# Promoting Access to College in an Era of Fiscal Constraints:

The University of California's Early Academic Outreach Program

**Kyra Caspary**
**Jennifer Bland**
**Daniel Aladjem**
**Frances Miller**
**Francine Biscocho**

**Center for Education Policy**
**SRI International**
**July 2013**

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## The University of California's Early Academic Outreach Program

# CONTENTS

# ACKNOWLEDGMENTS

The University of California (UC) established the Early Academic Outreach Program (EAOP) in 1976 to improve access to UC for students from underserved schools, targeting low-income, first-generation college, and minority students who have traditionally been underrepresented in postsecondary education. The largest of UC's Student Academic Preparation and Educational Partnerships (SAPEP), EAOP provides guidance and support to help students from backgrounds with traditionally low college-going rates make informed decisions about their postsecondary education options, prepare for the academic rigor required for college admission and success, successfully navigate the college choice and application processes, and ultimately enroll in college. Although it is not a recruitment program for UC, EAOP is the only SAPEP program that operates at each of the 10 UC campuses, and often functions as the face of UC in its partner schools and the communities they serve.

Across all the campuses, EAOP staff offer one-on-one and small group academic advising to students at underserved schools, focused on completion of the college preparatory coursework required for admission to all UC and California State University (CSU) campuses (a-g requirements).[1] This advising is complemented by a suite of other services that are shaped by the EAOP Program Standards within four broad program areas—academic advising, academic enrichment, college entrance exams, and college knowledge—but vary by campus as well as by partner school. Each campus administers its own EAOP and selects its own school and student population, guided by central program guidelines. In 2011–12, the program served over 30,000 students.

This report assesses the current status and success of the EAOP since the last independent evaluation of the program nearly a decade ago and sheds light on the effects of 10 years of budget reductions. How do the college-going rates of EAOP students compare to those of their peers? What services does EAOP offer, and what do students as well as school and program staff members say about which aspects of the program are most valuable? After addressing these questions, we describe how EAOP is structured to provide its various services and supports. We explore how the program is housed and staffed across the various campuses; discuss key operational decisions that sites must make to determine which students to recruit and how to provide these services; and provide an overview of how sites recruit students. Finally, we discuss how programs have adapted to budget cuts, focusing on the implications of these cuts for EAOP services and structures; how sites conceptualize successful school partnerships when deciding which partnerships to maintain; and strategies for sustainability across the EAOP sites.

To address these questions, we draw on program documents; an analysis of student data; and site visits and interviews with EAOP staff, students, and partners. We visited all 10 campus EAOP sites in fall 2012, interviewing EAOP staff in addition to students and staff at two partner schools per campus. We also conducted follow-up phone interviews with program staff (and in some cases former staff) and interviewed other campus staff in spring 2013. This report reflects the analysis of data from all these sources to provide an updated description of EAOP.

## STUDENT OUTCOMES

Through activities and services such as one-on-one academic and college advising, workshops, and academic enrichment programs, EAOP seeks to increase the rate at which participants reach and persist in college. How successful is the program at meeting this goal? We begin by comparing student outcomes

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[1]  UC and CSU both define minimum credits in authorized college preparatory courses in English, math, science, social studies, foreign language, arts, and electives that students must complete with a grade of C or better to be eligible for admission. See Appendix B for details.

for EAOP participants with those of similar peers, providing preliminary evidence that EAOP participation is associated with increased college access for students.

**Methods:** The research team used data from the Transcript Evaluation Service (TES), which provides a comprehensive evaluation of students' high school coursework from participating California high schools, to compare end-of-high-school and early postsecondary outcomes for EAOP and non-EAOP students who had similar ninth-grade course-taking patterns and grades. We created two analytic samples: EAOP students compared to non-EAOP students in the same school, and EAOP students compared to students at non-EAOP schools. We compared EAOP with non-EAOP students on multiple outcomes measures:

- a-g course completion and final high school GPA (calculated for UC and CSU eligibility) from TES;
- admission test-taking (the SAT and ACT tests required for UC eligibility) from the College Board and ACT;
- UC application, admission, and enrollment from UC corporate student data system;
- postsecondary enrollment and 1-year persistence at any 2- or 4-year postsecondary institution listed in the National Student Clearinghouse.

We then compared the average outcomes (college-going rate and high school GPA) for EAOP students with those of comparison students in each sample, controlling for both student- and school-level characteristics.

**Key findings:** Our analysis of student data reveals especially promising evidence regarding the association between EAOP participation and several key outcomes of interest: college-going in general and UC application, admission and enrollment in particular. EAOP students were more likely to enroll in any 2- or 4-year college directly from high school than were their within- and across-school peers. In addition, they were more likely to apply, be admitted, and enroll at UC than their matched peers both within and across schools. EAOP students also had favorable outcomes on a number of other measures in the within-school sample only. Compared to their matched peers in the same schools, EAOP students were more likely to complete the courses and test-taking eligibility requirements for UC and CSU, to be admitted to UC, and to attend a 4-year college. On average, they also had higher predicted cumulative high school GPAs in college preparatory courses.

**Limitations of the analysis:** These findings indicate a positive association between EAOP participation and college access and enrollment, although this association cannot be definitively attributed to EAOP. The difference in the results between the two samples may reflect the limitations of each. It is difficult to do more than conjecture about how different student characteristics that were not available in this data set—prior test scores and motivation, poverty and ethnicity, and even participation in another academic preparation program—might be distributed differently for the EAOP and comparison students, and might therefore bias the results of our analyses either in favor of or against EAOP. Given these considerations, the findings that persist across the two samples provide stronger evidence in support of EAOP than those that are present in just one.

## EAOP IMPLEMENTATION

These student outcomes reflect participation in a range of services offered by campus EAO programs that are structured in a variety of ways. To understand these student outcomes, the remainder of the report explores how EAOP is implemented across the UC campuses.

**EAOP services and their reported value:** Within the four broad program areas of academic advising, academic enrichment, college entrance exam preparation, and college knowledge, the universally offered EAOP services and activities are one-on-one academic advising and one-on-one or group college counseling and workshops. Beyond those activities, different sites offer different combinations of

academic enrichment programming, parent workshops, campus visits, college entrance exam preparation, and other services. Students and staff at the EAOP partner schools we visited consistently highlighted the popularity and value of one-on-one advising and opportunities to interact with positive, college-knowledgeable adults, followed closely by opportunities to gain direct on-campus exposure to college life. These trends are perhaps not surprising given that they encompass the most universal EAOP offerings across the campuses, but staff and students cited these as among the most valuable aspects of the program even at sites where students had access to a variety of other services through EAOP.

**Site context:** Across the UC campuses, EAOP is housed in a range of different departments with different organizational and oversight structures. Program staff asserted that where EAOP is housed administratively within the university can influence the balance between support and autonomy for EAOP: staff noted the benefits of leveraging scarce resources by collaborating with other academic preparation programs when EAOP is housed alongside them, but explained that such collaboration can make it more difficult to focus on EAOP-specific goals and objectives. Another key issue EAOP staff continue to negotiate is the extent to which EAOP feels aligned with broader campus-wide academic preparation goals and activities. To raise awareness and support for EAOP work on the campuses, staff within EAOP and the units that house EAOP at a number of campuses are beginning to more actively engage in on-campus outreach and communication.

**Site staffing:** Each site employs staff members who work directly with students at partner schools to provide EAOP services. Site staffing structures vary widely based on how each site strikes the balance between breadth and intensity of school partnerships: these staff work with anywhere from one school at a time to as many as eight, averaging between half a day per week and 5 full days per week at a given school. In addition to a director, a few sites have other staff members who support EAOP in specific roles other than working at schools; such roles include data analysts, coordinators of enrichment programs, EAOP assistant directors, and program coordinators. The majority of the sites employ undergraduates to help provide academic advising, college counseling, and/or tutoring and academic support in partner schools. Sites that use undergraduates to help deliver EAOP services identified powerful benefits of this model, citing both cost savings and the ability of undergraduates to relate more fully to EAOP students due to closeness in age and experience. Site staff also described a number of logistical and training considerations that need to be considered for this staffing model to be successful.

**Key operational decisions for sites:** Site leaders must carefully consider and address a series of key questions to determine which types of students and program offerings will help them reach the benchmarks laid out in the SAPEP accountability framework. Across the sites, different local contexts and priorities lead site directors to approach these questions from divergent vantage points, and thus to structure their programs differently. The considerations that site staff grapple with include:

- How to allocate staff members' attention between younger students and those approaching college age.
- Whether to focus services exclusively or primarily on a cohort of EAOP students or whether to work more broadly to build a school-wide college-going culture.
- More generally, how to balance providing broader EAOP services to more students and providing more intensive EAOP services to a smaller subset of students.
- How much to focus on UC access versus college access more broadly when helping students make decisions about postsecondary plans.

**Student recruitment overview:** EAOP targets students first through the types of schools it partners with. The EAOP Program Standards provide broad guidelines that are designed to situate the program in schools that serve a high proportion of underrepresented, low-income, first-generation college-bound students. These standards also outline student selection criteria within these schools. Informed by these guidelines, each campus has leeway to structure student recruitment differently. The most common approach to student recruitment is to target students who are academically on track for UC or relatively

close, and at least somewhat interested in college, but who do not necessarily have the knowledge of what they need to do to become a successful applicant. We heard some caution from program directors about recruiting students that are too far off-track for completing a-g given the need to meet the SAPEP targets for algebra completion by 10th grade and a-g completion by 12th grade. However, a few EAOP sites attempt to serve all students at their partner schools who want to participate in EAOP's services, regardless of their GPA or on-track status.

**Responses to budget cuts and implications for EAOP participation:** Given considerable budget reductions over the course of the past decade, program staff have needed to make difficult choices about which services to cut and which services to maintain. The majority of sites have elected to prioritize direct interaction between EAOP staff and participating students in the form of one-on-one and group academic advising and college counseling/college knowledge activities, often necessitating a shift away from academic enrichment, entrance exam preparation, and college visits—activities which site staff frequently described as valuable but expensive, especially on a cost-per-student basis given that many enrichment and test preparation programs serve only a subset of EAOP students. However, other sites have elected to maintain or reintroduce these services to the greatest possible extent, informed by data that reinforce their value. More generally, motivated by budget cuts, some sites have started to prioritize data collection and analysis in order to target program operations and/or secure outside funds, and have dedicated resources to hiring staff and building staff capacity in this area.

Due to the expense associated with staff salaries, most sites have also found it necessary to cut some of the staff positions that worked directly with students in EAOP partner schools. At the same time, site leaders have worked to maintain sufficient services for each remaining EAOP student to foster the desired outcomes of postsecondary awareness and preparation. As a result, while many sites have increased the number of schools each remaining staff member serves, these staff cannot fully cover the full set of schools and number of students that EAOP served before these budget cuts. These circumstances have led most sites to eliminate at least some of their partner schools and have led some sites to serve fewer students per remaining partner school. Over the 5 years from 2007–08 to 2011–12, the number of EAOP partner schools statewide decreased by over 40 percent, and the number of students served decreased by nearly 30 percent.

Site leaders use a variety of criteria to determine where to maintain existing partnerships and which new schools to add when resources allow, taking into account school capacity as well as demographic and student performance data. Maintaining partnerships in schools that serve high concentrations of underrepresented, first-generation college-bound students has been a high priority across the sites. Reflecting this focus, EAOP school and student demographic composition has trended towards higher concentrations of low-income and minority students over the past 5 years. In addition, site leaders explained that they carefully consider a range of more qualitative criteria that contribute to the development and maintenance of successful school partnerships. These criteria include basic access to students, student records, and meeting space; school staff cooperation and stability; and alignment of school goals with EAOP goals. As long as these criteria are met, successful EAOP school partnerships can look very different, distributed across a continuum from more passive, where the role of school personnel is limited to ensuring that EAOP staff have access to the students, resources and facilities they need, to more active, where partner school staff help shape the EAOP services at the school.

**Strategies for sustainability:** Faced with budget cuts, campuses have implemented a wide array of strategies to maintain program services. Sites' strategies for sustainability include numerous efforts to maximize available resources—for example, relying more heavily on undergraduate staff, transitioning to online services, developing curriculum and training staff internally, and building school and community capacity to support EAOP goals. Several sites are also working to share costs with partner schools through a fee-for-service model, and EAOP staff across all of the sites discussed the importance of working to secure additional funds from within or outside the campus.

## CONCLUSION

Over the past 10 years, EAOP has navigated significant reductions in the state funds available to support the program and the University of California in general. Sites have responded by identifying and maintaining the program elements and services that they perceive as central to meeting the program's goal of increasing college preparation and access for underserved students. This report documents some of EAOP's challenging decisions about how to reduce partner schools or services while still working towards their broad goals of college access and preparation; the factors campuses consider in making these decisions; and the ways in which sites have sought to leverage funds and maintain services.

Across the UC system, EAOP sites have maintained one-on-one academic advising as a core function of EAOP, and this investment appears to be paying off. Students and school staff report how much they value the presence of a college-knowledgeable adult that EAOP provides at most partner schools, and our analysis of student data reveals especially promising evidence regarding the association between EAOP participation and key outcomes of interest, specifically college-going rates and UC application, admission and enrollment. Although we cannot definitively attribute this positive association to EAOP participation, this evidence suggests that EAOP is successful at raising students' college aspirations, helping students navigate the college application process, achieve UC eligibility, and follow through by enrolling at a postsecondary institution, whether at UC or at another institution.

Low-income students and students whose parents did not attend college are less likely to be academically prepared, less likely to have knowledge of how to apply for college and for financial assistance, and more likely to have greater difficulty in acclimating to college when they enroll than their counterparts who come from wealthier homes or those whose parents have attended college (Jenkins, Miyazaki, & Janosik, 2009; Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996). The University of California (UC) is committed to rectifying these fundamental inequities by increasing opportunities for economically disadvantaged and underrepresented students, including those who are first-generation, socioeconomically disadvantaged, and English-language learners, on UC campuses through its Student Academic Preparation and Educational Partnerships (SAPEP). The largest of these is the Early Academic Outreach Program (EAOP). The University of California established EAOP in 1976 to improve access to the University of California for students from underserved schools, targeting low-income, first-generation college, and minority students who have traditionally been underrepresented in postsecondary education.

EAOP operates at each of the 10 UC campuses, serving over 30,000 students in the 2011–12 school year. EAOP staff work with students at underserved schools to prepare them for postsecondary educational opportunities, ensuring they complete the college preparatory coursework required for admission to all UC and California State University (CSU) campuses (a-g requirements), apply for college, and complete financial aid forms.[2] Campuses structure and deliver supports for student in different ways, through services such as one-on-one and small group academic advising, college workshops and visits, and academic enrichment and college entrance exam preparation for students. All of these fall within EAOP's four program areas: academic advising, academic enrichment, college entrance exams, and college knowledge. Each UC campus administers its own EAOP and selects its own school and student population guided by central program guidelines, and the specific services in which EAOP students participate vary by campus as well as by partner school. Although its mission is to increase access to higher education defined broadly, the program focuses on completion of the college preparatory courses required for UC eligibility as a central strategy for preparing students for postsecondary education, including the UC system. EAOP is not a UC recruitment program, but as the only UC-focused academic preparation program that operates at each of the 10 UC campuses, it often functions as the face of UC at its partner schools and the communities they serve.

Over the past 15 years, EAOP has experienced significant changes in state funding levels. The California legislature identified EAOP as a key outreach strategy to reach underrepresented communities following the prohibition on the consideration of race or gender in admissions imposed by the UC Board of Regents in 1995 (SP-1). A sharp increase in state funds in the 1998–99 school year allowed EAOP to expand quickly, with funding levels more than tripling from 1997–98 to over $16 million system-wide in 2000–01. By 2003–04 the state economy had soured, and EAOP's state funding was cut in half, with an additional 15 percent reductions overall between 2004–05 and 2010–11.

The University of California Office of the President (UCOP) has funded a number of efforts to evaluate the impacts of EAOP on participating students' college preparation, enrollment, and persistence. This research demonstrates that students who participate in EAOP complete California's a-g requirements at a higher rate than students statewide, are more likely to take the SAT/ACT than other students at the same schools, are more likely to be UC eligible than students statewide, attend college at higher rates than students statewide (including UC campuses), and remain enrolled in college at rates equal to or higher

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[2] UC and CSU both define minimum credits in authorized college preparatory courses in English, math, science, social studies, foreign language, arts, and electives that students must complete with a grade of C or better to be eligible for admission. See Appendix B for details.

than their campus counterparts (Quigley, 2002; University of California, 2003; University of California, 2006).

This report assesses the current status and success of the EAOP since the last independent evaluation of EAOP nearly a decade ago and after more than 10 years of budget reductions. How do the college-going rates of EAOP students compare to those of their peers? What services does EAOP offer, and what do students as well as school and program staff members say about which aspects of the program are most valuable? After addressing these questions, we discuss how campuses structure and staff their EAO programs, and then describe some of the key operational decisions faced by sites, including decisions about which program offerings to maintain in the context of budget cuts. In many cases, campuses reduced the numbers of partner schools and students served, and we discuss some of the factors that influenced these decisions, as well as presenting characteristics of partner schools and participating students over time. Finally, we describe some of the strategies campuses employ to continue to serve students and schools.

This report draws on program documents, an analysis of student data, and site visits and interviews with EAOP staff, students, and partners. We visited all 10 campus EAOP sites in fall 2012, interviewing EAOP staff in addition to students and staff at two partner schools per campus. We also conducted follow-up phone interviews with program staff (and in some cases former staff) and interviewed other campus staff in spring 2013. This report reflects the analysis of data from all these sources to provide an updated description of EAOP.

EAOP aims to improve access to college for students from backgrounds with traditionally low college-going rates. The program provides guidance and support to help them make informed decisions about their postsecondary education options, successfully navigate the college choice and application processes, and ultimately enroll in college. Through one-on-one college advising, workshops, and academic enrichment programs, EAOP seeks to increase the rate at which participants reach and persist in college. How successful is it at meeting this goal? We begin by comparing student outcomes for EAOP participants with those of similar peers, providing preliminary evidence that EAOP participation is associated with positive college access for students.

## DATA SOURCE AND METHODS

To address the question of whether EAOP participation is associated with greater college access, we used data from the Transcript Evaluation Service (TES), which provides a comprehensive evaluation of students' high school coursework for participating California high schools. Although less than 10 percent of California high schools participate in TES, the service provides detailed and reliable data for all students enrolled at these schools. Institutional researchers at the UCOP matched TES data for a cohort of high school graduates from the 2010–11 school year to EAOP participant data; test-taking data for college entrance exams; UC application, admission, and enrollment data; and National Student Clearinghouse data. Analyzing these matched data allowed us to compare end-of-high-school and early postsecondary outcomes for EAOP and non-EAOP students with similar ninth-grade course-taking patterns and grades. Specifically, we compared EAOP with non-EAOP students on multiple outcomes measures:

- a-g course completion and final high school GPA (calculated for UC and CSU eligibility) from TES
- admission test-taking (the SAT and ACT tests required for UC eligibility) from the College Board and ACT
- UC application, admission, and enrollment from UC corporate student data system
- postsecondary enrollment and 1-year persistence at any 2- or 4-year postsecondary institution listed in the National Student Clearinghouse

We matched EAOP students with non-EAOP students who had similar ninth-grade course-taking patterns and grades, both overall and in college preparatory courses (for a complete profile of the samples before and after matching, see Appendix B). Using this matching process, we created two analytic samples:

- **EAOP students compared to non-EAOP students in the same school:** The within-school sample consisted of 1,678 EAOP students and 5,108 comparison students in 40 schools. The 578 EAOP students whom we could not match were primarily quite high-achieving: 57 percent had a ninth-grade college preparatory GPA of 3.60 or higher, and 30 percent had a full 4.0 ninth-grade GPA. Thus, while EAOP and comparison student in this within-school analytic sample had a similar mean ninth-grade GPAs (3.13 and 3.12, respectively), this was slightly lower than that of the average EAOP student in the full TES sample of EAOP students (3.22).

- **EAOP students compared to students at non-EAOP schools.** The across-school sample consisted of 1,836 EAOP student in 38 schools and 7,855 comparison students in 45 non-EAOP schools. EAOP students were matched to students in schools that were roughly similar in terms of academic performance and concentration of underrepresented minority students, but were not constrained to be similar in other ways (such as geographic proximity, district, or size). In this sample, we were able to match all but 420 EAOP students. Forty-one percent of unmatched

EAOP students had a ninth-grade college preparatory GPA of 3.60 or higher, and 19 percent had a full 4.0; thus, the mean GPA for EAOP and comparison student in the across-school sample was 3.20 and 3.19, respectively—closer to the 3.22 GPA of EAOP students in the overall TES sample than we could achieve with the within-school sample.

Characteristics of the analytic samples are described in Exhibits 1 and 2.

**Exhibit 1:**
**Sample Used for Analysis of Student Outcomes (2010–11 School Year)**

**All California High Schools: 1,285**
**On average:**
• Enrollment of 1,407
• Academic Performance Index (API) of 744 (Decile 5)
• 53% Free or Reduced-Price Meals
• 56% Underrepresented Minority

**EAOP Partner Schools: 219**
**On average:**
• Enrollment of 1,880
• API of 703 (Decile 3)
• 73% Free or Reduced-Price Meals
• 80% Underrepresented Minority

**EAOP Partner Schools (3 years) in TES: 40**
On average:
• Enrollment of 2,018
• API of 700 (Decile 3)
• 73% Free or Reduced-Price Meals
• 77% Underrepresented Minority

**Non-EAOP Schools: 1,066**

**Non-EAOP Schools (3 years) in TES: 45**
On average:
• Enrollment of 1,381
• API of 706 (Decile 3)
• 68% Free or Reduced-Price Meals
• 67% Underrepresented Minority

**Exhibit 2:**
**Average Ninth-Grade Student GPA in College Preparatory Classes, by Analytic Sample**

|  | EAOP students | Non-EAOP students (EAOP schools) | Non-EAOP students (comparison schools) |
|---|---|---|---|
| Before matching | 3.22 ($n$ = 2,256) | 2.41 ($n$ = 12,805) | 2.52** ($n$ = 13,216) |
| Within-school sample | 3.13 ($n$ = 1,678) | 3.13 ($n$=5,108) | -- |
| Across-school sample | 3.20* ($n$ = 1,836) | -- | 3.19 ($n$ = 7,855) |

  * Includes students from 38 of the 40 EAOP schools. The two schools dropped were both high achieving (API decile of 7 or higher).
 ** Includes students from 48 schools. Of the three schools dropped in the matching process, one was an alternative school (no API) and the other two were in API deciles 9 and 10, respectively.

We then compared the average outcomes (college-going rate and high school GPA) for EAOP students with those of comparison students in each sample, controlling for both student- and school-level characteristics. At the student level, we controlled for ninth-grade credits earned in college preparatory courses, GPA, any course failures, gender, and, because the EAOP students in both samples were disproportionately female, for an indicator for being a male EAOP participant. We also controlled for school characteristics: school Academic Performance Index (API), enrollment, percent free and reduced-price meals, and percent underrepresented minority (a more complete description of the methodology is included in Appendix B).

## OUTCOMES FOR EAOP PARTICIPANTS

To compare outcomes for EAOP students and their matched peers, we present predicted values for EAOP and comparison students in each sample based on a profile of a typical EAOP student. We derived the profile of this typical EAOP student and school, shown below in Exhibit 3, based on all EAOP participants in the TES database from the 2011 graduate cohort, and all EAOP partner schools in 2010–11.

**Exhibit 3:**
**Student Profile Used for Presentation of Outcomes**

| Typical EAOP student | |
| --- | --- |
| **Student Characteristics** | |
| 9th grade GPA in college preparatory courses | 3.22 |
| Credits earned in college preparatory courses in 9th grade | 26.2 |
| Number of college preparatory credits failed in 9th grade | None |
| Gender | Female |
| **School Characteristics** | |
| API | 703 (Decile 3) |
| Total student enrollment | 1,880 |
| Percent eligible for free or reduced-price meals | 73% |
| Percent underrepresented minority | 80% |

**EAOP students were more likely to enroll in college than their matched peers at both the same schools and at roughly similar schools, and were also more likely to apply, be admitted, and enroll at UC.**

The most robust findings, which persist when we compare EAOP students to their peers both within and across schools, were that EAOP students were more likely to enroll at any 2- or 4-year college directly from high school, and were also more likely to apply, be admitted, and enroll at UC. The typical EAOP student in the within-school sample had a predicted probability of applying to UC of 0.40, compared to 0.22 for his or her same-school peers, and in the across-school sample EAOP students had a predicted probability of 0.41 compared to 0.33 for his or her across-school peers (Exhibit 4). This broader applicant pool also translates into a higher predicted probability for EAOP student admission and enrollment at UC when we consider the entire sample of EAOP and comparison students; as with UC application, the contrast between the predicted probability of UC admission for EAOP and comparison students is greater

in the within-school than the across-school sample.[3] The contrast in predicted UC enrollment rate between EAOP students and their within-school peers is particularly strong for males. While males, on average, are less likely than females to enroll at UC, in the within-school sample the predicted probability of enrollment at UC was .17 for male EAOP students compared to .05 for male comparison students in the same schools, but this high differential probability of UC enrollment for male EAOP students does not persist in the across-school sample. In terms of enrollment at any 2- or 4-year college, EAOP students in the within-school sample had a probability of college enrollment of 0.78 compared to 0.72 for within-school peers, and in the across-school sample had a predicted probability of 0.79 compared to 0.70 otherwise. As with UC enrollment, EAOP students were both more likely to enroll in college than their peers in the same school and this differential was greater for male students than for female students; however, this gender differential did not show up in the across-school comparison.

**Exhibit 4:**
**Predicted Probability of College-Going and UC Application, Admission, and Enrollment for EAOP and Comparison Students**
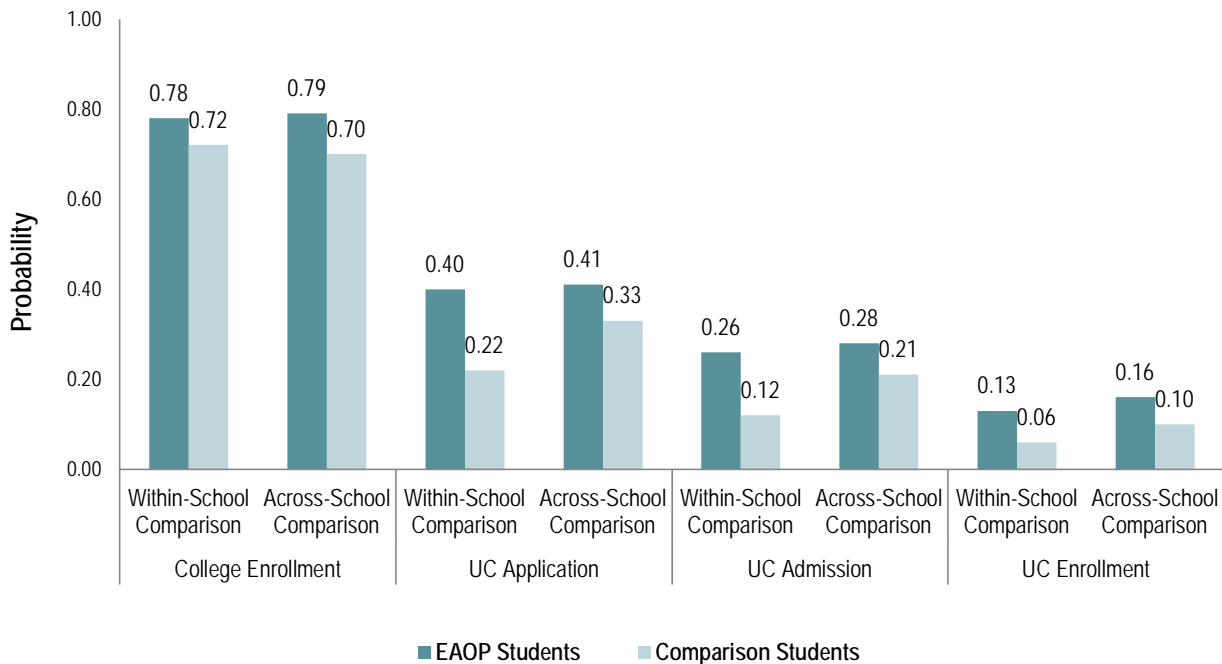


**Compared to their matched peers in the same schools, EAOP students were more likely to complete the courses and test-taking eligibility requirements for UC and CSU, to be admitted to UC, and to attend a 4-year college. On average, they also had higher cumulative high school GPAs in college preparatory courses.**

Although UC application, admission and enrollment as well as college enrollment were the outcomes we examined for which EAOP had higher predicted rates than their peers in both samples, EAOP students

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[3] The greater proportion of EAOP than comparison students admitted and enrolling at UC results from the higher applicant rate of UC students in the EAOP samples without any accompanying decrease in the admission rate of applicants or the enrollment rate of admitted students. In both samples, the enrollment rate for the subset of EAOP students admitted to UC was equivalent (no statistically significant difference) to that of admitted comparison students. In the within-school sample only, EAOP student who applied to UC had a higher admission rate than comparison students who applied (.78 compared to .67), but this higher admission rate did not persist in the across-school sample.

had favorable outcomes on a number of other measures in the within-school sample only. Exhibit 5 shows the difference in the predicted probability of EAOP compared to similar peers in the same school of meeting the UC and the CSU subject requirement, taking one of the college admissions tests required for UC eligibility (the SAT or ACT), and enrolling in a 4-year college. For example, the predicted probability of completing the UC subject requirement was 0.69 for EAOP students and 0.54 for comparison student in the same schools.[4] Paralleling these higher outcomes for EAOP students, the predicted mean UC GPA was 0.15 grade points higher for EAOP than non-EAOP students in the within-school sample.[5] Finally, the predicted probability of enrolling in a 4-year college or university was 0.49 for EAOP students and 0.35 for comparison student in the same schools.

**Exhibit 5:**
**Predicted Probability of UC Subject Requirement Completion, Admission Test-Taking, and Four-Year College Enrollment for EAOP and Comparison Students, Within-School Sample**
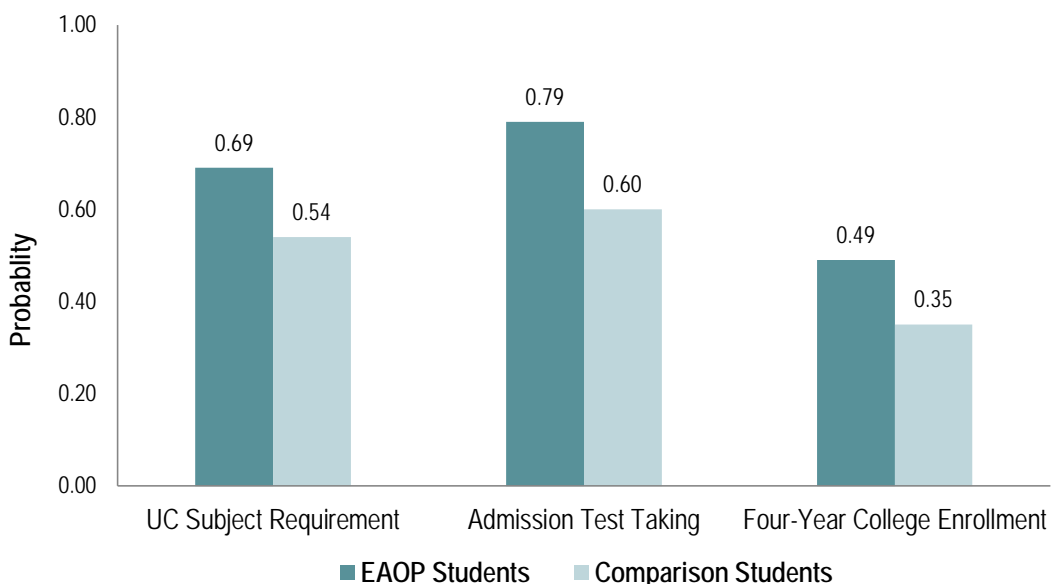


Exhibit 6 summarizes the results of the analysis for each outcome and sample, capturing in one exhibit the large number of statistically significant positive findings when EAOP students were compared to peers in the same schools; the relatively few significant results when compared to peers in different schools; and the presence of differential effects by gender for some outcomes when comparing EAOP to peers in the same schools.

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[4]  For completion of the CSU subject requirement, which allows one required laboratory science and one required social studies/history course to be approved in the elective rather than discipline area, the predicted probability was 0.71 for EAOP students and 0.57 for comparison student in the same schools. See Appendix B for details about the UC and CSU subject requirement.

[5]  These GPAs are calculated using only those grades in courses that count toward UC eligibility taken after ninth grade. Students can earn up to eight extra grade points for honors or advanced courses, so GPA ranges from 0 to 4.4. These results were almost identical to those of an analysis of the GPA calculated for CSU eligibility (Appendix B).

Exhibit 6:
Summary of Results for Both Samples

| | Within-School Comparison | | Across-School Comparison | |
|---|---|---|---|---|
| | EAOP | EAOP by Gender* | EAOP | EAOP by Gender* |
| CSU subject requirement | + | +F | NS | |
| CSU GPA (2.0 required for eligibility) | + | +F | NS | |
| UC subject requirement | + | NS | NS | |
| UC GPA (3.0 required for eligibility) | + | NS | NS | |
| Admission test completion | + | NS | NS | |
| UC applicant | + | NS | + | NS |
| UC admit | + | NS | + | NS |
| UC enrollment | + | +M | + | NS |
| Any college enrollment | + | +M | + | NS |
| Four-year college enrollment | + | +M | NS | |
| One-year persistence | NS | | NS | |

+   Positive and statistically significant effect
NS  No statistically significant effect
*   Differential effect by gender (M = Male, F = Female)


## LIMITATIONS OF THE ANALYSIS

Although these findings are generally encouraging in terms of indicating a positive association between EAOP participation and college access and enrollment, the difference in the results between the two samples may reflect the limitations of each. Through the matching process, we have attempted to find EAOP and comparison students who have similar expected end-of-high school and college-going outcomes at the beginning of high school, so that any difference at the end of high school can be attributed to EAOP participation. Insofar as EAOP students could be expected to have higher expected outcomes than comparison students before entering the program, the results of the analysis will be biased in favor of EAOP, meaning that the contrast between EAOP and non-EAOP students is due to these initial differences rather than program participation. On the other hand, if we have reason to believe that EAOP students had lower expected outcomes than comparison students before entering the program, the results of the analysis will be biased against EAOP, meaning that the contrast we observe between EAOP and non-EAOP students is lessened by these initial differences.

Because we rely on the data elements captured in the TES dataset to create the matched sample, EAOP and comparison student in each sample are only equivalent on the $9^{th}$ grade transcript variables found in TES. This coursework data is very high quality; TES data contains reliable information about high school courses and grades that is submitted directly by high schools to UC and is evaluated consistently using up-to-date course lists of UC-approved courses. However, for the 2010–11 school year, schools did not consistently submit demographic or test-score data to TES that would have allowed us to match students on race/ethnicity, eligibility for free or reduced-price meals, home language, or on prior achievement as measured by standardized tests scores. Thus, the EAOP students in each of the samples may differ systematically from the non-EAOP students on these dimensions. Indeed, for gender, which is the one

demographic variable we do have, we know that in both samples the proportion of females is higher for EAOP than non-EAOP students.[6] Given what we know about EAOP recruitment and participation, we can hypothesize about how these unobserved characteristics might be distributed differently among EAOP and comparison students in the two samples.

- **Demographic and prior achievement:** Given the student populations EAOP targets, we expect that the EAOP sample would also have a higher proportion of the first-generation college students and low-income students than their peers with similar grades and course-taking patterns, and by extension that EAOP students may have lower prior achievement scores even though they have similar grades. Grading practices may vary by teacher and school, and students' grades reflect factors such as motivation and persistence in addition to the content knowledge and cognitive skills measured by standardized tests. Thus, matching on GPA and grades alone, not in conjunction with standardized tests scores and a measure of socio-economic status, could mean that EAOP students in the samples have lower levels of academic preparation than their matched peers with similar GPAs. The potentially higher poverty rates and lower prior test scores of EAOP students in the samples would bias our results against a positive association between EAOP participation and college-going outcomes. Because we would be comparing EAOP students to students from more privileged backgrounds, the results would underestimate the association between EAOP and college preparation and access.

- **Student motivation:** Student counselors and regional coordinators are targeting students who demonstrate qualities such as college potential or motivation within the target demographics. In addition, participation in EAOP is voluntary, and EAOP may thus recruit and attract students who are more motivated to excel in school and attend college than their peers. Although the GPA and course-taking patterns capture motivation to some extent, students may be more likely to participate in EAOP if they are already interested and motivated to attend college, even when considering students with the same GPA. The potentially higher preexisting motivation levels of EAOP students would bias our results in favor of EAOP; students who enroll in EAOP may be more motivated than their peers to attend college on entering high school, and would have had higher college enrollment rates relative to their classmates even without the program. This possibility of greater preexisting motivation to attend college is particularly a concern for the within-school comparison. Although students from the same school are more likely to be similar to EAOP students than to students at other schools in that they may come from the same communities and have similar educational experiences, they were not selected or did not chose to participate in the program, and therefore may not be as motivated as EAOP students

- **Unknown support at other schools:** Potentially higher motivation levels among EAOP students resulting from how students select into the program is a concern for the across-school comparison, but it is somewhat lessened by the fact that in this case comparison students did not have the option to be in EAOP. They may, however, be in another college outreach program. Schools participate in TES because they have a partnership with an outside program, often an academic preparation program or a program that aims to increase college enrollment as at least one of its goals. Here, it is important to keep in mind that the comparison is not to schools with no outside programs or partnership, simply to schools served by a program other than EAOP.

Because of the complexity of these different factors, it is difficult to do more than conjecture about how these different missing student characteristics—prior test scores and motivation, poverty and ethnicity, and even participation in another academic preparation program—might be distributed differently for the

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[6]  In both samples, 36 percent of EAOP students were male, compared to 42 percent of comparison students in the across-school sample and 49 percent of comparison students in the within-school sample. We include gender as a control in the final achievement models.

EAOP and comparison students, and might therefore bias the results of our analyses either in favor of or against EAOP. Given these considerations, the findings that persist across the two samples provide stronger evidence in support of EAOP than those that are present in just one.

The student outcomes we describe in the previous section of the report reflect participation in a range of services offered by campus EAO programs. To understand these student outcomes, we turn now to an exploration of how EAOP is implemented across the UC campuses.

While all 10 EAOP sites share the goal of increasing UC access for traditionally underrepresented students from underserved schools, the 10 campus programs vary widely in how they implement the program. Campuses have relative autonomy in determining what services to offer, how to structure and staff EAOP, and how to form partnerships with schools to provide those services. UCOP ultimately oversees each campus's program and provides support for site directors and other staff, but EAOP is a suite of services that students across the state experience in different combinations at each of the 10 sites. Thus, it is important to keep in mind that a given student in one part of California may not have the same EAOP experience—or even a substantially similar experience—as their peer in another part of the state.

With that variation in mind, we begin this section by exploring the range of EAOP offerings. After we describe EAOP services and activities across the sites, we provide details about how students, school staff, and EAOP staff described their value. We then return to a discussion of how EAOP is structured to provide these offerings: how the program is housed and staffed across the various campuses; key operational decisions that sites must make to determine which students to recruit and how to provide these services; and how sites recruit students. Finally, we discuss how programs have adapted to budget cuts, focusing on the implications of these cuts for EAOP services and structures; how sites conceptualize successful school partnerships when deciding which partnerships to maintain; and strategies for sustainability across the EAOP sites.

In describing EAOP implementation across the 10 campus programs, we attempt to capture the commonalities across the sites and to provide illustrative examples of both the standard and unique offerings. In addition, Appendix A provides more detailed profiles of each EAOP campus site.

## EAOP SERVICES AND THEIR REPORTED VALUE

All EAOP offerings are structured around the four Program Standards: academic advising, academic enrichment, college knowledge, and entrance exams (see sidebar text box). However, campuses vary in their emphasis on each standard. Even within each campus's program, the services provided are not necessarily standardized across each partner school, as EAOP staff tailor the program to the needs and priorities of individual partner schools and their students. Thus, the particular services that a given EAOP student participates in depend on not only the EAOP site that the student's school is affiliated with, but also the specific services and activities EAOP offers at that school and on the student's own interests, skills, and initiative.

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**EAOP Program Standards**

EAOP focuses on four central strategies, called Program Standards, to increase college readiness and enrollment among students from backgrounds with low college-going rates.

1. **Academic advising** and development of an individual academic plan around college preparatory coursework, particularly the a-g course requirements needed to be eligible for a California public 4-year college.
2. **Academic enrichment**, providing opportunities through workshops and summer courses for students to improve their basic skills and master advanced high school coursework.
3. Increasing **college knowledge** of parents, students, and educators through workshops and college visits and developing a college-going culture of schools.
4. Preparation for college **entrance exams,** specifically the SAT or ACT.

Source: University of California, 2007.

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The range of EAOP activities provided as part of each Program Standard, broken down by frequency across the various sites, includes the following (also see Exhibit 7 on the next page):

- **Academic advising:** Academic advising was classified by many staff members as the cornerstone of EAOP, and is offered by all campuses. EAOP students are typically called out of class one or more times per semester to meet with their EAOP advisor either one-on-one or in a small group. During these meetings, the advisor helps students to assess their progress toward meeting the a-g subject requirement and plan for future coursework. At many sites, EAOP staff also hold group workshops on a range of related topics, such as understanding graduation requirements and planning a rigorous college-preparatory program of study. At certain sites and schools, academic advising even extends—at least informally—beyond high school. For example, at one of the UC Santa Cruz partner schools, students and staff spoke of a culture where many recent alumni continue to maintain relationships with EAOP. Graduates communicate both with EAOP staff, to discuss course selection and ask questions to help smooth the transition to college, and with younger students to discuss their experiences and serve as positive role models, emulating older peers who did the same.

- **Academic enrichment:** Six of the campuses host on-campus academic enrichment programming, such as weekend workshops, summer enrichment programs, and/or advanced summer courses, for a subset of (usually high-achieving) EAOP students. Some such programs focus on general academic preparation, working to bolster students' analytic and study skills. Other academic enrichment offerings explore specific content areas (such as a Saturday Academy through UC Davis focusing on veterinary medicine), and certain sites—such as UC Berkeley and UC Riverside—allow some of their highest-achieving students to take summer courses alongside UC students. Additionally, three campuses offer enrichment activities such as tutoring, mentoring, summer coursework, or online credit recovery course options to students at all partner schools, and an additional three campuses offer such activities at a subset of partner schools. For example, UC San Diego EAOP students receive frequent opportunities for real-time online tutoring, with in-person tutoring also available in select classrooms; UC San Francisco EAOP students work closely with graduate student mentors on academic content related to health professions; and some incoming freshmen at UC Santa Barbara EAOP partner schools participate in a summer algebra academy.

- **College knowledge:** At all 10 campuses, EAOP offers workshops on topics such as the UC application, preparing the personal statement, applying for financial aid, and even study skills for college (such as note-taking) or financial skills such as budgeting. The majority of EAOP sites (7 of 10) offer certain workshops that are specifically targeted for parents and families, not just students, with some sites offering sequenced workshop series for parents. For example, UC Merced's Parent Empowerment Program and UCLA's Parent Ambassador Program are designed for parents to develop sufficient college knowledge and understanding of access to higher education that they are not only better equipped to support their own children, but can share this information in their communities. At six sites, EAOP students receive regular exposure to UC students by interacting with undergraduates who help provide EAOP services at their schools (see Exhibit 9 in the section on site staffing for further details). Additionally, half of the campuses host campus visits for EAOP students as a standard activity, and another three host campus visits if there is outside funding available from the partner school or a campus student group.

- **Entrance exam preparation**: All 10 EAOP campuses offer basic information about college entrance exam preparation, such as reminders about registration deadlines and brief discussions about test-taking strategies. Three campuses offer full-length test preparation courses for a subset of EAOP students, and two more offer individual workshops or day-long strategy sessions on entrance exam preparation. For example, UC Irvine staff have worked alongside external test preparation providers to develop a one-day "SAT boot camp," administered by UC Irvine EAOP staff, in order to do what they can to "give students the confidence that it's a test that they can conquer" while avoiding the considerable expenses associated with contracting out to offer a full-length course.

12

**Exhibit 7:**
**Frequency of EAOP Activities**

| | |
|---|---|
| **Academic advising** | |
| Academic advising | EAOP staff offer 1:1 academic advising and group workshops on topics such as course planning and a-g requirements. |

| | |
|---|---|
| **Academic enrichment** | |
| Enrichment activities at UC campus | EAOP offers summer and/or weekend enrichment programs at the UC campus for a subset of EAOP students, usually those who are high academic achievers. / EAOP does not offer on-campus enrichment programs. |
| Enrichment activities at EAOP partner schools | EAOP offers enrichment activities at all partner schools. / EAOP offers enrichment activities at a subset of partner schools. / EAOP does not offer in-school enrichment activities. |

| | |
|---|---|
| **College knowledge** | |
| College knowledge activities and/or college counseling | EAOP staff offer 1:1 college counseling and/or group workshops on college prepration, the application process, and financial aid. |
| Parent programming | EAOP staff offer workshops for parents at partner schools as a standard component of the EAOP service model. / EAOP staff offer ad hoc parent workshops when partner schools request them. |
| Opportunities to interact with UC students | EAOP students interact regularly with undergraduates who help provide EAOP services. / EAOP students interact with undegraduates only through campus visits and/or on-campus enrichment programs. |
| College campus visits | EAOP offers one or more college campus visits (e.g., on-campus tours, information sessions, workshops) as a standard activity. / Campus visit availability depends on funding by partner schools or other student groups. / EAOP does not offer college campus visits. |

| | |
|---|---|
| **Test prep** | |
| Test preparation | EAOP offers sequenced test prep courses for a subset of EAOP students. / EAOP offers individual stand-alone test prep workshops. / EAOP staff remind students of test dates and may present some basic testing strategies, but do not provide focused test prep workshops. |

0   1   2   3   4   5   6   7   8   9   10

**Number of EAOP sites**

Note: This exhibit includes the most common EAOP activities but does not capture the full range of activities that all EAOP sites provide. For example, the exhibit does not include academic enrichment activities that occur both outside of the EAOP partner school and away from the UC campus (e.g., academic enrichment field trips). For a more thorough understanding of the full range of EAOP activities and services offered by a given site, see the site profiles in Appendix A.

**Students and staff at EAOP partner schools we visited consistently highlighted the importance of one-on-one advising; opportunities to interact with positive, college-knowledgeable adults; and opportunities to gain direct on-campus exposure to college life.**

In order to learn which EAOP services are considered most popular and valuable, we spoke to EAOP students at each site, as well as partner school and program staff, about their experiences with the program. Across all the interviews and focus groups, participants and staff most frequently mentioned two related aspects of EAOP: one-on-one advising and the opportunity to interact with one or more positive, college-knowledgeable EAOP-affiliated adults. These trends are perhaps not surprising given that they encompass the most universal service offerings of EAOP across the campuses, but staff and students cited them as among the most valuable aspects of the program even at sites where students had access to a variety of other services through EAOP.

Students and school staff alike noted with appreciation how thoroughly EAOP staff and program activities account for students' current level of knowledge, providing appropriate information about the process of how to get to college: what courses to take in school, factors to consider when selecting schools, techniques for taking entrance exams, and how to write personal statements. For example, a high school senior from one site explained how advice from his EAOP counselor informed his decision to increase the rigor of his schedule during his final year of high school: "I was going to take off, relax, set an easy schedule, and they said, no, colleges want to see that you're being challenged. And that made me go take Trig and AP English… Truthfully, I wasn't seeking the challenge, and they convinced me that it is good, what colleges want to see." Students from another site described how their EAOP counselor helped them gain clarity about the college application process. One stated that "I thought you needed above a 4.0 to get in, but they told me that was not true. Understanding the real criteria was helpful," while another added, "I knew what I wanted to do, but I didn't know how to get there. [My EAOP counselor] told me to take these [specific] classes and gather this [specific] information."

School staff were particularly effusive about the level of knowledge and expertise that EAOP staff provided regarding academic requirements and UC, as well as their knowledge of schools and ability to work with school staff and students. One school administrator described the EAOP staff member who works at his school as "the foremost authority on college acceptance" and added "I ask her for advice all the time." A school administrator working with EAOP at a different site described EAOP staff as "Pretty fantastic. Dynamic. I wish I could have permanent staff do what they do." At a third site, a school administrator expanded on these statements: "All I can say is 'wow' about [EAOP staff]. They are an integral part of our school… They are very supportive… I see how detailed they are with their work and how much attention they pay to different [information]. I am thankful that we have EAOP [at our school], and highly qualified and professional people running it."

Across the EAOP sites, students and school staff also expressed tremendous respect for EAOP staff due to their approachable and supportive demeanor in conveying information on academic planning and college preparation. Numerous students directly attributed increased self-confidence and more ambitious future goals to the presence of EAOP staff members, who students felt would support them in every way possible. Some students even credited EAOP for motivating them to achieve academic milestones that they had not previously imagined. For example, when asked about how EAOP helped shape her desire to attend and prepare for college, one student summarized, "They just kind of inspired me and made me want more from myself than I did before." Another student articulated,

> [EAOP] helps you open your mind. You kind of look and see what's out there. I don't know if it's just because when I started the program I was in eighth grade, but I really wasn't thinking about college, just high school, and then when [my EAOP advisor] showed me college it kind of motivated me—'you know, after high school there will be college, and you need to start thinking about that.' During high school, it helps you keep your grades up. Like, you know how some people say that you can mess up your freshman year and people won't care? Well, I tried my freshman year. I've tried all my years.

[My EAOP advisor] kept me motivated every single year. I think it's a little push that really helps you stay on track… Other people didn't look closely [at my grades], but she did, and it made me want to try more… She kind of encouraged me to take classes I didn't even think I'd be able to take. She said, you should try this, this will look good for when you go to college. She helped me pick classes that were harder than the ones I would have wanted to take, and she told me which classes don't give you credits for college.

Students and staff noted that information about academic planning and college preparation was often particularly powerful and motivating coming from young adult college students. At sites where undergraduates are involved in delivering EAOP services, students and staff alike thought that the undergraduates who were close in age to EAOP participants and frequently looked like them and came from similar backgrounds allowed for deeper connections and provided the students with obvious role models that they might be lacking outside of EAOP.

In addition to valuing interactions with college students who provided academic advising and college counseling at school sites, students, school staff, and EAOP staff also identified experiences that allowed EAOP participants to gain direct knowledge of college life as especially popular and valuable. These experiences included campus visits, on-campus classes, and other opportunities for high school students to directly interact with a college environment. Students reported that their participation in these types of activities helped them to visualize themselves as college students and helped them feel more comfortable with the idea of attending college. Even if these activities did not occur frequently, the potential to get better acquainted with college expectations and norms removed a portion of the mystique surrounding the culture and lifestyle of higher education. As one student explained, "I was lost when I first started. I thought I was just going to go to community college. I joined [EAOP], and I started to see all sorts of different colleges and college life. It opened my eyes more. Now I feel like I have more options." Addressing a question about essential aspects of their EAO program, an EAOP staff member cited these types of college exposure activities as a key complement to academic advising:

Definitely I think that the crucial aspect that works for us is the one-to-one [advising and counseling], and making sure there is consistent follow-up that is available for students…The second part is to have a summer residential enrichment program where students will come on campus, live on campus for up to three weeks and actually take classes on that campus and get credit for it…It not only exposes [students] to college, but exposes them to the lifestyle, classes, learning tools.

**In addition to one-on-one advising, interaction with college-knowledgeable adults, and college campus visits, students also reported finding value in a range of other supports.**

Given many EAOP students' otherwise limited access to information about how to prepare for, select, and apply to colleges, students and the staff members at their schools tended to appreciate any and all concrete information that was available to them and their families. This information was delivered in a range of formats, including meetings with parents, application and scholarship support, high school course enrollment guidance, and personal statement workshops. For example, in describing the value of parent workshops, one student noted, "Meetings for parents to inform them [about the differences] between the community colleges, UCs, and Cal States—that was very helpful because my parents think every school is the same. They don't know the difference between degrees or community colleges, UCs, and CSUs. My parents believed [EAOP personnel] more than us." Parent meetings and workshops, at sites that implement them, helped to engage parents as partners for their children in the college choice process, quelling some parents' fears about sending their children off to college.

## SITE CONTEXT

Because the way EAOP is structured to provide services has such direct implications for how students experience EAOP, we turn now to a discussion of how EAOP is situated and supported. Across the UC

campuses, EAOP is housed in a range of different departments with different organizational and oversight structures. Half of the EAO programs are part of broader Centers for Educational Partnerships associated with their campus, typically housed alongside other academic preparation programs, while three are stand-alone units within Student Affairs. The two remaining campuses are also stand-alone units, one within Admissions and the other part of an interdisciplinary academic center (Exhibit 8).

### Exhibit 8:
### Structure of EAOP by Site

| UC Campus | Campus Unit or Department Where EAOP Is Housed |
|---|---|
| Berkeley | One of several programs within the Center for Educational Partnerships. |
| Davis | Stand-alone program housed in Undergraduate Admissions. |
| Irvine | One of several programs within the Center for Educational Partnerships. |
| Los Angeles | Stand-alone program housed in Student Affairs. |
| Merced | One of several programs within the Center for Educational Partnerships. |
| Riverside | Stand-alone program housed in Student Affairs. |
| San Diego | Stand-alone program housed in the Center for Research on Educational Equity, Assessment, & Teaching Excellence, an interdisciplinary academic department. |
| San Francisco | One of several programs within the Center for Educational Partnerships. |
| Santa Barbara | Stand-alone program housed in Student Affairs. |
| Santa Cruz | One of several programs within the Center for Educational Partnerships. |

**Program staff asserted that where EAOP is housed administratively within the university can influence the balance between support and autonomy for EAOP.**

Program staff explained that when EAOP is housed alongside other academic preparation programs, the organizational structure fosters collaboration and sharing of resources and support staff between EAOP and other such programs to best serve students—a leveraging of resources that has been helpful given recent budget challenges. On the other hand, when EAOP is housed elsewhere, staff explained that it can be easier for EAOP to operate autonomously, with a singular focus on EAOP-specific goals. Housing EAOP on its own can help avoid what one interviewee described as the "mission creep" that can occur when EAOP staff must also consider other academic preparation programs' goals and objectives when delivering services to students. As another interviewee asked, "How do you collaborate and blend with different entities on campus who are also short on cash without giving up your identity?"

Statements by program staff across the sites suggest that the most beneficial home administrative unit for EAOP may vary quite widely by campus, as individual campuses have a variety of institutional histories, political contexts, and funding streams for EAOP staff to navigate. These staff asserted that an organizational structure that works for EAOP at one campus may not work for another, or may not work for EAOP at that same campus over time. Indeed, at some campuses, EAOP has transitioned from one administrative unit to another in recent years, reflecting ongoing shifts in campus priorities and organizational structures.

**Another key issue EAOP staff continue to navigate is the extent to which EAOP feels aligned with broader campus-wide academic preparation goals and activities.**

While each campus has some goals and efforts related to outreach, EAOP staff perceptions across the campuses suggest variation in the extent to which college access and preparation programs have been a

priority. On some campuses, staff described a perception that expanding college access for K-12 students is central to the university's mission. At other campuses, staff perceived that supporting college access and academic preparation programs was not a top priority for senior administrators when juxtaposed against the university's other priorities. As one site staff member described, "I do believe the system values what we do…but on [our] campus, outreach has traditionally not been perceived as at the center of the institution. Service usually gets the short end of the stick… relative to teaching and research. So the politics of dealing with that, I think, are time-consuming, energy-absorbing."

To raise awareness and support for EAOP work on the campuses, staff within EAOP and the units that house EAOP at a number of campuses are beginning to be more explicit about on-campus outreach and communication. Staff at several sites spoke in particular about needing to communicate to their campus about how successful they have been at building long-standing partnerships working with schools. As one such staff member explained, "We have a story that hadn't been told that was worth being told." Site staff explained that such communication may lead to mutually beneficial relationships with other campus departments, in addition to general awareness. For example, UC San Diego has explicitly tied EAOP's success in partnering with local schools to the research mission of the university, recently reorganizing the program's oversight structure such that it is now housed in an interdisciplinary academic center with faculty who can secure funding for expanded EAOP activities and services that they might study.

Although some sites were concerned that too close an alignment with Undergraduate Admissions could contribute to a misperception that they are a UC recruitment program rather than an academic preparation program, other sites have found that relationships with campus admissions offices can help connect EAOP to a core operation of the university, as long as they can preserve the boundary between outreach and recruitment. For example, at some campuses, EAOP staff read applications for Undergraduate Admissions or participate in training sessions with admissions officers, providing a way for EAOP staff to stay up-to-date on the intricacies of the admissions process and allowing them to communicate these details to EAOP students with particular authority. An EAOP staff member at one such site explained that this training "… helps us help our students understand exactly what happens… and how the readers are being trained. We can give students very accurate, specific advice about admissions. And sometimes other kids have independent consultants, where only people who have the money to pay can benefit, and that seems inequitable. I feel our students deserve that kind of advice." As discussed above, students and staff at the partner schools we visited greatly valued this depth of knowledge in EAOP staff.
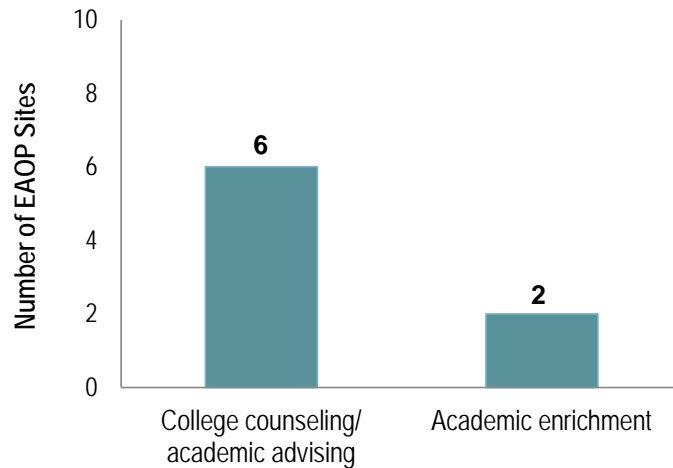
## SITE STAFFING

Each site has staff members who work directly with students at partner schools to provide EAOP services. These staff work with as few as one school at a time to as many as eight, and they spend anywhere between an average of half a day to 5 full days per week at that school site. In addition to these staff and the site director who oversees EAOP at each site, a few sites have other staff members who support EAOP in specific roles other than working at schools, such as data analysts, coordinators of enrichment programs, EAOP assistant directors, or program coordinators. These positions are especially common in programs that have a site director who oversees multiple programs in addition to EAOP. Some of these staff positions are EAOP-specific, while others, such as the data analysts, work to support the needs of a broader department that includes EAOP. In addition to professional staff, some sites have leveraged externally funded positions to enable EAOP to serve as many schools as possible. For example, UCLA and UC San Diego use some AmeriCorps/VISTA volunteers to help provide and coordinate services.

Additionally, the majority of the sites employ students—typically, but not always, undergraduates at the UC campus where that EAO program is housed—to help serve partner schools. At 6 of the 10 sites, undergraduate students provide one-on-one or small-group academic and college advising or facilitate college knowledge workshops, alone or with EAOP professional staff. At two of these sites, undergraduate students also provide tutoring or other academic support and serve as teaching assistants

for high school courses that have a high concentration of EAOP students (Exhibit 9); these are typically courses with high failure rates that students must complete in 9th or 10th grade, such as Algebra I, in order to take subsequent higher-level college preparatory coursework required for admission to many 4-year postsecondary institutions.

**Exhibit 9:**
**Sites Using Undergraduates to Provide EAOP Services**



**Sites that use undergraduates to help deliver EAOP services identified powerful benefits to this model, but identified logistical and training considerations that need to be considered for this staffing model to be successful.**

As introduced in the "EAOP Services and Their Reported Value" section above, students and school staff spoke about the power of having undergraduates who are close in age and experience to EAOP students serving as role models and advisors. Multiple site staff members explicitly cited this quality as a key factor in their decisions to employ undergraduates. As one site staff member explained, "Undergraduates are really impactful because not long ago, they were in the shoes of the students that we're talking to… They are able to relate to the students that we serve… Many are coming from similar backgrounds." Indeed, interviewees of all types consistently described EAOP undergraduate staff as highly invested in the present and future success of EAOP students, and many of the undergraduate advisors we spoke with participated in EAOP in high school and had personally experienced the program's capacity to help students access higher education

In addition, these undergraduate EAOP staff positions provide leadership development and training for undergraduates. This emphasis on leadership development roles for undergraduates is particularly strong at UC Davis and UC San Diego, where college students have opportunities for increasing levels of responsibility and autonomy as they work with EAOP for multiple years. Undergraduates at Davis progressively develop independence in delivering workshops and advising EAOP students on a range of topics, while some experienced undergraduates at San Diego have the opportunity to help train and supervise their peers in delivering EAOP tutoring and advising. Furthermore, employing undergraduates has the benefit of being less expensive on an hourly basis than professional staff, which has motivated a number of campuses to maintain or increase their reliance on undergraduate staff in light of budget cuts over the last decade.

EAOP sites that employ undergraduate students do need to address a number of specific considerations. Most UC campuses operate on a quarter system, which is not fully aligned with the traditional school

18

year, so it may be late October before undergraduates can be recruited, trained, and placed at schools. Because they are full-time students, undergraduate staff members are not always able to be as available or reliable as their full-time counterparts because their schoolwork must come before EAOP. Furthermore, because of their lack of work experience, undergraduate staff may not possess the knowledge, skills, or professionalism of more experienced individuals who have intensive training. To address potential shortcomings of student employees, regional coordinators (or other more senior staff) train student employees and continue to oversee their work as they provide services to students during the school year. Indeed, school administrators and counselors who work with EAOP generally found undergraduate employees to be extremely well trained and expressed appreciation for the quality of support and oversight that these students receive from EAOP professional staff.

## KEY OPERATIONAL DECISIONS FOR SITES

As discussed at the beginning of this chapter, although the EAOP Program Standards broadly define the services campus EAO programs offer, sites have autonomy in determining how to focus their services, both in terms of specific student recruitment strategies and program offerings. In addition to the local campus context, they are guided in these decisions by the goals outlined by the Student Academic Preparation and Educational Partnerships (SAPEP) Accountability Framework. This framework was developed and adopted by UC in 2005 in response to the increased scrutiny that accompanied the influx of funds for academic preparation programs following the ban on affirmative action in admissions in the 1990s (Bookman, 2005; University of California, 2005). Site leaders must carefully consider and address a series of key questions to determine which types of students and program offerings will help to reach these benchmarks, and across the sites, different local contexts and priorities logically lead site directors to structure their programs differently. In this section, we aim to illuminate the range of issues that site directors must consider and the approaches different campuses have selected.

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### SAPEP Accountability Framework and Reporting

Each of UC's Student Academic Preparation and Educational Partnerships (SAPEP) programs has benchmarks aligned with their specific program goals, as required by the SAPEP Accountability Framework. The goal of EAOP is to broaden the pool of educationally disadvantaged students enrolling in and succeeding in college preparatory "a-g" courses and gaining admission to college. The benchmarks aligned to this goal are as follows:

- 70 percent of 12th-graders will complete a-g requirements

- 80 percent of students will complete algebra by 10th grade

- 70 percent of 12th-graders completing a-g will also complete SAT/ACT

- 70 percent of 12th-graders will enroll in postsecondary institutions

The framework also defines the target student population for SAPEP programs: low family income, first-generation college, and attendance at a low-performing school. Each campus EAO program submits annual performance reports to UCOP, including data for all student participants that is aggregated, and it is used to determine if the program is serving its target population and meeting these benchmarks.

Source: University of California, 2011.

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**Sites grapple with how to distribute staff members' attention between younger students and those approaching college age.**

Some campuses' EAO programs focus much of their attention on high school juniors and seniors; others work with students across all high school grade levels; and still others start working with students while they are in middle school or elementary school. We noted a tension across sites between trying to serve students as early as possible in order to get them on track and serving more upper-grade students or providing deeper services to those students as they approach college age.

Specifically, at many sites, EAOP staff believe that the earlier they are able to reach students, the better chances they have of helping them get to college and succeed there—a guiding principle of the *early* component of the Early Academic Outreach Program.[7] As students progress through the K–12 system, they have the potential to drop further and further behind if they do not receive guidance about which classes to take and which classes will best prepare them for college and career. If students begin their high school careers lagging behind a-g expectations, it becomes more and more difficult to catch up as they progress through high school. An EAOP staff member from one site explained, "At any given high school, when you look at their freshman class, the a-g potential is almost fixed because those students who come in on track in 9th grade, you are going to get attrition or they are going to stay on track. So, those numbers are naturally going to start shrinking…Really the way to grow a-g eligibility is by going back into the middle schools... The [middle school] site coordinator was ideal for that."

At the same time, older students are often the ones who see a more immediate need for EAOP services as they approach graduation and begin to think with more urgency about life after high school. These older students often self-select into the program or more actively engage with the services and activities offered, and some site staff explained a motivation to focus on such students to address their more immediate needs. Furthermore, with this pressure to focus on upper-grade students, compounded by budget cuts that force sites to reconsider the number of schools they serve, middle school and elementary school programs have often been among the first targets of EAOP budget cuts. Indeed, over the 5 academic years from 2007–08 to 2011–12, the majority of EAOP sites reduced or eliminated services for students not yet in high school. During this time span, the proportion of elementary and middle schools among all EAOP partner schools decreased from 25 percent to 13 percent, and then rose back up to 19 percent as more recent cuts were more concentrated among high schools.[8]

**Sites determine whether to exclusively or primarily serve a cohort of EAOP students or whether to work more broadly to build a school-wide college-going culture.**

EAOP partnerships can take different forms, and one dimension of this variation is the whole-school model versus the cohort model. With the exception of certain schools where EAOP uses an "information-only," fully workshop-based approach (see page 26 for further details), all EAOP partnership schools have a cohort of EAOP students. EAOP recruits and enrolls these cohort students, who remain in the program until they graduate from high school, and these students receive relatively more intensive services, such as targeted and sequenced advising. In some schools, EAOP staff focus their attention primarily or exclusively on students in this EAOP cohort. In others, EAOP staff help bolster the college-going culture of the school more generally—through efforts such as staffing a college and career center, training school guidance staff and teachers in college admissions policies, or providing drop-in academic advising services for all students—in addition to actively seeking out the subset of students in the EAOP cohort.

**Sites navigate a tension between providing broader EAOP services to more students and more intensive EAOP services to a smaller subset of students.**

EAOP sites face a tension in balancing their desire to serve as many students as possible with efforts to ensure that services are sufficiently intensive to improve outcomes for the students who are served. Most programs have opted to attempt to serve more students with a light touch, trying to provide the information and guidance that students from higher socioeconomic backgrounds get at home, rather than

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[7] Indeed, according to Santelices (2001), EAOP was founded in 1976 in response to a UC study, initiated in 1974, that recommended that the university reach out to underserved students early in their school careers, preferably while they are in middle school.

[8] Trends for each campus are in the campus profiles in Appendix A. Further details about site criteria for entering and maintaining school partnerships can be found on page 25.

trying to fundamentally alter the educational environment in a smaller number of schools in terms of college preparation curriculum or pedagogy.

The most striking exception to this is UCSF's EAO program, which is working with San Francisco Unified School district administrators seeking to build a college-going culture in a traditionally low-performing and underserved sector of the city, supported by UCSF's intellectual resources and community connections. In 2012–13, EAOP partnered with only one high school, focusing its attention on that school's Health Academy, but provided substantial services to the students in that academy beyond standard academic advising and college counseling. For example, EAOP staff at UCSF brought speakers to students' classes; organized field trips to give students opportunities to observe surgeries and speak with medical professionals about potential careers; connected students with prestigious internship opportunities; and provided considerable parent education, thereby providing rich opportunities for students and their families that were above and beyond what school staff had the time, financial resources, or connections to set up.

**Sites must decide how much to focus on UC access versus college access more broadly when helping students make decisions about postsecondary plans.**

EAOP sites vary in their interpretation of EAOP as a program to encourage UC enrollment specifically versus a program to encourage college-going more generally. On one hand, staff described EAOP as the only UC-centric college outreach program in California, and explained that UC preparation and access is the traditional aim of the program and the focus of the SAPEP targets. On the other hand, staff expressed a desire to encourage students to find a college that is the right fit for them, even if that college is not a UC, particularly given the increasing competitiveness of the UC system. EAOP staff also acknowledged that financial realities for students' families means that many students who might be UC-eligible still may choose to enroll in a community college first, and some staff described expanded messaging from UCOP on alignment with the community college transfer programs. Several sites reconciled the tension between focusing on UC access versus broader college access by stating that they aim to *prepare* students for UC admission because the UC standards are the most rigorous in the state's public education system, and they aim to *expose* students to the possibility of a UC education, but that they *do not explicitly encourage* students to attend their campus or another UC campus if those students feel that a another college is a better fit. As one EAOP staff member stated, "The approach that we take is that UC eligibility is a high bar, so if our kids are eligible for UC admission, they will be eligible elsewhere too. But we are not just focusing on the UCs."

## STUDENT RECRUITMENT: AN OVERVIEW

EAOP targets students first through the types of schools it partners with. The EAOP Program Standards provide broad guidelines designed to situate the program in schools that serve a high proportion of underrepresented, low-income, first-generation college students and also outline student selection criteria within these schools. These targeted student groups are underrepresented in higher education generally (Aud, Fox, & KewalRamani, 2010) and at UC specifically (University of California, 2010) relative to their proportions in the underlying population.[9] For example, in 2007, underrepresented minority students made up 45 percent of graduates from public California high schools but only 23 percent of first-time freshman enrollees at UC (University of California, 2010).[10] This statistic is indicative of lower levels of academic preparation for these same student groups in the state's K–12 system, as reflected in persistent achievement gaps on indicators such as CST scores and completion of a-g requirements (Bland et al.,

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[9] That said, UC has consistently enrolled higher proportions of low-income students than other similar 4-year institutions.
[10] UC classifies American Indian, African American, and Chicano or Latino students as underrepresented minorities.

2011). In order to reach students most in need of EAOP support, then, the program standards provide guidelines for ensuring the program reaches students in these underrepresented groups.

Informed by these guidelines, each campus nonetheless structures student recruitment differently. The most common approach to student recruitment is to target students who are academically on track for UC or relatively close, and at least somewhat interested in college, but who do not necessarily have the knowledge of what they need to do to become a successful applicant. For example, all 10th graders at UC Irvine partner schools who completed algebra by 10th grade and have a GPA of 3.0 or above receive a letter in 10th grade inviting them to join EAOP. Most campuses have general recruiting guidelines (e.g., students must have a GPA of 2.5 or above), but the specific recruitment practices vary by school. This variation may be driven by partner school needs and requests, particularly when they share the costs of the program. For example, at UC Santa Barbara—which relies heavily on a cost-sharing model to deliver intensive services—EAOP works with just one academy at one partner school, and recruits all ninth graders at another school. Most campuses do not turn away interested students, though they may not recruit school-wide.

We did hear some caution from program directors about recruiting students that are too far off-track for completing a-g given the need to meet the SAPEP targets for algebra completion by 10th grade and a-g completion by 12th grade. However, a few EAOP sites attempt to serve all students at their partner schools who wish to avail themselves of EAOP's services, regardless of their GPA or on-track status. For example, EAOP at UC Merced targets students with high test scores but lower GPAs and/or other indicators that suggest lack of motivation, suggesting that they have the academic potential for UC eligibility but need a push in terms of motivation and study skills. Generally, though, it seems that EAOP targets promising students who come from backgrounds with low-college going rates, most of whom enter the program with some desire to attend college.

## RESPONSES TO BUDGET CUTS AND IMPLICATIONS FOR EAOP PARTICIPATION

Despite the popularity of college experiences such as campus visits, and the reported value of targeted parent programs and sequenced college entrance exam workshops, many sites have cut back these programs over the last decade. System-wide, state and university funds for EAOP reached over $16 million by 2000–01, but dropped more than 50 percent by 2003–04 as the state faced large budget shortfalls. Since the mid-2000s, state funds for EAOP have remained flat or decreased more gradually, with cuts of just under 6 percent in 2009–10 and an additional 10 percent in 2011–12. These numbers represent just the overall state and university funds devoted to EAOP system-wide, and not the cuts experienced or avoided by each UC campus—some individual campuses have made further cuts to supplemental funds that previously supported EAOP, while other UC campuses have found ways to cushion or delay these local cuts and certain programs have secured external funds.

Give these budget cuts, program staff have needed to make difficult choices about which services to cut and which services to maintain. With the reductions in state funds available for EAOP and for UC more generally, such decisions have been a high priority of EAOP staff members.

**In response to budget cuts, program staff across the EAOP sites have wrestled with which services to continue to provide.**

In response to budget cuts, all 10 of the EAOP campuses have made at least some modifications to the services they previously provided, based on assessments of which components of their service model were the most important as well as the most cost-effective. With these criteria in mind, the majority of sites elected to prioritize direct interaction between EAOP staff and participating students in the form of one-on-one and group academic advising and college counseling/college knowledge activities. Many sites have thus shifted their focus away from academic enrichment, entrance exam preparation, and student college trips, which site staff often described as valuable but expensive, especially on a cost-per-student

basis given that many enrichment and test preparation programs serve only a subset of EAOP students. To this end, some sites have dropped SAT or ACT preparation courses, on-campus or in-school enrichment opportunities, and/or college visits entirely, and these services have been largely scaled back at the sites where they remain.

However, other sites have elected to maintain or reintroduce these services to the greatest possible extent, informed by data that reinforce their value. For example, as a staff member at UC Berkeley explained, "We did a survey of Berkeley [undergraduates] about what was the most important thing in their outreach programs. The students said that coming to the Berkeley campus was a very important piece. That helped drive us to keep the summer programs." (Berkeley's on-campus programming is relatively extensive, with opportunities for a subset of EAOP students to participate in enrichment, college knowledge, and test preparation activities.) More recently, and as introduced earlier in the section on EAOP activities, the EAO program at UC Irvine responded to a review of admissions office data that showed that their EAOP participants who applied to UC had low test scores relative to other applicants. Based on this data, the program is working with a test preparation company to develop a day-long workshop and aligned materials for EAOP students on entrance exam skills and strategies. The campus had previously ceased to offer such workshops because of budget constraints.

**Motivated by budget decisions, some sites have started to prioritize data collection and analysis, and have dedicated staff resources and building staff capacity in this area.**

Beyond the data that sites submit for SAPEP reporting (see sidebar text box on page 19), we learned about two broad ways that sites collect and use data: to inform program operations, including the key decisions described above, and to secure outside funds. Despite budget reductions, a number of sites have found ways to increase capacity to collect and analyze data. One approach is through staff recruitment and development; a number of EAOP staff members come from a research background and/or have done graduate research on EAOP. Another is to draw upon the resources of a larger UC department or center that is interested in collecting/using data and provides funding or infrastructure to support the use of data. For example, the Center for Educational Partnerships at UC Merced has made the decision to serve fewer schools and students in the short term in order to fund data analyst positions; the long-term aim is ultimately to serve more schools by using the data to demonstrate program effectiveness and obtain outside funding. While UC Merced is still building capacity in this area, program staff feel that they are better equipped to respond to student needs and to collect the longitudinal outcomes data that will position them well to receive external grants.

Common uses of data to inform program operations include tracking frequency and content of student contacts to help EAOP staff remember what they discussed and to prevent students from falling through the cracks. All sites access data on student course completion, grades, etc. for course planning and academic advising. Finally, numerous sites collect and analyze data for internal planning and efforts to inform future site activities. Some sites survey students while they are still in the program—for example, UCLA and UC Riverside conduct senior surveys to learn more about how their students have experienced EAOP and what components they have found especially valuable—and at least one site (UC Berkeley) has surveyed college freshmen at their campus about what they valued in the college access and preparation programs they participated in while in high school

**Budget cuts have also forced program staff to reduce the number of schools and students they serve.**

As EAOP funds increased in the late 1990s, many sites were rapidly expanding their portfolios of partner schools and, by extension, the student populations they served. However, in light of the dramatic drop in funding during the 2003–04 academic year and ongoing budget challenges since that time, sites have reduced the number of schools and students they serve. Due to the expense associated with staff salaries, most sites found it necessary to cut some of the staff positions that worked directly with students in

EAOP partner schools. At the same time, site leaders have worked to maintain sufficient services for each remaining EAOP student to foster the desired outcomes of postsecondary awareness and preparation.

As a result, while many sites have increased the number of schools each remaining staff member serves, these staff cannot fully cover the full set of schools and number of students that EAOP served before these budget cuts. These circumstances have led most sites to eliminate at least some of their partner schools, and have led some sites to serve fewer students per remaining partner school. Looking at the 5 years from 2007–08 to 2011–12, the number of partner schools decreased by over 40 percent, and the number of students served decreased by nearly 30 percent (Exhibit 10).

**Exhibit 10:**
**Total Number of EAOP Partner Schools and Total Student Enrollment,**
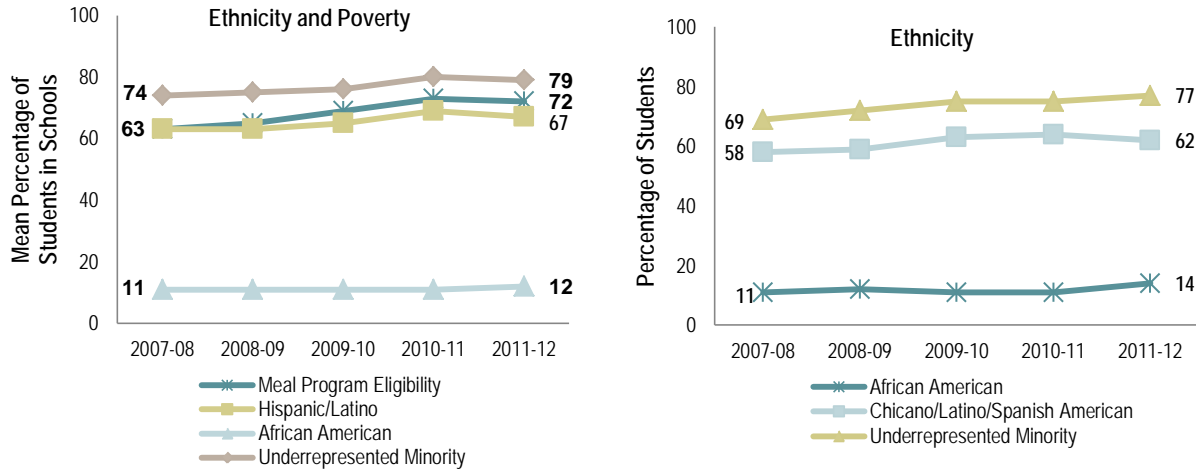**2007–08 to 2011–12**
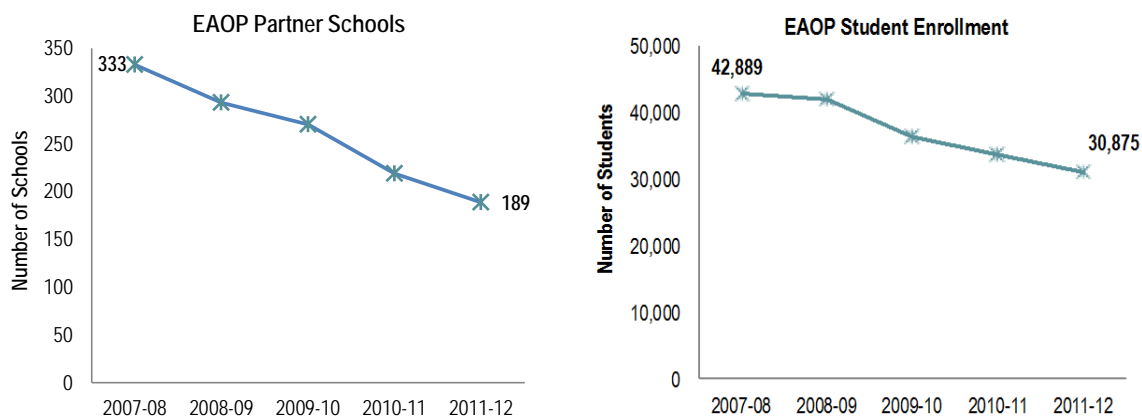


Source: Data were provided by the research unit of the UCOP Education Partnerships division.

Exhibit 11 shows the cumulative effect of these decisions on EAOP school and student demographic composition across the 10 campuses for the period 2007–08 through 2011–12. In 2007–08, EAOP partner schools, on average, served students that were 74 percent underrepresented minority students and had 63 percent of students eligible for free or reduced-price meals. By 2011–12, the averages had increased to 79 percent and 72 percent, reflecting the focus on retaining partner schools that serve high concentrations of low income and underrepresented minority students.[11] Trends in student participation mirror these school trends, with the percentage of underrepresented minority participants increasing from 69 to 77 percent from 2007–08 to 2011–12, driven by an increase in both the percentage of EAOP students of Hispanic/Latino origin and of African American origin.

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[11] Graphs that show these trends for EAOP at each individual campus are provided in the campus profiles in Appendix A.

**Exhibit 11:**
**Characteristics of EAOP Partner Schools and Students, 2007–08 to 2011–12**



Source: Data were provided by the research unit of the UCOP Education Partnerships division.

**Site leaders have used a variety of criteria to determine where to maintain existing partnerships and which new schools to add when resources allow, taking into account school capacity as well as demographic and student performance data.**

In the context of the past decade of budget reductions, sites have not been adding many new schools over the last several years, but have added some schools and have frequently needed to make decisions about where to maintain existing partnerships. As demonstrated in Exhibit 11, maintaining partnerships in schools that serve high concentrations of underrepresented, first-generation college-bound students has been a high priority across the sites. Sites also aim to work in schools with limited college-preparatory curriculum and college-going rates, where EAOP can potentially add value. These efforts reflect the goals for selecting new partner schools laid out in the EAOP Program Standards (see sidebar text box).

In addition to focusing on these data, site leaders told us they carefully consider a range of more qualitative criteria that contribute to the development and maintenance of successful school partnerships.

- **Basic access to students, student records, and meeting space:** EAOP staff across the sites explained that schools need a basic level of organizational and physical infrastructure to be able to effectively partner with EAOP. At a minimum, EAOP staff need consistent access to students and their electronic records, as well as space to meet with students. All the campus EAO programs codify this access to some extent through formal written agreements that detail how the partnerships will work. These written documents are crucial because they can serve to clarify roles and expectations; unclear expectations for either side (partner school or EAOP staff) can result in confusion,

> **Criteria for Selecting EAOP Partnership Schools**
>
> To support EAOP sites in selecting new partner schools, EAOP standards lay out several guiding principles to help ensure that these schools are situated in a context where EAOP services can add value. New partner schools should have:
>
> - a limited college preparatory curriculum and be located in a community with a low college-going rate
>
> - average SAT/ACT scores that are below the 50th percentile for California high schools
>
> - low to mid-API scores
>
> - no more than two other academic preparation programs already in place
>
> Source: University of California, 2007.

frustration, and even resentment.

- **School staff cooperation and stability:** Just as key as these formal agreements, school personnel involved with EAOP can make or break a partnership. EAOP needs the school administration or counseling department to facilitate the program's operations at the school site and to communicate EAOP's value to teachers so they are willing to excuse EAOP students from class for workshops and counseling sessions. As one EAOP staff member explained, "School dynamics and school administrators… impact our ability to provide a good, smooth flow of service. That administration is key. If a [school] takes the program for granted, doesn't get why we're there, we get pushback. When there is a good supportive network, the teachers understand and encourage kids to [participate in EAOP activities]." To gain school staff members' trust, EAOP must have a consistent presence at the partner school. But fostering and maintaining these relationships is not always under the control of the program; high turnover rates of key administrator or counseling staff at a partner school can create challenges for EAOP. If a program such as EAOP lacks a consistent liaison and set of advocates at the school site, both EAOP staff members' experiences and external research suggest that there is little hope of building the consistent level of shared understandings and trust necessary to serve current students in the short term or to function as joint partners to create a college-going culture at the partner school site in the long term (Bryk and Schneider, 2002).

- **Alignment of school goals and EAOP goals:** In general, EAOP partnerships with schools are not as strong when the school's goals are not aligned with the program's goals. For example, if schools do not have more ambitious goals than getting the students to graduate, EAOP staff are unlikely to receive a high level of support from school administrators or teachers. However, schools that believe in the importance of a college-going culture but do not necessarily have the vision, time, or manpower to create such a culture can be successful partners with EAOP, as long as they have the basic organizational structures in place to provide the access to students and data that EAOP staff need. In such schools, EAOP has an important role to play in providing access to services and activities, such as personalized college counseling, that might not otherwise be available.

Successful EAOP school partnerships can thus look very different, distributed across a continuum from more passive to more active. EAOP frequently forms active partnerships with schools that have made the decision to prioritize the formation or augmentation of a college-going culture and wish to work with EAOP in specific ways towards that vision. A proactive, engaged school administration that works alongside EAOP to strategize and tailor the program to that school's students might seem most likely to set up EAOP for success in a school, but as long as certain key supports are in place, a passive partnership may prove more effective in a school otherwise overwhelmed by other concerns that inhibit its ability to focus on specific college preparation activities. These schools tend to derive benefit from EAOP's presence without desiring much input in terms of how EAOP functions on their campuses.

Given this variation in school capacity, many EAOP staff and school staff described the ideal partnership simply as one that responds to the needs of the particular school such that school staff and EAOP staff can agree on and work towards mutually beneficial goals. EAOP school site staff and management do not widely prefer one type of partnership over another, and school staff define success in terms of meeting the aforementioned needs of their school. Some school personnel define their partnership with EAOP as successful because they do not have to contribute much to EAOP, and the students are still better served than they would be otherwise. Other schools prefer to have a more active role in defining the EAOP agenda and strategies for recruiting and working with students, and gauge the success of the partnership more in terms of how well EAOP staff respond to their input. Any working relationship that allows the greatest number of students to be supported to the fullest extent may be considered ideal, whether active or passive. One of the strengths of EAOP is that program staff have the flexibility to define partnerships with schools that are responsive to school needs and capacity.

Some site leaders also explained that they look at a given school's capacity to be successful with the EAOP target population in the absence of EAOP, and a few sites take into account a school's willingness to help financially support the partnership. Several campuses also consider a school's geographic proximity to the UC campus, aiming to reduce travel time by EAOP staff to more remote locations.

Some campuses, such as UCLA, have chosen to reduce (rather than eliminate) services at some partner schools. These schools became limited-service schools, where EAOP staff provide workshops at the schools on request, and EAOP students can ask questions and receive advice in casual conversations before and after these workshops, but EAOP does not have a consistent staff presence at the site or offer formalized one-on-one academic advising. The program did not want to pull out of these schools entirely because it can be challenging to reestablish a partnership with a school and because the site was interested in continuing to work with these schools should funding levels increase. The school numbers in Exhibit 10 include all EAOP schools, including these limited-service or "information-only" schools.

## STRATEGIES FOR SUSTAINABILITY

Faced with budget cuts, campuses have implemented a wide array of strategies to maintain the breadth, intensity, and/or number of students (within as well as outside of EAOP cohorts) who are served by EAO program offerings. Sites' strategies for sustainability include efforts to maximize available resources, share costs with partner schools, and secure additional funds from within or outside the campus.

- **Undergraduate staff:** As mentioned earlier, the majority of sites use undergraduate employees as part of their delivery model. Employing undergraduates allows sites to provide more services, given their budget constraints, because of the relatively lower wages paid to undergraduates, as well as the fact that many undergraduate staff are compensated through course credits or work study.

- **Online services:** Providing some EAOP services online can increase staff-member efficiency and student access to EAOP services by allowing for simultaneous, real-time access to services by students from multiple schools while eliminating staff member travel time. UC San Diego's efforts to build capacity in this area have been especially noteworthy, as the site has implemented a variety of online tutoring and course-taking opportunities.

- **Internal EAOP staff training and curriculum development:** Certain sites have focused on ensuring that EAOP staff are well trained internally to provide EAOP services, rather than having to rely on costly external training. For example, at UC Davis, each full-time EAOP staff member brings a unique area of expertise to the team, allowing the team to provide professional development internally—as a staff member explained, "We know where each other's strengths are, and there are opportunities for people who are not as strong in certain areas to strengthen their skills." EAOP staff members at Davis are also required to read applications on a part-time basis, building staff capacity and credibility to support high school students in the college application process. Undergraduate advisors at UC Irvine enroll in an education policy course in the winter quarter that is taught by the associate director of the Center for Educational Partnerships and serves as an additional training and reflective learning experience for the undergraduate staff.

- **Building school and community capacity to support EAOP goals:** Those EAOP campuses that are focusing beyond their individual cohort of students to build a school-wide college-going culture generally take steps to build internal capacity among the partnership school staff and community. Common strategies include school counselor and parent workshops on topics such as a-g requirements and college expectations. For example, the aforementioned "parent ambassador" program at UCLA trains 40 parents to become college preparation advisors in the community.

27

- **Fee for service:** Several sites have adopted a "fee-for-service" model to some degree, with UC Santa Barbara being the most developed example. These campuses require financial and/or in-kind support from a given school in order to work with that school. Still other EAO programs do not formally require financial support from a partner school, but are able to provide additional activities (e.g., field trips) at schools that are able to make some financial contributions.

- **Securing external funding:** Across the sites, EAOP staff consistently expressed a belief that external sources of funding are essential to preserving current program offerings. While most sites mentioned have plans for turning to corporations, foundations, or other entities to apply for external funding, and several described working with campus development officers or other university staff to write grant applications, site staff generally stated that these efforts have not yet been sufficient. Sites' strategies to position themselves to be competitive to apply for outside funding include efforts to collect and analyze data to demonstrate program effectiveness (a key priority at UC Merced) and efforts to lay the foundations for an intensive and innovative partnership supported by the local district (a particular focus at UCSF). The success of these measures in terms of securing external funding remain to be seen, and this is an area in which many sites expressed the desire for support.

Over the past 10 years, EAOP has navigated significant reductions in the state funds available to support the program and the University of California in general. Sites have responded by identifying and maintaining the program elements and services that they perceive as central to meeting the program's goal of increasing college preparation and access for underserved students. This report documents some of EAOP's challenging decisions about how to reduce partner schools or services while still working towards their broad goals of college access and preparation; the factors campuses consider in making these decisions; and the ways in which sites have sought to leverage funds and maintain services.

Across the UC system, EAOP sites have maintained one-on-one academic advising as a core function of EAOP, and this investment appears to be paying off. Students and school staff report how much they value the presence of a college-knowledgeable adult that EAOP provides at most partner schools, and our analysis of student data reveals especially promising evidence regarding the association between EAOP participation and key outcomes of interest, specifically college-going rates and UC application, admission and enrollment. Although we cannot definitively attribute this positive association to EAOP participation, this evidence suggests that EAOP is successful at raising students' college aspirations, helping students navigate the college application process, achieve UC eligibility, and follow through by enrolling at a postsecondary institution, whether at UC or at another institution.

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The body of this report describes EAOP services and operations on a system-wide level and examines variation across sites. To complement and contextualize this systemwide perspective, this appendix contains individual profiles describing each campus EAO program. Where the text in the implementation section of the report presents a range of approaches to providing EAOP services, structuring programs, and selecting participants, these profiles illustrate the interplay of these approaches at each site. Specifically, we describe:

- The services that each site offers.

- How each site is structured and staffed.

- The services students and school staff described as favorite and/or most valuable.

- Aspects of EAOP operations or programming that are unique to that site.

- How that site has adapted to budget cuts.

- How partner school and student participation trends have evolved in recent years.

A note about the school and student participant trends:

The Education Partnerships Office at UCOP provided individual partner school and aggregate student participant data for each campus. This data is derived from the Annual Performance Reports that campuses submit to UCOP (see text box, page 19). Because each campus has its own data and reporting system, some campuses submit individual school data for full-service partner schools only, and some include limited-service schools. In addition, the aggregate student participant numbers do not necessary correspond to students solely at these partner schools.

## HOW EAOP WORKS AT UC BERKELEY

**Services offered:** In 2011–12, UC Berkeley's EAO program provided services to 2,385 students across 17 partner high schools. At these schools, EAOP cohort students (spanning grades 9 through 12) receive one-on-one academic and college counseling, including transcript evaluation. Non-EAOP students can also receive these services if they ask for them and if EAOP staff members are available. EAOP staff also offer regular student workshops and parent workshops at all partner schools throughout the year on a range of topics related to college knowledge and preparation. Workshops are often open to the whole school population, and parent workshops may be given in English and Spanish.

EAOP at UC Berkeley also offers numerous test preparation and enrichment opportunities on campus for a subset of EAOP students. These services include a 9-week SAT prep course as well as two academic enrichment programs: a precollege academy where students take courses with other EAOP students and participate in activities such as college knowledge seminars and field trips, and a summer session where some of the highest-achieving EAOP students take UC Berkeley courses alongside Berkeley students and receive additional academic support from EAOP-specific teaching assistants.

**Structure and staffing:** EAOP at UC Berkeley is housed in the campus's Center for Educational Partnerships. The EAOP site director splits time between overseeing EAOP at a high level and supervising three other Center for Educational Partnerships programs. EAOP also has a dedicated deputy director and assistant director who oversee day-to-day EAOP operations, which includes a substantial amount of time managing the implementation of the on-campus test preparation and enrichment programs. Berkeley also employs four full-time staff members who provide EAOP services in schools.

**Services described as favorite/most valuable:** Students and staff consistently appreciated the one-on-one academic advising available for EAOP students, explaining that this advising allowed students to better understand the options that were available to them and the specific steps they needed to take in order to attend an institution of higher education. The small proportion of students who had participated in the test preparation and enrichment activities at UC Berkeley found them incredibly valuable both for the specific information they provided and for the opportunity to spend time on Berkeley's campus.

**Unique features of campus EAO program:** EAOP at UC Berkeley stands out for the depth of the academic enrichment and test preparation activities offered on the Berkeley campus for a subset of EAOP students.

**Adaptation to budget cuts:** In response to budget cuts, EAOP at UC Berkeley has reduced its staff and reduced the number of partner schools and students that it serves. In order to leverage staff time to avoid further cuts, EAOP has increased the number of partner schools and students that each staff member works with. The site has also been successful in setting up agreements with some partner schools to provide partial funding for EAOP staff presence in the schools. Further, in order to preserve as much enrichment programming as possible in light of budget challenges, Berkeley's EAO program has been focusing on obtaining external funding. The site has recently received grants to expand their summer programming, including a STEM-specific grant to support an engineering class offered during the summer session. Site staff are working towards capturing and reporting on data more thoroughly, including the launch of a new database during the 2012–13 academic year, so that they are better equipped to show the program's value in efforts to obtain external funding.

## WHO EAOP SERVES AT UC BERKELEY: A SNAPSHOT, 2007–08 TO 2011–12

**Partner school and participant numbers:** Between the 2007–08 and 2011–12 academic years, the UC Berkeley EAO program reduced the number of partner schools it serves from 26 to 17. The number of EAOP participants decreased 25 percent during that same time period (Exhibit A-1).

**Exhibit A-1:**
**UC Berkeley EAOP School and Student Participation, 2007–08 to 2011–12**

|  | 2007–08 | 2008–09 | 2009–10 | 2010–11 | 2011–12 |
|---|---|---|---|---|---|
| Number of partner schools | 26 | 23 | 20 | 16 | 17 |
| Number of students | 3,198 | 3,191 | 2,571 | 2,274 | 2,385 |

Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The average concentration of minority students across UC Berkeley's partner schools remained nearly constant during this time period (60 percent in 2007–08 and 58 percent in 2011–12), but there was a decrease in the average proportion of African American students and an increase in the proportion of Hispanic/Latino students across those schools during that time. The campus also shifted toward serving higher-poverty schools. On average, 48 percent of students in partner schools were eligible for free or reduced-price meals in 2007–08, compared to 59 percent in 2011–12. The percent of partner schools that served lower grades (i.e., elementary or middle schools) dropped from 4 percent to zero, and the percent of partner schools with enrollment over 1,000 remained stable at just over 75 percent of schools over that time period (Exhibit A-2).

**Exhibit A-2:**
**UC Berkeley Partner School Demographic Data, 2007–08 to 2011–12**
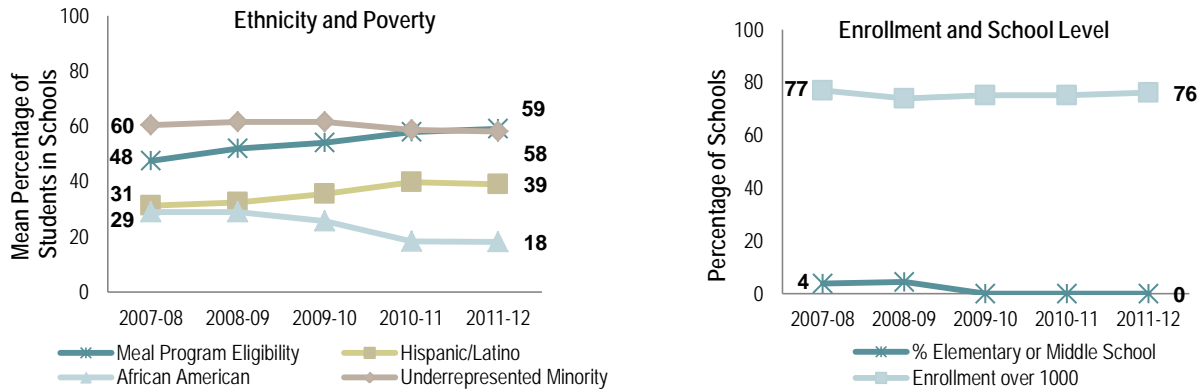


Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The percent of Hispanic/Latino EAOP students served by UC Berkeley rose from 29 to 34 percent over the period from 2007–08 and 2011–12, while the proportion of African American students decreased from 19 to 16 percent. Around 60 percent of EAOP students served by Berkeley were female over the 5-year period, and there was no participation by students who were not yet in high school (Exhibit A-3).
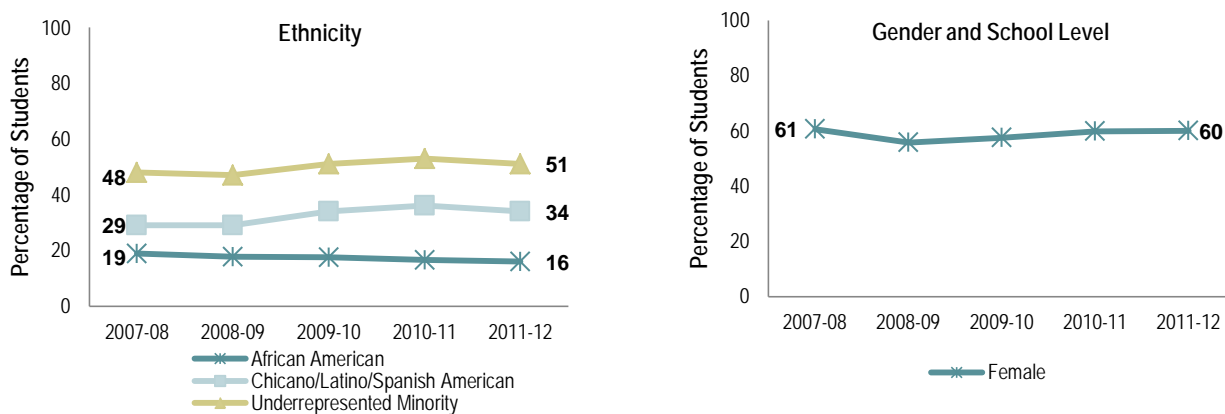
**Exhibit A-3:**
**UC Berkeley EAOP Student Demographic Data, 2007–08 to 2011–12**



Source: Data were provided by the research unit of the UCOP Education Partnerships division.

## HOW EAOP WORKS AT UC DAVIS

**Services offered:** In 2011–12, UC Davis's EAO program provided services to 2,676 students across 27 partner middle schools and high schools. The EAOP model at UC Davis involves a standardized set of activities and services across each partner school, starting in 8th grade and continuing through 12th grade. These core activities and services consist of a set of three to five workshops per year, as well as one or two one-on-one academic advising/planning sessions per student per year. The program offers workshop topics in specific grade levels at specific times of year based on EAOP's perception of student needs at that time (e.g., a workshop on college entrance exams for first-semester juniors). EAOP staff members also provide one-on-one academic advising/planning sessions in the spring for high school freshmen, once per semester for sophomores and juniors, and in the fall for seniors. The intention is for the students in the EAOP cohort at each school to receive generalized information and participate in the same group activities through the EAOP workshops, while also receiving more personalized and customized information and support through the one-on-one advising.

EAOP at UC Davis also offers certain off-campus enrichment activities that students from any EAOP school can apply to attend, such as Saturday enrichment academies that educate students about medical and veterinary careers. Additionally, each regional assistant director collaborates with one of their partner schools to offer summer enrichment academies to students entering high school.

UC Davis's EAO program does not currently offer parent-specific services or supports (although some partner schools ask for and receive assistance from EAOP regional assistant directors with school-sponsored parent supports), and nearly all of the services and activities that the site offers are specifically for EAOP students.

**Structure and staffing:** EAOP at Davis has gone through multiple organizational and oversight transitions in the last decade, with the most recent transition moving the program from Student Affairs to Undergraduate Admissions. Staff explained that the placement of EAOP within the Undergraduate Admissions Office, combined with the requirement that EAOP staff read applications on a part-time basis, builds staff capacity and credibility to support high school students with the college application process.

EAOP staff members at UC Davis include a full-time site director; five full-time regional assistant directors, each of whom works directly with approximately three high schools and their corresponding middle schools; and one administrative associate. The site also employs approximately 30 undergraduates who serve as student assistants, helping regional assistant directors to implement workshops and provide EAOP students with individual academic and college counseling. Additionally, the site works closely with a staff member whose position is funded largely through a local community college transfer initiative and who focuses on educating students about the community college transfer process.

**Services described as favorite/most valuable:** EAOP staff, school staff, and students consistently identified academic advising by current college students and other opportunities to interact with those college students as especially valuable. Students and staff explained that the high school students feel like they can relate to the college students and often find these interactions powerfully motivating. Other activities that students and staff perceived as valuable include a "game of life" budgeting/career planning activity for eighth graders and field trips to college campuses, to the extent that they are available given budget constraints.

**Unique features of campus EAO program:** Unique features include the organization of EAOP under the Admissions Office; a differentially intensive partnership school model where certain partner schools receive deeper services, including summer academies for incoming freshmen; a focus on "asset-based" advising, focusing on the whole student and starting with the positive aspects before moving to areas for growth; a focus on leadership development, both for EAOP students and for undergraduate student employees; and the presence of a staff member who works specifically with community-college-bound students on the transfer process.

**Adaptation to budget cuts:** Budget cuts over the last decade have led program staff to reduce the number of schools served as well as the depth of services provided. The site has maintained core academic advising and college knowledge components in its remaining schools, but has cut a number of enrichment programs, field trips, and other motivational activities that staff members described as valuable but relatively expensive.

## WHO EAOP SERVES AT UC DAVIS: A SNAPSHOT, 2007–08 TO 2011–12

**Partner school and participant numbers:** Between the 2007–08 and 2011–12 academic years, the UC Davis EAO program initially reduced the number of partner schools it serves from 25 to 21 and then increased back to 27. The number of EAOP participants decreased by 8 percent during that same time period (Exhibit A-4).

**Exhibit A-4:**
**UC Davis EAOP School and Student Participation, 2007–08 to 2011–12**

|  | 2007–08 | 2008–09 | 2009–10 | 2010–11 | 2011–12 |
|---|---|---|---|---|---|
| Number of partner schools | 25 | 23 | 21 | 27 | 27 |
| Number of students | 2,920 | 2,916 | 2,798 | 2,922 | 2,676 |

Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The average concentration of minority students across UC Davis's partner schools increased slightly during this time period, from 55 percent in 2007–08 to 58 percent in 2011–12, but there was a decrease in the average proportion of African American students (18 to 14 percent) and an increase in the proportion of Hispanic/Latino students (36 to 43 percent) across those schools. The campus also shifted toward serving higher-poverty schools. On average, 64 percent of students in partner schools were eligible for free or reduced-price meals in 2007–08, compared with 73 percent in 2011–12. The percent of partner schools that served lower grades (i.e., elementary or middle schools) increased from 32 percent to 44 percent during that time period, while the percent of partner schools with enrollment over 1,000 decreased from 64 to 48 percent (Exhibit A-5).

**Exhibit A-5:**
**UC Davis Partner School Demographic Data, 2007–08 to 2011–12**
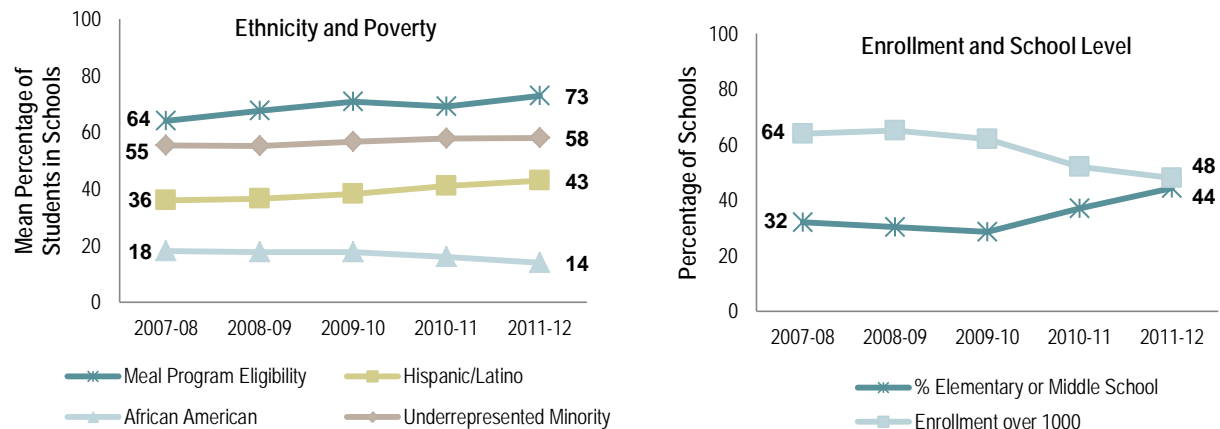


Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The percent of Hispanic/Latino EAOP students served by UC Davis rose from 36 to 40 percent over the period from 2007–08 and 2011–12, while the proportion of African American students remained essentially constant (decreased from 15 to 14 percent). Around 65 percent of EAOP students served by Davis were female over the 5-year period (66 percent in 2007–08 and 64 percent in 2011–12), and participation by middle school students stayed essentially constant (rose slightly from 16 to 17 percent) (Exhibit A-6).

**Exhibit A-6:**
**UC Davis EAOP Student Demographic Data, 2007–08 to 2011–12**
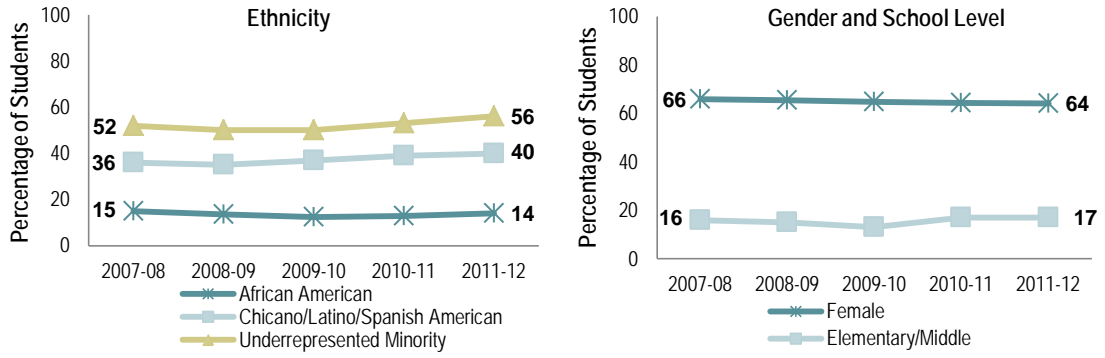


Ethnicity

- African American
- Chicano/Latino/Spanish American
- Underrepresented Minority

Gender and School Level

- Female
- Elementary/Middle

Source: Data were provided by the research unit of the UCOP Education Partnerships division.

## HOW EAOP WORKS AT UC IRVINE

**Services offered:** In 2011–12, UC Irvine's EAO program provided services to 4,842 students across 27 partner middle and high schools. Central to UC Irvine's delivery model are the undergraduate student interns who provide one-on-one and small group advising to EAOP students. In addition, regional coordinators provide workshops on financial aid, time management, personal statement writing and next steps (for admitted students). These coordinators also provide some more basic workshops on academic planning and related issues at middle schools without EAOP cohort students. The site hosts campus tours and events, but only in conjunction with campus student groups that can fund the visits or if schools can pay their own way.

**Structure and staffing:** EAOP is housed in the Center for Educational Partnerships at UC Irvine. The site director is full time and does not have other academic preparation programs in her portfolio. She is responsible for programmatic decisions, such as which schools to cut, how to staff the program, program reporting, developing new programming, and overseeing the work of the regional coordinators. All three of the regional coordinators are full-time and each manages the work of EAOP at five to eight partner schools. This includes training and supervising the undergraduate interns assigned to each of the schools, managing the recruitment of students into the EAO program, and facilitating workshops for students at each school site. Regional coordinators also fulfill ad hoc requests for presentations on aspects of the college application process from school or community groups and help set up and host campus visits that are paid for externally, either by the school or a campus student group that supports these college exposure efforts. As introduced above, each partnership school is served by an undergraduate student intern who spends approximately 12 hours per week at the school site.

**Services described as favorite/most valuable:** Program staff cited the one-on-one and small group advising provided by undergraduate interns as valuable because these advising sessions give EAOP students the opportunity to interact with positive role models. Students described how this advising made them aware of the college options available to them, as well as the resources needed to pay for college and the classes they needed to take. Furthermore, students shared that EAOP had motivated them to try more challenging classes and work harder in school. EAOP staff described personal statement and financial aid workshops as the most popular services.

**Unique features of campus EAO program:** The extent to which EAOP at UC Irvine relies on the services of undergraduate students, as well as the way the program prepares those students for their positions, are notable features of Irvine's EAO program. Undergraduate interns participate in an educational policy course in the winter quarter that provides additional training for their work at partner schools.

**Adaptation to budget cuts:** In response to budget cuts in the early 2000s, the EAO program at UC Irvine eliminated their summer residential program, AP courses, middle school program, and test prep program. They no longer sponsor an event that brought EAOP students to the UC Irvine campus during admit week and no longer fund campus visits throughout the year. While they do not offer workshops specifically for parents, they participate in and present at events for parents hosted by partner schools. Over the last decade, the number of regional coordinators decreased from 14 to 3 as vacated coordinator positions were not filled, and the number of schools served by each coordinator has increased. Because regional coordinators now have more schools in their caseload, they are not able to offer as many workshops. After initial funding cuts, EAOP instituted the Directed Leadership Institute that selected two to three students from each partner school (approximately 32 high school students) who would work to create a college culture at their campus. This program, which started as a summer program and developed into a 2-year program, was eventually cut.

In response to more recent budget cuts, the program eliminated a regional coordinator position and reduced its number of partner schools. In deciding which partnerships to maintain, the program focused on the quality of partnerships in terms of access to students and receptiveness to EAOP site staff, API (cutting high API

sites), maintaining regional clusters of schools, and staying in low achieving schools not served by other academic preparation programs. In 2012–13, two high-API schools that would have become information-only sites opted to retain EAOP services by paying for a student coordinator themselves.

## WHO EAOP SERVES AT UC IRVINE: A SNAPSHOT, 2007–08 TO 2011–12

**Partner school and participant numbers:** Between the 2007–08 and 2011–12 academic years, the Irvine EAO program reduced the number of partner schools it serves from 49 to 27, a decrease of nearly 45 percent. The number of EAOP participants decreased by 21 percent during that same time period (Exhibit A-7).

### Exhibit A-7:
### UC Irvine EAOP School and Student Participation, 2007–08 to 2011–12

|  | 2007–08 | 2008–09 | 2009–10 | 2010–11 | 2011–12 |
|---|---|---|---|---|---|
| Number of partner schools | 49 | 39 | 42 | 39 | 27 |
| Number of students | 6,131 | 5,748 | 5,777 | 5,934 | 4,842 |

Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The average concentration of minority students across Irvine's partner schools increased slightly from 87 to 89 percent during this time period, but there was a slight decrease in the average percent of African American students and a slight increase in the percent of Hispanic/Latino students. The campus also shifted toward serving higher-poverty schools. On average, 69 percent of students in partner schools were eligible for free or reduced-price meals in 2007–08, compared to 76 percent in 2011–12. The percent of partner schools that served lower grades (i.e., elementary or middle schools) dropped from 37 to 15 percent, and the percent of partner schools with enrollment over 1,000 increased from 84 to 96 percent (Exhibit A-8).

### Exhibit A-8:
### UC Irvine Partner School Demographic Data, 2007–08 to 2011–12
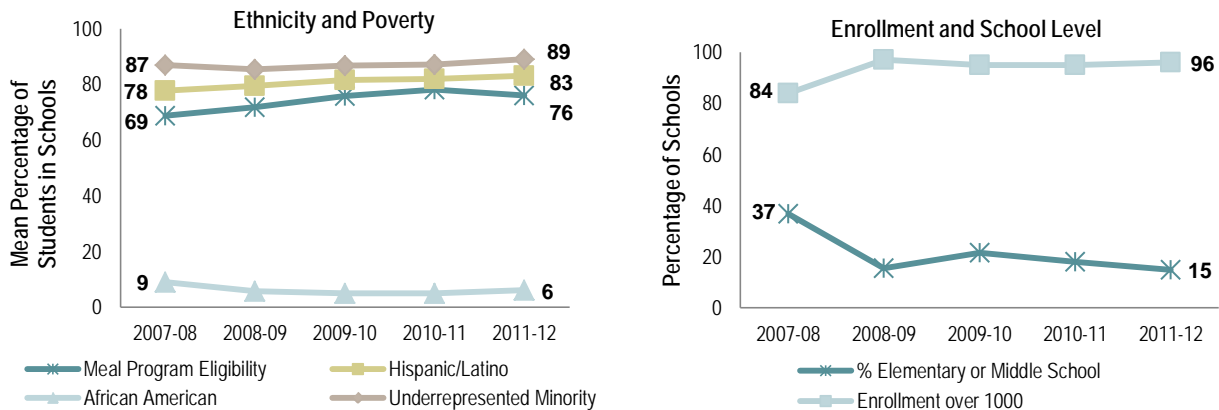


Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The percent of Hispanic/Latino EAOP students rose from 49 to 69 percent in the period from 2007–08 to 2011–12, and the percent of African American EAOP students rose from 5 to 7 percent. Almost two-thirds of EAOP students served by Irvine were female over the 5-year period, and participation by students not yet in high school fell from 22 to 6 percent. (Exhibit A-9)
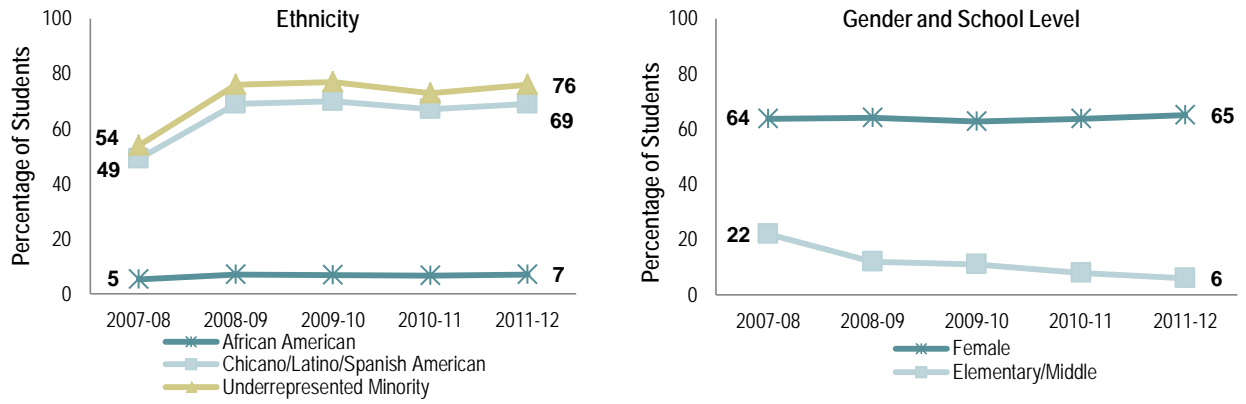
A-8

**Exhibit A-9:**
**UC Irvine EAOP Student Demographic Data, 2007–08 to 2011–12**



Source: Data were provided by the research unit of the UCOP Education Partnerships division.

## HOW EAOP WORKS AT UCLA

**Services offered:** UCLA houses the largest campus EAO program in terms of schools and students served; in 2011–12, EAOP at UCLA provided services to 9,287 students across 41 "full-service" partner high schools and also offered workshops at additional "limited-service" high schools and at feeder middle schools for the full-service high schools. At full-service high schools, EAO focuses on one-on-one advising for EAOP students, almost all (95 percent) of whom meet with an advisor one or two times each year. The program also offers college application assistance, college workshops, a junior-year assessment where EAO staff review students' transcripts for UC eligibility, and a senior package with college workshops for parents and students. At these full-service schools, the program provides some services via a whole-school approach, assisting all students and parents who seek information on the college application process, not just those selected to be EAOP participants. At limited-service schools, EAOP offers workshops and events such as transcript evaluation sessions but does maintain a regular school presence or provide ongoing academic advising for cohorts of students. At the partner middle schools, EAO staff offer whole-school or classroom presentations on early college preparation, organize parent meetings, and host events for students and their parents at both the UCLA and a California State University (CSU) campus.

Additionally, the program offers SAT/PSAT test preparation; Saturday academies focused on math, critical reading, writing, and analytic skills; and a summer residential boot camp and concurrent enrollment programs, all to a limited number of high school students on a first-come, first-served basis. EAOP also runs a Parent Ambassador Program that trains parents to be college preparation advisors who can provide support for college planning in their communities. At the beginning of the year, parents spend two nights at UCLA and participate in intensive training around the college eligibility and application process. The program also provides parents with additional training and support throughout the year. Parents commit to participating in two activities with EAOP staff during the year, in addition to conducting outreach in their communities around college access.

**Structure and staffing:** EAOP at UCLA is housed in Student Affairs and has had consistent leadership, with the same site director serving in that role for over a decade. The EAOP director is also responsible for a program called BruinCorps. Housed in Student Affairs alongside EAOP, BruinCorps is a service-learning program that focuses on tutoring and establishing active college information centers in schools and communities. Both programs have the goal of providing equal access to educational opportunities for underresourced communities in Los Angeles County.

In addition to the site director, three assistant directors oversee three to four site coordinators each, who in turn each serve five to six schools. The coordinators report to their assigned director on academic coordination of the program activities in the school and communities. The site also employs 45 undergraduates who help provide EAOP services, working an average of 6 to 10 hours per week. Additionally, a development officer in Student Affairs provides some support with grant writing.

**Services described as favorite/most valuable:** Students value the one-on-one advising offered by EAOP staff, and also mentioned the junior year assessment as highly valuable. Program staff and students were very positive about the summer residential programs, though these are available only to a limited number of students who are selected to participate.

**Unique features of campus EAO program:** The Parent Ambassador Program and emphasis on parents conducting outreach in their communities around college access stands out at UCLA. In addition, the program focuses on three student populations—African American students, foster youth, and Native American students—who are often underrepresented even within college access and preparation programs.

**Adaptation to budget cuts:** EAOP at UCLA has attempted to maintain as many existing partnerships as possible; as staff explained, these relationships can be challenging to set up again if and when funding levels increase. To achieve this goal, EAOP reduced services at some schools, moving from the full-service to the

limited-service model discussed above, but not pulling out altogether. The program did not fill vacant staff positions, instead reassigning duties to existing staff, so that site coordinators serve a greater number of schools and spend less time at any one school site. The program also reduced college enrichment offerings such as Saturday academies, test preparation, and summer residential programs, so that these services are now available to fewer students than they were previously.

## WHO EAOP SERVES AT UCLA: A SNAPSHOT, 2007–08 TO 2011–12

**Partner school and participant numbers:** Between the 2007–08 and 2011–12 academic years, the UCLA EAO program reduced the number of partner schools it serves from 44 to 41, a decrease of 7 percent. The number of participating students decreased by over 2,200 between 2007–08 and 2010–11, and then increased by nearly 700 in 2011–12, for a net decrease of 14 percent over the entire time period (Exhibit A-10).

### Exhibit A-10:
### UCLA EAOP School and Student Participation, 2007–08 to 2011–12

|  | 2007–08 | 2008–09 | 2009–10 | 2010–11 | 2011–12 |
|---|---|---|---|---|---|
| Number of partner schools | 44 | 45 | 43 | 42 | 41 |
| Number of students | 10,839 | 10,683 | 8,728 | 8,596 | 9,287 |

Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The average concentration of minority students across UCLA's partner schools remained constant at 87 percent during this time period, but there was a slight decrease in the average percent of African American students and a slight increase in the percent of Hispanic/Latino students. The campus also shifted toward serving higher-poverty schools. On average, 63 percent of students in partner schools were eligible for free or reduced-price meals in 2007–08, compared to 68 percent in 2011–12. The percent of partner schools with enrollment over 1,000 decreased from 98 to 95 percent, and UCLA did not have partner schools that served lower grades (i.e., elementary or middle schools) during this time period (Exhibit A-11).

### Exhibit A-11:
### UCLA Partner School Demographic Data, 2007–08 to 2011–12
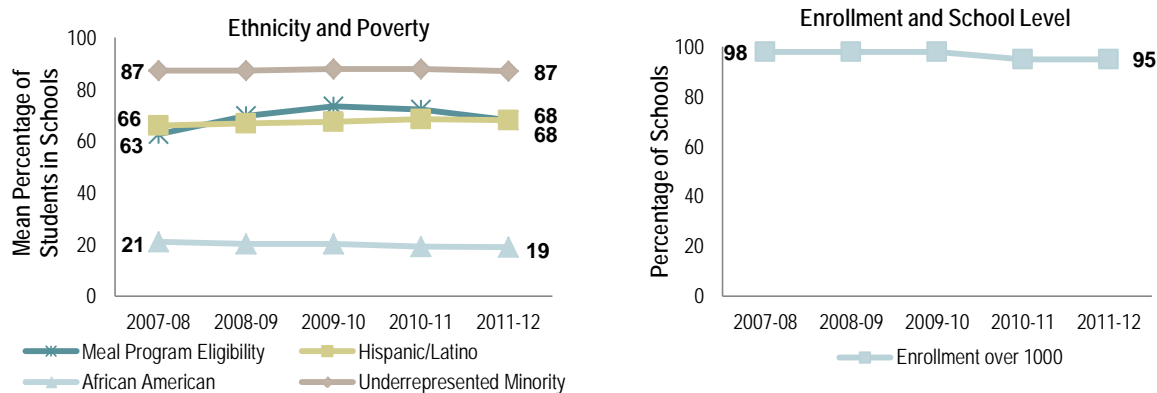


Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The percent of Hispanic/Latino EAOP students rose from 60 to 66 percent in the period from 2007–08 to 2011–12, while African American student participation decreased from 8 to 4 percent. Around two-thirds of EAOP students served by UCLA were female over the 5-year period (68 percent in 2007–08 and 66 percent in 2011–12), and participation by students not yet in high school fell from 21 percent of the total students served by UCLA EAOP to none (Exhibit A-12).

**Exhibit A-12:**
**UCLA EAOP Student Demographic Data, 2007–08 to 2011–12**



Source: Data were provided by the research unit of the UCOP Education Partnerships division.
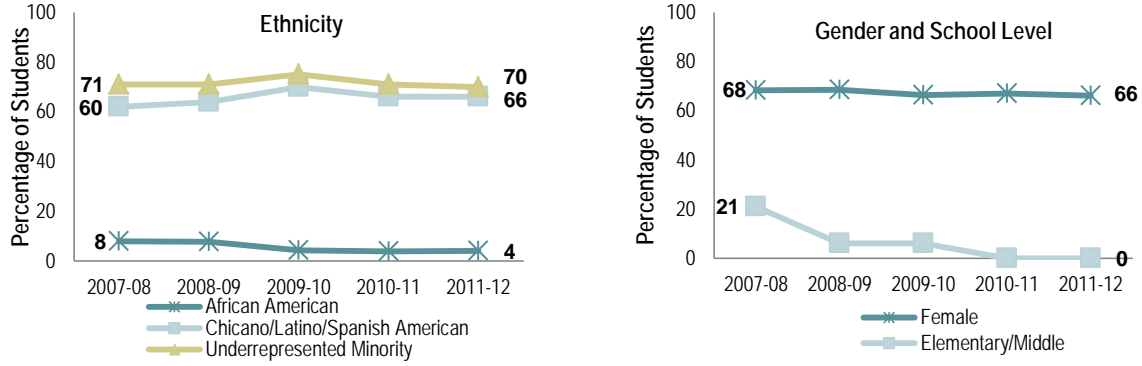
## HOW EAOP WORKS AT UC MERCED

**Services offered:** In 2011–12, UC Merced's EAO program provided services to 1,484 students across 12 partner high schools. EAOP staff members are typically at each high school once or twice per week, where they offer a range of activities and services for participating students that focus most directly on individual academic planning and college counseling. Specifically, these activities and services include annual one-on-one reviews of a student's 4-year individual academic plan, including progress towards high school graduation requirements and a-g requirements; a UC campus visit for 10th grade students; group workshops and one-on-one assistance on college admissions and financial aid policies and applications; a summer writing academy, which includes assistance on writing personal statements for college applications; distribution of information on PSAT and SAT registration and fee waiver assistance; and distribution of information on summer programs. Workshops are generally open to students outside as well as within the EAOP cohort, while one-on-one advising is specifically aimed at EAOP students. Additionally, at certain partner schools, school administrators and counselors request and receive assistance from EAOP staff in developing and presenting school-wide workshops on topics related to college eligibility, admissions, and financial aid. Staff at some schools are also funding additional instructors for the summer writing academy so that students outside the EAOP cohort can participate.

The Center for Educational Partnerships (CEP) at UC Merced also offers a parent education and involvement program to provide college knowledge and resources to parents in response to an observation that parents were reluctant to allow their students to leave home to attend college. While this Parent Empowerment Program is not specific to EAOP, it is offered at many EAOP partner schools and is advertised to parents of EAOP students.

**Structure and staffing:** EAOP at UC Merced is housed in the campus's Center for Educational Partnerships, which is organized under the umbrella of Student Affairs. EAOP has a long-standing presence in UC Merced's current service area, predating the establishment of UC Merced itself. In the 1980s, UCOP opened an outreach office in Fresno to strengthen UC's presence in the Central Valley, and EAOP services were offered in the area through UC Santa Cruz, which then passed the responsibility to UC Merced as campus leaders built Merced's infrastructure and prepared to recruit the university's first cohort of students.

EAOP staff members at Merced include the director of the Center for Educational Partnerships, who oversees EAOP operations at .2 full-time equivalent (FTE); a full-time EAO program coordinator, who oversees the day-to-day EAOP work; and four student affairs officers, each of whom provides EAOP services at three high schools. There are also several Center for Educational Partnerships staff members who are not exclusive to EAOP but who provide services to EAOP along with other CEP outreach programs and initiatives. These staff members include statisticians, programmers, and analysts who analyze data and create reports about EAOP student participation and outcomes.

**Services described as favorite/most valuable:** Students and staff at EAOP schools were especially effusive about the value of the individualized attention that EAOP staff members provide to students. Various students described how much they appreciated personal attention from EAOP staff in determining an academic plan that was right for them; motivating them to persist in challenging courses; identifying colleges and universities that felt like the right fit; and navigating the college application process. School staff as well as students explained that they appreciate the quantity of attention EAOP staff members provide to students and how available they are to answer questions.

**Unique features of campus EAO program:** EAOP at UC Merced, along with Merced's Center for Educational Partnerships more broadly, has a particular focus on collecting and using data on student services and outcomes and has allocated considerable resources towards this effort. The site employs a team of statisticians, programmers, and analysts who build data collection and storage systems and generate reports about student participation and outcomes in EAOP and other Center for Educational Partnerships

initiatives. Site staff use these data both to inform internal programmatic decisions and to validate the site's work when applying for external grants. EAOP at UC Merced is also unique in that the Center for Educational Partnerships is physically located a considerable distance away from the main campus (the CEP office is in Fresno, approximately an hour's drive south of UC Merced). Staff described outreach as central to UC Merced's mission and described CEP's continued presence in the Fresno area as a positive attribute of the partnership because so many of the schools that benefit from EAOP and other CEP outreach programs are located in or south of Fresno.

**Adaptation to budget cuts:** In response to funding challenges, EAOP staff have modified services and approaches to be as cost-effective as possible. Among other strategies, this means that the staff have eliminated services to middle school students and reduced the number of partner high schools; developed EAOP curriculum in-house; and have chosen to focus on activities such as academic advising rather than SAT/ACT prep, which require expensive external contracts. For certain activities, including college visits and the summer writing academy, EAOP requests that the partner schools provide some financial support. Site staff also discussed the delicate balancing act required to deliver the maximum impact to the maximum number of students given fiscal constraints. Using financial resources to collect and report on data means that EAOP at UC Merced is able to serve fewer students than it could if the site replaced its data team members with student affairs officers who work at school sites; however, site staff feel strongly that building and maintaining a strong infrastructure to collect and report on EAOP student service and outcomes enables the site to serve its students more effectively and better positions the program to secure external grants.

## WHO EAOP SERVES AT UC MERCED: A SNAPSHOT, 2007–08 TO 2011–12

**Partner school and participant numbers:** Between the 2007–08 and 2011–12 academic years, the UC Merced EAO program reduced the number of partner schools it serves from 35 to 12, a decrease of 66 percent. The number of participating students decreased by 45 percent over that same time period (Exhibit A-13).

### Exhibit A-13:
### UC Merced EAOP School and Student Participation, 2007–08 to 2011–12

|                           | 2007–08 | 2008–09 | 2009–10 | 2010–11 | 2011–12 |
|---------------------------|---------|---------|---------|---------|---------|
| Number of partner schools | 35      | 19      | 21      | 18      | 12      |
| Number of students        | 2,694   | 1,685   | 2,068   | 1,506   | 1,484   |

Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The average concentration of minority students across UC Merced's partner schools increased slightly from 76 to 78 percent during this time period, with a slight decrease in the average percent of African American students and a slight increase in the percent of Hispanic/Latino students. The campus also shifted toward serving higher-poverty schools. On average, 77 percent of students in partner schools were eligible for free or reduced-price meals in 2007–08, compared with 82 percent in 2011–12. The percent of partner schools with enrollment over 1,000 increased from 43 to 83 percent, and the percent of partner schools that served lower grades (i.e., elementary or middle schools) decreased from 46 percent to zero during this time period (Exhibit A-14).

**Exhibit A-14:**
**UC Merced Partner School Demographic Data, 2007–08 to 2011–12**
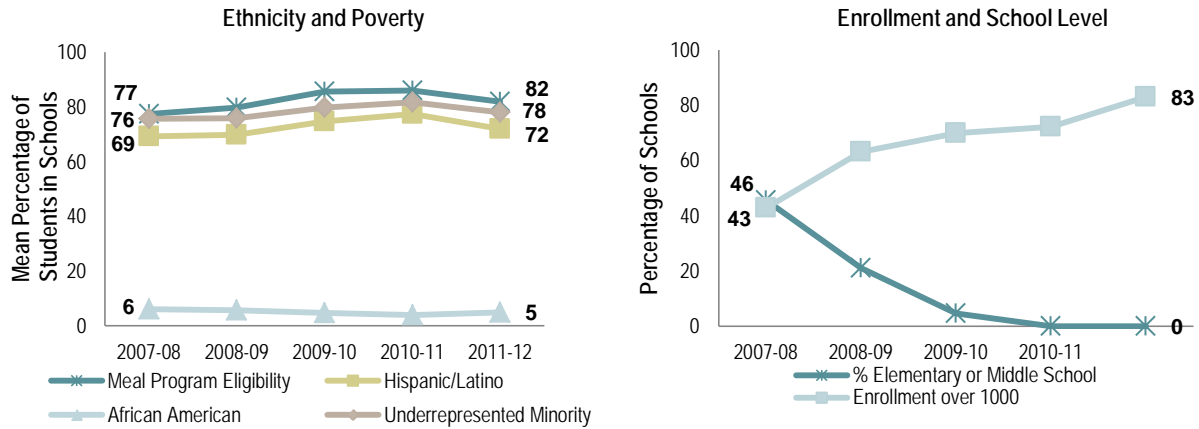


Ethnicity and Poverty

Enrollment and School Level

Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The proportion of Hispanic/Latino EAOP students served by UC Merced rose from 60 to 66 percent in the period from 2007–08 to 2011–12, while African American student participation fell from 8 to 4 percent. The proportion of female EAOP students served by Merced remained at approximately two-thirds during this time period (68 percent in 2007–08 and 66 percent in 2011–12), and participation by students not yet in high school fell from 21 percent to zero as EAOP concentrated its services in high schools only (Exhibit A-15).

**Exhibit A-15:**
**UC Merced EAOP Student Demographic Data, 2007–08 to 2011–12**
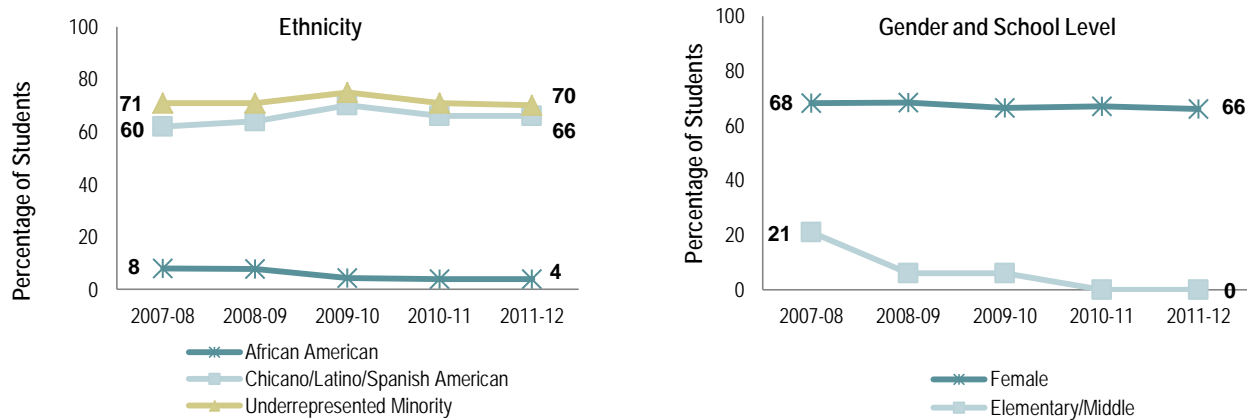


Ethnicity

Gender and School Level

Source: Data were provided by the research unit of the UCOP Education Partnerships division.

## HOW EAOP WORKS AT UC RIVERSIDE

**Services offered:** In 2011–12, UC Riverside's EAO program provided services to 2,402 students across 24 partner high schools. At its partner schools, EAOP at UC Riverside focuses on one-on-one academic advising and college counseling that is targeted at each grade level. Counseling begins once students are admitted to the program in the second semester of ninth grade and each school's regional coordinator reviews the students' transcripts and helps make sure they are on track for UC eligibility. Students can also participate in field trips to visit various UC campuses and other college campuses in southern California.

UC Riverside also hosts and coordinates a range of summer enrichment programs and test preparation courses for a subset of students. Programs include iCollege, where participants can have their transcripts evaluated and participate in one-on-one interviews with UC Riverside admissions staff; a summer test prep "boot camp" for rising juniors to prepare them for taking the SAT or ACT; and a summer academy course for high-achieving rising EAOP seniors to take courses for college credit that is fully paid for by the program. The campus also hosts a senior summer summit for students to receive information on what to expect in their senior year in terms of both academics and the college and financial aid application processes. UC Riverside admissions staff also conduct one-on-one interviews with the students during the summit.

**Structure and staffing:** EAOP at UC Riverside is a stand-alone program housed within Student Affairs. In addition to a full-time site director, there are three regional coordinators who have divided up the partner schools between them, spending between half a day and one day per week at each school. These coordinators are responsible for advising at each school and, as a team, coordinate on-campus/summer/site-wide events. The site also has an accountability coordinator who handles student data and evaluation data, and two student assistants who provide general office support.

**Services described as favorite/most valuable:** In addition to the one-on-one and group academic and college advising that students receive, the program activities offered in the summer were reported as the most popular, especially the ones held on the UC Riverside campus. Campus tours were also identified as especially popular and valuable. We were told that these activities help familiarize students with what to expect from college and help students envision themselves on a college campus.

**Unique features of campus EAO program:** Riverside stands out for its emphasis on off-campus enrichment and test preparation opportunities. In addition, the staff at UC Riverside brings many years of experience to the table. The consistency of the professional staff helps to form relationships between the program and participating schools and students.

**Adaptation to budget cuts:** In response to budget cuts, EAOP at UC Riverside has significantly reduced the number of partner schools that it serves over the past few years, and now serves more students per remaining school. Additionally, EAOP staff have eliminated undergraduate assistant positions in EAOP schools. While other programs have relied on undergraduates as a cost-saving measure, staff at Riverside felt that having full-time trained professionals working one-on-one with students was a better investment. This change in staffing also means that site coordinators no longer have the added responsibility of training and overseeing student assistants.

## WHO EAOP SERVES AT UC RIVERSIDE: A SNAPSHOT, 2007–08 TO 2011–12

**Partner school and participant numbers:** Between the 2007–08 and 2011–12 academic years, the UC Riverside EAO program reduced the number of partner schools it serves from 41 to 24, a decrease of 41 percent. The number of participating students decreased by 23 percent over that same time period (Exhibit A-16).

**Exhibit A-16:**
**UC Riverside EAOP School and Student Participation, 2007–08 to 2011–12**

|  | **2007–08** | **2008–09** | **2009–10** | **2010–11** | **2011–12** |
|---|---|---|---|---|---|
| Number of partner schools | 41 | 43 | 38 | 26 | 24 |
| Number of students | 3,116 | 3,212 | 2,943 | 2,256 | 2,402 |

Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The average concentration of minority students across UC Riverside's partner schools increased from 79 to 85 percent during this time period, with increases in the average percentages of both African American and Hispanic/Latino students enrolled at the schools. The campus also shifted toward serving higher-poverty schools. On average, 57 percent of students in partner schools were eligible for free or reduced-price meals in 2007–08, compared with 75 percent in 2011–12. All of UC Riverside's partner schools had enrollments over 1,000 during this time period, and UC Riverside did not have any partner schools that served lower grades (i.e., elementary or middle schools) between 2007–08 and 2011–12 (Exhibit A-17).

**Exhibit A-17:**
**UC Riverside Partner School Demographic Data, 2007–08 to 2011–12**
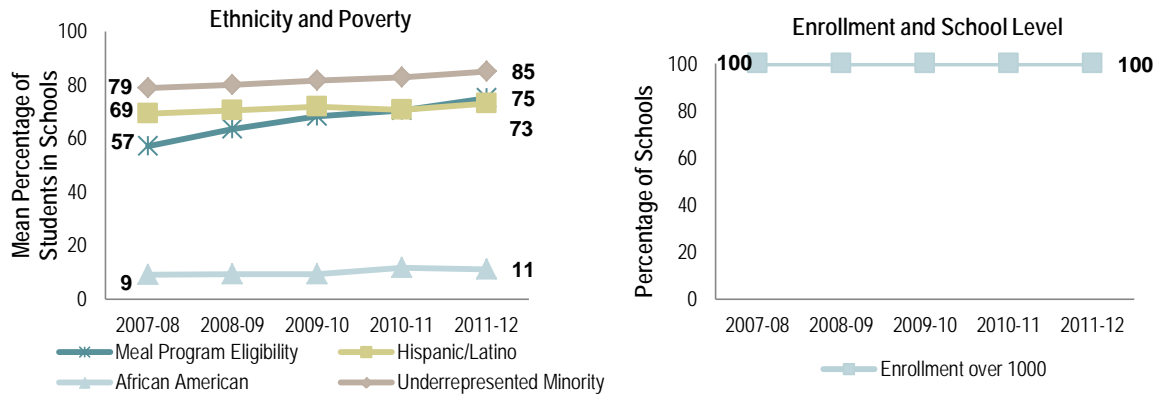


Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The percent of Hispanic/Latino EAOP students rose from 58 to 62 percent in the period from 2007–08 to 2011–12, while African American student participation remained constant at 15 percent. Nearly 70 percent of EAOP students served by UC Riverside were female over the 5-year period (69 percent in 2007–08 and 68 percent in 2011–12), and Riverside worked with no students who were not yet in high school. (Exhibit A-18)

**Exhibit A-18:**
**UC Riverside EAOP Student Demographic Data, 2007–08 to 2011–12**



Source: Data were provided by the research unit of the UCOP Education Partnerships division.

## HOW EAOP WORKS AT UC SAN DIEGO

**Services offered:** In 2011–12, UC San Diego's EAO program provided services to 3,983 students across 31 partner middle and high schools. EAOP services and activities for participating students include online course offerings for a-g course credit recovery and advanced classes that may not be available at students' 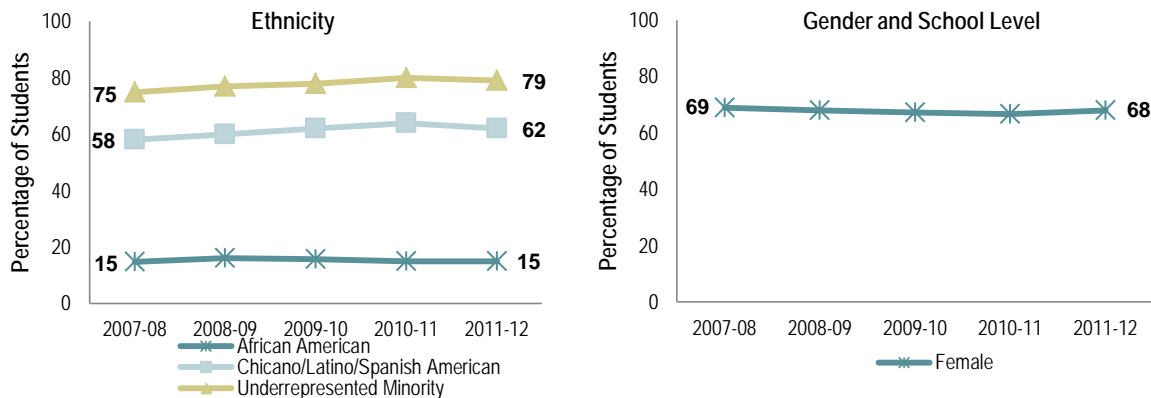high schools; real-time online tutoring where students can log into a website after school and receive assistance with coursework from UC San Diego undergraduates; a combination of group workshops, one-on-one assistance, and printed materials on academic planning, study skills, college admissions and financial aid policies, and college and financial aid applications; and campus tours.

EAOP staff also offer parent workshops that focus on different topics aligned with students' grade levels. The workshops present general information about academic planning and college-going for middle school parents, more specific information about course-taking for 9th and 10th grade parents, and information about college admissions and financial aid for 11th and 12th grade parents. Most EAOP services, including the online tutoring and coursework, are generally open to interested students outside as well as within the EAOP cohort.

**Structure and staffing:** EAOP at UC San Diego recently (in 2011–12) moved from Student Affairs and is now housed under the Center for Research on Educational Equity, Assessment & Teaching Excellence, an interdisciplinary department under the umbrella of Academic Affairs. EAOP staff members at UC San Diego include a longstanding EAOP site director, who has served in this capacity for over a decade; five other professional staff members who provide services to students at partner schools; two to four AmeriCorps VISTA volunteers; and approximately 60 undergraduates who typically work 10–12 hours per week. The services that undergraduates provide include online tutoring, in-school tutoring (either outside of class or by serving in a teaching assistant role), and in-school mentoring (serving in roles similar to the professional staff and VISTA volunteers). A few experienced undergraduates help coordinate EAOP services and assist in training and overseeing the remaining undergraduate staff.

**Services described as favorite/most valuable:** The EAOP services cited as most valuable at UC San Diego include online tutoring, which allows students rapid access to personalized, "hands-on" assistance with their coursework, and in-person academic advising and college counseling due to its personalized nature.

**Unique features of campus EAO program:** The recent reorganization of EAOP under UC San Diego's Center for Research on Educational Equity, Assessment & Teaching Excellence, an interdisciplinary department within Academic Affairs, is unique both because UCSD is the only UC campus to house EAOP in an academic department and because this organizational structure is beginning to foster research opportunities that use faculty grant funding to expand EAOP services and report on outcomes. EAOP at UCSD is also unique in the extent of its use of online resources for participating students, including opportunities for tutoring and coursework, and in the heavy involvement and range of role types for college students in program delivery, including the use of more experienced college student staff to help train and oversee their newer counterparts.

**Adaptation to budget cuts:** Due to budget cuts, EAOP made major reductions in the middle of the last decade. The site cut specific enrichment and college knowledge opportunities (such as a summer residential program), eliminated services for well over 50 percent of its former partnership schools and cut corresponding staff positions. Site staff explained that schools located geographically farther from the UCSD campus were particularly affected due to the inefficiencies associated with staff travel time to those locations. Since then, the number of partnership schools has held steady and recently started to reexpand. EAOP at UCSD increased the number of students served by approximately 50 percent between 2007–08 and 2011–12.

EAOP staff described a number of strategies that help to maximize student participation, largely by keeping staffing costs and other overhead expenses as low as possible. For example, EAOP at UCSD has built up

online tutoring and coursework offerings that allow staff to reach out to students without travel time to school sites. EAOP at UCSD also relies heavily on a large college student staff to provide services both online and in schools, and has recently begun to hire recent college graduates to provide services at school sites through the AmeriCorps VISTA program. These staffing strategies allow the site to reach more EAOP schools and students at a lower cost than if they were to rely solely on professional staff. EAOP staff also explained that the site's online programs allow staff who work directly at EAOP schools to focus more on college advising and college knowledge, allowing EAOP students to receive a broader range of services than might otherwise be feasible. Further, EAOP's recent move from Student Affairs to an academic department was prompted in part by a desire to avoid proposed budget cuts from Student Affairs.

## WHO EAOP SERVES AT UC SAN DIEGO: A SNAPSHOT, 2007–08 TO 2011–12

**Partner school and participant numbers:** Between the 2007–08 and 2011–12 academic years, the UC San Diego EAO program first increased the number of partner schools that it serves from 26 to 34 and then decreased this number to 31, for a net increase of 19 percent over the 5-year time period. The number of participating students increased by 50 percent over that same time period (Exhibit A-19).

### Exhibit A-19:
### UC San Diego EAOP School and Student Participation, 2007–08 to 2011–12

|  | 2007–08 | 2008–09 | 2009–10 | 2010–11 | 2011–12 |
|---|---|---|---|---|---|
| Number of partner schools | 26 | 25 | 25 | 34 | 31 |
| Number of students | 2,658 | 2,826 | 3,792 | 5,715 | 3,983 |

Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The average concentration of minority students across UC San Diego's partner schools increased from 85 to 88 percent during this time period, reflecting slight increases in the average percentages of both African American students and Hispanic/Latino students enrolled at the schools. The average percent of students in partner schools eligible for free or reduced-price meals also increased ever so slightly (76 percent in 2007–08 and 77 percent in 2011–12). During this time period, the percent of San Diego's EAOP partner schools that served lower grades (i.e., elementary or middle schools) also stayed nearly constant (62 percent in 2007–08 and 61 percent in 2011–12), and the percent of partner schools with enrollment over 1,000 increased from 38 to 42 percent (Exhibit A-20).

### Exhibit A-20:
### UC San Diego Partner School Demographic Data, 2007–08 to 2011–12
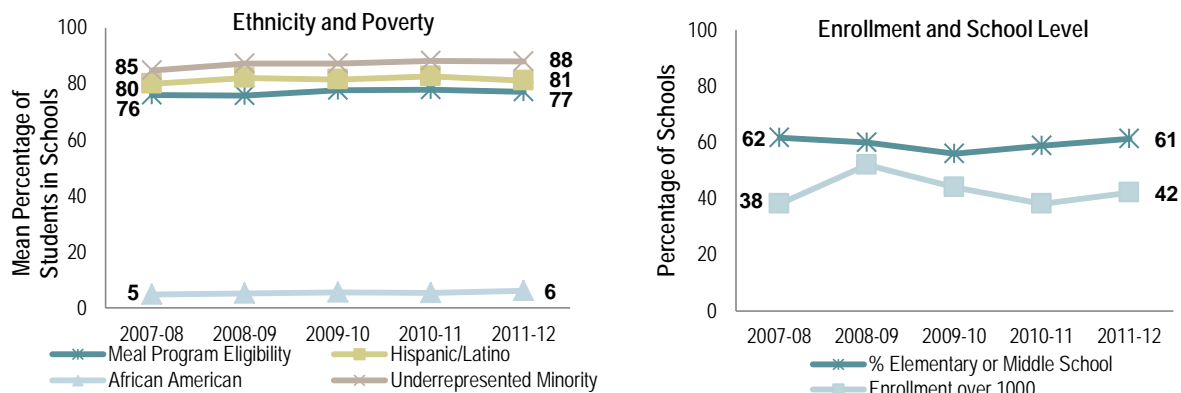


Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The percent of Hispanic/Latino EAOP students rose from 72 to 82 percent in the period from 2007–08 to 2011–12, while African American student participation remained constant at 7 percent. Under 50 percent of EAOP students served by UC San Diego were female over the 5-year period (46 percent in 2007–08 and

45 percent in 2011–12), and participation by students not yet in high school rose from 27 to 33 percent (Exhibit A-21).

**Exhibit A-21:**
**UC San Diego EAOP Student Demographic Data, 2007–08 to 2011–12**
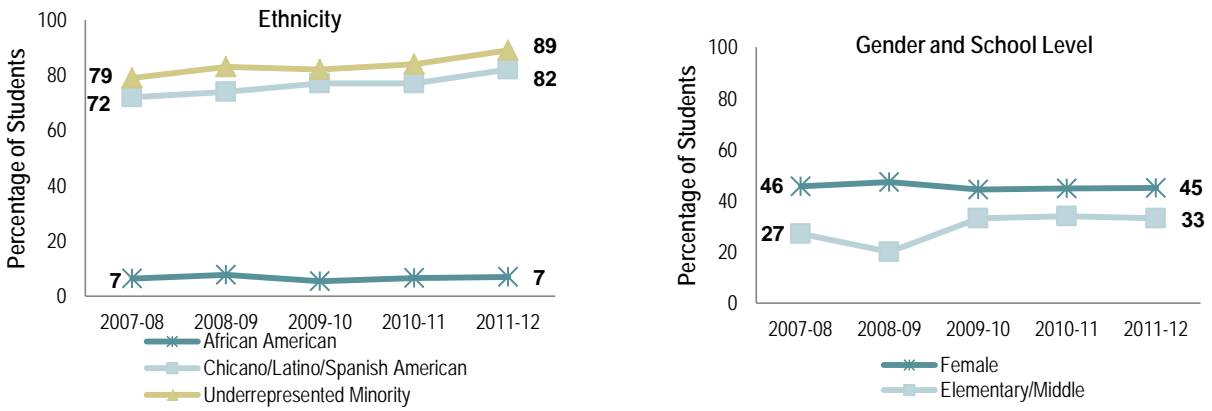


Source: Data were provided by the research unit of the UCOP Education Partnerships division.

## HOW EAOP WORKS AT UC SAN FRANCISCO

**Services offered:** In 2011–12, UC San Francisco's EAO program provided services to 218 students at one partner high school; the program expanded to serve the feeder middle school and elementary school in fall 2012 and will expand to a second high school in fall 2013. Stemming from UCSF's unique position in the UC system as a solely graduate institution focused on health sciences, as well as an unusually well-integrated partnership between UCSF and the San Francisco Unified School District (SFUSD), the EAO program at UCSF focuses on providing intense supports to a handful of schools in the southeast quadrant of San Francisco. UCSF opened the Mission Bay campus in 2003, and the school's desire to provide resources and outreach efforts in the area where this campus is located coincided with the district's request for EAOP to focus on the southeast sector. The program's goal is to build the college-going culture and cultural capital of these schools, creating an attractive educational corridor from elementary to high school that will keep higher performing students from exiting the neighborhood to attend middle and high schools in other sectors of the district, leaving behind struggling students in low-performing schools.

At the high school level, EAOP partners with a health career academy at Burton High School, providing one-on-one academic advising in addition to a variety of enrichment events for students including field trips, speakers, college visits, and support in securing summer internships. At the middle and elementary level, EAOP is focused on building a college-going culture in the schools. In the middle school, this is through one-on-one advising and college awareness units for each grade level and parent-night presentations. At the elementary school, the outreach is focused on parents and creating a bridge to the local middle school.

EAOP at UCSF also offers a number of district-wide programs, including a 3-week nonresidential summer enrichment program for rising juniors focused on health career exploration and hosted at the UCSF campus. EAOP also hosts events open to students and parents district-wide each fall, one for seniors hosted at the UCSF campus, and one for eighth graders related to high school selection and college planning.

**Structure and staffing:** EAOP is housed in the Center for Educational Partnerships at UCSF and supports the UCSF/SFUSD partnership. The Center director is an employee of UCSF, but his office space and half his salary is funded by the district. The EAOP site director oversees the work of two full-EAOP coordinators, one at Burton High School and the other who serves Burton's feeder middle and elementary school, and who will start to oversee more traditional EAOP academic advising services at a second high school starting in fall 2013 with the assistance of an undergraduate intern. Undergraduate volunteers from San Francisco State University also began to support the one-on-one academic advising at Burton in fall 2012.

**Services described as favorite/most valuable:** Partner school staff reported especially valuing the prestige and status afforded by a partnership with UCSF, which is important to the goal of building a college-going culture and retaining higher-achieving students in southeast SFUSD schools. They also discussed the value of UCSF campus resources—such as speakers, graduate student mentors and field trips—that EAOP has accessed for them. Several students in the Health Academy had found out about a dual-enrollment course through SF City College through the EAOP counselor, and had become CPR- and first-aid certified. Health Academy students talked about a number of job site visits they had been on, such as observing a surgery, as well as summer opportunities they had found out about through EAOP, such as attending the National Youth Leadership Forum on Medicine. Students also enjoyed the college campus visits, but wanted to go further afield to visit schools in Southern California, not just the Bay Area.

**Unique features of campus EAO program:** Because UCSF is solely a graduate healthcare institution, EAOP has no role to play in increasing academic preparation for underserved populations who might attend its own campus immediately upon completing high school. Instead, the program focuses more broadly on cultivating the interest and academic preparation of students to enter the science, technology, engineering, and mathematics (STEM) fields. Additionally, the strength and structure of the UCSF/SFUSD partnership results in an unusually strong alignment between the goals of EAOP and the schools it serves.

**Adaptation to budget cuts:** In the 2000s, EAOP did not fill vacant coordinator positions, cut the number of SFUSD schools it served, and secured outside grant funding to serve schools in Daly City for a time. The program refocused its efforts on providing more intensive services to a small number of SFUSD schools in 2009 with the initiation of the USCSF/SFUSD partnership. More recently, as enrollment has increased, the Health Academy has capped the number of students who can go on field trips, both because covering field trip costs (e.g., food, buses, substitutes) for more students is too expensive and because host institutions can only accommodate a limited number of students. At the same time, EAOP at UCSF will start to serve more students with more traditional academic advising services at an additional high school starting in 2013–14.

## WHO EAOP SERVES AT UC SAN FRANCISCO: A SNAPSHOT, 2007–08 TO 2011–12

**Partner school and participant numbers:** Between the 2007–08 and 2011–12 academic years, the UC San Francisco EAO program decreased the number of partner schools that it serves from 13 to 1—a result of the program's decision to substantially increase the depth of the services that it provides at the expense of breadth. (As noted above, EAOP expanded services to include that high school's feeder middle school and elementary school in fall 2012 and will expand to a second high school in fall 2013). During this time period, the number of participating students decreased by nearly 75 percent (Exhibit A-22).

Exhibit A-22:
UC San Francisco EAOP School and Student Participation, 2007–08 to 2011–12

|  | 2007–08 | 2008–09 | 2009–10 | 2010–11 | 2011–12 |
|---|---|---|---|---|---|
| Number of partner schools | 13 | 13 | 13 | 1 | 1 |
| Number of students | 837 | 2,637 | 867 | 101 | 218 |

Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The average concentration of minority students across UCSF's partner schools increased slightly from 32 percent (in 2007–08 when UCSF was serving 13 partner schools) to 36 percent (in 2011–12 at the one partner school that UCSF served). This difference reflects slight increases in the average percentages of both African American students and Hispanic/Latino students. The average percent of partner school students eligible for free or reduced-price meals increased substantially over this period, from 46 percent of students across UCSF's 13 partner schools in 2007–08 to 66 percent of students in the one partner school that UCSF served in 2011–12. While 54 percent of UCSF's 2007–08 partner schools had enrollments over 1,000 students and 15 percent served lower grades (i.e., elementary or middle schools), UCSF's one partner school in 2011–12 was a high school serving less than 1,000 students (Exhibit A-23).

Exhibit A-23:
UC San Francisco Partner School Demographic Data, 2007–08 to 2011–12
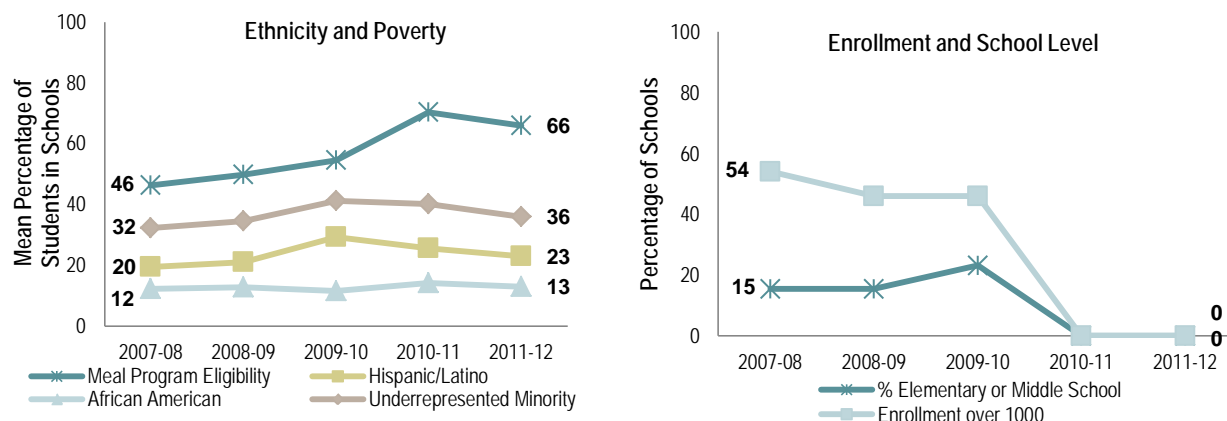


Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The percent of Hispanic/Latino EAOP students rose from 22 to 25 percent in the period from 2007–08 to 2011–12, and African American student participation rose from 9 percent to 11 percent. Gender distribution among UCSF's participating students went from roughly equal (52 percent female in 2007–08) to two-thirds female in 2011–12, and as mentioned above, all participating students were in high school in 2011–12, although EAOP added a partner middle school and elementary school in 2012–13 (Exhibit A-24).

**Exhibit A-24:**
**UC San Francisco EAOP Student Demographic Data, 2007–08 to 2011–12**
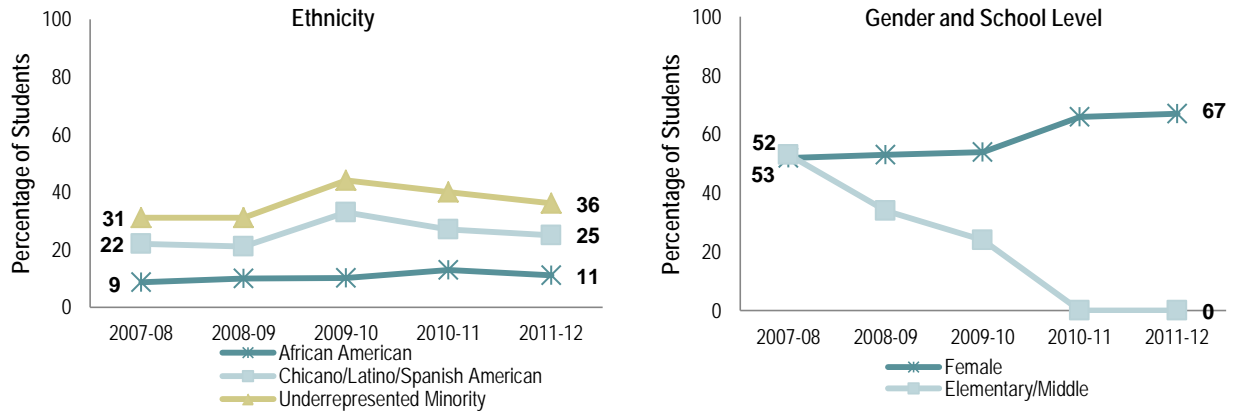


Source: Data were provided by the research unit of the UCOP Education Partnerships division.

## HOW EAOP WORKS AT UC SANTA BARBARA

**Services offered:** In 2011–12, UC Santa Barbara's EAO program provided services to 1,513 students at four partner high schools. For each cohort student at each partner school, EAOP provides a range of services. These include one-on-one and small group academic and college advising, including transcript evaluations and individual academic plans; workshops on topics such as UC and CSU requirements, college entrance exam registration and preparation, personal statements, and financial aid; field trips; a UC success night reception for UC admits; school-wide receptions for students who are a-g eligible; and parent workshops on topics such as college preparation, higher education awareness, and student success and achievement. EAOP staff also offer enrichment activities in partnership with school staff, such as a summer algebra academy for incoming ninth-grade students. In general, EAOP services are available to noncohort students as well as cohort students. The difference between cohort and noncohort students is simply that EAOP cohort students automatically receive services while noncohort students must seek them out.

Additionally, EAOP staff work with school staff to provide EAOP and UC information, plan for joint college preparation activities and school-wide transcript evaluation, and provide professional development on student support strategies, higher education awareness, and the EAOP service model.

**Structure and staffing:** EAOP at UC Santa Barbara is a stand-alone program housed in Student Affairs. EAOP at UCSB has a full-time site director, who has been in his position for over a decade, and an assistant director who focus on relationship-building, securing external funding, and meeting Student Academic Preparation and Educational Partnerships (SAPEP) goals. UCSB has four EAOP school site coordinators who are each assigned to a single high school and staff that school full time. Coordinators' range of responsibilities vary slightly by high school. Generally, site coordinators advise students, both those in the EAOP cohort and those others in the school who request help, and are responsible for student recruitment and transcript evaluation. Additionally, the site employs academic coordinators who travel from school to school (including but not limited to EAOP partner schools), delivering presentations to entire grade levels on topics such as college entrance exams, scholarships, and other more general college-going information.

**Services described as favorite/most valuable:** Most interviewees cited field trips to college campuses as a distinctive and important part of EAOP due to their ability to make college feel more real for students. Interviewees also identified various workshops as valuable, specifically citing a summer algebra workshop for incoming students and personal statement workshops. EAOP staff also described student recognition activities as both popular and valuable. These activities include a UC success night in which all students who have been accepted to a UC get recognized and a spring ice cream social for students who are on track to complete their a-g requirements. Through these activities, students become motivated by the celebration of other students' successes.

**Unique features of campus EAO program:** The way that UCSB's EAO program combines cohort and whole-school services is unique in that when the program serves a school, an EAOP staff member works intensively with EAOP cohort students while simultaneously providing significant services to the school in its entirety and directly attempting to increase the overall college-going culture and rate at the school. The extent to which UCSB relies on a fee-for-service model (see below) also stands out among EAOP sites and helps to explain the aforementioned service model.

**Adaptation to budget cuts:** EAOP at UC Santa Barbara aims to serve the whole school community and to help students from across the entire school get to college. The goals have not changed due to budget restrictions, but the way program staff aim to achieve these goals has shifted with the economic climate. To this end, UCSB EAOP has transitioned to a fee-for-service model, where costs are shared with the partner school. The site has made considerable cuts to the number of schools that it serves, reducing its partner school portfolio by over 80 percent in the past five years, in order to focus on providing in-depth schoolwide services to the remaining partner schools that are sharing costs with EAOP. This delivery model is supported

by a low-cost approach in which the EAOP site coordinator provides as many services as possible, rather than relying on external providers. EAOP also used to provide many more material goods to the students, including very popular student recognition dinners and has cut back on branding materials (e.g., pamphlets, brochures).

## WHO EAOP SERVES AT UC SANTA BARBARA: A SNAPSHOT, 2007–08 TO 2011–12

**Partner school and participant numbers:** Between the 2007–08 and 2011–12 academic years, the UC Santa Barbara EAO program decreased the number of partner schools that it serves by over 90 percent, from 43 to 4. The number of participating students declined by approximately 75 percent over that same time period (Exhibit A-25).

### Exhibit A-25:
### UC Santa Barbara EAOP School and Student Participation, 2007–08 to 2011–12

|  | 2007–08 | 2008–09 | 2009–10 | 2010–11 | 2011–12 |
|---|---|---|---|---|---|
| Number of partner schools | 43 | 41 | 32 | 6 | 4 |
| Number of students | 6,197 | 5,054 | 3,121 | 1,832 | 1,513 |

Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The average concentration of minority students across UC Santa Barbara's partner schools increased from 68 to 81 percent between 2007–08 and 2011–12. This change reflects an increase in the average percentage of Hispanic/Latino students enrolled at the schools (62 to 75 percent). The average percent of students in partner schools eligible for free or reduced-price meals also increased, rising from 53 percent 2007–08 to 62 percent in 2011–12. During this time period, the percent of Santa Barbara's partner schools that served lower grades (i.e., elementary or middle schools) decreased from 19 percent to zero, and the proportion of partner schools with enrollments over 1,000 increased from 70 to 75 percent (Exhibit A-26).

### Exhibit A-26:
### UC Santa Barbara Partner School Demographic Data, 2007–08 to 2011–12
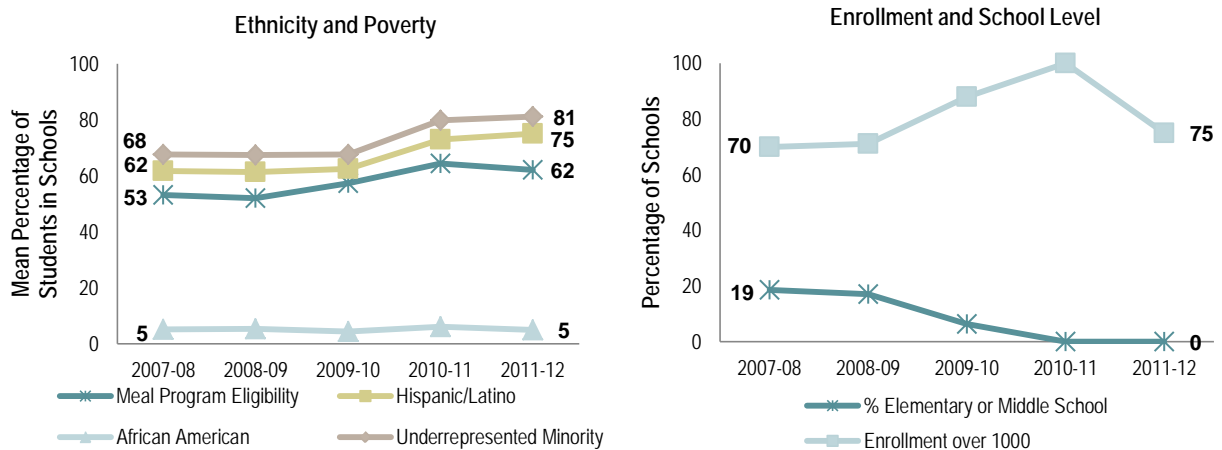


Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The proportion of Hispanic/Latino EAOP students served by EAOP at UC Santa Barbara declined slightly from 68 to 65 percent in the period from 2007–08 to 2011–12, while African American student participation increased from 4 to 5 percent. The proportion of female EAOP students increased slightly over the 5-year period (58 percent in 2007–08 and 62 percent in 2011–12), and participation by students not yet in high school fell from 7 percent to zero (Exhibit A-27).

**Exhibit A-27:**
**UC Santa Barbara EAOP Student Demographic Data, 2007–08 to 2011–12**
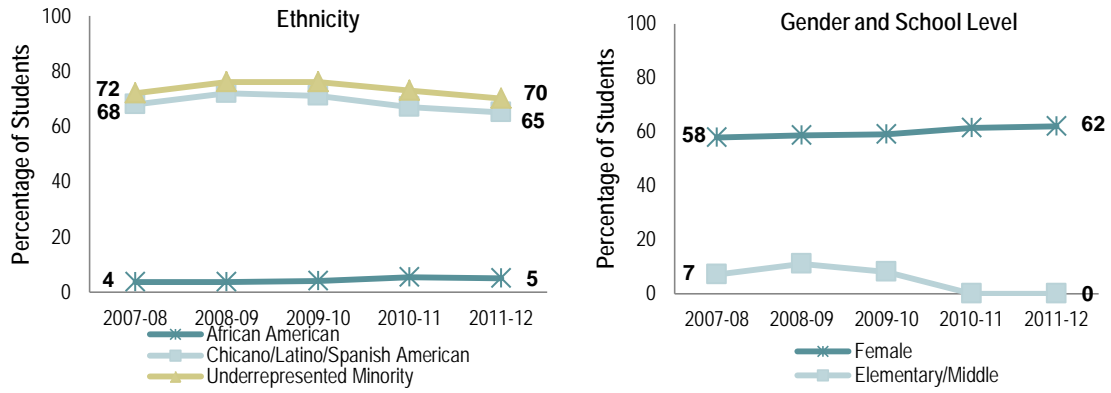


Source: Data were provided by the research unit of the UCOP Education Partnerships division.

## HOW EAOP WORKS AT UC SANTA CRUZ

**Services offered:** In 2011–12, the EAO program at UC Santa Cruz provided services to 2,085 students across five partner high schools. Services vary to some extent by school, depending in part on school needs and interests and in part on whether the school is contributing funding to support EAOP staff presence. Services generally include one-on-one and small group academic advising; workshops and presentations on college programs of study and the college application process; tutoring; and college visits and fairs. EAOP students at some schools also continue to communicate with EAOP staff during the summer after high school graduation in order to discuss course selection and other questions in order to make the college transition more manageable. In addition, some EAOP students have the opportunity to participate in an enrichment program on the UCSC campus called Summer Odyssey, although the availability of this program has fluctuated due to budget challenges.

**Structure and staffing:** EAOP at UC Santa Cruz is situated as one of multiple academic preparation programs within the campus's Educational Partnerships Center. The site director oversees EAOP at .2 full-time equivalent (FTE), with the remainder of her position dedicated to other outreach programs and initiatives within the Educational Partnerships Center. The site also has around four staff members who work on behalf of EAOP at .5 FTE (and GEAR UP at .5 FTE); these personnel serve as site coordinators who manage EAOP services at the partnership schools. The site also employs student interns from UCSC who work directly with EAOP students, providing a range of advising, college counseling, and tutoring services.

**Services described as favorite/most valuable:** Students particularly appreciated the personalized services that EAOP provides, specifically citing examples such as individual attention when they struggle with college applications; reminders about specific deadlines that pertain to them; and willingness by EAOP professional and student staff to listen to their concerns and fears, even when not directly related to academic achievement or college access. Students also valued the direct exposure to college campuses that they received on field trips. Those students who had participated in the Summer Odyssey program at UC Santa Cruz valued that program for similar reasons, as well as for the leadership and confidence-building opportunities that they had received.

**Unique features of campus EAO program:** Interviewees described the extent to which EAOP is integrated with other academic preparation programs as a unique feature of the partnership and also described possessing a school-centric rather than program-centric approach to providing supporting academic preparation. This outlook means that the Education Partnerships Center (where EAOP is housed) attempts to create entrenched partnerships at schools rather than focusing on which particular program serves which school.

**Adaptation to budget cuts**: In response to budget cuts, EAOP at UC Santa Cruz has made significant cuts to the number of schools that it serves, electing to serve more students per remaining school and maintain as much contact time between EAOP staff and students as possible. The program has also cut specific services, such as ACT and SAT preparation, and has reduced the availability of summer programming in order to maintain academic advising and college counseling at its partner schools.

## WHO EAOP SERVES AT UC SANTA CRUZ: A SNAPSHOT, 2007–08 TO 2011–12

**Partner school and participant numbers:** Between the 2007–08 and 2011–12 academic years, the UC Santa Cruz EAO program decreased the number of partner schools that it serves by 84 percent, from 31 to 5. The number of participating students decreased by just over 50 percent over that same time period (Exhibit A-28).

**Exhibit A-28:**
**UC Santa Cruz EAOP School and Student Participation, 2007–08 to 2011–12**

| | 2007–08 | 2008–09 | 2009–10 | 2010–11 | 2011–12 |
|---|---|---|---|---|---|
| Number of partner schools | 31 | 22 | 15 | 10 | 5 |
| Number of students | 4,299 | 4,078 | 3,598 | 2,471 | 2,085 |

Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The average concentration of minority students across UC Santa Cruz partner schools increased from 75 to 83 percent during this time period, driven primarily by an increase from 71 to 79 percent in the average proportion of Hispanic/Latino students enrolled at the schools. The campus also shifted toward serving lower-poverty schools. On average, 62 percent of students in partner schools were eligible for free or reduced-price meals in 2007–08, compared with 36 percent in 2011–12. The proportion of UC Santa Cruz partner schools with enrollments over 1,000 increased from 48 to 100 percent during this time period, and the proportion of partner schools serving lower grades (i.e., elementary or middle schools) decreased from 48 percent to zero between 2007–08 and 2011–12 (Exhibit A-29).

**Exhibit A-29:**
**UC Santa Cruz Partner School Demographic Data, 2007–08 to 2011–12**
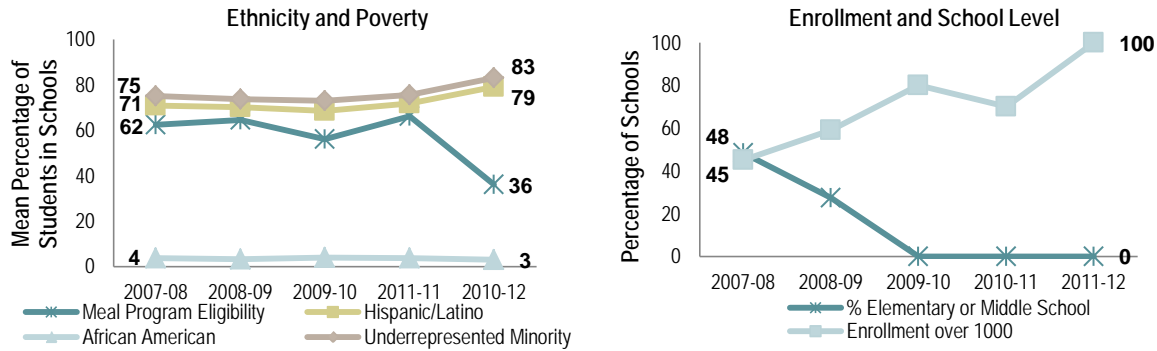


Source: Data were provided by the research unit of the UCOP Education Partnerships division.

The percent of Hispanic/Latino EAOP students rose from 69 to 84 percent in the period from 2007–08 to 2011–12, while African American student participation decreased from 4 to 2 percent. The proportion of female EAOP students served by UC Santa Cruz increased dramatically over this time period, from 19 to 62 percent, and participation by students not yet in high school fell from 19u percent of the total students served by UC Santa Cruz EAOP to none (Exhibit A-30).

**Exhibit A-30:**
**UC Santa Cruz EAOP Student Demographic Data, 2007–08 to 2011–12**
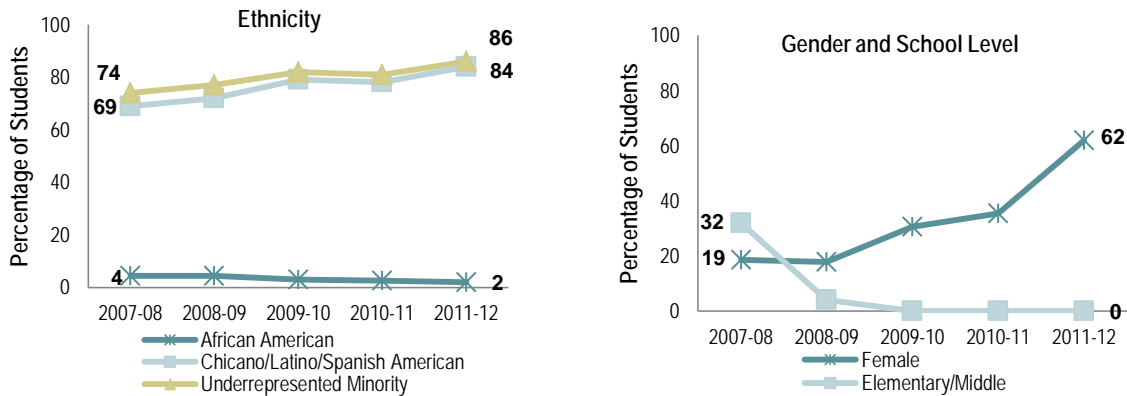


Source: Data were provided by the research unit of the UCOP Education Partnerships division.

## IMPLEMENTATION STUDY

To understand how EAOP provides services and how students experience EAOP, the research team conducted case studies of all 10 EAOP sites. Researchers developed the cases based on a review of program information and background documents provided by each site director;
two-person visits to each EAOP site and two of each site's partner schools in the fall of 2012; and follow-up phone interviews in the late winter and early spring 2013 with EAOP site directors, other staff who oversee or work for EAOP, and UCOP staff. To select which two schools to visit for each site, the research team asked site directors to identify "core" partnerships exhibiting the structures and processes necessary to support a successful EAO program, and "developing" partnerships still in the process of building those structures and processes. For each site, the research team visited one core partner school and one developing partner school.

In total, researchers conducted 30- to 90-minute interviews with 56 EAOP or UC staff, 24 school staff, and 2 UCOP staff, and conducted 20 focus groups of 4–10 EAOP students each, as detailed in Exhibit B-1.

**Exhibit B-1:**
**Interviewees by Role Type**

| Role Type | Number of Interviewees |
|---|---|
| **Current EAOP site directors** (each interviewed twice, in fall 2012 and late winter/early spring 2013) | 10 |
| **Immediate past EAOP site directors** | 5 |
| **Adult staff who deliver EAOP services in schools** | 19 |
| **College students who deliver EAOP services in schools** | 7 |
| **EAOP central office staff who do *not* deliver EAOP services in schools** | 5 |
| **Campus administrators who oversee EAOP** (e.g., CEP directors, Associate Vice Chancellors) | 10 |
| **Partner school staff who work with EAOP** (e.g., school administrators, counselors) | 24 |
| **Student focus groups** (each with 4 to 10 EAOP students) | 20 |
| **UCOP staff** | 2 |

Interviewers used semistructured interview guides linked to the study's overarching research questions about EAOP implementation and prepared additional site-specific questions based on knowledge of site context. Interviewers recorded these interviews in electronic audio files and used these files to clean notes

and check for accuracy, and each case study team completed a structured debriefing guide aligned with the study's research questions. During and after the period where interviews were conducted, the entire research team assembled to compare, contrast, and synthesize findings across interviewees; to identify overarching themes and initial hypotheses; to determine how these findings related to the quantitative data; and to refine analyses and assertions prior to writing this report.

## STUDENT OUTCOMES ANALYSIS

### Data Sources

The analysis comparing outcomes for EAOP students to those of similar peers relied on data from the Transcript Evaluation Services (TES), which provides a comprehensive evaluation of students' high school coursework for participating California high schools. Although less than 10 percent of California high schools participate in TES, the service provides detailed and reliable data regarding completion of a-g coursework for all students enrolled at these schools (Exhibit B-2). Institutional research (IR) staff at the University of California Office of the President (UCOP) helped us identify all 40 TES schools in 2010–11 that had been EAOP partner schools for the 3-year period from 2008–09 through 2010–11, as well as the 47 TES schools that were not EAOP partner schools during this period. We identified all seniors from each school using the graduate record file. UC institutional research staff flagged all EAOP participants for this graduate cohort.

**Exhibit B-2:**
**a-g Course and GPA Requirements for UC and CSU Eligibility**
**(2010–11 Freshman Admission)**

| Subject Requirements* | University of California (UC) | California State University (CSU) |
|---|---|---|
| *UC and CSU require completion with a grade of C or better 15 yearlong college preparatory courses from approved "a-g" list:* | | |
| History/Social Science ("a") | 2 years of history/social science, including one year of U.S. history OR one semester of U.S. history and one semester of American government, AND 1 year of world history, cultures, and geography from the "a" subject area | 2 years of history/social science, including one year of U.S. history OR one semester of U.S. history and one semester of American government, AND 1 year of history/social science from either the "a" or "g" subject area |
| English ("b") | 4 years of English (including no more than one year of Advanced ESL/ELD courses) | |
| Mathematics ("c") | 3 years of math (algebra I and II, geometry); 4 years recommended | |
| Laboratory Science ("d") | 2 years of laboratory science, including at least two of the three foundational subjects of biology, chemistry, and physics. <u>Both courses must be from the "d" subject area;</u> 3 years recommended | 2 years of laboratory science, including at least two of the three foundational subjects of biology, chemistry, and physics. In addition, at least 1 year of physical science AND 1 year of biological science, <u>one from the "d" subject area and the other from the "d" or "g" area</u> |
| Language other than English ("e") | 2 years of language other than English (must be the same language); 3 years recommended | 2 years of language other than English (must be the same language) |
| Visual and Performing Arts ("f") | 1 yearlong course in visual and performing arts (selected from dance, music, theatre/drama and visual arts) | |
| College Preparatory Elective ("g") | 1 year of an elective chosen from any area on approved "a-g" course list | |
| High School GPA | GPA calculated using only "a-g" approved courses taken after the 9th grade. UC eligibility requires a minimum a-g GPA of 3.0, and CSU requires a minimum a-g GPA of 2.0. | |
| Honors Points | Maximum of 8 extra grade points awarded for approved honors, AP, or IB courses and transferable community college courses. No more than two yearlong courses taken in 10th grade can earn honors points. | |

**Source:** UC Berkeley's *College Tools for Schools* project website, http://collegetools.berkeley.edu/

*Numerous career technical courses are approved for fulfillment of "a-g" subject requirements.

**Propensity Score Models**

We used propensity score matching to create two analytic samples, one within-school comparison sample and a second across-school sample. We matched EAOP students with non-EAOP students with similar ninth-grade course-taking patterns and grades, overall and in a-f courses (Exhibit B-3). The a-f subject requirement for UC eligibility includes courses in English, Math, Laboratory Sciences, Social Sciences, Foreign Language, and Performing or Visual Arts. Completion and grades for college preparatory courses with designation "g" for elective are coded separately from a-f in the TES dataset. Because less than one percent of EAOP students in the TES dataset attempted g courses in the ninth grade, we did not consider completion or performance in "g" courses in the matching process.

Exhibit B-3:
Variables Used to Predict EAOP Participation

| Variable | Description |
| --- | --- |
| Total credits attempted | Total number of credits attempted in 9th grade, including but not restricted to a-g courses |
| Total failures | Total number of credits failed in 9th grade, including but not restricted to a-g courses |
| Overall GPA | Ninth grade GPA for all courses, including but not restricted to a-g courses |
| Total a-f credits earned | Total credits earned in courses approved to fulfill the a-f courses requirements for UC eligibility |
| College preparatory GPA | GPA earned in courses approved to fulfill the a-f courses requirements for UC eligibility |
| Algebra flag | Flag for student who completed Algebra I with a grade of C or better in 9th grade or earlier |

Using the coefficients resulting from these regression models, we then assigned each student a propensity score. We used caliper matching with replacement to match each EAOP with all non-EAOP students whose propensity score was within a certain caliper (in standard deviations of the EAOP students' propensity scores) to that of the EAOP student. To ensure equal representation of the characteristics of each EAOP student in the comparison group, we weighted each EAOP student's matches by the inverse of the number of matches to the EAOP student. These weights were used in all analyses comparing matched EAOP to non-EAOP students.

**Within-School Matching**

To create the within-school sample, we ran a separate logistic regression model for each school to predict EAOP participation. The degree to which these variables predicted EAOP participation varied by school, with an adjusted R-squared ranging from a rescaled pseudo R-squared ranging from .02 to .76 (mean of .34). We then matched each EAOP student with all non-EAOP students in the same school, zip code, and who had the same status in terms of completing algebra by the end of ninth grade, and who had a propensity score within .2 caliper of the EAOP student's propensity score. This matching process resulted in a sample that was well balanced on ninth-grade course-taking indicators for EAOP and non-EAOP students, as shown in Exhibit B-4. Based on a chi-square test of independence, there were no statistically significant differences in the matched sample between EAOP and non-EAOP student on any of the variables in Exhibit B-3. Note that the mean a-f GPA for EAOP students in the matched sample is slightly lower than that of all EAOP students in the TES dataset (3.13 compared to 3.22), suggesting some high-achieving EAOP students did not have close matches in the pool of non-EAOP students and were dropped from the sample. This does not compromise the comparison between the outcomes form EAOP

and non-EAOP students, but does mean that the results should not be generalized to the highest performing EAOP students.

**Exhibit B-4:**
**Mean Ninth-Grade Course-taking Indicators for EAOP and non-EAOP Students,**
**Before and After Matching (Within-School Sample)**

|  | Before Matching | | After Matching | |
|---|---|---|---|---|
|  | non-EAOP | EAOP | non-EAOP | EAOP |
| *n* | 12,805 | 2,256 | 5,108 | 1,678 |
| Total Credits Attempted | 66.4 | 66.4 | 66.2 | 66.2 |
|  | (16.8) | (11.1) | (11.8) | (10.6) |
| Credits Failed | 6.2 | 1.3 | 1.4 | 1.5 |
|  | (11.5) | (5.0) | (5.2) | (5.1) |
| Grade Point Average | 2.53 | 3.32 | 3.24 | 3.24 |
|  | (.82) | (.61) | (.61) | (.62) |
| Credits Earned in a-f Courses | 22.0 | 26.7 | 26.2 | 26.2 |
|  | (11.1) | (9.7) | (10.0) | (9.5) |
| Credits Attempted in a-f Courses | 22.0 | 26.7 | 26.2 | 26.2 |
|  | (11.1) | (9.7) | (10.0) | (9.5) |
| Earned C or Above in Algebra | 0.3 | 0.3 | 0.3 | 0.3 |
|  | (.5) | (.5) | (.5) | (.5) |
| Grade Point Average in a-f Courses | 2.41 | 3.22 | 3.12 | 3.13 |
|  | (.97) | (.74) | (.79) | (.74) |

The within-school sample was composed of partner schools from the following UC campuses:

- UC Berkeley: 7 partner schools
- UC Davis: 4 partner schools
- UC Irvine: 7 partner schools
- UCLA: 11 partner schools
- UC Merced: 6 partner schools
- UC Riverside: 1 partner school
- UC San Diego: 1 partner school
- UC Santa Barbara: 1 partner school
- UC Santa Cruz: 2 partner schools

EAOP at UC Davis and UC Merced served eighth grade student cohorts at their partner middle schools during the time the students in our samples would have been in middle school, which means that some EAOP students in our samples may already joined the program before they started high school. As a result, the 9th grade course-taking patterns for these student may already have been influenced by EAOP. This is a threat to the internal validity of the study, and would serve to bias the results against EAOP. However, the three campuses with the largest number of partner schools in the EAOP sample (UCLA, UC Berkeley, and UC Irvine) do not serve middle schools in their cohort model; to the extent that middle schools receive EAOP services at all, they do so as information-only schools. Additionally, campuses that do recruit participants in ninth grade often do not begin to enroll and serve students until the end of the freshman year of high school.

**Across-School Matching**

To create the across-school sample, we stratified the schools by Academic Performance Index (API) (decile 1 to 3, 4 to 6, and 7 to 10) and concentration of minority students (85 percent or less, and over 85 percent) (Exhibit B-5). There were no high minority comparison schools in the highest decile, so we did not stratify by concentration of minority students within this API band.

We ran separate models predicting EAOP participation in each of the five strata. The degree to which these variables predicted EAOP participation varied by stratum, with a rescaled pseudo R-squared ranging from .17 to .41 (mean of .28). We then matched each EAOP student with all non-EAOP students in comparison schools in the same stratum who had the same status in terms of completing algebra by the end of ninth grade, who had completed a total number of college preparatory credits within .5 caliper of the EAOP student, and who had a propensity score within .1 caliper of the EAOP student's propensity score. We were able to match EAOP students in 38 schools to students in 45 comparison schools.

**Exhibit B-5:**
**Schools by Stratum in the Across-School Matched Sample**

|  | EAOP | Comparison |
| --- | --- | --- |
| API decile 1 to 3 and more than 85% underrepresented minority | 13 | 9 |
| API decile 1 to 3 and 85% or less underrepresented minority | 11 | 13 |
| API decile 4 to 6 and more than 85% underrepresented minority | 2 | 2 |
| API decile 4 to 6 and 85% or less underrepresented minority | 8 | 15 |
| API decile 7 to 10 and more than 85% underrepresented minority | 1 | 0 |
| API decile 7 to 10 and 85% or less underrepresented minority | 3 | 6 |

This matching process resulted in a sample that was well balanced on ninth-grade course-taking indicators for EAOP and non-EAOP students, as shown in Exhibit B-6. Based on a chi-square test of independence, there were no statistically significant differences in the matched sample between EAOP and non-EAOP students on any of the variables in Exhibit B-3.

**Exhibit B-6:**
**Ninth-Grade Course-taking indicators for EAOP and non-EAOP Students,**
**Before and After Matching (Across-School Sample)**

| | Before Matching | | After Matching | |
|---|---|---|---|---|
| | non-EAOP | EAOP | non-EAOP | EAOP |
| n | 13,216 | 2,256 | 7,855 | 1,836 |
| Total Credits Attempted | 64.8 | 66.4 | 65.4 | 65.3 |
| | (14.2) | (11.1) | (9.2) | (9.6) |
| Credits Failed | 5.1 | 1.3 | 1.3 | 1.5 |
| | (10.3) | (5.0) | (5.2) | (5.4) |
| Grade Point Average | 2.67 | 3.32 | 3.30 | 3.28 |
| | (.85) | (.61) | (.63) | (.63) |
| Credits Earned in a-f Courses | 22.2 | 26.7 | 26.5 | 26.2 |
| | (11.3) | (9.7) | (10.0) | (9.3) |
| Credits Attempted in a-f Courses | 22.3 | 26.7 | 26.5 | 26.3 |
| | (11.3) | (9.7) | (10.0) | (9.3) |
| Earned C or Above in Algebra | 0.3 | 0.3 | 0.3 | 0.3 |
| | (.5) | (.5) | (.5) | (.5) |
| Grade Point Average in a-f Courses | 2.52 | 3.22 | 3.19 | 3.20 |
| | (1.04) | (.74) | (.81) | (.75) |

Students from one UC Davis partner school and one UC Irvine partner school were dropped in the across-school matching process.

**Outcomes Examined**

For each sample of matched students, UC institutional research staff appended outcomes that were not already contained in the TES dataset: admission test-taking (the SAT and ACT tests required for UC eligibility) from the College Board and ACT; UC application, admission, and enrollment flags derived from the UC corporate student system (CSS); and postsecondary enrollment data from the National Student Clearinghouse (NSC) StudentTracker. Exhibit B-7 provides descriptions of each of the outcomes.

**Exhibit B-7:**
**Outcomes Used in Analysis**

| Variable | Description | Source |
|---|---|---|
| CSU subject requirement | Dichotomous variable code 1 if student completed a-g subject requirement | TES |
| CSU GPA | GPA in a-g courses counted for CSU eligibility (2.0 required for eligibility) | TES |
| UC subject requirement | Dichotomous variable code 1 if student completed a-g subject requirement | TES |
| UC GPA | GPA in a-g courses counted for CSU eligibility (3.0 required for eligibility) | TES |
| Admission test completion | Dichotomous variable code 1 if student completed admissions tests required for UC eligibility | ACT and College Board |
| UC applicant | Dichotomous variable code 1 if student applied to any UC campus | UC CSS |
| UC admit | Dichotomous variable code 1 if student was admitted to any UC campus | UC CSS |
| UC enrollment | Dichotomous variable code 1 if student enrolled in any UC campus | UC CSS |
| Any college enrollment | Dichotomous variable code 1 if student enrolled in any 2- or 4-year college | UC CSS (for UC enrollments); NSC (all other enrollments) |
| Four-year college enrollment | Dichotomous variable code 1 if student enrolled in any 4-year college | NSC |
| One-year persistence | Dichotomous variable code 1 if student enrolled at same institution in fall 2011 and fall 2012 | NSC |

The NSC StudentTracker captures 95 percent of postsecondary enrollment nationally, and this coverage is even higher for public postsecondary institutions in California, where it captured 100 percent of public 4-year enrollments and 99.9 percent of public 2-year enrollments in fall 2012. However, individual institutions that participate in StudentTracker and students at these institutions can opt to block release of their enrollment data to other institutions. In our samples, between 6 percent and 8 percent of records were blocked by students across the samples, and approximately 1 percent by schools, EXCEPT in the across-school comparison sample (Exhibit B-8). Because 391 students in this sample (6.6 percent) enrolled at a community college that blocks release of student records (Porterville College), the blocked rate for this sample was much higher than the other samples (16 percent rather than 7 percent or 8 percent) (Exhibit B-8). Four of the comparison high school in the across-school sample are in Kern County, where Porterville College is located, but only one EAOP school. As a result, our estimates of the differences in college enrollment rates for EAOP and non-EAOP students in the across-school sample may be an artifact of this higher block rate.

To examine the possibility that the relatively high college going rate for EAOP students in the across-school sample was an artifact of this high block rate rather than reflecting true underlying differences in enrollment rates, we also ran the across-school model excluding from the comparison group all students from the one EAOP high school and four comparison high schools in Kern County. EAOP and non-EAOP students in the across-school sample remained balanced on the variables shown in Exhibit B-6

after the exclusion of these students from the across-school sample, and the relatively high predicted enrollment rate for the typical EAOP relative to non-EAOP student (.80 compared to .71) remained statistically significant at the .05 level.

<div align="center">

**Exhibit B-8:**
**Blocked Enrollment Records from the NSC StudentTracker, by Sample**

</div>

| | Within-School Sample | | Across-School Sample | |
|---|---|---|---|---|
| | EAOP | non-EAOP | EAOP | non-EAOP |
| Total students in sample | 1,678 | 5,108 | 1,836 | 7,855 |
| Percent blocked | 7.2% | 7.0% | 8.1% | 16.4% |
| Percent blocked by school | 0.9% | 1.2% | 0.9% | 8.8% |
| Percent blocked by student | 6.4% | 5.8% | 7.2% | 7.5% |

NSC contains multiple records per students, one for each term a student enrolls at a postsecondary institution. To select the enrollment used in this analysis, we looked just at enrollments between July 1, 2011 and June 31, 2012. We used the following hierarchy to select a student's postsecondary enrollment institution: full-time, then half-time, then no enrollment status; 4-year, then 2-year institutions; and finally, the earliest enrollment. Because UC Riverside blocks release of student enrollment data from the NSC, we used the UC enrollment flag before assigning an enrollment institution from the NSC data, except when looking at student persistence.

**Final Regression Models**

For the final estimates of program effectiveness, we used multilevel regression models to account for the clustering of students within schools. Although the samples were well balanced on the ninth-grade course-taking patterns and GPA, we included ninth-grade a-f credits earned, GPA, and an indicator variable for any course failures to improve the precision of the final estimates. We also included an indicator variable for gender, as the EAOP students in both samples were disproportionately female. Finally, we included four school-level characteristics to help account for differences in college-going rates among schools: mean school API, mean enrollment, percent free and reduced-price meals, and percent underrepresented minority.

**Within-School Sample:** For the within-school sample, we used the following final achievement model for the two continuous GPA variables:

Level 1: $Y_{ij} = \beta_{0j} + \beta_{1j}(EAOP_{ij}) + \beta_{2j}(GPA_{ij}) + \beta_{3j}(Credits_{ij}) + \beta_{4j}(Failures_{ij})$
$\qquad\qquad + \beta_{5j}(Male_{ij}) + \beta_{5j}(EAOP * Male_{ij}) + r_{ij}$

Level 2: $\beta_{0j} = \gamma_{00} + \gamma_{01}(API)_j + \gamma_{02}(Enrollment)_j + \gamma_{03}(Percent\ URM)_j$
$\qquad\qquad + \gamma_{04}(Percent\ FRPM)_j + \mu_{0j}$

$\qquad \beta_{1j} = \gamma_{10} + \mu_{1j}$

where, *Y* is the outcome of interest, *EAOP* is a dummy variable coded 1 for EAOP students and 0 for comparison students, *GPA* is the ninth-grade GPA in a-f courses, *Credits* is total a-f credits earned in ninth grade, *Failures* is a dummy variable for failing five credits or more in ninth grade, *Male* is a dummy variable for gender, and *EAOP * Male* is the interaction term between male and EAOP. At the school

level, *API* is the school's API based on spring 2011 testing, *Enrollment* is total student enrollment, *Percent URM* is percent of students who are Latino, African American, or Native American, and *Percent FRPM* is the percent of students who are eligible for free or reduced-price meals. All covariates in these models were centered around the values for the average EAOP student and school shown in Exhibit 3 of the body text of the report.

For all other outcomes, the functional form was the same, but the model estimates the log of the odds of achieving the outcome:

$$p_{ij} = \text{Prob}(Y = 1|\beta)$$

Level 1: $Log(\frac{p_{ij}}{(1 - p_{ij})}) = \beta_{0j} + \beta_{1j}(EAOP_{ij}) + \beta_{2j}(GPA_{ij}) + \beta_{3j}(Credits_{ij})$
$$+ \beta_{4j}(Failures_{ij}) + \beta_{5j}(Male_{ij}) + \beta_{5j}(EAOP * Male_{ij}) + r_{ij}$$

Level 2: $\beta_{0j} = \gamma_{00} + \gamma_{01}(API)_j + \gamma_{02}(Enrollment)_j + \gamma_{03}(Percent\ URM)_j$
$$+ \gamma_{04}(Percent\ FRPM)_j + \mu_{0j}$$

$$\beta_{1j} = \gamma_{10} + \mu_{1j}$$

The coefficient of interest for the comparison is on EAOP, with the null hypothesis that mean outcome for EAOP and non-EAOP students is the same—in other words, that the coefficient on $\beta_{1j}$, the dummy variable indicating EAOP status, is 0.

**Across-School Sample:** For the across-school sample, EAOP status is determined by the school where a student is enrolled, and so the EAOP indicator is at Level 2. We used the following final achievement model for the two continuous GPA variables:

Level 1: $Y_{ij} = \beta_{0j} + \beta_{1j}(GPA_{ij}) + \beta_{2j}(Credits_{ij}) + \beta_{3j}(Failures_{ij}) + \beta_{4j}(Male_{ij}) + r_{ij}$

Level 2: $\beta_{0j} = \gamma_{00} + \gamma_{01}(EAOP)_j + \gamma_{02}(API)_j + \gamma_{03}(Enrollment)_j + \gamma_{04}(Percent\ URM)_j$
$$+ \gamma_{05}(Percent\ FRPM)_j + \mu_{0j}$$

$$\beta_{1j} = \gamma_{10} + \mu_{1j}$$

$$\beta_{4j} = \gamma_{40} + \gamma_{41}(EAOP)_j$$

For all other outcomes, the functional form was the same, but the model estimates the log of the odds of achieving the outcome.

Exhibits B-9 through B-21 provide regression output for the final achievement models from both samples.

**Exhibit B-9:**
**Regression Output for Completing CSU Subject Requirement**

| | Within-School Sample<br>School *n* = 40<br>Student *n* = 6,786 | | Across-School Sample<br>School *n* = 83<br>Student *n* = 9,691 | |
|---|---|---|---|---|
| **Fixed effects** | **Coefficient** | **SE** | **Coefficient** | **SE** |
| Intercept (school mean) | 0.30 | 0.14 | 0.50 | 0.21 |
| *Student level* | | | | |
| EAOP participant | 0.61 | 0.10 | | |
| 9th-grade GPA in a-f courses | 1.06 | 0.05 | 1.28 | 0.05 |
| 9th-grade credits earned in a-f courses | 0.04 | 0.00 | 0.06 | 0.00 |
| Failed 5 credits or more in 9th grade | -0.87 | 0.11 | -1.14 | 0.10 |
| Male | -0.33 | 0.07 | -0.45 | 0.06 |
| Male EAOP participant | 0.12 | 0.14 | 0.18 | 0.13 |
| *School level* | | | | |
| API | 0.0086 | <0 .01 | 0.0016 | < 0.01 |
| Total student enrollment | -0.0001 | <0 .01 | 0.0003 | < 0.01 |
| Percent underrepresented minority | 0.0047 | 0.01 | 0.0019 | 0.01 |
| Percent free or reduced price meals | -0.0035 | 0.01 | 0.0012 | 0.01 |
| EAOP school | | | 0.1602 | 0.29 |
| **Random effects** | **Variance component** | **SE** | **Variance component** | **SE** |
| School mean | 0.58 | 0.1841 | 1.12 | 0.2216 |
| EAOP slope | 0.08 | 0.0692 | | |

**Exhibit B-10:**
**Regression Output for CSU GPA**

| | Within-School Sample School *n* = 40 Student *n* = 6,786 | | Across-School Sample School *n* = 83 Student *n* = 9,691 | |
|---|---|---|---|---|
| **Fixed effects** | Coefficient | SE | Coefficient | SE |
| Intercept (school mean) | 3.12 | 0.03 | 3.31 | 0.03 |
| *Student level* | | | | |
| EAOP participant | 0.15 | 0.03 | | |
| 9th-grade GPA in a-f courses | 0.37 | 0.01 | 0.37 | 0.01 |
| 9th-grade credits earned in a-f courses | 0.00 | 0.00 | 0.00 | 0.00 |
| Failed 5 credits or more in 9th grade | -0.36 | 0.02 | -0.51 | 0.02 |
| Male | -0.11 | 0.02 | -0.19 | 0.01 |
| Male EAOP participant | 0.02 | 0.03 | 0.08 | 0.03 |
| *School level* | | | | |
| API | 0.0006 | < 0.01 | 0.0004 | <0 .01 |
| Total student enrollment | 0.0001 | <0 .01 | < .0001 | < 0.01 |
| Percent underrepresented minority | -0.0013 | <0 .01 | < .0001 | < 0.01 |
| Percent free or reduced price meals | -0.0017 | < 0.01 | -0.0015 | < 0.01 |
| EAOP school | | | 0.0028 | 0.04 |
| **Random effects** | Variance component | SE | Variance component | SE |
| School mean | 0.02 | 0.0059 | 0.02 | 0.0048 |
| EAOP slope | 0.01 | 0.0060 | | |
| Student | 0.29 | 0.0050 | 0.31 | 0.0044 |

**Exhibit B-11:**
**Regression Output for Completing UC Subject Requirement**

| | Within-School Sample<br>School *n* = 40<br>Student *n* = 6,786 | | Across-School Sample<br>School *n* = 83<br>Student *n* = 9,691 | |
|---|---|---|---|---|
| **Fixed effects** | Coefficient | SE | Coefficient | SE |
| Intercept (school mean) | 0.16 | 0.14 | 0.32 | 0.23 |
| *Student level* | | | | |
| EAOP participant | 0.62 | 0.10 | | |
| 9th-grade GPA in a-f courses | 1.07 | 0.05 | 1.28 | 0.05 |
| 9th-grade credits earned in a-f courses | 0.04 | 0.00 | 0.05 | 0.00 |
| Failed 5 credits or more in 9th grade | -0.81 | 0.11 | -1.08 | 0.10 |
| Male | -0.30 | 0.07 | -0.43 | 0.06 |
| Male EAOP participant | 0.11 | 0.14 | 0.27 | 0.13 |
| *School level* | | | | |
| API | 0.0089 | <0 .01 | 0.0021 | <0 .01 |
| Total student enrollment | -0.0001 | < 0.01 | 0.0004 | <0 .01 |
| Percent underrepresented minority | 0.0033 | 0.01 | -0.0004 | 0.01 |
| Percent free or reduced price meals | -0.0026 | 0.01 | 0.0009 | 0.01 |
| EAOP school | | | 0.1754 | 0.33 |
| **Random effects** | Variance component | SE | Variance component | SE |
| School mean | 0.55 | 0.1757 | 1.42 | 0.2797 |
| EAOP slope | 0.09 | 0.0654 | | |

**Exhibit B-12:**
**Regression Output for UC GPA**

| | Within-School Sample<br>School *n* = 40<br>Student *n* = 6,786 | | Across-School Sample<br>School *n* = 83<br>Student *n* = 9,691 | |
|---|---|---|---|---|
| **Fixed effects** | **Coefficient** | **SE** | **Coefficient** | **SE** |
| Intercept (school mean) | 3.11 | 0.03 | 3.30 | 0.03 |
| ***Student level*** | | | | |
| EAOP participant | 0.15 | 0.03 | | |
| 9th-grade GPA in a-f courses | 0.37 | 0.01 | 0.37 | 0.01 |
| 9th-grade credits earned in a-f courses | 0.00 | 0.00 | 0.00 | 0.00 |
| Failed 5 credits or more in 9th grade | -0.36 | 0.02 | -0.51 | 0.02 |
| Male | -0.11 | 0.02 | -0.19 | 0.01 |
| Male EAOP participant | 0.02 | 0.03 | 0.09 | 0.03 |
| ***School level*** | | | | |
| API | 0.0006 | < 0.01 | 0.0004 | <0 .01 |
| Total student enrollment | 0.0001 | < 0.01 | 0.0000 | < 0.01 |
| Percent underrepresented minority | -0.0013 | < 0.01 | -0.0001 | < 0.01 |
| Percent free or reduced price meals | -0.0016 | <0 .01 | -0.0014 | < 0.01 |
| EAOP school | | | 0.0053 | 0.05 |
| **Random effects** | **Variance component** | **SE** | **Variance component** | **SE** |
| School mean | 0.02 | 0.0059 | 0.02 | 0.0048 |
| EAOP slope | 0.01 | 0.0059 | | |
| Student | 0.29 | 0.0051 | 0.31 | 0.0045 |

**Exhibit B-13:**
**Regression Output for Taking College Admission Test (ACT or SAT)**

| | Within-School Sample School $n$ = 40 Student $n$ = 6,786 | | Across-School Sample School $n$ = 83 Student $n$ = 9,691 | |
|---|---|---|---|---|
| **Fixed effects** | **Coefficient** | **SE** | **Coefficient** | **SE** |
| Intercept (school mean) | 0.42 | 0.10 | 0.76 | 0.14 |
| *Student level* | | | | |
| EAOP participant | 0.90 | 0.13 | | |
| 9th-grade GPA in a-f courses | 0.63 | 0.05 | 0.54 | 0.04 |
| 9th-grade credits earned in a-f courses | 0.03 | <0.01 | 0.02 | <.01 |
| Failed 5 credits or more in 9th grade | -0.58 | 0.09 | -0.92 | 0.08 |
| Male | -0.26 | 0.06 | -0.23 | 0.05 |
| Male EAOP participant | 0.23 | 0.15 | 0.18 | 0.13 |
| *School level* | | | | |
| API | 0.0032 | < 0.01 | < .0001 | < 0.01 |
| Total student enrollment | 0.0000 | <0 .01 | 0.0001 | <0 .01 |
| Percent underrepresented minority | 0.0060 | 0.01 | 0.0097 | 0.01 |
| Percent free or reduced price meals | -0.0144 | 0.01 | -0.0047 | 0.01 |
| EAOP school | | | 0.3732 | 0.20 |
| **Random effects** | **Variance component** | **SE** | **Variance component** | **SE** |
| School mean | 0.21 | 0.0714 | 0.31 | 0.0678 |
| EAOP slope | 0.25 | 0.1027 | | |

**Exhibit B-14:**
**Regression Output for Applying to UC**

| | Within-School Sample School *n* = 40 Student *n* = 6,786 | | Across-School Sample School *n* = 83 Student *n* = 9,691 | |
|---|---|---|---|---|
| **Fixed effects** | **Coefficient** | **SE** | **Coefficient** | **SE** |
| Intercept (school mean) | -1.28 | 0.13 | -0.72 | 0.12 |
| *Student level* | | | | |
| EAOP participant | 0.87 | 0.14 | | |
| 9th-grade GPA in a-f courses | 1.43 | 0.07 | 1.29 | 0.05 |
| 9th-grade credits earned in a-f courses | 0.04 | 0.00 | 0.02 | 0.00 |
| Failed 5 credits or more in 9th grade | -0.82 | 0.15 | -0.92 | 0.12 |
| Male | -0.06 | 0.07 | -0.20 | 0.06 |
| Male EAOP participant | 0.26 | 0.14 | 0.13 | 0.12 |
| *School level* | | | | |
| API | 0.0047 | <0 .01 | -0.0001 | <0 .01 |
| Total student enrollment | 0.0001 | < 0.01 | 0.0001 | <0 .01 |
| Percent underrepresented minority | 0.0140 | 0.01 | 0.0100 | 0.01 |
| Percent free or reduced price meals | -0.0125 | 0.01 | -0.0006 | 0.01 |
| EAOP school | | | 0.3644 | 0.17 |
| **Random effects** | **Variance component** | **SE** | **Variance component** | **SE** |
| School mean | 0.44 | 0.1621 | 0.31 | 0.0678 |
| EAOP slope | 0.46 | 0.1744 | | |

**Exhibit B-15:**
**Regression Output for Admission to UC, All Students**

| Fixed effects | Within-School Sample School n = 40 Student n = 6,786 | | Across-School Sample School n = 83 Student n = 9,691 | |
|---|---|---|---|---|
| | Coefficient | SE | Coefficient | SE |
| Intercept (school mean) | -2.00 | 0.12 | -1.33 | 0.13 |
| *Student level* | | | | |
| EAOP participant | 0.97 | 0.14 | | |
| 9th-grade GPA in a-f courses | 1.91 | 0.08 | 1.82 | 0.06 |
| 9th-grade credits earned in a-f courses | 0.05 | 0.00 | 0.03 | 0.00 |
| Failed 5 credits or more in 9th grade | -1.01 | 0.20 | -0.80 | 0.15 |
| Male | -0.05 | 0.08 | -0.23 | 0.06 |
| Male EAOP participant | 0.04 | 0.15 | 0.05 | 0.13 |
| *School level* | | | | |
| API | 0.0039 | <0.01 | 0.0003 | <0.01 |
| Total student enrollment | 0.0002 | <0.01 | 0.0001 | <0.01 |
| Percent underrepresented minority | 0.0077 | 0.01 | 0.0074 | 0.01 |
| Percent free or reduced price meals | -0.0120 | 0.01 | 0.0025 | 0.01 |
| EAOP school | | | 0.3959 | 0.19 |
| **Random effects** | Variance component | SE | Variance component | SE |
| School mean | 0.34 | 0.1191 | 0.36 | 0.0818 |
| EAOP slope | 0.36 | 0.1359 | | |

**Exhibit B-16:**
**Regression Output for Admission to UC, Applicants Only**

| | Within-School Sample School *n* = 40 Student *n* = 1,556 | | Across-School Sample School *n* = 79 Student *n* = 2,173 | |
|---|---|---|---|---|
| **Fixed effects** | Coefficient | SE | Coefficient | SE |
| Intercept (school mean) | 0.73 | 0.18 | 1.06 | 0.16 |
| *Student level* | | | | |
| EAOP participant | 0.53 | 0.19 | | |
| 9th-grade GPA in a-f courses | 1.17 | 0.12 | 1.27 | 0.10 |
| 9th-grade credits earned in a-f courses | 0.02 | 0.01 | 0.01 | 0.01 |
| Failed 5 credits or more in 9th grade | -0.65 | 0.29 | -0.17 | 0.23 |
| Male | -0.05 | 0.14 | -0.24 | 0.10 |
| Male EAOP participant | -0.45 | 0.25 | -0.13 | 0.22 |
| *School level* | | | | |
| API | 0.0013 | <0 .01 | 0.0018 | <0 .01 |
| Total student enrollment | 0.0001 | <0 .01 | 0.0001 | <0.01 |
| Percent underrepresented minority | -0.0077 | 0.01 | -0.0023 | 0.01 |
| Percent free or reduced price meals | 0.0036 | 0.01 | 0.0100 | 0.01 |
| EAOP school | | | 0.1718 | 0.25 |
| **Random effects** | Variance component | SE | Variance component | SE |
| School mean | 0.60 | 0.2062 | 0.44 | 0.1198 |
| EAOP slope | 0.32 | 0.1955 | | |

**Exhibit B-17:**
**Regression Output for Enrollment at UC, All Students**

| | Within-School Sample<br>School *n* = 40<br>Student n = 6,786 | | Across-School Sample<br>School *n* = 83<br>Student *n* = 9,691 | |
|---|---|---|---|---|
| **Fixed effects** | **Coefficient** | **SE** | **Coefficient** | **SE** |
| Intercept (school mean) | -2.67 | 0.14 | -2.19 | 0.15 |
| *Student level* | | | | |
| EAOP participant | 0.73 | 0.16 | | |
| 9th-grade GPA in a-f courses | 1.83 | 0.10 | 1.48 | 0.08 |
| 9th-grade credits earned in a-f courses | 0.04 | 0.00 | 0.02 | 0.00 |
| Failed 5 credits or more in 9th grade | -0.69 | 0.23 | -0.80 | 0.19 |
| Male | -0.20 | 0.10 | 0.03 | 0.07 |
| Male EAOP participant | 0.38 | 0.17 | -0.11 | 0.15 |
| *School level* | | | | |
| API | 0.0025 | <0.01 | 0.0016 | <0.01 |
| Total student enrollment | 0.0004 | <0.01 | 0.0001 | <0.01 |
| Percent underrepresented minority | 0.0039 | <0.01 | 0.0032 | 0.01 |
| Percent free or reduced price meals | -0.0114 | 0.01 | 0.0025 | 0.01 |
| EAOP school | | | 0.5432 | 0.21 |
| **Random effects** | **Variance component** | **SE** | **Variance component** | **SE** |
| School mean | 0.42 | 0.1473 | 0.48 | 0.1036 |
| EAOP slope | 0.52 | 0.2151 | | |

**Exhibit B-18:**
**Regression Output for Enrollment at UC, Admitted Students Only**

| Fixed effects | Within-School Sample School *n* = 40 Student n = 1,140 | | Across-School Sample School *n* = 78 Student *n* = 1,618 | |
|---|---|---|---|---|
| | Coefficient | SE | Coefficient | SE |
| Intercept (school mean) | 0.40 | 0.19 | 0.24 | 0.19 |
| *Student level* | | | | |
| EAOP participant | -0.25 | 0.24 | | |
| 9th-grade GPA in a-f courses | 0.37 | 0.13 | -0.11 | 0.10 |
| 9th-grade credits earned in a-f courses | 0.01 | 0.01 | 0.00 | 0.01 |
| Failed 5 credits or more in 9th grade | 0.69 | 0.42 | -0.14 | 0.31 |
| Male | -0.39 | 0.14 | 0.28 | 0.11 |
| Male EAOP participant | 0.67 | 0.24 | -0.18 | 0.21 |
| *School level* | | | | |
| API | 0.0007 | < 0.01 | 0.0026 | <0 .01 |
| Total student enrollment | 0.0001 | <0 .01 | <0 .01 | < 0.01 |
| Percent underrepresented minority | -0.0019 | < 0.01 | 0.0004 | 0.01 |
| Percent free or reduced price meals | -0.0057 | 0.01 | -0.0020 | 0.01 |
| EAOP school | | | 0.2781 | 0.27 |
| **Random effects** | Variance component | SE | Variance component | SE |
| School mean | 0.79 | 0.2992 | 0.68 | 0.1617 |
| EAOP slope | 1.29 | 0.4865 | | |

**Exhibit B-19:**
**Regression Output for 2- or 4-Year College Enrollment**

| | Within-School Sample School n = 40 Student *n* = 6,786 | | Across-School Sample School *n* = 83 Student *n* = 9,691 | |
|---|---|---|---|---|
| **Fixed effects** | **Coefficient** | **SE** | **Coefficient** | **SE** |
| Intercept (school mean) | 0.94 | 0.10 | 0.85 | 0.11 |
| *Student level* | | | | |
| EAOP participant | 0.34 | 0.11 | | |
| 9th-grade GPA in a-f courses | 0.17 | 0.04 | 0.31 | 0.03 |
| 9th-grade credits earned in a-f courses | 0.03 | 0.00 | 0.03 | 0.00 |
| Failed 5 credits or more in 9th grade | -0.15 | 0.09 | -0.50 | 0.08 |
| Male | -0.36 | 0.06 | -0.15 | 0.05 |
| Male EAOP participant | 0.43 | 0.14 | 0.18 | 0.13 |
| *School level* | | | | |
| API | 0.0029 | <0 .01 | 0.0017 | <0.01 |
| Total student enrollment | 0.0000 | < 0.01 | 0.0001 | <0 .01 |
| Percent underrepresented minority | -0.0028 | 0.01 | -0.0028 | 0.01 |
| Percent free or reduced price meals | -0.0057 | 0.01 | -0.0038 | 0.01 |
| EAOP school | | | 0.5046 | 0.17 |
| **Random effects** | **Variance component** | **SE** | **Variance component** | **SE** |
| School mean | 0.27 | 0.0763 | 0.28 | 0.0608 |
| EAOP slope | 0.15 | 0.0767 | | |

**Exhibit B-20:**
**Regression Output for 4-Year College Enrollment**

| | Within-School Sample School n = 40 Student *n* = 6,786 | | Across-School Sample School *n* = 83 Student *n* = 9,691 | |
|---|---|---|---|---|
| **Fixed effects** | **Coefficient** | **SE** | **Coefficient** | **SE** |
| Intercept (school mean) | -0.62 | 0.11 | -0.30 | 0.12 |
| *Student level* | | | | |
| EAOP participant | 0.59 | 0.12 | | |
| 9th-grade GPA in a-f courses | 0.90 | 0.05 | 0.89 | 0.04 |
| 9th-grade credits earned in a-f courses | 0.04 | 0.00 | 0.04 | 0.00 |
| Failed 5 credits or more in 9th grade | -0.45 | 0.11 | -1.17 | 0.11 |
| Male | -0.26 | 0.07 | -0.20 | 0.05 |
| Male EAOP participant | 0.41 | 0.13 | 0.18 | 0.12 |
| *School level* | | | | |
| API | 0.0035 | <0 .01 | 0.0011 | < 0.01 |
| Total student enrollment | -0.0003 | <0 .01 | 0.0000 | <0 .01 |
| Percent underrepresented minority | 0.0007 | 0.01 | 0.0020 | 0.01 |
| Percent free or reduced price meals | -0.0063 | 0.01 | -0.0010 | 0.01 |
| EAOP school | | | 0.3031 | 0.18 |
| **Random effects** | **Variance component** | **SE** | **Variance component** | **SE** |
| School mean | 0.31 | 0.1006 | 0.36 | 0.0815 |
| EAOP slope | 0.28 | 0.0996 | | |

**Exhibit B-21:**
**Regression Output for 1-year Persistence**

| | Within-School Sample<br>School *n* = 40<br>Student *n* = 3,751 | | Across-School Sample<br>School *n* = 83<br>Student *n* = 4,876 | |
|---|---|---|---|---|
| **Fixed effects** | **Coefficient** | **SE** | **Coefficient** | **SE** |
| Intercept (school mean) | 1.22 | 0.11 | 1.44 | 0.11 |
| *Student level* | | | | |
| EAOP participant | 0.21 | 0.16 | | |
| 9th-grade GPA in a-f courses | 0.19 | 0.06 | 0.27 | 0.05 |
| 9th-grade credits earned in a-f courses | 0.01 | 0.00 | 0.00 | 0.00 |
| Failed 5 credits or more in 9th grade | -0.27 | 0.13 | -0.48 | 0.12 |
| Male | 0.01 | 0.09 | -0.37 | 0.08 |
| Male EAOP participant | -0.18 | 0.18 | 0.29 | 0.17 |
| *School level* | | | | |
| API | 0.0036 | <0 .01 | 0.0027 | < 0.01 |
| Total student enrollment | 0.0000 | <0 .01 | 0.0002 | <0 .01 |
| Percent underrepresented minority | 0.0031 | < 0.01 | -0.0031 | <0 .01 |
| Percent free or reduced price meals | -0.0025 | 0.01 | -0.0031 | 0.01 |
| EAOP school | | | -0.0200 | 0.1700 |
| **Random effects** | **Variance component** | **SE** | **Variance component** | **SE** |
| School mean | 0.26 | 0.0931 | 0.20 | 0.0601 |
| EAOP slope | 0.41 | 0.1718 | | |