

I thank you for inviting me to speak to you today. I start by saying that I won't speak about the "achievement gap," because that term refers to differences in scores on standardized tests. Standardized tests are normed on a bell curve; the bell curve is designed to report a gap. The bell curve never closes. When speaking about the "achievement gap," I prefer to use the term "opportunity gap," since scores on standardized tests are so closely correlated with family income and opportunity.

What I will address today is the graduation rate gap between different groups of students.

I customarily address issues associated with K-12 education, but you have forced me to undergo a crash course on higher education. Of course, the two systems are interconnected. They are not different worlds. Students who receive a good K-12 education will arrive at your campuses well prepared, and those who do not receive a good K-12 education are less likely to be well prepared. It is also a well-established fact that all standardized tests, including California's state tests and college admission tests, are highly correlated with socioeconomic status. The higher your family income, the higher your test scores, and the likelier you are to graduate high school, enter college, and graduate from college. The lower your family income, the lower are your chances for success in school.

I was asked to address the question of how Cal State University can meet the challenge of raising the overall four-year graduation rate, doubling it to 40%, and at the same time, eliminating the graduation gap between regular students and underrepresented minorities.

I have learned a lot about Cal State in the past month as I prepared to speak to you. The more I read, the more I realized that you already know what you need to do. Most, perhaps all of your campuses are doing what needs to be done. Yet you still face enormous challenges in meeting the goals set forth by the chancellor.

One good place to begin finding out why the gap exists is to ask the students who leave. You could gather quite a lot of information that could influence your efforts to raise the graduation rate by speaking to those who leave.

You know that the four-year graduation rate is about 20%, the six-year graduation rate is close to 60%, and the graduation gap between regular students and underrepresented minorities is about 8-13%, in some cases even more.

My first reaction was that you are being asked to do the impossible. It is obvious that when everyone is improving, the gap remains the same or grows even larger. Since 2000, the four-year and six-year graduation rates have increased, but as the overall rate goes up, the gap remains the same, even though underrepresented minorities are making substantial improvements.

Successful interventions for all students enable the most advantaged students to make even greater gains than those who are least advantaged. So, even when the students with the greatest needs make gains, they still remain behind the students who are already doing well and also making gains.

Cal State is both a major employer and a major supplier of talent and knowledge workers for every sector of the state's economy. Your students have worked hard in high school to qualify for admission. They are motivated to succeed. They each have their own goals and ambitions, but collectively they represent the future economic development and leadership of the state. Higher education is the state's engine of economic growth. Both Cal State and the University of California have been models for the nation and the world in providing educational opportunity to a diverse population.

As leaders of CSU, you have the awesome responsibility of assuring that your students are prepared to graduate and that when they graduate, they are well educated and well prepared for the careers and professions and civic needs of the 21st century.

Cal State has a dual purpose: first, to open access to higher education for as many qualified students as possible. Second, to ensure that every graduate has a high quality education.

There are two clear ways to raise your graduation rates and to close the graduation gap. I expect that you will reject them both.

The first way to double the graduation rates and close the gap between different groups of students is to raise your entrance requirements and admit only highly qualified, well-prepared students, regardless of their race, ethnicity, or socioeconomic status. If everyone who enters Cal State is highly qualified, graduation rates will soar, and there will be little or no graduation gap in four or six years. I don't think you want to do this. Your campuses are already selective, and it is not likely that you would wish to be even more selective.

Raising your entrance standards—either by demanding higher course requirements, a higher grade point average, or higher scores on college entry tests—would jeopardize your commitment to provide access to as many qualified students as possible. It would reduce the number of students admitted. It would put Cal State out of reach for some students who are now admitted. It would make your student body less diverse and inclusive than it is now.

The other obvious way to raise the graduation rate and reduce graduation gaps is to lower standards for graduation. If it is easier to graduate, then more students will finish within four years or six years, and the graduation gap will substantially decrease.

But you have made a commitment not to reduce access or to lower the quality of your diploma. After all, what is the point of getting a diploma if the diploma does not represent a genuine education? Raising the graduation rate would be meaningless if the diploma is a worthless piece of paper.

So, let us then look into the reasons why so many students are unable to finish college in four years or six years, why so many drop out of college without a degree, and why so many of those who drop out are members of underrepresented minorities.

The reasons, which are well known to you, are academic, social, emotional, and financial.

Cal State currently makes a systematic effort to address all of these needs. It is axiomatic that those who enter college with high test scores and high test scores are the likeliest to graduate in four years. Students who are likeliest not to finish college at all are those who enter without the necessary academic preparation. A disproportionate number of underprepared students are members of underrepresented minorities. You either exclude these students or you must give them the academic support they need to catch up with their peers.

You know what must be done. You must reach out to students and their teachers while they are still in high school. Anything you do to help their teachers understand Cal State's expectations will help their students succeed when they

reach your campuses. The best way to reduce and avoid academic deficiencies is to address them before students enter college. Your education departments can offer professional development programs for high school teachers; so can departments of mathematics and science. Invite interested high school students to visit your campuses and even take classes so that they have a better understanding of what will be required of them if they apply and are accepted.

Nothing can be as discouraging to a student in college as the feeling that she is completely out of her league, that she doesn't understand the course assignments, that she is not prepared to read the texts or to participate in class discussions or to write reports. You should not admit students to your campuses if they are unable to participate meaningfully in their education. They won't persist. They will fail and blame themselves. So it is up to you either to help them before they arrive on campus, help them after they arrive on campus, or anticipate that they will drop out without graduating.

Make sure that students are paired with one or more peers who have a similar background and who are willing to help the new students navigate the campus and the curriculum. Peer mentoring is usually quite effective, both socially and academically.

Many of your students are the first in their family to attend college, which is a great achievement for them. They want to succeed. They are motivated to apply

to college and to finish college. It is up to you to ensure that they have the support they need to fulfill their dreams.

Even if they are academically well prepared, they may feel out of place. They may wonder if they belong. A sense of belonging is a crucial component of adjusting to college or any new setting. Students may feel socially or culturally isolated. You can directly address that problem. Every student should be connected to affinity groups to help them feel that they do belong. Every campus should commit to linking students to organizations that will make them feel at home. Every student should be in touch with people just like themselves and see that they have a place and they belong.

Professor Uri Treisman, a mathematician at the University of Texas, did a study some years back, in which he compared the low passing rates of African American students at Berkeley to the high passing rates of Chinese students in mathematics. He noticed that the African American students studied alone but the Chinese students studied in groups. Treisman called them “study gangs.” Studying in groups, they were able to explore questions, consider alternative ways to answer problems, and figure out the procedures that worked. They did it together. He found that when African American students used the same “study gang” technique, their passing rates improved significantly.

I realize that your campuses have many different support programs for first-generation students and for underrepresented minorities. The underlying theme in all of them should be personalization, one-to-one contact, small group interactions. Technology simply cannot take the place of human engagement. You cannot look into the screen of a computer and receive warmth, encouragement, and understanding. For that, you need a human being. Someone who knows your name and knows your situation. Someone who cares.

The state has been pushing its universities to make greater use of technology, on the assumption that technology is less costly than a human being. But beware. Technology may have the data and the profile, but technology is unable to relate to a person in the ways that matter most. For a student who is struggling to catch up with his or her peers, online instruction is not as effective as a caring and knowledgeable mentor and tutor. Struggling students will also benefit if they are in small classes, where they can ask questions, get feedback from the instructor, and not feel embarrassed. Small classes are expensive, but they are a cost savings when compared to the cost of dropouts and prolonged enrollment of six, seven, or eight years. There is no technological substitute that is as good as small classes led by dedicated, living teachers.

While I am on the subject of technology, I would like to touch on the false promise of technology as a cure for speeding up higher education. Some state

officials think that technology can make it possible for students to graduate in three years, even at a time when you are trying to figure out how to help more students graduate in four or six years.

Only six years ago, some visionary reformers said that technology would almost completely replace traditional higher education. The institutions that have been around for hundreds of years would be disrupted by MOOCs, Massive Open Online Courses. The leaders of the MOOC movement predicted that within 50 years, only 10 institutions of higher education would remain. The thousands of others would be replaced by streaming. It hasn't happened. It isn't going to happen.

I signed up for a MOOC course given by one of Yale University's most distinguished professors of European literature. What a great opportunity, I thought. I can learn from one of the leading authorities in the world, in the privacy of my home, at no cost. I turned on the television, settled in, and started watching. He was lecturing. It was boring. It was very boring. After about 20 minutes, my attention wandered, and I turned the great man off.

Lecturing simply doesn't work on television. Sometimes it doesn't work in the classroom. Teachers and professors today understand that technology must be incorporated into instruction in creative ways. Power Point is not a creative use of technology. It is even more boring than lectures. But technology can help to

enliven instruction. It can be done and is being done by imaginative use of video clips and interactivity. But always, there must be a human being in charge, directing the flow and asking questions.

We now have a generation of students who have grown up with cell phones, computers, and television. Engaging them in the learning process requires teachers to stretch and adapt new techniques and new technologies in the classroom.

The chancellor of the Cal State system has set ambitious goals for 2015. In only eight years, you are expected to double the four-year graduation rate to 40%. And in the same eight years, you are expected to eliminate the graduation rate gap between different groups. These are laudable and ambitious goals, but they will not be easy to reach. You cannot expect equal outcomes when students have not had equal opportunities, when some have come from advantaged homes, and others have not; when some have come from well-resourced schools with experienced teachers, and others have not; when some are able to attend college without working to support themselves, and others must do so.

The leaders of the university must recognize that many students, especially from historically underrepresented groups, have not had equal access to quality education in the past; have not had the same advantages as their peers. They do not arrive at the starting line of Cal State as ready as many other students. These are not excuses. They are reality.

It is necessary to confront the challenges before you with a sense of reality. Have high expectations, but let them be grounded in fact.

If you raise the graduation rate for underrepresented minorities by 1% a year for the next eight years, the gap will close. But if, at the same time, you manage to double the four-year graduation rate, increasing it to 40%, the gap will be even bigger than it is now.

You may reach one goal but not both, unless you somehow can raise the graduation rate for underrepresented minorities twice as fast as the graduation rate for others.

No matter how you approach either the graduation rate or the graduation gap, what is most important for your students and for their future is to maintain the quality of education so that they leave Cal State not only with a degree but with the higher learning that it represents. Never lose sight of the fact that a college education is not job training. Higher education is the only time in one's life when students have the chance to enlarge their horizons and make discoveries about the world. It is a time to explore one's interests and encounter new ideas; a time to develop one's intellectual and cultural life. A time to deepen one's social, historical, and economic understanding of society. This is the central purpose of higher education, and you should not let it be overwhelmed by data-driven decision making. What matters most in education can't be measured.

Even if you manage to conquer the academic, social, and emotional burdens that cause students to drop out without a diploma, there is one obstacle that is probably more consequential than all the rest, and that is the rising cost of higher education.

Our nation's future prosperity depends on having a supply of well-educated people. Whether it is science or technology, medicine or law, social services, information services, education, entrepreneurship or health services, every field of endeavor is rapidly changing and requires well-educated people to adapt to and lead a world of change.

Even if you do a great job of helping students overcome the academic, social, and emotional barriers to college completion, you still must acknowledge that the single most important obstacle for most students is the cost of higher education.

The cost of college has risen faster than family incomes and faster than the rate of inflation. States have not increased spending for higher education and in some states, have decreased it, passing the burden of debt to students. Student debt for higher education is about \$1 trillion. The average student leaves college with a debt of about \$25,000. The combination of federal aid and state aid have not kept pace with the cost of higher education and does not meet the needs of most students.

For many years, California led the nation by investing in higher education. It still does, but even in California, the cost of higher education is growing faster than either federal or state support. Support for higher education in the state has still not recovered from the 2008 recession.

There are many students who drop out because they can't afford to pay the costs of tuition, the fees for textbooks and services, the cost of housing and food. Many of your students work, but time spent working reduces the time available for study.

The Cal State system, like the UC system, is caught in a financial bind. The costs of operating your campuses continues to rise: Faculty salaries, pension costs, healthcare costs, repairing and expanding facilities are going up. The state expects you to increase the four-year graduation rate, while your students struggle under a growing mountain of debt. The many programs and services—developmental education, counseling services, student services, financial aid serves--needed to take care of the academic, social, and emotional needs of your students are costly. A recent study by the Public Policy Institute estimated that the cost of student services at Cal State increased by 40% between 2006 and 2012.

Your campuses are struggling to meet your obligations. Your students are struggling to pay the escalating cost of higher education.

There may well be a tuition increase at both Cal State and UC to meet the shortfall. Students are angry, and they should be. In my view, the state should be ready to invest more in higher education not only to avoid a tuition hike but to reduce the cost to students.

A few years ago, I visited Finland. My primary interest was seeing their celebrated public school system. My guide was Pasi Sahlberg, the eminent authority on Finnish education. I recommend his book Finnish Lessons to you. Finnish schools are very successful because Finnish society cares about children and education. Education is considered a fundamental human right. There is no standardized testing until the end of high school. None. Teachers write their own tests. After all, they know what they taught. Teaching in Finland is a highly respected profession; no one is allowed to teach unless they have gone through five years of professional education. There is no Teach for Finland. Play is very important. There is a recess after every class, so that children can exercise and run around outdoors. Remember the saying, A healthy mind in a healthy body. We have forgotten it. They have not. All children have free hot meals at school and free medical care. By design, child poverty is very low, well below 5%, whereas in our country about one-quarter of our children live in poverty, and the rates of poverty are even higher among Latino and African American children, as much as 40% and in some places, even higher.

Among the nations in the OECD, the U.S. has a college completion rate of about 40%. Finland has the highest college completion rate—about 65%. College readiness begins in early childhood education, and even in the womb.

But here is a major difference between the U.S. and Finland. In Finland, all higher education is free. Completely tuition free. As Pasi Sahlberg said to me, if education is a human right, and you can't charge people a fee for their human rights.

Even graduate degrees are tuition-free, paid for by the state and by taxation.

Law school, medical school, every other kind of graduate education, is paid for by the public as an investment in the development of society.

After the great recession of 2008, every state cut education spending. At the same time, most other nations increased education spending. The loss of public funding during this period intensified the disparities between rich and poor that started in the early 1980s, as states began reducing their support of higher education. Except for the rich, family income stagnated as college costs steadily increased.

From 2001 to 2011, state and local financing per student declined by 24 percent nationally. Over the same period, tuition and fees at public colleges and universities increased by 72 percent. Many of the cuts were the result of a sluggish economy that reduced tax revenue, but the sharp drop in per-student spending also

reflects a significant change in priorities: an increasing number of state legislatures voted to transfer more of the financial burden of college from taxpayers to students and their families.

California has been better to public higher education than most other states, but even here, tuition tripled in public universities between 1994 and 2014, at the same time that they experienced budget cuts.

The federal student aid program is broken. It is broken at the top. We can't expect more students to finish college when they can't afford the cost. What is the value of haranguing students to get a diploma when the cost exceeds their means?

By shifting the costs of higher education from the state to students, our nation generates socioeconomic disparity. The students whose families have the most can buy the best education, and those students whose families have low incomes are less likely to enroll in higher education, and when they do, are less able to manage the cost of staying in college. Tuition increased in four-year public universities by more than 50% between 2000-2010, but so did housing, transportation, books and supplies, and food.

What matters most in determining who finishes college is not ability or effort, but family income. High-scoring, low-income students complete college at the same rate as low-scoring, rich students. Cal State can't change family income,

but it must recognize that many very talented, very capable students are not completing college in four or six years because they can't afford the cost.

In her recent book about the cost of higher education, called “Paying the Price: College Costs, Financial Aid, and the Betrayal of the American Dream,” Sara Goldrick-Rab estimates that students from families earning an average of \$20,000 a year must pay more than \$12,000 a year for a four-year public university. Middle-class families also struggle, she writes. “A year of college at a public university runs a family earning \$80,000 a year just over \$20,000. That ‘net price’ is the cost after all grants (including Pell grants and state and institutional grants) are subtracted from the cost of attending college.” She says that at least 75% of all families are paying more than 20% of their annual income for higher education.

This is not fair. This is not sustainable. This is not democratic.

Goldrick-Rab writes that “when the Pell program began, it was intended to shield recipients from having to take loans. Today nine out of ten Pell recipients graduate with debt.” Of those who attend public colleges and universities, only half will receive a degree or certificate of any kind within six years. The other half will leave college with no credential and about \$9,000 in debt.

The most expensive college experience is one that leads to no credential at all, because the student who leaves has the debt without the degree.

The best solution to this barrier to graduation would be to make public college free—or to make the first degree free, available to all, as a human right. Until November 8, it seemed that our society was moving in that direction. Today, under the Trump administration, it is highly unlikely that the federal government will devote new resources to underwriting the cost of higher education. When Betsy DeVos was asked at her confirmation hearing whether college should be free, she answered that nothing is free. This is what you would expect to hear from a billionaire who has never worried about the cost of anything.

I am not qualified to tell you or the legislature how to structure aid to higher education. What I can say with certainty is that the primary reason for low graduation rates is economic. Those who are best able to afford the cost of a college education are most likely to graduate in four years. Those who are least able to afford it are most likely to drop out without a degree.

Thus, my advice to you is to face the facts and to tell the chancellor that you appreciate the high goals he has set, but that the goals will not be met unless underrepresented minorities and other students can afford to go to college and afford to attend without working two jobs, and can afford to eat and have a decent place to live while they are enrolled. I have no doubt that he is doing his best to advocate for greater student aid in Sacramento, so I don't mean to blame him.

But you must understand that the most important ingredient in raising the graduation rate and closing the graduation gap is financial. Lack of money to pay the cost of higher education is even more important than academic or social or cultural or emotional factors. If you ignore or avoid this basic issue, you will never reach your lofty and valuable goals.

California is different from the rest of the nation. Your government understands how important higher education is. Your government wants every young person to have the opportunity to enter college and to graduate from college with a meaningful degree.

You must persuade the legislature and the governor that every student need the state's support to achieve their dreams. Every student deserves the opportunity to contribute to society. California should be the model of a state where no student is denied the opportunity to attend and finish college, because of their inability to pay. Please, show the nation and show the world what a great state can do when the financial burden of higher education is lifted from the shoulders of the younger generation! Thank you!

