Equity in education:
High school FAFSA submission rates and
California community colleges' equity activities

By

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Abstract

Equity gaps are present on who enters and completes college where racially minoritized and low-income students are less likely to do either compared to White and more affluent students. My dissertation is comprised of two papers. The first paper examines an access barrier—submitting a FAFSA—and the second examines equity activities at Californian community colleges to help students persist and complete.

My first paper examines FAFSA submission rates and if there are inequalities by race and sex for California's 2018 high school graduates. I also explore the school characteristics associated with higher FAFSA completion rates using multilevel logistic models. I find that out of low-income and high achieving students (i.e., students that have at least a 3.0 GPA when they graduate high school), 85 percent of Asian students submit a FAFSA making them the most likely to do so. Native Indian/Alaska Native students are the least likely to submit a FAFSA as only 60 percent submit one. White students are the second least likely to submit one with just 68 percent submitting a FAFSA. Inequities by race and sex are also present where females are consistently more likely to submit a FAFSA compared to their male counterparts. The multilevel analysis finds that four school characteristics are associated with the odds of a student submitting a FAFSA—the share of a students that are socioeconomically disadvantaged, the share of classes offered that are A-G, the share of students who pass the English Language Arts section of California's standardized test, and the share of 12th graders who complete the A-G sequence. All four characteristics increase a student's odds of submitting a FAFSA as the characteristic increases. Differences are present by student racial background.

My second paper provides an analysis of the California Community Colleges 2020 Annual Reports. In these reports colleges give an update on how they are spending equity funds

and the progress on activities for selected equity goals based on their three-year Student Equity Plans. These goals are based on different student groups (e.g., race, income, veteran) and metrics (e.g., enrollment, completing college level math and English, and completion). I document and analyze the common activities colleges are using to close equity gaps and how they are spending their equity funds. While colleges reported on a variety of activities to close gaps for their metric goals, counseling/course scheduling and academic support are the two activities most frequently reported. However, some differences are present across the colleges based on regions and college characteristics (e.g., size, share of Promise students, staff racial background). Two concerning findings is the prevalence of cultural awareness activities being reported, as well as the number of activities reported for all students. Both raise questions if they will help close equity gaps. Finally, colleges are spending most of their funds on salaries. This is unsurprising given counseling was the most common activity category, with staff resources as the fourth most common category. What is unknown is if colleges are creating new programs with new positions or are they using funds to cover salaries for existing positions.

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FAFSA Completion Rates Among Californian High School Graduates

Having a postsecondary education is becoming more crucial as many jobs, even entry-level jobs, require some form of postsecondary education (Bureau of Labor Statistics, 2019). In fact, both the U.S. and California will experience a skilled workforce shortage in 2030 where the supply of workers will not meet workforce demands (Bureau of Labor Statistics, 2019; Johnson, et al., 2019). While the workforce needs more skilled workers, there are benefits for the individual with a postsecondary education as they have better outcomes compared to individuals who do not complete college. These outcomes include better wages, lower public assistance use, and better health outcomes (Muenning, 2007; Tamborini & Sakamoto, 2015; Waldfogel et al., 2007; Woessmann, 2015). However, equity gaps are present on who enters and completes college where low-income, Black, and Latinx high school graduates are less likely to attend any form of college (Bailey & Dynarkski, 2011; Johnson & Cuellar Mejia, 2020; Snyder et al., 2018). For example, a recent study by Johnson and Cuellar Mejia (2020) found that only 31 percent low-income 9th grade Californian students ever attended a four-year college compared to 56 percent of middle and high-income students, and about 33 percent of Black and Latinx 9th grade California students ever attend a four-year college compared to about 70 percent of Asian students.

There are many reasons these gaps exist, and college costs are a major factor for students when deciding on where and if to attend college (Bozick et al., 2015; Hahn & Price, 2008; Hemlet & Marcotte, 2016; St. John, 2006). Even academically eligible students who did not attend college cite college costs and perceived availability of aid as the primary reason for not attending (Hahn & Price, 2008). Compounding the cost issue is information barriers. Many students and families lack accurate and complete information on college costs and aid (Grodsky & Jones, 2007; Horn et al., 2003; Perna & Steele, 2011), which is especially true for low-income,

Black, and Latinx families (Bell et al., 2009; Grodsky & Jones, 2007; Perna, 2008). Even for students who expect to attend college, they still lack information (Horn et al., 2003). This is evidenced by the fact that many students do not fill out the Free Application for Federal Student Aid (FAFSA), the application to receive federal, state, and local aid (Kofoed, 2017). In fact, millions of college student each year do not fill out a FASA when many would qualify for the need-based federal Pell Grant (Kantrowitz, 2009; King, 2006). The most common reason, regardless of eligibility, for not filing a FAFA is students believing they would not qualify for aid (Kantrowitz, 2009).

A student's high school can play an important role in access to college information. While much research focuses on student characteristics as it pertains to applying for aid (e.g., Nagaoka et al, 2013), few studies focus on the school. This is important given schools are responsible for preparing students for college—submitting the FAFSA is a key part of being college ready. Leaning on the college readiness literature that examines school differences, we know the resources schools provide such as college counselors and other resources greatly vary (Venezia & Kirst, 2005), and that high racially minoritized and low-income schools struggle with providing a college-going culture (Balfanz & Legters 2004; Roderick et al., 2011). In fact, 65 percent of Black and 56 percent of Latinx students attend high poverty urban schools (Synder et al., 2016) or high schools that have lower demonstrated levels of college culture (Robinson & Roksa, 2016). These school differences can have major equity implications on access to high school quality and, as a result, college access.

Completing the FAFSA is important as extant research finds that grant aid increases the likelihood of students enrolling in a postsecondary institution, where $1,000 increase in aid is associated with a three and four percentage point increase in attendance (Abraham & Clark,

2006; Dynarski, 2003; Kane, 2007). Furthermore, completing the FAFSA is associated with an average increase of 50 percent in a student's likelihood of enrolling into a four-year institution (Roderick et al., 2009). As previously stated, not all college eligible students apply for financial aid or submit the FAFSA (Fenney & Heroff, 2013; Kofoed, 2017). In California, little is known about which students submit the FAFSA, which is how they are awarded a Cal Grant—the state's largest grant that covers tuition at public colleges—as well as the Pell Grant and institutional aid. The goals of this paper are twofold: First, I explore whether there are FAFSA submission inequalities by race and sex for California's 2018 high school graduates. Second, I explore the school characteristics associated with higher FAFSA completion rates.

Background on Financial Aid

The Free Application for Federal Student Aid (FAFSA) is an application all potential and returning college students must fill out to receive government college aid such as grants, work-study, and loans. The FAFSA is essential for college access for low-income students, but many high school students do not submit one (King, 2004; Kofoed, 2017). One of the reasons attributed to this is lack of information (Kantrowitz, 2009; Snyder et al., 2018). Sixty-seven percent of 2013 high school graduates who attended any college state they did not complete the FAFSA because they thought they would be ineligible or did not qualify for aid, with 44 percent stating they did not have enough information on how to complete the FAFSA (Snyder et al., 2018). Most concerning, almost 40 percent did not submit a FAFSA because they did not know they could complete one (Snyder et al., 2018), which could potentially mean their high school did not provide them with this basic information.

Students not only lack information on the FAFSA, but also on college costs and aid availability. On the cost side, many high school students will not even guess the cost of the

college, just simply state that it is high (Bell et al., 2009; Perna & Steele, 2011). High school students who are willing to provide an estimate, both them and their caregivers grossly overestimate tuition by 65 and 80 percent, respectively, for four-year colleges, and 240 and 153 percent, respectively, for two-year colleges (Horn et al., 2003). On the aid side, families have a general sense, but lack a clear understanding of the requirements and how much aid will cover the total cost of enrollment (Perna & Steele, 2011). Once families are given information on aid, especially for state aid (i.e., eligibility criteria, aid amount, etc.), their uncertainty about paying for college is reduced (Perna & Steele, 2011). These information gaps are important as many families decide where their student will attend, if at all, based on the perceived cost and their ability to pay (Perna & Steele, 2011; Sallie Mae, 2014).

It is important to note that lack of information on college cost, aid, and FAFSA varies across different groups. Information awareness is particularly low among low-income, Black, and Latinx families (Grodsky & Jones, 2004; Hu & Hossler, 2000; Luna De La Rosa, 2006). McDonough and Calderone (2006) postulate that this lack of information contributes to the college enrollment gaps seen between wealthier and White students compared to low-income and racially minoritized students. Furthermore, extant research connects student and family understanding of costs and aid to increases in college expectations (Flint, 1993; Horn et al., 2003), application behavior (Cabrera & LaNasa, 2001), and enrollment (Plank & Jordan, 2001).

The FAFSA application is complex—a point that has been well established for over 30 years (Schenet, 1991)—which creates more barriers for students to complete it. As Dynarski and Scott-Clayton (2007) point out, the FAFSA is four pages and 90 questions longer than the IRS tax form 1040EZ; the form commonly used by the lowest income households. Asher (2007) from The Institute for College Access and Success adeptly summarized the FAFSA issue:

> [t]he financial aid application process, whether in its paper or online form, is long, confusing, intimidating in tone, and requires a great deal of personal and family financial information that can be especially difficult for students from low-income families to collect. (p. 4).

The FAFSA has been improved over the years by reducing the number of forms from six to one (Schenet, 1991; U.S. Government Accountability Office, 2009), and the introduction of the IRS Data Retrieval Tool in 2009 that imports tax information directly into the application (U.S. Department of Education, 2009, 2010; U.S. Government Accountability Office, 2009). Next, FAFSA was improved by making the applications availably earlier—October instead of January—starting in the 2016-2017 application year. Also, during this time, families were allowed to use their income data from two years earlier instead of the previous year in the application (Stratford, 2015). This move was meant to make gathering financial data easier. Even with these improvements, more are needed as the form remains too complex. In fact, the federal government is still trying to simplify the FAFSA. One way is to make eligibility determination easier. For example, there is a proposal to use a family's IRS Adjusted Gross Income (AGI) and IRS exemptions instead of the 45 questions for the poorest families (U.S. Department of Education, 2009) or using tax data instead of asking families to enter it (Asher, 2007; U.S. Government Accountability Office, 2009). The idea to simplify has even been pushed to make the FAFSA the size of a postcard (National Association of Student Financial Aid Administrators, 2020). Most recently, the FAFSA Simplification Act was passed in late December of 2020 (Federal Student Aid, 2021). The Act replaced the formula used to determine need with a new one that removed the number of family members in college and determines Pell eligibility separately. It will also expand Pell access and will streamline the application by reducing the

number of questions from 108 to 33, as well as expanding IRS data transfers (American Association of Community Colleges, n.d; Warick, 2021).

Simplification is needed as research finds FAFSA's complexity may deter low-income, college-ready high school students from successfully enrolling in college (Advisory Committee on Student Financial Assistance, 2005; Bettinger et al., 2012; Dynarski & Scott-Clayton, 2006). In fact, we know that not all eligible college students complete the FAFSA (Fenney & Heroff, 2013; Kofoed, 2017). Kofoed (2017) estimated that college students who do not submit a FAFSA forgo an average of $9,741.05 in aid each year, which totals to $24 billion nationwide. In California, $550 million in aid goes unused each year as only 54 percent of high school seniors complete the FAFSA (Wu, 2019). This is concerning as simply completing the FAFSA increases a student's likelihood of enrolling into a four-year college by 50 percent (Roderick et al., 2009), as well as reduces the cost of college.

Efforts to improve FAFSA completion through simplification and assistance are promising. Bettinger et al.'s (2012) experiment with H&R Block found that providing families with individual assistance, as well as simplifying the application by pre-populating the form with tax data, increased FAFSA completion rates, as well as college enrollment. In their experiment, researchers randomly placed students and their families in three groups—information only, FAFSA treatment, or a control condition. The control group received a brochure with general information on attending college, college costs, and financial aid. The information only treatment group received individualized estimated for their financial aid eligibility and was encouraged to finish the FAFSA. The FAFSA treatment group received personalized estimates, as well as help from H&R Block to complete the FAFSA. Their tax information was pre-populated in the FAFSA form and participated in a ten-minute interview to collect information on parent

education, number of dependents in college, and the prospective student's educational goals. The families were then asked if they would like the FAFSA to be submitted for them. Bettinger et al. (2012) found that only about 40 percent of dependents from the control and information only groups submitted a FAFSA, compared to 56 percent of dependents from the FAFSA treatment group. Additionally, students in the FAFSA treatment group were seven percentage points more likely to enroll in college compared to the control. This simple intervention that combined FASFA simplification and assistance has huge impacts on FAFSA submission and college enrollment.

Cal Grant

In California, the state's main college aid program is the Cal Grant, which provides tuition and fee assistance to close to 550,000 college students in the 2020-21 academic year, totaling about $2.6 billion in grant aid (California Student Aid Commission, 2020; Qing, 2019). To qualify for this aid, students must submit a FAFSA or the California Dream Act Application for undocumented and Dream act-eligible students. It encompasses three main award types—Cal Grant A, B, and C—that have different eligibility requirements and award amounts (see Table 1.1). Cal Grant A can be used at four-year institutions, Cal Grant B at either four- or two-year institutions, and Cal Grant C to be used at vocational or technically institutions.

Regardless of the award type, a student must enroll in an eligible institution to use their Cal Grant, per the California's 2012 Budget Act. The Budget Act outlines the criteria for an institution to be eligible to accept Cal Grants. They must have their federal student loan Cohort Default Rate below 15.5 percent and their graduation rate above 30 percent. The graduation rate provides some flexibility as it is for 150 percent of the published program length, meaning a student graduates a four-year program within six years, a two-year program within three years,

and a six-month program within nine months. In the 2018-2019 academic year, 330 institutions were eligible and only 39 were not (California Student Aid Commission, 2019a; California Student Aid Commission, 2019b).

Table 1.1

Cal Grant Eligibility and Award Amounts

Grant type	Eligibility Requirements	Grant Amount
Cal Grant A	Max Family Income: $106,500 (family of four) High School GPA: 3.0 College Programs: Associate or bachelor's degree programs that are at least two years long.	UC/CSU: All tuition and Fees Private Colleges: Up to $9,084
Cal Grant B	Max Family Income: $56,000 (family of four) High School GPA: 2.0 College Programs: Associate or bachelor's degree programs that are at least one year long.	Any college: $1,672 for expenses in the first year. All years after that the same amount as Cal Grant A and the $1,672 for expenses.
Cal Grant C	Max Family Income: $106,500 (family of four) High School GPA: N/A College Programs: Recognized occupational or technical training program that are at least four months long.	Community Colleges: Up to $1,094 Private Colleges: Up to $2,462 for tuition and $547 for class materials.

Cal Grants A and B have different versions: high school entitlement, California community college entitlement, and competitive. The high school and California community college entitlement grants are guaranteed to all recent high school graduates and community college students transferring to a four-year institution, respectively, who meet the requirements. The competitive grants are limited to only 41,000 grants and are available to students who did not qualify for the entitlement grants, mainly due to being older. However, the 2021-22 state budget removes the time out of high school requirement for community college students, which would allow them to receive the entitlement grants (Department of Finance, 2021).

Why Aid Matters

College financial aid is important as research has found that grant aid increases the likelihood of students enrolling in postsecondary education (Bartik, et al., 2021; Deming & Dynarski, 2010; Dynarski & Scott-Clayton, 2013). Specifically, a $1,000 increase in aid is associated with a three to four percentage point increase in attendance (Abraham & Clark, 2006; Dynarski, 2003; Kane, 2007). Research on receiving a Cal Grant and its effect on college enrollment is mixed. Kane (2003) found that receiving the Cal Grant, increased college attendance by three to four percentage points. However, more recent work found that the Cal Grant did not have a meaningful effect on enrollment, though the authors posited that this could be due to the high college-going rate among Cal Grant recipients (Bettinger et al., 2019).

Financial aid can not only increase enrollment, but it can also boost retention and completion (Alon, 2011; Bartik, et al., 2021; Bettinger et al., 2019; Chen & DesJardins, 2010; Goldrick-Rab et al., 2016). Chen and DesJardins (2010) find that college students from different racial/ethnic backgrounds respond to aid differently. For example, racially minoritized students are less likely to drop out if they receive a Pell, especially higher award amounts, than White students. However, when comparing student populations without aid, the reverse occurs where White students are less likely to drop out than racially minoritized students. This indicates that aid is key to college retention, a milestone that is a critical for degree completion. Relatedly, Bettinger et al. (2019), using a regression discontinuity design, found that Cal Grant receipt increases college completion rates. Specially, they found that students who received a Cal Grant were 4.6 percentage points more likely to complete a bachelors compared to students who just missed the GPA threshold. Bettinger et al (2019) also found that Cal Grant recipients were three

percentage points more likely to complete a bachelors than students that just missed the income eligibility requirement (e.g., slightly wealthier students).

California Policy Context: Mandatory FAFSA

California's current governor, Gavin Newsom, introduced a new policy in the 2021-2022 budget to amend Education Code 51225.7 and require Local Educational Agencies (LEA) to ensure twelfth grade students submit a FAFSA; the bill was passed in July 2021. This policy leans heavily on Assembly Bill 1617, which was introduced by Assemblymember Reyes in February 2019 but did not pass (AB 1617, 2019). Reyes' bill aimed to make FAFSA a requirement, but the Governor's proposal does not. Instead, starting in 2022-23 academic year, LEAs must ensure students submit a FAFSA, but students can opt-out (A.B. 132, 2021). Furthermore, undocumented or Dreamer students can submit the California Dream Act Application instead of the FAFSA. Nowhere does it state that submitting the FAFSA is a graduation requirement. Nevertheless, the bill shifts the responsibility away from students and onto LEAs to ensure all high school seniors complete the FAFSA by stating:

> The local educational agency directs each high school pupil and, if applicable, the pupil's parent or legal guardian to any support and assistance services necessary to comply with the requirement described in subdivision (b) that may be available through outreach programs, including, but not limited to, those programs operated by the Student Aid Commission, postsecondary immigration resource centers, college readiness organizations, community-based organizations, and legal resource organizations.

Currently LEAs are responsible of informing their students how to complete the FAFSA, so this new policy places more responsibilities on ensuring students submit the FAFSA. However, this

policy does not have any teeth since it does not have any repercussions for LEAs or students if FAFSAs an opt-out forms are not submitted.

This policy is not unique. In fact, two California school districts—Val Verde Unified School District and Perris-Union High School District—have already made FAFSA a graduation requirement (Granville, 2020; Paloma Valley High School, n.d.). Similarly, several states have similar policies: Louisiana, Illinois, Texas, Alabama, and 13 other states introduced such policies in 2019 (Alabama State Board of Education, 2021; Granville, 2020). Of the states and California districts who have already made this a requirement, Granville (2020) notes that the requirement has not created graduation barriers. In Val Verde, a district administrator stated that there was an implicit understanding that this requirement would not prevent students from graduating (Granville, 2020). Val Verde and Louisiana are the only two settings to fully implement a FAFSA submission requirement—both in the 2017-2018 academic year. Both have seen promising early outcomes. In Louisiana, FAFSA completion rates increased by an average of 19 percentage points, reaching a 72 percent submission rate after the policy went into effect, with schools with lower pre-policy FAFSA rates having larger increases (Deneault, 2021). Furthermore, schools that experience at least a 10-percentage point increase in FAFSA submission, also have a three-percentage point increase in college enrollment (Deneault, 2021). In Val Verde, 198 more students received a Cal Grant after the first year of the policy, and 328 more in the second year (Granville, 2020). These early results indicate a mandatory FAFSA policy can be effective in improving student aid receipt and college enrollment.

While there are many supporters for the Governor's FAFSA policy as they believe it will create better systems for filling out the FAFSA and creating a better culture (e.g., Ed Trust – West, 2021; Wu et al., 2021), it ignores calls for financial aid information to start prior to high

school in order for students to understand college is affordable sooner, which can increase their college aspirations (Dinkelman & Martinez, 2014; George-Jackson & Gast, 2015; Flint, 1993). Moreover, it is unclear if LEAs have the capacity, both human and financial to fulfill this mandate. The amended Education Code does not contain any sort of incentive or disincentive for schools to implement this policy in fidelity, especially for under resourced schools. This raises a big equity concern—will this policy improve or exacerbate existing inequities in educational quality? Will the schools that serve the most low-income students, who would greatly benefit from financial aid, be able to help these students and their families complete and submit the FAFSA?

School Context and College Readiness

Given the push in California to ensure every high school senior completes a FAFSA, it is important to understand schools' role in this endeavor. In fact, research has long documented the association of the high school context with college readiness, which is generally defined as the level of preparation a student needs to enroll and succeed in credit-bearing college coursework (Conley, 2007). College knowledge is a measure of college readiness, where students with higher levels of college knowledge are more likely to attend and be ready for college (Hooker et al., 2010; Kurlaender et al., 2019; Roderick et al., 2009). Applying for financial aid is part of college knowledge (Roderick et al., 2009), but there is a gap in the literature in understanding school factors associated with FAFSA completion rates, college costs and aid. Examining schools is important since they can be the primary source of college information for first generation students (Perna, 2004; Tomás Rivera Policy Institute, 2004; Tornatzky, Cutler, & Lee, 2002). Of the limited research available, schools tend to be where students obtain college cost and financial aid information (Bell et al., 2009). To gain some insight into what school factors might be related

to higher FAFSA completion rates, I will look to the college readiness and college-going literature.

High school guidance and advising programs influence college going behaviors, especially for low-income and racially minoritized students, as well as students in rural and urban school settings (Gándara and Bial, 2001; McDonough, 2004; Plank and Jordan, 2001; Tierney and Jun, 2001; Venezia et al., 2002). The high school counselor is an integral component to these programs. Counselors not only shape the school's college-going culture, but that of both students' and parents' college expectations and aspirations (McDonough, 1997, 2005b). This is especially true for first generation students who are low-income, Black, and Latinx (Perna, 2004; Tomás Rivera Policy Institute, 2004; Tornatzky, Cutler, & Lee, 2002). Most importantly, early counseling in the 9th grade better prepares students for college, which can increase college enrollment (Cooper & Liou, 2007; McDonough, 1997). However, many schools do not offer early counseling (Bell, Rowan-Kenyon, & Perna, 2009).

Academic preparation, as well as course offerings and rigor are other important factors to college readiness as they provide students with the foundation to be successful in college-level courses (College Board, 2005; Geiser & Santelices, 2004; Kurlaender et al., 2019). Students who are academically prepared or have access to rigorous courses are more likely to attend college and have better postsecondary and job outcomes (Gollub et al., 2002; Jackson 2010; Kurlaender & Howell, 2012; Kurlaender et al., 2018; Long et al., 2012; Roderick et al., 2009). This is especially important for students at low-achieving schools as Long et al. (2012) finds that students who enroll in rigorous courses have larger increases in high school graduation and college attendance compared to student at more affluent schools. This means course access is essential. In California, rigorous courses are known as the A-G sequence. However, access and

completion to these courses are uneven. Gao (2016) finds that high-poverty and high-racially minoritized schools had lower A-G completion compared to their more affluent counterparts. Additionally, a significant share of high schools in the 2016-2017 did not offer the full A-G sequence (Gao & Johnson, 2017).

Lastly, school resources are related to college readiness and success (Darling-Hammond, 2013; Greenwald et al., 1996). Well-resourced schools can focus more on college readiness for their students than less-resourced schools, which is important as a school's college going culture is associated with higher college attendance rates (McDonough, 1998). Less-resourced schools have lower college attendance rates (Horn et al., 1998; Orfeld & Lee, 2005), and these lower resourced schools typically serve more racially minoritized students (Frankenberg & Lee, 2002; Kenty-Drane, 2009; Lleras, 2008). This means that racially minoritized students are likely to attend lower resourced schools. The National Student Clearinghouse (2017) finds that college going rates for students at high-racially minoritized, low-income schools is 55 percent, compared to 77 percent for students at low-racially minoritized, high-income schools. Such school differences are a clear culprit in addressing inequities in college access, including financial aid.

Critical Policy Analysis Lens

In this paper I apply a Critical Policy Analysis (CPA) to help make meaning of how the recent California FAFSA policy could unintentionally uphold current power structures that privilege White and wealthier students over racially minoritized and poor students. CPA is useful as it provides a different lens to understand policies. Currently, many education policy studies draw from theories and perspectives that are influenced by dated assumptions, norms, and traditions that are viewed as being value-free (Marshall, 1997; Scheurich, 1994; Stanfield, 1993; Young, 1999). Furthermore, they tend to employ a linear process where problems are clearly

defined and use measurable facts and data (Blackmore, 1997; Fischer, 2003; Marshall, 1999; Rochefort & Cobb, 1994). In contrast, Kirkland (2019) critiques the assumption of objectivity, and that data is neutral and unbiased. He contends that data is used as tool (or weapon) to help powerful people make claims about their truth or reality. As such, the data employed can be used to keep power structures in place. Scholars like Ball (1991, 1993, 1994), deLeon and Vogenback (2007), Rist (1994), and Stone (2002) have paved the way for a new way to analyze policy—CPA.

CPA reorients policy studies by examining the inconsistencies between what a policy says and what a policy does, especially the social power relationships (Diem et al., 2014). It also asks why, who, and for whom is a policy for (Kirkland, 2019), to explore how minoritized groups become marginalized or harmed by a policy and how power is maintained through the policy. Diem et al. (2019) interviewed scholars and found there were five common reasons they use CPA in their research. These fives reasons highlight what these researchers are concerned with:

1. The difference between policy rhetoric and how it is practiced.
2. The root/impetus and development of a policy.
3. The distribution of power, resources, and knowledge, as well as who are the "winners" and "losers".
4. The policy's effects on social stratification and the relationships of inequality and privilege.
5. How members of nondominant groups are resistant to or engage with the policy or process.

Together, CPA offers an alternative solution to traditional policy analysis that may overlook contextual and systemic issues with policies and policymaking. While the purpose of the study is not to evaluate the impact of California's FAFSA policy, I will use CPA to make sense of my results and gain insights in how the new FAFSA policy could potentially reproduce inequalities where low-income and racially minoritized students may not benefit in ways that the governor and legislature hopes.

Purpose of This Study

Awareness of financial aid is important for many low-income and racially minoritized students to understand that college is affordable for them. Completing the FAFSA is a necessary step to college matriculation. As previously stated, in California, little is known about which high school graduates apply for the FAFSA. As California implements the new mandatory FAFSA policy, it is important to understand what school characteristics can lead to more seniors submitting a FAFSA. This paper aims to fill the gap in the literature on California's FAFSA submission through analysis of the following questions:

RQ1: What is the racial/ethnic composition of 2018 high school graduates who submit a FAFSA? Are there inequities by race and sex?

RQ2: What high school factors are associated with an increase in the likelihood a 2018 high school graduate will submit a FAFSA?

Methods

I use four main data sources made available by the California Student Aid Commission (CSAC) and the California Department of Education (CDE) for both research questions. The CSAC administrative data contains all Californian FAFSA application, Cal Grant award information, and limited demographic information such as sex for the 2018-2019 cycle. The

CDE administrative datasets are the 2015-2018 College and Career Readiness Measure (CCI), the 2013-2017 California Longitudinal Pupil Achievement Data System (CALPADS), and the 2015-2017 California Assessment of Student Performance and Progress (CASPP). I also use various publicly available data from CDE and the National Center for Education Statistics (NCES) to create school-level variables for RQ2.

Sample

The sample includes all 2018 California high school graduates who received a diploma. Students who graduated through alternative means (i.e., received a GED, a special education certificate of completion, or adult education diploma) are excluded.[1] A total of 389,223 students are included in the sample who came from 1,761 different schools across the state. Sixty percent of graduates are socioeconomically disadvantaged (SED) and about half are Latinx and half are female. Twenty-six percent are White, eleven percent Asian, five percent Black, four percent Filipino/Pacific Islander. Lastly, 53 percent of sample completed the A-G sequence (see Appendix 1.1 for more details).

Measures

To understand FAFSA submission in California, a variety of indictors are needed such as if a student is likely eligible for aid and college, academic achievement, college readiness, and demographics (see Table 2.1). The most important measure is if a student might be eligible for the aid and college. This is important as it not only captures students who are the most likely to apply to college because they are academically eligible, but also those whose incomes are low enough to qualify for need based aid. I used the Cal Grant eligibility for this concept. Students were determined to be likely eligible if they were socioeconomically disadvantaged (SED) and

[1] 63,289 students were removed.

had at least a 3.0 GPA. The SED variable includes students who are eligible for free or reduced priced lunch, eligible for Title 1 Part C Migrant program, are homeless, are a foster youth, are in Juvenile Court School, or neither parent received a high school diploma. While the SED includes many types of students whose income might be too high to qualify for need-based aid, it is still a reasonable proxy as 83 percent of FAFSA submitters are correctly identified on their SED status in the CDE data.

Next, student GPA is calculated to determine if they have at least a 3.0 GPA. GPA was calculated using some of CSAC's rules for Cal Grant eligibility. Only grades earned during students' sophomore and junior years (e.g., 2015-2017 academic years) for A-G classes were included. The CSAC rules excludes physical education, Reserve Officer Training Corps, and remedial courses, but the CALPADS data does not identify what is a remedial course, so only A-G courses were used for the analysis. Furthermore, CSAC calculates grades on a 4.0 scale, but the CALPADS data also does not include if a grade is weighted or not, so GPA were not adjusted. Nevertheless, the GPA measure used in this study is a good proxy as 92 percent of FAFSA submitters were accurately identified as either having a GPA of at least a 3.0 or below a 3.0.

The next concept, academic achievement, uses the English Language Arts (ELA) or math portion of California's standardized test called the Smarter Balanced to construct four measures. For both parts of the test, students are placed into four different categories—standard not met, standard nearly met, standard met, and standard exceeded. The student-level measures regarding the ELA and math tests are if a student met or exceeded the standard. For the school-level measures, it is the share of 12^{th} graders who met or exceeded each standard in their junior year of high school.

Table 2.1

Measure List

Concept	Measure	Student / School	Definition
Likely Eligibility for College and Aid	Likely Eligible	Student	A student with at least a 3.0 GPA and is SED (e.g., is eligible for Title 1 Part C Migrant program, is homeless, is a foster youth, is in Juvenile Court School, or neither parent received a high school diploma).
	Submitted FAFSA	Student	If a student submitted a FAFSA or not
Academic Achievement	ELA	Student	Student met or exceeded the Smarter Balance ELA standard
	Math	Student	Student met or exceeded Smarter Balance math standard
	ELA	School	Share of 12th graders meeting or exceeding the Smarter Balance ELA standard
	Math	School	Share of 2018 12th graders meeting or exceeding Smarter Balance math standard
College Readiness	A-G	Student	Completed the A-G sequence needed for admissions to a CSU or UC
	A-G	School	Share of 12th graders who completed the A-G sequence needed for admissions to a CSU or UC
	Share of A-G Courses	School	Share of 2018 12th graders who completed the A-G sequence needed for admissions to a CSU or UC
	Counselor Ratio	School	The ratio of student to high school counselors
	Share of RM Counselors	School	The share of FTE counselors who are racially minoritized— Native Indian/Alaska Native, Black, Latinx, or Pacific Islander/Filipino.
	Number of Colleges	School	The number of four-year colleges that are less than 21 miles away from the school.
Demographics	Sex	Student	Female or male
	Race	Student	Native Indian/Alaska Native, Asian, Black, Latinx, Pacific Islander/ Filipino, or White.
	Share SED	School	The share of 9th-12th graders who are socioeconomically disadvantaged—is eligible for Title 1 Part C Migrant program, is homeless, is a foster youth, is in Juvenile Court School, or neither parent received a high school diploma.
	Enrollment	School	The total number of 9th-12th grade students enrolled at the school.
	Share RM	School	The share of 9th-12th graders who are racially minoritized.
	Finance	School	The district's expenditure per student.

The college readiness concept encompasses six different measures. Three pertain to the A-G sequence. The A-G sequences is a series of classes needed to be eligible to apply to a California State University (CSU) or University of California (UC) college. These courses are deemed as college preparatory and are approved by the UC Board of Admissions. To complete the sequence a student must complete 15 yearlong courses that cover (a) history/social science, (b) English, (c) mathematics, (d) laboratory science, (e) foreign language, (f) visual and performing arts, and (g) college-preparatory electives (University of California, n.d.). The student-level measure is a student completed the sequence. The school-level measures are the share of 12th graders who completed sequence and the share of courses offered that are A-G. The next two school-level measures pertain to high school counselors' importance in getting students college ready. The first covariate is the ratio of students to counselors, where having a lower ratio suggests higher access to a counselor. The second covariate calculates the share of FTE counselors who are racially minoritized (RM). RM for counselors is defined as being Native Indian/Alaska Native, Black, Latinx, or Pacific Islander/Filipino. The final measure is the number of four-year colleges near the high school, where a college is defined as close if it is less than 21 miles away.

The final concept is demographics, and it covers both student and school demographic characteristics. For student-level measures the first is a student's sex (measured as a binary male or female) and does not capture if a student is transgender. Hopefully future administrative data collections will capture student sex (e.g., sex assigned at birth) and gender to provide more nuanced understanding of sex and gender differences. The next student-level measure is a student's racial/ethnic identity. This analysis focuses on Native Indian/Alaska Native, Asian, Black, Latinx, Pacific Islander/ Filipino, or White. Future research should disaggregate the Asian

category as differences surely exist within this group. There are five school-level measures—the total number of 9th-12th grade students at the school, the share of students who are from RM racial/ethnic backgrounds, the share of students who are SED, and school finances. School finances are measured by the district's expenditure per student which is taken from the NCES Common Core Data.

Measure Descriptions

A total of 95,793 2018 high school Californian graduates are in the likely college and aid eligible sample (see Table 3.1). Most of these students are female (60 percent) or Latinx (58 percent). Furthermore, these students have high measures of college readiness and academic achievement as 74 percent completed the A-G sequence, and 80 percent met the ELA standard. However, just half met the math standards on the 11th grade state assessments.

The average school's FAFSA submission rate is 66 percent for likely eligible graduates. The schools these students attend tend to be largely low-income and racially minoritized as 60 and 62 percent, respectively, of the student population fit either category. The average school in the analysis has almost 1,200 students enrolled, and its district spends $12,316 per student. The academic achievement and college readiness covariates are mixed. The average school has only about 43 percent of their 2018 12th graders meeting the math standard, but almost 70 percent met the ELA standard. For the college readiness covariates, the average FTE counselor to student ratio is one counselor for 311 students, which is slightly higher than what the American School Counselor Association recommends—one counselor for 250 students. While the average share of courses 60 percent of courses offered are A-G, only 40 percent of 12th graders completed the A-G sequence.

Table 3.1

Measures Summary Statistics for Likely Eligible Graduates

	Likely Eligible Graduates	
	Mean	SD
Student-level		
Female	0.60	0.49
Black	0.05	0.22
Native Indian/Alaska Native	0.00	0.07
Asian	0.15	0.36
Pacific Islander/Filipino	0.04	0.20
Latinx	0.58	0.49
White	0.15	0.35
Completed A-G	0.74	0.44
Met ELA Standard	0.80	0.40
Met Math Standard	0.50	0.49
Number of Students in Sample	95,793	
School-level		
FAFSA Submission Rate	0.66	0.30
% SED	0.60	0.26
% Racially minoritized	0.62	0.28
Student enrollment	1,180	1,000
Expenditure per student[2]	$12,316	$2,595
% Meeting ELA Standard	0.69	0.15
% Meeting Math Standard	0.43	0.19
% Completing A-G	0.40	0.27
Student per Counselor	311	285
% of FTE Counselors RM	0.33	0.36
% of Classes A-G	0.56	0.25
# of Four-Year Colleges Nearby	1.90	1.69
Number of schools in sample	1,662	

Analytical Plan

Before answering RQ1 on the racial/ethnic makeup of 2018 high school seniors who are likely eligible for college and aid, I will first analyze the statewide differences between likely eligible and all high school graduates. I conducted this analysis to gain better insights into how

[2] Outliers were removed and any district with an expenditure per student of $30,000 or higher were coded as missing.

the likely eligible group differs from the overall graduate population. I provide data visualizations on the summary statistics for academic achievement, college readiness, and demographics. Next, to answer my research question I calculated the statewide FAFSA submission rates. I also calculated the submission rates by race—Native Indian/Alaska Native, Asian, Black, Latinx, Pacific Islander/ Filipino, or White—and by race and sex. Finally, I compared the rates between and within groups.

To answer RQ2 on what school factors are correlated with higher rates of FAFSA submission, I first evaluate school-level descriptive statistics to understand how schools' FAFSA submission rates for their likely eligible population varied by different characteristics. Next, I ran correlations on level-one and level-two variables (see Appendix 2.1). I fit a multilevel logistic model to account for the variation between students within the same school, as well as between schools. This will allow me to understand which school-level variables increase a student's likelihood of submitting a FAFSA. The model I used can be expressed in the simple equation for student i in school j is as:

$$\text{logit}(\text{FAFSA}_{ij}) = \gamma_{00} + \gamma x + \mu_{0j} + e_{ij}$$

where $\text{logit}(\text{FAFSA}_{ij})$ is the odds ith student will submit a FAFSA, in jth school; γ_{00} is the average FAFSA submission rate across all schools; x is a vector of predictors whose effect are represented by γ; e_{ij} is the error specific to the ith student in the jth school, assuming $\sim N(0, \sigma_e^2)$; and μ_{0j} is the unique residual for school j from the population intercept across all schools, assuming $\sim N(0, \sigma_{u0}^2)$.

I use a sequential model building process, starting with the null model:

$$\text{logit}(\text{FAFSA}_{ij}) = \gamma_{00} + u_{0j} + e_{ij}$$

The Intra-class Correlation Coefficient (ICC) of the null model is 0.27, which means 27 percent of the variation lies between schools and the remaining 73 percent lies between students, which also confirms using a multilevel model is appropriate. Next, I added the level-one or student-level variables where all variables' intercepts were fixed (see Appendix 3.1 for models). Race is treated as a categorical variable, and Asian students were excluded as the reference group. All level-one variables were kept in the model.

Next, I added the level-two or school-level variables to the model where all variables' intercepts are fixed (see Appendix 4.1 for all models). I used a hybrid approach to my modeling building process where I used Wald test to determine which variables to keep in the model and the extant literature on which variables to keep. The Wald test results suggest that the following school-level variables should be excluded—share of school's population being racially minoritized, the share of students meeting the math standard, the share of counselor being racially minoritized, and number of four-year colleges nearby. Given what the literature states about high-racially minoritized schools in terms of college preparation and attendance (Gao, 2016; McDonough, 1998; National Student Clearinghouse, 2017), I kept the racially minoritized variable in the model, but dropped the other two variables. My final model is as follows with all variables' intercepts are fixed:

$$\begin{aligned}\text{logit}(\text{FAFSA}_{ij}) = {} & \gamma_{00} + \gamma_{10}(\text{Female}_{ij}) + \gamma_{20}(\text{Black}_{ij}) + \gamma_{30}(\text{Latinx}_{ij}) + \gamma_{40}(\text{Native Am}_{ij}) + \\ & \gamma_{50}(\text{PI}_{ij}) + \gamma_{60}(\text{White}_{ij}) + \gamma_{70}(\text{Met ELA}_{ij}) + \gamma_{80}(\text{Met Math}_{ij}) + \gamma_{09}(\text{Completed AG}_{ij}) + \\ & \gamma_{01}(\%\text{SED}_{j}) + \gamma_{02}(\%\text{RM}_{j}) + \gamma_{03}(\text{School Enrollment}_{j}) + \gamma_{04}(\text{Expenditures/Student}_{j}) + \\ & + \gamma_{05}(\%\text{ Meeting ELA}_{j}) + \gamma_{06}(\%\text{ Completing AG}_{j}) + \gamma_{06}(\text{Counselor/Student}_{j}) + \\ & \gamma_{07}(\%\text{ Classes AG}_{j}) + \mu_{0j} + e_{ij}\end{aligned}$$

I tested for differences by race using the Wald test. To gain a better sense of how school-level variables might affect a student's likelihood of submitting a FAFSA differently based on their racial background, I stratified the model by race. This means I ran separate models restricting the

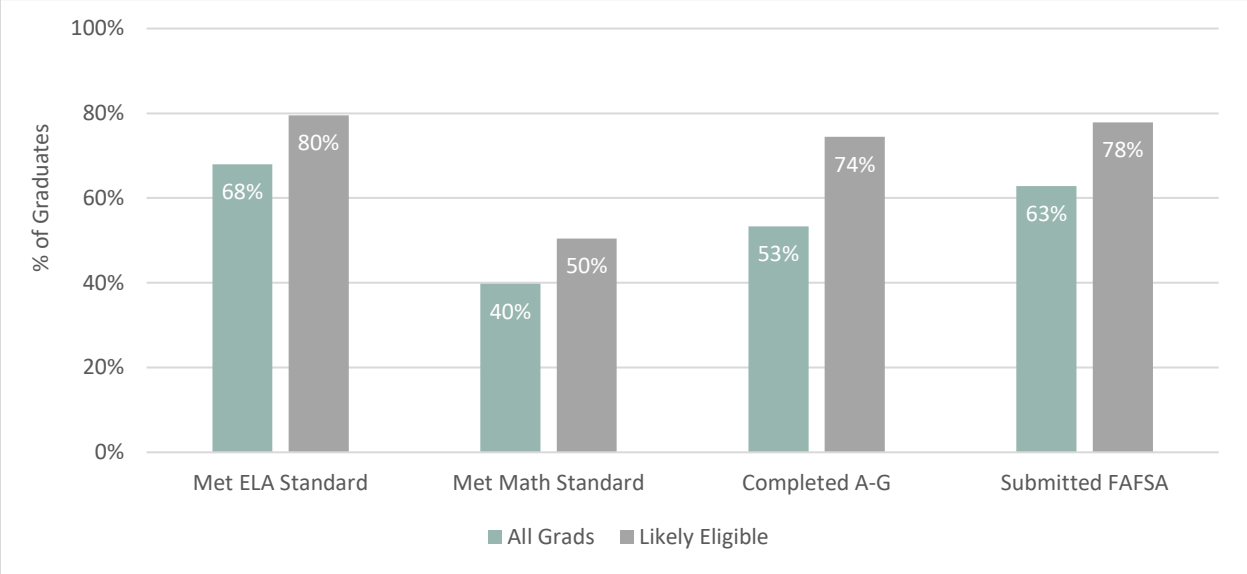
sample to just one racial/ethnic group. Finally, I calculated both the odds ratio and predicted probabilities for each model.

RQ1 Results

Likely eligible graduates and the full sample of all graduates attend schools whose average share of SED students is almost identical—60 percent for likely eligible and 59 percent for the full sample. The racial/ethnic differences between the two graduate groups are minimal, with three exceptions (see Appendix 1.1 for a table of all variables). First, likely eligible graduates are eight percentage points more likely to be Latinx—58 percent compared to 50 percent. They are also slightly more likely to be Asian where 15 percent of likely eligible graduates are Asian compared to just 11 percent of all graduates. Finally, they are less likely to be White. Just 15 percent are White compared to 26 percent of all graduates. The main differences between the two groups pertains to their academic achievement and college readiness (see Figure 1.1). Likely eligible graduates are more likely to meet the ELA or math standards, as well as to complete the A-G course sequence. The largest gap is A-G completion where 74 percent of likely eligible graduates completed the A-G course sequence, but only 53 percent of all graduates did, which represents a 21-percentage point gap. The gaps for meeting the ELA or math standards are not trivial, but not as large. There is a 12-percentage point gap for meeting the ELA standard and a 10-percentage point gap for meeting the math standard. The final difference between the two groups is that the likely eligible graduates' statewide FAFSA submission rate is 78 percent but only 63 percent for all graduates.

Figure 1.1

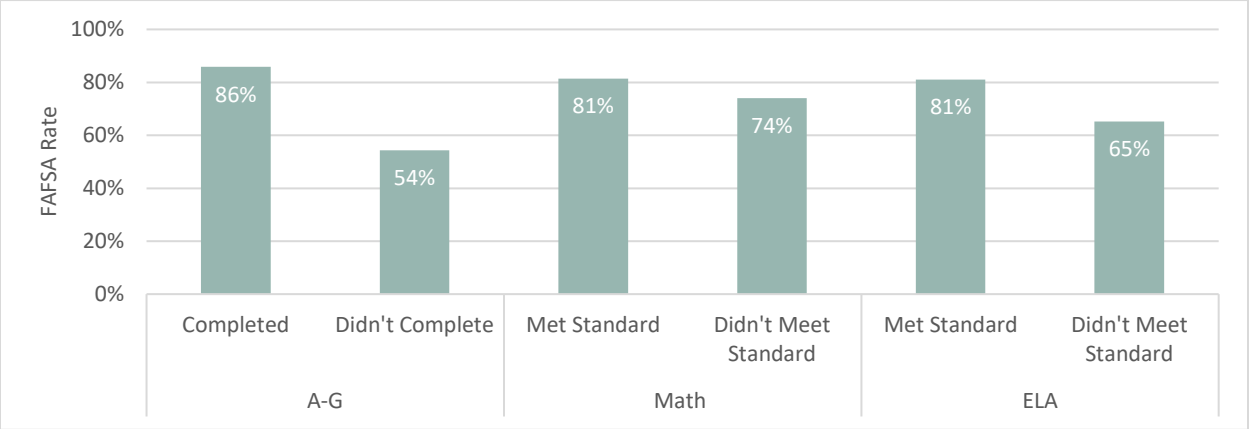
Differences between Likely Eligible and All Graduates



The rest of the analysis will focus solely on the likely college and aid eligible graduates. Focusing on this group is important as it not only captures students who are the most likely to apply to college because they are academically eligible, but also those whose incomes are low enough to qualify for aid. Within this group, differences are present in their academic outcomes according to where they submitted a FAFSA or not (see Figure 2.1). Those who did not complete the A-G sequence are 32 percentage points less likely to submit a FAFSA than those who completed it. This is unsurprising given that completing A-G is a requirement for admissions to the UC and CSU system. However, what is troubling is that this is not a requirement to attend a community college, where financial aid like the Pell Grant is also available. This means that graduates who do not complete the A-G sequence and attend a community college are potentially missing out on aid. Finally, students who did not meet the math standard are more likely to submit a FAFSA than those who did not meet the ELA standard. Additional research is needed to understand these two finding.

Figure 2.1

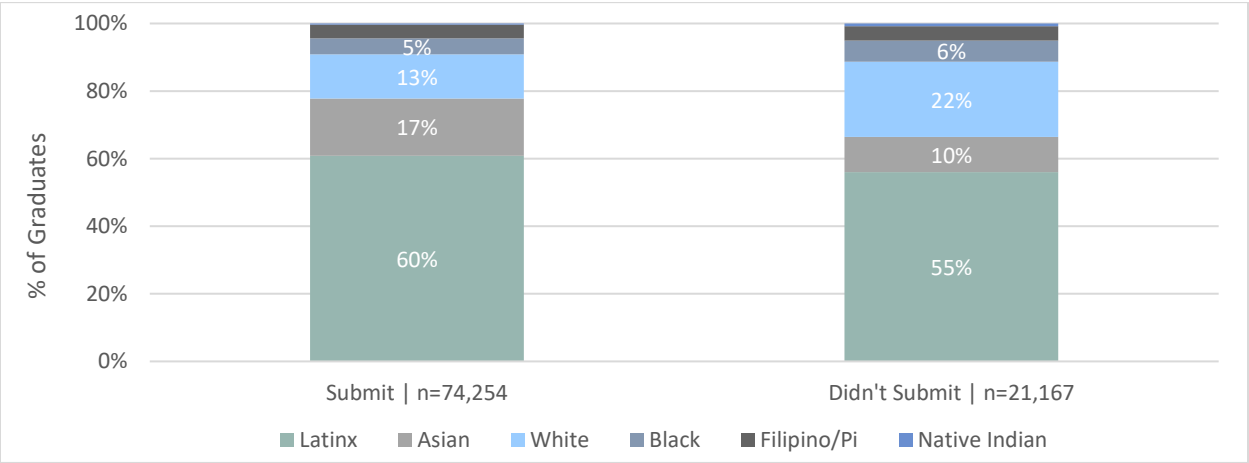
FAFSA Rates by Academic Outcomes



Examining the demographics within this group on who submits and does not submit a FAFSA, I note considerable variation (see Figure 3.1). Asian students are overrepresented by 70 percent in the submit group compared to the didn't submit group, with Latinx students being overrepresented by 9 percent. There are two racial groups that are underrepresented in the submit group. White students are underrepresented in the submit group by 41 percent. Though not as underrepresented as White students, Black students are underrepresented in the submit group by 17 percent.

Figure 3.1

Racial/Ethnic Breakdown of Likely Eligible Graduates by FAFSA Status

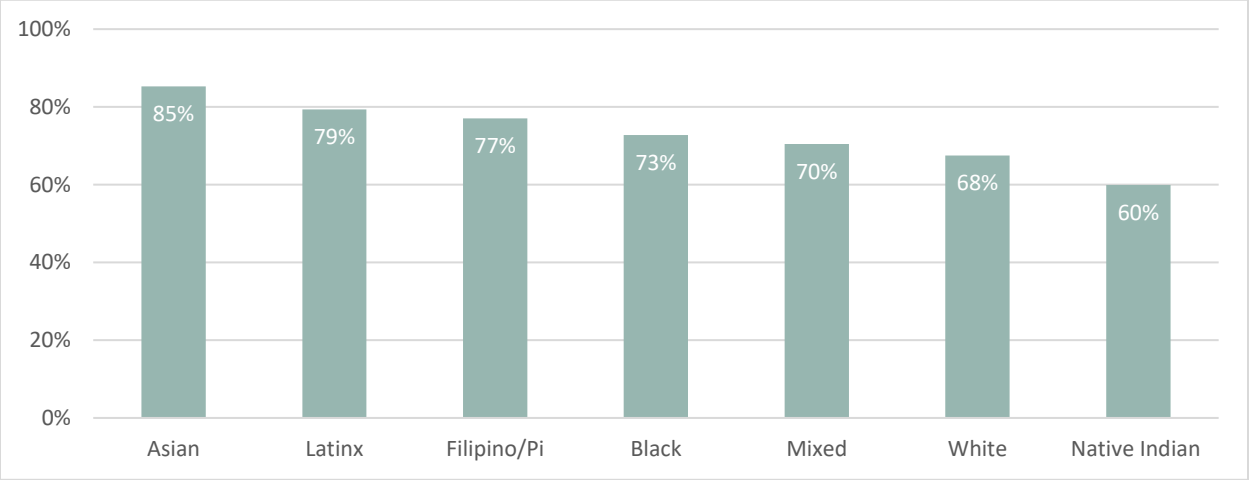


Percentages do not equal 100 as students whose race is mixed or missing are excluded from this figure.

Examining within each racial group of likely eligible students, the inequities continue. Native Indian/Alaska Native students are the least likely to submit a FAFSA, as only 60 percent of likely eligible seniors submitted one (see Figure 4.1). This is lower than FAFSA submission rate (63 percent) for all high school graduates, regardless if they are likely eligible for a college or aid. Surprisingly, White students are the second least likely group to submit a FAFSA—only 68 percent of likely eligible students did. This is surprising as much of the literature uses them as the comparison group for success. Focusing on the students who have higher submission rates, Asian students have the highest rate (85 percent), but it is important to reiterate the data did not allow for a disaggregation of Asian students. This means variation within Asian students (i.e., East Asian vs Southeast Asian) is not captured. Latinx and Pacific Islander/Filipino also have high submission rates of 79 and 77 percent, respectively. Finally, likely eligible Black students are in the middle of the group with 73 percent submitting a FAFSA.

Figure 4.1

FAFSA Rates by Race[3]

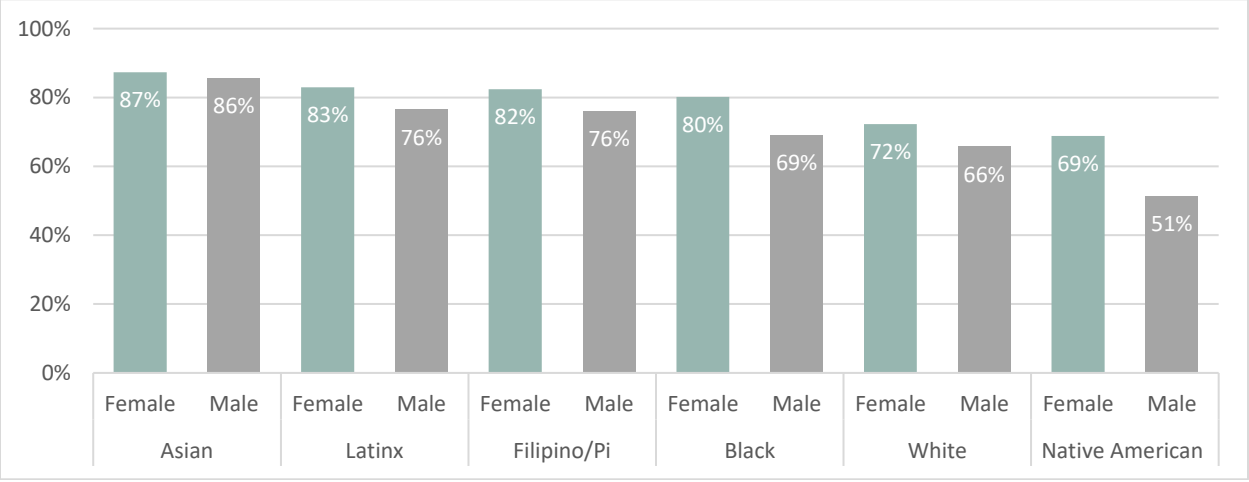


[3] I had access to 2016-2018 graduates where I could identify likely eligible students, so I tried to determine if there were any trends over time but given the limited timeframe trends did not emerge. See Appendix 5.1.

Inequities in FAFSA submission rates are also present when the data are disaggregated by race and sex. Females consistently have higher submission rates compared to their male counterparts, irrespective of race/ethnicity (see Figure 5.1). Asian females have the highest FAFSA submission rate (87 percent) out of all student groups, whereas Native Indian males have the lowest rate (51 percent). The Native Indian males' rate is 12 percentage points lower than the overall graduate population's FAFSA rate. Another area of concern is that Black male rates are eleven percentage points lower than Black females, as well as seven percentage points lower than Latinx and Filipino/Pacific Islander males. Finally, both White females and males are near last—only second to Native Indians—with FAFSA submission rates of 72 percent and 66 percent, respectively. For White females, this represents almost a 10-percentage point difference compared to Latinx, Filipino/Pacific Islander, and Black females. For White males, this represents a 10-percentage point difference compared to Latinx and Filipino/Pacific Islander males.

Figure 5.1

FAFSA Rates by Race and Sex



In summary, likely eligible students are more likely to meet the math or ELA standard, complete the A-G sequence, and submit a FAFSA compared to the overall graduate population. Similarly, likely eligible students who meet the math standard, meet the ELA standard, or complete the A-G sequence have higher FAFSA submission rates than likely eligible students who do not have one of those outcomes. Inequities within the likely eligible group are present when examining race and sex. A 25-percentage point gap exists between Asian and Native Indian students' FAFSA submission, which are the highest and lowest group. Furthermore, female students have higher FAFSA rates than their male counterparts. This is especially true for Black and Native Indian students where the female-male gap is 11 and 18-percentage points, respectively.

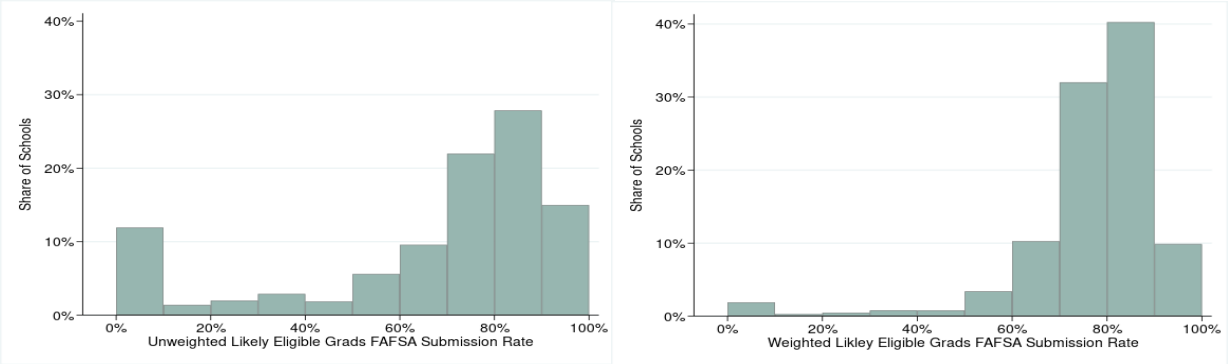
RQ2 Results

The average school-level FAFSA submission rate for likely college and aid eligible (e.g., have SED status and a GPA of at least 3.0) 2018 high school graduates is 66 percent, with about 74 percent of schools having at a FAFSA rates of at least 60 percent (see Figure 6.1).[4] However, if school-level FAFSA rates are weighted by school size, the rate increases to 77 percent, with over 90 percent of schools have FAFSA submission rates of at least 60 percent. Regardless of weighting rates, it is encouraging that many schools have higher FAFSA submission rates, but there are still some schools that need improvement.

[4] For clarification, these FAFSA rates will differ from the ones reported in RQ1 given RQ1 is the statewide FAFSA rates and in the RQ2 it's the school FAFSA rates.

Figure 6.1

Distribution of School FAFSA Submission Rates



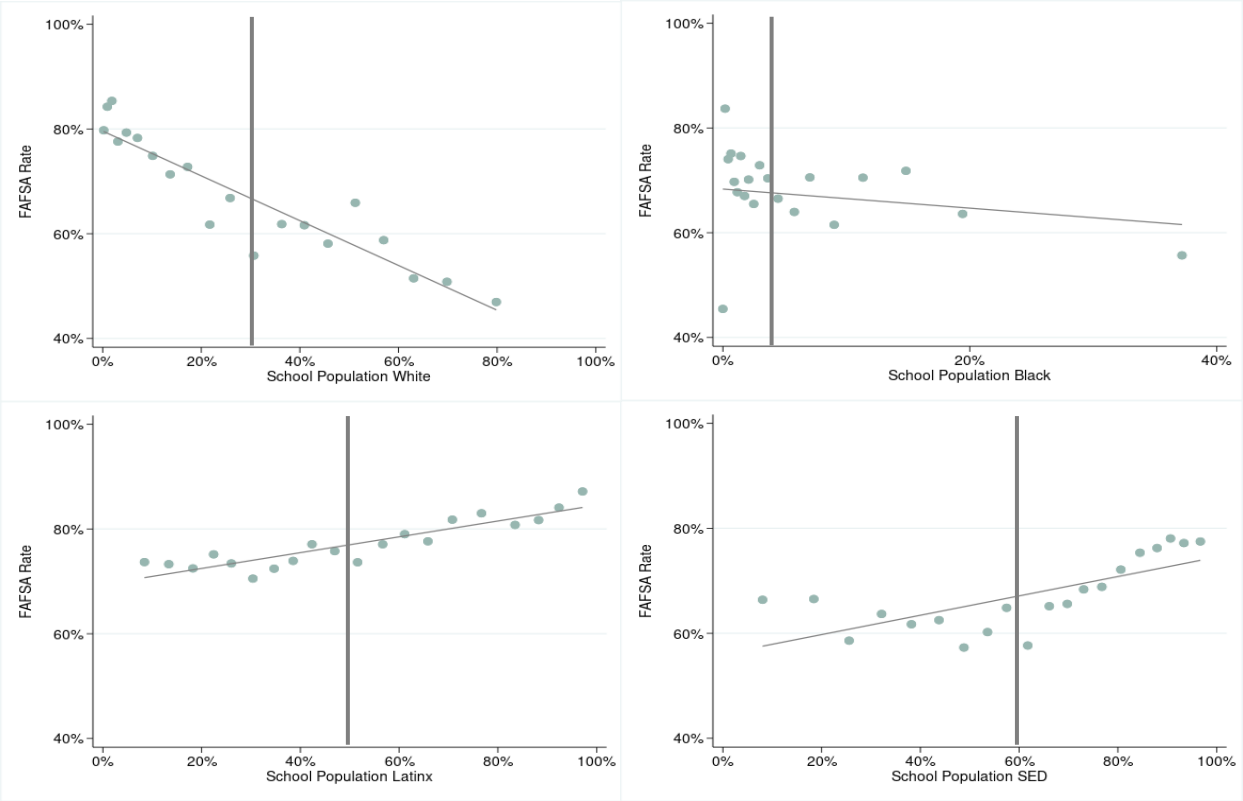
School Descriptive Statistics Results

School-level FAFSA rates are correlated with a variety of school characteristics.[5] Figure 7.1 depicts how a school's FAFSA submission rates for likely eligible students correlate with various school characteristics. The dots represent the average FAFSA submission rates at a given level for each school characteristic and the vertical line represents the overall average value for the characteristic. Schools with more concentrated White or Black student enrollment, respectively, have lower FAFSA rates. Conversely, as a school's population of Latinx or SED students increase, so does the FAFSA rates. While it is encouraging to see high SED schools having higher FAFSA rates given that need based aid is meant for low-income students, it is concerning that schools with higher shares of Black students have lower FAFSA rates.

[5] I conducted an analysis using 2016-2018 likely eligible graduates to see how school characteristics changed over time but given the limited timeframe trends did not emerge. See Appendix 6.1.

Figure 7.1

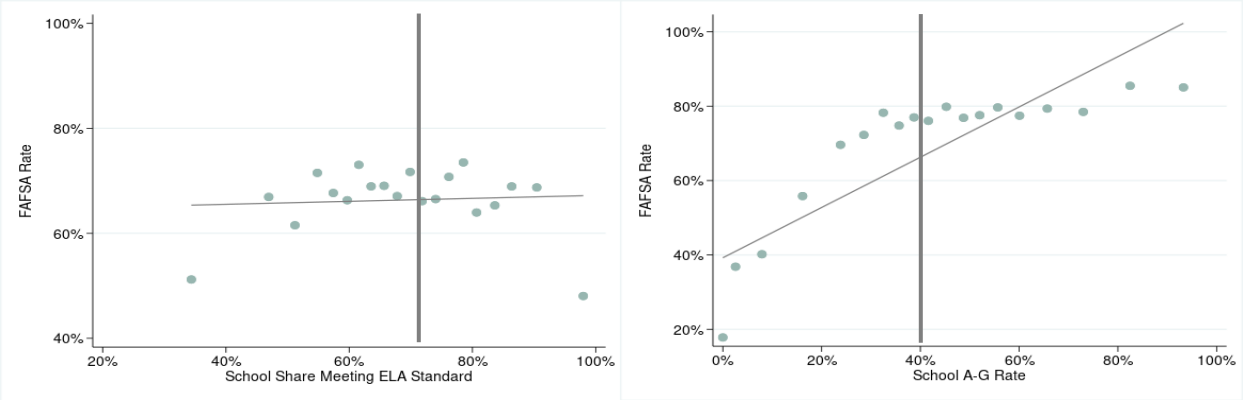
School-Level FAFSA Rates by Student Characteristics



The relationship between school academic performance and FAFSA rates for the likely eligible population is mixed (see Figure 8.1). I note a positive relationship between a school's 12th grade class completing the A-G sequence and the FAFSA rate; as the school's A-G rate increases, so does its FAFSA. The relationship between the share of students meeting the ELA standard is also positive, but not as pronounced as the A-G relationship.

Figure 8.1

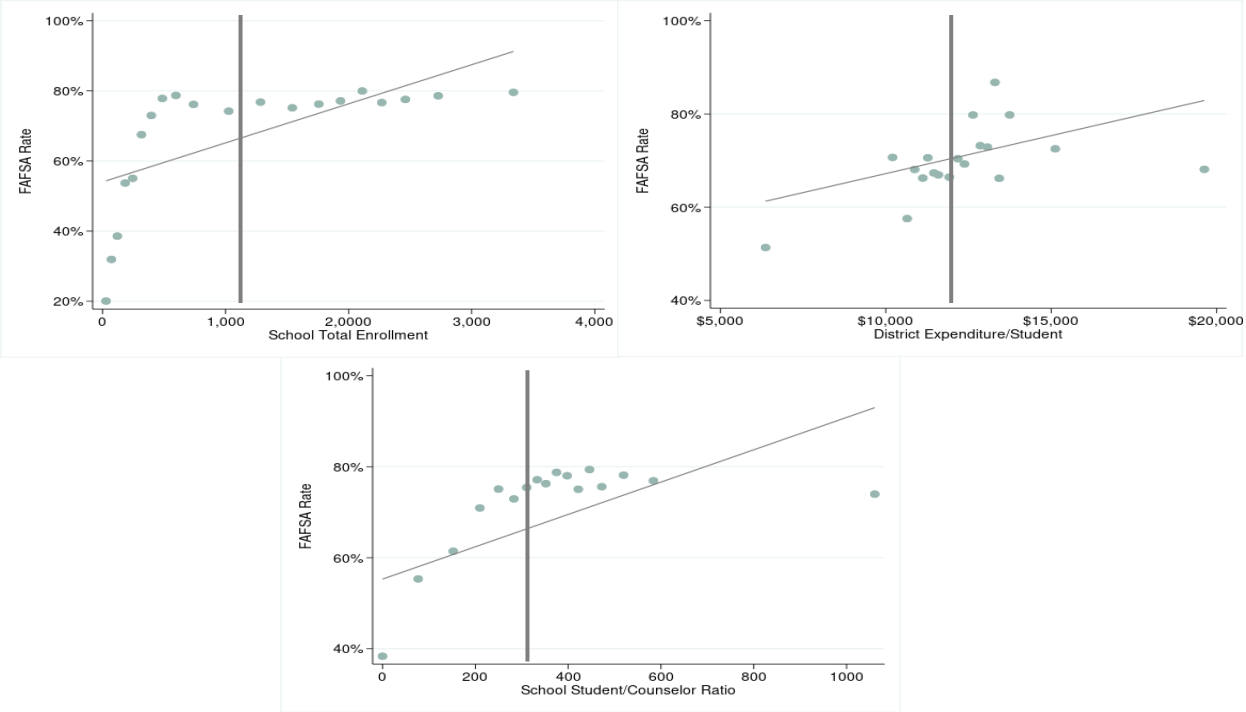
School-Level FAFSA Rates by School Performance



Examining other school inputs, I note more moderate relationships (see Figure 9.1). For example, examining the FAFSA relationship with school size, smaller schools (e.g., less than 200 students) fall extremely below the regression line, indicating that their FAFSA rates are lower than the expected value. However, schools with enrollments of about 250 to 750 students have FAFSA rates higher than predicted. It is not until enrollments are between 1,000 and 3,000 that FAFSA rates fall near the line. This is similar for district expenditures for students. Finally, while the relationship is not perfect, the positive relationship between the student-counselor ratio and FAFSA rates is surprising. This is interesting as conventional wisdom suggests a lower ratio—less students per counselors—would increase FAFSA rates, not the other way around. This is also surprisingly given the college readiness literature on the importance of counselors (e.g., Perna, 2004).

Figure 9.1

School-Level FAFSA Rates by School Inputs



Multilevel Results

The overall model includes all students (see Table 4.1)[6] where school enrollment, district expenditure per student, and the student to counselor ratio all have odds ratio of one. This means these school-level measures do not have a statistically significant relationship with the odds of a student submitting a FAFSA. This holds true across the stratified models looking at students from different racial backgrounds.

The largest school-level association is the share of students who are SED. The odds of submitting a FAFSA is associated with a threefold increase when a school's SED population increases by one percentage point, holding all else constant. Put differently, the predicted probability a likely eligible student will submit a FAFSA at a low-poverty school (e.g., SED

[6] The Wald test found differences are present by race except for four student pairs: Black and Pacific Islander, Black and Latinx students, Pacific Island and Latinx, and Native Indian and White.

population equals 25 percent) is 74 percent compared to 83 percent for a likely eligible student at a higher poverty school, holding all else constant (e.g., SED population equals 75 percent) as shown in Table 5.1. However, students from different racial backgrounds experience this school attribute differently, which is true across all school variables. A school's poverty status is not statistically significant for Asian or Black students, but it is for all other student groups. Additionally, while all racial groups have lower predicated probabilities of submitting a FAFSA when they attend wealthier schools, Native Indian students' probabilities are influenced the most. It is important to note the small sample size of likely eligible Native Indian students—379 students across the state—that could account for the large association. As their school's SED status increases by one percentage point, their associated odds of submitting a FAFSA increase almost 36 times. Their predicted probability of submitting a FAFSA is associated with a 40 percentage points increase when they attend a school with only 25% of the population being SED compared to a school with 75% percent of population being SED. Still, likely eligible students, those who are SED and have at least a 3.0 GPA, fare better at low-income schools in terms of submitting a FAFSA. Perhaps low-income students are overlooked at wealthier schools when it comes to this part of college readiness or the FAFSA might not be important to the school since most students would not qualify given their families income. Additional research is needed to better understand school SED concentration on FAFSA submission.

The second largest school association on FAFSA submission is the share of classes that are A-G. A one percentage point increase in the share is associated with the odds a student submits a FAFSA increasing 1.9 times, holding all else constant. However, the predicated probabilities difference between a student submitting a FAFSA at schools with either half or three-quarters of the classes offered are A-G is small—80 versus 83 percent probability,

respectively. While this covariate is not statistically significant for Black students, the relationship between it and the odds they will submits a FAFSA is 0.85, which indicates it decreases their odds of submitting a FAFSA. Finally, Native Indian students have the largest odds ratio (4.6) for this school attribute. Their predicated probability of submitting a FAFSA is associated with a seven percentage points increase when they attend a school where three-quarters of the classes offered are A-G, compared to a school where half of the classes are A-G.

Table 4.1

Model Results as Odds Ratio

	All	Black	Latinx	Native	Asian	Pi	White
Submitted FAFSA							
Is Female	1.380***	1.509***	1.413***	2.392**	1.147**	1.526***	1.346***
	(17.02)	(4.98)	(13.64)	(2.84)	(2.59)	(4.57)	(6.52)
Is Black	0.780***						
	(-4.94)						
Is Latinx	0.781***						
	(-7.83)						
Is Native	0.502***						
	(-5.25)						
Is PI	0.720***						
	(-6.16)						
Is White	0.628***						
	(-12.82)						
Met Math Standard	1.302***	1.133	1.327***	1.380	1.360***	1.615***	1.237***
	(11.76)	(1.22)	(9.40)	(0.93)	(4.52)	(4.65)	(4.15)
Met ELA Standard	1.564***	1.702***	1.607***	2.013*	1.456***	1.470**	1.480***
	(18.68)	(5.51)	(15.48)	(1.99)	(4.87)	(2.94)	(6.21)
A-G Completion	3.300***	3.443***	3.720***	7.284***	2.450***	2.282***	2.882***
	(52.03)	(12.75)	(42.79)	(4.88)	(13.26)	(6.87)	(19.24)
% SED	3.133***	1.752	3.357***	35.80**	1.334	2.650*	3.335***
	(5.70)	(1.19)	(4.94)	(2.65)	(0.87)	(1.96)	(4.02)
% RM	1.374	1.463	1.540	0.148	2.390**	0.579	1.045
	(1.72)	(0.79)	(1.86)	(-1.79)	(2.74)	(-1.12)	(0.17)
Enrollment	1.000***	1.000	1.000**	1.000	1.000	1.000	1.000*
	(3.51)	(1.45)	(3.03)	(0.72)	(-1.10)	(0.31)	(2.45)
Expend/student	1.000***	1.000**	1.000**	1.000	1.000	1.000*	1.000***
	(4.21)	(3.01)	(3.12)	(1.02)	(1.87)	(2.42)	(3.32)
% Meeting ELA	1.863**	2.156	1.967*	14.58	0.522	0.407	2.773*
	(2.58)	(1.39)	(2.45)	(1.69)	(-1.29)	(-1.29)	(2.47)
% Completing A-G	1.693***	1.324	1.478*	0.454	2.458**	2.626*	1.636*
	(3.98)	(0.90)	(2.52)	(-0.92)	(3.25)	(2.46)	(2.13)
Students/Counselor	1.000**	1.001*	1.000*	1.003**	1.000	1.000	1.000
	(2.82)	(2.56)	(2.21)	(2.79)	(0.60)	(1.14)	(1.86)
% Classes A-G	1.886***	0.835	1.970***	4.630*	1.523	1.858	1.800**
	(4.47)	(-0.63)	(4.13)	(2.01)	(1.42)	(1.49)	(2.73)
/							
var(_cons[cdscode])	1.660***	1.358***	1.675***	1.276	1.403***	1.651***	1.768***
	(17.03)	(3.57)	(14.56)	(0.48)	(6.05)	(4.40)	(10.13)
Observations	90,468	4,346	53,179	379	14,107	3,627	12,820

Exponentiated coefficients; *t* statistics in parentheses | * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5.1

Predicted Probabilities

		All	Black	Latinx	Native	Asian	Pi	White
Is Female	No	78.7%	74.7%	79.9%	56.8%	86.2%	77.4%	69.1%
	Yes	83.3%	81.4%	84.6%	75.1%	87.7%	83.5%	74.5%
Met ELA	No	76.2%	73.1%	77.6%	57.6%	83.1%	76.0%	66.2%
	Yes	82.9%	81.8%	84.3%	72.5%	87.5%	81.9%	73.6%
Met Math	No	79.7%	78.4%	81.3%	66.2%	84.3%	76.9%	70.2%
	Yes	83.4%	80.4%	85.0%	72.7%	87.8%	83.8%	74.1%
Completed A-G	No	65.9%	62.5%	65.8%	42.1%	76.8%	70.0%	57.8%
	Yes	85.3%	84.3%	86.6%	82.8%	88.6%	83.3%	78.0%
% SED	25%	74.2%	75.0%	73.8%	35.5%	86.0%	75.6%	66.6%
	50%	78.9%	77.5%	78.8%	56.2%	86.8%	79.5%	72.4%
	75%	82.9%	79.7%	83.1%	75.0%	87.6%	82.9%	77.5%
	100%	86.4%	81.8%	86.7%	87.7%	88.3%	85.9%	81.9%
% RM	25%	79.4%	75.9%	79.5%	81.7%	83.3%	84.4%	72.2%
	50%	80.6%	77.5%	81.1%	73.8%	86.0%	82.7%	72.4%
	75%	81.7%	79.1%	82.6%	64.1%	88.3%	80.8%	72.6%
	100%	82.8%	80.5%	84.0%	53.2%	90.3%	78.7%	72.8%
Enrollment	200	79.2%	76.8%	80.7%	65.2%	88.2%	80.5%	69.1%
	800	80.0%	77.6%	81.5%	67.0%	87.8%	80.7%	70.3%
	2,000	81.7%	79.2%	83.0%	70.6%	87.1%	81.1%	72.7%
	3,600	83.7%	81.2%	84.8%	75.0%	86.1%	81.5%	75.7%
Expend/ Student	$10,000	80.1%	75.7%	81.5%	66.2%	86.0%	78.2%	70.8%
	$12,500	81.4%	78.7%	82.6%	68.1%	86.9%	80.9%	72.5%
	$15,000	83.2%	82.8%	84.2%	70.9%	88.2%	84.6%	75.0%
	$20,000	85.8%	88.1%	86.7%	75.3%	90.2%	89.5%	78.8%
% Meeting ELA	25%	77.7%	73.8%	79.1%	44.6%	90.0%	86.1%	63.3%
	50%	80.1%	77.2%	81.6%	60.3%	88.5%	83.4%	68.4%
	75%	82.3%	80.3%	83.9%	74.1%	86.9%	80.3%	73.1%
	100%	84.3%	83.0%	85.9%	84.5%	85.0%	76.8%	77.4%
% Completed A-G	25%	79.9%	78.0%	81.8%	71.0%	84.0%	77.8%	70.7%
	50%	81.8%	79.1%	83.1%	67.0%	86.7%	81.4%	72.9%
	75%	83.6%	80.2%	84.4%	62.7%	89.0%	84.6%	75.1%
	100%	85.2%	81.3%	85.5%	58.2%	91.0%	87.3%	77.1%
Students/ Counselor	100	80.5%	75.5%	82.0%	52.1%	86.7%	79.6%	71.1%
	300	81.2%	78.0%	82.6%	65.6%	86.9%	80.5%	71.9%
	600	82.2%	81.4%	83.5%	81.8%	87.1%	81.8%	73.1%
	1,000	83.5%	85.2%	84.7%	93.5%	87.4%	83.4%	74.7%
% Classes A-G	25%	77.9%	80.1%	79.1%	59.3%	84.9%	77.3%	68.5%
	50%	80.3%	79.4%	81.6%	67.7%	86.2%	79.7%	71.3%
	75%	82.6%	78.7%	83.9%	75.2%	87.3%	81.9%	73.9%
	100%	84.6%	78.0%	85.9%	81.4%	88.4%	83.9%	76.4%

The third largest influence is the share of 12th graders who met the ELA standard. However, like the previous covariate, the effects are small. A one-percentage point increase is

associated with the odds of a likely eligible student submitting a FAFSA by 1.9 times. The predicated probability a student submits a FAFSA from a school where half of the students met the standard is 80 percent compared to 82 percent for a student at a school where 75 percent of students met the ELA standard. Racial differences are present as this covariate is only statistically significant for Latinx and White students. White students' odds are influenced more given their odds ratio is 2.7 compared to Latinx's 2.0—a three percentage point increase in their predicated probabilities of submitting a FAFSA at a school with half of the students meeting the standard compared to a school with three-quarters meeting it, and only a two-percentage point increase for Latinx students.

The share of a school's 12th graders who complete the A-G sequence is the last school-level covariate that influences a student's odds of submitting a FAFSA. The log odds is 1.7, which means as the share of students completing A-G increases by 1 percentage point, their associated odds of submitting a FAFSA increases 1.7 times. This covariate is not statistically significant for Black or Native Indian students, and it has the largest influence for Pacific Islander students' odds. Pacific Islander students have an associated odds increase 2.6 times when their school's A-G completion rate increases by one percentage point. Their predicted probabilities increase from 81 to 85 percent when they attend a school where half of students complete the sequence compared to a school where 75 percent complete it.

Interestingly, a school's share of racially minoritized students is not statistically significant in the overall model, but it is in the Asian student stratified model. As this covariate increases by one percentage point, the associated odds that likely eligible Asian students will submit a FAFSA increase 2.4 times. Their predicted probabilities of submitting a FAFSA increases from 83 percent when they attend a low racially minoritized school (e.g., a quarter of

students are from racially minoritized background) to 88 percent when they attend a high racially minority school (e.g., three-quarters of students are from racially minoritized backgrounds).

Finally, none of the school-level covariates influence Black students. They were either statistically insignificant or the odds ratio were one. However, two student-level covariates are associated with Black students' odds of submitting a FAFSA—meeting the ELA standard and completing the A-G sequence. Completing the A-G sequence is associated with a 3.4 odds increases of submitting a FAFSA compared to not completing, where their predicted probability jumps from 63 percent to 84 percent. Meeting the ELA standard does not have as large of an influence, but their associated odds of submitting a FAFSA increases by 1.7 times compared to if they did not meet the standard. Their predicted probability increases from 73 percent to 82 percent. Given none of the school-level variables influence Black students' odds of submitting a FAFSA could mean the model is not capturing the covariates that influence them, or that the current structure of schools does not benefit Black students to help them submit a FAFSA.

Several school-level characteristics are associated with FAFSA submission rates for likely college and aid eligible high school graduates. However, the associations are small except for a school's population being SED. Furthermore, the school influences were not always statistically significant across racially groups. This means schools influence different student groups differently and that changing a school's demographic or outputs will not raise FAFSA completion rates at similar rates for all students.

Discussion

Inequities are present on who submits a FAFSA. White and Native Indian students, along with Black males have the lowest rates. In general, male students have lower FAFSA submission rates than their female counterparts. This study should be extended to delve deeper into

understanding why likely college and aid eligible males are less likely to submit a FAFSA. It is important to note, this is consistent with college-going patterns (e.g., Conger & Long, 2013; Klevan et al., 2016; Stoet & Geary, 2021). Another area for additional research is for Asian students. While Asian students have the highest FAFSA rates, the Asian category was not disaggregated to determine if differences are present within this diverse group. Research has documented great variability within the monolith of the Asian grouping where Southeast Asian populations tend experience barriers to success (Endo, 1980; Schweis, 2021; Teranishi et al., 2013). Additional research examining FAFSA rates within the Asian student groups will provide a nuanced understanding of who is more likely to submit a FAFSA.

Just as there are inequities at the student-level, there are inequities at the school-level. While most schools have FAFSA submission rates of at least 60 percent for their likely eligible population, there are still 26 percent schools that have FAFSA rates less than 60 percent. High white and low-SED schools have lower FAFSA submission rates. While the latter finding may not seem worrisome as wealthier students may not need financial aid, it is important to remember these are FAFSA rates for likely college and aid eligible students—those who are SED and have at least a 3.0 GPA. This means that low-income students have lower FAFSA rates at wealthier schools. It is unclear why low-income students are less likely to submit a FAFSA at wealthier schools, but California's new FAFSA policy that requires LEAs to ensure twelfth grade students submit a FAFSA could benefit these students since LEAs and schools would be on responsible for helping them submit one. The reverse trend is seen for high SED or RM schools, as their FAFSA rates for likely eligible students are high. Furthermore, the multilevel model found that as the share of SED students increases at a school, so does the associated odds a likely eligible

student will submit a FAFSA. This may suggest the FAFSA policy may not negatively impact students at higher-poverty schools.

Interestingly the ratio of students to counselors and district expenditures per student does not influence the odds that a likely eligible student will submit a FAFSA. This is interestingly given the literature states counselors and fundings are important to college readiness (Darling-Hammond, 2013; Gándara and Bial, 2001; McDonough, 1998; 2004). However, the variables used in this study do not capture counselor quality so additional research is needed on counselor quality and FAFSA rates. Furthermore, school size also did not influence FAFSA rates, which may go against some concern about very small or very large schools not having enough resources to serve their students. However, these findings should be used with caution when trying to anticipate unintended consequences of the new FAFSA policy. Given LEAs and schools will now be charged with ensuring all seniors submit a FAFSA, the role of school resources may become even more important. The state and policymakers should carefully track FAFSA submission rates in the early implementation phase of the new FAFSA policy.

While the findings of none of the school-level variables were statistically significant or have an odds ratio greater than one for Black student's odds of submitting a FAFSA could be related to statistical power issues, more research is needed to understand why. Furthermore, while it was not statistically significant, the odds a likely eligible Black student would submit a FAFSA decreased as their school offered more A-G courses. This was the only student group where this occurred. These findings could be linked to previous research stating the current educational system is not built to support Black students (Ladson-Billings, 2021; Shores et al., 2020). State and local policymakers and implementers may want to pay extra attention when rolling out the new FAFSA policy to ensure Black students benefit from this policy.

In summary, gaps are present on who attends college as racially minoritized and low-income students are less likely to attend compared to their White and wealthier counterparts. Costs are a major reason for students not to attend college. Having students understand financial aid is available and having the submit a FAFSA can help reduce the cost barrier. FAFSA submission rates for all high school graduates between 2008-2018 have steadily increased, though rates have not surpassed 60 percent.[7] The largest increase occurred between 2010 and 2011 and 2015 and 2106. Both increases coincide with major FAFSA policy changes. The IRS data retrieval tool was implemented in 2009 that allowed applicants to import their IRS data, and starting in the 2016 application cycles, the FAFSA application was available three months early and families could use their tax information from two priors, instead of the previous year. If the trend of a major policy change is followed by an increase in FAFSA submission, this means California's new FAFSA policy has potential to be a great solution to getting more students to submit a FAFSA. As noted above, while school resources have not influenced FAFSA submission rates, state should monitor that they do not become an issue because of the policy. Furthermore, the state should also ensure that Black students are benefiting from this policy. This will help ensure the policy does not uphold current power structures that benefit wealthier students or those who are currently benefiting from the current structure. This is imperative as the COVID pandemic continues into another year, which may divert schools' resources and attention away from adequately and equitable implementing the FAFSA policy.

[7] Using publicly available data I was able to calculate the statewide FAFSA rate for all high school graduates. See Appendix 7.1.

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Appendix 1.1: Measures Summary Statistics for Likely Eligible and All Graduates

	Likely Eligible Graduates		All Graduates	
	Mean	SD	Mean	SD
Student-level				
Is Female	0.60	0.49	0.51	0.50
Is Black	0.05	0.22	0.05	0.22
Is Native Indian/Alaska Native	0.00	0.07	0.00	0.07
Is Asian	0.15	0.36	0.11	0.31
Is Pacific Islander/Filipino	0.04	0.20	0.04	0.19
Is Latinx	0.58	0.49	0.50	0.50
Is White	0.15	0.35	0.26	0.44
Completed A-G	0.74	0.44	0.53	0.50
Met ELA Standard	0.80	0.40	0.40	0.49
Met Math Standard	0.50	0.49	0.68	0.47
Number of Students in Sample	95,793		389,223	
School-level				
FAFSA Submission Rate	0.66	0.30	0.53	0.27
% SED	0.60	0.26	0.59	0.26
% Racially minoritized	0.62	0.28	0.61	0.28
Student enrollment	1,180	1,000	1,124	1,004
Expenditure per student[8]	$12,316	$2,595	$12,317	$2,659
% Meeting ELA Standard	0.69	0.15	0.69	0.16
% Meeting Math Standard	0.43	0.19	0.45	0.20
% Completing A-G	0.40	0.27	0.38	0.27
Student per Counselor	311	285	293	285
% of FTE Counselors RM	0.33	0.36	0.31	0.36
% of Classes A-G	0.56	0.25	0.54	0.26
# of Four-Year Colleges Nearby	1.90	1.69	1.88	1.69
Number of schools in sample	1,662		1,761	

[8] Outliers were removed and any district with an expenditure per student of $30,000 or higher were coded as missing.

Appendix 2.1: Correlations

Student-level Pairwise Correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Submitted FAFSA	1.000										
(2) Met ELA	0.154***	1.000									
(3) Met Math	0.089***	0.413***	1.000								
(4) Completed A-G	0.330***	0.315***	0.220***	1.000							
(5) Is Female	0.071***	0.063***	-0.076***	0.064***	1.000						
(6) Is Black	-0.028***	-0.070***	-0.067***	-0.037***	0.013***	1.000					
(7) Is Native American	-0.028***	-0.009***	-0.010***	-0.027***	0.004	-0.015***	1.000				
(8) Is Asian	0.076***	0.074***	0.217***	0.068***	-0.049***	-0.097***	-0.028***	1.000			
(9) Is Pacific Islander	-0.004	0.032***	0.035***	0.020***	-0.010***	-0.047***	-0.013***	-0.086***	1.000		
(10) Is Latinx	0.044***	-0.068***	-0.189***	0.028***	0.037***	-0.271***	-0.078***	-0.501***	-0.242***	1.000	
(11) Is White	-0.103***	0.041***	0.058***	-0.083***	-0.005	-0.095***	-0.027***	-0.176***	-0.085***	-0.492***	1.000

**** p<0.01, ** p<0.05, * p<0.1*

School-Level Pairwise Correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) Submitted FAFSA	1.000											
(2) % SED	0.085***	1.000										
(3) % RM	0.118***	0.845***	1.000									
(4) Enrollment	0.072***	-0.137***	0.008**	1.000								
(5) Expenditures	0.087***	0.242***	0.222***	-0.013***	1.000							
(6) % completed A-G	0.151***	-0.198***	-0.077***	-0.025***	0.082***	1.000						
(7) % met Math	-0.004	-0.675***	-0.642***	0.073***	-0.095***	0.411***	1.000					
(8) % met ELA	0.015***	-0.621***	-0.542***	0.016***	-0.115***	0.494***	0.816***	1.000				
(9) Student/counselor	0.036***	-0.144***	-0.048***	0.282***	-0.097***	-0.021***	0.110***	0.100***	1.000			
(10) % counselor RM	0.091***	0.455***	0.544***	0.020***	0.193***	-0.022***	-0.325***	-0.279***	0.008**	1.000		
(11) % classes A-G	0.143***	-0.060***	0.073***	0.189***	0.097***	0.367***	0.173***	0.170***	0.115***	0.186***	1.000	
(12) # of colleges	0.108***	0.112***	0.181***	0.077***	0.143***	0.333***	0.160***	0.114***	0.088***	0.162***	0.318***	1.000

**** p<0.01, ** p<0.05, * p<0.1*

Appendix 3.1: Level-One Model Building Results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Submitted FAFSA										
Is Female	0.385***									
	(21.73)									
Is Black		-0.238***								
		(-6.24)								
Is Native American			-0.523***							
			(-4.45)							
Is Asian				0.534***						
				(17.70)						
Is Pacific Islander					-0.0433					
					(-1.00)					
Is Latinx						0.0578**				
						(2.96)				
Is White							-0.315***			
							(-12.91)			
Met ELA Standard								0.797***		
								(40.10)		
Met Math Standard									0.387***	
									(21.49)	
Completed A-G										1.627***
										(82.02)
Constant	0.977***	1.095***	1.088***	1.028***	1.084***	1.052***	1.158***	0.472***	0.898***	0.0752**
	(29.26)	(34.84)	(34.75)	(33.05)	(34.50)	(32.03)	(37.43)	(13.80)	(27.89)	(2.72)
/										
var(_cons[cdscode])	1.282***	1.264***	1.256***	1.229***	1.266***	1.250***	1.173***	1.202***	1.239***	0.730***
	(19.16)	(19.26)	(19.24)	(19.18)	(19.27)	(19.18)	(18.94)	(19.09)	(19.16)	(18.29)
Observations	93,465	95,793	95,793	95,793	95,793	95,793	95,793	95,793	95,793	95,793

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Submitted FAFSA									
Is Female	0.385***	0.386***	0.387***	0.387***	0.387***	0.393***	0.347***	0.388***	0.324***
	(21.73)	(21.78)	(21.83)	(21.85)	(21.85)	(22.12)	(19.28)	(21.31)	(17.44)
Is Black		-0.135***	-0.157***	-0.166***	-0.166***	-0.494***	-0.338***	-0.248***	-0.208***
		(-3.30)	(-3.66)	(-3.85)	(-3.83)	(-10.39)	(-6.99)	(-5.10)	(-4.22)
Is Latinx			-0.0370	-0.0459*	-0.0466*	-0.385***	-0.313***	-0.227***	-0.204***
			(-1.72)	(-2.13)	(-2.08)	(-12.87)	(-10.34)	(-7.42)	(-6.60)
Is Native American				-0.579***	-0.580***	-0.950***	-0.903***	-0.830***	-0.768***
				(-4.74)	(-4.74)	(-7.70)	(-7.21)	(-6.60)	(-6.01)
Is Pacific Islander					-0.00540	-0.314***	-0.322***	-0.276***	-0.297***
					(-0.11)	(-6.13)	(-6.22)	(-5.30)	(-5.62)
Is White						-0.619***	-0.615***	-0.570***	-0.514***
						(-17.94)	(-17.64)	(-16.28)	(-14.48)
Met ELA Standard							0.934***	0.754***	0.434***
							(45.47)	(34.01)	(18.55)
Met Math Standard								0.437***	0.255***
								(20.49)	(11.60)
Completed A-G									1.267***
									(57.23)
Constant	0.977***	0.983***	1.003***	1.014***	1.014***	1.370***	0.646***	0.498***	0.0206
	(29.26)	(29.41)	(28.26)	(28.55)	(28.26)	(33.71)	(15.04)	(11.45)	(0.49)
/									
var(_cons[cdscode])	1.282***	1.281***	1.291***	1.283***	1.283***	1.185***	1.097***	1.086***	0.723***
	(19.16)	(19.16)	(19.10)	(19.09)	(19.08)	(18.79)	(18.52)	(18.47)	(17.86)
Observations	93,465	93,465	93,465	93,465	93,465	93,465	93,465	93,465	93465

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix 4.1: Level-two Model Building

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Submitted FAFSA											
% SED	1.128***										
	(11.74)										
% RM		1.323***									
		(14.48)									
Enrollment			0.000184***								
			(7.26)								
Expenditures				0.0000739***							
				(6.81)							
% Met Math					-0.871***						
					(-5.73)						
% Met ELA						-0.390*					
						(-2.15)					
% Completed A-G							1.257***				
							(11.38)				
% Classes A-G								1.638***			
								(13.72)			
Students/Counselor									0.000570***		
									(6.42)		
% Counselor RM										0.745***	
										(10.68)	
# Colleges											0.123***
											(8.31)
Constant	-0.642***	-0.796***	-0.234***	-0.799***	0.390***	0.285*	-0.508***	-0.947***	-0.186***	-0.243***	-0.172***
	(-9.04)	(-11.26)	(-4.20)	(-5.76)	(5.09)	(2.20)	(-8.10)	(-11.52)	(-3.53)	(-5.04)	(-3.38)
/											
var(_cons[cdscode])	0.625***	0.599***	0.689***	0.634***	0.706***	0.717***	0.707***	0.663***	0.716***	0.661***	0.659***
	(17.40)	(17.43)	(17.76)	(17.37)	(17.80)	(17.80)	(18.19)	(18.00)	(17.94)	(17.72)	(17.68)
Observations	92,930	92,930	92,930	90,543	93,465	93,465	93,465	93,465	93,465	93,465	92,445

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: Level-one variables are included, but not presented

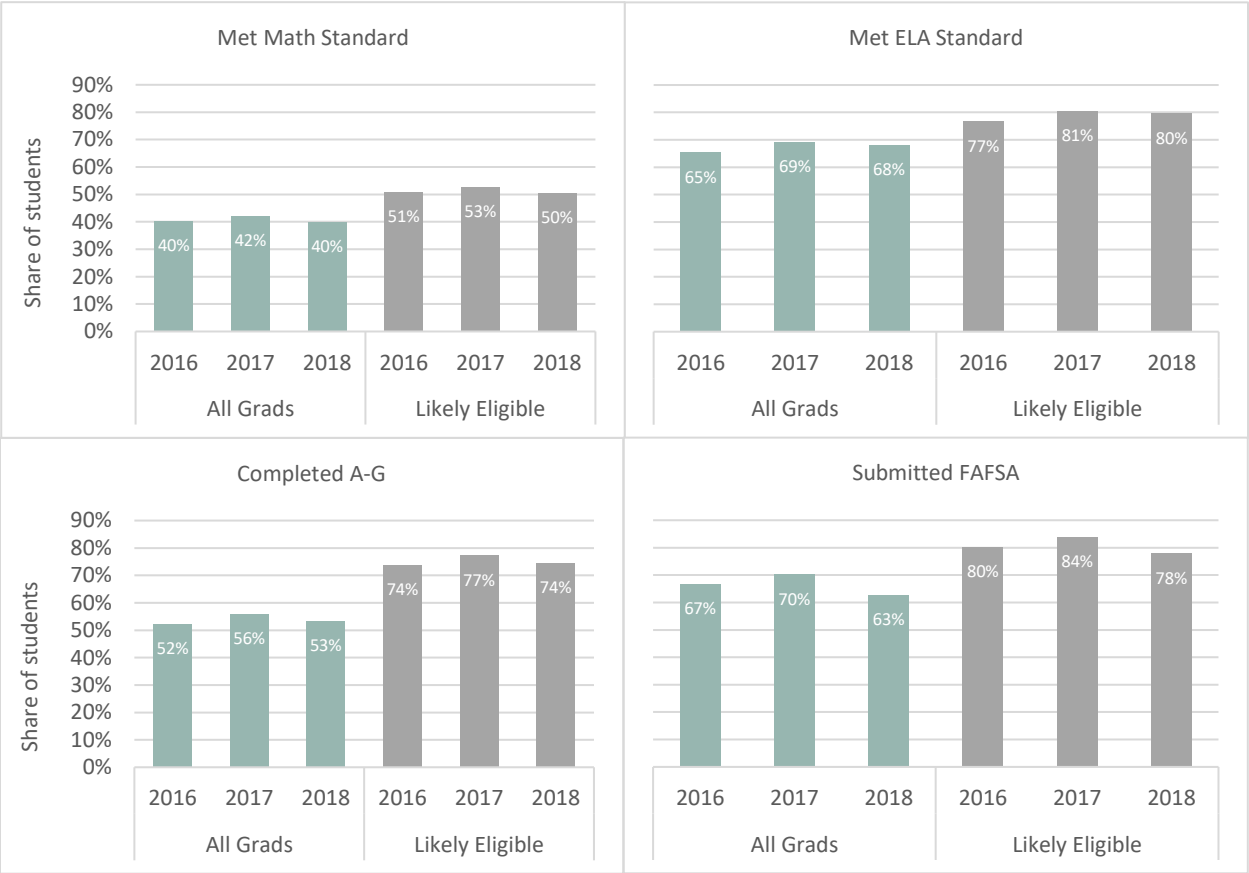
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Submitted FAFSA													
Is Female	0.323***	0.325***	0.325***	0.320***	0.320***	0.320***	0.323***	0.323***	0.323***	0.322***	0.323***	0.323***	0.322***
	(17.34)	(17.43)	(17.46)	(16.89)	(16.91)	(16.92)	(17.05)	(17.05)	(17.05)	(17.02)	(17.02)	(17.03)	(17.02)
Is Black	-0.239***	-0.253***	-0.244***	-0.253***	-0.247***	-0.248***	-0.251***	-0.249***	-0.249***	-0.246***	-0.246***	-0.249***	-0.248***
	(-4.82)	(-5.11)	(-4.92)	(-5.04)	(-4.91)	(-4.94)	(-4.98)	(-4.96)	(-4.96)	(-4.90)	(-4.90)	(-4.95)	(-4.94)
Is Latinx	-0.241***	-0.254***	-0.247***	-0.255***	-0.247***	-0.250***	-0.249***	-0.248***	-0.249***	-0.245***	-0.243***	-0.246***	-0.247***
	(-7.74)	(-8.16)	(-7.94)	(-8.06)	(-7.81)	(-7.91)	(-7.87)	(-7.86)	(-7.87)	(-7.77)	(-7.72)	(-7.79)	(-7.83)
Is Native American	-0.807***	-0.779***	-0.754***	-0.726***	-0.714***	-0.712***	-0.702***	-0.701***	-0.697***	-0.688***	-0.684***	-0.684***	-0.689***
	(-6.31)	(-6.08)	(-5.88)	(-5.56)	(-5.47)	(-5.44)	(-5.37)	(-5.35)	(-5.32)	(-5.25)	(-5.21)	(-5.21)	(-5.25)
Is Pacific Islander	-0.309***	-0.322***	-0.318***	-0.337***	-0.331***	-0.333***	-0.329***	-0.328***	-0.328***	-0.325***	-0.324***	-0.327***	-0.328***
	(-5.85)	(-6.10)	(-6.02)	(-6.33)	(-6.22)	(-6.25)	(-6.17)	(-6.16)	(-6.16)	(-6.11)	(-6.10)	(-6.14)	(-6.16)
Is White	-0.505***	-0.481***	-0.474***	-0.479***	-0.468***	-0.471***	-0.467***	-0.467***	-0.467***	-0.467***	-0.465***	-0.464***	-0.465***
	(-14.21)	(-13.50)	(-13.29)	(-13.21)	(-12.88)	(-12.96)	(-12.86)	(-12.89)	(-12.89)	(-12.91)	(-12.83)	(-12.77)	(-12.82)
Met Math Standard	0.273***	0.272***	0.269***	0.269***	0.261***	0.262***	0.265***	0.265***	0.265***	0.264***	0.263***	0.264***	0.264***
	(12.36)	(12.31)	(12.21)	(12.03)	(11.63)	(11.67)	(11.79)	(11.82)	(11.83)	(11.77)	(11.76)	(11.76)	(11.76)
Met ELA Standard	0.440***	0.442***	0.444***	0.449***	0.449***	0.442***	0.448***	0.448***	0.448***	0.448***	0.448***	0.447***	0.447***
	(18.75)	(18.83)	(18.91)	(18.81)	(18.81)	(18.46)	(18.69)	(18.70)	(18.71)	(18.70)	(18.71)	(18.66)	(18.68)
Completed A-G	1.256***	1.242***	1.239***	1.225***	1.221***	1.219***	1.196***	1.195***	1.195***	1.194***	1.194***	1.193***	1.194***
	(56.68)	(55.91)	(55.81)	(54.30)	(54.14)	(54.05)	(52.13)	(52.09)	(52.07)	(52.01)	(52.01)	(52.00)	(52.03)
% SED	1.128***	-0.0476	0.352*	0.338	0.678***	0.837***	0.995***	1.041***	1.041***	1.343***	1.318***	1.132***	1.142***
	(11.74)	(-0.28)	(1.99)	(1.85)	(3.47)	(4.20)	(4.95)	(5.20)	(5.20)	(10.52)	(10.24)	(5.63)	(5.70)
% RM		1.362***	0.993***	0.836***	0.900***	0.808***	0.502**	0.456*	0.362			0.201	0.318
		(8.27)	(5.84)	(4.73)	(5.12)	(4.56)	(2.70)	(2.49)	(1.90)			(1.01)	(1.72)
Enrollment			0.000174***	0.000129***	0.000126***	0.000138***	0.000140***	0.000114***	0.000112***	0.000100***	0.0000996***	0.0000945***	0.0000943***
			(6.93)	(5.07)	(5.01)	(5.45)	(5.53)	(4.28)	(4.20)	(3.81)	(3.78)	(3.51)	(3.51)
Expenditures				0.0000536***	0.0000497***	0.0000508***	0.0000436***	0.0000461***	0.0000450***	0.0000425***	0.0000421***	0.0000426***	0.0000435***
				(5.18)	(4.82)	(4.93)	(4.21)	(4.45)	(4.34)	(4.11)	(4.08)	(4.12)	(4.21)
% Met Math					0.913***	0.218	0.0319					-0.132	
					(4.61)	(0.82)	(0.12)					(-0.48)	
% Met ELA						1.136***	0.680*	0.670**	0.652**	0.576*	0.571*	0.690*	0.622**
						(3.89)	(2.24)	(2.76)	(2.69)	(2.40)	(2.38)	(2.28)	(2.58)
% Completed A-G							0.687***	0.703***	0.708***	0.576***	0.528***	0.501***	0.527***
							(5.34)	(5.52)	(5.57)	(4.47)	(3.95)	(3.68)	(3.98)
Students/Counselor								0.000266**	0.000255**	0.000244**	0.000234**	0.000230**	0.000246**
								(3.03)	(2.90)	(2.79)	(2.67)	(2.63)	(2.82)
% Counselor RM									0.131	0.125	0.116	0.0920	
									(1.67)	(1.66)	(1.54)	(1.18)	
% Classes A-G										0.641***	0.609***	0.593***	0.634***
										(4.53)	(4.24)	(4.11)	(4.47)
# Colleges											0.0207	0.0199	
											(1.36)	(1.27)	
Constant	-0.642***	-0.792***	-1.055***	-1.482***	-2.062***	-2.606***	-2.333***	-2.412***	-2.371***	-2.551***	-2.520***	-2.526***	-2.594***
	(-9.04)	(-10.91)	(-12.97)	(-10.30)	(-10.82)	(-11.01)	(-9.66)	(-9.94)	(-9.73)	(-10.34)	(-10.18)	(-10.20)	(-10.58)
/													
var(_cons[cdscode])	0.625***	0.599***	0.574***	0.534***	0.522***	0.520***	0.517***	0.516***	0.514***	0.507***	0.505***	0.505***	0.507***
	(17.40)	(17.42)	(17.32)	(16.99)	(16.92)	(16.97)	(17.03)	(17.06)	(17.05)	(17.04)	(17.01)	(17.00)	(17.03)
Observations	92930	92930	92930	90468	90468	90468	90468	90468	90468	90468	90468	90468	90468

t statistics in parentheses

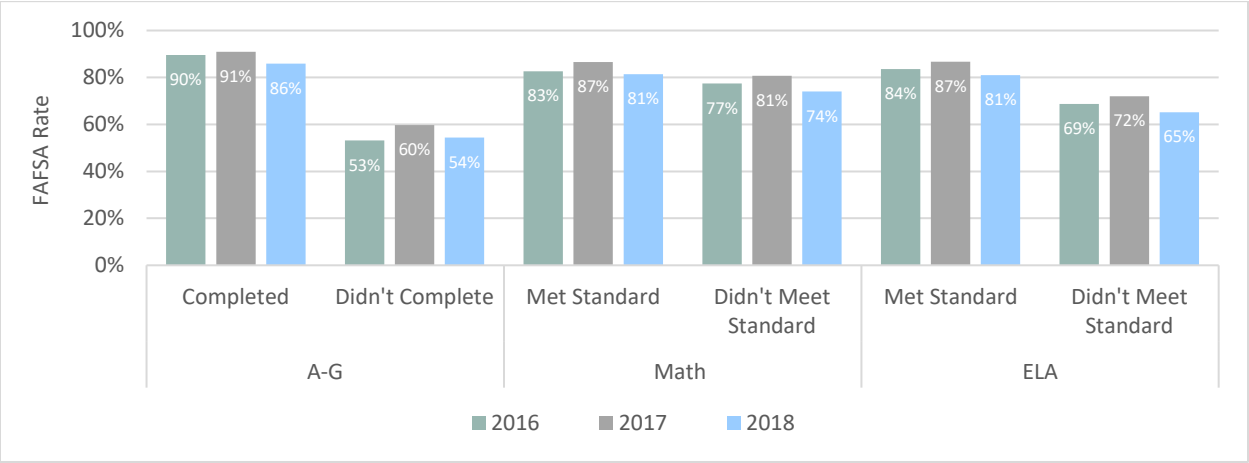
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix 5.1: Likely Eligible FAFSA Rates Over Time

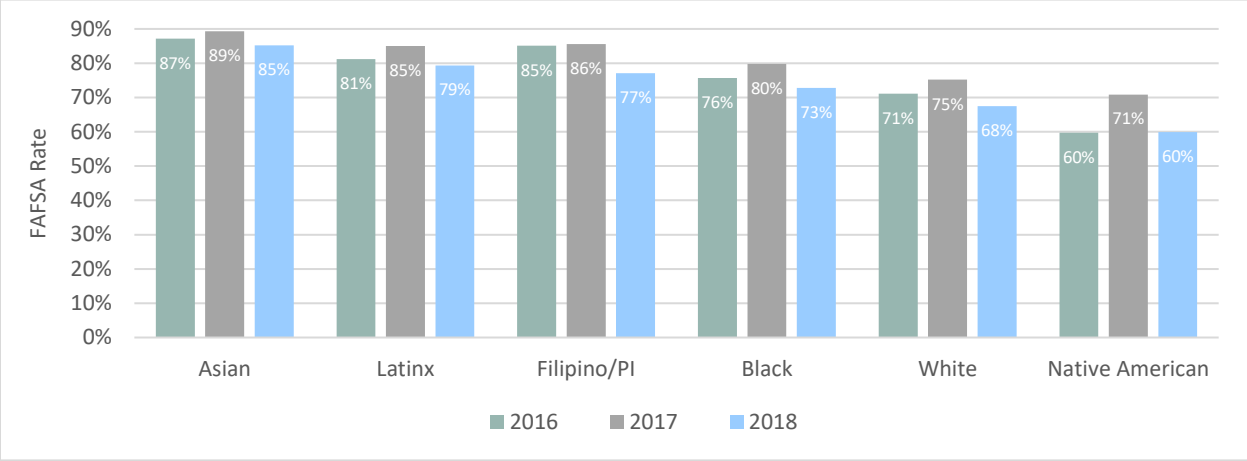
Differences Over Time between Likely Eligible and All Graduates



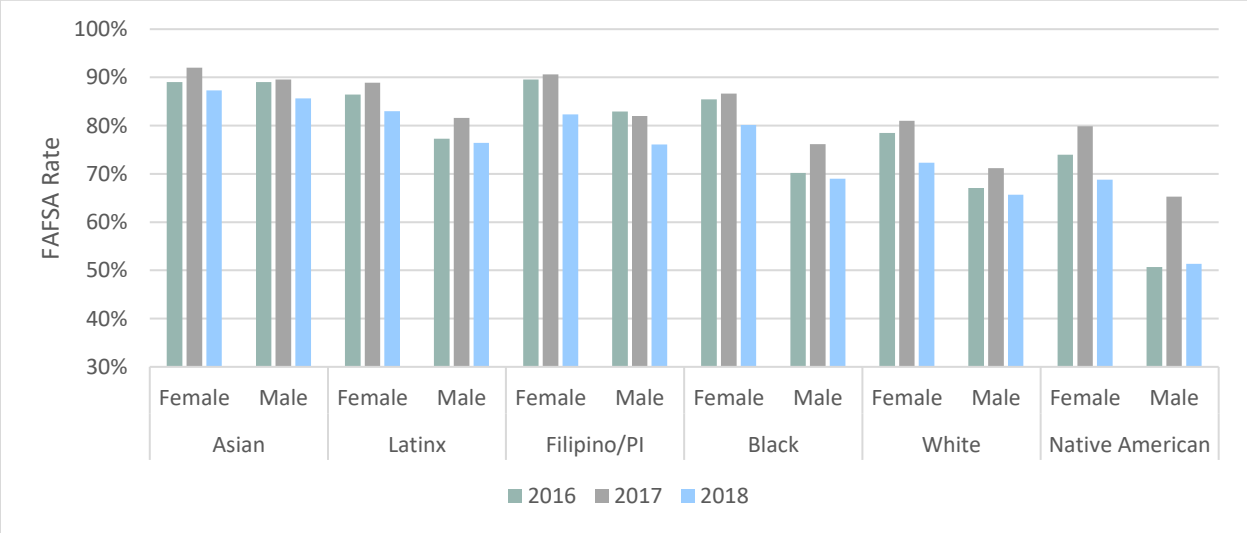
FAFSA Rates by Academic Outcomes Over Time



FAFSA Rates by Race Over Time

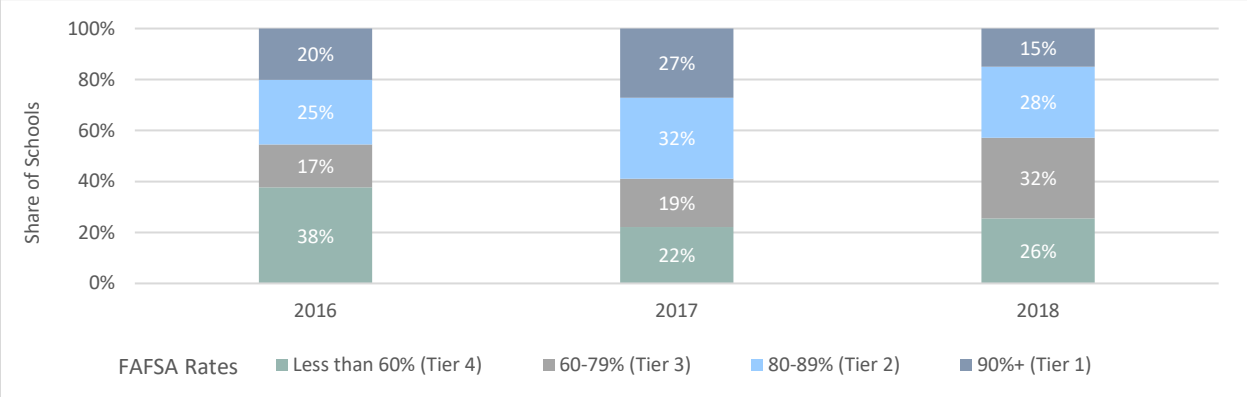


FAFSA Rates by Race and Sex Over Time

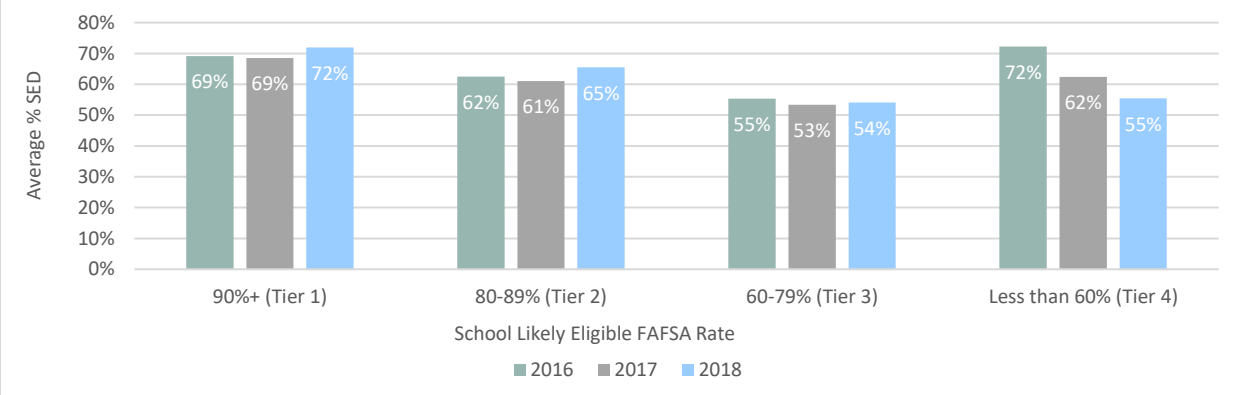


Appendix 6.1: School Characteristics Over time

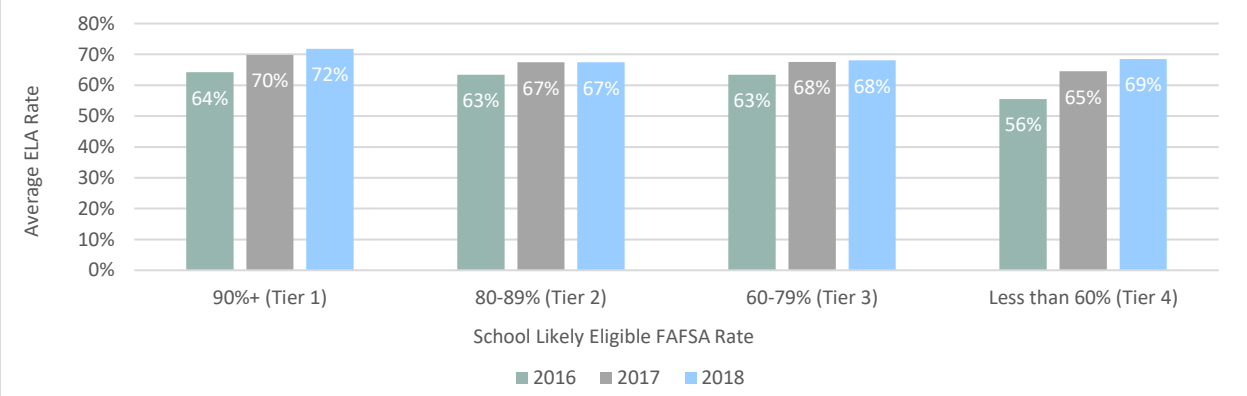
School FAFSA Rates Over Time



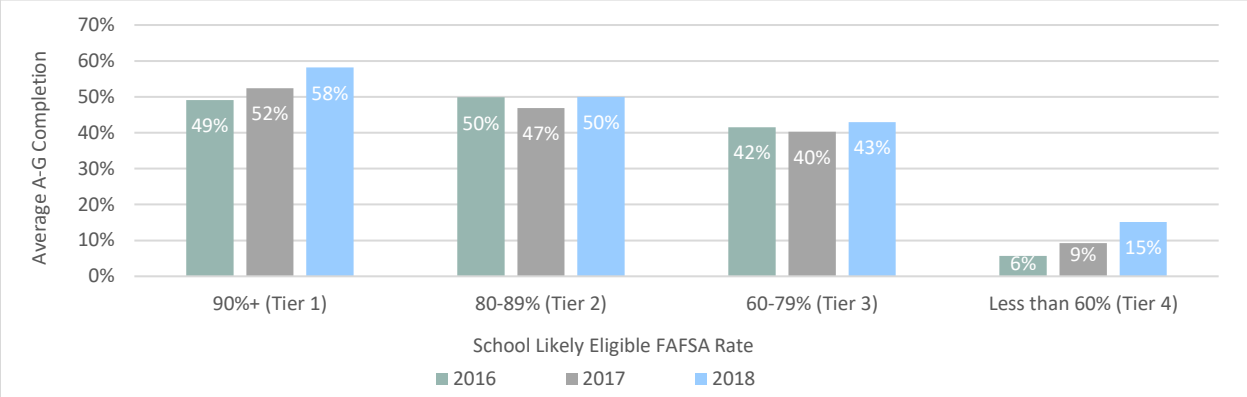
FAFSA Rates by Average School Share SED



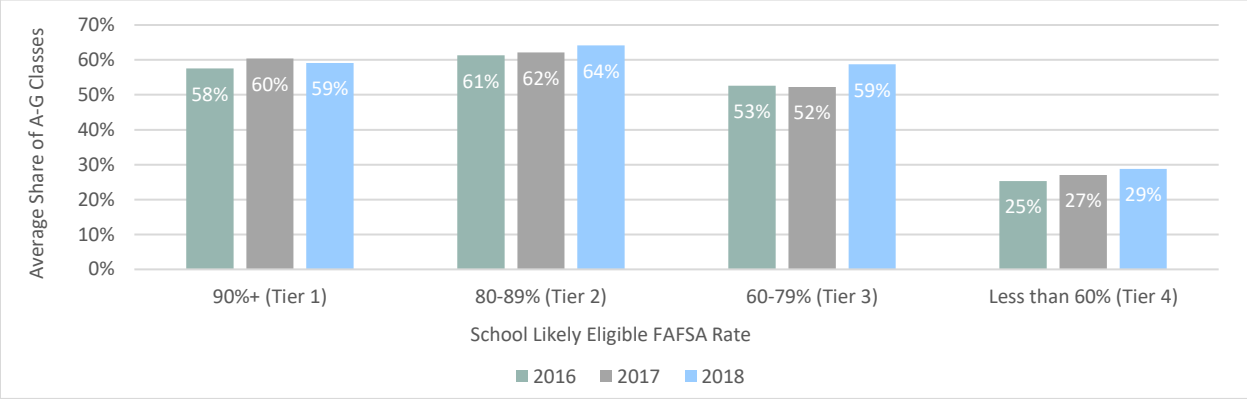
FAFSA Rate Groups by Average Share that Met ELA Standard



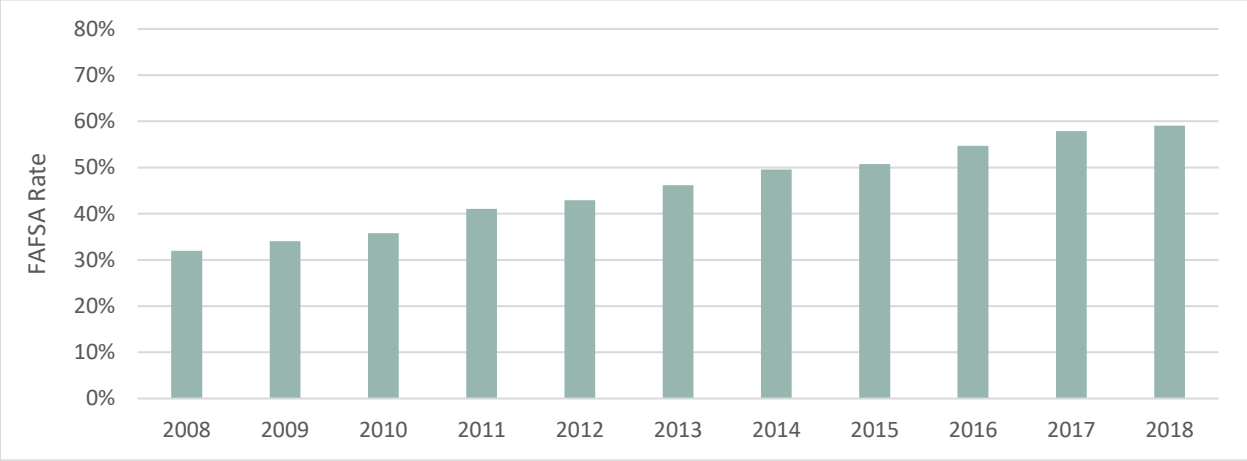
FAFSA Rates by Average A-G Completion Rate



FAFSA Rate Groups by Average Share of Classes that are A-G



Appendix 7.1: Statewide FAFSA Submission Rates for All High School Graduates



Community College Equity Annual Reports:

An Analysis on Equity Activities and Expenditures

The California Community College (CCC) system, the largest and most affordable community college system in the nation,[9] currently educates 2.3 million Californians (California Community Colleges Chancellor's Office, 2020a; National Center for Education Statistics, 2019; National Center for Education Statistics, 2018a). It enrolls more low-income—50 percent of incoming first-time students are from families making less than $30,000 a year—and racially minoritized (e.g., Black, Latinx, Filipino, Pacific Islander, and Native Indian) students than their Californian public four-year counterparts (Jackson et al., 2019). However, the CCC has chronically low completion rates (California Community Colleges Chancellor's Office, 2020b; National Center for Education Statistics, 2018b). Out of first-time, full-time students, only 33 percent earn a certificate or an associate degree within three years (National Center for Education Statistics, 2018b). Of the students who likely want to transfer, only 10 percent transfer within three years (California Community Colleges Chancellor's Office, 2020b). Disaggregating those rates by race, racial/equity gaps emerge. Latinx and Black students are 10 and 17 percentage points less likely to earn a certificate or associate degree than White students (National Center for Education Statistics, 2018b). These racial gaps continue with transfer rates. Latinx and Black students are seven and three percentage points, respectively, less likely to transfer than White students (California Community Colleges Chancellor's Office, 2020b). These low rates are troublesome but not unique to California, community colleges across the nation produce similar results (Bailey & Dynarski, 2011; Cahalan et al., 2019; McFarland et al., 2019).

[9] Based off author's calculations.

Together, community colleges are failing their students and must do better to ensure students reach their educational goals. These low completion rates have dire implications for students as having a postsecondary education is linked to positive benefits for individuals, including better wages, lower use of public assistance, and better health outcomes (Muenning, 2007; Tamborini & Sakamoto, 2015; Waldfogel et al., 2007; Woessmann, 2015). The low completion rates also have implications for the U.S. and California, which will experience a skilled workforce shortage in 2030 when most living wage jobs will require some form of postsecondary education (Bureau of Labor Statistics, 2019; Johnson et al., 2019).

One way the state and the CCC system are trying to improve overall success and completion rates, as well as close equity gaps, is through three-year Student Equity Plans (SEPs). These plans require colleges to set goals for improvements to help specific student groups that have lower success rates. More recently, the legislature required the CCC Chancellor's Office to submit Annual Reports that discuss colleges' progress on their SEP goals and how they are spending their equity funds. The CCC Chancellor's Office developed an online report for colleges to provide an update on how they are spending equity funds and their progress on selected equity goals—what activities they are using and the implementation status of those activities. This study utilizes the 2020 college Annual Reports, the first year of reporting, to document and analyze the common activities colleges are using to close equity gaps and how colleges report spending their equity funds. It provides an important analysis of colleges' intentions to address persistent inequalities in the system. Furthermore, while few studies have been conducted on the CCC SEPs (e.g., Ching et al. 2020; Felix, 2021; Felix et al., 2018), the body of research is limited, especially regarding the Annual Reports. Thus, this study adds to the literature to better understand equity activities at the CCCs.

The paper is organized as follows: The next section will provide framing for why equity matters through a discussion of structural racism and student success, followed by a historical overview of the equity policies in the CCC system. Next, I describe the SEPs and Annual Reports analyzed. I then present an overview on critical policy analysis as the theory applied to make meaning of the data. Finally, I present the methodology, findings, and discussion.

Structural Racism and Student Success

To understand why equity gaps are present in the CCC system, it is important to understand the effects of structural racism on student success through the K-16 pipeline. Structural racism is different from racism, as racism is viewed at the individual level, tied to a psychological phenomenon that does not change over time (Bonilla-Silva, 1997). In contrast, structural racism as defined by Lawrence et al. (2004) is "a system in which public policies, institutional practices, cultural representations, and other norms work in various, often reinforcing ways to perpetuate racial group inequity" (p. 11). U.S. policies such as Jim Crow, segregation, and redlining for housing have contributed to a legacy where Black and Latinx people are more likely to live in poverty and have less intergenerational wealth than White people (Lawrence et al., 2004). Black and Latinx people are also more likely, on average, to live in segregated, lower-income communities than low-income Whites, even when they make more money (Logan, 2011).

Residential segregation is important to schooling equity gaps as it affects where many Black and Latinx children attend school. If a child lives in a racially segregated, low-income neighborhood, it is very likely that their school is also segregated, racially and economically, where the school has a high overall poverty rate (Logan, 2011). This is important as Reardon (2016) found school economic segregation is the greatest correlate of K-12 achievement gaps,

meaning that higher poverty schools have lower student success rates than wealthier schools. Given many community college students attend a community college to stay in their communities (Somers et al., 2006), and since there is a connection between residential segregation and K-12 school quality, it is very likely many low-income Black and Latinx community college students are coming from high poverty, low-achieving high schools. That is, the K-12 environments that Black and Latinx students enroll in are more likely to put these students at an academic disadvantage when they enter a community college (Ladson-Billings, 2021; Shores et al., 2020). Curriculum in schools represents another source of structural racism. Yosso (2002) notes curriculum upholds inequalities since it is not centered on racially minoritized or low-income students, but on White, middle-class students. Taken together, the K-12 equity gaps are not a reflection of student ability, but rather a reflection of the K-12 system's failure to provide an equitable education to racially minorized students.

Structural racism, unfortunately, does not stop at the K-12 system—it is also part of higher education, which is rooted in White supremacy (Delgado & Stefancic, 2017; Patton, 2016; Taylor et al., 2016; Yosso, 2002). Ansley (1997) describes White supremacy as White people having the power, material resources, and sense of entitlement and condescension, whether they are conscious of having any of these attributes or not. When the first five U.S. colleges were established— Harvard, William and Mary, Yale, Codrington, and Princeton—they were created as "instruments of Christian expansionism, weapons for the conquest of indigenous peoples, and major beneficiaries of the African slave trade and slavery" (Wilder, 2013, p. 17). While our country has evolved, much has not changed in higher education and White people remain a privileged group. Allen and Liou (2019) argue that White supremacy also operates in schools through meritocracy, which Liu (2011) states higher education is built upon. Meritocracy places

one's hard work and ability, regardless of life circumstances, as the driver of success (Liu, 2011). Under meritocracy in broader context outside of higher education, one's social standing becomes contingent upon one's education level (Moore, 2004). However, given the system was built to privilege Whites, it reproduces inequalities when it places the blame on the individual for their lack of success in college and fails to acknowledge the systems and structures that may deny them equitable opportunity to be successful (Allen & Liou, 201; Liu, 2011).

White supremacy and structural racism are also manifested through the college curriculum, similar to K-12, that uses a Eurocentric lens that is aligned with the experience of White people dominates course syllabi (Harris, 1993; Patton, 2016). It also is expressed through microaggressions, which run the gamut from seemingly innocuous comments like "you're articulate" to assuming a student plagiarized a paper because of their race (Harper, 2015, Solórzano & Yosso, 2002; Sue, 2010; Yosso et al, 2009). Another way it manifests is through the idea that gaps in educational outcomes between racially minoritized and White students are due to cultural stereotypes, or lack of student socialization and/or motivation, instead of seeing the institution as a culprit in these gaps (Bensimon, 2005; Bensimon, 2007). Structural racism and White supremacy impact students in various ways; many racially minorized students are hesitant to engage in class as they do not feel welcome, and some fear being viewed as academically inferior, unintelligent, or othered (Jain, 2010; Wood, 2014).

The result is that many Black and Latinx students are not reaching their educational goals at the same rate as their White counterparts. As previously stated, in California, first-time, full-time Latinx and Black students are 10 and 17 percentage points less likely to earn a certificate or associate degree than White students (National Center for Education Statistics, 2018b). They are also less likely to transfer with Latinx and Black students seven and three percentage points,

respectively, less likely to transfer than White students (California Community Colleges Chancellor's Office, 2020b). Patton (2016) notes the problematic dilemma of colleges serving as a place of knowledge production but still rooted in racism and White supremacy. This means that, if not addressed, colleges will continue to perpetuate racism and White supremacy through their curriculum, climate, and instruction. As community colleges continue to educate more students, more racially minoritized students are in environments that are not built for them. In other words, they are not receiving an equitable education. However, many colleges are starting to tackle equity through changes in policies, structures, and supports, so the outlook the system will change is hopeful.

CCC Policy Response to Low Completion Rates

The CCC system is trying to put equity at the center of what they do in response to their low completion rates and persistent equity gaps. It adopted goals based on the Vision for Success,[10] to reduce equity gaps by 40 percent in five years (i.e., by 2022) and eliminate them by 2027 (Foundation for California Community Colleges, 2017). Those two goals are ambitious, but equity is not a new concept for the CCC system as it has been a focus for decades. In 1991, the legislature added Education Code (EC) §66010.2c that stated the CCC system must provide educational equity so that students have "a reasonable chance to fully develop his or her potential" (Academic Senate for California Community Colleges, 2002). Then in 1996 the CCC Board of Governors established accountability around the equity EC by requiring college districts to submit equity plans to receive state funding (Academic Senate for California Community Colleges, 2002). However, it was in 2014 that renewed energy around equity

[10] This Vision for Success is a five-year plan that is central to how the CCC system will address their equity issues. It includes six five-year goals and seven core commitments for the system to help create change.

occurred when the Governor doubled funding for CCC equity program as part of the 2014-2015 Budget Act.

During that same legislative year, the EC was amended to include Article 1.5 Student Equity Plans, EC §78220 – 78222. Per EC §78220, requiring college districts to submit three-year equity plans where they set goals for access and retention, degree and certificate completion, English as a Second Language and basic skills, completion, and transfer. They must set goals for the overall student population, as well as for certain student groups that are defined by specific characteristics, specifically race/ethnicity, disability, lesbian gay, bisexual, transsexual, and queer (LGBTQ), economically disadvantaged, veterans, and foster youth. EC §78220 also required colleges to detail what activities they would implement to improve students' outcomes for these various subgroups.

The 2018-19 budget created the Student Equity and Achievement (SEA) Program which consolidated three separate funding streams for different programs, including the Basic Skills Initiative, the Student Equity program, and the Student Success and Support Program. All three programs have similar goals to improve equity and success in the system—consolidating the three gave districts more flexibility in how they provide equity programming and spend funds. During this time EC §78220 and §78222 were amended to expand college districts' equity requirements under the new SEA Program. EC §78222 now requires college districts to set three-years goals to close equity gaps for any student group who is found to be disproportionately impacted (DI)—when a student group's success rate is substantially lower than the benchmark rate—any metric as part of their Student Equity Plans (SEP).

The Chancellor's Office uses its systemwide data to identify which students are DI on the following metrics:

1. Enrollment: Enrolled in the same college they applied to;
2. Retention: Retained from fall to spring at the same college;
3. Math and English[11]: Completed both transfer-level math and English within the college district in their first year;
4. Completion: Earned a Chancellor's Office approved certificate, associate degree, and/or CCC baccalaureate degree; and
5. Transfer: Transferred to a four-year institution.

Colleges must set a goal for each student group that was found to have DI for any metric. They must set goals on the number of additional students needed to close the gap, as well as submit an Annual Report to the CCC Chancellor's Office that details how they spent SEA funds and their progress on their goals. Per EC §78220, with the first reports were due on January 1, 2020 and is required for all districts receiving SEA Program funds.[12]

Annual Report Development and Components

The CCC Chancellor's Office developed the SEP Annual Report template in July 2019 with feedback from the CCC Equity Workgroup. The aim of the report was to standardize the reporting process, gain as much information as possible, and make it easy to use for the colleges by reducing the administrative burden. The report was hosted on a secure web portal and shared with college stakeholders in early September for feedback. The Annual Report template was refined by incorporating that feedback and the online portal went live the following month for report submission (a version of the report can be found in Appendix 1.2).

[11] Due to the passage of AB 705 that aims to reduce the number of students who are placed in remedial math and English, the Chancellor's Office decided to use metrics on completing college-level math and English, instead of the English as a Second Language and basic skills area called out in the EC.

[12] The SEA funding time frames and the new SEA program requirements do not align. For example, colleges submitted their 2019-2022 SEPs in July 2019, but have two years to spend the SEA funds they receive every year. Given the mandate of the Annual Report is to detail how they are making progress on their equity goals, colleges will report on funds from the previous fiscal year and their progress during the current one.

There are two main parts of the Annual Report for colleges to submit data—activities and expenditures. In the activities section, prior to colleges entering any data, all relevant data from the SEPs were imported into the report—their equity goals along with the associated DI student group, metric, and activity titles. The equity activity titles were created by the colleges and vary greatly. Some activity titles are more generic like "Retention" and others more specific like "Improve applicant conversion rate of target populations." While a college's SEP goal for any student group could be disproportionately impacted for any metric, colleges only had to report on five goals in the annual report. They could select three goals for any student group but are instructed to pick one goal related to Black students and one for Latinx students—there was not a requirement based on sex. An example of five goals includes picking a retention goal for Black females, a retention goal for Latinx males, an enrollment goal for veteran males, a transfer goal for Filipino females, and a completion goal for foster youth males. For each goal selected, the activity titles associated for that goal from their SEP were populated in the report.

Next, although not part of the statute, the Annual Report asks colleges to report on at least one activity (via the SEP's activity titles) for each of the five goals they will in the Annual Report. Since the activity titles varied greatly, the CCC Chancellor's Office streamlined this part by asking colleges to "tag" each activity title from a list of 43 activity categories developed by the CCC Equity Workgroup that ranged from direct financial aid to students and first-year experience programming (see Figure 1.2). Additionally, for each activity title reported, colleges must select the implementation status—fully implemented, implementation in progress, and planning to implement. An example from an Annual Report is an enrollment goal for veteran females to increase enrollment by 30 more female veterans. The activity title imported from their SEP is "Outreach to DI Groups." The five activity categories they selected in the Annual Report

for this activity and goal includes Basic needs support (food, transportation, housing), Bridge courses, Counseling, Direct aid (financial), Orientation/Welcome activities, and Textbook access. The implementation status for the overall activity of "Outreach to DI Groups" is implementation in progress.

Figure 1.2

Equity Annual Report Activity Categories

Administrative (program or activity office support)	**Basic Needs Support** (food, transportation, housing)	**Bootcamps** (intense, short courses or workshops)
Bridge Courses (courses to help students transition successfully from high school)	**Campus Climate** (impacts to attitudes, behaviors, standards)	**Classified** (staffing, not management or faculty)
Co-requisite Courses	**Communities of Practice** (organizational learning)	**Concurrent/dual enrollment** (high school or other college)
Counseling (related to any part of the student's journey)	**Cultural Awareness Events** (related to specific DI groups or other groups)	**Curriculum Development** (research, design, planning, implementation)
Direct Aid (financial)	**Early Alert** (programs or methods for intervention)	**Embedded Tutoring** (within a course or series of courses)
Expanded Hours of Operation (special hours outside of college department's norm)	**Faculty** (educators, not management or classified staff)	**First Year Experience** (equipping new students with skills, tools, knowledge)
Flexible Course Scheduling (student-centered schedule design)	**Integrations with Mental Health and Wellness Services** (psychological and physical supports)	**Intrusive Enrollment Case Management** (proactive counseling and academic support)
Learning Communities (interdisciplinary collaboration)	**New Courses**	**Online Access to Student Services**
Online Educational Plans (technology, course-mapping)	**Orientation/Welcome Activities** (geared toward new/newer students)	**Outreach to K-12 and Community Partners** (events, workshops, collaborations, communication)
Pedagogical Tools (resources to enhance, support, facilitate teaching/learning)	**Peer Mentoring** (student-to-student support)	**Professional Development** (events, workshops, training for staff and/or faculty)
Research Efforts (related to student equity/student success efforts, activities, goals)	**Student Recruitment** (searching for/engaging with prospective students)	**Student Success Workshops** (group sessions for students focused on habits, skills, etc.)
Student Academic Competitions/Research/ Conferences (hosting, promoting, supporting)	**Student Portal** (technology, communication)	**Supplemental Instruction** (non-traditional tutoring)
Targeted Promotional Print Material (related to events, programs, equity/success messaging, etc.)	**Technology Access for Students** (programs, systems, apps, hardware, devices)	**Textbook Access**
Transportation	**Tutoring** (traditional academic support services)	**University Field Trips** (group visits to other local colleges and universities)

The second main section in the Annual Reports is on expenditures for the fiscal year (July 1, 2018-June 30, 2019). Colleges must enter their actual expenditures by the seven broad object codes used across all campuses—instructional salaries, non-instructional salaries,

employee benefits, supplies and materials, other operating expenses and services, capital outlay, and other outgo/outlays. They also must enter their 2019-2020 expenditure forecast. Next, they enter the estimated breakdown of how their entire two-year funding (July 2018-June 2020) would be spent on pre-populated programmatic categories. These categories are basic needs support, classified staff, counseling, embedded tutoring, first-year experience, orientation/welcome activities, professional development, tutoring, and all other programing. Given this was just an estimation, colleges are instructed to enter the percent of the SEA funds to be spent on each program area.

Together, these two sections of the reports provide insights into colleges' intentions to address persistent inequalities in the system, as well as what activities they value given they only had to report on a select few. This study will provide an understanding of the common activities colleges are using to close equity gaps and how colleges report spending their equity funds.

Critical Policy Analysis Lens

Education policy studies draw from a variety of theories and perspectives, but many are influenced by dated assumptions, norms, and traditions that are viewed as being value-free (Marshall, 1997; Scheurich, 1994; Stanfield, 1993; Young, 1999). These studies also tend to employ a linear process where problems are clearly defined and use measurable facts and data (Blackmore, 1997; Fischer, 2003; Marshall, 1999; Rochefort & Cobb, 1994). Kirkland (2019) critiques the assumption of objectivity in such an approach to research, where data is often viewed as neutral and unbiased. He contends that data is used as tool (or weapon) to help powerful people make claims about the truth or reality. As such, the data employed can be used to keep power structures in place. Scholars like Ball (1991, 1993, 1994), deLeon and Vogenback

(2007), Rist (1994), and Stone (2002) have paved the way for a new approach to analyze policy, which is known as critical policy analysis.

Critical policy analysis (CPA) has reoriented studies to focus on exposing inconsistencies between what a policy says and what a policy does, especially regarding social power relationships (Diem et al., 2014). It works off the assumption that policies are inherently biased and based on the values of the policymakers (Bacchi, 2000; Chase et al., 2014). It also asks why, who, and for whom a policy is for (Kirkland, 2019). CPA explores how minoritized groups can unintentionally become marginalized or harmed by the very policies meant to help them, and how power is maintained through the policy. Diem et al. (2019) interviewed scholars and found there were five common reasons they use CPA in their research. These fives reasons are, they are concerned with:

6. The difference between policy rhetoric and how it is practiced.
7. The root/impetus and development of a policy.
8. The distribution of power, resources, and knowledge, as well as who are the "winners" and "losers".
9. The policy's effects on social stratification and the relationships of inequality and privilege.
10. How members of nondominant groups resistant to or engage with the policy or process.

Together, CPA offers an alternative solution to traditional policy analysis that may overlook contextual and systemic issues with policies and policymaking.

CPA is a useful lens in understanding community college equity efforts as demonstrated by extant research (Ching et al., 2018; Felix et al., 2018; Chase et al., 2014). Ching et al (2018) note that CPA is valuable for understanding the CCC SEPs as implementers' values shape how

they understand equity and the policy, and thus how they create their plans and equity activities. Furthermore, CPA can identify how policies meant to benefit all students can in fact create winners and losers (Young, 1999). For these reasons, I will use CPA in this study to make meaning of the findings from the SEP Annual Reports. I will use it to gain nascent insight into how the equity policy is being practiced through the Annual Reports. Most importantly, I will use CPA to understand how the policy could unintentionally reproduce inequalities to where racially minoritized students are not benefiting and in fact, harmed, by the policy.

Purpose of Study

The CCC Annual Reports provide a window into the progress made on the SEPs, given colleges only had to report on five goals from their SEP. Although limited, this window provides insights on the goals and activities colleges value the most since many SEPs had over 30 different goals in them. Furthermore, details of how colleges are spending their SEA funds also provides insights on what they value given the tough decisions made about how to allocate these funds. This paper aims to understand what colleges are spending their SEA funds on and the common activities used to close equity gaps. My three specific research questions are:

1. What are the common activities Californian community colleges are using or plan to use to close equity gaps?
2. Are there differences in activities by metric and/or student group?
3. How are colleges spending their equity funds?

Methods

This study uses 111 college Annual Reports submitted to the CCC Chancellor's Office in January 2020. While the education code specified college districts must submit the Annual Reports, the CCC Chancellor's Office felt having colleges submit the report was more prudent

since districts are often not heavily involved in these types of campus-level decisions. Also, this sample does not include all 115 CCCs[13], as the online college did not need to submit an annual report, one college did not submit an equity plan and therefore does not need to submit an annual plan, and two colleges did not submit their Annual Reports in time to be included in the sample.

Data and Measures

Most of the data used in this study is from the colleges' Annual Reports. I collapsed the 43 equity activity categories into 13 categories (see Table 1.2). The categories were collapsed by grouping similar activities together. For example, the newly created activity group "Academic Support" comprises the following eight activities from the Annual Reports: Co-requisite courses, summer bridge, bootcamps, embedded tutoring, peer mentoring, student success workshop, supplemental instruction, and tutoring.

Additional data is from the CCC Chancellor's Office Data Mart to examine differences by college demographic characteristics. First, regional characteristics; regions are defined using the CCC Chancellor's Office seven macro regions which include Bay Area, Central Valley-Mother Lode, Inland Empire-Desert, Los Angeles-Orange County, North-Far North, San Diego-Imperial, and South Central Coast.[14] The other eight characteristics (see Table 2.2) determine if differences exist by college size, student and staff racial backgrounds, as well as student low-income status.[15] These characteristics were chosen for two different reasons. The first was to determine if campuses with majority or above average share of minoritized students, both racially and economically, report on the same activities as campuses with more affluent and non-minoritized students. The second reason was to determine if campuses where most staff are from

[13] Madera Community College was not recognized as a college in January 2020 did not submit a 2020 Annual Report
[14] See Appendix 2.2 for distribution of regions
[15] See Appendix 2.2 for distribution of college demographics

racially minoritized backgrounds report on similar or different activities or spend their SEA funds differently than colleges with staff from racially non-minoritized backgrounds. When analyzing the results through a CPA lens, these college characteristics can shed light onto how different types of colleges are understanding the equity policy and if they might run the risk of unintentionally reproducing inequalities on their campuses.

Table 1.2

Collapsed Equity Activity Categories

New Category	Original Equity Activities
Academic Support	Co-requisite courses, summer bridge, bootcamps, embedded tutoring, peer mentoring, student success workshop, supplemental instruction, and tutoring
Campus Climate	Campus climate and cultural awareness events.
Counseling & Course Scheduling	Counseling, flexible course scheduling, online educational plans, early alert, intrusive enrollment case management, and new courses.
Financial aid and other Support	Basic needs support, direct aid, textbook access, and transportation.
Orientation/Welcome Activities	Orientation/Welcome Activities
Outreach and Recruitment	Student recruitment, and outreach to K12 and community partners.
Research	Research Efforts
Staff	Administration, faculty, and classified
Staff Resources	Professional Development, pedagogical tools, curriculum development, and communities of practice.
Student Programming	Learning communities, dual enrollment, first year experience, student academic competitions, and university visits.
Student Services & Resources	Expanded hours of operation, integration with mental health & wellness, online access to student services, student portal, and technology access for students.
Promotional Materials	Targeted Promotional Print Material
Other	Other

Students are considered low-income if they receive a Promise grant, which covers all enrollment fees for students who have financial need. For example, a student from a family of four with an income at or below $38,625 would qualify. College characteristics are defined by

using one of two methods. The first method uses a simple majority where a college having at least 51 percent of a given characteristic are coded as being “high” in that characteristic (i.e., high enrollment rates of Latinx students). A second method was used for three variables: small, large, and high Black colleges. The method applies one standard deviation from the mean to determine if a college is assigned as having the characteristic—one standard deviation above the mean to determine if a school is large or has a high Black student population, and one standard deviation below the mean to determine if a school is small. This method was used to identify colleges that have a large Black student population instead of the simple majority method as no college met the simple majority threshold.

Table 2.2

College Characteristics

College Characteristic	Definition	N
Large	Has at least 32,000 students	16
Small	Has 8,000 or less students	13
Promise	At least 51% of student have a Promise Grant	55
Black	At least 12% of students self-identify as Black	15
Latinx	At least 51% of students self-identify as Latinx	42
Racially Minoritized (RM)	At least 51% of students self-identify as either Latinx, Black, Native Indian, Pacific Islander, or Filipino.	60
RM Classified Staff[16]	At least 51% of classified staff self-identify as either Latinx, Black, Native Indian, or Pacific Islander. Filipino was not broken out in the staff data.	26
RM Educational Administrator[17]	At least 51% of educational administrators self-identify as either Latinx, Black, Native Indian, or Pacific Islander. Filipino was not broken out in the staff data.	17

[16] Classified employees support of college programs and activities by performing a wide variety of clerical, technical, maintenance, and instructional support activities. They may be assigned "lead worker" responsibilities, but do not supervise other employees.

[17] An educational administrator is an academic position that oversees the operations and policies of instructional or student services programs. This tends to include chancellors, presidents, and instructional or student services administrators designated by the governing board as educational administrators.

The data are analyzed via descriptive methods. The analysis for activities included collapsing the number of times an activity category is mentioned by the various college characteristics. The data were also collapsed by the metric goal the activity was attached to, as well as the student characteristic of the metric goal. The analysis on equity spending was slightly different as the expenditure data was collapsed using the median expenditure by the various college characteristics. The estimates of spending by programmatic categories were collapsed using the average since the data were percentages. They were collapsed by college characteristics.

Limitations

While this study can provide early insights into the SEP Annual Reports, it has some limitations. The main limitation is not using the three-year SEPs, which provide a detailed narrative on the equity activities colleges are implementing or plan to implement. The analysis relies solely on activity category the college selected, which may not be an accurate reflection of the activity. Not using the three-year SEPs also means the study cannot provide a nuanced understanding of the activities colleges are using. Finally, given colleges only had to report on five equity goals from their SEP, the findings do not represent all equity activities colleges are using or plan to use. Still, this study is important as it provides insights on the goals and activities they value the most, as well as how they are spending their funds.

Results

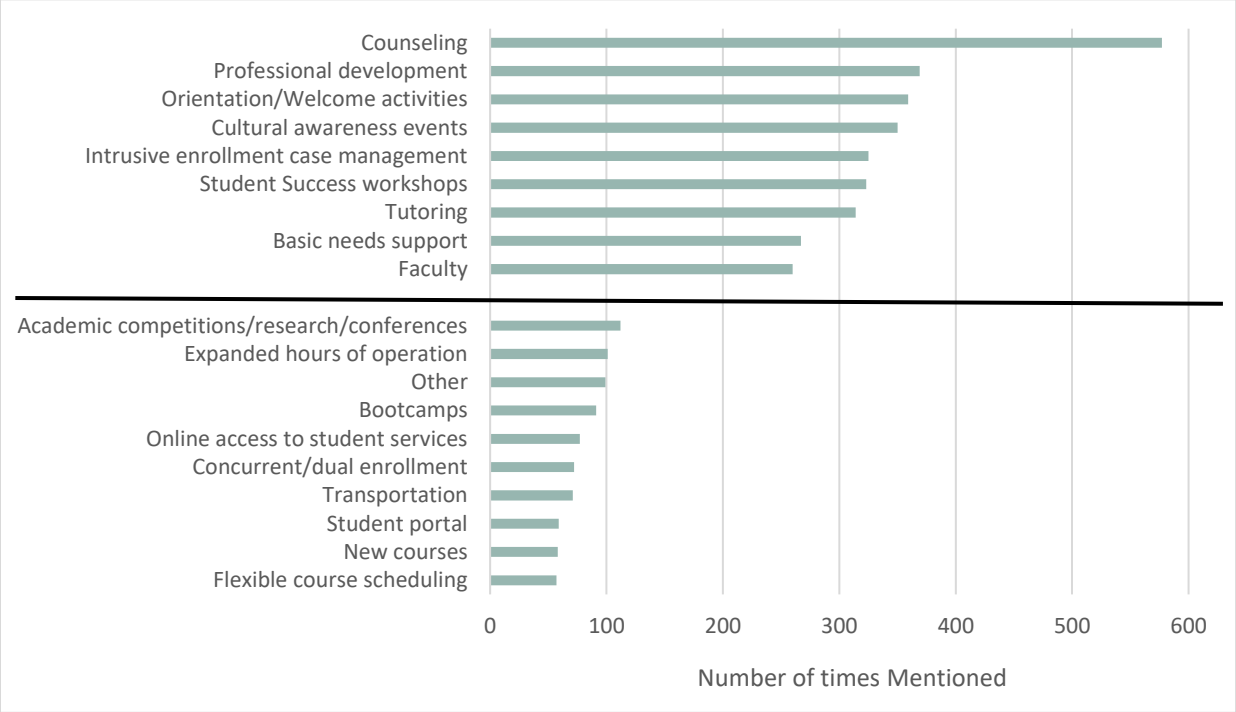
In this section I present the results of the study. First, I provide a high-level overview on the distribution of activities being reported. I follow that by discussing the most common student groups mentioned in the reports, as well as the most common activities for the three student groups mentioned the most. I then review the most common activities by metric goals (e.g.,

completion, retention, etc.). Finally, I present results on how colleges are spending their SEP funding.

In total, colleges reported 8,468 activities in the Annual Reports. Using the 43 original equity categories, the average number of times an activity is mentioned is 197 and the standard deviation is 105, indicating there is wide variation in the number of times an activity is mentioned. For example, the most reported activity—Counseling—is reported 577 times and the least reported activity—Flexible course scheduling—is reported only 57 times (see Figure 2.2).

Figure 2.2

Top and Bottom 10 Activities



Interestingly, cultural awareness is the fourth most common activity, and is the second most common for Black students (see Appendix 3.2). While out of scope of this study, given this finding, a cursory inspection of the SEA Plan activity titles imported into the Annual Reports indicates activities labeled as cultural awareness varied where some activities seem to be more

performative (e.g., holding luncheons or heritage months), while others try tackle the equity issues more aggressively through culturally sustaining pedagogy in the classroom and expanding culturally relevant professional development. The performative activities are concerning as colleges not tackling teaching and learning may result in more symbolic changes than anything else (Patel, 2015). However, a rigorous qualitative analysis is needed to better understand this finding.

Regional Differences in Reported Activities

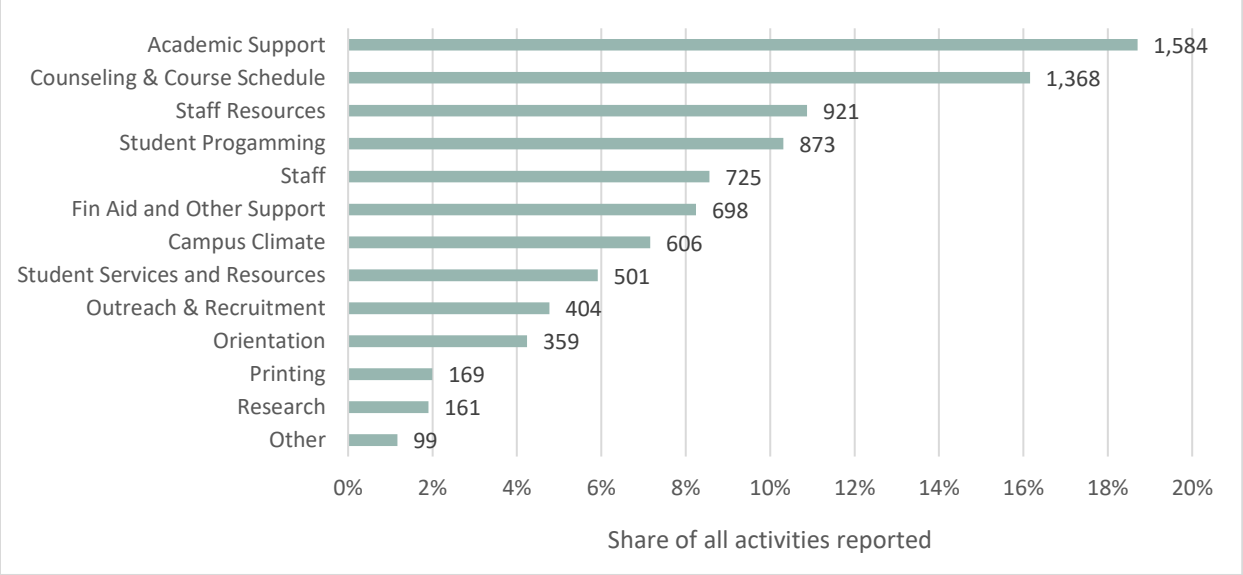
Given California is large and extremely diverse, examining regional differences can provide a nuanced understanding of activities across the state. Using the 13 collapsed activity categories, the most common categories are academic support, counseling/course schedule, staff resources, and student programming, which accounts for 56 percent of activities mentioned in the Annual Reports (see Figure 3.2). Some regional differences are present: Colleges in the South Central Coast are the most likely to cite academic support as an activity to close equity gaps, as it accounts for 27 percent of activities named in their reports. At the other end, colleges in the Far North/North are the least likely of all regions to name this activity as it only accounted for 15 percent of their activities. Given four activities— academic support, counseling and course schedule, staff, and staff resources—account for 50 percent of all activities mentioned in Far North/North and are mentioned at equal rates, this could account for why they are the least likely to report academic support compared to other regions.

Other regional differences are present where Central/Mother Lode is the most likely to use counseling & course schedule activities (21 percent), but South Central Coast is the least likely as it accounts for only 14 percent of its activities. The final major regional difference is seen with South Central Coast again for financial aid and other support activities. They are the

one region to use this activity the most (14 percent of their activities), which is higher than the overall share for all colleges where these activities only account for 8 percent of all activities mentioned in the reports.

Figure 3.2

Number and Share of Activities Reported in Annual Reports



Note: Numbers next to bars represent the number of times activity is mentioned in the annual reports.

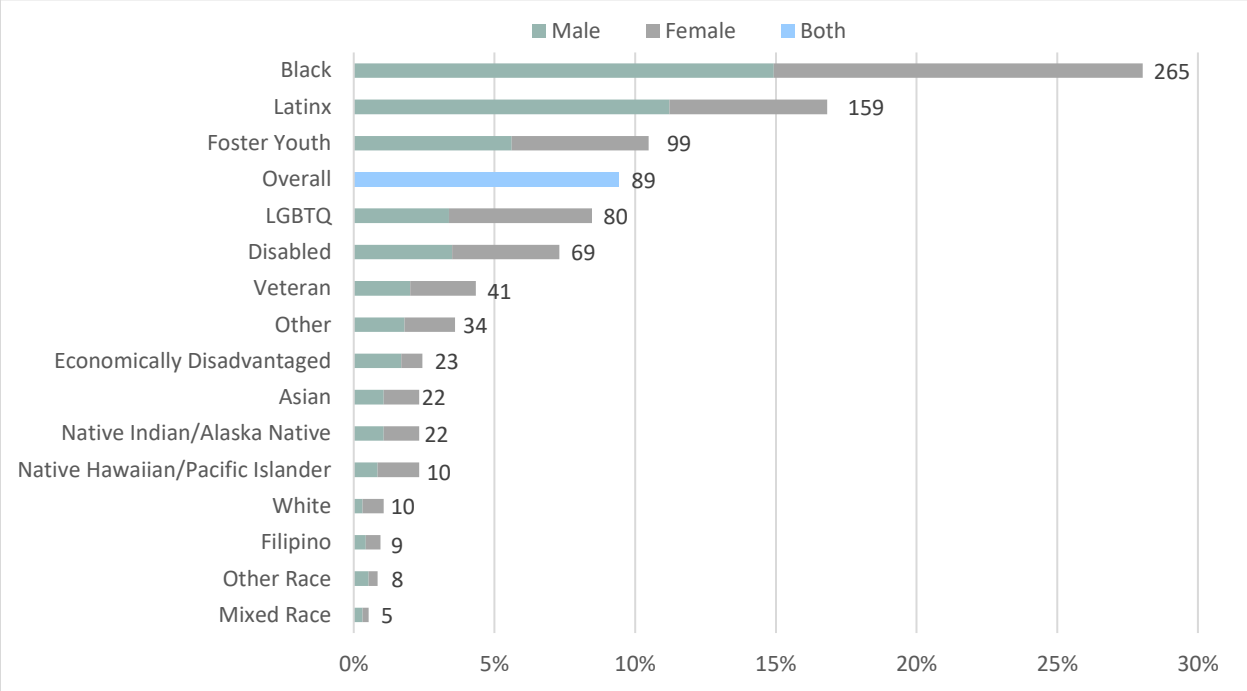
Common Activities by Student Demographics

As previously mentioned, colleges are required to pick five goals to report on in their annual report. They had to report one metric for Black students, one on Latinx students, and the other three could be any student group, which could be another one metric on Black or Latinx students. Given those instructions, it is unsurprising that 28 percent or 265 metrics in the reports pertain to Black students (see Figure 4.2). Interestingly, metrics pertaining to Latinx students do not have similar representation. Latinx students only account for 17 percent or just 159 of the goals reported. What is somewhat concerning is that nine percent (or 89 goals) focus on all students. This is concerning given the aim of the equity program is to improve outcomes for

disproportionately impacted groups. Focusing on all students does not help close those equity gaps and moves the focus away from the disproportionately impacted groups.

Figure 4.2

Number and Share of Goals Reported by Student Demographics



Note: Numbers next to bars represent the number of times the total student group was picked for a metric to report in annual reports.

The most common activities by student group and sex are either academic support or counseling and course schedule (see Appendix 4.2). However, there are some exceptions. Native Indian/Alaska Native, LGBTQ, and White males have campus climate as the most common activities attributed to closing their equity gaps. LGBTQ females and Native Hawaiian/Pacific Islander males have staff resources, economically disadvantaged females have financial aid and other support, Asian females have outreach and recruitment, and Filipino males have student programming as their most common activities.

Focusing on the three largest student groups in terms of the number of mentions in the Annual Reports, Black, Latinx, and Foster Youth students, the most common activities are

academic support for both Black and Latinx students—which accounts for 18 and 23 percent of their equity activities, respectively—and counseling and course scheduling for foster youth, accounting for 19 percent of activities targeted to them. The most meaningful regional difference is seen with foster youth where financial aid and other support is the top activity for these populations in San Diego/Imperial Counties, which accounts for 33 percent of activities for foster youth in the region. This represents a 17-percentage point increase over the statewide share.

Activities for foster youth also varied by college demographics, which was not true for Black and Latinx students. Colleges with a high share of racially minoritized (RM) administrative staff are 11 percentage points more likely to report on counseling and course scheduling as an equity activity compared to colleges with a low share of RM administrative staff. Furthermore, colleges with a high share of RM or Black students were 10 percentage points less likely to report academic support and financial aid and other support, respectively, as equity activities for foster youth students compared to their counterparts.

Common Activities by Metric Goals

A total of 945 metric goals are reported in the Annual Reports. Twenty-four percent are on the enrollment metric, 21 percent on college-level math and English, another 21 percent on retention, 18 percent on transfer, and 16 percent on completion. While little variation is present by metric, about 16 to 18 percent of activities for each metric is either academic support or counseling and course schedule (see Table 3.2). However, two exceptions exist. The first is the metric on completing college-level math and English within the first year. It is overwhelmingly attached to the academic support activities that accounted for 29 percent of all activities for that metric. The second exception is for the enrollment metric. While counseling and course

schedule activities is the most common activity for this metric (15 percent), outreach and recruitment, and orientation activities are a close second accounting for 13 percent of activities associated with this metric. It is unsurprising that outreach and recruitment activities are mainly associated with the enrollment metric—they account for 58 percent of activities mentioned in all Annual Reports—these activities were also mentioned for all metric, just not as often.

Table 3.2

Top Activities by Metric Type

Metric	Activity	Times Mentioned	Share of Activities
Completion	Academic Support	236	17%
	Counseling & Course Schedule	215	16%
Math & English	Academic Support	543	29%
	Staff Resources	328	18%
Enrollment	Counseling & Course Schedule	267	15%
	Outreach & Recruitment	238	13%
Retention	Counseling & Course Schedule	301	17%
	Academic Support	273	16%
Transfer	Counseling & Course Schedule	308	18%
	Academic Support	304	18%

The enrollment and retention metrics have interesting regional differences. While most regions cite counseling and course schedule or outreach and recruitment as their main activity for enrollment, both the Bay Area and North/Far North both cite the staff category as their main activity for closing enrollment gaps. For the retention metric, the North/Far North is the only region to cite a top activity that was not academic support or counseling and course schedule. This region has campus climate as their top activity to improve retention. Finally, the transfer metric has the most diversity in the top regional activity for this metric. The top activities for each region for the transfer metric are counseling and course schedule for the Bay Area, Central/Mother Lode, and Los Angeles/Orange County, academic support for South Central

Coast, financial aid and other support for Inland Empire/Desert, staff resources for San Diego/Imperial Counties, and student programming for North/Far North.

Common activities for metrics also differ by college characteristics. First comparing within college groups, the most common equity activity for the completion metric at Promise colleges is staff resources, whereas academic support was the most common equity activity for non-Promise counterparts. Colleges with majority racially minoritized (RM) administrative staff use counseling and course scheduling the most for enrollment, while their counterparts use orientation and welcome activities to close enrollment gaps.

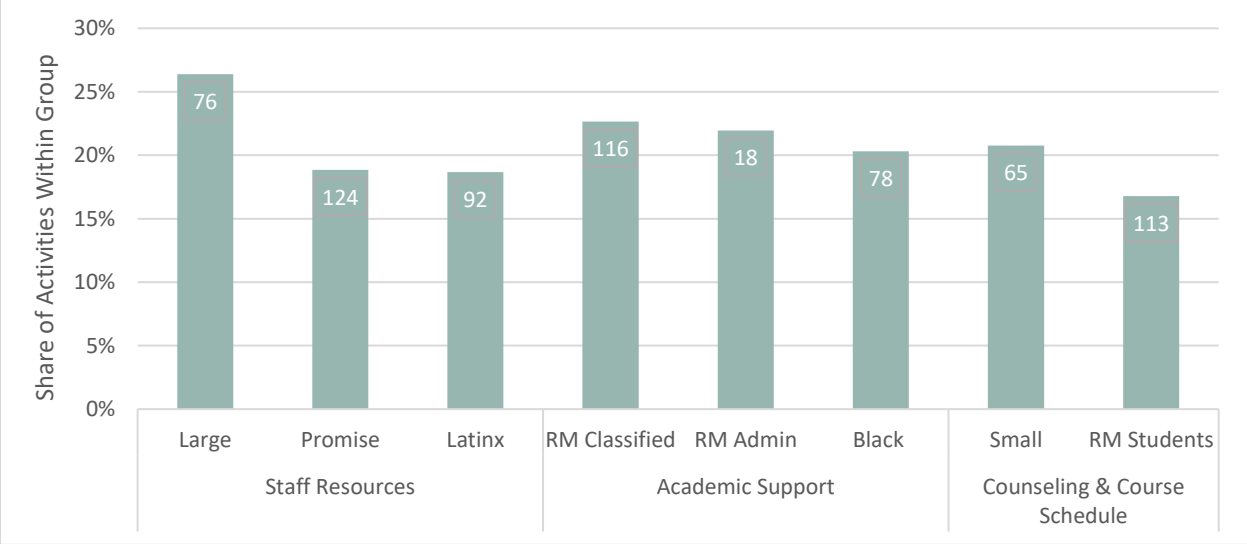
When comparing differences across college groups, every college group is using academic support for the college-level math and English metric. Little variation is present for retention and transfer metrics as most colleges state counseling and course schedule as their most common equity activities. The completion metric has the most variation (see Figure 5.2). The top activity for completion by college group tends to account for a larger share of all activities mentioned for this metric as the number one activity ranges from 17 percent (racially minoritized colleges) to 26 percent (large colleges) of all completion equity activities. Large, Promise, and Latinx colleges named staff resources as their top activity. RM classified or administrative staff colleges, as well as Black colleges name academic support as their top activity. Small colleges indicate counseling and course schedule as their top activity.

The retention metric has some variation worth noting. The top activities for each college group generally accounts for around 16 percent of all retention activities. The one exception is for small colleges that named outreach and recruitment as their top retention activity where this activity accounts for about 20 percent of all their retention activities. Counseling and course schedule is the most common activity across colleges as five different college groups—Large,

RM students, Promise, Black, and Latinx— have it as their top retention activity. RM administrative staff have orientation as their most common activity and RM classified staff as academic support as their most common activity.

Figure 5.2

Most Common Equity Activities for Completion Metric by College Characteristic



Note: Numbers in bars represent the number of times activity is mentioned in the annual reports.

Spending

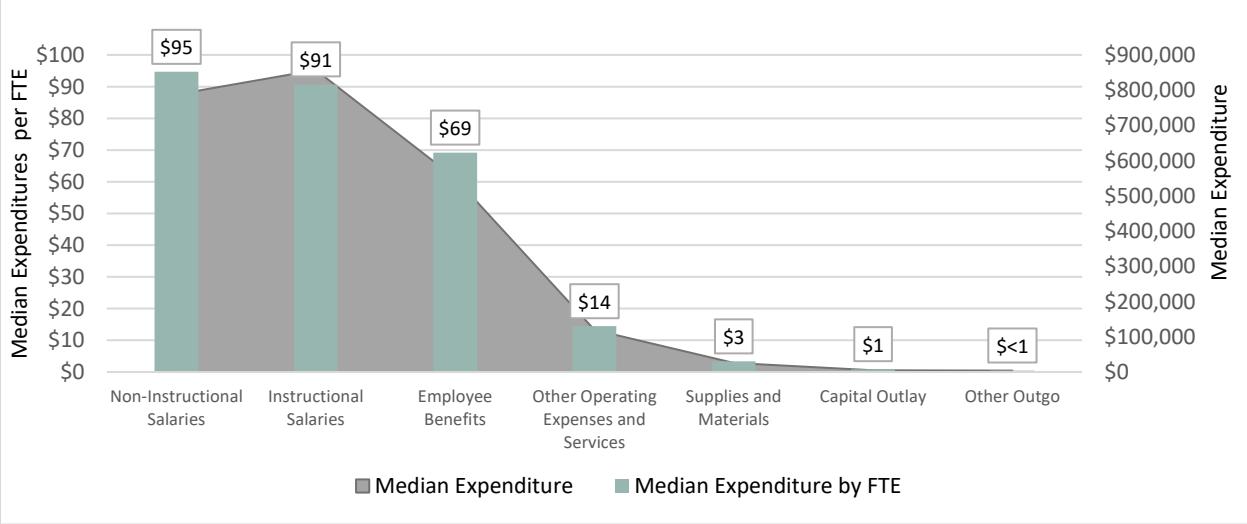
During the first year of the 2018-2020 SEA funding cycle, colleges spent a median of $2.5 million or $290 per FTE in SEA funds, which is not much money compared to the total funding per FTE $8,306 (California Community Colleges Chancellor's Office, 2021a). Disaggregating expenditures by object codes used across all campus finance officers, colleges spent most of their funds on salaries in the first year, where the median expenditure for both instructional and non-instructional salaries is $1.6 million ($857,071 and $788,054 respectively) or $185 per FTE (see Figure 6.2). However, given positions were created under the previous equity plans, it is understandable why salary expenditures are high—especially since districts did not receive additional funding with the new legislative requirement. In fact, five colleges

requested more funds, totaling over $2.3 million. The requests cited needing more funds for personnel, training, tutoring, and student emergencies, as well as a cost-of-living adjustment.

Regional differences are present in salary expenditures, both non-instructional and instructional. Instructional salaries ranged from $65.57 to $125.24 per FTE and non-instructional salaries ranged from $84.27 to $119.49 per FTE. Interestingly, South Central Coast has the highest median expenditure per FTE for non-instructional salaries, but the lowest for instructional salaries, which is almost a $54 per FTE difference. Los Angeles also has a large gap of almost $22 between the two categories where the regional median per FTE for instructional salaries is $125.24—which is also the highest out of all the regions—and $102.39. The differences for the seven regions are smaller where the average difference was slightly more than $5.50 per FTE.

Figure 6.2

2018-2020 SEA Funding Cycle: Median Year 1 Expenditures

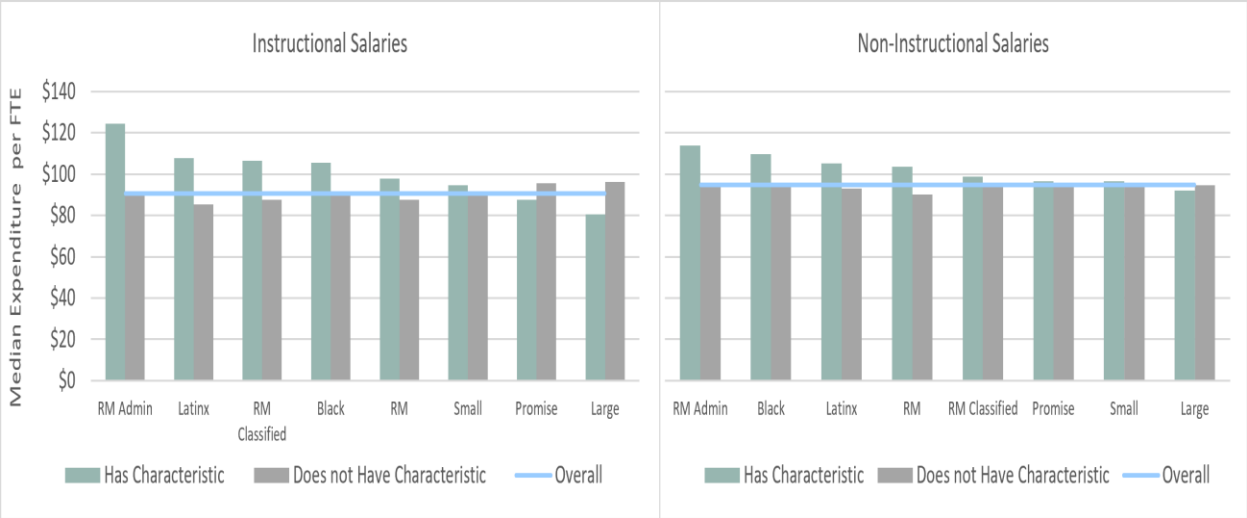


Differences are also present when examining the salary categories by the eight college characteristics (see Figure 7.2). Colleges where most of their administration staff are racially minoritized (RM) spent the most per FTE in both salary categories—$124 per FTE for

instructional salaries and $114 for non-instructional salaries. These colleges spent more in salaries than their non-RM administration staff counterparts where they spent $35 more per FTE for instructional salaries and $20 more in non-instructional salaries. The trend is similar for Latinx, RM classified staff, and Black colleges in spending more than their counterparts.

Figure 7.2

2018-2020 SEA Funding Cycle: Median Year 1 Salary Expenditures by College Characteristics

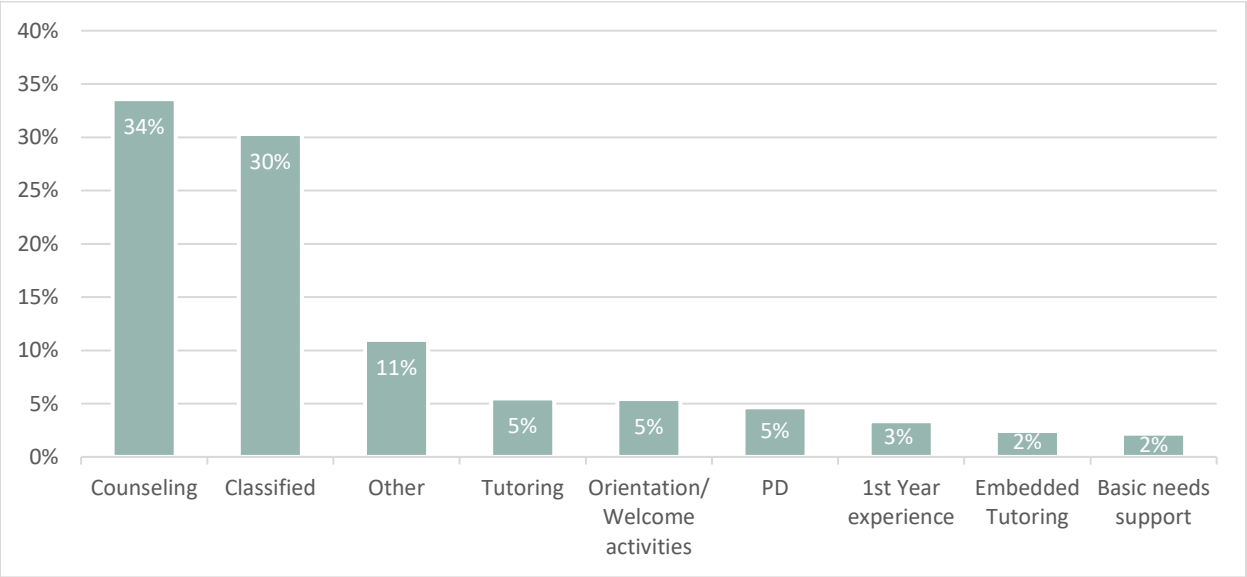


While colleges indicate they spent most of their year one funding on salaries, the results from the estimated breakdown by programmatic categories for the entire 2018-2020 SEA funding cycle tells a slightly different story. Most of the SEA funding (or 34 percent) is estimated to go to counseling (see Figure 8.2), while classified salaries is estimated to account for 31 percent of the budget, (i.e., lower than counseling). This difference between the actual expenditures and estimated expenditures could be a result of colleges being confused by the programmatic categories where employee salaries related to counseling were included in the counseling category instead of the classified staff. Overall, differences in estimated expenditures by category did not differ by college characteristic, except in two instances. Both South Central

Coast and Small colleges have classified staff as the largest share of their estimated expenditures over counseling.

Figure 8.2

2018-2020 SEA Funding Cycle: Estimated SEA Expenditures by Category



Discussion

Community colleges are tackling equity gaps on their campuses using a variety of activities. The activities and metric goals reported in the Annual Reports provides insights into what colleges deem as important. This is especially true given the CCC Chancellor's Office directive to report on only five equity metric goals out of the numerous ones included in colleges' three-year Student Equity Plans (SEPs). In general, colleges reported on the five metric goals equally. This indicates colleges did not favor one metric over another in this reporting process.

While colleges reported on a variety of activities to close gaps for their metric goals, academic support and counseling/course scheduling are the two activities most frequently noted. This is unsurprising given two major reform efforts at the CCC system—AB 705 and Guided

Pathways. The academic support category includes activities such as co-requisite courses, embedded tutoring, and supplemental instruction; activities that are commonly linked to developmental education reform efforts such as AB 705, which places more students directly into college-level math and English courses (Daugherty et al., 2018; Rodriguez et al., 2018). However, these types of activities can be applied outside of math and English courses and could be viewed to help with the retention, transfer, and completion goals as well. The counseling/course scheduling category includes activities like flexible course scheduling, early alert systems, and intrusive counseling. These are common activities of the Guided Pathways reform effort (Bailey et al., 2015; California Guided Pathways, 2017a; California Guided Pathways, 2017b), and which aim to increase completion rates by providing students a clear map to degree attainment.

Clearly, many colleges deem academic support and counseling/course scheduling as the most important activities overall, but some differences were present across the colleges. Staff resources were reported the most for closing completion gaps by large, high Promise student, and high Latinx student colleges, and outreach/recruitment and orientation were reported the most for small and high racially minoritized educational administrator colleges to close their enrollment gaps. The main differences observed in activity category reporting is regionally. Given that California is a large and diverse state regionally differences are expected. For example, the South Central Coast, which mainly covers the Santa Barbara, San Luis Obispo, and Ventura counties, is the most likely to report the financial aid and other support category to close equity gaps. The median family incomes for these counties range from $81,000 to $88,000 (American Community Survey, 2019), and about 65 percent of CCC students enrolled in the South Central Coast are economically disadvantaged (Cal-PASS Plus, 2020). Thus, it is perhaps unsurprising that

financial aid would be an important activity to colleges in this region. However, this is only conjecture as the data do not provide any insights into *why* colleges selected particular activities. Additional research is needed to provide an understanding on how colleges chose goals for their Annual Reports.

The prevalence of cultural awareness being a commonly reported activity raises some important questions, including how colleges are implementing equity at some colleges. It is the fourth most common activity when activities are not collapsed into the broader categorical groups and is the second most common activity for Black students. Cultural awareness is defined as being aware of similarities and differences among and between cultural groups (Good, 2001; Tomlinson & Masuhara, 2004), which is a very broad definition as it pertains to equity activities. The activity titles from the SEPs support this as cultural awareness activities range from holding luncheons or heritage months to implementing culturally sustaining pedagogy in the classroom or expanding culturally relevant professional development. Bensimon (2007) notes that making meaningful change to improve equity is dependent upon practitioners being equity-minded, where they ask why practices and policies are failing racially minoritized students and how practitioners might be unintentionally sustaining unequal racial outcomes (Bensimon, 2018). If these types of activities are more performative then colleges will not change how they provide an equitable education, and their work ends up being more symbolic (Patel, 2015), where the true intent of the policy will not be met. Still, without additional information, such as the actual SEPs, it is unclear if these cultural awareness activities will in fact close equity gaps. However, it is important to note that colleges are given limited funds to create systemic and lasting change on their campuses.

Another concern is the number of metric goals reported that focused on all students. Metric goals for all students is the fourth common group behind Black and Latinx students. This is a concern as scholars have found that not explicitly naming race will allow equity gaps to persist since we will not understand why they are occurring (Bertochhi & Dimico, 2012; Harper, 2012; Patton, 2016). In fact, Ching et al. (2020) find that many colleges' SEPs take a race-neutral approach. They state it is particularly important for equity planning and programs to explicitly name race because if they do not, it is easier for campuses to implement programs that could in fact reproduce inequities on their campuses (Ching et al., 2020). Furthermore, this goes against the intent of the policy to close equity gaps and could maintain current power structures where White and wealthier students continue to benefit at the expense of racially minoritized and less affluent students.

The final takeaway is that colleges are spending most of their SEA funds on salaries. This is unsurprising given counseling was the most common activity category, with staff resources as the fourth most common category. What is unknown is if colleges are creating new programs with new positions or are they using funds to cover salaries for existing positions, but most importantly how these salaries will help close equity gaps. To answer these questions, an analysis of the 2019-2022 SEPs must be conducted. Ching et al. (2020) provide some insights with their analysis of a sample of the 2014-2017 SEPs. They find that much of the proposed activities were focused on students' behavior rather than college structure or operations. Moreover, they find that the use of deficit language that attributes any educational outcomes differences to students, whether they are based on cultural stereotypes, or lack of student socialization and/or motivation, is problematic as it does not force institutions to be reflective on how they should change to better serve students (Bensimon, 2005; Bensimon, 2007; Ching et al.,

2020). In other words, without shifting the focus from students to colleges as the source of the problem or in need of change, colleges run the risk of doing business as usual. This could indicate that the current expenditure focus on salaries may not help close equity gaps if faculty and staff are not receiving training or if the colleges are not hiring the right staff to do truly transformational equity work.

The Annual Reports provide great insights into what colleges deem as important or worthwhile equity activities to report. While there is concern in how this policy is being practiced with current power structures being maintained, more research is needed to gain a full picture of colleges' equity activities, especially the ones reported in the plans. To accomplish this, an analysis of the current three-year 2019-2022 Student Equity Plans should be conducted as those plans contain more detailed information than the Annual Reports. Furthermore, we do not know if these activities will be effective in closing gaps. Future research will be needed to evaluate the effectiveness of the SEPs as a reporting strategy overall and determine if the activities in the Annual Reports were both actualized/executed by the colleges, and, ultimately, whether these were effective strategies in closing equity gaps.

Looking ahead, community colleges currently face tremendous financial and enrollment challenges; some colleges are already dealing with the financial fallout associated with the COVID-19 pandemic (Kolbe & Staisloff, 2020; Murakami, 2020; St. Amour, 2020). During recessions, community colleges can see an increase in enrollment, especially among racially minoritized students (Barrow & Davis, 2012; Desrochers & Wellman, 2011; Fry, 2010), but also see a decrease in their funding (Desrochers & Wellman, 2011). This means community colleges must educate more students with less money. While some research finds modest gains in student outcomes (e.g., Desrochers & Wellman, 2011), others find a decrease during budget cuts (Bound

et al., 2010; Bound et al., 2012; Deming & Walters, 2018). During hard financial times, colleges must make decisions where to cut and they often cut non-instruction activities, such as student services (Bound et al., 2012; Mitchell et al., 2019). However, the new 2021-22 state budget just gave the CCC system an additional $390 million than previously expected, as well as $46 million in new funds for diversity, equity, and inclusion efforts, in addition to $24 million in SEP funds (California Community Colleges Chancellor's Office, 2021b; EdSource, 2021). With these new funds, colleges have the perfect opportunity to do truly transformational equity work to change how education is provided so that equity gaps will close and the educational experience for racially minorized students will improve. Ladson-Billings said it best when she wrote on how we should think of education post-COVID "…"going back" is the wrong thing for children and youth who were unsuccessful and oppressed in our schools before the pandemic. Normal is where the problems reside" (p. 68, 2021).

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Appendix 1.2: Annual Report Example

NOTE: The SEA Annual Report must be completed within the NOVA system. *This document is for planning purposes only.*

A separate report must be submitted for each college in the district. Submission deadline: January 1, 2020.

You may use this document to gather the required data ahead of completing the Annual Report module in NOVA. The SEA Annual Report relies heavily on information contained in your college's Student Equity Plan. If you plan to use this template to pre-populate/capture the information, it is recommended that you have a copy of your Student Equity Plan on hand to reference.

Step I – Contacts

Review all contacts listed in the NOVA report module and update if appropriate.

- Project Lead Contact – this person has the ability to view/edit the report and will be responsible for submitting the report for approval. There is only one lead contact.
- Alternate Project Lead Contacts – have ability to view/edit the report; but cannot submit for approval. May have multiple alternate leads.
- Chief Instructional Officer/Chief Student Services Officer/Academic Senate President – these contacts are displayed and available for report draft sharing, but are NOT required to approve the report.
- Chancellor/President and Chief Business Officer – these are the only two required approvers for this report. These are the *college* president and the *college* CBO.

Step II – Expenditures

Your college's 18-19 SEA allocation will be displayed on the screen. Colleges have two full years to spend each annual allocation.

- You will report your college's Year 1 expenditures by budget line item. (Year 1 for 18-19 SEA funding is July 1, 2018 through June 30, 2019.)
- Next enter the amount your college forecasts to spend in Year 2 (July 1, 2019 through June 30, 2020).

18-19 SEA Program – Year 1 Expenditures	
Object Code	Amount
1000 – Instructional Salaries	$
2000 – Non-Instructional Salaries	$
3000 – Employee Benefits	$
4000 – Supplies and Materials	$
5000 – Other Operating Expenses and Services	$
6000 – Capital Outlay	$
7000 – Other Outgo	$
TOTAL Year 1 Expenditures	$
Year 2 FORECAST	$
TOTAL Expected Spending (Expenditures + Forecast)	$

Step III – Metrics

Your college's Student Equity Plan contains highly relevant data (metrics, targeted populations, and activities/efforts) called out in the SEA Education Code. You may wish to review your college's Student Equity Plan before beginning the report.

You will select at least FIVE Disproportionately Impacted (DI) groups that were identified in your college's Student Equity Plan. On the next step, you'll report on the implementation progress of activities associated with these groups.

- Identify and select:
    - At least ONE "Black or African American" DI group (the sex and metric attached to the group is your choice)
    - At least ONE "Hispanic or Latino" DI group (the sex and metric attached to the group is your choice)
    - AND at least THREE additional groups to report on (college choice)

If you would like to document the student DI groups your college plans to select in the Metrics step, you may list them here.

Demographic	Sex	Metric
Black or African American *(required)*		
Hispanic or Latino *(required)*		

Step IV – Activities

For each of the groups you selected on the Metrics step, please choose between 1 and 3 activities to report on. The activities that your college associated with each group in its Student Equity Plan will be displayed in a drop-down menu on the screen.

- After selecting an activity, "tag" it with category titles that describe the activity (listed below). You may select multiple category titles.

Administrative (program or activity office support)	**Basic Needs Support** (food, transportation, housing)	**Bootcamps** (intense, short courses or workshops)
Bridge Courses (courses to help students transition successfully from high school)	**Campus Climate** (impacts to attitudes, behaviors, standards)	**Classified** (staffing, not management or faculty)
Co-requisite Courses	**Communities of Practice** (organizational learning)	**Concurrent/dual enrollment** (high school or other college)
Counseling (related to any part of the student's journey)	**Cultural Awareness Events** (related to specific DI groups or other groups)	**Curriculum Development** (research, design, planning, implementation)
Direct Aid (financial)	**Early Alert** (programs or methods for intervention)	**Embedded Tutoring** (within a course or series of courses)
Expanded Hours of Operation (special hours outside of college department's norm)	**Faculty** (educators, not management or classified staff)	**First Year Experience** (equipping new students with skills, tools, knowledge)
Flexible Course Scheduling (student-centered schedule design)	**Integrations with Mental Health and Wellness Services** (psychological and physical supports)	**Intrusive Enrollment Case Management** (proactive counseling and academic support)
Learning Communities (interdisciplinary collaboration)	**New Courses**	**Online Access to Student Services**
Online Educational Plans (technology, course-mapping)	**Orientation/Welcome Activities** (geared toward new/newer students)	**Outreach to K-12 and Community Partners** (events, workshops, collaborations, communication)
Pedagogical Tools (resources to enhance, support, facilitate teaching/learning)	**Peer Mentoring** (student-to-student support)	**Professional Development** (events, workshops, training for staff and/or faculty)
Research Efforts (related to student equity/student success efforts, activities, goals)	**Student Recruitment** (searching for/engaging with prospective students)	**Student Success Workshops** (group sessions for students focused on habits, skills, etc.)
Student Academic Competitions/Research/ Conferences (hosting, promoting, supporting)	**Student Portal** (technology, communication)	**Supplemental Instruction** (non-traditional tutoring)
Targeted Promotional Print Material (related to events, programs, equity/success messaging, etc.)	**Technology Access for Students** (programs, systems, apps, hardware, devices)	**Textbook Access**
Transportation	**Tutoring** (traditional academic support services)	**University Field Trips** (group visits to other local colleges and universities)
Other (please specify)		

- Next assign an Implementation Status to the activity: *Not Begun*, *Implementation in Progress*, or *Fully Implemented*.
- If desired, you may add and report on additional activities under this DI group, following the same process above.

If you would like to document the activities your college plans to report in the Activities step, you may list them here.

Demographic/Sex/Metric: Black or African American/ /		
Activity Title *(choose between 1 and 3)*	**Categories** *(may add more than one)*	**Implementation Status**

Demographic/Sex/Metric: Hispanic or Latino/ /		
Activity Title *(choose between 1 and 3)*	**Categories** *(may add more than one)*	**Implementation Status**

Demographic/Sex/Metric: / /		
Activity Title *(choose between 1 and 3)*	**Categories** *(may add more than one)*	**Implementation Status**

Demographic/Sex/Metric: / /		
Activity Title *(choose between 1 and 3)*	**Categories** *(may add more than one)*	**Implementation Status**

Demographic/Sex/Metric: / /		
Activity Title	**Categories** *(may add more than one)*	**Implementation Status**

Step V – Category Spending

Provide an estimate of how your college plans to spend its *entire 18-19 SEA allocation* (two full years of spending). Enter the estimated percentage breakdown of the total 18-19 SEA funds by category. NOTE: *This is an estimate only* - the purpose of which is to help the Chancellor's Office understand generally how colleges are expending funds by category. **This is a non-auditable field.**

18-19 SEA Program – Estimated Spending	
Category	% of Spending
Counseling	*%*
Professional Development	*%*
Tutoring	*%*
Orientation/Welcome Activities	*%*
Classified	*%*
Embedded Tutoring	*%*
First Year Experience	*%*
Basic Needs	*%*
Other	*%*
TOTAL - Must Equal 100%	*%*

Step VI – Success Story (optional)

Please provide a success story for collaborative purposes and to help establish best practices. You may use this area to elaborate on any of the activities for which you reported progress, or on any other student equity-related efforts on your campus. NOTE: This workflow step is optional, however all fields are required should you wish to enter a success story.

Step VII – Challenges (optional)

Please share any challenges you have encountered with implementing efforts and activities related to the SEA Program. This information will help the Chancellor's Office determine additional support/resources needed system-wide, and/or policy changes needed. NOTE: This workflow step is optional, however all fields are required should you wish to enter a challenge.

Step VIII – Preview and Submit

In this step you will review all of the information entered in the report. You may choose to share the report draft with others on campus by clicking the Share button. When ready, click the Submit button to route to the college President and CBO for review/approvals.

SUBMISSION

Your report must be approved/certified by the college president and chief business officer in the NOVA system by January 1, 2020. A separate report must be submitted for each college in the district.

Appendix 2.2: College Characteristics

College Demographics

	Mean	SD	Min	Max
Enrollment	20,387	12,0859	2,664	66,542
% Promise Students	0.49	0.15	0.14	0.81
% Black	0.06	0.06	0.01	0.35
% Latinx	0.45	0.16	0.17	0.92
% Racially Minoritized (RM)	0.55	0.17	0.22	0.93
% White	0.27	0.14	0.03	0.73
% Admin Staff RM	0.33	0.15	0.07	0.80
% Classified Staff RM	0.40	0.16	0.07	0.85
N	111			

College Regions

Region	# of Colleges	Percent
Bay Area	27	24.32
Central/Mother Lode	14	12.61
Inland Empire/Desert	11	9.91
Los Angeles	19	17.12
North/Far North	15	13.51
Orange County	9	8.11
San Diego/Imperial	8	7.21
South Central Coast	8	7.21
Total	111	100

Appendix 3.2: Top 5 Original Activity Categories by Student Demographic

Student Demographic	Activity Title	# of Metrics
All Students	Counseling	80
	Faculty	53
	Student Success workshops	48
	Classified	47
	Orientation/Welcome activities	46
Asian	Student Recruitment	7
	Orientation/Welcome activities	6
	Outreach to K-12 and community partners	5
	Bridge courses	3
	Cultural awareness events	3
Black or African American	Counseling	159
	Cultural awareness events	124
	Orientation/Welcome activities	118
	Professional development	108
	Learning communities	106
Disabled	Counseling	50
	Professional development	26
	Tutoring	24
	Faculty	19
	Intrusive enrollment case management	19
Economically Disadvantaged	Counseling	14
	Professional development	13
	Tutoring	13
	Embedded Tutoring	12
	Early alert	10
Filipino	Cultural awareness events	5
	Orientation/Welcome activities	5
	First Year experience	4
	Student Recruitment	4
	Administrative	3
Foster Youth	Counseling	61
	Basic needs support (food, transportation, housing)	50
	Intrusive enrollment case management	41
	Orientation/Welcome activities	38
	Textbook access	37
Latinx	Counseling	111
	Student Success workshops	67
	Tutoring	64
	Embedded Tutoring	58
	Cultural awareness events	57
LGBTQ	Professional development	44
	Campus climate	40
	Cultural awareness events	40
	Counseling	28
	Administrative	23

Student Demographic	Activity Title	# of Metrics
Mixed Race	Campus climate	5
	Cultural awareness events	3
	Professional development	3
	Classified	2
	Curriculum Development	2
Native Hawaiian or other Pacific Islander	Cultural awareness events	14
	Counseling	13
	Student Success workshops	13
	Communities of practice	12
	Learning communities	12
Native Indian or Alaska Native	Campus climate	15
	Cultural awareness events	15
	Professional development	13
	Counseling	9
	Orientation/Welcome activities	9
Some Other Race	Administrative	6
	Student Success workshops	6
	Early alert	5
	Intrusive enrollment case management	5
	Orientation/Welcome activities	5
Veteran	Counseling	28
	Orientation/Welcome activities	24
	Basic needs support (food, transportation, housing)	17
	Integrations with Mental Health & Wellness services	16
	Intrusive enrollment case management	16
White	Orientation/Welcome activities	7
	Campus climate	6
	Cultural awareness events	6
	Professional development	6
	Counseling	5

Appendix 4.2: Top Two Activities by Student Demographic and Sex

Student Demographic	Sex	Activity Title	# of Metrics
All	All	Academic Support	223
		Counseling & Course Schedule	197
Asian	Female	Outreach & Recruitment	7
		Orientation	3
	Male	Academic Support	8
		Outreach & Recruitment	5
Black or African American	Female	Academic Support	219
		Counseling & Course Schedule	198
	Male	Academic Support	237
		Counseling & Course Schedule	209
Disabled	Female	Academic Support	56
		Counseling & Course Schedule	51
	Male	Academic Support	60
		Counseling & Course Schedule	53
Economically Disadvantaged	Female	Fin Aid and Other Support	12
		Counseling & Course Schedule	12
	Male	Academic Support	38
		Counseling & Course Schedule	26
Filipino	Female	Academic Support	8
		Outreach & Recruitment	7
	Male	Student Programming	4
		Academic Support	4
Foster Youth	Female	Counseling & Course Schedule	64
		Academic Support	61
	Male	Counseling & Course Schedule	72
		Fin Aid and Other Support	61
Hispanic or Latino	Female	Academic Support	116
		Counseling & Course Schedule	72
	Male	Academic Support	222
		Counseling & Course Schedule	167
LGBT	Female	Campus Climate	8
		Staff Resources	5
	Male	Student Programming	4
		Academic Support	4
Mixed Race	Female	Academic Support	38
		Staff Resources	31
	Male	Staff Resources	13
		Academic Support	12
Native Hawaiian or other Pacific Islander	Female	Academic Support	38
		Staff Resources	31
	Male	Staff Resources	13
		Academic Support	12
Native Indian or Alaska Native	Female	Academic Support	14
		Campus Climate	14
	Male	Campus Climate	16
		Staff Resources	14

Student Demographic	Sex	Activity Title	# of Metrics
Some Other Race	Female	Counseling & Course Schedule	8
		Student Programming	8
	Male	Student Programming	7
		Counseling & Course Schedule	5
Veteran	Female	Counseling & Course Schedule	37
		Academic Support	31
	Male	Counseling & Course Schedule	31
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