

Degrees of Value:

Exploring How College ROI in California Differs by Region

KEY TAKEAWAYS

- ▶ The majority of Californians with a bachelor's degree experience a positive return on investment (ROI), with moderate variation among regions.
- ▶ Bachelor's degree completers in coastal, urban regions see their degrees pay off at slightly higher rates than their peers in more rural, inland areas.
- ▶ ROI rates for associate's degree holders vary more widely by region and align less with regional economic strength or urbanicity compared with those for bachelor's degrees.
- ▶ California can improve economic returns by reducing costs and improving earnings. Key strategies to meet these objectives include:
 - ▶ increasing affordability by improving student access to financial aid and other public investments that can reduce the cost of college
 - ▶ increasing students' earnings after completion by better coordinating career pathways through improved labor market data and stronger higher education-workforce partnerships

For many students, the expectation that a degree will lead to better financial outcomes is a key motivator for enrolling in college.¹ A clearer understanding of public higher education's ROI can also help prospective students make informed decisions about their education and career pathways and better anticipate economic outcomes. Transparent information about the economic returns of degree completion is especially valuable for first-generation students, who may have less access to occupational networks and career guidance when making college decisions.

As shown in the [previous brief](#) in our *Degrees of Value* research series, college does pay off for nearly all graduates of California public institutions despite a growing public narrative that may at times suggest otherwise.² In fact, on average, a bachelor's degree yields a higher internal rate of return than stocks, bonds, gold, and Treasury bills.³ California is also among the leading states delivering on economic value for its college graduates, with the fourth highest rate of positive ROI for all degree types (75%).⁴ These benefits, however, are not realized equally across the state. Our earlier analysis examined how the economic returns from college completion vary by race, ethnicity, and sex for both bachelor's and associate's degree completers. In this brief, we further examine how the ROI for college completion differs across California's regions.

ABOUT THE DEGREES OF VALUE RESEARCH SERIES

This analysis is part of California Competes's *Degrees of Value* research series, done in partnership with College Futures Foundation and Strada Education Foundation, to examine how the economic return on college varies by race, ethnicity, sex, and region. The research seeks to help policymakers and institutions understand where and for whom college pays off and where targeted reforms are needed to close equity gaps. This series uses an approach and measures developed by Strada Education Foundation for its State Opportunity Index.⁵

What Do We Mean by ROI?

ROI represents the economic premium of a college degree minus its costs. It looks at how much more a graduate earns over 10 years compared with a typical high school graduate, among those employed full time, then subtracts the average net cost to complete a degree at a public institution.

The ROI calculation can be expressed in the formula depicted below. A college graduate has a positive ROI if they earn enough above a typical high school graduate over this 10-year period to exceed the cost of attending college. In simplified terms, if a degree costs \$80,000, a college graduate would need to earn at least \$80,000 over a decade above the median earnings of high school graduates to recoup their investment.⁶

$$\text{ROI} = \text{ADDED VALUE OF A COLLEGE DEGREE} - \text{EDUCATIONAL EXPENSES}$$

where the **added value of a college degree** is the difference between a college graduate's and a high school graduate's annual earnings, multiplied by 10 years, and **educational expenses** are a college student's annual education and living expenses minus their annual grant aid, multiplied by the standard number of years to complete their degree (two for an associate's, four for a bachelor's)

The specifications used in this brief set a higher bar for success than other estimates of the value of college. For example, the 2023 federal Financial Value Transparency and Gainful Employment regulations compare college graduates' earnings to the median earnings of all high school graduates in the labor force, including part-time workers and the unemployed.⁷ The ROI metric in this brief, on the other hand, only includes those high school graduates working full time, who earn considerably more. Additionally, limiting the time period to 10 years does not account for differences in earnings in later years, a period in which the earnings premium of a college degree tends to increase.⁸

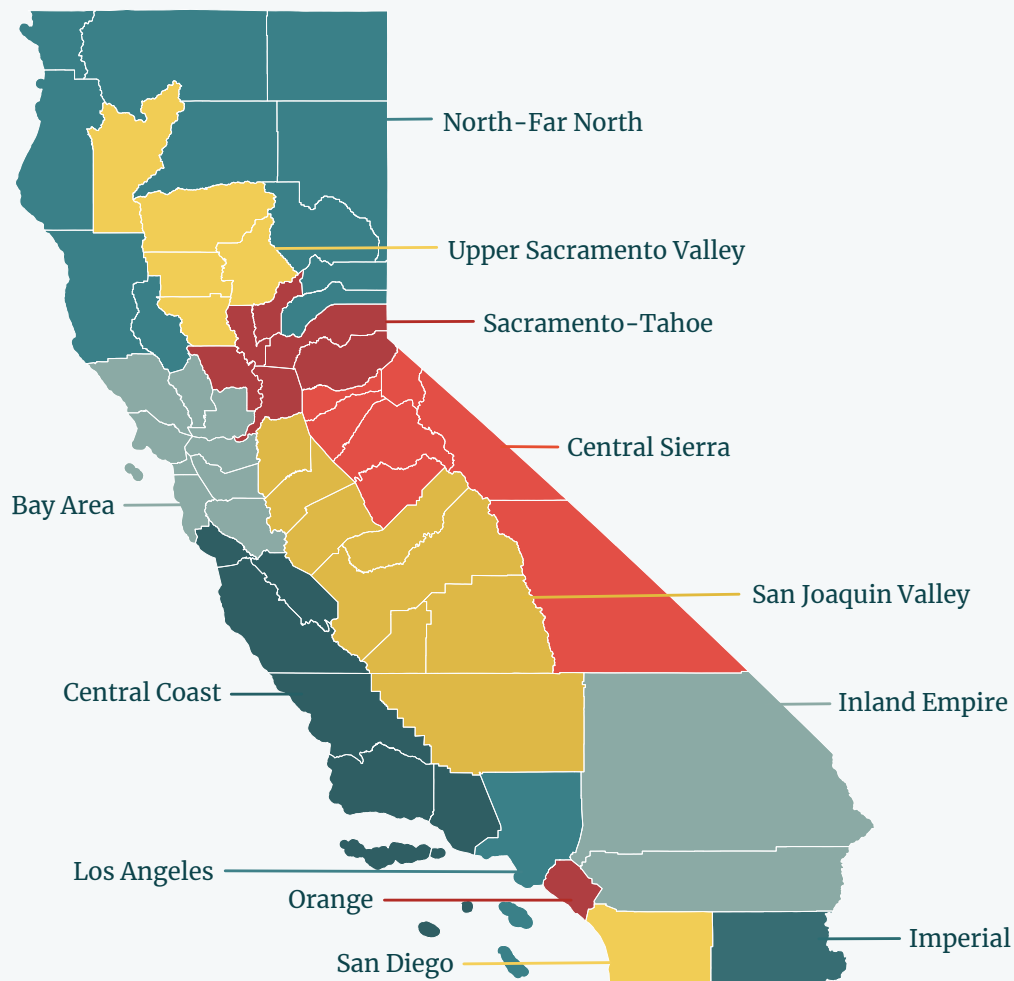
This brief calculates ROI using average regional net cost of attendance, which assumes that graduates live and work in the same region in which they attended college. In appendix tables 1 and 2, ROI measures are also presented for each region using the statewide average net cost of attendance, which avoids this assumption, but therefore doesn't account for differences in higher education costs across various parts of the state. While these two approaches yield somewhat different estimates, the results are not highly sensitive to the choice of cost measure.

75%

of California college graduates see a positive ROI, the fourth-highest rate in the nation⁹

Dividing California Into Regions

This brief splits the state into 12 regions, each of which is made up of one or more counties. See appendix table 3 for more information on how these regions are defined.



To explore regional data and outcomes in greater detail, visit the [California Postsecondary to Prosperity Dashboard](#), which offers interactive, region-level insights that complement this analysis.

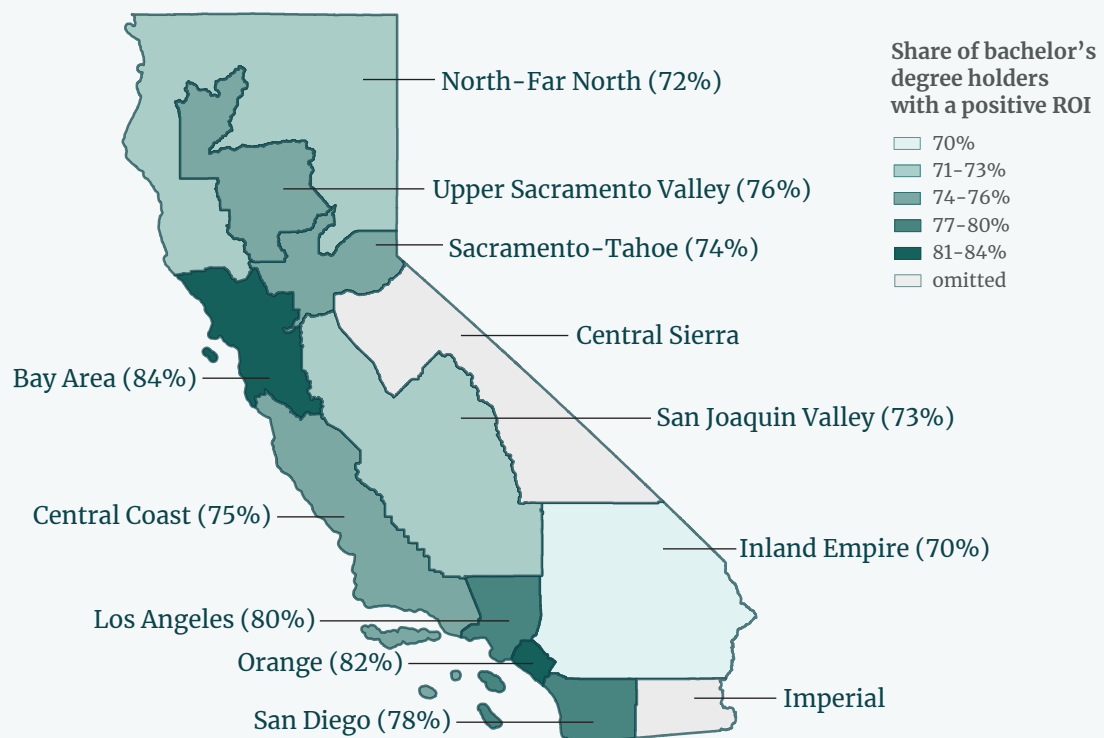
Bachelor's Degrees Pay Off for Most Graduates Across California's Regions

The majority of graduates in every region experience a positive economic return from their bachelor's degree. In each of the 10 regions for which data is available, at least 70 percent see their degree pay off within 10 years (figure 1). Despite some variation in economic returns, a bachelor's degree remains a sound investment for most regardless of where they study, live, and work.

Degree holders in urban coastal regions are more likely to experience a positive ROI than those in more rural inland areas. The four regions with the highest rates of positive return for bachelor's degree holders are urban and coastal: Bay Area, Orange, Los Angeles, and San Diego (figure 1). Meanwhile, the four regions with the lowest rates are located in the state's interior: Sacramento-Tahoe, San Joaquin Valley, North-Far North, and Inland Empire.

Figure 1: Bachelor's degree holders in urban, coastal regions see their degrees pay off at the highest rates

Percentage of California public university bachelor's degree completers with a positive ROI, by region



Note: All statistics and figures are produced using unrounded values. Data classified by natural breaks (Jenks), six classes. Values are not available for the Central Sierra and Imperial regions because of small sample sizes.

Source: Calculated by the Strada Education Foundation using the 2019–2023 American Community Survey and the 2022–2023 College Scorecard.

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ROI: Bachelor's Degrees continued

A bachelor's degree pays off most often for those in areas with robust regional economies. Approximately eight in ten (78%) or more bachelor's degree holders in the Bay Area, Orange, Los Angeles, and San Diego regions experience a positive return within 10 years. These regions include the state's major economic hubs (figure 2; see appendix figure 6 for a spatial representation of this data). Six of the nine counties with the highest per capita gross domestic product (GDP) in 2023 are in the Bay Area, while the remaining three are Orange, Los Angeles, and San Diego Counties.¹⁰ Taken together, these four regions accounted for three-quarters of the state's economic output in 2023.

By contrast, the three regions with the lowest rates of positive ROI (San Joaquin Valley, North-Far North, and Inland Empire) had per capita GDP levels that were only about one-third of the Bay Area's (\$56,522; \$55,093; and \$55,235, respectively).

Figure 2: Bachelor's degrees pay off most often in regions with strong economies

2023 GDP per capita by California public university bachelor's degree completers with a positive ROI by region



Note: All statistics and figures are produced using unrounded values.

Source: Share of California bachelor's degree completers with a positive ROI calculated by the Strada Education Foundation using the 2019–2023 American Community Survey and the 2022–2023 College Scorecard. 2023 GDP Per Capita calculated using 2023 county-level GDP from the U.S. Bureau of Economic Analysis and July 2023 county population estimates from the California Department of Finance.

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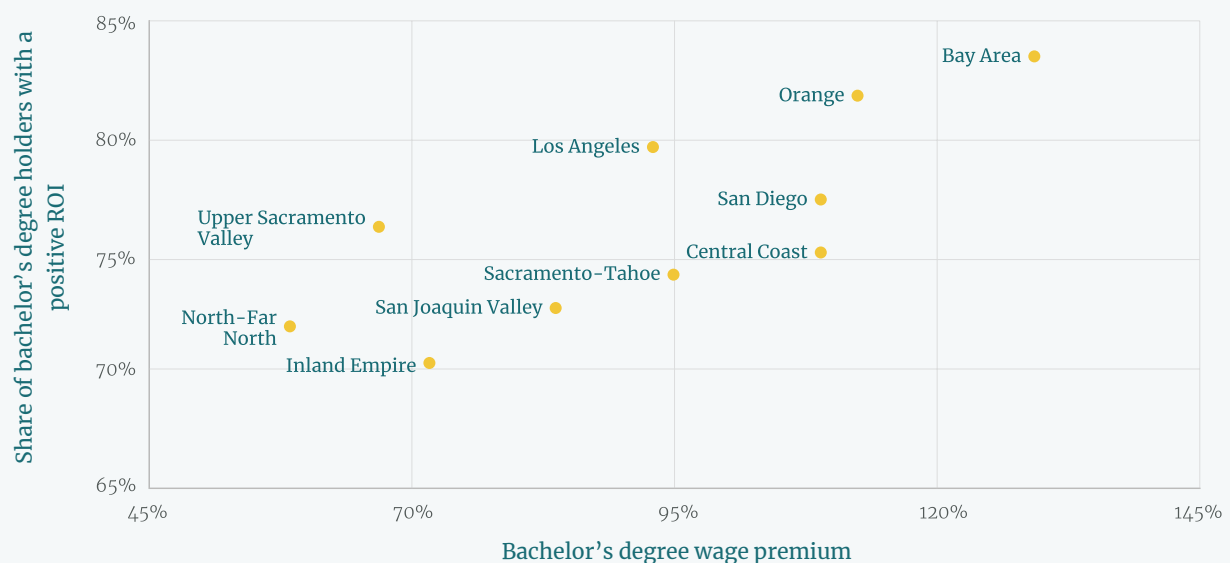
ROI: Bachelor's Degrees continued

A positive ROI is most common where workers earn the greatest financial reward for having completed a bachelor's degree. Three of the four regions (Bay Area, Orange, San Diego) with the highest shares of graduates experiencing a positive return also offer the largest wage premiums for bachelor's degree holders (figure 3; see appendix figure 6 for a spatial representation of this data). Across each region, bachelor's degree holders' earnings exceed those of high school graduates by at least 108 percent.¹¹ In the Bay Area, where bachelor's degrees pay off most often, this wage premium is also highest (128%).

Meanwhile, though a university degree is linked to higher earnings in every region, the wage premium is more modest in the Inland Empire (71%) and North-Far North (58%), where graduates are also least likely to see a positive ROI.

Figure 3: Bachelor's degrees pay off most often in regions with high bachelor's degree wage premiums

Percentage difference in median wages between high school graduates and bachelor's degree holders by percentage of California public university bachelor's degree completers with a positive ROI, by region



Note: All statistics and figures are produced using unrounded values.

Source: Share of California bachelor's degree completers with a positive ROI calculated by the Strada Education Foundation using the 2019–2023 American Community Survey and the 2022–2023 College Scorecard. Bachelor's degree wage premium calculated using 2019–2023 American Community Survey microdata accessed via Ruggles, S., Flood, S., Sobek, M., Backman, D., Cooper, G., Rivera Drew, J. A., Richards, S., Rogers, R., Schroeder, J., & Williams, K. C. W. (2025). IPUMS USA: Version 16.0 [dataset]. IPUMS. <https://doi.org/10.18128/D010.V16.0> (replication link)

Even in parts of the state that provide less economic opportunity, a bachelor's degree still pays off at a high rate. As noted, university graduates in the Inland Empire, North-Far North, and San Joaquin Valley enter smaller regional economies that offer a more modest earnings boost over high school graduates compared with other California regions. Nonetheless, a greater share of graduates in these regions still experience a positive ROI than those in 30, 34, and 37 states, respectively.¹²

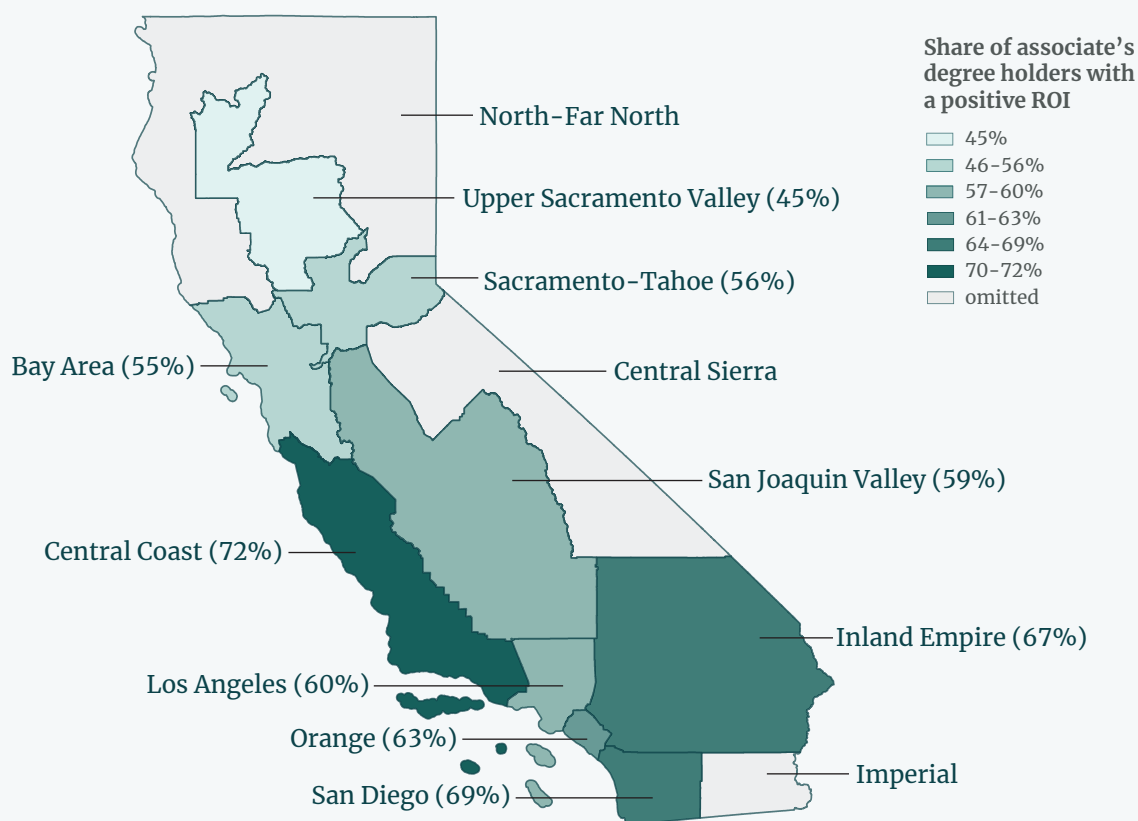
ROI for Associate's Degrees Varies More by Region than ROI for Bachelor's Degrees

Positive ROI rates for associate's degrees range from just 45 percent in the Upper Sacramento Valley to 72 percent in the Central Coast, a substantially wider spread than for bachelor's degrees, which range from 70 percent to 84 percent (figure 4).

While an associate's degree is a sound investment across much of the state, its economic benefits are less clear in some regions. In the Upper Sacramento Valley, fewer than half (45%) of associate's degree holders experience a positive economic return within 10 years. Similarly, in the Bay Area and Sacramento-Tahoe regions, just slightly more than half of associate's degree holders see a positive ROI (55% and 56%, respectively).

Figure 4: Positive ROI rates for associate's degrees vary widely by region

Percentage of California community college associate's degree completers with a positive ROI, by region



Note: All statistics and figures are produced using unrounded values. Data classified by natural breaks (Jenks), six classes. Values are not available for the Central Sierra, North-Far North, and Imperial regions because of small sample sizes.

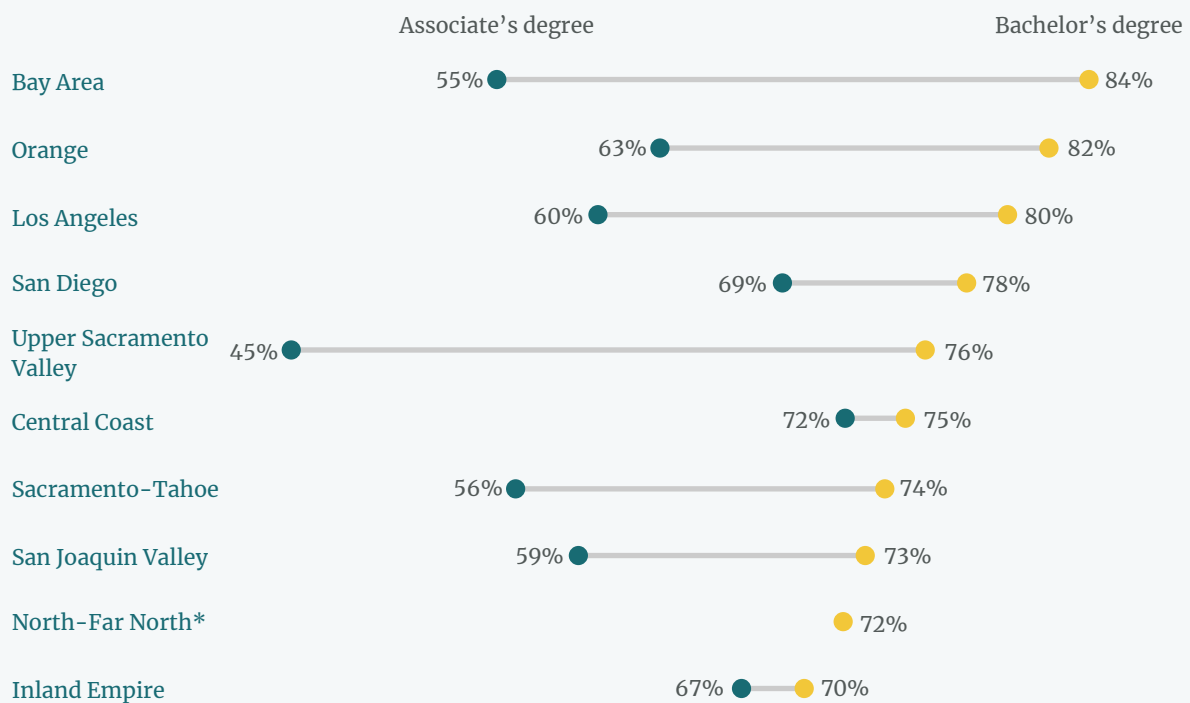
Source: Calculated by the Strada Education Foundation using the 2019–2023 American Community Survey and the 2022–2023 College

The Difference in Dividends for Associate's and Bachelor's Degrees Varies Greatly Across Regions

A bachelor's degree pays off more often than an associate's degree across every region, but the size of the gap in positive returns by degree type varies significantly (figure 5). In the Inland Empire and Central Coast regions, this advantage is modest. Here, positive ROI rates for bachelor's degree completers are only three percentage points higher than those for associate's degree completers. By contrast, in other parts of the state, most notably the Upper Sacramento Valley and the Bay Area, the gap is substantially wider at 31 and 28 percentage points, respectively.

Figure 5: Bachelor's degrees pay off at a much higher rate than associate's degrees in some regions, while in others the gap is slim

Percentage of California bachelor's and associate's degree completers with a positive ROI, by region



Note: All statistics and figures produced using unrounded values.

*The share of associate's degrees with a positive ROI is not available for the North-Far North region due to small sample size. For this same reason, values for both degree types are omitted for the Central Sierra and Imperial regions.

Source: Calculated by the Strada Education Foundation using the 2019–2023 American Community Survey and the 2022–2023 College Scorecard.

Recommendations for Advancing ROI for All Graduates

While a bachelor's degree pays off at a high rate across all regions and an associate's degree across most, state and institutional leaders can take additional steps to strengthen higher education's ROI statewide. In particular, California can improve economic returns by reducing costs and improving earnings. We offer the following concrete strategies that the state could leverage to meet both of these objectives.

» Improve Affordability for Current and Prospective Students

California can increase the value of higher education by lowering the cost of degree completion.

Improvements in affordability can occur through investments in financial aid access and award levels and increased access to other supports that provide students with direct or in-kind benefits.

Strengthening Access to Financial Aid that Can Help Defray Living Costs

Non-tuition costs, including housing, childcare, and other basic needs, make up a larger share of the total cost of college than in-state undergraduate tuition.¹³ These living expenses are higher in California than in many other states and vary substantially by region.¹⁴ Expanding grant aid, such as Cal Grant Access Awards, that can be used for such expenses would particularly benefit the lowest-income students, who are more likely to be first-generation students or students of color and face greater barriers to achieving a positive ROI.

Additionally, California could improve access to financial aid by removing an outdated eligibility barrier that prevents certain adult learners from accessing state grant aid. Currently, low-income students who first apply for financial aid more than one year after graduating from high school and are

enrolled in a California State University (CSU) or University of California (UC) school cannot receive a Cal Grant Entitlement Award (in 2021, California removed this barrier for community college students and made their awards transferable to other public institutions).¹⁵ Unlike their typically younger peers with comparable financial needs, these students must apply for a limited number of competitive awards or rely on other sources of financial aid, including institutional grants and loans.¹⁶ This restriction has a ripple effect that further limits some of California's most at-risk students: student parents and foster youth who receive a Cal Grant are also entitled to up to \$6,000 per year in aid for living expenses. However, many otherwise eligible low-income students do not receive this additional support because they are left out of the Cal Grant program due to being more than a year removed from high school. In 2024–25, nearly 4,000 such students missed out on the tuition assistance provided by a typical Cal Grant along with the supplemental aid that can help cover childcare, food, and housing costs.¹⁷

Streamlining Other Supports for Holistic Student Success

Strengthening students' access to other existing state and federal public investments can further reduce the college costs that students must cover out of pocket or finance through loans. These investments include benefit programs such as CalFresh, CalWORKs, and Medi-Cal; veterans' benefits; affordable housing and childcare supports; and workforce programs.¹⁸ Yet many eligible current and prospective students never receive these resources due to significant program barriers, including complex rules and eligibility requirements, fragmented systems, and under-resourced support.¹⁹

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Recommendations continued

Streamlining, integrating, and simplifying administrative processes and outreach efforts would help overcome these barriers and increase the resources available to students to defray college costs.²⁰

» Strengthen Links Between Higher Education Planning and Regional Employment

More intentional alignment between college programs and learning opportunities and regional labor market demand would help ensure that students can enter clear, well-defined career pathways that lead to strong economic returns. Two key levers for achieving this alignment include using labor market data to inform program offerings and guide students in their educational journeys and institutionalizing partnerships among colleges, workforce and economic development boards, and employers.

Improving Data Collection

Understanding how Californians fare after they leave college is critical to being able to improve ROI. However, the wage data that California depends on to understand earnings falls short in a number of ways. It only includes total wages earned but does not include hours worked, occupation, or job location.

- **Hours worked.** Including hours worked would allow the state to understand whether an individual's earnings reflect a year's worth of full-time work or more sporadic or seasonal employment.
- **Occupation.** Including occupation would allow the state to understand which jobs Californians hold, enabling institutions to better understand whether graduates' jobs align with their fields of study. Currently, wage data includes industry based on employer classification, but an individual

working for a school district that is classified as "education" could be a teacher, but they could also be a lawyer, accountant, janitor, or data analyst.

- **Job location.** Given the diverse labor market needs across California's regions, it is critical to understand where individuals work after leaving higher education.

Improving wage data collection and integrating it into the state's Cradle-to-Career (C2C) longitudinal data system would support more informed decisions about which programs to offer and scale, helping to ensure alignment with regional workforce needs and stronger post-graduation outcomes. For instance, institutions could use such data to regularly assess and improve program alignment with quality job outcomes. Better employment data would also help students make more informed enrollment decisions, which would be especially valuable for first-generation students, who are less likely to have access to occupational networks and career knowledge in their homes and communities. Moreover, such data could also strengthen career pathway guidance that students receive from college instructors and staff. Currently, only one in five learners and recent graduates is "very satisfied" with the resources and support they received in planning their educational and career choices.²¹



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Recommendations continued

Strengthening Partnerships with Key Workforce Stakeholders

Partnerships with local employers, along with workforce and economic development stakeholders, can strengthen pathways from the classroom to quality jobs aligned with students' chosen fields of study. One way these relationships can take shape is through paid work-based learning. Although fewer than half of students currently participate

in structured work-based learning connected to a specific occupation or career pathway, the benefits are substantial, especially for paid opportunities.²² Students who engage in internships, for example, are far more likely to report that their education opened strong career opportunities, contributed to career success, and prepared them for both continued education and the workforce.²³

Understanding the Limitations of the Research

Several complicating factors make these results far from a straightforward comparison of the costs and benefits of graduating from college. First, the educational costs imputed to college graduates are not exact reflections of the actual trade-offs that students face. The net price of attendance exaggerates costs by including living expenses (housing, food, transportation) that graduates would have paid even if they had not attended college. At the same time, it leaves out the opportunity costs students incur by attending classes instead of working for pay. The estimated living expenses rarely account for the additional costs of caring for dependents, though legislation enacted in 2024 requires California Community Colleges and CSU, and requests UC, to proactively adjust the cost of attendance for student parents.²⁴ And most students take longer than the standard four years to complete a bachelor's degree or two years to complete an associate's degree, though their expenses will also be reduced if they do not enroll continuously or full time.²⁵ Turning to the other component of the ROI equation, many factors affect earnings, chief among them being the field of study.²⁶ Options for choosing a field of study, in turn, are shaped by each college's resources and policies.²⁷ This analysis does not account for earnings variation by major or the constraints students may face in entering programs leading to high-paying jobs. These and other measurement challenges prompt further refinement to these results in the coming years, especially as data from C2C become available to researchers.

Appendix

Tables 1 and 2 present the share of degree completers with a positive ROI in each region, calculated using two different cost measures: regional and statewide average net cost of attendance. This brief calculates ROI using the regional measure. While these two approaches yield somewhat different estimates, the results are not highly sensitive to the choice of cost measure.

Table 1: Percentage of California public university bachelor’s degree completers with a positive ROI measured using regional cost and statewide cost, by region

Region	Positive ROI: Regional Cost	Positive ROI: Statewide Cost
Bay Area	84%	85%
Central Coast	75%	78%
Inland Empire	70%	71%
Los Angeles	80%	78%
North–Far North	72%	73%
Orange	82%	80%
Sacramento–Tahoe	74%	76%
San Diego	78%	78%
San Joaquin Valley	73%	71%
Upper Sacramento Valley	76%	79%

Note: Values are not available for the Central Sierra and Imperial regions because of small sample sizes.

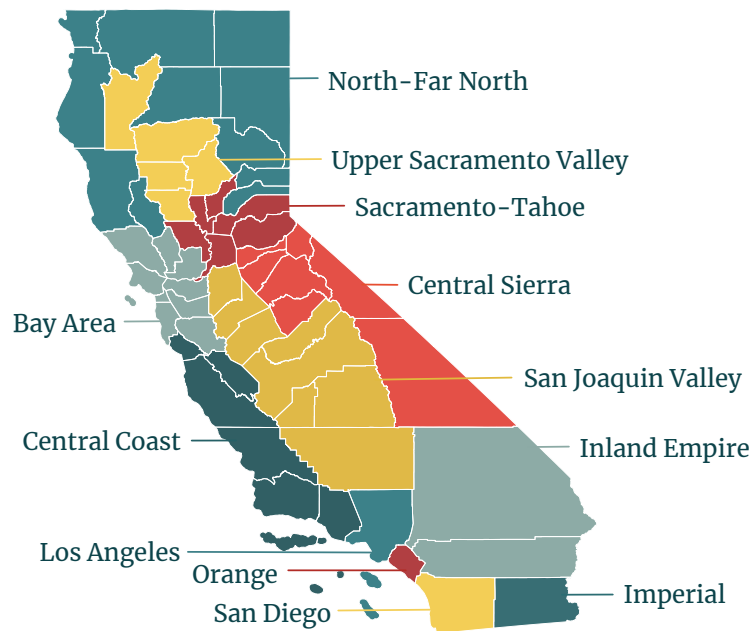
Table 2: Percentage of California community college associate’s degree completers with positive ROI measured using regional cost and statewide cost, by region

Region	Positive ROI: Regional Cost	Positive ROI: Statewide Cost
Bay Area	55%	56%
Central Coast	72%	72%
Inland Empire	67%	68%
Los Angeles	60%	60%
Orange	63%	62%
Sacramento–Tahoe	56%	55%
San Diego	69%	69%
San Joaquin Valley	59%	57%
Upper Sacramento Valley	45%	45%

Note: Values are not available for the Central Sierra, North–Far North, and Imperial regions because of small sample sizes.

Table 3 lists the counties that define each of the 12 regions used in this analysis.

Table 3: California Regions Defined by County

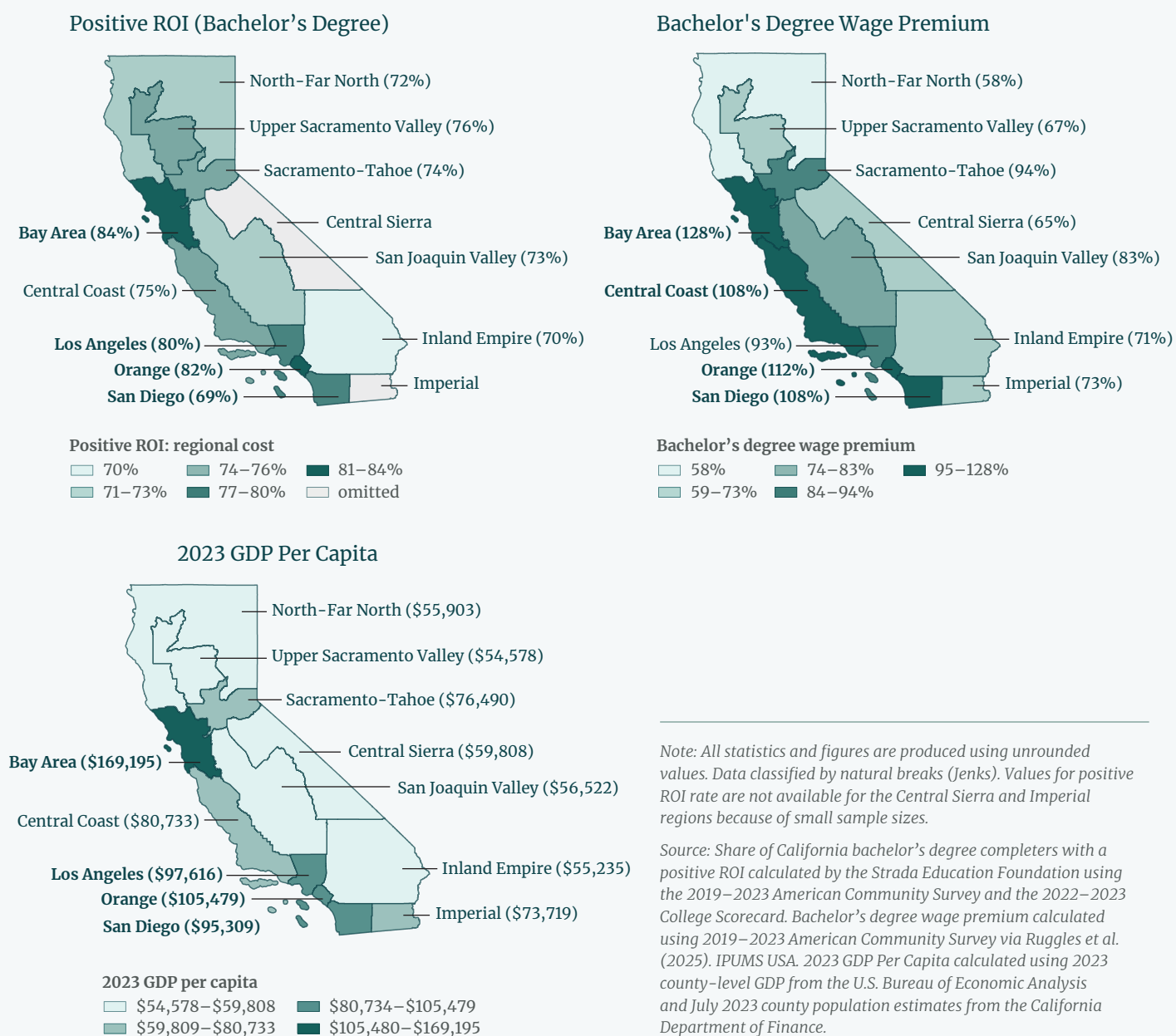


Region	Counties
Bay Area	Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma
Central Sierra	Alpine, Amador, Calaveras, Inyo, Mariposa, Mono, Tuolumne
Upper Sacramento Valley	Butte, Colusa, Glenn, Tehama, Trinity
Sacramento-Tahoe	El Dorado, Placer, Sacramento, Sutter, Yuba, Yolo
San Joaquin Valley	Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare
North-Far North	Humboldt, Lake, Mendocino, Del Norte, Lassen, Modoc, Plumas, Siskiyou, Sierra, Nevada, Shasta
Imperial	Imperial
Los Angeles	Los Angeles
Central Coast	Monterey, San Luis Obispo, San Benito, Santa Barbara, Santa Cruz, Ventura
Orange	Orange
Inland Empire	Riverside, San Bernardino
San Diego	San Diego

Figure 6 compares three variables examined in the brief: positive ROI rates for bachelor's degree holders, bachelor's degree wage premiums, and regional economic output. It's a spatial representation of figures 2 and 3, illustrating that strong regional economies and high bachelor's degree wage premiums are both associated with high positive ROI rates for bachelor's degrees.

Figure 6: Regions with the highest rates of positive ROI for bachelor's degree holders also financially reward bachelor's degree completion the most and have the highest levels of economic output

Percentage of California public university bachelor's degree completers with a positive ROI, percentage difference in median wages between high school graduates and bachelor's degree holders, and 2023 GDP per capita by region



Note: All statistics and figures are produced using unrounded values. Data classified by natural breaks (Jenks). Values for positive ROI rate are not available for the Central Sierra and Imperial regions because of small sample sizes.

Source: Share of California bachelor's degree completers with a positive ROI calculated by the Strada Education Foundation using the 2019–2023 American Community Survey and the 2022–2023 College Scorecard. Bachelor's degree wage premium calculated using 2019–2023 American Community Survey via Ruggles et al. (2025). IPUMS USA. 2023 GDP Per Capita calculated using 2023 county-level GDP from the U.S. Bureau of Economic Analysis and July 2023 county population estimates from the California Department of Finance.

Acknowledgments

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Notes

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6. The actual calculations adjust earnings for annual growth and inflation, exclude individuals working less than 35 hours a week or fewer than 40 weeks in the prior year, exclude individuals with zero earnings, and exclude institutions with especially high and low net prices. For a detailed explanation of the metrics and assumptions used to calculate ROI, see: Strada Education Foundation. (2024).
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17. According to data provided on January 6, 2026, by the California Student Aid Commission to California Competes, 3,873 students with dependents and 14 current or former foster youth at UC and CSU schools in 2024–25 were otherwise Cal Grant–eligible, but did not receive awards due to requirements regarding age and time out of high school.
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