Increasing the Number of Baccalaureate Degrees Awarded in California: 2025 to 2030

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Executive Summary

- California is expected to have increased demand for workers with a baccalaureate degree or higher to support workforce needs and a shortfall of the production of bachelor's degrees from state systems to meet this need.
- Baccalaureate degree output from the California State University (CSU), University of California (UC), and in state private colleges (ISP) has slowed since the COVID-19 pandemic and California community college (CCC) baccalaureate degree programs are still just emerging.
- There has been a decrease in out of state (OOS) baccalaureate degrees awarded while both in state and out of state transfers from California community colleges have recently declined.
- Actions to increase baccalaureate degree attainment in California include:
    - Eliminate equity gaps
    - Implement a transfer work plan to create partnerships and collaboratives and build infrastructure;
    - Create automated dual admissions to facilitate transfer to CSU and UC campuses;
    - Increase dual enrollment opportunities for high school students;
    - Fully implement credit for prior learning opportunities;
    - Scale California community college baccalaureate degree programs
    - Expand partnerships with out of state institutions;
    - Increase the intensity of student support and engagement.

Introduction

In 2015, the Public Policy Institute of California (PPIC) projected that California's workforce would be 1.1 million baccalaureate degree recipients short of meeting industry and workplace demand in 2030 (Will California Run Out of College Graduates? - Public Policy Institute of California). However, it appears California is on a trajectory to fall short of that goal. According to PPIC's projections, it is necessary that the University of California (UC) achieve a baccalaureate output of 80,000 degrees per year while the California State University (CSU) must produce 150,000 baccalaureate degrees annually by 2030. Revisiting the scenario in 2025 showed that both the UC and the CSU progress toward increasing the number of new baccalaureate degrees has slowed in recent years. Additionally, the 2015 report did not, of course, include the impact of the COVID-19 pandemic or other recent events impacting students' ability to complete a baccalaureate degree. Bold and creative strategies will be required to support California's workforce needs within the next five years from making transfer seamless to creating flexible schedules for working adults to partnering with other states to expand educational capacity and opportunities.

California Public Universities

The gains from UC's and CSU's prior work (e.g., Graduation Initiative 2025) may have culminated, which would mean that additional initiatives will be necessary to continue to realize the ambitious annual growth targets in baccalaureate completions established by PPIC. If current trends persist (based on linear regressions), the number of CSU graduates will be 39% below the PPIC target while the number of UC graduates will be 4% below the PPIC target; a cumulative deficit of over 290,000 graduates between 2025 and 2030 (figure 1).

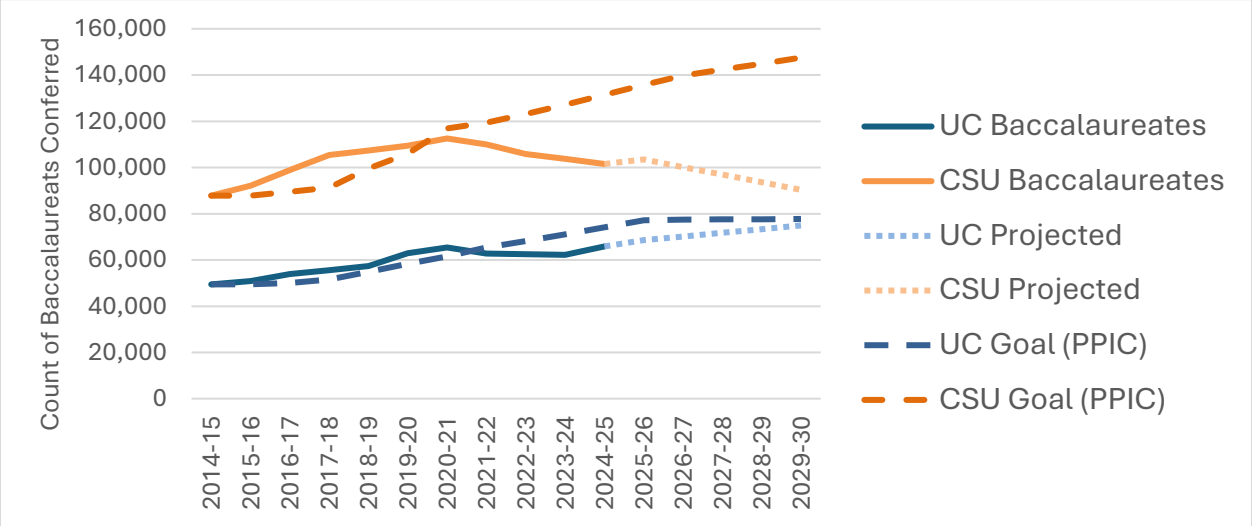

Figure 1. Baccalaureates by California State University (CSU) and University of California (UC) with goals recommended by Public Policy Institute of California (PPIC) and statistical projections.

Sources: CSU Analytics, UC Info Center

Notes: Projections are linear regressions with CSU having a Prais-Winsten autocorrelation correction. CSU R-square = 0.52. UC R-square = 0.83.

Figure 1 Data included in Appendix.

California Private Universities Baccalaureate Degrees

California based private universities, both nonprofit and for profit, collectively contribute a volume on par with the UC system. However, there have been declines in volume on average since 2014 (figure 2). The linear projection of continued decline may be overly pessimistic but indicates that the private sector is not likely to be a source of greatly expanded baccalaureate production in California in the near future unless there is a substantial change in current conditions.

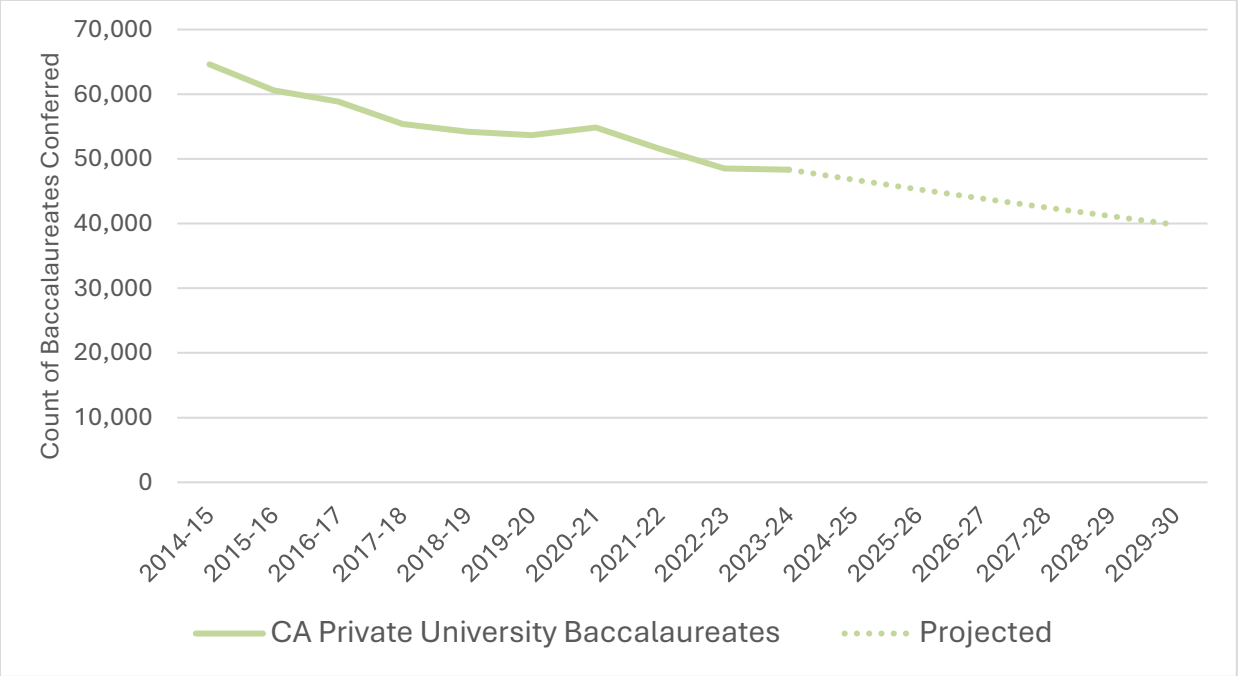

Figure 2. Baccalaureates by California Private Universities.

Source: NCES Table 319.10

Notes: Projection applies the historic compound annual growth of -3.17%.

Figure 2 Data included in Appendix.

Out of State Baccalaureate Degrees

Nationwide, the volume of baccalaureate degrees appeared to be steadily increasing in the aggregate of both public and private institutions until the pandemic in 2020 (figure 3). There may be a recovery that will be apparent in the next few years. Out of state universities can be important destinations for CCC transfer students. Reasons for students to attend out of state colleges or universities include the attraction of specific programs, aid packages, or the desire to pursue undergraduate studies in a particular setting such as a Historically Black College or University (HBCU), which do not exist in California (the one HBCU in California is a graduate medical school). Some emerging changes include new partnerships with out of state universities and CCCs such as Arizona State University (ASU) transfer agreements and partnerships with border universities such as University of Nevada, Reno (UNR) and Southern Oregon University (SOU). The expansion of online education may also result in California reconsidering engaging in the State Authorization Reciprocity Agreement (SARA) that would create new options for students.

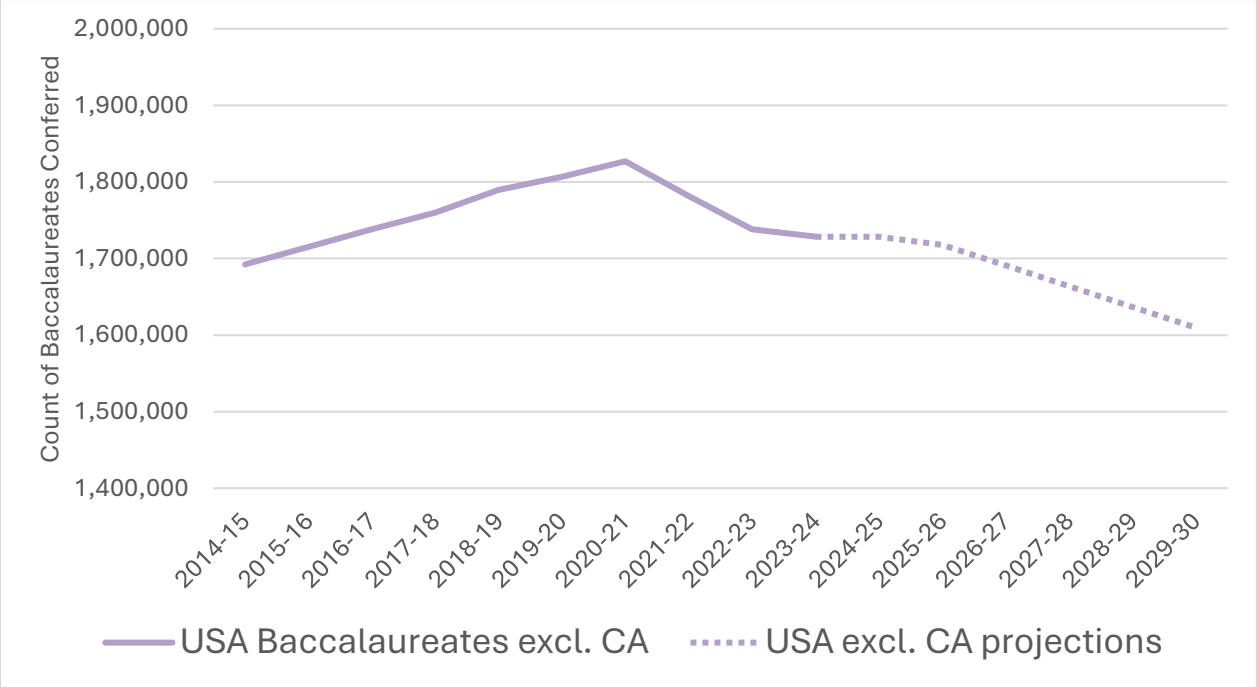

Figure 3. Baccalaureates by Universities Outside of California.

Source: NCES Table 319.10

Notes: Projection is a linear regression with Prais-Winsten autocorrelation correction. R-square = 0.365.

Figure 3 Data included in Appendix.

Community College Baccalaureate Degrees in California and other States

In the United States, 24 states have at least one community college offering at least one baccalaureate degree (Community College Baccalaureate Association & Bragg & Associates, Inc., 2024). Community College baccalaureate degrees are primarily, although not exclusively, professional degrees such as health, business, and technology. Of the most populated states, Florida is notable with all 28 of their community colleges offering a total of 192 baccalaureate programs. Texas similar to California is emerging with still a minority of community colleges offering baccalaureate degrees (21 of 50 colleges). Currently, 44 of 116 California Community Colleges offer baccalaureates in 57 programs in varying stages of maturity. In 2024-2025, the most prolific major was Dental Hygiene with almost one-third of all California Community College baccalaureates. New York's approach differs by focusing on offering professional baccalaureates in their state systems (State University of New York (SUNY) and City University of New York (CUNY)). By having previously two year colleges shift to primarily granting professional baccalaureate degrees (e.g., Canton, Cobleskil, Delhi, and Morrisville), Carnegie classifications excludes them from being classified as community colleges.

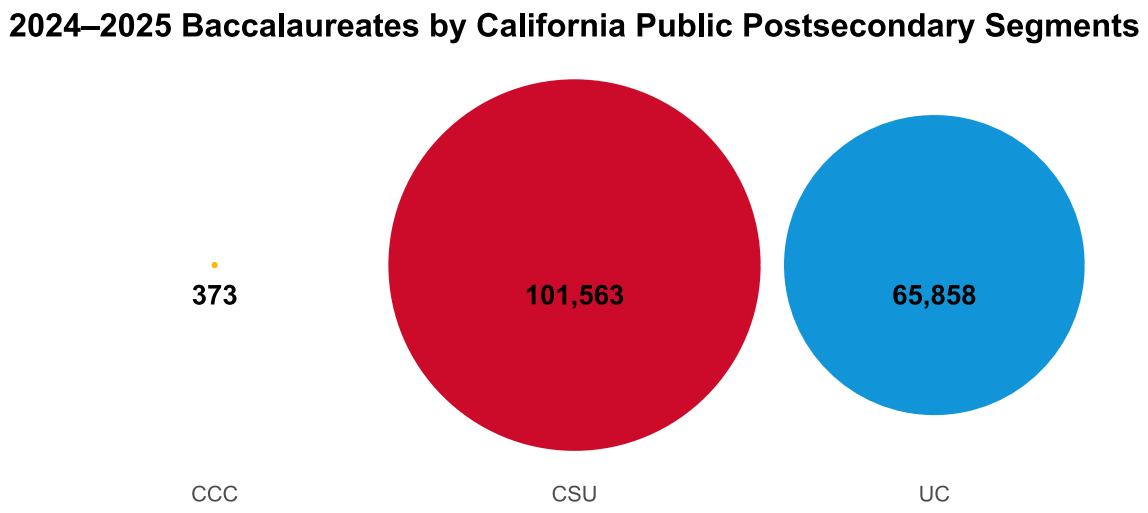

Figure 4. Relative Volume of Baccalaureates by California Public Postsecondary Systems in 2024-2025 (scale is approximate).

Starting in 2017-2018, California community colleges (CCC) began contributing to the supply of baccalaureate degrees in select career education areas (e.g., dental hygiene,

industrial automation). While the volume is small relative to the universities at this point (figure 4), CCC leaders are working for an increase in volume of 30% over the baseline year of 2021-2022. The current projected trend exceeds that goal. A stretch goal of achieving nearly 1,500 bachelor's degree awards annually is based upon growing from about 50 to 200 programs with an average of 20 graduates per year by 2030 (figure 5). There is a cap on the total number of CCC bachelor's degree programs of 25% of the total number of associate degree programs with a growth cap of no more than 30 new programs per year (78042(h)(3)). If CCC's maximized bachelor's degree program growth, the maximum would be reached in about 75 years.

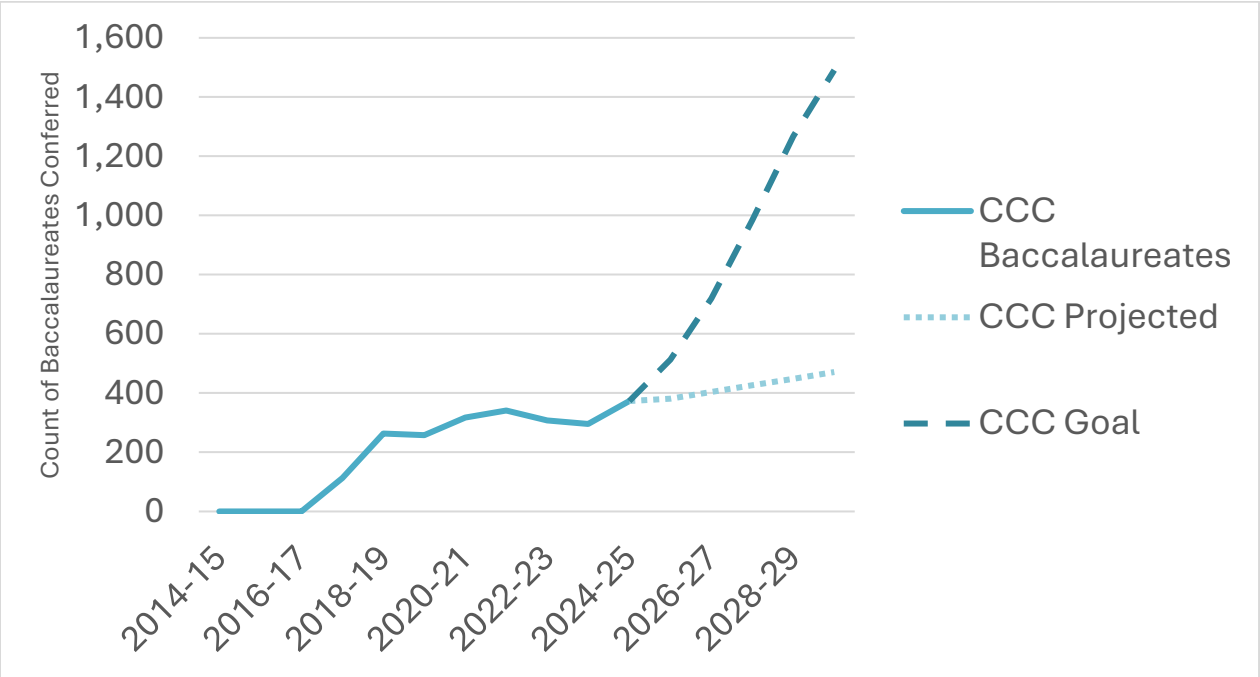

Figure 5. Baccalaureates by California Community Colleges (CCC) with Goal and Projection.

Source: DataMart

Notes: Projection is a linear regression. R-square = 0.56.

Figure 5 Data included in Appendix.

Apprenticeships and Bachelor's Degree Attainment

An emerging pathway for student to obtain bachelor's degrees are apprenticeships. These are structured, paid work based learning opportunities that not only provide technical training but also real world opportunities for applying skills and networking. Classic examples of apprenticeships include the trades such as carpentry, electrician, and other construction and manufacturing professions. A current growth area for apprenticeships are in business management perhaps more often associated with internships, which are typically briefer and less structured experiences. Another emerging area for apprenticeships are in the health professions where historic work based learning has been characterized more by internships, externships, and clinical placements generally required for the program to be accredited. Potential benefits of apprenticeships include reducing student dept and increasing post graduation employment and wages especially for minoritized students although additional research is needed on the impact on these outcomes and graduation rates (Gallup, 2024).

The Role of Equity in Increasing Baccalaureates

Across all states, systems, and segments, eliminating equity gaps by increasing the graduation rates of underrepresented minorities (URM) to that of non-URM. As a thought experiment, Table 1 shows the graduation rates for 2018 cohorts at California State University (CSU) and University of California (UC) for freshman and transfer students by underrepresented minority (URM) status. Graduation rates for UC are generally higher than CSU, higher for transfer students than freshman, and higher for non-URM than URM representing the "equity gap". Note the gap does not represent a lack on the part URM students but represents a challenge to our educational systems to do better. The equity gap for freshman is over ten points for freshman at CSU and UC, two points for CSU transfers, and 5 points for UC transfers.

Table 1. Graduation rates for California State University (CSU) and University of California (UC) for Freshman and Transfer Students by Underrepresented Minority (URM) Status.

	CSU 2018 6 year cohort of freshman		CSU 2018 4 year cohort of transfers		UC 2018 6 year cohort of freshman		UC 2018 4 year cohort of transfers	
	URM	non-URM	URM	non-URM	URM	non-URM	URM	non-URM
Rate	56%	69%	79%	81%	78%	89%	86%	91%
Graduates	18,813	21,816	19,091	21,503	10,458	29,674	5,492	13,272
Cohort size	33,747	31,684	24,103	26,421	13,442	33,304	6,379	14,665

Note: URM, or "Underrepresented Minority" also referred to as "minoritized" students, includes Hispanic, Black/African Americans, and Native Americans. All other students are included in Not-URM.

Sources:

CSU Data https://public.dashboards.calstate.edu/csu-by-the-numbers/historical-grad-rates

UC Data https://www.universityofcalifornia.edu/about-us/information-center/ug-outcomes

Table 2 shows the difference in 2024 graduates between the PPIC workforce goals and the actual number of baccalaureates. This is compared to the theoretical additional graduates that could have been if equity gaps were eliminated. The calculation is:
(URM cohort size * non- URM Rate) - URM Graduates = Additional baccalaureates if no equity gap

Table 2. Estimate of How Closing Equity Gaps Would Address Difference between PPIC Goal and Actual Count of Graduates for California State University (CSU) and University of California (UC).

	2024 Difference between PPIC Goal and Actual Count of Graduates	Additional baccalaureates if no equity gap	% of gap closing
CSU	29,876	4,949	17%
UC	8,263	1,800	22%
Total	38,139	6,749	18%

The total volume of these additional baccalaureates in a full equity scenario would close approximately one fifth of the gap between the PPIC workforce goal and actual graduates. This suggests that while eliminating equity gaps is an ethical and legal imperative, that alone would not be sufficient to meet the workforce needs of California yet still should be pursued.

Implications and Actions

The slowing of the CSU and UC systems and in state private institutions to produce additional baccalaureate graduates suggests that new approaches are necessary to achieve baccalaureate degree production targets. Fortunately, there is a resource within easy reach that has not been fully optimized to maximize production of baccalaureate degree recipients—the California Community College system. The massive scale and student support strengths of the California community college system could be better utilized to meet the need for more baccalaureates. In order to optimize the production of baccalaureate degrees in California, there is an ecosystem of efforts including program mapping, remediation reform, associate degrees for transfer (ADTs), dual admission, common course numbering, transfer requirement alignment (Cal-GETC), professional development for culturally responsive pedagogy, artificial intelligence (AI) powered tutoring and support services, and more. Unfortunately, we have seen recent declines in transfers within California during the pandemic (see appendix). Transfer is complicated with variability in program alignment and policies among institutions while episodic calamities such as catastrophic fires and economic downturns also impact transfer. This is on top of systemic barriers such as geographic isolation or "transfer deserts" in parts of our state (Distance Matters, RP Group 2024). One newer innovation to overcome transfer barriers and increase baccalaureate production is "dual admission". A student is admitted into the community college and the CSU or UC simultaneously, with some requirements regarding course completion at the community college before final admission to the university. Expansion of this policy could result in most students completing the majority of their lower division coursework at a CCC campus. In this way sufficient candidates for junior status would be produced each year to keep CSU campuses operating at near full capacity. Because transfer students have historically completed at higher rates than freshman students at the CSU, the overall output is expected to be boosted beyond present levels in a sustainable fashion. For example, the fall 2020 cohort of students who began at CSU had a graduation rate of 36% compared to the fall 2022 cohort of CSU transfer students with a graduation rate of 44% (Workbook: Graduation Rates Dashboard).

Theoretically, this would also help boost diversity of graduates as the CCC system is more reflective of the population than other postsecondary segments.

California's aging population is expected to increase demand for healthcare and for more re-entry working learners at college and universities. Uncertainties around federal funding and immigration policy are already impacting postsecondary institutions and employers. If federal education funds are reduced and not replaced by state or private sources, then programs and services to students may also have to be reduced, impacting graduation rates. If fewer college educated workers from other countries are willing or able to come to work in the US, then California colleges and universities will have more pressure to produce graduates within the US to fulfill workforce needs.

The Chancellor's Office Vision 2030: Transfer Work Plan actions to improve transfer rates include:

- Creating Partnerships and Collaborations
    - Rural College Transfer Collaborative
    - Inland Empire Equitable Dual Enrollment in Science, Technology, Engineering, and Math (STEM) and Career Technical Education (CTE)
    - Statewide Transfer Partnerships
- Building Infrastructure
    - Common Course Numbering
    - California Community College Baccalaureate Degree Programs
    - Program Pathways Mapper
    - Associate Degree for Transfer (ADT) Completer Auto-Matriculation
    - Transfer Planning and Matriculation Support

Additional related actions to consider are:

1. Eliminate equity gaps in graduation rates.
2. Eliminate the loss of credits as students transition from CCC to the CSU and UC by creating automated dual admissions system.
3. Increase dual enrollment opportunities for high school students.

4. Fully implement credit for prior learning to increase credit momentum towards completion while honoring earned skills and knowledge.
5. Expand partnerships to out of state universities to enhance capacity (e.g., SARA)
6. Increase the intensity of student support and engagement:
    a. Provide the complete level of support required for community college students to attend college full time and persist;
    b. Empower students and support their agency in navigating systemic requirements;
    c. Leverage existing and new data infrastructure resources to provide relevant, timely, and proactive support.

Acknowledgements

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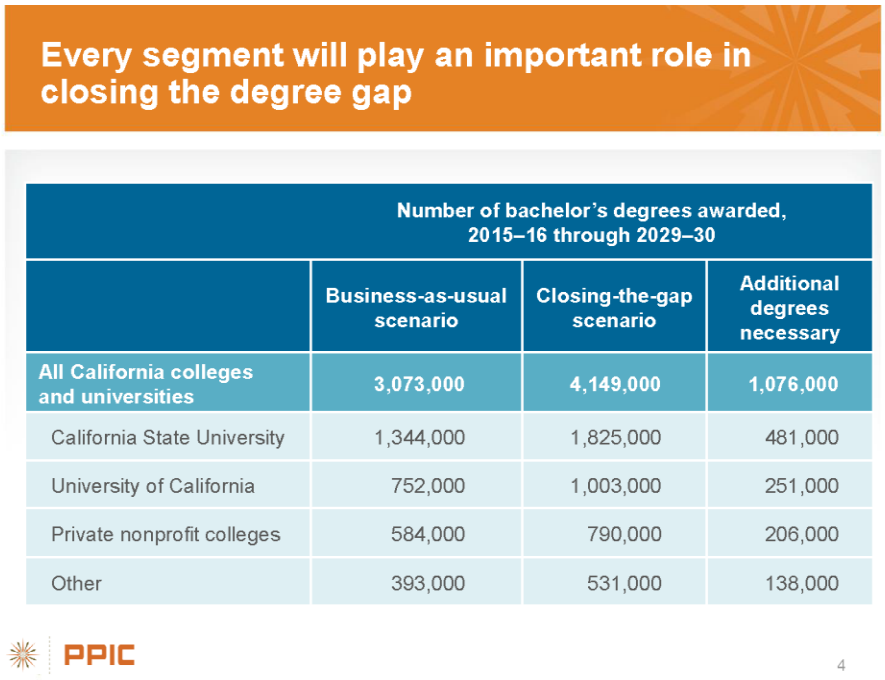
Appendix: Postsecondary Achievement Trends

Every Segment will play an important role in closing the degree gap

	Number of Bachelor's degrees awarded, 2015-16 through 2029-30		
	Business-as-usual scenario	**Closing-the-gap scenario**	**Additional degrees necessary**
All California colleges and universities	**3,073,000**	**4,149,000**	**1,076,000**
California State University	1,344,000	1,825,000	481,000
University of California	752,000	1,003,000	251,000
Private nonprofit colleges	584,000	790,000	206,000
Other	393,000	531,000	138,000



Source:
https://ahed.assembly.ca.gov/sites/ahed.assembly.ca.gov/files/hearings/Hans%20Johnson%20degree%20gap%20testimony%20feb%202018.pdf

Appendix: Figure Data

Data for the following Figures

- *Figure 1. Baccalaureates by California State University (CSU) and University of California (UC) with goals recommended by Public Policy Institute of California (PPIC) and statistical projections.*
- *Figure 2. Baccalaureates by California Private Universities.*
- *Figure 3. Baccalaureates by Universities Outside of California.*
- *Figure 5. Baccalaureates by California Community Colleges (CCC) with Goal and Projection.*

Year	UC Baccalaureates	CSU Baccalaureates	CCC Baccalaureates	CA Private University Baccalaureates	UC Projected	CSU Projected	CCC Projected	Projected	UC Goal (PPIC)	CSU Goal (PPIC)	CCC Goal	CCCs Bacc Programs with graduates	Bacc/ CCC	USA Baccalaureates excl. CA	USA excl. CA projections
2014-15	49,435	87,814	0	64,614					49,430	87,814				1,692,233	
2015-16	50,908	92,167	0	60,579					49,435	87,814				1,715,184	
2016-17	53,938	98,862	0	58,872					49,969	89,542				1,738,318	
2017-18	55,579	105,431	113	55,379					51,576	91,258				1,759,789	
2018-19	57,353	107,319	263	54,194					54,920	99,628				1,789,575	
2019-20	62,924	109,450	258	53,645					58,305	105,932				1,806,551	
2020-21	65,463	112,566	317	54,867					61,480	116,936				1,826,955	
2021-22	62,759	109,919	341	51,515					65,461	119,450				1,781,578	
2022-23	62,480	105,841	308	48,519					68,140	123,128				1,738,041	
2023-24	62,252	103,795	296	48,332				48,332	71,061	127,193		39	8	1,728,358	1,728,358
2024-25	65,858	101,563	373		65,858	101,563	373	46,797	74,121	131,439	373	40	10		1,728,358
2025-26					68,573	103497	381	45,312	77,233	135,713	513	50	12		1,717,756
2026-27					70,169	100204	404	43,873	77,446	139,789	719	60	15		1,690,725
2027-28					71,765	96911	426	42,480	77,540	142,342	984	70	18		1,663,693
2028-29					73,362	93618	448	41,132	77,646	144,933	1,268	80	20		1,636,662
2029-30					74,958	90325	471	39,826	77,745	147,527	1,491	90	20		1,609,630