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# Extended Opportunities Programs and Services (EOPS) Impact Study 2.0: 2010-2019

## Technical Report

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# Introduction

The California Community Colleges (CCC) launched Extended Opportunity Programs and Services (EOPS) after the passage of SB164 (1969). According to the California Community Colleges Extended Opportunity Programs and Services Association (CCCEOPSA, n.d.), EOPS "encourage[s] the enrollment, persistence, and transfer of students handicapped by language, social, economic, and educational disadvantages, and [facilitates] the successful completion of their goals and objectives in college." EOPS program participation has grown significantly since its inception – serving more than 100,000 students across 115 colleges[1] with a $20 million budget in 2020 (California Legislative Information, n.d.; California Community Colleges Datamart, n.d.).

Through this state investment, California community colleges provide comprehensive support that meets eligible students' academic and nonacademic needs so they can obtain job skills, earn occupational certificates and associates degrees, and/or achieve university transfer. Flexible in its approach, colleges leverage their EOPS funding to offer academic, career, and personal counseling; financial resources; and services "over and above" traditional campus supports (CCCEOPSA, n.d.).

**In 2021, CCCEOPSA partnered with the Research and Planning Group for California Community Colleges (RP Group) to conduct a "2.0" study of program impact on students' academic outcomes**. This latest research builds on our 2012 study that compared the outcomes of over 64,000 EOPS participants enrolled at 97[2] colleges between fall 2004 and fall 2007 to a statistically equivalent group of non-EOPS students enrolled at the same colleges during that time.[3] Results from this previous study revealed that EOPS participants outperformed their non-EOPS peers on all outcomes (e.g., persistence, certificate and degree completion, transfer-level course taking, and unit completion) – with the exception of transferring to the university within three years. EOPS Impact Study 2.0 examines outcomes from our prior research with a newer cohort of students (fall 2010 through spring 2019), as well as explores a subset of new metrics that align with California Community Colleges Chancellor's Office (CCCCO) priorities found in the *Vision for Success*[4] and Student Centered Funding Formula.[5]

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[1] CalBright – the CCC's solely online institution – does not offer EOPS.
[2] In the 2012 study, the RP Group needed to have the CEO of each district sign off on accessing data, which resulted in approvals from 97 colleges. For the current study, we were able to access systemwide data from the CCCCO, which gave us access to data from all 115 colleges.
[3] *EOPS Impact Study Technical Report: Abridged Version*, https://rpgroup.org/Portals/0/Documents/Projects/EOPS%20Impact%20Study/EOPSTechReportBriefFinal.pdf
[4] https://www.cccco.edu/About-Us/Vision-for-Success
[5] https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/College-Finance-and-Facilities-Planning/Student-Centered-Funding-Formula

This study is divided into two phases:

> Phase 1 investigates who participated in EOPS over a recent 10-year period (fall 2010 through spring 2019) and how their involvement impacted several metrics (fall 2021).
>
> Phase 2 delves into what aspects of EOPS lead to educational improvements for participants through student and practitioner focus groups and interviews (spring 2022).

## In This Report

**This technical report summarizes Phase 1 results from our EOPS Impact Study 2.0.** It offers program stakeholders an updated understanding of EOPS program impact on student outcomes to determine both its continued value and areas of opportunity for improvement. Stakeholders include EOPS administrators; college deans and directors; institutional research, planning, and effectiveness (IRPE) professionals; and policymakers.

The report begins with a brief overview of the Phase 1 methodology, then turns quickly to the results. It first looks at who participates in EOPS and then assesses program impact using a series of metrics, including one- and two-year persistence; units earned and Grade Point Average (GPA) in the first academic year; transfer-level English and math completion rates; certificate and degree completion; and transfer achievement. It concludes with a summary of implications and our next steps.

# Methodology

As in our 2012 study, our current research on EOPS program impact includes a comparative outcomes analysis between EOPS participants and a statistically equivalent student group. It is important to note that EOPS is not monolithic, and colleges implement the program differently. EOPS uses the following criteria for participation eligibility:

1. The student must be full-time (12 units); however, there are exceptions for 10% of students who can be part-time (9 units).
2. The student may have not completed more than 70 units of degree-applicable credit coursework in any combination of postsecondary higher education institutions.
3. The student must receive a California College Promise Grant (formerly known as Board of Governors Enrollment Fee Waiver (BOGFW)) (i.e., BOGFW-A, BOGFW-B, or BOGFW-C) with zero Expected Family Contribution (EFC).

Students are also eligible if they met any of the following criteria:

4. Qualify for minimum level of English or mathematics.
5. Have not graduated from high school or obtained the GED.
6. Graduated high school with a GPA lower than 2.5 (from a 4.0 scale).
7. Are a first-generation college student.
8. Are underrepresented, as defined by district student equity goals.
9. Have a primary language spoken at home that is not English.
10. Are an emancipated foster youth.

**The study sought to answer two key research questions about these participants:**

- Who participates in EOPS and how do their demographic characteristics compare to their non-EOPS peers?
- How does EOPS participation impact students' academic outcomes? Is participation associated with better results for EOPS students?

To begin this process, the RP Group submitted a request to the CCCCO for unit-level data on any student enrolled in a CCC between fall 2010 and fall 2019. This dataset consisted of 4,516,131 students in total. From this dataset, we focused only on first-time students who enrolled in at least one credit course, completed fewer than 70 units, and received a California College Promise Grant (formerly BOGFW). Using these criteria, we compared students who participated in EOPS for at least one term to students who never joined EOPS.

**Our final sample of 1,882,110 students included 221,767 EOPS participants and 1,660,343 non-EOPS students.** From this sample, we both profiled the demographics of each population and then conducted a descriptive analysis to compare differences in outcomes between students who participated in EOPS and those who did not. We further detail our methodological approach to this comparative analysis of academic outcomes in context below.

# Results

## **EOPS Participant Profile:** EOPS Student Characteristics Compared to Non-EOPS Peers

Table 1 presents the profiles of EOPS participants and non-EOPS students to assess differences in the demographic characteristics between the two groups. The groups differ on several background characteristics. During the period studied, EOPS participants had a **larger representation of females and students with disabilities**. They were **less likely to identify as White** compared to non-EOPS students. EOPS participants **were more likely to enroll in an English and/or math course their first year** compared to their non-EOPS peers. A greater proportion of EOPS participants **attended more than one college**.

***Table 1***. Student Characteristics by EOPS Status

| | EOPS (n=221,767) | Non-EOPS (n=1,660,343) | (EOPS > Non-EOPS) |
|---|---|---|---|
| Gender | | | |
| Female | 64% | 51% | +13% |
| Male | 35% | 48% | -13% |
| Other | 1% | 1% | 0% |
| Ethnicity/Race | | | |
| White | 16% | 21% | -5% |
| African American/Black | 9% | 8% | +1% |
| Asian | 15% | 12% | +3% |
| Pacific Islander | 2% | 3% | -1% |
| Hispanic and Latina/o/x | 55% | 53% | +2% |
| Unknown | 3% | 3% | 0% |
| Educational Goal | | | |
| Transfer and AA Degree | 38% | 37% | +1% |
| Transfer w/o a Degree | 8% | 9% | -1% |
| AA Degree Only | 6% | 6% | 0% |
| Certificate or License | 2% | 3% | -1% |
| Career Interest | 5% | 6% | -1% |
| Personal Development or Basic Skills | 6% | 7% | -1% |
| High School Credits | 3% | 4% | -1% |
| Undecided | 31% | 29% | +2% |

***Table 1 (continued).*** Student Characteristics by EOPS Status

| | EOPS (n=221,767) | Non-EOPS (n=1,660,343) | (EOPS > Non-EOPS) |
|---|---|---|---|
| **Parent/Guardian Education**[6] | | | |
| No College | 17% | 14% | +3% |
| Some College | 4% | 5% | -1% |
| College Graduate | 5% | 9% | -4% |
| Unknown | 74% | 72% | +2% |
| **Student's Education** | | | |
| No High School Degree | 5% | 5% | 0% |
| High School Degree | 81% | 82% | -1% |
| Unknown | 13% | 11% | 2% |
| **Disability** | | | |
| None | 87% | 93% | -6% |
| Cognitive Disability[7] | 7% | 3% | +4% |
| Non-Cognitive Disability | 6% | 3% | +3% |
| **Attended One College** | 43% | 54% | -11% |
| Average # of CC Attended | 2.00 | 1.75 | +0.25 |
| **First English course in 1st Year** | | | |
| Yes | 56% | 42% | +14% |
| *Transfer-Level*[8] | *24%* | *21%* | *+3%* |
| *Below Transfer-Level* | *32%* | *21%* | *+11%* |
| **First Math course in 1st Year** | | | |
| Yes | 57% | 40% | +17% |
| *Transfer-Level* | *17%* | *13%* | *+4%* |
| *Below Transfer-Level* | *40%* | *27%* | *+13%* |

[6] This data was only made available as of 2017, thus accounting for the high proportion of Parent/Guardian Education Status listed as unknown

[7] Cognitive disability included intellectual disability, acquired brain injury (ABI), learning disability, mental health disability, attention deficit hyperactivity disorder, and autism spectrum. Non-cognitive disabilities include physical disability, blind and low vision, deaf and hard of hearing (DHH), and other health conditions and disabilities.

[8] This represents the student's 1st course within the first year (i.e., 24% of EOPS students' first course was a transfer-level English course versus 21% of non-EOPS students). Additional students may have gone on to take a transfer-level course in the second term of their first year after taking a below transfer-level course in their first term.

## **Participation Impact:** EOPS Participants' Academic Outcomes Compared to Non-EOPS Students

To understand if EOPS participation leads to better academic outcomes, we examined the following metrics:

1. One-year persistence
2. Two-year persistence
3. Units earned
4. Cumulative GPA
5. Transfer-level English and math course completion
6. Certificate or degree completion
7. Transfer readiness
8. Transfer to a university, specifically California State University (CSU) and University of California (UC)
9. Completion of a certificate, degree, or university transfer (combined)

For each metric, we looked at three sets of data:

1. **Descriptive** data comparing students who joined EOPS versus those who did not.
2. **Unadjusted** logit models (the odds ratio of a student succeeding in the outcomes without accounting for their background and academic characteristics).
3. **Adjusted** propensity score models (PSM) accounts for students' background and academic characteristics,[9] propensity score weights, and the first community college the student attended. The doubly robust method means we used this background information to create the propensity score weights and we also used them as control variables in the models.

The purpose of presenting the data in this manner is to determine if the differences between EOPS and non-EOPS students are due to the program or other confounding factors, since students who opt to join EOPS may demonstrate some demographic or other characteristics that differ from students who choose not to join. Throughout the report, for each metric, bar graphs are first used to visualize the differences in the descriptive data, followed by tables that

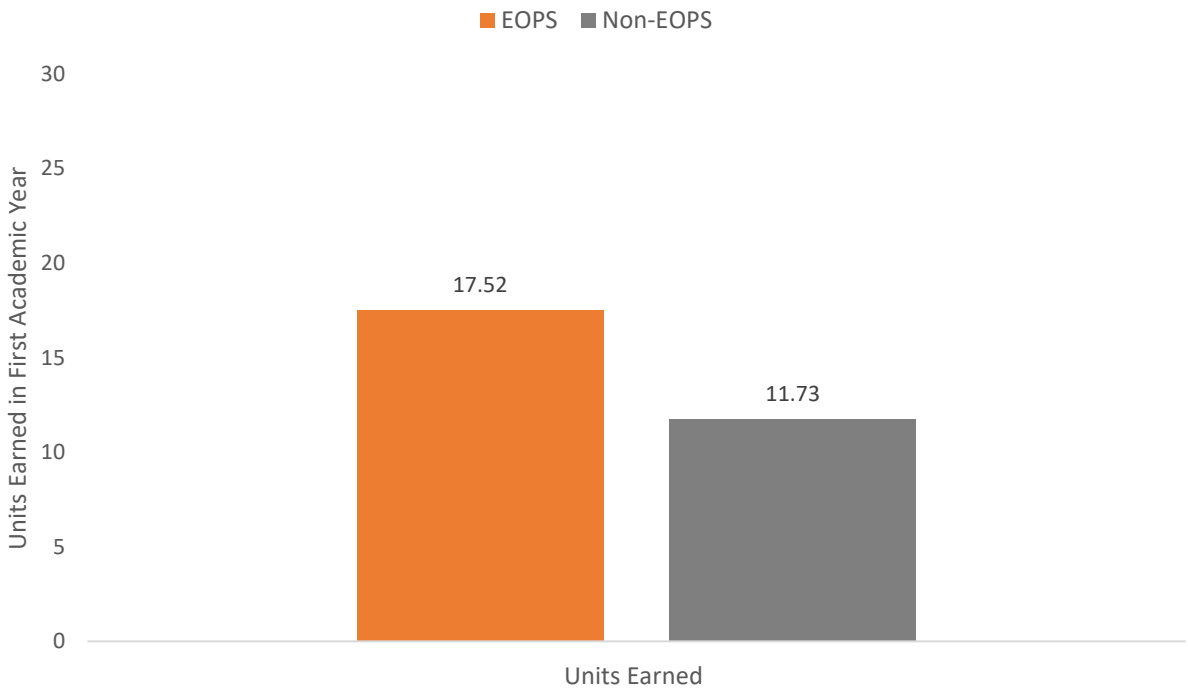
[9] Such characteristics include race/ethnicity, gender, educational goal, student's prior education, parent's education, California College Promise Grant status, disability, number of colleges attended, enrollment in an English course their first year in college, and enrollment in a math course their first year in college.

present the unadjusted (Model 1) and adjusted (Model 2) odds ratios for categorical variables (e.g., persistence, award/certificate completion, transfer) and linear regression data for continuous variables (e.g., GPA and units earned).

## The First Academic Year: Units Earned and GPA

Figures 1a and 1b show that, on average, **EOPS participants earned more units (17.52 units vs. 11.73 units) and had a higher cumulative GPA (2.33 vs. 1.91) than non-EOPS students their first year in college.** As shown in Table 1, linear regressions revealed that EOPS participants were also more likely than non-EOPS students to earn more units (Effect Size (ES) = 4.09, Standard Error (SE) = .19, $p < .001$) in their first academic year. EOPS participants were also more likely than non-EOPS students to have a higher cumulative GPA (ES = .31, SE = .01, $p < .001$) than non-EOPS students in their first year.[10]

***Figure 1a.*** Units Earned in First Academic Year by EOPS Status




[10] We conducted ordinary least square (OLS) linear regression models for the two continuous outcomes: units earned and cumulative grade point average (GPA). The results show the average units and GPA earned are higher if students joined EOPS versus their counterparts.

***Figure 1b.*** Cumulative GPA in First Academic Year by EOPS Status

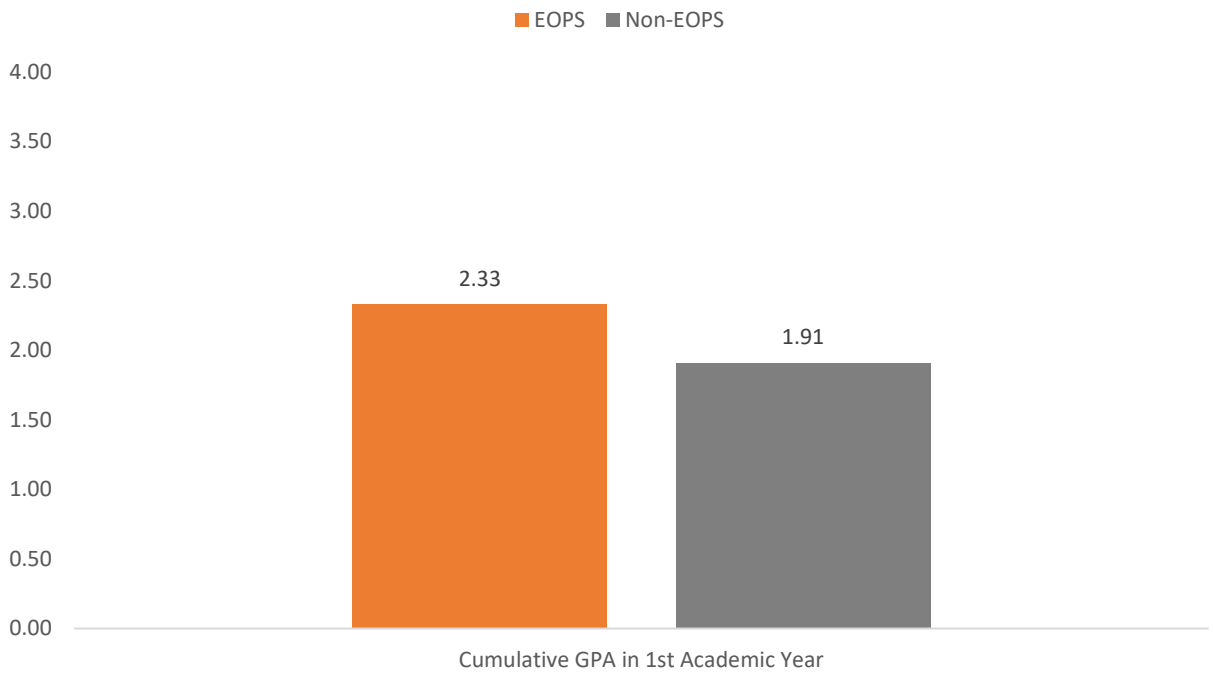



***Table 2.*** Units Earned and Cumulative GPA in First Academic Year

| | Units in 1st Year (Linear Regression) | | GPA in 1st Year (Linear Regression) | |
|---|---|---|---|---|
| | **Model 1 Unadjusted** | **Model 2 Adjusted** | **Model 1 Unadjusted** | **Model 2 Adjusted** |
| EOPS (Beta) | 5.78*** | 4.20*** | 0.42*** | 0.31*** |
| | (.02) | (.19) | (.00) | (.01) |
| Controls | No | Yes | No | Yes |
| PSM Weight | No | Yes | No | Yes |
| Cluster by College | No | Yes | No | Yes |
| *N* | 1,882,110 | 1,882,110 | 1,882,110 | 1,882,110 |

*Note.* *$p < .05$, **$p < .01$, ***$p < .001$. Number of units and GPA are not standardized.

## The First Academic Year: English and Math Completion Rates

The following section provides data on the proportion of first-time students who completed a transfer-level English or math course their first academic year. Our method aligns with Guided Pathways and the Student-Centered Funding Formula (SCFF)[11], which counts students who completed a transfer-level English or math course within the first year from their first term in college. Here we compare students who started in a transfer-level course versus students who started in a below-transfer-level course or did not attempt any English or math course at all.

Completing a transfer-level course in a year's timeframe is impacted by whether students enroll in any English or math course,[12] whether they start in a transfer-level or below-transfer-level course, and eventually on whether students succeed in their course(s). For this cohort of students, 24% of EOPS participants and 21% of non-EOPS students started in a transfer-level English course, and 17% of EOPS participants and 13% of non-EOPS students started in a transfer-level math course the first year in college. The remaining students either enrolled in a below transfer-level English course (32% for EOPS participants and 21% for non-EOPS students) or a below-transfer-level math course (40% for EOPS participants and 27% for non-EOPS students) or did not enroll in any English (44% for EOPS participants and 58% for non-EOPS students) or math course their first year (43% for EOPS participants and 60% for non-EOPS students).

Figure 2 displays the rates of math and English completion within one year[13]among all first-time students in their first year in college. Figure 2 shows that **EOPS participants were more likely than non-EOPS students to complete transfer-level English and math in their first year in college.**[14,15]

### Interpreting Odds Ratios

The odds ratio is a measure of association between the exposure (Participation in EOPS) and an outcome (e.g., fall to fall persistence). An odds ratio of 1 means that there is no difference in the outcome of interest between EOPS participants and non-EOPS students. An odds ratio more than 1 means that there is a greater likelihood for EOPS students to achieve the outcome; an odds ratio less than 1 means there is a lesser likelihood for EOPS students to achieve the outcome. In the results, we provide the odds ratios and the likelihood of an outcome for EOPS students. For example, an odds ratio of 1.2 means there is a 20% greater likelihood of an outcome if the student joins EOPS.

[11] Note: Our first academic year measure of English and Math completion varies slightly from SCFF as for SCFF, students must complete within the first academic year in which they attend, not within one academic year of their first enrollment.

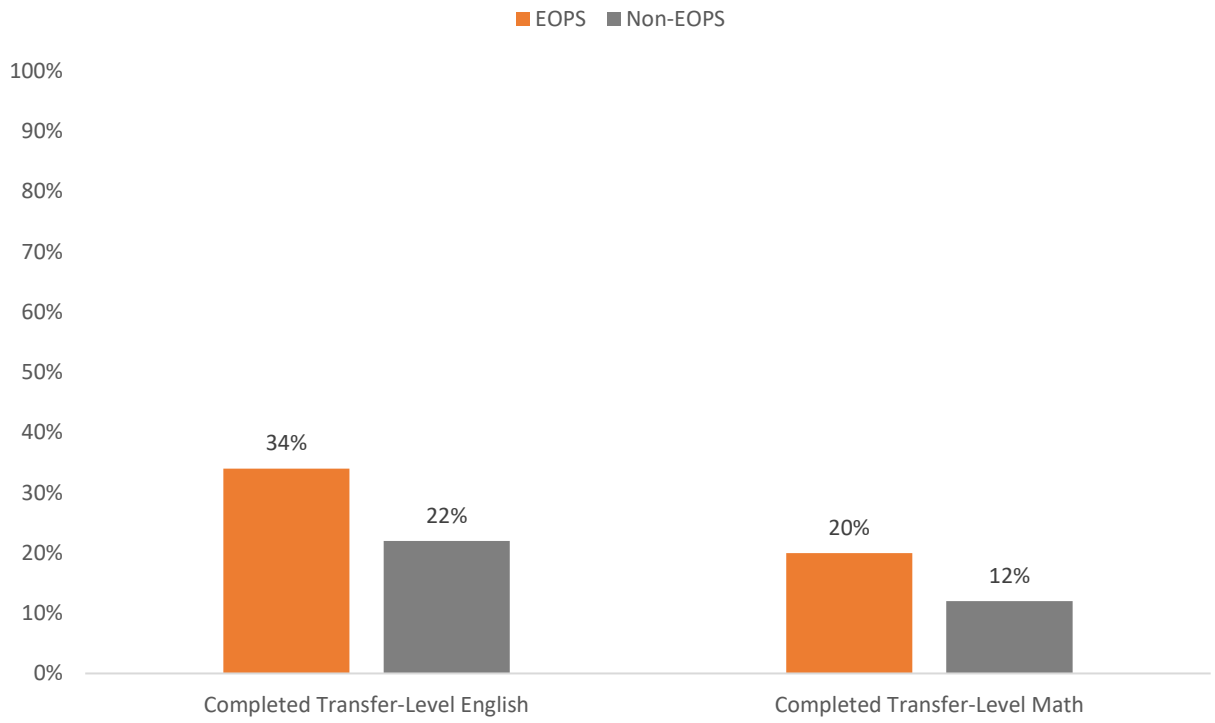
[12] For more information on the number of EOPS participants and non-EOPS students enrolled in transfer-level courses over time, see Appendix Tables A1 and A2.

[13] The percentage of students who successfully complete transfer-level English or math courses with a grade of C- or better within two primary semesters or three primary quarters.

[14] See Table A3 in the Appendix for a breakdown of completion rates as a function of whether students started in or below transfer-level.

[15] An alternative way to calculate completion is based on whether students completed transfer-level English and math within a year of their first *attempt*, regardless of whether that attempt took place in their first year. Appendix Tables A4a and A4b present the same data as Tables 3 but focus on transfer-level English and math completion for students within one year of their first *attempt*. These data are only shown in the Appendix as, in the wake of AB 705, more and more students in future cohorts will be taking transfer-level English and math in their first year.

***Figure 2***. Completion Rates for Transfer-Level English and Math Courses in First Academic Year by EOPS Status




However, Figure 2 does not account for baseline differences amongst EOPS participants and non-EOPS students. Table 2 shows unadjusted (Model 1) and adjusted (Model 2) models regarding whether students succeed in a transfer-level English or math course their first year in college. EOPS students were somewhat more likely to succeed in a transfer-level English course (OR 1.60 $p < .001$) and in a transfer-level math course (OR 1.65, $p < .001$) than non-EOPS students. In other words, **EOPS participants were 1.6 times more likely in completing transfer-level English and math than non-EOPS students.**

***Table 3***. Odds of Completing Transfer-Level English and Math in First Academic Year

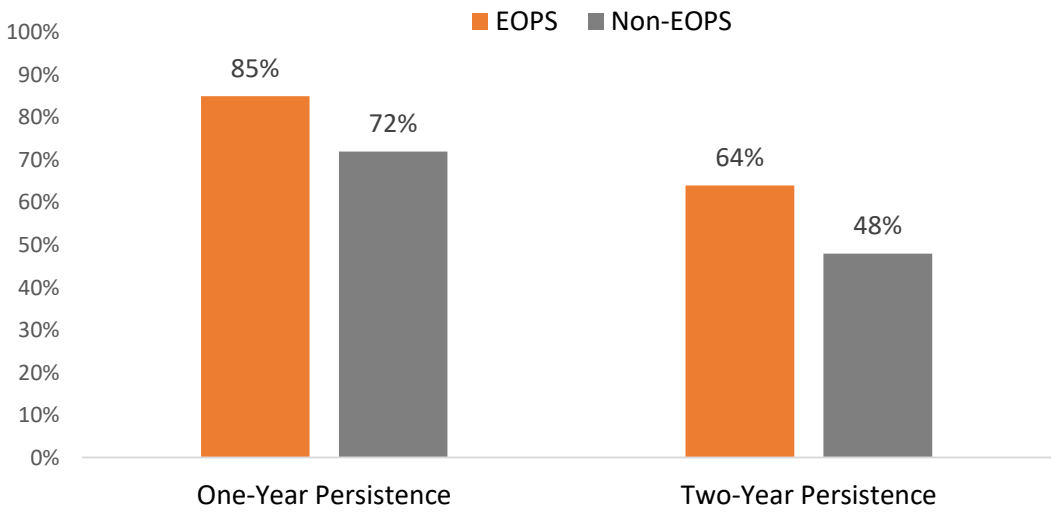
| | Transfer-Level English in 1st Year | | Transfer-Level Math in 1st Year | |
|---|---|---|---|---|
| | Model 1 Unadjusted | Model 2 Adjusted | Model 1 Unadjusted | Model 2 Adjusted |
| EOPS (Odds Ratio) | 1.74*** (114.39) | 1.60***[16] (16.51) | 1.77*** (98.12) | 1.65***[17] (19.10) |
| Controls | No | Yes | No | Yes |
| PSM Weight | No | Yes | No | Yes |
| Cluster by College | No | Yes | No | Yes |
| *N* | 1,882,110 | 1,882,110 | 1,882,110 | 1,882,110 |

*Note.* *$p < .05$, **$p < .01$, ***$p < .001$[18]

## Persistence Over Time

Figure 3 shows that **both one- and two-year** persistence **rates are higher among EOPS students than non-EOPS students.** Eighty-five percent of EOPS participants and 64% of non-EOPS students had a one-year persistence (enrolled again the second year in college). About 72% of EOPS participants and 48% of non-EOPS students had a two-year persistence (enrolled again in their third year in college).

***Figure 3***. One- and Two-Year Persistence by EOPS Status




[16] If we remove enrolling in an English course in first year from the controls, the OR is 1.78
[17] If we remove enrolling in a math course in first year from the controls, the OR is 1.83
[18] Note: Table A5 in the Appendix presents the same data as Table 3, but only for a more recent cohort of students (2016-2019) to capture some of the possible impacts of early implementation of AB 705.

Table 4 provides unadjusted (Model 1) and adjusted (Model 2) models to account for differences between EOPS participants and non-EOPS students. Based on the doubly robust model, EOPS participants had greater odds of persisting and enrolling the following fall term than non-EOPS students. In other words, **EOPS participants were 2.5 times more likely to persist after year one and enroll the following fall** (OR 2.56, $p < .001$). **EOPS students were also 2.2 times more likely to persist and enroll two years later** (OR 2.22, $p < .001$)**.**

***Table 4***. Odds of One- and Two-Year Persistence

| | 1-Year Persistence | | 2-Year Persistence | |
|---|---|---|---|---|
| | **Model 1 Unadjusted** | **Model 2 Adjusted** | **Model 1 Unadjusted** | **Model 2 Adjusted** |
| EOPS (Odds Ratio) | *3.25*** | *2.56*** | 2.80*** | 2.22*** |
| | (190.17) | (33.00) | (207.25) | (25.94) |
| Controls | No | Yes | No | Yes |
| PSM Weight | No | Yes | No | Yes |
| Cluster by College | No | Yes | No | Yes |
| *n* | 1,882,110 | 1,882,110 | 1,882,110 | 1,882,110 |

*Note.* *$p < .05$, **$p < .01$, ***$p < .001$

## Certificates and Degrees

Figure 4 and Table 5 display the percentage of EOPS participants and non-EOPS students who earned a certificate or degree within two years, three years, or six years after starting college. Note the sample size is different per timeframe, the two-year window includes the 2010 through 2019 cohorts, the three-year window includes the 2010 through 2018 cohorts, and the six-year window includes the 2010 through 2015 cohorts to give students enough time in the allotted timeframe. In all three timeframes, **a substantially higher percentage of EOPS participants earned certificates or degrees than non-EOPS students.** For example, 26% of EOPS students earned a degree and/or certificate within three years compared to 10% among non-EOPS students. Extending out this time frame to six years reveals that 48% of EOPS students earn a degree and/or certificate at some point compared to 21% of non-EOPS students.

***Figure 4***. Certificates and Degrees Awarded over Time by EOPS Status[19]

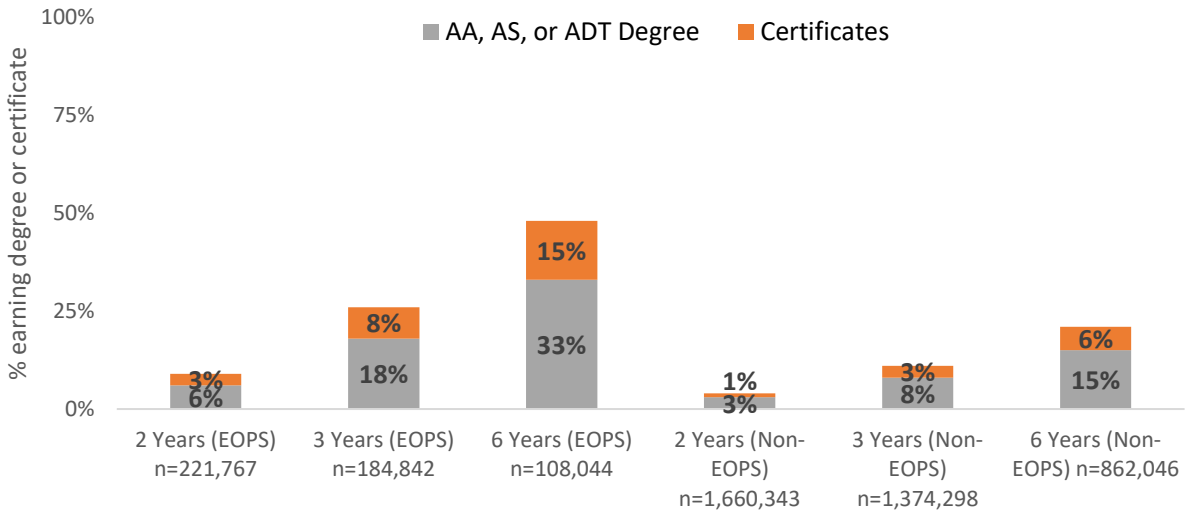



Table 5 shows an unadjusted (Model 1) and adjusted (Model 2) for students' likelihood of earning a certificate and/or degree within three years. A student who earned both a certificate and a degree is counted once. **EOPS participants were 1.8 times more likely to earn a certificate and/or degree within three years compared to non-EOPS students** (OR 1.86, $p < .001$).

***Table 5***. Odds of Earning a Certificate or Degree (Three Years)

| | Earned Certificate or Degree –Three Years | |
|---|---|---|
| | **Model 1 Unadjusted** | **Model 2 Adjusted** |
| EOPS (Odds Ratio) | 2.26*** | 1.86*** |
| | (122.89) | (19.24) |
| Controls | No | Yes |
| PSM Weight | No | Yes |
| Cluster by College | No | Yes |
| *N* | 1,559,140 | 1, 559,140 |

*Note.* *$p < .05$, **$p < .01$, ***$p < .001$.

## Transfer Preparedness and Readiness

In the 2012 study, transfer "ready" was defined as having earned 60+ transferable units and 2.0 GPA or higher. Given the recent Through the Gate research conducted by the RP Group, this definition is more aligned with the term transfer *prepared*. The updated definition of transfer *ready* includes both the original metrics (student transcript demonstrates attainment of 60

[19] Some students are double counted because they could have earned both a certificate and degree.

transferable units with a cumulative 2.0+ GPA), as well as successful completion of both a transfer-level English and a transfer-level math course.

Figure 5 shows the percentage of students who were considered "transfer prepared" as well as the percentage of students who were considered "transfer ready" three years after starting college using these two different definitions. As the figure shows, 23% of EOPS versus 17% of non-EOPS are transfer prepared. Even fewer students EOPS (14%) and non-EOPS (7%) students are transfer ready after three years.

***Figure 5***. Transfer Preparedness and Readiness[20] after Three Years in College by EOPS Status[21]

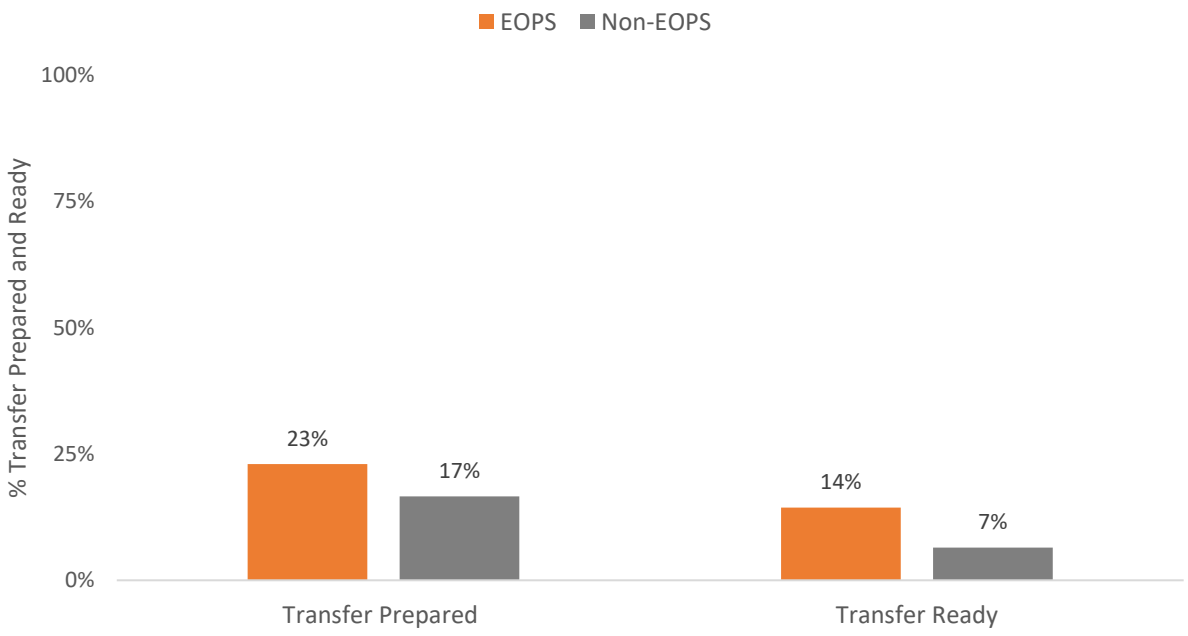



Table 6 shows EOPS participants were slightly more likely to be transfer *prepared* (using the 2012 definition) than non-EOPS students (OR 1.56, $p < .001$). And EOPS participants are twice as likely to be transfer *ready* than non-EOPS students (OR 2.02, $p < .001$). In other words, EOPS students had a higher likelihood to be transfer ready which includes completing transfer-level English and math courses.

[20] Definition 1: Earned 60+ Units, succeeded in transfer-level math & English with 2.0 GPA or higher

[21] This only counts students who are transfer ready and prepared. It does not count students who transfer but were not ready or prepared based on the definitions.

***Table 6***. Odds of Transfer Prepared and Readiness after Three Years in College

| | Transfer Prepared | | Transfer Ready | |
|---|---|---|---|---|
| | **Model 1 Unadjusted** | **Model 2 Adjusted** | **Model 1 Unadjusted** | **Model 2 Adjusted** |
| EOPS (Odds Ratio) | 1.50*** | 1.56*** | 2.40*** | 2.02*** |
| | (74.32) | (17.56) | (129.12) | (23.63) |
| Controls | No | Yes | No | Yes |
| PSM Weight | No | Yes | No | Yes |
| Cluster by College | No | Yes | No | Yes |
| *N* | 1,882,110 | 1,882,110 | 1,882,110 | 1,882,110 |

*$p < .05$, **$p < .01$, ***$p < .001$.

## University Transfer

Figure 6a shows the percentage of EOPS participants and non-EOPS students who transferred to a university across various timeframes, while Figure 6b shows the same data, but only for students who had an educational goal of transfer. Both figures show that **non-EOPS students were more likely than EOPS participants to transfer over shorter timeframes; however, given enough time, the patterns switch such that EOPS participants are more likely than non-EOPS students to transfer.**[22] In both figures, the sample size decreases as the timeframe advances (i.e., the two-year sample is larger than the six-year sample), because only cohorts that have had enough time to transfer in the given timeframe were included. For example, for the two-year transfer rate, we are able include the 2010 through 2019 cohorts, but for the six-year timeframe, we can only include the 2010 through 2015 cohorts, as later cohorts would have been enrolled fewer than six years.

[22] These same general patterns hold when using a consistent cohort of students (only the 6 years cohort). See Figures A1 and A2 in the Appendix corresponding to Figures 6a and 6b, respectively.

***Figure 6a.*** University Transfer over Time by EOPS Status among All Students[23]

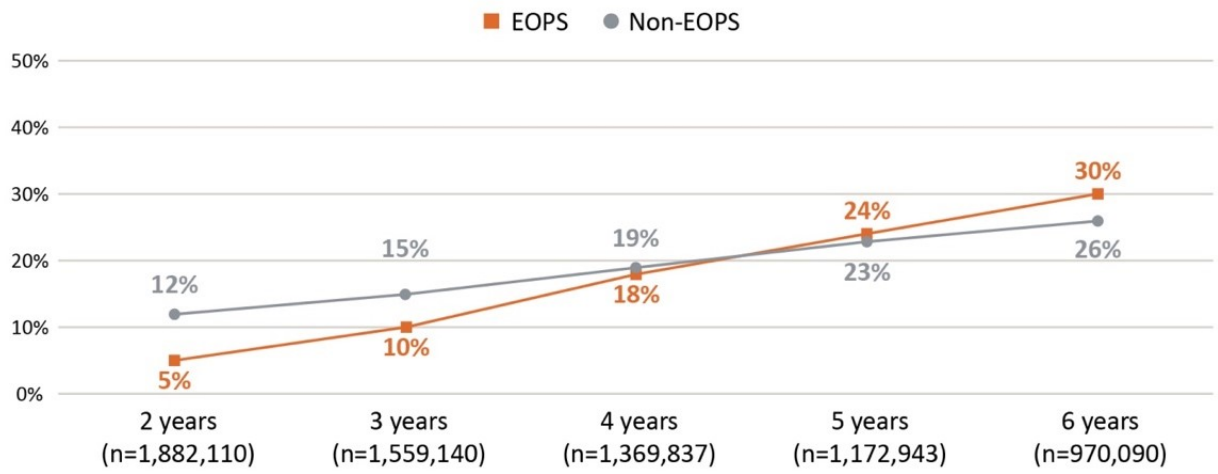



***Figure 6b.*** Transfer to Four-Year University by EOPS Status among Students with an Educational Goal of Transfer[17]

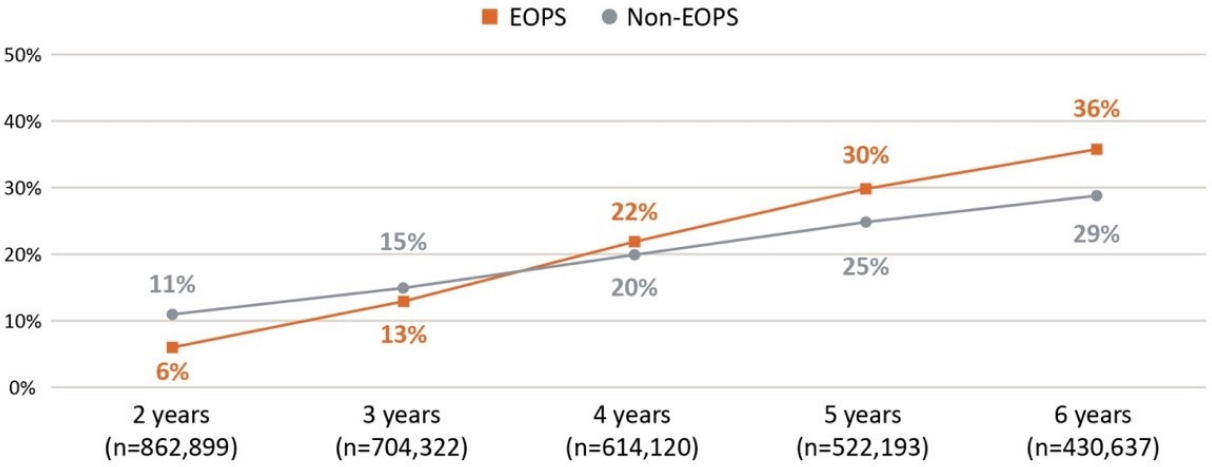



Table 7 examines EOPS participants' and non-EOPS students' transfer rates to a university. There are four sets of comparisons, and each set includes one unadjusted (Model 1) and one adjusted (Model 2) as to whether students will transfer to any university. When examining data for all students, EOPS participants were 31% *less* likely to transfer to a university (OR 0.69, $p < .001$) than non-EOPS students within three years. However, when extending the timeframe to

[23] At each time point, students are only included in the sample if they had been enrolled long enough for the outcome to be assessed (i.e., only students enrolled between 2010 and 2015 are included in the six-year sample, as students in later cohorts have not been enrolled for six years yet).

six years, among all students, EOPS participants were 15% *more* likely to transfer to a university than non-EOPS students (OR 1.15, $p < .001$). When only examining students with an educational goal of transfer, the same pattern of results was found. Among students with an educational goal of transfer, EOPS participants were 12% *less* likely to transfer to a university (OR 0.88, $p < .001$) than non-EOPS students within three years. However, **when extending the timeframe to six years, EOPS participants with an educational goal of transfer were 33% *more* likely to transfer to a university than non-EOPS students** (OR 1.33, $p < .001$).

***Table 7.*** Odds of University Transfer by Timeframe

| | University Transfer within 3 years | | | | University Transfer within 6 years | | | |
|---|---|---|---|---|---|---|---|---|
| | All Students | | Only Students with Ed Goal of Transfer | | All Students | | Only Students with an Ed Goal of Transfer | |
| | Model 1 Unadjusted | Model 2 Adjusted | Model 1 Unadj. | Model 2 Adj. | Model 1 Unadjusted | Model 2 Adjusted | Model 1 Unadjusted | Model 2 Adjusted |
| EOPS (Odds Ratio) | 0.64*** (-55.94) | 0.69*** (-13.96) | *0.81**** (-18.70) | *0.88**** (-5.03) | 1.18*** (23.89) | 1.15*** (6.00) | 1.26*** (6.83) | 1.33*** (10.23) |
| Controls | No | Yes | No | Yes | No | Yes | No | Yes |
| PSM Weight | No | Yes | No | Yes | No | Yes | No | Yes |
| Cluster by College | No | Yes | No | Yes | No | Yes | No | Yes |
| *N* | 1,559,140 | 1,559,140 | 704,320 | 704,320 | 970,090 | 970,090 | 430,637 | 430,637 |

*$p < .05$, **$p < .01$, ***$p < .001$.

Figure 7 shows the percentage of EOPS participants and non-EOPS students who transferred to a UC or CSU over time by EOPS status. As can be seen in the figure, EOPS students were more likely to transfer to a UC or CSU than non-EOPS students across all timeframes.

*Figure7*. Odds of Transfer to a CSU or UC by EOPS Status Among Those Who Transfer

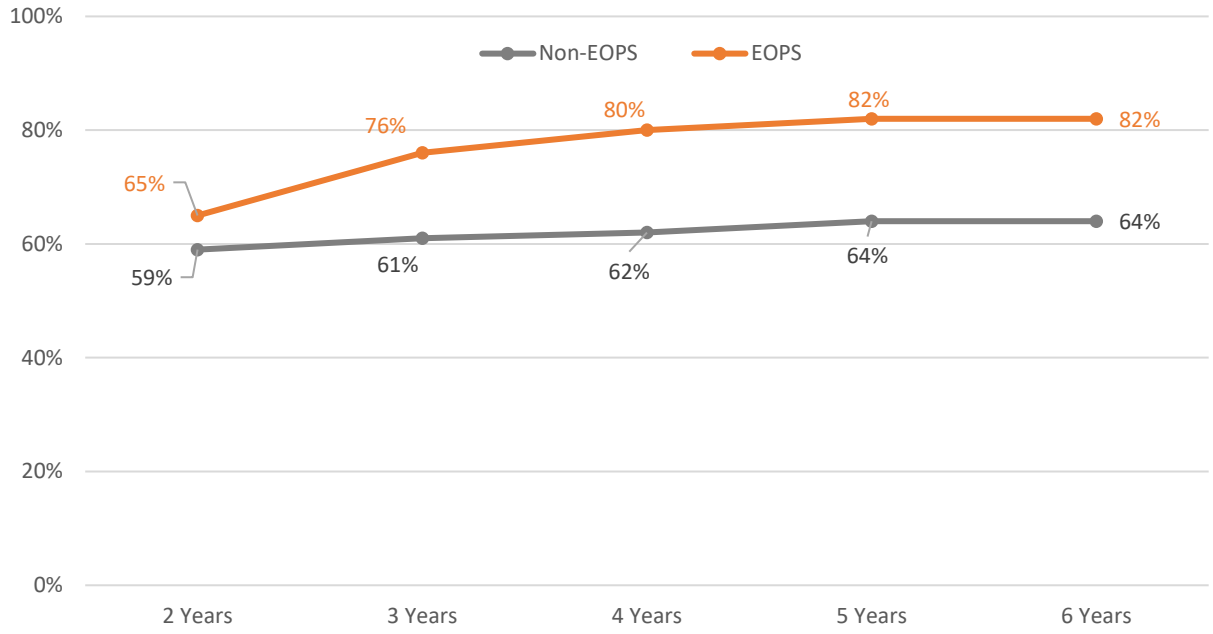



Table 8 shows whether there were differences in the proportion of students attending a CSU or UC – as opposed to private or out-of-state colleges – between EOPS participants and non-EOPS students who transferred. As the table demonstrates, **EOPS participants were 1.8 times or 2 times more likely to transfer to a CSU or UC relative to other types of colleges than their non-EOPS peers – depending on the timeframe.**

*Table 8*. Odds of Transfer to a CSU or UC

| | CSU or UC – within 3 Years (Odds Ratio) | | CSU or UC – Six Years (Odds Ratio) | |
|---|---|---|---|---|
| | Model 1 Unadjusted | Model 2 Adjusted | Model 1 Unadjusted | Model 2 Adjusted |
| EOPS (Odds Ratio) | 2.05*** (41.36) | 1.80*** (14.18) | 2.51*** (60.90) | 2.16*** (23.61) |
| Controls | No | Yes | No | Yes |
| PSM Weight | No | Yes | No | Yes |
| Cluster by College | No | Yes | No | Yes |
| *N* | 231,844 | 231,844 | 256,078 | 256,078 |

*$p < .05$, **$p < .01$, ***$p < .001$.

## Achievement of Certificates, Degrees, or Transfer (Combined)

Figure 8 presents data on the differences between EOPS participants and non-EOPS students in their achievement of certificates, degrees, and/or transfer in a six-year timeframe. This figure shows that **43% of EOPS participants and 32% of non-EOPS students, after six years, earned a certificate, degree, and/or transferred to a university**. EOPS participants and non-EOPS students had a similar percentage who transferred (30% vs. 26%, respectively), but EOPS participants had a substantially higher percentage of students earning certificates and degrees, with 33% of EOPS students earning a degree compared to 15% of non-EOPS students and 15% of EOPS students earning a certificate, compared to 6% of non-EOPS students.

***Figure 8***. Achievement of Certificates, Degrees, and/or Transfer (Six Years)[24]

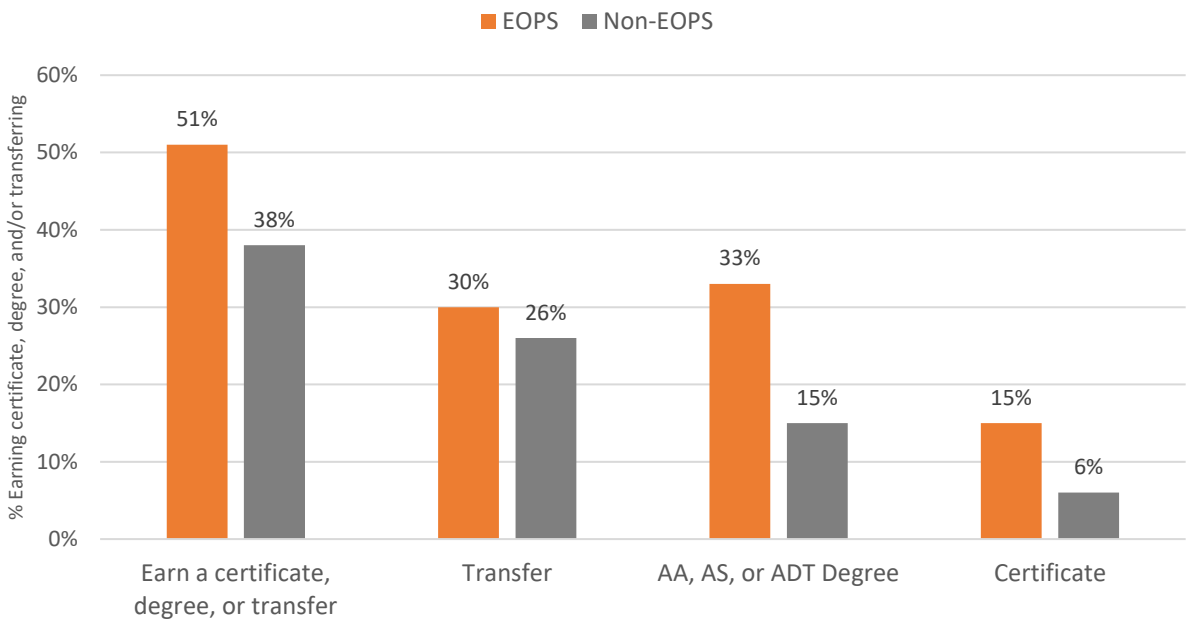



Table 9 shows that EOPS participants were more likely to achieve a certificate, degree, or university transfer (OR 1.58, $p < .001$) than non-EOPS students. In other words, **EOPS participants were 1.5 times more likely to achieve a certificate, degree, or transfer compared to non-EOPS students.**

[24] In the first two columns, students are counted once if they earned a certificate, degree, or transfer. In the rest of the bars, some students are double counted because they could have earned a certificate, degree, and/or transfer.

***Table 9***. Odds of Achieving a Certificate, Degree, and/or Transfer (Six Years)

| | Achievement of Certificate, Degree, or University Transfer | |
|---|---|---|
| | Model 1 -Unadjusted | Model 2 - Adjusted |
| EOPS (Odds Ratio) | 1.72*** | 1.58*** |
| | (84.45) | (18.14) |
| Controls | No | Yes |
| PSM Weight | No | Yes |
| Cluster by College | No | Yes |
| *N* | 970,090 | 970,090 |

*Note.* *$p$ < .05, **$p$ < .01, ***$p$ < .001.

## Summary of EOPS Impact Study 2.0 Findings

Figure 9 on the next page provides an overview of the Model 2 adjusted odds ratios across each of the metrics examined during the latest impact study. In synthesizing all of these odds ratios, it is clear to see that:

EOPS participants were *more* likely than non-EOPS students to:[25]

- Demonstrate one-year persistence
- Demonstrate two-year persistence
- Earn a certificate or degree
- Earn a certificate, degree, and/or transfer
- Transfer to a CSU or UC within three years or six years

EOPS participants were slightly *more* likely than non-EOPS students to:

- Succeed in a transfer-level English course within their first year of enrollment
- Succeed in a transfer-level math course within their first year of enrollment

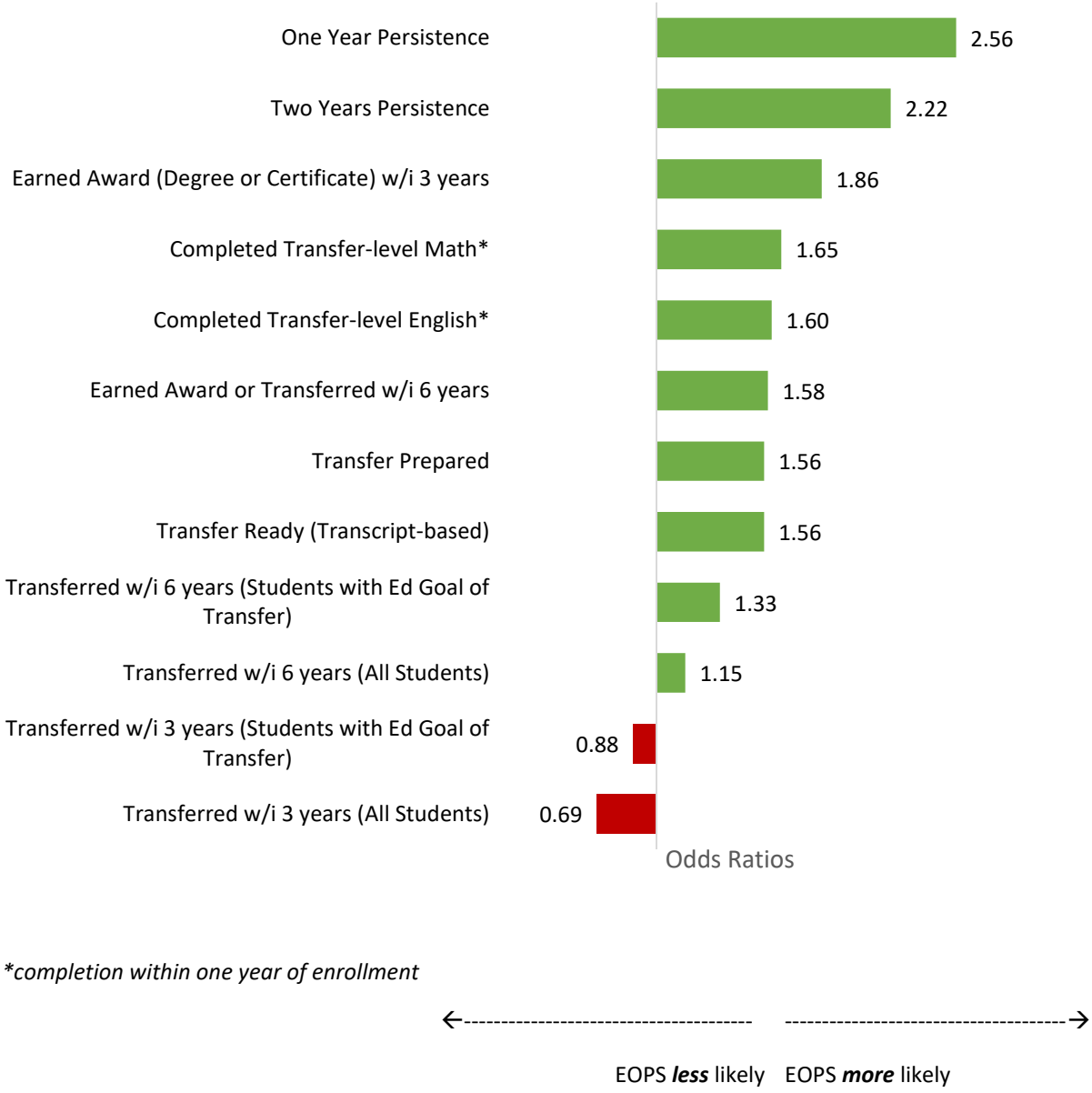
EOPS students were slightly *less* likely than non-EOPS students to:

- Transfer to a university within three years (though when extending the timeframe, there was no difference in the likelihood of EOPS participants and non-EOPS students transferring within a six-year timeframe)

[25] Definitions for Odds Ratios:
EOPS more likely than non-EOPS: OR > = 1.50
EOPS slightly more likely than non-EOPS: OR between 1.10 and 1.49
No difference between groups: OR between 0.9 and 1.10
EOPS slightly less likely than non-EOPS: OR between .50 and .90

- Be transfer-ready three years after starting college (though once we account for educational goal, there is no difference)

***Figure 9***. Summary of Odds Ratios for Each Outcome Metric




**completion within one year of enrollment*

## Comparison of EOPS Impact Studies

When assessed 10 years later with an updated cohort of students, EOPS continues to successfully improve student outcomes – both those metrics previously measured as well as new markers aligned with CCCCO priorities. Table 10 provides an overview of the metrics measured in both the 1.0 (2012) and 2.0 (2021-22) studies, and how EOPS participants fared

relative to their non-EOPS peers. Green cells indicate where EOPS participants outperformed non-EOPS students, while red cells indicate where non-EOPS students did better. Gray cells indicate where there is no difference between EOPS and non-EOPS student outcomes and cells marked N/A indicate where a given metric was not assessed in the 1.0 study.

The current study added new markers of success not previously measured in the 1.0 study. Notably, the 2.0 study found that, in their first year, EOPS students earned more units and maintained a higher GPA than their non-EOPS peers. In the 1.0 study, EOPS students were more likely than non-EOPS students to be transfer-ready based on their transcripts; however, when using an updated definition of transfer-readiness that is more in line with current transfer research, the data reveal that non-EOPS students are more likely than EOPS students to be transfer ready (though note, when using educational goal to define transfer-readiness there were no differences between the groups). The 1.0 study finding that non-EOPS students were more likely to transfer within three years than their EOPS counterparts remained consistent in the 2.0 study (though note, among students with an educational goal of transfer, there were no differences between groups). However, the latest study took this finding one step further by extending the timeframe to transfer, revealing that, if given more than three years, among all students as well as only students with a specific educational goal of transfer, EOPS participants are *more* likely to transfer than their non-EOPS peers. In sum, **the positive impact of EOPS participation found in 2012 held strong for this new cohort of students**.

*Table 10*. Comparison of EOPS Impact Studies (2012 to 2022)

| Metric | 1.0 Study (2012) | 2.0 Study (2021-22) |
|---|---|---|
| # of units completed in 1st year | N/A | EOPS > Non-EOPS |
| GPA in 1st year | N/A | EOPS > Non-EOPS |
| One-year persistence | EOPS > Non-EOPS | EOPS > Non-EOPS |
| Two-year persistence | EOPS > Non-EOPS | EOPS > Non-EOPS |
| Transfer-level English completion in 1st year | N/A | EOPS > Non-EOPS |
| Transfer-level math completion in 1st year | N/A | EOPS > Non-EOPS |
| Transfer-level English completion within 3 years | EOPS > Non-EOPS | N/A |
| Transfer-level math completion within 3 years | EOPS > Non-EOPS | N/A |
| Certificate, degree and/or transfer within 3 years | N/A | EOPS > Non-EOPS |
| Transfer prepared within 3 years (Study 2012 Definition) | EOPS > Non-EOPS | EOPS > Non-EOPS |
| Transfer ready withing 3 years (New Definition) | N/A | Non-EOPS > EOPS |
| Transfer within 3 years (all) | Non-EOPS > EOPS | Non-EOPS > EOPS |
| Transfer within 3 years (ed goal) | N/A | Non-EOPS > EOPS |
| Transfer within 6 years (all) | N/A | EOPS > Non-EOPS |
| Transfer within 6 years (ed goal) | N/A | EOPS > Non-EOPS |
| Transfer to a CSU/UC within 3 years | EOPS > Non-EOPS | EOPS > Non-EOPS |
| Transfer to a CSU/UC within 6 years | N/A | EOPS > Non-EOPS |

# Conclusions

This latest study of EOPS impact continues to show promise for program participants. As we embarked on this latest analysis, the demographic differences between EOPS participants and non-EOPS students justified the decision to control for such characteristics when examining outcomes between the two groups. In doing so, we found that EOPS remains successful in improving student outcomes across a wide variety of metrics – both those previously measured as well as numerous new markers aligned with CCCCO priorities.

The most powerful effects of EOPS participation appear to be with respect to on one- and two-year persistence and completion of a certificate, degree, and/or transfer (combined). On the other hand, this research continues to signal that the program has less impact on students' transfer readiness and their achievement of transfer within a three-year timeframe – offering a potential area for attention in program delivery and ensuring that all the positive impacts of EOPS participant extend to students' navigation of their transfer pathways. While transfer rates for EOPS students surpass non-EOPS students by four years, prioritizing more timely transfer can benefit students.

## Looking Ahead

This first part of our EOPS Impact Study 2.0 painted a broad, systemwide impression for the program's positive affect on students' academic outcomes. At the same time, our research also surfaced notable variation in EOPS student outcomes across the 115 California community colleges we studied. This finding is likely tied to the fact that colleges have considerable flexibility in how they can implement the program on their campuses. In addition to operating within varied college contexts, not all EOPS programs offer the same mix of services and support. As such, which services and supports are most impactful in helping EOPS students succeed remains unknown.

A long-standing question has been how the most effective elements of EOPS can be expanded to include more – if not all – students. The next phase of the project will focus on collecting qualitative information from colleges that have proven highly successful in serving their EOPS students across all of the metrics assessed in the current study to better understand how students experience the EOPS program. We will assess commonalities of services that students find helpful, in addition to capturing emerging practices that may work especially well at helping students achieve success in all of the metrics assessed in the current study, including transfer-readiness and transfer within three years. Ideally, this deeper qualitative dive will uncover important variables, document approaches worth considering for replication and/or scaling, and provide guidance to colleges whose success with their EOPS student population is not as robust as that which is globally demonstrated in this report.

# Appendix

***Table A1.*** Percent of Students Enrolled in a Transfer-Level English Course (1st Course in their 1st Year) by EOPS Status

| | EOPS | | Non-EOPS | |
|---|---|---|---|---|
| | *Total Sample* | % in Transfer-Level English | *Total Sample* | % in Transfer-Level English |
| 2010-11 | 23,493 | 11 | 189,279 | 12 |
| 2011-12 | 23,106 | 12 | 188,944 | 13 |
| 2012-13 | 24,149 | 13 | 190,760 | 14 |
| 2013-14 | 20,858 | 15 | 162,245 | 14 |
| 2014-15 | 21,810 | 16 | 163,418 | 16 |
| 2015-16 | 26,014 | 19 | 175,724 | 18 |
| 2016-17 | 25,785 | 24 | 169,977 | 21 |
| 2017-18 | 23,975 | 34 | 161,777 | 28 |
| 2018-19 | 20,589 | 52 | 151,272 | 41 |
| 2019-20 | 11,988 | 59 | 106, 947 | 45 |

*Note.* These first-time students are unduplicated, and they are considered EOPS if they participated in the program for at least one term.

***Table A2.*** Percent of Students Enrolled in a Transfer-Level Math Course (1st Course in their 1st Year) by EOPS Status

| | EOPS | | Non-EOPS | |
|---|---|---|---|---|
| | *Total Sample* | % in Transfer-Level Math | *Total Sample* | % in Transfer-Level English |
| 2010-11 | 23,493 | 10 | 189,279 | 8 |
| 2011-12 | 23,106 | 11 | 188,944 | 8 |
| 2012-13 | 24,149 | 11 | 190,760 | 8 |
| 2013-14 | 20,858 | 12 | 162,245 | 9 |
| 2014-15 | 21,810 | 13 | 163,418 | 10 |
| 2015-16 | 26,014 | 14 | 175,724 | 11 |
| 2016-17 | 25,785 | 16 | 169,977 | 12 |
| 2017-18 | 23,975 | 21 | 161,777 | 15 |
| 2018-19 | 20,589 | 34 | 151,272 | 24 |
| 2019-20 | 11,988 | 45 | 106, 947 | 32 |

*Note.* These first-time students are unduplicated, and they are considered EOPS if they participated in the program for at least one term.

***Table A3.*** Completion Rates for Transfer-Level English and Math Courses in First Academic Year by EOPS Status and Starting Course Level

| | | (1) EOPS *n* = 221,767 | (2) Non-EOPS *n* = 1,660,343 |
|---|---|---|---|
| Completed Transfer-Level English in 1st Year | Started in Transfer-Level | 88% | 81% |
| | Started below Transfer-Level | 17% | 7% |
| | Combined | 33% | 22% |
| Completed Transfer-Level Math in 1st Year | Started in Transfer-Level | 83% | 76% |
| | Started below Transfer-Level | 7% | 3% |
| | Combined | 20% | 12% |

*Note:* Pass grade includes A, B, C, or Pass. Students who did not enroll in a course are grouped with "below transfer-level" group.

***Table A4a.*** Completion Rates for Transfer-Level English and Math in One Academic Year (within on year of First Attempt) by EOPS Status and Starting Course Level

| | | (1) EOPS *n* = 221,767 | (2) Non-EOPS *n* = 1,660,343 |
|---|---|---|---|
| Completed Transfer-Level English | Started in Transfer-Level | 90% | 83% |
| | Started below Transfer-Level | 38% | 15% |
| | Combined | 57% | 36% |
| Completed Transfer-Level Math | Started in Transfer-Level | 87% | 81% |
| | Started below Transfer-Level | 26% | 11% |
| | Combined | 43% | 26% |

*Note:* Pass grade includes A, B, C, or Pass. Students who did not enroll in a course are grouped with "below transfer-level" group.

***Table A4b.*** Odds of Completing Transfer-Level English and Math in One Academic Year (within one year of First Attempt)

| | English | | Math | |
|---|---|---|---|---|
| | Model 1 Unadjusted | Model 2 Adjusted | Model 1 Unadjusted | Model 2 Adjusted |
| EOPS (Odds Ratio) | 2.33*** (184.92) | 2.19*** (22.52) | 2.16*** (166.70) | 2.07*** (29.02) |
| Controls | No | Yes | No | Yes |
| PSM Weight | No | Yes | No | Yes |
| Cluster by College | No | Yes | No | Yes |
| *n* | 1,882,110 | 1,882,110 | 1,882,110 | 1,882,110 |

*Note.* *$p < .05$, **$p < .01$, ***$p < .001$.

***Table A5.*** Odds of Completing Transfer-Level English and Math for 2016 through 2019 Cohorts (within First Year)

| | English | | Math | |
|---|---|---|---|---|
| | **Model 1 Unadjusted** | **Model 2 Adjusted** | **Model 1 Unadjusted** | **Model 2 Adjusted** |
| EOPS (Odds Ratio) | 1.89*** (83.93) | 1.82*** (17.69) | 1.80*** (69.25) | 1.86*** (19.88) |
| Controls | No | Yes | No | Yes |
| PSM Weight | No | Yes | No | Yes |
| Cluster by College | No | Yes | No | Yes |
| N | 654,194 | 654,194 | 654,194 | 654,194 |

*Note.* *$p < .05$, **$p < .01$, ***$p < .001$.

***Figure A1***. University Transfer over Time by EOPS Status among All Students-Consistent Cohort (n=970,090)

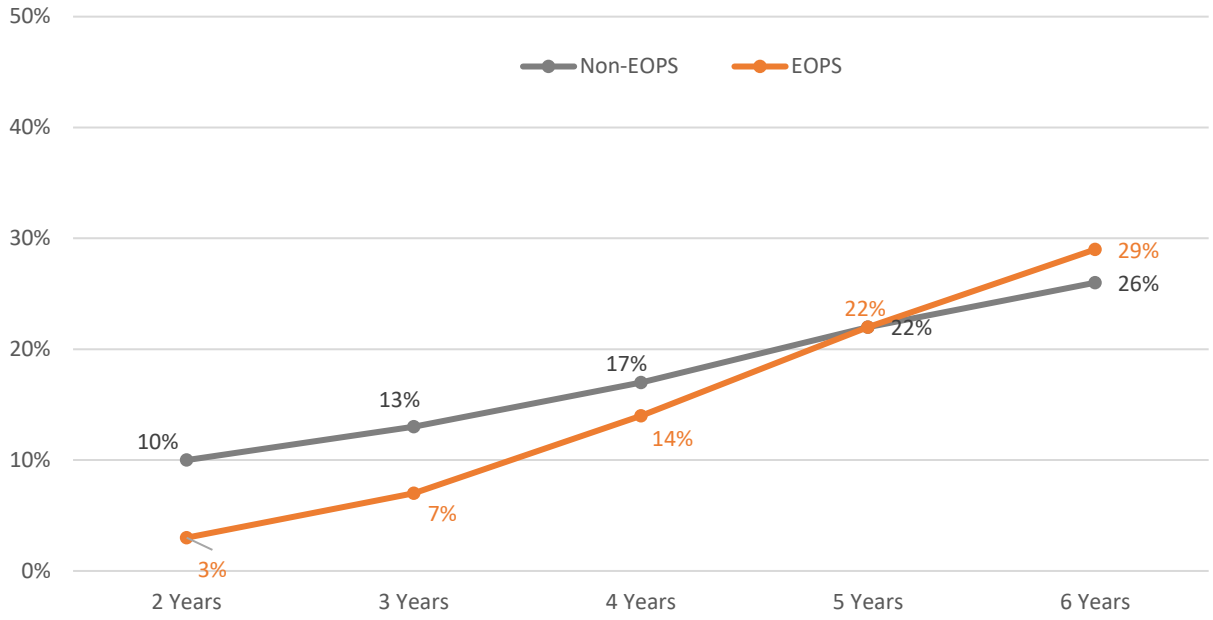
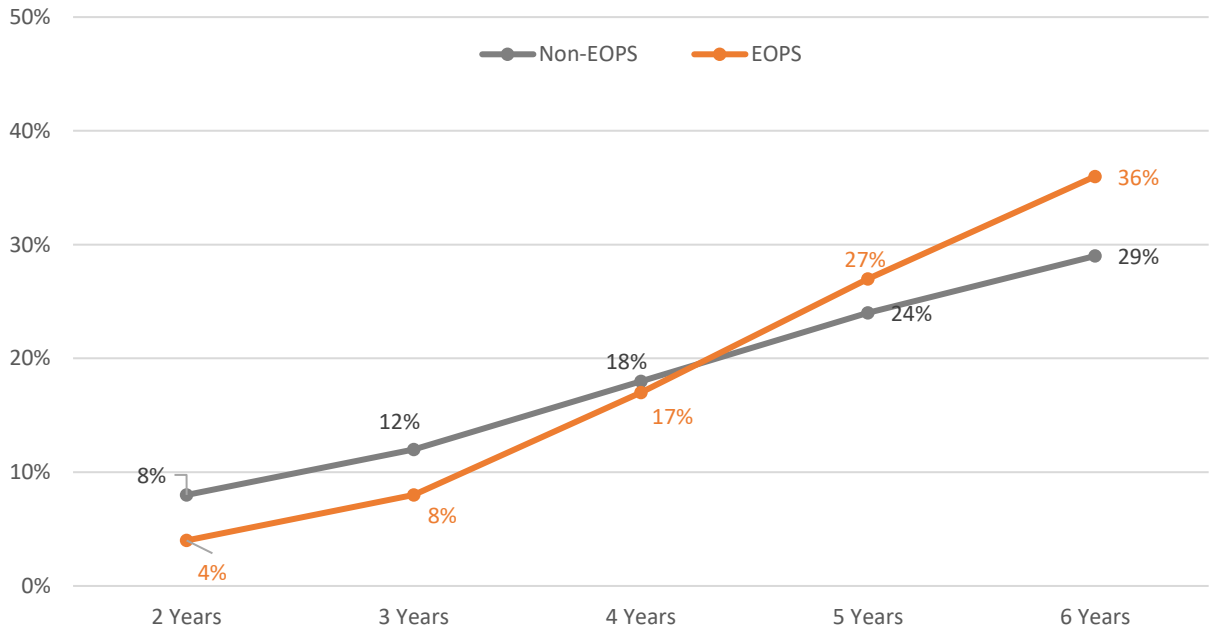



***Figure A2***. Transfer to Four-Year University by EOPS Status among Students with an Educational Goal of Transfer – Consistent Cohort (n=430,637)



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California Legislative Information
https://leginfo.legislature.ca.gov/faces/billCompareClient.xhtml?bill_id=201520160AB490&showamends=false

Datamart, CCCCO Datamart: https://datamart.cccco.edu/Services/EOPS_CARE_Status.aspx

# Research and Planning Group for California Community Colleges

As the representative organization for Institutional Research, Planning, and Effectiveness (IRPE) professionals in the California Community Colleges (CCC) system, The RP Group strengthens the ability of CCC to discover and undertake high-quality research, planning, and assessments that improve evidence-based decision-making, institutional effectiveness, and success for all students.

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