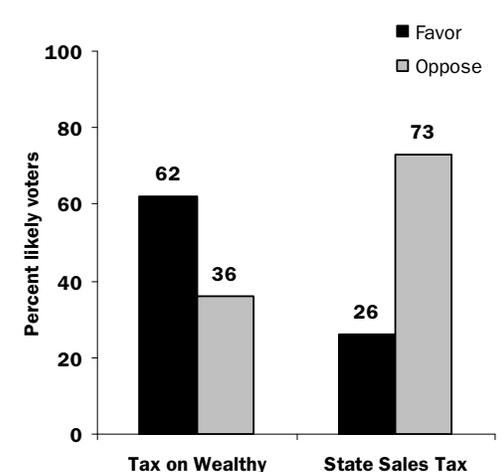
*Public Agenda/National Center, 2000

College Opportunities for Qualified Students From Low-Income Families



*Public Agenda/National Center, 2007

Raising State Revenues for Higher Education



ROLE OF STUDENT FINANCES

Echoing their view that student cost is the most important issue facing the state’s public colleges and universities today, Californians (66%) and parents of children age 18 or younger (70%) overwhelmingly agree that the price of a college education keeps students who are qualified and motivated to go to college from doing so. Majorities in all regions hold this view, with agreement highest in the Inland Empire (71%) and lowest in Orange/San Diego counties (59%). Blacks and Latinos are especially likely to think cost keeps motivated students from attending college, but strong majorities in all racial/ethnic groups agree. Democrats (72%) are more likely than independents (66%) and Republicans (57%) to say the price of college can be prohibitive. This perception drops sharply as income rises. Concern about the effect of college costs is significantly higher among residents with only a high school diploma (73%) or some college (71%) than among college graduates (58%). Women (70%) are more likely than men (63%) to agree.

“The price of a college education keeps students who are qualified and motivated to go to college from doing so.”

	All Adults	Race/Ethnicity				Parents of Children Age 18 or Younger
		Asians	Blacks	Latinos	Whites	
Agree	66%	66%	77%	76%	61%	70%
Disagree	31	29	21	22	36	28
Don't know	3	5	2	2	3	2

In addition, most Californians think families are not doing a good job of saving for their children’s college education. Only one in four (24%) thinks most families today are putting away enough money to send their children to college, while seven in 10 (71%) disagree. Among parents with children age 18 or younger, 68 percent think families are failing to save enough for college. A majority of residents in all income groups think families are not doing a good job of saving for their children’s education, with those in the highest income group especially likely to hold this view (84%). In a 2000 report by Public Agenda/National Center, Californians were somewhat more likely to think families were doing a good job of saving for their children’s college education (29% agree, 64% disagree), and the perceptions of Americans nationwide were similar at that time (28% agree, 65% disagree). Across racial/ethnic groups, Latinos (47%) are far more likely than Asians (30%), blacks (15%), and whites (12%) to believe that families today are doing a good job saving for their children’s college education.

“Most families today do a good job of saving for their children’s college education.”

	All Adults	Income			Parents of Children Age 18 or Younger
		Under \$40,000	\$40,000 to under \$80,000	\$80,000 or more	
Agree	24%	41%	16%	11%	29%
Disagree	71	54	81	84	68
Don't know	5	5	3	5	3

Three in four residents (74%) believe students have to take on too much debt in student loans to pay for their college education, while only 22 percent disagree. Among parents with children age 18 or younger, 71 percent think students have to borrow too much. Majorities in all racial/ethnic groups agree, with blacks (92%) most likely to think students have to borrow too much money. When considering education and income, this belief is highest among residents with some college education (81%) and those with household incomes between \$40,000 and \$80,000 (81%). Californians’ views are similar to adults nationwide, according to the 2007 survey by Public Agenda/National Center (78% agree, 20% disagree).

DISPARITIES IN COLLEGE OPPORTUNITIES

In addition to concerns about the cost of attending college, residents also believe that opportunities to attend college are unequal. Most believe that qualified students from low-income families, regardless of their ethnic background, have less opportunity than other groups (58%). Residents are divided when it comes to ethnic or racial minorities (39% say less opportunity, 40% say about the same opportunity), and most (54%) think students from middle-class families, regardless of their ethnicity, have about the same opportunity as others to get a college education. Views of the opportunities for older students who are returning to school for retraining are similar, with 54 percent of Californians saying that returning students have about the same opportunity as others. Nationally, the 2007 Public Agenda/National Center survey found that 46 percent of Americans believe low-income students have fewer opportunities to attend college, compared to 26 percent perceiving limited opportunities for older students, 25 percent for middle-class students, and 24 percent for ethnic/racial minorities.

“Do you think _____ have less opportunity, more opportunity, or about the same opportunity as others to get a college education?”

	...qualified students from low-income families, regardless of their ethnic background	...qualified students who are ethnic or racial minorities, such as blacks or Latinos	...qualified students from middle-class families, regardless of their ethnic background	...people who are older and are going back to school for retraining
Less opportunity	58%	39%	28%	25%
More opportunity	13	19	16	17
About the same opportunity	27	40	54	54
Don't know	2	2	2	4

The perception that qualified low-income students have less opportunity than others to get a college education is widespread among all racial and demographic groups. Residents with household incomes below \$40,000 (61%), blacks (74%), and people under age 35 (62%) are the most likely to agree. A majority of Democrats (68%) and independents (56%) hold this view, compared to 44 percent of Republicans.

% saying “less opportunity”		...qualified students from low-income families, regardless of their ethnic background	...qualified students who are ethnic or racial minorities, such as blacks or Latinos
All Adults		58%	39%
Income	Under \$40,000	61	45
	\$40,000 to under \$80,000	59	38
	\$80,000 or more	55	34
Race/Ethnicity	Asians	62	46
	Blacks	74	62
	Latinos	62	53
	Whites	55	28
Parents of Children Age 18 or Younger		57	40

Whites (28%) are much less likely than blacks (62%), Latinos (53%), and Asians (46%), to say qualified ethnic/racial minorities have less opportunity than others. The perception that minorities have less opportunity declines with age and income. Democrats (47%) are considerably more likely than independents (31%) or Republicans (22%) to think minorities have fewer opportunities to get a college education.

ROLE OF GOVERNMENT POLICY

In the wake of public concern about the cost of a college education, many Californians appear to be willing to increase state spending on higher education. Fifty-seven percent of all residents and 54 percent of likely voters are in favor of directing more state money toward the cost of tuition, even if it means less money for other state programs. Democrats (62%) and independents (59%) are more likely than Republicans (44%) to favor spending more state money in this area.

Across racial/ethnic groups, at least half of residents favor subsidizing tuition costs, even if other programs receive less money. Favor for increasing state spending on higher education, even at the cost of other state programs, declines with higher age, education, and income.

“How about spending more state government money to keep down tuition and fee costs, even if it means less money for other state programs?”

	All Adults	Party			Likely Voters
		Dem	Rep	Ind	
Favor	57%	62%	44%	59%	54%
Oppose	36	30	50	33	39
Don't know	7	8	6	8	7

There are several other ways in which the state and federal government could make California’s public colleges and universities more affordable to students. Among the plans most favored by residents is increasing work-study opportunities for students to earn money while in college (86%) and increasing government funding available for scholarships and grants (83%). Increasing government funding for student loans also receives considerable support (78%).

Increasing the funding available for scholarships and grants is highly favored across all racial/ethnic groups, although Latinos (90%) and blacks (89%) are more likely than Asians (85%) and whites (79%) to favor this proposal. Democrats (92%) and independents (80%) are far more likely than Republicans (68%) to support this proposal, and women (86%) are more likely than men (80%) to favor it. Support declines with increasing age and income.

“How about increasing government funding available for scholarships or grants for students?”

	All Adults	Race/Ethnicity				Likely Voters
		Asians	Blacks	Latinos	Whites	
Favor	83%	85%	89%	90%	79%	79%
Oppose	15	13	10	9	19	19
Don't know	2	2	1	1	2	2

Strong majorities of residents across all demographic and political groups favor increasing government funding for work-study opportunities and student loans. Across racial/ethnic groups, blacks, Latinos, and Asians are somewhat more likely than whites to favor increasing government funding for work-study programs. Democrats are somewhat more likely than independents and far more likely than Republicans to favor additional government funding for both proposals. The percentage of residents supporting these proposals declines with increasing age and income.

ROLE OF COMMUNITY COLLEGES

Today, over 70 percent of California's public higher education enrollment is in the California Community College (CCC) system, according to the California Postsecondary Education Commission (CPEC). This system serves over 2.5 million full and part-time students. CCCs were assigned several specific missions in the California Master Plan for Higher Education, adopted in 1960. We asked Californians to evaluate two of these CCC goals: providing career technical or vocational education and offering coursework that will help prepare students to transfer to four-year colleges and universities.

Seventy-six percent of residents – and at least two in three residents across all regional, political, and demographic groups – say it is very important that community colleges include career technical or vocational education. Agreement is similar among men (75%) and women (76%), and support for this goal increases with higher age, education, and income.

Over eight in 10 residents (81%) and likely voters (85%) say that it is very important for community colleges to include classes that will prepare students to transfer to four-year colleges and universities. The perceived importance of this role for community colleges is very high among blacks (90%), whites (83%), and Latinos (81%), but lower among Asians (67%). The percentage of residents rating this goal as very important is high across all regional, political, and demographic groups and increases with education.

“How important to you is it that community colleges include...?”

	...career technical or vocational education	...classes that prepare students to transfer to four-year colleges and universities
Very important	76%	81%
Somewhat important	20	15
Not too important	2	2
Not at all important	1	1
Don't know	1	1

Overall, most residents give excellent or good ratings to the state's community college system when it comes to training students for technical or vocational jobs (70%) and preparing students to transfer to four-year institutions (71%). In the case of job training, residents across all regions and political groups give high ratings to the community colleges. Latinos (79%) are the most likely to give positive ratings, followed by whites (68%), Asians (62%), and blacks (60%). When it comes to preparing students to transfer to four-year institutions, strong majorities of residents across all regional, political, and demographic groups give excellent or good ratings to the CCC system. However, Latinos (76%), Asians (72%), and whites (70%) offer more positive ratings than blacks (59%).

“How would you rate California's community colleges overall in achieving the following goals?”

	Training students for career technical or vocational jobs	Preparing students to transfer to four-year colleges and universities
Excellent	16%	15%
Good	54	56
Not so good	15	15
Poor	3	3
Don't know	12	11

STATE BUDGET AND REVENUES

Higher education comprises the third largest spending area of the state budget, with a current budget of over \$14.9 billion. How do residents feel about this level of funding? A majority of adults (57%) and likely voters (55%) say that the current funding level is not enough, with about three in 10 saying it is just enough and one in 10 saying it is more than enough. Across political parties, Democrats (69%) and independents (53%) are far more likely than Republicans (39%) to say the current funding level is not enough. Across racial/ethnic groups, blacks (82%) are the most likely to say the current level of funding is not enough, followed by Latinos (63%), whites (53%), and Asians (45%). In our April survey, fewer than half of all adults (48%) and likely voters (46%) said that state funding for their local K-12 public schools was inadequate.

“Do you think the current level of state funding for California’s higher education system is...?”

	All Adults	Party			Likely Voters
		Dem	Rep	Ind	
More than enough	7%	3%	15%	7%	9%
Just enough	28	21	39	31	29
Not enough	57	69	39	53	55
Don’t know	8	7	7	9	7

Most Californians would support a hypothetical state bond measure to pay for construction projects in California’s higher education system. Sixty-four percent of residents and 56 percent of likely voters would vote yes if such a bond measure were on the state ballot in 2008. Support for this measure is higher among Democrats (73%) and independents (58%) than among Republicans (46%), and support declines as age, education, and income increase. These findings are similar to those in our April survey, in which we asked about support for a hypothetical local bond measure to pay for K-12 school construction projects (favored by 66% of all adults, 58% of likely voters).

“If there was a bond measure on the state ballot in 2008 to pay for construction projects in California’s higher education system, would you vote yes or no?”

	All Adults	Party			Likely Voters
		Dem	Rep	Ind	
Yes	64%	73%	46%	58%	56%
No	28	20	46	31	35
Don’t know	8	7	8	11	9

Most Californians believe that additional funding would improve the quality of the state’s higher education system, but their support for new revenues is conditional on who pays. A hypothetical proposal to increase funding for higher education by raising the top rate of the state income tax paid by the wealthiest Californians receives solid majority support among all adults (65%) and likely voters (62%). However, far more Democrats (80%) and independents (62%) than Republicans (43%) favor this proposal. Across regional and demographic groups, support for increasing the state taxes paid by the wealthiest Californians for this purpose is favored by nearly six in 10 or more residents.

In contrast, a strong majority of residents (72%) and likely voters (73%) oppose a hypothetical proposal to raise the state sales tax to provide additional funding for California’s higher education system. Strong majorities across all regional, political, and demographic groups oppose this proposal.

HIGHER EDUCATION AND CALIFORNIA'S FUTURE

Over nine in 10 residents from all regional, political, and demographic groups say that California's higher education system is very or somewhat important to the quality of life and economic vitality of the state over the next 20 years. Three in four adults and likely voters say it is very important. Across political parties, Democrats (84%) are more likely than independents (79%) and Republicans (65%) to say that the higher education system is very important to the state's future. Across regions, San Francisco Bay Area residents are the most likely to hold this view. Across racial/ethnic groups, Latinos and blacks are most likely to say that the higher education system is very important to the state's future.

"In general, how important is California's higher education system to the quality of life and economic vitality of the state over the next 20 years?"

	All Adults	Race/Ethnicity				Likely Voters
		Asians	Blacks	Latinos	Whites	
Very important	76%	68%	80%	81%	75%	77%
Somewhat important	20	26	14	16	21	19
Not too important	2	2	3	2	2	2
Not at all important	1	-	2	1	1	1
Don't know	1	4	1	-	1	1

Recent PPIC research has found that the state's demand for college-educated workers will continue to rise, while projections indicate there will be a lack of college-educated residents to meet this need. What are residents' views on this issue? Over two in three adults and likely voters (68% each) believe that if current trends continue, the state's economy will need a higher percentage of college-educated workers in 20 years. About one in five in each group say the same percentage will be needed, while fewer than one in 10 say a lower percentage will be needed. Majorities in all political and demographic groups recognize the need for more college-educated workers, but Democrats (75%) are more likely to express this view than independents (69%) or Republicans (59%). Latinos (78%) and blacks (74%) are more likely than whites (65%) and Asians (51%) to believe the state will need a more-educated workforce. Nearly seven in 10 residents across gender, education, and income groups share this opinion.

"In thinking ahead 20 years, if current trends continue do you think California's economy will need a higher percentage, a lower percentage, or about the same percentage of college-educated workers as today?"

	All Adults	Race/Ethnicity				Likely Voters
		Asians	Blacks	Latinos	Whites	
Higher percentage	68%	51%	74%	78%	65%	68%
Lower percentage	8	18	9	6	7	6
About the same percentage	21	24	16	14	25	23
Don't know	3	7	1	2	3	3

Turning from the issue of *need* to what the state will *have*, a majority of residents (52%) and likely voters (55%) believe there will not be enough college-educated residents to fill the jobs and skills likely to be in demand in 20 years. Another three in 10 think there will be just enough college-educated residents to meet demand. Pluralities across political and demographic groups believe there will be a lack of college-educated residents, but independents (57%) and Democrats (56%) are more pessimistic than Republicans (48%).

HIGHER EDUCATION AND CALIFORNIA’S FUTURE (CONTINUED)

Blacks (62%) are more likely than whites (53%), Latinos (50%), and Asians (44%) to believe that the state will not have enough college-educated residents to meet future demands. Women are slightly more likely than men (54% to 49%) to hold this view. The belief that there will be a shortfall of educated workers increases as education and income levels rise. Among those who believe the state will need a higher percentage of college-educated workers, 58 percent do not think there will be enough.

Given this perceived mismatch between supply and demand, how important do residents think it is for the state to invest more public funds in increasing the capacity of public colleges and universities? Eighty-six percent of residents say increased spending is very (51%) or somewhat (35%) important. Likely voters are somewhat less likely to say very important (46%). Democrats (60%) and independents (54%) are far more likely than Republicans (30%) to say this investment in higher education is very important. Strong majorities across regions and demographic groups say spending more to increase capacity is at least somewhat important.

“In thinking ahead 20 years, how important do you think it is for the state government to be spending more public funds to increase capacity in public colleges and universities?”

	All Adults	Party			Likely Voters
		Dem	Rep	Ind	
Very important	51%	60%	30%	54%	46%
Somewhat important	35	30	49	35	39
Not too important	8	5	11	5	8
Not at all important	4	2	8	4	5
Don’t know	2	3	2	2	2

Just 14 percent of residents say they have a great deal of confidence in the state government’s ability to plan for the future of California’s higher education system and 43 percent say they have only some confidence. Four in 10 adults express very little (30%) or no confidence (12%) in the state government. Likely voters hold similar views of the situation. Democrats, Republicans, and independents are in agreement on this issue, with pluralities in each group saying they have only some confidence in the state government’s ability to plan for the future, and fewer than one in seven say they have a great deal of confidence. While pluralities of residents across racial/ethnic groups say they have only some confidence in the state government, Latinos are the most likely racial/ethnic group to say they have a great deal of confidence (23%), and blacks are the most likely to have very little or no confidence (53%).

“How much confidence do you have in the state government’s ability to plan for the future of California’s higher education system?”

	All Adults	Party			Likely Voters
		Dem	Rep	Ind	
A great deal	14%	13%	12%	8%	11%
Only some	43	48	44	44	47
Very little	30	28	28	34	28
None	12	9	15	12	13
Don’t know	1	2	1	2	1

PARENTAL EXPECTATIONS AND CONCERNS

California parents of children age 18 or younger express high hopes for their children's educational future. When asked to think about their youngest or only child, nine in 10 parents express hope that this child will be a college graduate (43%) or attain a post-graduate degree (46%). The percentage of parents hoping their child will attain higher education was similar in our April 2005 survey (47% college degree, 41% post-graduate degree). Most parents in all political and demographic groups hope their child will obtain a college education; however, white parents are far more likely than Latino parents (51% to 36%) to hope their child will obtain a post-graduate degree. Hopes for advanced degrees increase with parents' education and income.

Although most parents hope their child will attend college, most are worried about whether they will be able to afford it. Three in four parents are very (43%) or somewhat worried (32%) about affording the cost of college for their youngest child. Latino parents (53%) are more likely than white parents (35%) to be very worried, as are foreign-born parents (52%) compared to U.S.-born parents (37%). Parents in the Inland Empire (52%) are more likely to be very worried than parents in the Central Valley (45%), Los Angeles (44%), the San Francisco Bay Area (37%), and Orange/San Diego counties (35%). Parents who rent their homes (57%) are also more likely to be very worried than parents who own their homes (34%). The percentage of parents who are very worried about affording a college education for their child declines as income and education levels rise.

“How worried are you about being able to afford a college education for your youngest child?”

Asked only of parents with children age 18 or younger	All Parents of Children Age 18 or Younger	Race/Ethnicity*	
		Latinos	Whites
Very worried	43%	53%	35%
Somewhat worried	32	31	34
Not too worried	12	9	15
Not at all worried	13	7	16

*The sample sizes of Asian parents and black parents are too small for separate analysis

When it comes to the progress they have made in saving to help pay for their children's college education, most parents (55%) feel they are behind, while one in three (33%) feel they are just about where they should be. Only one in 10 (9%) feel they are ahead in their efforts to save money. California parents (55%) are more likely than parents nationwide (48%) to feel they are behind in saving for their children's college education, according to a February 2007 ABC News poll. In California today, Latino parents (63%) are more likely than white parents (50%) to feel they are behind in saving. The perception of being ahead or saving at about the right pace increases with higher education and income levels.

“How do you feel about the progress, if any that you have made so far in saving to help pay for your child's college education?”

Asked only of parents with children age 18 or younger	All Parents of Children Age 18 or Younger	Income		
		Less than \$40,000	\$40,000 to under \$80,000	\$80,000 or more
Ahead	9%	4%	6%	12%
Behind	55	67	64	43
Just about where you should be	33	25	28	43
Haven't started yet/will not be saving (volunteered)	1	2	1	1
Don't know	2	2	1	1

REGIONAL MAP



METHODOLOGY

The PPIC Statewide Survey is directed by Mark Baldassare, president and CEO and survey director at the Public Policy Institute of California, with assistance in research and writing from Jennifer Paluch, project manager for this survey, and survey research associates Dean Bonner and Sonja Petek. This survey was conducted with funding from The William and Flora Hewlett Foundation and benefited from discussions with foundation staff, grantees, and policy experts; however, the survey methods, questions, and content of this report were solely determined by Mark Baldassare.

The findings in this report are based on a telephone survey of 2,503 California adult residents interviewed from October 10 to 23, 2007. Interviewing took place on weekday nights and weekend days, using a computer-generated random sample of telephone numbers that ensured that both listed and unlisted numbers were called. All telephone exchanges in California were eligible. Telephone numbers in the survey sample were called up to six times to increase the likelihood of reaching eligible households. Once a household was reached, an adult respondent (age 18 or older) was randomly chosen for interviewing using the “last birthday method” to avoid biases in age and gender. Interviews took an average of 18 minutes to complete. Interviewing was conducted in English, Spanish, Chinese (Mandarin and Cantonese), Vietnamese, and Korean. We chose these languages because Spanish is the dominant language among non-English speaking adults in California, followed in prevalence by the three Asian languages. *Accent on Languages* translated the survey into Spanish with assistance from Renatta DeFever. Schulman, Ronca & Bucuvalas, Inc. translated the survey into Chinese, Vietnamese, and Korean, and conducted the telephone interviewing for this survey. We used recent U.S. Census and state data to compare the demographic characteristics of the survey sample with those of California’s adult population. The survey sample was closely comparable to the census and state figures. The survey data in this report were statistically weighted to account for any demographic differences.

The sampling error for the total sample of 2,503 adults is +/- 2 percent at the 95 percent confidence level. This means that 95 times out of 100, the results will be within 2 percentage points of what they would be if all adults in California were interviewed. The sampling error for subgroups is larger: For the 1,928 registered voters, it is +/- 2.5 percent; for the 1,447 likely voters, it is +/- 3 percent; for the 1,081 parents of children age 18 or under, it is +/- 3 percent. Sampling error is only one type of error to which surveys are subject. Results may also be affected by factors such as question wording, question order, and survey timing.

Throughout the report, we refer to five geographic regions, accounting for approximately 90 percent of the state population. “Central Valley” includes Butte, Colusa, El Dorado, Fresno, Glenn, Kern, Kings, Madera, Merced, Placer, Sacramento, San Joaquin, Shasta, Stanislaus, Sutter, Tehama, Tulare, Yolo, and Yuba counties. “San Francisco Bay Area” includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties. “Los Angeles” refers to Los Angeles County, “Inland Empire” includes Riverside and San Bernardino counties, and “Orange/San Diego” refers to Orange and San Diego counties. Residents from other geographic areas are included in the statewide results reported for all adults, registered voters, and likely voters. However, sample sizes for these less populated areas are not large enough to report separately in tables and text. We present specific results for respondents in the statewide sample in four self-identified racial/ethnic groups: Asian, black, Latino, and non-Hispanic white. We also compare the opinions of registered Democrats, Republicans, and independents (i.e., registered as “decline to state”) and we analyze the responses of likely voters—those who are the most likely to participate in the state’s elections. We compare current PPIC Statewide Survey results to those in national surveys by ABC News and national and state surveys by Public Agenda

and the California Higher Education Policy Center (“Public Agenda/CHEPC”) and by Public Agenda and the National Center for Public Policy and Higher Education (“Public Agenda/National Center”).

QUESTIONNAIRE AND RESULTS

CALIFORNIANS AND HIGHER EDUCATION

October 10-23, 2007

**2,503 California Adult Residents:
English, Spanish, Chinese, Korean, and Vietnamese**

MARGIN OF ERROR +/-2% AT 95% CONFIDENCE LEVEL FOR TOTAL SAMPLE

1. First, overall, do you approve or disapprove of the way that Arnold Schwarzenegger is handling his job as governor of California?

51% approve
37 disapprove
12 don't know

2. Overall, do you approve or disapprove of the way that Governor Schwarzenegger is handling California's public college and university system?

34% approve
39 disapprove
27 don't know

3. Overall, do you approve or disapprove of the way that the California Legislature is handling its job?

33% approve
50 disapprove
17 don't know

4. Overall, do you approve or disapprove of the way that the California Legislature is handling California's public college and university system?

29% approve
47 disapprove
24 don't know

5. Next, what do you think is the most important issue facing California's public colleges and universities today?

[code, don't read]

35% student costs, affordability, tuition, fees
14 not enough government funding
6 immigrants
5 administrative costs, salaries, waste
3 campus safety
3 overall quality of education
2 class size, teacher/student ratio
2 financial aid
2 not enough racial/ethnic, income diversity
2 teachers, teaching/instruction
13 other
13 don't know

[rotate questions 6 to 8]

Next, I'm going to read you a list of issues people have mentioned when talking about California's higher education system today. For each one, please tell me if you think it is a big problem, somewhat of a problem, or not much of a problem.

6. How about the overall quality of education in California's public colleges and universities today?

18% big problem
34 somewhat of a problem
43 not much of a problem
5 don't know

Californians and Higher Education

7. How about the overall affordability of education for students in California’s public colleges and universities today?

- 53% big problem
- 31 somewhat of a problem
- 14 not much of a problem
- 2 don’t know

8. How about the overall accessibility of education for students in California’s public colleges and universities today?

- 24% big problem
- 36 somewhat of a problem
- 37 not much of a problem
- 3 don’t know

9. Overall, do you think the higher education system in California—including public colleges and universities—is in need of major changes, minor changes, or that it is basically fine the way it is?

- 39% major changes
- 45 minor changes
- 12 fine the way it is
- 4 don’t know

As you may know, California’s higher education system has three branches— the California Community College system, the California State University system, and the University of California system.

[rotate questions 10 to 12]

10. Overall, is the California Community College system doing an excellent, good, not so good, or poor job?

- 14% excellent
- 52 good
- 21 not so good
- 5 poor
- 8 don’t know

11. Overall, is the California State University system doing an excellent, good, not so good, or poor job?

- 9% excellent
- 57 good
- 18 not so good
- 3 poor
- 13 don’t know

12. Overall, is the University of California system doing an excellent, good, not so good, or poor job?

- 15% excellent
- 52 good
- 17 not so good
- 4 poor
- 12 don’t know

Next,

[rotate questions 13 to 15]

13. Do you happen to know which branch has the highest state tuition and fees?

[rotate responses]

- 4% California Community College system
- 16 California State University system
- 57 University of California system
- 23 don’t know

14. Do you happen to know which branch has the most students enrolled?

[rotate responses]

- 42% California Community College system
- 21 California State University system
- 9 University of California system
- 28 don’t know

15. Do you happen to know which branch has the highest dollar amount of per student funding from the state government?

[rotate responses]

- 16% California Community College system
- 18 California State University system
- 22 University of California system
- 44 don’t know

In general, do you agree or disagree with the following statements? First,

[rotate questions 16 and 17]

16. Additional state funding would lead to major improvements in California's higher education system.

69% agree
27 disagree
4 don't know

Next,

17. Better use of existing state funds would lead to major improvements in California's higher education system.

83% agree
12 disagree
5 don't know

18. To significantly improve California's higher education system, which of the following statements do you agree with the most?

[rotate responses 1 and 2] (1) We need to use existing state funds more wisely, **[or]** (2) We need to increase the amount of state funding, **[or]** (3) We need to use existing state funds more wisely and increase the amount of state funding.

39% use funds more wisely
9 increase state funding
50 both
2 don't know

[rotate questions 19 to 22]

19. Do you think that a college education is necessary for a person to be successful in today's work world, or do you think that there are many ways to succeed in today's work world without a college education?

64% college is necessary
34 many other ways to succeed
2 don't know

20. In your view, has getting a college education become more difficult than it was 10 years ago, less difficult than it was 10 years ago, or is it about as difficult as it was 10 years ago ?

56% more difficult
13 less difficult
24 about as difficult
7 don't know

21. Next, compared to other things, are college prices going up at a faster rate, are college prices going up at a slower rate, or are they going up at the same rate?

61% faster rate
5 slower rate
22 same rate
12 don't know

22. Do you think that currently, the vast majority of people who are qualified to go to college have the opportunity to do so, or do you think there are many people who are qualified to go but don't have the opportunity to do so?

32% majority have the opportunity
65 many don't have the opportunity
3 don't know

Next, please say if you agree or disagree with the following statements.

[rotate questions 23 to 25]

23. The price of a college education keeps students who are qualified and motivated to go to college from doing so.

66% agree
31 disagree
3 don't know

24. Students have to borrow too much money to pay for their college education.

74% agree
22 disagree
4 don't know

25. Most families today do a good job of saving for their children's college education.

- 24% agree
- 71 disagree
- 5 don't know

Next, please tell me if you think the following groups of people have less opportunity, more opportunity, or about the same opportunity as others to get a college education.

[rotate questions 26 to 28a]

26. Do you think qualified students from low-income families, regardless of their ethnic background, have **[rotate responses 1 and 2]** [1] less opportunity, [2] more opportunity, **[or]** about the same opportunity as others to get a college education?

- 58% less opportunity
- 13 more opportunity
- 27 about the same
- 2 don't know

27. Do you think qualified students from middle-class families, regardless of their ethnic background, have **[rotate responses 1 and 2]** [1] less opportunity, [2] more opportunity, **[or]** about the same opportunity as others to get a college education?

- 28% less opportunity
- 16 more opportunity
- 54 about the same
- 2 don't know

28. Do you think qualified students who are ethnic or racial minorities, such as blacks or Latinos, have **[rotate responses 1 and 2]** [1] less opportunity, [2] more opportunity, **[or]** about the same opportunity as others to get a college education?

- 39% less opportunity
- 19 more opportunity
- 40 about the same
- 2 don't know

28a. Do you think people who are older and are going back to school for retraining, have **[rotate responses 1 and 2]** [1] less opportunity, [2] more opportunity, **[or]** about the same opportunity as others to get a college education?

- 25% less opportunity
- 17 more opportunity
- 54 about the same
- 4 don't know

I am going to read you several ways that the federal and state government can make California's higher education system more affordable to students. For each of the following, please say if you favor or oppose the proposal.

[rotate questions 29 to 32]

29. How about increasing government funding available for work-study opportunities for students to earn money while in college?

- 86% favor
- 12 oppose
- 2 don't know

30. How about increasing government funding available for student loans?

- 78% favor
- 20 oppose
- 2 don't know

31. How about increasing government funding available for scholarships or grants for students?

- 83% favor
- 15 oppose
- 2 don't know

32. How about spending more state government money to keep down tuition and fee costs, even if it means less money for other state programs?

- 57% favor
- 36 oppose
- 7 don't know

On another issue, concerning California's community college system,

[rotate questions 33 and 34]

33. How important to you is it that community colleges include career technical or vocational education?

- 76% very important
- 20 somewhat important
- 2 not too important
- 1 not at all important
- 1 don't know

34. How important to you is it that community colleges include classes that prepare students to transfer to four-year colleges and universities?

- 81% very important
- 15 somewhat important
- 2 not too important
- 1 not at all important
- 1 don't know

Next, please tell me how you would rate California's community colleges overall in achieving the following goals.

[rotate questions 35 and 36]

35. How about in preparing students to transfer to four-year colleges and universities? Are California community colleges doing an excellent, good, not so good, or poor job?

- 15% excellent
- 56 good
- 15 not so good
- 3 poor
- 11 don't know

36. How about in training students for career technical or vocational jobs? Are California community colleges doing an excellent, good, not so good, or poor job?

- 16% excellent
- 54 good
- 15 not so good
- 3 poor
- 12 don't know

37. Next, do you think the current level of state funding for California's higher education system is more than enough, just enough, or not enough?

- 7% more than enough
- 28 just enough
- 57 not enough
- 8 don't know

38. If there was a bond measure on the state ballot in 2008 to pay for construction projects in California's higher education system, would you vote yes or no?

- 64% yes
- 28 no
- 8 don't know

Here are some ideas that have been suggested to raise state revenues to provide additional funding for California's higher education system. For each of the following, please say if you favor or oppose the proposal.

[rotate questions 39 and 40]

39. How about raising the top rate of the state income tax paid by the wealthiest Californians?

- 65% favor
- 32 oppose
- 3 don't know

40. How about raising the state sales tax?

- 26% favor
- 72 oppose
- 2 don't know

41. Next, in general, how important is California's higher education system to the quality of life and economic vitality of the state over the next 20 years?

- 76% very important
- 20 somewhat important
- 2 not too important
- 1 not at all important
- 1 don't know

42. In thinking ahead 20 years, if current trends continue do you think California's economy will need **[rotate responses 1 and 2]** (1) a higher percentage, (2) a lower percentage, **[or]** about the same percentage of college-educated workers as today?

- 68% higher percentage
- 8 lower percentage
- 21 about the same percentage
- 3 don't know

43. In thinking ahead 20 years, if current trends continue, do you think California will have **[rotate responses 1 and 2]** (1) more than enough, (2) not enough, **[or]** just enough college-educated residents needed for the jobs and skills likely to be in demand?

- 14% more than enough
- 52 not enough
- 29 just enough
- 5 don't know

44. In thinking ahead 20 years, how important do you think it is for the state government to be spending more public funds to increase capacity in public colleges and universities?

- 51% very important
- 35 somewhat important
- 8 not too important
- 4 not at all important
- 2 don't know

45. How much confidence do you have in the state government's ability to plan for the future of California's higher education system?

- 14% a great deal
- 43 only some
- 30 very little
- 12 none
- 1 don't know

46. On another topic, some people are registered to vote and others are not. Are you absolutely certain that you are registered to vote?

- 77% yes *[ask q46a]*
- 22 no *[skip to q47]*
- 1 don't know *[skip to q47]*

46a. Are you registered as a Democrat, a Republican, another party, or as an independent?

- 42% Democrat *[skip to q48]*
- 33 Republican *[skip to q48]*
- 5 another party *(specify) [skip to q48]*
- 20 independent *[ask q47]*

47. Do you think of yourself as closer to the Republican Party or Democratic Party?

- 24% Republican Party
- 42 Democratic Party
- 27 neither *(volunteered)*
- 7 don't know

48. Generally speaking, how much interest would you say you have in politics?

- 28% great deal
- 39 fair amount
- 25 only a little
- 7 none
- 1 don't know

49. Would you consider yourself to be politically:

[read list, rotate order top to bottom]

- 11% very liberal
- 19 somewhat liberal
- 33 middle-of-the-road
- 24 somewhat conservative
- 11 very conservative
- 2 don't know

[d1-d4b: demographic questions]

[questions d4c to d4e asked only of parents of children age 18 or younger]

d4c. What do you hope will be the highest grade level that your youngest child will achieve: some high school, high school graduate, some college, college graduate, or a graduate degree after college?

- 1% some high school
- 4 high school graduate
- 4 some college
- 43 college graduate
- 46 a graduate degree after college
- 2 don't know

d4d. How worried are you about being able to afford a college education for your youngest child?

- 43% very worried
- 32 somewhat worried
- 12 not too worried
- 13 not at all worried

d4e. How do you feel about the progress, if any, that you have made so far in saving to help pay for your child's college education – do you feel you are ahead, behind, or just about where you should be at this point?

- 9% ahead
- 55 behind
- 33 just about where you should be
- 1 haven't started yet/will not be saving (volunteered)
- 2 don't know

[d5-d6: demographic questions]

[questions d6a and d6b asked only of residents with at least some college education]

d6a. Do you think that getting a college education was money and time well spent, or not?

- 92% yes
- 7 no
- 1 don't know

d6b. Would you recommend one of California's public colleges and universities to a friend or family member who was considering which college to attend?

- 82% yes
- 12 no
- 6 don't know

[d6c-d11: demographic questions]

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California Counts

POPULATION TRENDS AND PROFILES

Hans P. Johnson, editor

Volume 8 Number 4 • May 2007

Can California Import Enough College Graduates to Meet Workforce Needs?

By Hans P. Johnson and Deborah Reed

Summary

California's labor market has changed dramatically over the past two decades because of rising demand for highly educated workers. Although economic projections for California indicate a continuation of this trend, projections of educational attainment for the future population strongly suggest a mismatch between the level of skills the population is likely to possess and the level of skills that will be needed to meet economic projections. PPIC's report, *California 2025: Taking on the Future*, highlighted this mismatch and in this issue of *California Counts*, we assess whether the state will be able to attract enough college graduates from other states and other countries to meet the projected economic demand.

Our analysis shows that the state can do so only if it attracts college graduates in unprecedented numbers. But judging by recent trends, it seems unlikely that a substantial number of college graduates will migrate to California. Estimates for the 1990s and the early 2000s suggest that, on net, California attracted relatively few college-educated migrants from other states, and most recently, the state has seen more college-educated residents leaving for other states than arriving. One reason for this is California's high cost of housing, which has made the state less accessible to residents of other states. Moreover, the baby boomers, who historically provided California with a large supply of college graduates from other parts of the country, are beyond the young adult ages when interstate migration is most common.

To bridge the gap between supply and demand through migration, those with high skills would need to come from other countries.

To bridge the gap between supply and demand through migration, those with high skills would need to come from other countries. Hence, meeting the demand would require an intensification of current trends: Between 2000 and 2005, for the first time, immigrants to California with a college degree exceeded the number of immigrants who were not high school graduates. Large increases in the number of college graduates in other countries indicate that this trend could continue to intensify but the number of highly educated immigrants to California would still need to more than double to meet projected needs. U.S. immigration law would need to change fairly dramatically, and it seems unlikely that this will happen in the near future. Moreover, increasing global demand for highly skilled labor, including increasing demand in origin countries, makes it even less likely that California could successfully and sufficiently compete for large numbers of highly skilled labor from other countries.

We conclude that it is extremely unlikely that the projected need for highly skilled workers will be met mainly through the increased migration of college-educated workers. However, increases in college participation and graduation among California's residents could help meet these future demands. Such increases will be at least partly induced by the wage growth that will occur as highly skilled labor becomes relatively scarce. Public policy in California, a state where the vast majority of college students are in public institutions, has an important role to play in accommodating and even encouraging such increases.

Introduction

PIC's report, *California 2025*, highlighted the potential mismatch between the skill levels that will be needed in California's increasingly highly skilled economy and the skill levels the future population is likely to possess (Hanak and Baldassare, 2005; Johnson, 2005; Neumark 2005a).¹ Only 33 percent of the state's working-age adults were projected to have a college degree in 2020, but 39 percent of jobs in the state's economy were projected to need a college graduate worker. That analysis assumed that past trends in population change would continue into the future. In particular, past trends in patterns of college graduates moving into and out of the state were used to gauge future patterns. In this issue of *California Counts*, we assess whether the state might be able to attract even more college graduates from other states and other countries to meet the projected economic demand.

We begin with a discussion of the context: California's relatively highly skilled economy and the role that domestic and international migration has played in fueling economic growth. We then examine the projected skills gap in the absence of the migration of college-educated workers to gauge how many such workers the state would need to attract by 2025. In the final sections, we

consider the likelihood of bridging the skills gap through migration.

We focus on the skills gap in college graduate workers—an important focus of the *California 2025* study. However, we do not intend to imply that a policy focus on college graduates is the only way, or even the most important way, for California to prepare the future workforce. Certainly, other forms of workforce training, including vocational education, are important to consider in addressing the skills gap. Throughout the report, when we refer to skill needs or requirements, we mean the worker education levels that would be needed to meet economic projections. In 2025, as in any year, worker supply will equal worker demand in the sense that the education of Californians who work will be the same as the education of workers in California jobs. If the education levels of the population do not increase substantially more than projected in the *California 2025* study, then the California economy will be less highly skilled than projected.

Context

California's economy has long been characterized as relatively skilled, one that demands large numbers of college graduates. Moreover, California's economy has become more highly skilled over time, as has the economy in

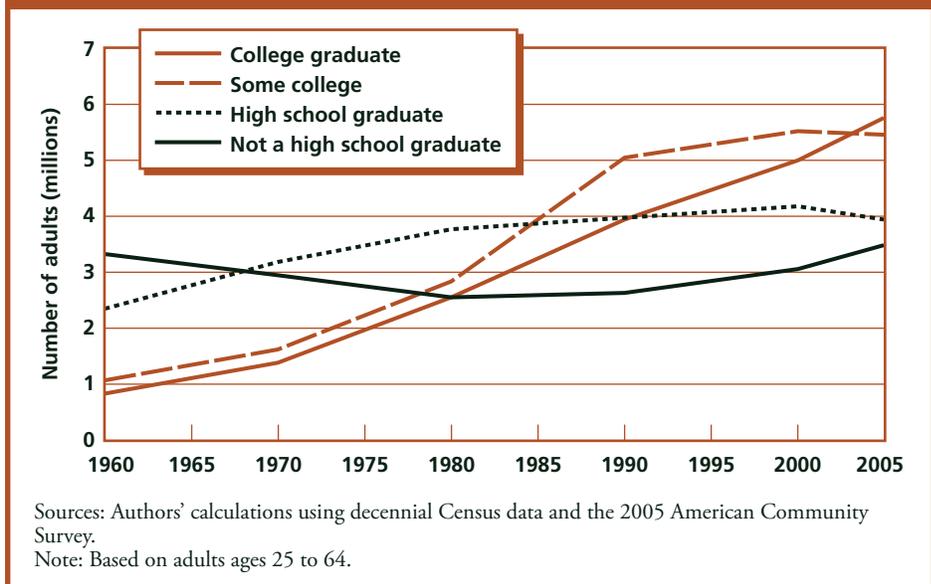
We conclude that it is extremely unlikely that the projected need for highly skilled workers will be met mainly through the increased migration of college-educated workers. However, increases in college participation and graduation among California's residents could help meet these future demands.

Immigration has long been an important source of college graduates in California.

the rest of the nation. Growth in the number of college graduates in California has outpaced overall population growth for decades.² In 1960, when the state's Master Plan for Higher Education was developed, only 10 percent of adults were college graduates; by 2005, 31 percent were. Between 1960 and 2005, the number of working-age adults with at least a bachelor's degree increased more than sixfold, whereas the overall working-age population almost doubled.³ By 2005, for the first time in the state's history, college graduates outnumbered any other education group (Figure 1). The state tends to be relatively well-educated compared to the rest of the nation; California ranks 12th among the 50 states in terms of the percentage of adults ages 25 and older who are college graduates (Figure 2).

Immigration has long been an important source of college graduates in California. A large majority of California's college graduates

Figure 1. California Adults, by Educational Attainment, 1960–2005



were born outside the state, a pattern that has persisted for many decades (Figure 3)—although within this group, the share born in other states has declined sharply and the share born in other countries has increased dramatically. Since 1980, these two trends have mostly offset each other.

Recent Trends in the Domestic Migration of College Graduates

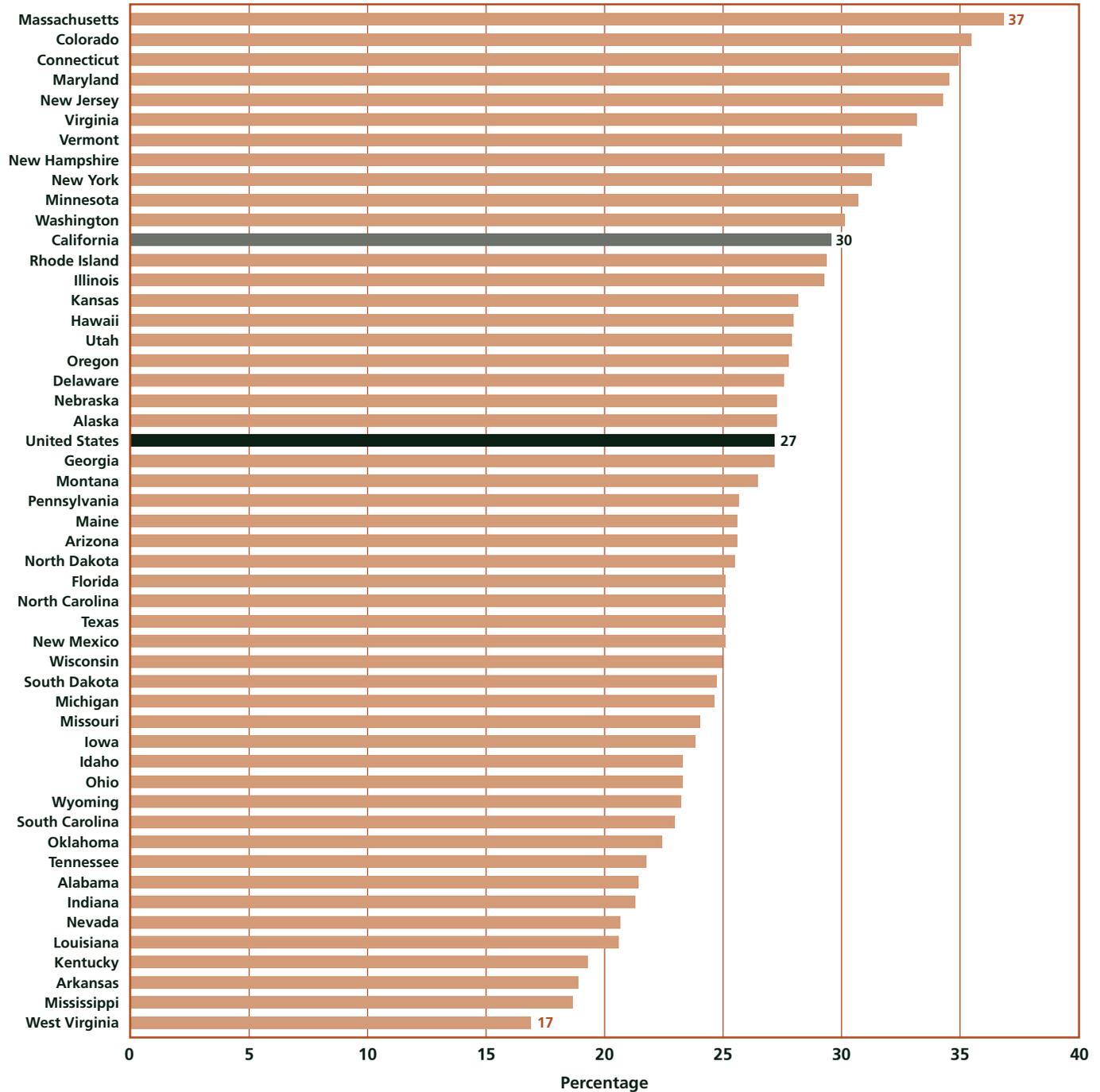
There is some dispute about the overall level of domestic migration into and out of California in this decade. The U.S. Census Bureau estimates that from 2000 to 2005, the state lost

644,000 people to other states and the California Department of Finance (DOF) estimates that the state gained 173,000 people via domestic migration during that period. Those two widely divergent estimates in turn imply very different recent levels of net flows of college-educated adults. The state estimate implies that California continues to gain college graduates from the rest of the United States, albeit fewer than in the past, whereas the federal estimates imply losses of college graduates.⁴ Annual estimates of net domestic migration from four sources (Figure 4) show that the discrepancy persists across years and is consistently in the same direction. American Community Survey (ACS) figures are closer to

California Counts

Can California Import Enough College Graduates?

Figure 2. Percentage of College Graduates Among Adults Ages 25 and over, by State, 2005

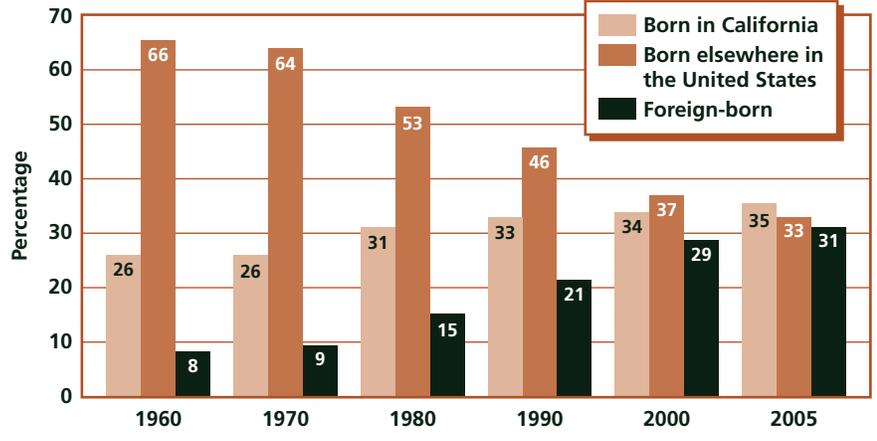


Source: Authors' calculations using the 2005 American Community Survey.

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Figure 3. Distribution of California College Graduates, by Place of Birth

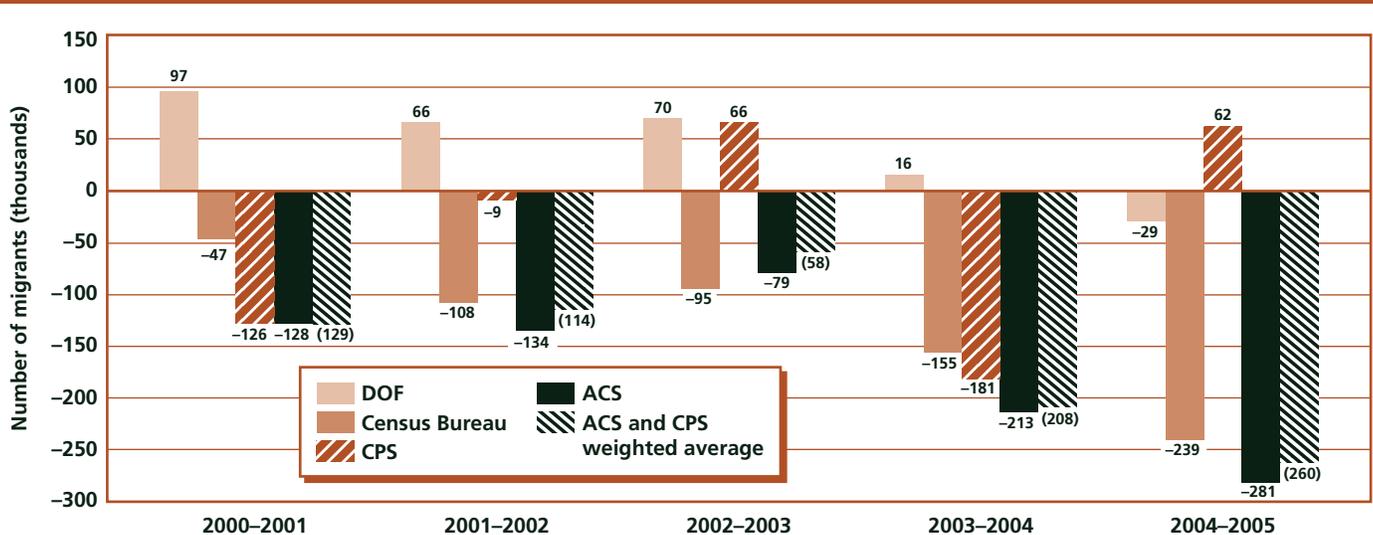


Sources: Authors' calculations using decennial Census data and the 2005 American Community Survey.
 Note: Based on adults ages 25 to 64.

those of the Census Bureau, and estimates from the much smaller federal Current Population Survey (CPS) are more volatile.⁵ The latest estimates from the state Department of Finance show net domestic migration losses continuing to 2005–2006 (not shown in Figure 4), so there is agreement that the state is now losing domestic migrants to other states, although the magnitude of that loss remains in dispute.

It is clear that since the 1970s, there has been a sharp decline in the share of California's college graduates who were born in other states. This is attributable to the overall decline in migration from other states across all education

Figure 4. Estimates of Annual Net Domestic Migration



Sources: Authors' calculations using Current Population Survey (CPS) and American Community Survey (ACS) data; California Department of Finance (DOF) E-6 report; and U.S. Census Bureau "Annual Estimates of the Components of Population Change," tables for the nation and the states.

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groups. This domestic migration, once the leading source of population growth in California before the 1990s, now contributes little if anything to it. From at least the 1940s through the 1970s, migration from other states was a far more important source of growth than international migration, but now the reverse is true.

Although net domestic migration overall has declined, sizable numbers of people still flow into and out of California. For example, data from the 2005 American Community Survey suggest that in 2004 and 2005, almost 500,000 people moved into California from other states but more than 700,000 moved out. The educational attainment distributions of these two flows are quite different, and so domestic migration still has an important effect on the share of college-educated Californians.

Those arriving from other states tend to be better educated, with a large share having graduated from college (Table 1). Between 2000 and 2005, almost half of this group of immigrants from other states had completed college. Those leaving California for other states tend to be less educated, with almost a third having no more than a high school diploma during the same time period. However, the relative sizes of the two groups are very different: Many more people are leaving the state than are moving here (according to the ACS data). Domestic migrants to Cali-

fornia are relatively few, so that in the early part of this decade, the state experienced no net increases in the number of college graduates moving to and from other states. Indeed, ACS data show that California lost some college graduates to other states, in addition to the hundreds of thousands of less-educated residents who also left. This outflow—of less-educated adults—leads to a higher percentage of college graduates among the population remaining here. In this decade, domestic migration has increased the percentage of Californians with a college degree primarily because less-educated residents are leaving. In contrast, in previous decades the state gained college graduates while losing less-educated adults (Table 2, bottom panel). Of course, if these estimates overstate outflows from the state, as suggested by California Department of Finance data, then domestic migration of college graduates to California is actually somewhat

In this decade, domestic migration has increased the percentage of Californians with a college degree primarily because less-educated residents are leaving.

higher. Still, it is not dramatically so, and the general pattern of greater losses of less-educated residents is undoubtedly true.

It is also clear that the share of college graduates among migrants arriving from other states has increased across time. In 1960, only 10 percent of California residents ages 25 to 64 who were born in another state were college graduates; by 2005, 43 percent

Table 1. Educational Attainment of Domestic Migrants Moving into and out of California, 2000–2005

	Domestic In, %	Domestic Out, %
Not a high school graduate	9.0	11.1
High school graduate	15.1	20.5
Some college	27.6	30.2
Bachelor's degree	28.4	25.0
Graduate degree	20.0	13.2

Source: Authors' calculations using the 2001–2005 American Community Surveys.

Notes: Respondents were asked where they lived one year before the survey. Based on adults ages 25–64.

Table 2. Domestic Migration Flows of Adults, by Educational Attainment

Domestic In-Migrants					
	Not a High School Graduate	High School Graduate	Some College	College Graduate	Total
1985–1990	120,000	220,000	377,000	461,000	1,178,000
1995–2000	79,000	139,000	276,000	475,000	969,000
2000–2005	118,000	194,000	350,000	612,000	1,274,000
Domestic Out-Migrants					
1985–1990	141,000	249,000	380,000	315,000	1,085,000
1995–2000	240,000	274,000	449,000	418,000	1,381,000
2000–2005	191,000	353,000	519,000	658,000	1,721,000
Net Domestic Migration Flow					
1985–1990	(21,000)	(29,000)	(3,000)	146,000	93,000
1995–2000	(161,000)	(135,000)	(173,000)	57,000	(412,000)
2000–2005	(73,000)	(159,000)	(169,000)	(46,000)	(447,000)

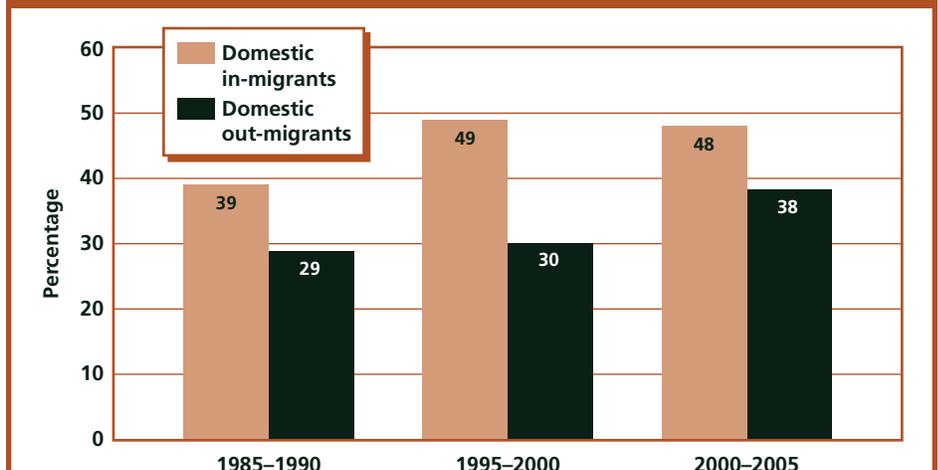
Sources: Authors' calculations using the 1990 and 2000 decennial Censuses and the 2001–2005 American Community Surveys.

Notes: Respondents were asked where they lived five years before the survey in the decennial Census. For 2000–2005, respondents were asked where they lived one year before the survey and we cumulated responses across five years. Based on adults ages 25–64.

were (see Figure 5). This increase was more pronounced than the overall increase in the share of college graduates in the state or nation; that is, the group coming to California from other states has become even more strongly skewed toward those with high levels of education.

All of this means that the net domestic flow of college graduates from other states has been quite small over the past 10 years—even turning negative in this decade for those ages 25 to 64 (but remaining positive if 20- to 24-year-olds are included). The state appears to be losing hundreds of thousands

Figure 5. Percentage of Domestic Migrants with a College Degree



Sources: Authors' calculations using decennial Census data and the 2005 American Community Survey.

Note: Based on adults ages 25 to 64.

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of less-educated adults to other places in the country. From 1995 to 2005, the state lost more than *one million* adults ages 20 to 64 who did not have a college degree, whereas it gained just under 100,000 college graduates from other states.⁶

Recent Trends in International Migration

For many decades, California has been the most popular destination of immigrants to the United States. The most recent large wave of international migrants to California and the United States began in the 1970s. That wave strengthened considerably in the 1980s and continued into the 1990s and this decade. In 1970, only 9 percent of Californians were foreign-born; today, about 30 percent are.

Many foreign-born residents of California are highly educated, although many more have low levels of educational attainment. In 2005, more than one-third (36%) of foreign-born adults in California (ages 25 to 64) had not graduated from high school, but college graduates do make up a substantial share. Indeed, foreign-born residents are only slightly less likely than California-born residents to have graduated from college (25% versus 29%). The share

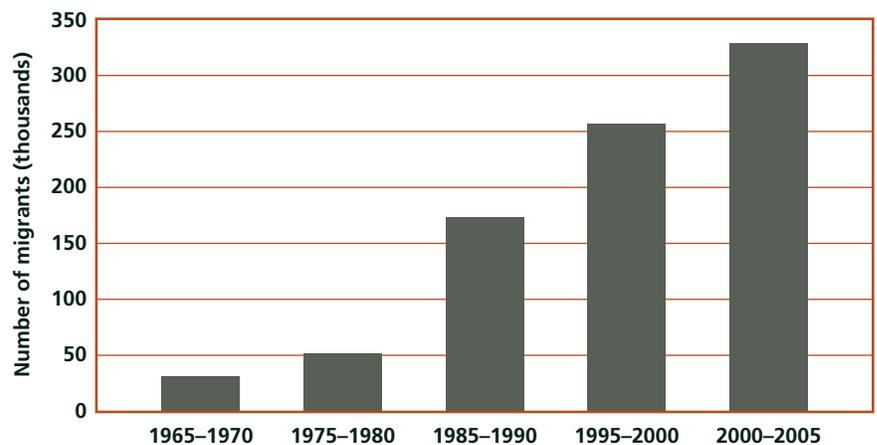
of college graduates among the state's foreign-born population has risen steadily over time. In 1960, among 25- to 64-year-olds, only 8 percent of the foreign-born in California were college graduates. In absolute terms, the number of foreign-born college graduates living in California increased almost 30-fold, from 65,000 in 1960 to 1.8 million by 2005. The number of recently arrived highly skilled immigrants has also increased dramatically (Figure 6).

Some international immigrants come to California as young children or young adults and complete their education in the state; others come to California already having completed college.⁷ As shown in Table 3, immigrants who have recently

arrived from other countries have been the best-educated immigrants California has ever received, with one-third having graduated from college. For the first time ever among recent international immigrants, the number of college graduates exceeded the number who had not completed high school.

Although we have data for domestic migration flows both to and from California, we do not have good information on the gross flows of migrants out of California to other countries and so do not know the net increase in college graduates resulting from international migration; the figures in Table 3 show only gross flows into the country. Both the Census Bureau and the California

Figure 6. Number of Foreign College Graduates Migrating to California



Sources: Authors' calculations using decennial Census data and the 2005 American Community Survey.

Table 3. Educational Attainment of Recently Arrived Immigrants, 1985–1990, 1995–2000, and 2000–2005

	Not a High School Graduate	High School Graduate	Some College	College Graduate	Total
18- to 64-year-olds					
1985–1990	505,000 (45%)	193,000 (17%)	217,000 (19%)	201,000 (18%)	1,116,000 (100%)
1995–2000	424,000 (39%)	186,000 (17%)	190,000 (17%)	286,000 (26%)	1,086,000 (100%)
2000–2005	342,000 (31%)	201,000 (18%)	204,000 (18%)	363,000 (33%)	1,110,000 (100%)
25- to 64-year-olds					
1985–1990	295,000 (39%)	122,000 (16%)	149,000 (20%)	184,000 (25%)	750,000 (100%)
1995–2000	253,000 (33%)	118,000 (16%)	127,000 (17%)	262,000 (34%)	760,000 (100%)
2000–2005	218,000 (28%)	120,000 (15%)	132,000 (17%)	320,000 (41%)	790,000 (100%)

Sources: Authors' calculations using the 1990 and 2000 decennial Censuses and the 2001–2005 American Community Surveys.
Note: Recently arrived immigrants are those who arrived within the past five years.

Department of Finance estimate net international migration to the state when developing annual estimates of the state's population. Combining those estimates, which are not broken down by age or education, suggests that the percentage of people leaving the state for other countries is between 11 and 23 percent of those arriving.⁸ Most emigration to other countries consists of return migrants—people returning to their original countries of departure after staying in the United States for some time. In a study of return migration to Mexico, Reyes (1997) found that less-educated, low-wage, and undocumented workers were more

likely than other workers to return to Mexico.

Trouble Ahead? Economic and Demographic Projections

To assess whether domestic and international migration might resolve the projected shortfall in the number of college-educated workers, we updated and extended our population projections and economic analysis from 2005 using new data. The text box “Economic and Demographic Projections

Methods” provides details of our approach.

The new economic projections are consistent with the previous series used in PPIC's *California 2025* report.⁹ The projections categorized by industry, show that the state's economy will continue to demand more highly educated workers. This occurs as the state's economy continues to shift toward industries that need more highly skilled workers and as skill levels increase within industries. The health and education services industry is projected to be the most important growth industry in the state, increasing from 10.8 percent of all jobs in 2005 to

Economic and Demographic Projections Methods

Economic projections. Projections of the educational demands of the future workforce follow the methods developed in Neumark (2005b). We use economic projections by industry from the California Department of Transportation (2005). For each industry, we calculate the education of California workers in 2005 using the *Earners Study of the Current Population Survey* from the U.S. Census Bureau. We project the education needs of the industry in 2025 assuming that the worker education changes occurring from 1995 to 2005 will continue (using linear extrapolation). For example, for health and education services, we estimate that the share of workers with a college degree increased from 36.7 percent to 42.6 percent from 1995 to 2005. Continuing this growth for two additional decades leads to a projection of 54.4 percent for 2025. Our projections reflect a continued upgrading in worker education within industries consistent with California's experience since 1980. Our approach, a continuation of recent trends, is also consistent with the approach used for the demographic and industry employment projections. Neumark (2005b) considers a "static" alternative projection whereby education needs within each industry remain at current levels. When combined with static demographic projections (i.e., people within each demographic group maintain current education levels; see Johnson, 2005), the projections also lead to a shortage of college-educated workers, although a smaller shortage than is implied by the projections here.

Demographic projections. We use a cohort component model to develop population projections by educational attainment. In this model, age-specific mortality and migration rates are applied to a base year population broken down by age to project subsequent year populations. In our model, because we want to develop projections in the absence of migration, we set migration rates equal to zero. We disaggregate our populations and mortality rates by age (five-year age groups up to 90 and older); by six mutually exclusive ethnic groups (white, Latino, African American, American Indian, Asian and Pacific Islander—referred to as Asian—and multiracial); by two nativities (U.S.-born and foreign-born) and two genders; and by five educational attainment categories (not a high school graduate, high school graduate, some college, bachelor's degree, and graduate degree). Because we set migration to zero, the model is fairly straightforward. For example, the number of U.S.-born Latino males ages 55 to 59 with a bachelor's degree in 2025 equals the number of U.S.-born Latino males ages 35 to 39 with a bachelor's degree in 2005 times the probability of surviving (one minus the mortality rate for that group) over the 20-year period. We also make an adjustment for education completed after age 30 based on recent trends in educational improvements by cohort. Our base population is the 2005 American Community Survey population broken down by the categories listed above. Fertility does not affect our projections because we focus only on the age range 25 to 64 in 2025. Mortality rates are age-, ethnic-, nativity-, and gender-specific (but not education-specific). Thus, we do not allow mortality rates to differ by educational attainment. Our base rates for mortality are from 2000 values calculated by combining administrative vital statistics data with Census counts of the state's population. We allow mortality rates to decline by 1 percent for each five-year period. For younger cohorts (e.g., those ages 5 to 9 in 2005 and 25 to 29 in 2025), we project completed educational attainment based on parents' educational attainment. We use our own previous estimates of the relationship between parents' education and children's eventual levels of education by ethnicity and nativity. See Reed et al. (2005) for our method.

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These economic projections suggest that by 2025, two of every five jobs (41%) will require a college graduate, an increase from less than one-third of all jobs in 2005.

13.2 percent of all jobs in 2025.¹⁰ In this industry, 43 percent of workers in 2005 held a bachelor's degree and, if trends over the last decade continue, that share is expected to grow to 54 percent by 2025. The second most important growth industry is projected to be professional services, which includes legal, engineering, and computer services, among others. The share of workers in this industry is projected to grow from 14.7 percent to 16.4 percent. The composition of this industry has been changing rapidly and the share of workers with a college degree is projected to grow from 35 percent to 54 percent in 2025. The manufacturing industry, where only 30 percent of workers have a college education, is projected to be the one most in decline, falling from 10.8 percent to 8 percent of all jobs.

These economic projections suggest that by 2025, two of every

five jobs (41%) will require a college graduate, an increase from less than one-third of all jobs in 2005 (Table 4). In absolute terms, the total number of jobs is projected to increase by 4.5 million. The vast majority of this net increase in jobs will be due to job growth at the high end, with 3.5 million additional jobs for people with either a bachelor's or graduate degree. Job growth is expected to be weakest for high school graduates and for those with some college but no degree. In those categories, the number of jobs is expected to grow less than 10 percent over the entire 20-year period. In contrast, there will be a 68 percent increase in jobs requiring a graduate degree and a 78 percent increase in jobs requiring a bachelor's degree.

How many college graduates would reside in California in 2025

if the state experienced no migration? Our projections show that if current trends continue without a major change in college-going and in college graduation, the proportion would remain essentially unchanged, with about three in 10 working-age adults having graduated from college, both in 2005 and in 2025 (Table 5). However, the ethnic makeup of these college graduates is expected to show some shifting, with some increases projected among Latinos and Asians. Among Latinos, the group least likely to graduate from college, younger cohorts will see especially strong increases. For example, among 30- to 34-year-olds, 18 percent are projected to be college graduates in 2025 compared to only 11 percent in 2005. This increase is due both to a greater share of U.S.-born Latinos in this cohort in 2025 than

Table 4. Skill Needs of Jobs in California (All Ages), by Educational Attainment

	Number of Jobs	
	2005	2025
Not a high school graduate	2,592,000 (17%)	3,079,000 (16%)
High school graduate	3,348,000 (22%)	3,671,000 (19%)
Some college	4,571,000 (30%)	4,849,000 (25%)
Bachelor's degree	3,167,000 (21%)	5,624,000 (29%)
Graduate degree	1,458,000 (10%)	2,452,000 (12%)
Total number of jobs	15,135,000	19,676,000

Sources: Authors' calculations using industry projections from the California Department of Transportation (2005) and worker education from the 1995 and 2005 *Earned Study of the Current Population Survey*.

Notes: See the textbox for our calculation methods. Percentages may not sum to 100 percent because of rounding.

Table 5. Percentage of Adults with a College Degree, 2005, and Zero-Migration Projections for 2025

Age Group	All Ethnic Groups		Whites		Latinos		Asians		African Americans	
	2005	2025	2005	2025	2005	2025	2005	2025	2005	2025
25–29	27	27	39	38	10	15	56	57	17	16
30–34	31	32	45	44	11	18	59	64	23	22
35–39	31	31	44	44	10	15	54	57	25	24
40–44	30	29	39	41	10	14	49	53	22	23
45–49	30	29	38	41	10	12	45	57	21	19
50–54	32	33	40	46	10	13	42	60	25	25
55–59	35	32	42	45	9	11	43	55	24	26
60–64	32	31	39	40	10	11	41	49	20	23
Total, 25–64	31	32	41	42	10	13	50	56	22	22

Sources: Authors' calculations for 2005 based on the American Community Survey; authors' projections for 2025.
Note: See the textbox for our calculation methods.

in 2005 (U.S.-born Latinos are much more likely than foreign-born Latinos to graduate from college), and to the increasing educational attainment of the parents of Latino children; parental educational attainment is a strong predictor of the educational attainment of children (Reed et al., 2005). Among Asians, already high levels of educational attainment will increase to even higher levels as very highly educated younger cohorts age and replace older cohorts who are not as well educated. For example, among 50- to 54-year-old Asians, the share with a college degree is projected to increase from 42 percent to 60 percent. Little change is expected in the proportion of whites with a college degree.

The lack of overall progress in educational attainment in the absence of migration can be

attributed to two related factors: the aging of highly educated older Californians past their working ages, between 2005 and 2025, and the increase in the share of the working-age population comprising ethnic groups that tend to have fewer college graduates. Currently, California's most-educated cohorts are older white adults. The three age groups in 2005 with the highest percentages of college graduates were 55 to 59 (35%), 50 to 54 (32%), and 60 to 64 (32%). The high levels of college completion among those groups is partly due to the efforts of many in the 1960s and 1970s to avoid being drafted and sent to serve in the Vietnam War; college attendance allowed men to defer military service and sometimes avoid it altogether (Card and Lemieux, 2001). As those cohorts age out of working ages, they will be replaced

by slightly less-educated younger cohorts. These replacement cohorts will have larger Latino populations, a group that historically has had relatively low levels of college graduation. In 2005, 32 percent of 25- to 29-year-olds in California were Latino; by 2025, that figure will increase to 47 percent in the zero-migration projections.

The difference (with some adjustments) between the population and economic projections helps us estimate of the size of the total college graduate migration, both domestic and international, that would be necessary to close the gap. The projections of jobs are based on our economic projections, and the projections of workers are based on our population projections. The adjustments take into account such factors as labor force participation rates, self-employment, and age group differ-

Recent trends show that college graduate migration from other states has been far too small to provide the number the state's economy will need.

Table 6. Jobs and Workers, by Educational Attainment, 2005 and 2025

	2005 Jobs and Workers	2025 Jobs	2025 Workers Under Zero-Migration Projections
Not a high school graduate	2,290,000	2,721,000	2,239,000
High school graduate	2,911,000	3,192,000	3,412,000
Some college	4,236,000	4,494,000	4,631,000
Bachelor's degree	3,046,000	5,409,000	3,458,000
Graduate degree	1,734,000	2,917,000	1,698,000
Total	14,217,000	18,733,000	15,438,000

Sources: Authors' calculations for 2005 based on the American Community Survey; authors' projections for 2025.

Notes: See the textbox for our calculation methods. The numbers have been adjusted from estimates of the population and industrial employment to estimates of workers and jobs (see the text for details).

ences between the two sets of projections. To estimate how many of the jobs shown in Table 4 will be filled by 25- to 64-year-olds, we use the ratio of 25- to 64-year-old workers to jobs in 2005, distinguished by education level, and then adjust the 2025 projections of jobs.¹¹ To estimate how many workers will be available in 2025, we apply 2005 labor force participation rates to our 2025 population projections.¹²

The results show that California would need to import large numbers of college-educated workers to meet the needs implicit in the economic projections (Table 6). The number would need to increase from 4.78 million in 2005 to 8.33 million in 2025—an increase of about 75 percent over two decades.¹³ The final column of Table 6 shows that the increase in

number of college-educated workers is not likely to be met without substantial migration. In the absence of migration, the number of workers with a college education is projected to be only about 5.16 million, or 3.17 million short of what will be needed.

Will College Graduates from Outside the State Close the Gap?

Recent trends show that college graduate migration from other states has been far too small to provide the number the state's economy will need (Table 7).¹⁴ Indeed, between 2000 and 2005, the state experienced an annual

net *loss* of college-educated domestic migrants ages 25 to 64; the state did experience small gains of less than 2,000 per year for 20- to 64-year-old college graduates. Even if the state were to return to the large positive flows of highly educated migrants from other states that was experienced in the late 1980s, those flows would fall far short of the projected need (left column of Table 7). Moreover, the general direction recently has been toward fewer, not more, college-educated domestic migrants.

As noted, international migration has been an increasingly important source of college graduates for California. Our estimates suggest that those flows have almost doubled from the late 1980s to the first half of this decade (Table 7). From 2000 to 2005, one-third of international immigrants arriving

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in California had a college degree. However, the net flows of college graduates from abroad still fall short of the projected need; in fact, they would have to more than double immediately to meet the projected annual requirements for the economy. And although the share of immigrants arriving with a college degree has risen over the long run, it has fallen recently from 37 percent in 2000–2001 to 29 percent in 2004–2005. This may be a consequence of the decline in the granting of visas for highly skilled workers, discussed below.

These trends suggest that it is unlikely that migration of college-educated workers will bridge the gap. Even during the late 1980s, when the greatest net number of college-educated people came to California, net migration was about 60,000—less than 40 per-

cent of the number required to meet the projected workforce needs.

Many factors could increase or decrease such migration. One is the overall attractiveness of California. An annual survey of U.S. adults has consistently found over the past several years that if respondents could live in any state outside their own, California would be their first choice (Harris Poll, 2006). The state's high home prices, often viewed as a barrier, may also reflect the increasing ability of more and more people with high incomes to choose where they want to live (Gyourko et al., 2006). However, those same housing prices have grown much faster than in other states, and high housing prices are still clearly a deterrent to moving here. In 1998, fewer than 10 percent of adults moving to other states cited

... the net flows of college graduates from abroad still fall short of the projected need.

housing as the primary reason they moved out of California in the previous year; by 2006, the percentage had jumped to 31.¹⁵

Wages are a second factor that will affect migration flows. A shortage of highly skilled workers in California should drive up their

Table 7. Annual Average Projected Migration Required to Meet Economic Projections, and Historical Trends in Migration, by Educational Attainment

	Projections	Historical Trends					
	Total Net Migration Required to Meet Economic Projections	Net Domestic Migration			Net International Migration		
		2005–2025	2000–2005	1995–2000	1985–1990	2000–2005	1995–2000
Not a high school graduate	24,100	(14,600)	(32,200)	(4,200)	39,440	43,010	50,150
High school graduate	(11,000)	(31,800)	(27,000)	(5,800)	21,250	20,060	20,740
Some college	(6,900)	(33,800)	(34,600)	(600)	22,780	21,590	25,330
College graduate	158,400	(9,200)	11,400	29,200	55,760	44,540	31,280
Total	164,700	(89,400)	(82,400)	18,600	139,230	129,200	127,500

Sources: Authors' projections for 2005 to 2025; authors' calculations of historical migration using decennial Censuses and American Community Surveys. Notes: Net international migration assumes out-migration equal to 15 percent of in-migration. Based on adults ages 25–64.

The growth in wages of college-educated workers in California was matched by strong growth in international migration.

Table 8. Real Hourly Wage in California and the Nation, by Educational Attainment (in dollars)

	1979	1989	1999	2005
California				
Not a high school graduate	22	19	19	21
High school graduate	24	21	20	21
Some college	27	24	25	26
Bachelor's degree	33	31	35	37
Graduate degree	34	36	39	44
United States				
Not a high school graduate	19	17	17	17
High school graduate	21	18	18	18
Some college	24	21	21	22
Bachelor's degree	30	28	30	32
Graduate degree	31	32	34	37

Sources: Authors' calculations using the 1980, 1990, and 2000 decennial Censuses and the 2005 American Community Survey.

Notes: The table shows the predicted hourly wages for working men with 15 years of experience holding constant demographic variables at the California average in 2000. Values are inflation-adjusted to 2005 dollars using the CPI-U-RS from the Bureau of Labor Statistics. Wages are not adjusted for cost-of-living differences between California and the rest of the nation.

wages and thus attract college-educated workers from other parts of the nation and world. At least two factors could work against this expectation, however. First, California is not the only state that needs these workers; the increase in demand is also expected in the rest of the nation (Neumark, 2005b). Second, the baby boomers, a large and important source of highly educated migrants to California in the past, have aged out of prime migration years. The youngest baby boomers in 2005 were 41 years old; and by 2025, many boomers will have reached retirement age (the oldest will be 79 years old).

Since 1989, both California and the nation have experienced rising wages for college-educated workers, but the wage growth has been greater in California (Table 8). In 1989, a typical male worker with a bachelor's degree earned \$31 per hour in California and \$28 per hour nationally—an 11 percent difference. By 2005, the average wage of such a worker had grown to \$37 in California, 16 percent higher than the national level of \$32 per hour. Despite this trend, the net migration of college-educated workers to California was much lower during recent years than in the 1980s or 1990s. So the better pay that California offers

may still not be a strong enough draw to attract enough college graduates from other states.¹⁶

By comparison, international migrants appear to have been more responsive to wage adjustments in California and this could continue to be true. The growth in wages of college-educated workers in California was matched by strong growth in the international migration of college-educated workers (Tables 7 and 8). The international pool of potential college-educated migrants from key countries is expected to continue to grow rapidly and could lead to substantial increases in the numbers of college graduates coming here. In 1970,

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71 percent of students enrolled in college worldwide were outside the United States; by 2000, this share had increased to 86 percent (Freeman, 2006a). California's college graduates are increasingly likely to come from India, with the Philippines and China remaining important sources as well. Along with Korea, those countries contributed more than half the state's immigrant college graduates between 1995 and 2005 (Table 9). Furthermore, the number of college graduates in India and China is growing rapidly. Between 1991 and 2004, for example, the total number of college graduates in India more than doubled, from 20.5 million to 48.7 million (Shukla, 2005). By 2010, Chinese

universities are expected to produce more Ph.D.s in science and engineering than U.S. universities will (Freeman, 2006b).

Federal Immigration Policy May Impede College Graduate Immigration

Immigration policy in the United States is slow to change and gives higher priority to the goal of family reunification than to the importation of highly skilled workers. Caps on the number of international immigrants admitted to live permanently in the United

California's college graduates are increasingly likely to come from India, with the Philippines and China remaining important sources as well.

Table 9. College Graduates in California in 2005 and Arriving Between 1995 and 2005, by Country of Origin

	Number	Percentage of Total
India	107,331	18
Philippines	76,937	13
China	72,834	12
Korea	53,865	9
Mexico	42,519	7
Russia	23,790	4
Japan	20,427	3
Canada	15,103	3
United Kingdom	14,411	2
Iran	10,954	2
All other countries	153,780	26
Total	591,951	100

Source: Authors' calculations using the 2005 American Community Survey.
Notes: Total does not sum to 100 percent because of rounding. Based on adults ages 20 and over.

States are much higher for those in family-based than for skills-based categories. In the federal fiscal year 2005, only 20 percent (226,000) of the 1.1 million immigrants given legal permanent residency in the United States were based on employment for highly skilled workers, and most of those, 123,000, were granted to the spouses and children of such workers.¹⁷ Only Congress can change immigration caps (although some categories, such as the minor child of a legal permanent resident, are not subject to caps) and so the system is slow to respond to changing labor and economic conditions. The U.S. sys-

Population projections show that without dramatic change, the state will not have the number of college graduates required by tomorrow's economy.

tem is often compared unfavorably to the Canadian approach, which places greater emphasis on skills and allows levels to vary annually.

The recent history of giving temporary visas for highly skilled workers, called H-1B visas, illustrates some of these problems. H-1B visas allow skilled workers to live in the United States temporarily, initially for a period of three years. Employers must sponsor such workers and both must meet a number of criteria to be eligible. The Immigration Act of 1990 set the annual cap for H-1B workers at 65,000. Many of these visa-holders work in the high-tech sector, and in 1997, at the height of the dot-com boom, the number of applications for H-1B visas exceeded the cap for the first time. In response, Congress decided to raise the cap, an action that was controversial. Many argued that

this action hurt U.S. workers. But by the time Congress responded by raising the cap (to 115,000 in 1999 and 2000, and 165,000 in 2001 through 2003), the dot-com boom had largely run its course and the number of applications was far below the caps. The quota returned to 65,000 in 2004. Since then, the demand for H-1B visas has risen dramatically with the number of applications exceeding the cap.¹⁸

Globalization Effects

Increasing global competition for skilled labor suggests that California must compete with more destinations, including other states, than in the past.¹⁹ Some studies of the technology sector suggest that a global shortage for skilled labor is already being felt and will intensify (McKinsey and Company, 2005). California will also be competing with the immigrants' countries of origin for their labor. Some research suggests that the international brain drain (which benefits California) is increasingly becoming "brain circulation," as international migrants from Taiwan and India return to their countries of origin to establish new firms or additional locations for California firms (Saxenian, 2006).

Furthermore, college graduate migration may be reduced by the offshoring of highly skilled jobs to lower-wage countries. The Bureau

of Labor Statistics (2006) has developed a list of 40 occupations susceptible to significant risk of offshoring in the future. Among the criteria for such work: It can be digitally transmitted, involves repetitive tasks, has clear requirements with few nuances, and has little face-to-face interaction. The list includes many engineering and computer-related occupations and others that have a relatively high share of workers with a bachelor's degree or more (48% for those on the list compared to 28% for other occupations).

Discussion

Economic projections indicate that California's employment will continue to shift toward college-educated workers, an intensification of trends over the last two decades. Population projections show that without dramatic change, the state will not have the number of college graduates required by tomorrow's economy. Meeting the skills gap by attracting more highly skilled migrants would require substantial increases in the number of college-educated migrants to the state, most likely from other countries. The net number of college-educated international migrants to California has grown rapidly, with annual averages about 11,000 higher in the early 2000s as compared to the late 1990s. But even if this number

were to continue growing by the same amount every five years, by 2025 the annual number would be just over 100,000—substantially less than 158,000, the estimated average number needed each year between 2005 and 2025 to close the gap. In the past, large increases in the number of highly educated international migrants have been partly offset by declines in the net flow of highly educated domestic migrants. California's high cost of housing has been at least one deterrent to attracting workers from other states. Future increases in the migration of college graduates to California will close some of the gap, but to close it completely would require an increase of unprecedented magnitude.

Faced with a shortage of highly skilled workers, wages are likely to rise for these workers, continuing the trend in the growing value of a college education in California. Wage adjustment should act as an incentive for more Californians to seek bachelor's degrees.

The state clearly has a role in encouraging and enabling Californians to attain bachelor's degrees. First, most Californians prepare for college in the public K–12

Economic projections indicate that California's employment will continue to shift toward college-educated workers, an intensification of trends over the last two decades.

system and a majority who start college do so through the public community colleges. Improvements or expansions in these systems will better prepare Californians for bachelor's degree programs. Furthermore, most bachelor's degree students in California attend a public institution. In 2005, 76 percent of adults graduating from a California college with a bachelor's degree attended a public college or university, so changes in public policy are likely to have direct effects. Ultimately, even strong growth in the numbers graduating from California colleges is unlikely to fully close the workforce needs gap.²⁰ Nevertheless, of all the times to make an effort to increase educational attainment, doing so now may be particularly advantageous and can lead to better economic opportunities for Californians and possibly better outcomes for the state. ♦

Notes

¹ The projected growth in demand for education in the California labor market continues a long-term trend over the last two decades in the state and in the nation (see Reed, 1999). Throughout this report, we use the term *highly skilled* to mean college educated.

² We define a college graduate as an adult with at least a bachelor's degree. For data before 1990, we define someone who has completed at least four years of college as a college graduate.

³ Throughout this report, working-age refers to adults ages 25 through 64. All data presented are for that age group unless otherwise noted.

⁴ Converting DOF net domestic migration estimates to gross flows and applying proportions of college graduates derived from CPS data to those gross flows yields an estimate of an annual net gain of 15,000 college graduates ages 25 to 64 between 2000 and 2005. However, even the DOF net domestic migration estimates imply a small net loss in the last two years.

⁵ The CPS and ACS samples are weighted to agree with Census Bureau estimates of the state's total population. If we instead weight the CPS and ACS to DOF's estimates of the state population, the estimates of domestic migration from the CPS and ACS samples change only slightly. For example, the ACS estimate of a net domestic migration loss of 834,000 between 2000 and 2005 is reduced to a loss of 771,000 using weights that sum to DOF population totals.

⁶ These figures are for all adults ages 20 to 64 and are based on the authors' calculations using 2000 Census data and the 2000–2005 American Community Surveys. From 2000 to 2005, California continued to gain young college graduates between the ages of 20 to 25 from other states even as it lost older college graduates to other states.

⁷ The Censuses and the American Community Survey attempt to include all residents of the United States regardless of legal status. Undocumented immigrants, a group with low levels of educational attainment, are almost certainly undercounted at a higher

rate than other groups, but the Census Bureau estimates that the 2000 Census had a lower undercount rate than the 1990 Census. Thus, the increases in educational attainment between 1990 and 2000 cannot be attributed to an increase in the undercount of undocumented immigrants. The extent to which undocumented immigrants are counted in the American Community Survey is unknown; however, the ACS population weights are based on independent estimates of the state's population that attempt to account for undocumented immigration.

⁸ Between 2000 and 2005, international in-migration to California totaled 1,514,000 according to the American Community Survey (the Current Population Survey places the figure at 1,550,000). The Census Bureau estimates the state's net international immigration at 1,342,000 for this same period, and the comparable figure from the California Department of Finance is 1,166,000.

⁹ Other projections show similar trends. We use CalTrans economic projections by industry, developed by Mark Schniepp of the California Economic Forecast, because they extend to 2025 and include farm workers. Neumark (2005b) shows that industry projections from the California Employment Development Department and the UCLA Anderson Forecast also imply a substantial demand shift toward college-educated workers. Projections of employment by occupation also show a demand shift but, when combined with occupational education needs produced by the Bureau of Labor Statistics (BLS), they suggest only a small increase in the share of jobs requiring at least a bachelor's degree. Nevertheless, Fountain (2006) concludes that California will face a shortage of college-educated workers using occupation projections from the California Employment Development Department combined with educational needs by occupation from the BLS. Because the educational needs estimates from the BLS account only for a single level of training for each occupation and do not consider the variation in educational needs within an occupation, we use the actual skill levels of workers for a more accurate picture of the range of skill requirements within an industry (see Neumark, 2005b, for further discussion of this issue). For example, within the group of occupations characterized by the BLS as requiring an associate's degree, almost half

of U.S.-born workers nationally report having a bachelor's degree. Controlling for other factors and specific occupations, workers in these occupations who have bachelor's degree earn an average of 17 percent more than workers who have an associate's degree, suggesting that the labor market does value a bachelor's degree even within these occupations. However, the labor market appears to place a lower value on a foreign bachelor's degree with 64 percent of foreign-born workers in these occupations holding a bachelor's degree and those workers receiving only 12 percent higher wages than similar workers with an associate's degree.

¹⁰ Health and education services does not include public school teachers who are classified in the "government" sector by the California Department of Transportation. This sector is projected to grow, albeit more slowly than the overall economy.

¹¹ This adjustment implicitly assumes that several factors will remain the same in 2025 as in 2005 within each education group: the share of jobs held by people ages 25–64, the share of people with more than one job, the share of people self-employed, and the share of people in the Armed Forces. There are several plausible alternatives to these assumptions, but the alternatives do not lead to changes in the estimates of sufficient magnitude to affect our conclusions drawn from Table 7.

¹² This adjustment implicitly assumes that labor force participation rates will remain the same in 2025 as in 2005 within each education group. In the event of a shortage of skilled workers, growth in the wages of such workers would likely induce an increase in labor force participation. However, even if labor force participation among college-educated workers increased from current levels of about 83 percent to 95 percent, the net migration need in the first column of Table 7 would remain substantial at about 131,000 college-educated workers annually.

¹³ With no migration, the projected number of workers with a graduate degree in 2025 is lower than the number in 2005. This occurs because foreign-born workers are a particularly large share of California workers with a graduate degree.

¹⁴ The net migration estimates in Table 7 are based on the migration of people ages 25 to 64. Some younger migrants will arrive before 2025 and will be of working age by 2025. We estimate the net number of such migrants to be about 23,000 migrants annually, judging by past trends in child and young adult migration. Even if half of these migrants were to obtain a bachelor's degree, the estimated number of college-educated workers needed annually would remain substantial at almost 147,000.

¹⁵ Based on authors' calculations using annual Current Population Survey data. Figures for college graduates are similar, with only 7 percent citing a housing-related reason in 1998 and 27 percent doing so in 2006. Housing-related reasons include cheaper housing, new or better housing, owning rather than renting, wanting a bet-

ter neighborhood, and establishing one's own household (but not a change in marital status). A plurality of domestic out-migrants (37% in 2006) cite job-related reasons.

¹⁶ Table 8 also shows that since 1989, wages for college-educated workers have grown whereas wages for high-school-educated workers have been stagnant in California and in the nation. These trends suggest a rising demand for college-educated workers, consistent with our projections.

¹⁷ Of course, some of the family-based immigrants are highly educated. Estimates are based on data compiled from the *Yearbook of Immigration Statistics* (U.S. Department of Homeland Security, 2006).

¹⁸ For federal fiscal year 2008, the limit on H-1B visas was reached in the first day that such applications could be filed, with 150,000 applications filed on April 2, 2007.

¹⁹ In 2005, 27 percent of the nation's immigrants resided in California, compared to 33 percent in 1980. California's share of highly educated immigrants has also declined slightly over this time period (24% of college graduates in 2005 lived in California, compared to 27% in 1990).

²⁰ Data from the California Postsecondary Education Commission show that roughly 140,000 people graduate with a bachelor's degree from California colleges each year. For studies of the value to California of college-educated workers and the returns to state investments in college education, see Fountain (2006) and Brady et al. (2005).

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California Counts

POPULATION TRENDS AND PROFILES

Hans P. Johnson, editor

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California's Community College Students

By *Ria Sengupta and Christopher Jepsen*

Summary

The California community college system describes itself as the largest postsecondary education system in the world (CCCCO, 2006a), with more than 2.5 million mostly part-time students enrolled in more than 100 colleges around the state. These institutions offer a broad variety of courses for their students, including academic coursework for an associate's degree or transfer to four-year colleges and universities, vocational training, basic skills, English as a second language (ESL), and enrichment courses.

In this issue of *California Counts*, we examine the community college population in California. Why do students attend, and how do their goals differ in relation to their demographics? Which students achieve their objectives for attending community college? Who returns for a second year, who transfers to a four-year institution, and who obtains a degree or certificate? Answers to these questions provide a basic yet essential backdrop for understanding how community colleges serve California's diverse population.

Given such a large student body, it should be no surprise that community college students are an extremely diverse set of people. In 2003, half of all students were aged 17 to 20, but almost two out of five students were over age 25. The share of younger students has grown in recent years, while the share of older students has dropped. Females outnumbered males, and this difference increased with age. About 40 percent of entering community college students were white, about 30 percent were Latino, and almost 15 percent were Asian/Pacific Islander (API). Most had high school diplomas, but substantial numbers of students without diplomas or with postsecondary degrees also attended.

We identified students' reasons for attending community college according to the classes they took in their first year. Students took a majority of their classes in one of five areas:

... only about a quarter of students who were focused on transfer courses in their first year eventually transferred to a four-year institution.

classes that are transferable to a four-year institution, vocational education, basic skills or ESL courses, noncredit classes, and miscellaneous courses (which often include associate's degree courses). Nearly half of community college students took primarily transfer classes, about 15 percent took primarily vocational classes, and fewer than 10 percent took noncredit classes. Almost 15 percent of students took a majority of basic skills and/or ESL classes, and another 15 percent took miscellaneous classes or classes that are only associate's degree eligible.

However, there was much diversity in course-taking patterns across different categories of students. Younger students usually enrolled in transfer courses, while older students focused on vocational education and noncredit courses. As one might expect, students without a high school diploma and students with a foreign diploma were much more likely to take basic skills classes than were students with higher educational levels.

Students of every racial/ethnic group were more likely to take transfer-eligible courses than other types of courses. However, a greater percentage of Latinos took basic skills classes (which are often ESL classes) than did students of other racial/ethnic groups. A much greater percentage of the community college student population was Latino than in the University of California (UC) or California State University (CSU) systems. Yet, Latinos were still underrepresented in community college, compared with their share of the state population.

Community colleges have very high turnover. Half of the students did not attend after their first year. However, transfer-focused students were more likely to return for a second year than were vocational, basic skills, or noncredit students. Most of those who stayed for a second year maintained the academic focus they had begun in their first year. Aside from the large number who left in their first year, students showed no other clear patterns of attendance duration.

Most students did not earn a degree or transfer to a four-year institution. Providing associate's degrees is a major function of community colleges, yet less than one-tenth of students earned an associate's degree. In addition, only about a quarter of students who were focused on transfer courses in their first year eventually transferred to a four-year institution. Associate degree and transfer rates were highest for younger students and those with either a traditional U.S. or foreign high school diploma.

Transfer rates differed enormously by race/ethnicity, even when looking at the group most likely to transfer to a four-year institution—U.S. high school graduates between 17 and 20 years of age. The transfer rate for APIs

was double the rate for black, Latino, and American Indian students, even though they were all of comparable age and previous educational level.

State policymakers acknowledge the range of community college functions by requiring multiple measures of accountability. Our findings suggest that policymakers should continue to consider multiple outcomes. We also identify three ongoing challenges in the California community college system. The first is the declining age of students, which raises the question of whether older students are losing access to community college. The second challenge is the pervasive attrition of the student population, which results in students leaving the system without a degree or transfer completion. Lastly, older students, Latinos and blacks, and students without a high school diploma have substantially lower transfer rates and degree completion than other students. If community college continues to be the dominant form of higher education for these students, achievement rates for these students must improve.

Ria Sengupta is a research associate at the Public Policy Institute of California and Christopher Jepsen is the associate director of the Center for Business and Economic Research at the University of Kentucky. Views expressed here do not necessarily reflect those of PPIC. The authors thank Tom Nobert and Patrick Perry of the California Community College Chancellor's Office (CCCCO) for providing access to and assistance with using the data. The authors acknowledge the helpful comments of Amanda Bailey, Pamela Burdman, Anne Driscoll, Robert Gabriner, Richard Greene, Willard Hom, Hans Johnson, Tom Nobert, Heather Rose, and Leslie Smith.

Introduction

Community college is the most common form of postsecondary education in California, comprising over 70 percent of all public higher education enrollment in the state.¹ California's 110 community colleges serve 2.5 million students a year (California Community College Chancellor's Office [CCCCO], 2006a). Although most students attend community college part time, this number still translates to more than a million full-time-equivalent students. In contrast, the California State University (CSU) system enrolls about 400,000 students, and the University of California (UC) system enrolls about 200,000 students (California Postsecondary Education Commission [CPEC], 2006).²

The California community college (CCC) system differs from other higher education systems because of its numerous educational functions. California's Master Plan for Higher Education, adopted in 1960, designates several community college missions. The primary one is to provide "academic and vocational instruction at the lower division level to both younger and older students, including those persons returning to school" (California Education Code, 2005). Other missions include workforce training, remedial education, English as a second language (ESL) instruction, adult noncredit instruction, and

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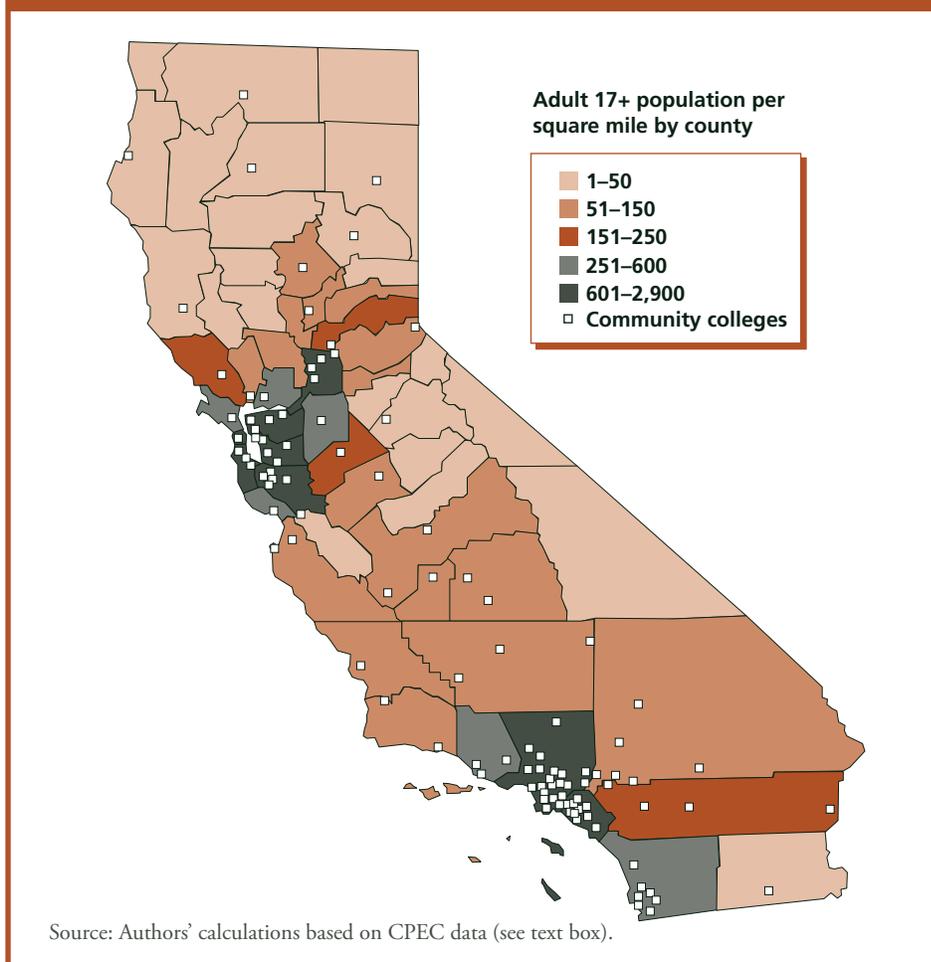
California's Community College Students

Anyone who is a high school graduate, is over the age of 18, or can benefit from instruction is eligible to attend community college.

community service courses and programs (University of California Office of the President, 2006). In contrast, the CSU and UC systems have fewer and more focused missions. CSU's mission is to provide undergraduate, graduate, and professional education, while the UC system provides undergraduate, graduate, and professional education and conducts academic research.

Community colleges are located throughout California and range from large urban institutions to small rural ones. Figure 1 maps California's 110 community colleges, along with the adult (17 years and older) population density in each county. Anyone who is a high school graduate, is over the age of 18, or can benefit from instruction is eligible to attend community college (CCCCO,

Figure 1. Distribution of California's Community Colleges



2006c). Providing both precollegiate and transfer-level courses, the system offers affordable options for students preparing to transfer to a four-year institution. About one-third of UC and two-thirds of CSU graduates began their higher education at a community college (EdSource, 2005a). The CCC system also offers two-year associate's degrees in a variety of subjects

such as liberal arts and accounting, as well as certificates and licensing courses in professions such as nursing and real estate.

An increasingly common goal of community college students is to improve basic skills, including command of English. Many students also enroll to finish coursework for a General Educational Development (GED) test or to

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prepare for a citizenship exam. Others enroll in nonacademic enrichment courses in topics such as gardening, knitting, and self-defense. In addition, the system's flexibility often allows students to remain in the workforce while taking classes. In fact, almost 80 percent of community college students also work (CCCCO, 2006c).

Although some colleges focus on a particular mission, such as Santa Barbara City College's transfer focus and Los Angeles Trade-Tech College's vocational focus, the majority of community colleges have no such well-defined or articulated objective. Instead, they try to serve many types of students—focusing on breadth rather than depth. The missions emphasized at each college vary according to their physical proximity to UC and CSU campuses and the needs of the surrounding community (Gill and Leigh, 2004).

The multiple missions of community colleges provide several avenues for them to improve labor-market outcomes. Kane and Rouse (1995) show that many forms of postsecondary education lead to higher earnings. The highest increases are for four-year degrees, but substantial returns also exist for two-year degrees. In fact, the authors find an 8- to 10-percent increase in annual earnings for students who attend a community college but do not complete a degree. Jacobson, LaLonde, and Sullivan (2005)

also find substantial returns for community college credits in their study of displaced workers in the state of Washington. Thus, simply attending community college is associated with higher earnings.

The CCC system's wide-ranging functions also make it difficult to establish optimal per-pupil funding levels. California's community college student fees and state funding have changed considerably in recent years. From the spring of 1993 to the spring of 2003, student fees ranged from \$10 to \$13 per unit (Perry, 2005a). California's recent budget crisis resulted in a fee increase to \$18 per unit for the 2003–04 school year, and another increase to \$26 per unit for the following year. However, California lawmakers recently approved a state budget that reduces student fees to \$20 per unit starting in the spring of 2007 (\$600 a year for a full-time student). Although the fee hike from \$11 in the 2002–03 school year to \$20 in 2007 translates into an 82 percent increase, California's community college tuition is still significantly lower than the national community college average of \$2,155 for the 2003–04 school year (EdSource, 2005b).

The CCC system's state funding has also recently changed. Student enrollment fees make up a small share of community college funding, typically less than 5 percent. Most of the system's revenue comes from the state general fund

... the system's flexibility often allows students to remain in the workforce while taking classes. In fact, almost 80 percent of community college students also work.

and from local property taxes (Murphy, 2004). For the first time in nearly a decade, funding per full-time-equivalent student (FTE) fell from \$4,634 in 2001–02 to \$4,443 in 2002–03.³ Course availability and student services dropped as well (Perry, 2005a). State funding and course offerings have fluctuated in the years since. The estimated FTE funding level for the recently approved 2006–07 state budget is \$5,346, although the exact amount varies by college. Still, community colleges receive much lower funding per FTE than do the UC, CSU, or K–12 education systems.

Opinions differ about whether current funding for California's community colleges is sufficient. The California Legislative Analyst's Office (LAO) asserts that because actual enrollment has

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declined since 2002, current funding outpaces enrollment growth (LAO, 2005). Furthermore, because CCC student fees are the lowest in the country and financially needy students qualify for fee waivers, LAO has questioned the idea that fee hikes negatively influence enrollment (LAO, 2006). However, the CCCCCO and many individual colleges consider enrollment decline as a reflection of increased student fees, the 2002 budget crunch, and subsequent decreased course availability. While the system's missions and student composition have expanded and diversified considerably, college officials contend that funding has not correspondingly increased.

All community colleges must comply with a variety of federal and state accountability regulations. For instance, the federal Student Right-to-Know (SRTK) policy requires colleges to collect and report annual transfer, associate's degree, and certificate completion rates for full-time, degree-seeking freshmen (CCCCO, 2006d). These SRTK rates are intended to give students a measure by which to compare prospective colleges. In addition, the Workforce Investment Act requires community colleges to meet performance levels for labor market indicators such as employment placement and retention rates and wages (Gill and Leigh, 2004). The Perkins Vocational

and Technical Education Act mandates colleges to report vocational education students' completion, transfer, and employment rates (Gill and Leigh, 2004).

As a product of California State Assembly Bill 1417 (Pacheco, R-Walnut), in 2005 the state established its own set of community college accountability standards. Specifically, these standards require the CCCCCO to compile and submit college- or district-level performance indicators such as degrees and certificates earned, credits earned, transfer rates, retention rates, vocational and workforce development course completion, and basic skills and ESL course completion and improvements (CCCCO, 2006e). The report must also include annual improvements and comparisons to similar colleges and districts. The first annual report is due to the legislature and the governor in March 2007. Because colleges can face delayed or reduced state funding for missing deadlines for data submission, this mandate significantly affects the entire CCC system. The legislature has not determined how the accountability reports will be used at the state level to improve the system. Nevertheless, the report will give communities and college boards detailed information about the effectiveness of individual colleges.

Given the arrival of the first state accountability report in 2007, now is a crucial time to

understand who attends community college in California and why. How do these goals change according to student demographics? Which students achieve their objectives for attending community college and which do not? Answers to these questions provide a basic yet essential backdrop for understanding how community colleges serve California's diverse population.

Why Do Students Enroll in Community College?

Upon entering the California community college system, many students identify their principal educational reasons for attending (see Table 1). Of the students who began college in 2003–04 and answered administrative questions regarding their education goals, one in five indicated indecision on a goal when entering the system.⁴ One-third of students identified transferring to a four-year institution (with or without an associate's degree) as their educational goal. One-fifth of students indicated their goals were discovering or formulating career interests, preparing for a new career, or engaging in educational development. For these students, community college is an avenue to explore new career options. Almost one in ten students

Description of California Community College Data

In this issue of *California Counts*, we analyze the course-taking characteristics, transfer rates, and degree outcomes of students who entered the California community college system for the first time during the 2003–04 school year. We use administrative data from the California Community College Chancellor's Office, which contain students' demographic, course-taking, and academic-standing records for each term. To identify student demographic changes over time, we compare the 2003–04 students to those who entered the system during the 1997–98 school year.⁵ The 1997–98 cohort is also used to analyze long-term outcomes such as transfer rates and degree completion.

We omit several schools and student groups from our analysis. First, we exclude seven institutions that are part of a community college district, but are actually adult schools that focus only on adult education. Adult school is offered in some areas through the community college district and in others through the K–12 school district, so we exclude all adult schools to be consistent across regions. Second, we omit Copper Mountain College, Folsom Lake College, and West Hills College–Lemoore because they did not exist during the two years of our analysis (1997–98 and 2003–04).⁶ Finally, we exclude students who are currently enrolled in high school because they are primarily served through the K–12 system. Providing high school students with classes that are unavailable in the K–12 system is an important function of community colleges, but our report focuses on the educational objectives and outcomes of postsecondary students. For the same reason, we also omit students under the age of 17. Our final sample includes 107 community colleges, resulting in 539,241 students from the 1997–98 cohort, and 561,078 from the 2003–04 cohort.

The records for each student and term are linked by a student identifier. For more than 90 percent of students, the identifier is the student's Social Security number. However, the Social Security number is self-reported. Identifiers that are not Social Security numbers are college specific and cannot be matched to transfer data.

We use data from several other sources to compare community college students to other populations. We use CPEC college address information to map community colleges, and we use CPEC enrollment data to contrast community college student enrollment figures with UC and CSU enrollment. To compare the community college age distribution to that of California's adult population, we employ California Department of Finance demographic data. Lastly, to analyze racial/ethnic composition, we use both CPEC data (to assess representation in each higher education system) and American Community Survey data (to assess representation in the state population).

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wanted to update job skills or maintain a certificate or license (such as in nursing or real estate) as a primary goal. These students view community college education as a way to maintain or advance an existing career. Few students chose the sole goal of obtaining an associate's degree; earning a vocational education degree or certificate; improving English, reading, and other basic skills; or completing credits for a high school diploma or GED. This does not necessarily mean that few students attend community college for these discrete goals. Rather, these results show that not many students acknowledge these goals as their sole purpose for enrolling.

Students' initial stated goals are closely related to future course-taking patterns and outcomes (Bers and Smith, 1991; Driscoll, 2006). However, more than one

in ten students did not state an initial goal; many more are undecided about their goal, and others change their goal during their first year after discovering course requirements. A more reliable measure of students' intentions is the pattern of courses they take in their first year. For example, if a student took a majority of transfer-eligible classes in her first year, it is likely that her objective is to transfer to a four-year institution, even if she does not designate a transfer goal upon entering the system.

To identify students' objectives in community college, we grouped students into one of five course-taking categories: transfer, vocational education, basic skills or ESL (BS-ESL), noncredit, or miscellaneous (see Table 2). These categories all encompass specific missions of the CCC system. Transfer and vocational education

both have long traditions in California's community colleges. Basic skills classes, ESL, and noncredit instruction are also common CCC focuses. The fifth and final category is a combination of classes, often encompassing classes that are associate's degree eligible but are not transfer eligible. Each of these categories is mutually exclusive, meaning students fell into only one of these five course-taking groups.

Students who took a majority of UC- and/or CSU-transferable classes during their first year at community college were placed in the transfer category. These transferable courses, such as introductory psychology or political science, are nonvocational and are taken for credit. The second category includes students who took a majority of nonbasic vocational or occupational classes, such as classes to train as an administrative assistant or to learn electrical technology. Some vocational education classes are also transfer eligible, and we categorized these as vocational, rather than transfer. Students in the BS-ESL course-taking category enrolled primarily in classes such as GED preparation, literacy, basic math, remedial coursework, or ESL during their first year. The noncredit category includes students who took classes such as cooking or time management for enrichment, rather than for academic or occupational purposes. Lastly, the miscellaneous category consists of students who

Table 1. Percentage Distribution of Community College Students by Educational Goal, 2003 Cohort

Stated Educational Goal	% with Goal
Transfer to a four-year institution	33
Associate's degree only	4
Vocational education degree or certificate	4
Career interests and preparation, educational development	21
Career advancement, certificate, or license maintenance	9
Basic skills	4
Complete credits for high school diploma or GED	3
Undecided	21

Source: Authors' calculations based on CCCCCO data (see text box).
Note: Column does not sum to 100 because of rounding.

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Table 2. Percentage Distribution of First-Year Course-Taking Categories, 2003 Cohort

Course-Taking Category	%	Category Description	Example Courses
Transfer	48	Students who took a majority of UC/CSU transferable courses (nonvocational)	Introduction to psychology, calculus
Vocational	16	Students who took a majority of vocational/occupational courses	Dental assisting, electrical technology
BS-ESL	14	Students who took a majority of precollegiate BS-ESL courses	ESL, basic math, tutoring
Noncredit	7	Students who took a majority of enrichment or community-oriented courses not for credit	Cooking, self-defense, traffic school
Miscellaneous	15	Students who took a majority of nontransferable associate's degree-eligible courses or did not take a majority of courses in any other group	Geometry, introduction to sports medicine

Sources: Authors' calculations based on CCCCCO data and authors' interpretations of individual CCC catalogues.

did not take a majority of courses in any one of the other categories. This included students who took associate's degree-level classes not transferable to a four-year institution, or some combination of classes from the other categories. There is some overlap between students in the transfer category and those in the miscellaneous category because all transfer-eligible courses are also associate's degree eligible. Table 2 shows that almost half of all community college students in the 2003 cohort took a majority of UC/CSU transferable courses in their first

year. Sixteen percent took primarily vocational classes, and another 15 percent were categorized as miscellaneous. BS-ESL (14%) and noncredit (7%) students represented smaller, but still substantial shares.

Students' objectives differed by age, race/ethnicity, and other student characteristics. The next subsections discuss these patterns.

How Do the Reasons for Attending Community College Vary with Age?

Students of all ages attend community college (see Table 3). While

While half of students were of traditional college age (between 17 and 20 years old) in 2003, substantial numbers of students were 21 years or older.

half of students were of traditional college age (between 17 and 20 years old) in 2003, substantial numbers of students were 21 years or older.

Overall, the 2003 entering class was younger than in 1997 (as shown in Table 3). The share of community college students between the ages of 17 and 20 grew from 39 percent in 1997 to 49 percent in 2003, while the three oldest age groups shrank during the same time period. This decline in older students is likely due to the reduction in course offerings. Budget cuts in 2002 resulted in decreased evening and weekend vocational and nontransfer classes throughout the state (Perry, 2003; Perry, 2005b). Older students are more likely than younger students to take these types of courses because their daytime hours are more constrained by work and family obligations. Thus, they are more likely to be affected by a drop in course offerings.

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Table 3. Percentage Distribution of Community College Students by Age and Year

Age Group	Community College Population		State Population (17 and older)	
	1997	2003	1997	2003
17-20	39	49	8	8
21-25	12	13	10	9
26-34	16	12	20	18
35-54	24	18	38	39
55 and older	9	7	24	26

Source: Authors' calculations based on CCCCO and California Department of Finance data (see text box).
 Note: Columns may not sum to 100 because of rounding.

The changing age composition of community colleges is not a reflection of a demographic shift throughout the state. During the years of our analysis, 17- to 20-year-olds have consistently constituted 8 percent of California's total adult (17 and older) population, and the 26-and-older group about 80 percent (see Table 3).

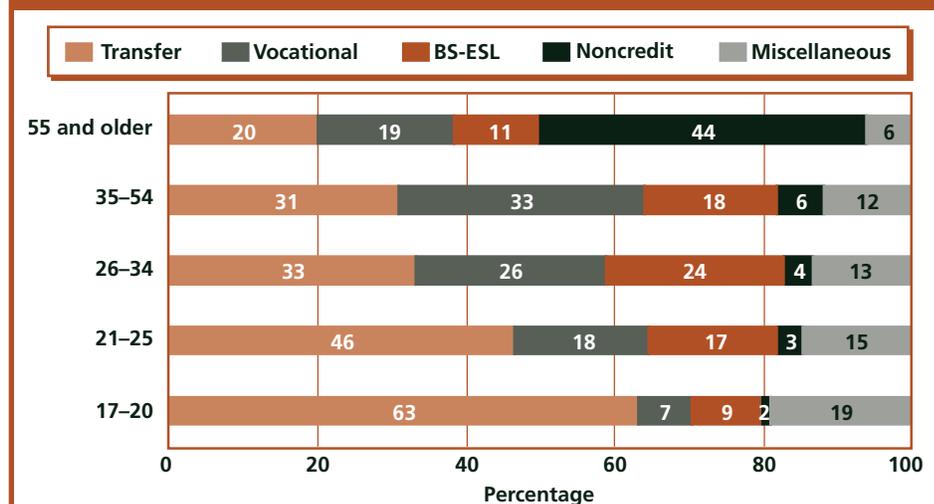
Students' motivations for attending community college also varied considerably by age (see Figure 2). The youngest students were most likely to attend community college with the intention of transferring or of obtaining an associate's degree. Eighty-two percent of 17- to 20-year-olds took a majority of transfer-eligible or miscellaneous courses during their first year. The proportion of older students in the same category, however, was considerably lower. The older the student was during her first year of community college, the less likely she was to

display the objective of transferring or receiving an associate's degree. It is important to note that although older students were less likely than younger ones to take a majority of transfer-eligible or miscellaneous courses in their first year, many still did.

Older students were most likely to attend community college for noncredit enrichment courses. Indeed, many community colleges offer a number of non-credit courses exclusively for senior citizens. Forty-four percent of students 55 years and older took a majority of noncredit classes in their first year, while less than 10 percent of each of the other age groups did.

The middle age groups were most likely to enroll in community college for vocational education. One-third of 35- to 54-year-olds took a majority of vocational courses in their first year. Lower but still substantial shares of 21-to-25, 26-to-34, and 55-and-older age groups concentrated on vocational education. Only 7 percent of the youngest

Figure 2. Percentage Distribution of First-Year Course Taking by Age, 2003 Cohort



Source: Authors' calculations based on CCCCO data (see text box).

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age group took a majority of vocational courses in their first year. However, because the number of students in this age group was so large (half of all students in our sample), the actual number of 17- to 20-year-old vocational students was still substantial.

Basic skills and ESL instruction are key to the mission of community colleges. The three middle age groups had the greatest shares of students attending community college for this purpose. Only about one in ten students in the oldest and youngest age groups concentrated on BS-ESL courses in their first year.

More women than men attend California's community colleges, as is the case in the UC and CSU systems.⁷ Approximately 54 percent of all community college students in our dataset were women, and 46 percent men. However, shares of men and women in the 17-to-20 and 21-to-25 age groups were almost equal. Women represented a much larger share of the student population in the older age groups, creating the overall difference in gender representation. In fact, more than 60 percent of students aged 55 and older were women. Perhaps the longer life expectancy of women or greater interest in noncredit courses explains this result. A possible explanation for the gender gap at the middle age ranges is that women are more likely than men to interrupt their own schooling

to take care of young children and may reenter the education system at a later age (Gronau, 1988; Sandell and Shapiro, 1980). In general, older women were more likely to take noncredit classes and less likely to take vocational or transfer classes in their first year, compared with men in their age group.

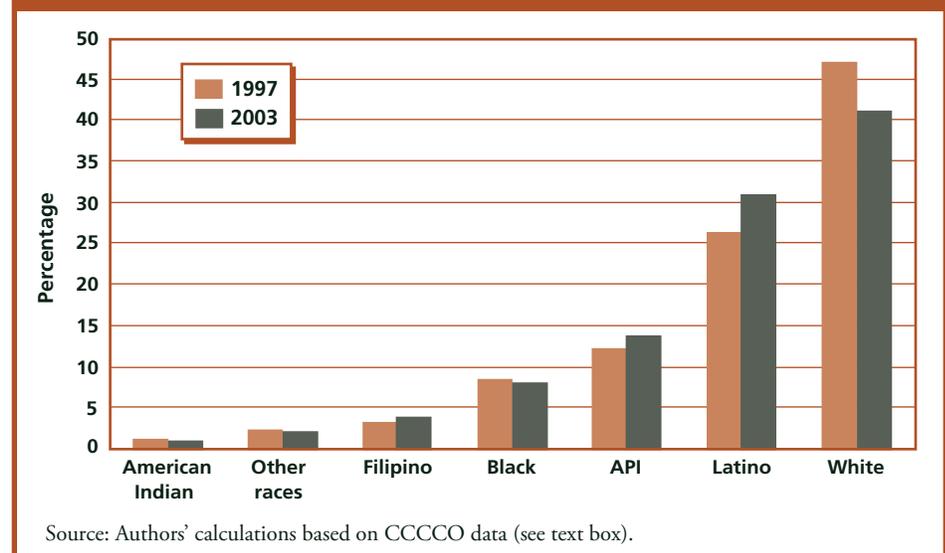
How Do the Reasons for Attending Community College Vary with Race/Ethnicity?

Community college students have a variety of racial and ethnic backgrounds (see Figure 3), with white and Latino students representing the largest shares of the student population. In 2003, four out of ten students were white, and three out of ten were Latino. The third

largest group was API students (15%), followed by black students (8%).⁸ Filipinos, American Indians, and students of other races each made up less than 5 percent of the total community college student population.⁹

The racial and ethnic compositions of California's community college population shifted from 1997 to 2003. The percentage of new Latino community college students grew by five percentage points while the share of white students dropped by six percentage points during the same time period. The share of API students grew very slightly from 12 to 14 percent, and black, American Indian, Filipino, and students of all other races remained stable. These changes coincide with a

Figure 3. Percentage Distribution of New Students by Race/Ethnicity and Year



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Because community colleges serve groups that are underrepresented in other higher education systems, they are essential for reducing racial/ethnic disparities in educational attainment.

similar change in demography throughout the state. According to Department of Finance data, the share of Latinos in the state's 17-and-older population grew by 15 percent from 1997 to 2003, whereas the share of whites dropped by 10 percent.

There are notable racial/ethnic differences between the youngest and oldest students. Thirty-eight percent of all 17- to 20-year-olds were white, and only a slightly lower share, 34 percent, were Latino. By contrast, 70 percent of students 55 years and older were white, and only 12 percent were Latino. Because students in the oldest age group were most likely to enroll in noncredit courses, this imbalance could indicate that many more white students attend community college for noncredit purposes than do Latino students.

Because community colleges serve groups that are underrepre-

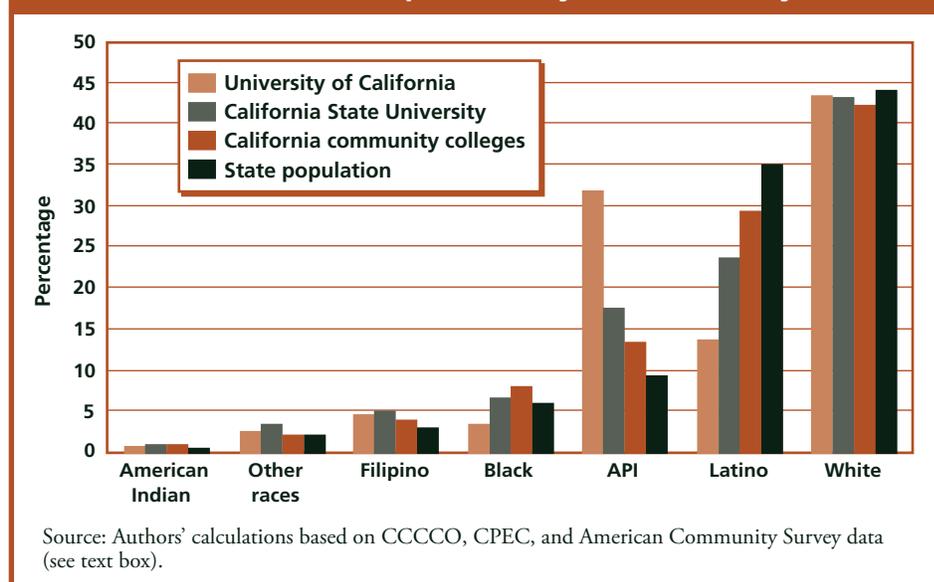
sented in other higher education systems, they are essential for reducing racial/ethnic disparities in educational attainment. The differences in racial/ethnic enrollment in higher education were most apparent for Latino, black, and API students (see Figure 4).¹⁰ Although in 2003 Latinos represented 29 percent of all students enrolled in community colleges (and 31 percent of new incoming community college students), they represented 24 percent of all CSU students and only 14 percent of UC students. These shares were all less than the Latino share of the overall state population, 35 percent. Similarly, black students represented 8 percent of enrolled students in community colleges in

2003, but 6 percent of CSU and only 3 percent of UC students. Compared with their share of the total state population (6%), blacks were slightly overrepresented in the CCC system and underrepresented in the UC system.

Conversely, API students were overrepresented in all three higher education systems, compared with their share of the state population (9%). Much greater proportions of enrollees were API students in the UC system (32%), in the CSU system (17%), and the community college system (13%), compared with their state population.

American Indians, Filipinos, and students of other races were consistently represented in each higher education system. These

Figure 4. Percentage Distribution of Higher Education Enrollment and State Population by Race/Ethnicity



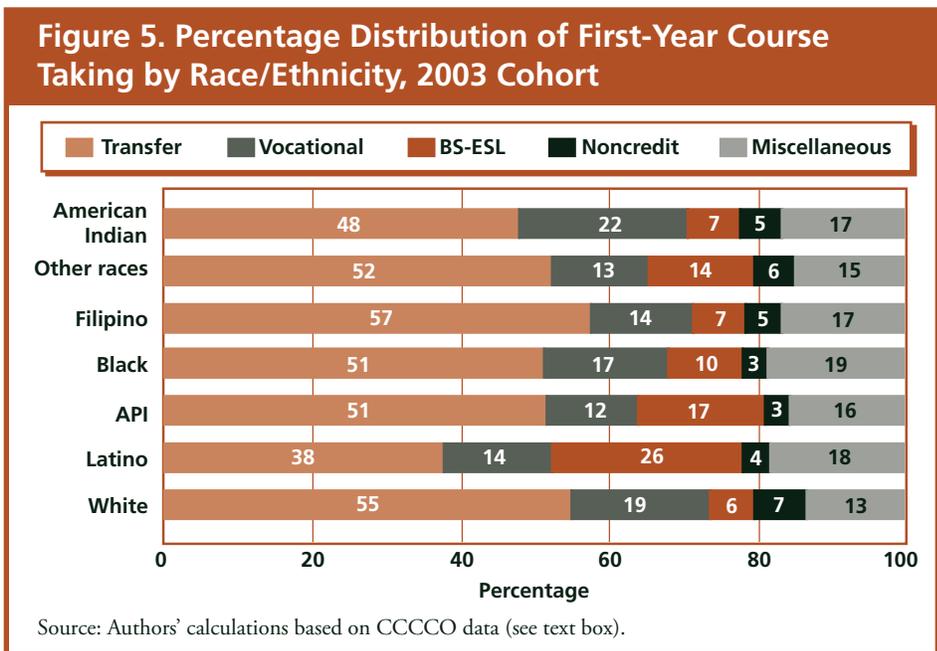
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three student groups represented five percent or less of students in each higher education system and in the state. The percentage of white students in each higher education system and the state was also stable.

Latino underrepresentation extended to patterns in first-year courses taken (see Figure 5).¹¹ About half or more of Filipino, white, API, black, American Indian, and other race students took a majority of transfer classes in their first year. A much smaller share of Latino students attended community college for transfer purposes, with only 38 percent taking a majority of transfer courses in their first year.

These differences persisted even when age is accounted for. Seventeen- to 20-year-olds were most likely to attend community college in their first year for transfer purposes, but while 71 percent of white students in this age group focused on transfer courses, 51 percent of Latino students of the same age did so.

In contrast, Latinos were overrepresented in the BS-ESL category. Twenty-six percent of Latinos focused on BS-ESL courses in their first year, more than any other group, followed by API students with 17 percent. Differences in citizenship status could explain this overrepresentation. Greater shares of students in the Latino and API racial/ethnic groups were non-U.S. citizens



than were those in other groups, and non-U.S. citizens were overrepresented in the BS-ESL category compared with their share in the state population.¹² While only 18 percent of total students in our 2003 cohort were noncitizens, they made up more than half of BS-ESL students.

American Indians and whites had the highest shares of students who attended community college for vocational education. Approximately one-fifth of each group took a majority of vocational education classes in their first year. White students were also most likely to take a majority of noncredit courses (7%), and black and API students were least likely (3%). The shares of miscellaneous

students did not differ substantially by race or ethnicity.

How Do the Reasons for Attending Community College Vary with Previous Educational Background?

Community college students enter the system with a range of educational backgrounds (see Table 4).¹³ In 2003, a traditional U.S. high school diploma was the highest educational level of the majority (63%) of students entering the community college system. These results are fairly consistent across racial/ethnic groups, except for APIs. Only 51 percent of APIs had at most a traditional U.S. high school diploma because many API students had foreign

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high school diplomas or postsecondary degrees (associate's degrees, bachelor's degrees, or higher).

API and white students were more likely than other racial/ethnic groups to have a postsecondary degree (associate's degree, bachelor's degree, or higher) before entering the system. Black, American Indian, and Latino students were more likely than others to have less than a high school diploma or to be concurrently enrolled in adult school and community college (presumably without a high school diploma).

Five percent of all students had not received a traditional high school diploma but had passed the GED high school equivalency exam. This was most common for American Indian students (10%) and least common for API students (3%).

Age plays a large role in the highest previous educational level of community college students as well. More than eight out of ten students between the ages of 17 and 20 had as their highest educational attainment a high school diploma, while half of 21- to 25-year-olds, and fewer than two-fifths of the three oldest age groups had the same. Similarly, students aged 55 and older had the highest share of postsecondary degree holders, 33 percent. Almost 30 percent of 26- to 54-year-olds, and 16 percent of 21- to 25-year-olds had this educational background.

Students' previous educational levels varied greatly in terms of

their first-year choice of courses (see Table 5). Students who graduated from a U.S. high school, passed the GED exam, or had a postsecondary degree were much more likely to take transfer-eligible courses than students who graduated from a foreign high school or had not graduated from high school. Non-high school graduates were more likely than most other students to take BS-ESL or noncredit courses. These students likely attend community college to finish a high school equivalency program or to complete remedial coursework before working toward a higher education degree. Similarly, students with a foreign high school diploma were also more likely than others to take BS-ESL courses. These students might have aspirations of transferring to a four-year university or obtaining a vocational degree, but they must first learn basic skills or improve their English.

Students with a postsecondary degree and students with a GED were more likely than all other students to attend community college for vocational education purposes. In addition, almost half of community college students who already had a postsecondary degree took a majority of transfer-eligible courses. Perhaps this means that many students who already had an associate's degree reentered community college to transfer to a four-year institution. Alternatively, many working professionals with

a postsecondary degree enroll in community college transfer-eligible classes to maintain licenses or build new job skills.

Outcomes After the First Year in Community College

This section looks at variation in students' outcomes after their first year in community college. Specifically, we examine how length of community college attendance, second-year course taking, transfer rates, and degree or certificates earned changed according to students' first-year course taking. In this section, we report results only for the 1997 cohort because the 2003 cohort data are too recent for long-term analysis. We find that large shares of students leave after their first year in community college, but for those who stay for a second year, most remain in the same course-taking category. In addition, very small shares of students earn degrees or certificates, or transfer, but rates vary considerably by age, previous educational level, and race/ethnicity.

How Long Do Students Attend Community College?

California's community colleges have high turnover (see Figure 6).¹⁴ Four out of ten community college students stayed in the sys-

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Table 4. Percentage Distribution of Community College Students by Previous Educational Level and Race/Ethnicity, 2003 Cohort

Previous Educational Level	Racial/Ethnic Category							All Students
	American Indian	Other Races	Filipino	Black	API	Latino	White	
No high school diploma/concurrent adult school and community college enrollment	17	10	8	16	10	22	10	14
GED high school equivalency	10	5	4	7	3	5	5	5
Foreign high school diploma	1	8	10	2	17	6	3	6
U.S. high school diploma	66	66	63	67	51	63	66	63
Postsecondary degree	7	12	15	7	20	4	17	13

Source: Authors' calculations based on CCCCO data (see text box).
Note: Columns may not sum to 100 because of rounding.

Table 5. Percentage Distribution of First-Year Course-Taking Categories by Previous Educational Level, 2003 Cohort

First-Year Course-Taking Category	Previous Educational Level					All Students
	No High School Diploma/Concurrent Adult School and Community College Enrollment	GED High School Equivalency	Foreign High School Diploma	U.S. High School Diploma	Postsecondary Degree	
Transfer	30	46	33	59	48	48
Vocational	17	24	13	14	31	16
BS-ESL	30	9	36	7	6	14
Noncredit	11	2	3	2	4	7
Miscellaneous	12	19	15	18	11	15

Source: Authors' calculations based on CCCCO data (see text box).
Note: Columns may not sum to 100 because of rounding.

tem for a year or less and did not return for at least seven years. The majority of first-year noncredit (63%), vocational (53%), and BS-ESL (52%) students left community college after their first year. Transfer and miscellaneous students were more likely to attend for more than a year. Sixty-five percent of miscellaneous students and 68 percent of transfer students stayed in the CCC system

for longer than a year. After completing their first year, however, relatively equal percentages of students left after each year.

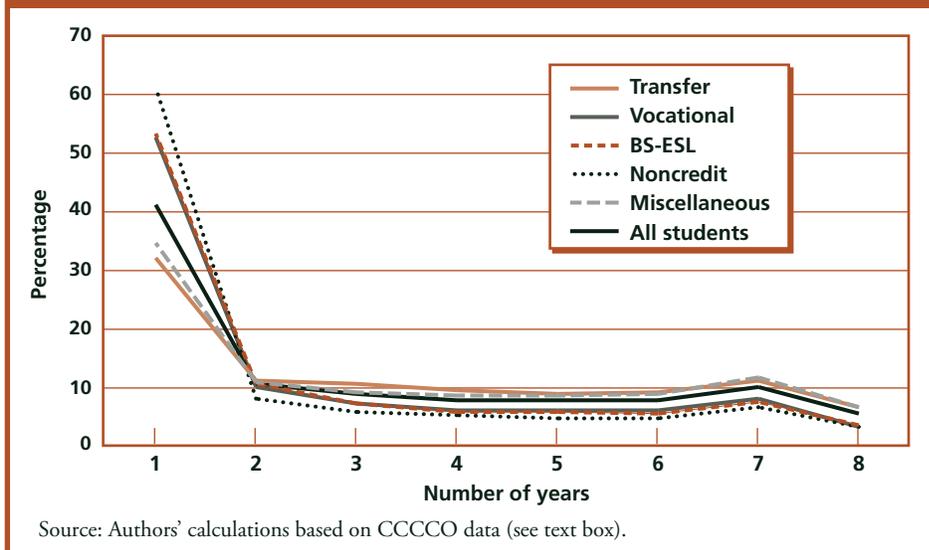
How Does First-Year Course Taking Influence Second-Year Course Taking?

We grouped students into the five original course-taking categories, based on their second-year characteristics, adding two alternative

categories if they were not in the system in the next year (see Table 6). Among those who did not attend the following year, we separated those who had transferred or earned an associate's degree or other degree or certificate from those who did not. It is likely that the former group stopped attending community college because they achieved their goal, while the latter may have left for other reasons.

Transfer-oriented students who either did not finish high school or had a GED were less likely to stay in the system in their second year than those with a foreign or traditional U.S. high school diploma.

Figure 6. Percentage Distribution of the Number of Years Between First and Last Terms in Community College, 1997 Cohort



Half of all students were not in community college during the following year even though they had not transferred or earned a degree or certificate. These students either left the system permanently after their first year or left and returned after at least a one-year hiatus. However, this does not necessarily mean that half of students did not achieve their goals for attending community college. Many students enroll with the intent of attending for only one year, taking, for example, an enrichment course or citizenship exam preparation class. Consequently, it is more informative to look at second-year course taking according to the reasons students first attended (which is measured by first-year course taking).

About four of ten students who focused on transfer courses in their first year stayed on track and also took a majority of transfer courses in their second year. Another four of ten transfer-focused students did not attend community college in the following year, even though they had not transferred or earned a degree.

The share of these transfer students who left without actually transferring or earning a credential differed according to their previous educational levels. Transfer-oriented students who either did not finish high school or had a GED were less likely to stay in the system in their second year than those with a foreign or traditional U.S. high school diploma. While 55 percent of students without

a high school diploma and 51 percent of students with a GED left the system by their second year without earning an award or transferring, only 40 percent of students with a foreign high school diploma and 34 percent of students with a U.S. high school diploma left.

Twelve percent of first-year transfer-oriented students who already had a postsecondary degree before entering the system were able to transfer or earn another credential by their second year, and therefore left community college. These students likely came into the system with most of the qualifications for fulfilling their goals and were able to complete them more quickly than students with less previous education.

Table 6. Percentage Distribution of Second-Year Course-Taking Categories by First-Year Course-Taking Category, 1997 Cohort

Second-Year Course-Taking Category	First-Year Course-Taking Category					All Students
	Transfer	Vocational	BS-ESL	Noncredit	Miscellaneous	
Not in community college (without transfer, degree, or certificate)	39	65	65	68	45	50
Not in community college (with transfer, degree, or certificate)	9	5	2	4	6	6
Transfer	42	6	7	3	26	25
Vocational	4	20	2	1	7	7
BS-ESL	1	1	18	2	2	3
Noncredit	0	0	1	20	1	2
Miscellaneous	5	4	6	2	13	6

Source: Authors' calculations based on CCCCCO data (see text box).
Note: Columns may not sum to 100 because of rounding.

Almost half of students who were categorized as miscellaneous in their first year were not in the system in the next year. However, 26 percent took a majority of transfer courses in their second year. Thus, many students whose courses were not concentrated in transfer, vocational, BS-ESL, or noncredit categories in their first year ended up focusing on transfer courses in their second year. For these students, one year of community college appeared to help them to focus on one educational goal.

The large majority of students who took mostly vocational, BS-ESL, or noncredit courses in their first year were not in the system in the next year and did not transfer or earn a credential or certificate. Presumably, many of these students had the intention of staying for a year or less. This is especially

so for noncredit students who often enroll in community college for enrichment purposes. It is also possible, however, that many vocational and BS-ESL students intended on staying in the system but did not do so. Only about one in five vocational, BS-ESL, and noncredit students took a majority of courses in the same category for a second year. Seven percent of students who focused on BS-ESL courses in their first year took a majority of transfer-level courses in their second year, and nearly the same percentage moved into the miscellaneous category in their second year. These shares might represent the students who finished their remedial, basic education, or ESL coursework in one year and were able to move on to transfer-eligible or degree-eligible courses in their second year.

How Do Transfer Rates and Degrees Earned Vary?

Because community college students differ in so many dimensions, success in the system is difficult to define. For some students, success is transferring to a four-year institution or earning an associate's degree. For others, it is receiving a GED or passing the citizenship test. Some are satisfied with simply completing a noncredit course. Thus, we look at a variety of student outcomes to identify differences in goal attainment. Specifically, we identified the highest outcome achieved by each student in the 1997 cohort by the end of the student's seventh year in the system. The five outcome categories are (1) transfer to a four-year institution with an associate's degree, (2) transfer to a four-year institution without

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an associate's degree, (3) earn an associate's degree without transfer, (4) earn another type of certificate or award (credit or noncredit), or (5) receive no award.

Fifteen percent of students transferred to a four-year institution (with or without an associate's degree) within seven years (see Table 7). On average, students who transferred were in the community college system for four years but did not necessarily take classes during each term. Only 6 percent of the 1997 cohort earned an associate of arts or associate of science degree, and half of these students also transferred to a four-year institution. Lastly, 2 percent of the entire 1997 cohort earned another type of certificate or award given for a specific number of credits, such as a real estate license or clerical assistant certification. Close to 80 percent of students did not transfer or receive any award within seven years of first enrolling in the system. However, it must be emphasized that many of these students did not enroll in community college with the intent of transferring or earning an award.

Transfer rates are most relevant to students who did not already have a postsecondary degree before enrolling. These students constituted 84 percent of the 1997 cohort, and of these, transfer rates were highest for those who focused on transfer-eligible courses in their first year: 26 percent of students actually transferred to a four-year

institution,¹⁵ and this percentage increased to 38 percent for students who took a majority of transfer classes in both their first and second years.

Transfer rates differed by age and previous education (although not by gender), even when first-year course selection was taken into account. For students who took a majority of transfer courses in their first year and did not have a prior postsecondary degree, younger students had higher transfer rates than older students: 32 percent of students between the ages of 17 and 20 transferred, compared with 22 percent of 21- to 25-year-olds, 13 percent of 26- to 34-year-olds, 7 percent of 35- to 54-year-olds, and fewer than 2 percent of students over 54. Students with traditional (28%) and foreign (25%) high school diplomas had transfer rates higher than students who had a GED (12%) or who did not graduate from high school and/or were concurrently enrolled in adult school (13%).

Transfer rates differed substantially by race/ethnicity, even when looking at the group most likely to transfer eventually to a four-year institution, U.S. high school graduates between 17 and 20 years of age. White, API, Filipino, and students of other races were consistently more likely than Latino, black, and American Indian students to take a majority of first-year and/or second-year

transfer courses, and also eventually transfer to a four-year institution (see Table 8).¹⁶ In fact, the transfer rate for APIs was more than double the rate for black, Latino, and American Indian students, even though they were all of comparable age and previous educational level. This discrepancy still persists for 17- to 20-year-old U.S. high school graduates who took a majority of transfer courses in their first year. In other words, transfer rates for API students were twice the rate for black, Latino, and American Indian students even when they had comparable initial course choices, age, and previous educational levels.

Although providing associate's degrees has traditionally been a major function of community colleges, a very small percentage of all students from the 1997 cohort, 6 percent, received an associate's degree, regardless of transfer status. Because transfer-eligible courses are also associate's degree eligible, we report associate's degree results for students in both the first-year transfer and miscellaneous categories. Students who focused on miscellaneous or transfer-eligible courses in their first year had slightly higher associate's degree completion rates, at 9 percent. The share of first-year transfer or miscellaneous students who earned an associate's degree varied slightly by race/ethnicity and, more noticeably, by age and previous education. Between 9

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Table 7. Percentage Distribution of Outcomes by First-Year Course-Taking Category, 1997 Cohort

Outcome	First-Year Course-Taking Category					All Students
	Transfer	Vocational	BS-ESL	Noncredit	Miscellaneous	
Transfer with an associate's degree	6	0	1	0	3	3
Transfer without an associate's degree	20	5	3	6	11	12
Associate's degree only	4	1	1	0	4	3
Other certificate	2	5	2	0	3	2
None	69	88	94	93	79	79

Source: Authors' calculations based on CCCCO data (see text box).
Note: Columns may not sum to 100 because of rounding.

Table 8. Transfer Course Taking and Rates for 17- to 20-Year-Olds with a High School Diploma by Race/Ethnicity, 1997 Cohort

Race/Ethnicity	% of Racial/Ethnic Group in First-Year Transfer Category	% of Racial/Ethnic Group in Second-Year Transfer Category	% of Racial/Ethnic Group That Transfers
American Indian	66	42	19
Other races	71	53	33
Filipino	72	56	32
Black	64	41	19
API	70	55	41
Latino	57	44	17
White	72	50	30

Source: Authors' calculations based on CCCCO data (see text box).

and 11 percent of whites, APIs, Filipinos, Latinos, and students of other races earned associate's degrees, while between 6 and 7 percent of American Indian and blacks earned one. Younger students were more likely to receive an associate's degree (11%) than older students (between 1 and 7 percent for the older age groups). In addition, students with tradi-

tional (11%) or foreign (13%) high school diplomas were more likely to earn an associate's degree than those with no high school (5%) or a GED (6%).

Students who were awarded other certificates made up the smallest percentage of all student outcomes (2%). This share did not vary with age, race, or previous education. However, a slightly

larger share of students (5%) who took a majority of vocational classes in their first year received a certificate. This share jumped to 14 percent for students who took a majority of vocational classes in both their first and second years.

In sum, the majority of community college students in our analysis did not transfer or receive any type of credential. Many of these students did not enroll in community college for these purposes. However, of the students who did intend to earn one (as identified by the kinds of courses they took), a majority did not.

Conclusion

California's community college system is distinct in its size, missions, and student composition. Although the plurality of community college students was white, Latinos and, to a lesser

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... older students, Latino and black students, and students without a high school diploma ... are less likely to eventually transfer to a four-year institution or earn an associate's degree, even when compared to students with similar course-taking characteristics.

extent, APIs constituted large and growing populations. Students of all ages were represented in the system. Females made up a slightly higher percentage of students than males. Most had no more than a high school diploma, but substantial numbers of students without a diploma, as well as college graduates, also enrolled.

We identify five main purposes for attending community college based on students' first-year course characteristics: transfer, vocational, BS-ESL, noncredit, and miscellaneous. Transfer-focused students were most common, constituting almost half of the community college population. Sixteen percent of students took primarily vocational classes, while 14 percent took a

majority of basic skills and/or ESL classes. Another 15 percent took a variety of courses, many of which are associate's degree eligible, and 7 percent took adult noncredit courses.

Students' reasons for attending community college differed substantially by demographic groups. Younger students were more likely to be transfer oriented, whereas the oldest students were more likely to concentrate on noncredit courses. These oldest students were predominantly female and white. In all racial/ethnic groups, about 40 percent or more of students had a transfer focus, although large shares of American Indians and whites also concentrated on vocational courses and large shares of Latinos and APIs also took a majority of BS-ESL courses. Students whose highest previous educational level was a traditional U.S. high school diploma were most likely to attend community college for transfer-level courses in their first year. Students without a high school diploma or with one from a foreign high school were more likely than others to focus on basic skills and ESL.

Community college demographics and course taking are diverse, especially compared with other higher education systems in California. The state's new accountability measures reflect this diversity; they require colleges to report progress and annual improvements in many academic

areas and also report comparisons to similar colleges and districts. The state appropriately recognizes that focusing narrowly on one performance indicator, even the most common one of transferring to a four-year institution, could potentially hurt other students.

The CCC system has the difficult role of providing educational opportunities for a large and diverse student population, arguably without adequate funding. Our findings show three major challenges facing the California community college system. First, the share of younger students is growing, while the share of older students is decreasing in size. Policymakers should determine if the declining age of community college students is because of lack of access or other reasons. The California Master Plan for Higher Education and the California Education Code specifically state that the CCC system's missions should reach both younger and older students, including those returning to school. It is possible that the increase in funding and decrease in student fees scheduled for 2007 will help alleviate enrollment decline for older students.

Second, attrition without degree completion or transferring is very high. Most students who focused on noncredit, vocational, or basic skills courses did not return the following year. It is possible that many of these students achieved their goals in one year. Yet, large shares of transfer

and associate's degree students, whose coursework presumably takes longer than a year, did not attend the next year either. Overall, most students did not transfer to a four-year institution or earn an associate's degree or other degree/certificate. About a quarter of transfer-focused students actually transferred, and about one in ten transfer- or degree-focused students earned an associate's degree.

Finally, while the CCC system enrolls students who are traditionally underrepresented in other higher education systems (such as older students, Latino and black students, and students without a high school diploma), this study shows that these students are less likely to eventually transfer to a four-year institution or earn an associate's degree, even when compared to students with similar course-taking characteristics. Community colleges are often hailed as a major pathway to a higher education degree for traditionally underrepresented groups. However, our results show that the pathway is not equally effective for all students. Policymakers and the CCC administration must address this challenge and focus greater effort on improving retention and outcomes for these students. ♦

Notes

¹ This percentage is based on the share of the total student enrollment in the University of California, California State University, and California community college systems in 2003, calculated from California Postsecondary Education Commission enrollment data.

² These figures represent the total enrollment of undergraduate and graduate students in each system in 2005.

³ The funding numbers in this paragraph come from personal communication with the CCCCO.

⁴ Thirteen percent of students in the 2003–04 cohort did not answer administrative questions regarding their goals.

⁵ The datasets also include students who reentered the community college system after at least a five-year lapse. Students in the 1997–98 dataset could have been in the community college system before the 1992–93 school year, and students in the 2003–04 dataset could have been in the community college system before the 1998–99 school year.

⁶ Copper Mountain College received full accreditation in June 2001, Folsom Lake College received initial accreditation in January 2004, and West Hills College–Lemoore received accreditation in July 2006.

⁷ During the 2003–04 school year, 53 percent of UC students and 59 percent of CSU students were female (CPEC, 2006).

⁸ The API category does not include Filipinos, who are reported in a separate category in CCC and CPEC data.

⁹ “Other races” describes students who indicated that they did not fall into any of the other racial/ethnic categories. In addition, 8 percent of students in the first cohort and 10 percent of students in the second cohort did not have a race/ethnicity recorded. These students are excluded from the analysis.

¹⁰ Most of this paper looks at students who start attending community college in either 1997 or 2003, but this particular figure looks at *total enrollment* in 2003, or the percentage of all students enrolled in each higher education system in 2003, regardless of when students started attending. Total enrollment is used in this figure for consistency of analysis among the three California public higher education systems.

¹¹ Although Driscoll (2006) looks at only two goals (transferring and associate's degree receipt) for ages 17 to 20, she also finds substantial variation by race/ethnicity.

¹² Non-U.S. citizens include permanent residents, refugees, asylees, temporary residents, student visa recipients, and students of any other noncitizen status. Students self-select one of these categories.

¹³ Our analysis excludes students under age 17, and therefore does not consider students concurrently enrolled in high school and community college.

¹⁴ Length of attendance measures the number of years between students' first and last terms, and does not account for gaps in attendance between the first and last term.

¹⁵ The CCCCO publishes annual Student Right-to-Know (SRTK) transfer rates for first-time freshmen with a goal of degree, certificate, or transfer and who are enrolled in award-eligible credit courses (CCCCO, 2001). While the SRTK definition of transfer differs from ours, the CCCCO finds that 25.5 percent of students starting community college in 1997 transferred to a four-year institution, which is consistent with our 26 percent figure.

¹⁶ These findings are consistent with Gill and Leigh (2005), who use the 1996–97 California community college cohort to find that Asians had the highest transfer rate, followed by whites, blacks, and Hispanics.

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