

## Technical Appendix:

### Creating an Affordable-College Model for California

The California Budget & Policy Center's "Creating an Affordable-College Model" analysis estimates the cost of implementing a state financial aid program designed to enable qualified Californians to attend full-time for undergraduate study at the California Community Colleges (CCC), the California State University (CSU), or the University of California (UC), based on current estimated enrollment levels for the 2018-19 academic year.<sup>1</sup> This new program would eliminate the need for students to take out loans or work unmanageable hours.

This analysis provides two models for an affordable-college program. One model estimates the costs of a "shared responsibility" program in which the state covers students' remaining unmet financial need after taking into account an expected parent contribution, an expected student contribution (from earnings), and existing state, federal, and institutional aid. The second model estimates the costs of a "government responsibility" program in which the state covers students' remaining unmet financial need after taking into account existing federal, state, and institutional aid, with no student or parent contribution.

The total unmet financial need estimated in the shared responsibility model is \$1.8 billion (\$411 million at CCC, \$939 million at CSU, and \$475 million at UC). The total unmet financial need estimated in the government responsibility model is \$15 billion (\$4.5 billion at CCC, \$7 billion at CSU, and \$3.5 billion at UC). These estimates are for the 2018-19 academic year.

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<sup>1</sup> California's private colleges enroll a relatively small share of students (15%). These colleges are excluded in this report because the vast majority (85%) of students attend public colleges and because research has shown that public institutions are most likely to enroll low-income students and successfully prepare them for higher-earning careers.

This technical appendix provides a summary of key assumptions and an overview of the Budget Center's methodology.

## KEY ASSUMPTIONS

This analysis assumes:

- Total full-time (12 units or more) resident undergraduate enrollment of 980,000 (430,000 at CCC, 370,000 at CSU, and 180,000 at UC), based on projected 2018-19 enrollment. Many qualified Californians attend a private, in-state college or an out-of-state college. Further analysis could estimate the behavioral changes associated with creating a more generous financial aid system as well as account for the additional state cost of enrolling the thousands of students who are turned away each year at the CSU and UC due to capacity limitations.<sup>2</sup>
- Current levels of federal, state, and institutional aid.
- Living costs (such as housing and food) are constant across the state. Of course, living costs – especially housing costs – vary significantly by region. Further analysis could provide regional cost estimates.
- All students complete the Free Application for Federal Student Aid (FAFSA) and receive the amount of financial aid for which they qualify. Many qualified students do not fill out the FAFSA, although improved outreach could increase the number of students completing the form and thus receiving financial aid.

## METHODOLOGY

This analysis provides preliminary estimates on a per-student, per-sector, and statewide basis. All figures are in or adjusted to 2018-19 dollars using the Consumer Price Index for California. The estimates regarding 1) the cost of college and 2) paying for college are

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<sup>2</sup> Amy Rose, *California Stands to Lose Billions in Future Economic Returns by Continuing to Underfund CSU and UC* (California Budget & Policy Center: May 2018).

based on the most recent data available from multiple sources. The “cost of college” category consists of institutional costs, such as tuition and fees, and living costs, such as housing and food. The “paying for college” category consists of financial aid as well as expected parent and student contributions (the latter of which are estimated only for the shared responsibility model).

### Costs of College

Students pursuing a college degree face two main costs: tuition and fees charged by the institution and student-related living expenses such as housing, food, transportation, and books and supplies (often referred to as “non-tuition and fees”).

### *Tuition and Fees*

Tuition varies considerably depending on the type of institution a student attends. This analysis uses 2018-19 undergraduate resident tuition and fees for the regular academic year at the state's three higher education sectors. Tuition and fees for academic year 2018-19 are about \$1,100 at CCC, \$7,300 at CSU, and \$14,400 at UC.

### *Living Costs*

Living costs estimates come primarily from the California Student Aid Commission’s (CSAC) 2018-19 Student Expense Budgets and from the institutional sectors.<sup>3</sup> Living costs include food and housing; books and supplies; transportation; and personal/miscellaneous expenses. The Budget Center weighted these estimates for each sector by the number of students living on-campus, off-campus, and with family.

Housing costs are the greatest expense students face and vary significantly across the state. Yet, because the majority of financial aid recipients at CSU and UC are

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<sup>3</sup> Most CSAC estimates are from California Student Aid Commission, *2018-19 Student Expense Budgets* (August 7, 2018); UC estimates are from *Findings from the Undergraduate Cost of Attendance Survey 2015-16*, available here:

<https://regents.universityofcalifornia.edu/regmeet/mar17/a1attach.pdf>; CSU estimates are from the *2018-19 Standard Student Expense Budgets*, available here:

<https://www2.calstate.edu/attend/paying-for-college/Documents/18-19-coa.pdf>

categorized as dependent, this analysis assumes that all students live at home, rent-free, with parents or family during the summer. Of course, many students do not have access to rent-free summer accommodations and must rely on earnings from work or other sources to cover their living expenses. This analysis combines housing and food costs due to inconsistencies in how these costs are reported. Housing and food costs are from the CSAC Student Expense Budgets as well as from institutional surveys and are about \$8,400 at CCC, \$11,500 at CSU, \$12,100 at UC.

The costs of books and supplies are from recent survey data from the institutions and CSAC.<sup>4</sup> The books and supplies costs for academic year 2018-19 are about \$1,000 at CCC, \$1,900 at CSU, and \$1,500 at UC.

Transportation costs are from the CSAC Student Expense Budgets and include travel to and from a parent's residence and transportation costs to and from classes and work (e.g., bus fare, gasoline, tolls, and parking). Transportation costs are about \$1,200 at CCC, \$1,200 at CSU, and \$1,100 at UC.

The personal/miscellaneous costs are from CSAC Student Expense Budgets and include clothing, laundry and dry-cleaning, personal care, gifts, recreation, and medical care. Personal/miscellaneous costs are about \$3,100 at CCC, \$3,000 at CSU, and \$2,800 at UC.

### Paying for College

This analysis incorporates three financial resources that help students to cover the cost of college: an expected parent contribution, students' earnings from work, and financial aid (federal, state, and institutional).

### *Expected Parent Contribution*

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<sup>4</sup> The CCC figure is based on unpublished information from CSAC, which is implementing a new Student Expense and Resources Survey between fall 2018 and spring 2019. The Budget Center received unpublished data from this survey, which only included preliminary data from community college respondents at the time of this analysis.

There are no statewide data showing how much parents contribute towards students' college expenses. This analysis uses Expected Family Contribution (EFC) data from the 2015-16 National Postsecondary Student Aid Study (NPSAS) – a nationally representative sample survey of undergraduate students – to estimate parents' contributions for the shared responsibility model. The EFC reflects how much the federal government expects a family to contribute toward a student's college costs each year, with this calculation then used to determine the amount of aid for which a student is eligible. For dependent students (generally those under age 24), the EFC consists of an expected parent contribution and an expected student contribution. For independent students (generally those older than age 24 or married), the EFC does not assume a contribution from the student's parents.

The Budget Center's analysis adjusts the EFC for dependent students so that it solely reflects parents' contributions. This adjustment entails the following steps:

- First, this analysis assumes that each student's base annual income for the purpose of calculating the EFC is \$7,435. This is based on annual earnings of \$10,945 less deductions for federal and state taxes (-\$947) as well as some summer living expenses (-\$2,564).<sup>5</sup>
- Second, this analysis accounts for the fact that the federal government excludes a portion of dependent students' base annual income – up to \$6,570 – from the EFC calculation. (This is known as an "income protection allowance.") In addition, for any earnings that exceed \$6,570, the federal government counts only 50% towards the student's portion of the EFC. Taking these adjustments into account, a dependent student with a base annual income of \$7,435 would be required to contribute about \$432 toward their family's EFC ( $\$7,435 - \$6,570 = \$865 * 0.5 = \text{approximately } \$432$ ).

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<sup>5</sup>The total annual earnings amount – \$10,945 – is based on a student working 15 hours per week during the academic year and 40 hours per week during the summer at \$11 per hour, which was California's minimum wage for employers with 26 or more workers during 2018.

- Third, dependent students' expected contribution toward their EFC – about \$432 – is subtracted from the weighted total EFC for each of the three higher education institutions. This results in an adjusted EFC that reflects only parents' expected contributions for families with dependent students.

The EFC for independent students does not require similar adjustments. This is because the income protection allowance for independent students (\$10,220 for an independent student with dependents of their own) exceeds the base annual income that independent students are assumed to contribute toward their higher education costs (\$7,435).

### *Student's Earnings From Work*

The shared responsibility model calculates how much students could contribute to their college costs through potential earnings from work. Many students, particularly low-income students, rely on a job to help pay for college. Research suggests that working too many hours is detrimental to student success, while working a moderate number of hours may be helpful.<sup>6</sup> This model assumes that all students work 15 hours per week at California minimum wage (\$11 per hour) during the academic year and 40 hours per week at the minimum wage during the summer, for total earnings of \$10,945.<sup>7</sup> After accounting for state and federal taxes (-\$947), as well as some summer living expenses (-\$2,564), students are assumed to contribute earnings of \$7,435 towards their college costs.<sup>8</sup> While this model bases the student contribution on manageable earnings from work, some students may prefer to make their contribution through borrowing or other means, such as merit-based or private gift aid.

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<sup>6</sup> Lauren Dundes and Jeff Marx, *Balancing Work and Academics in College: Why Do Students Working 10-19 Hours per Week Excel?* (Journal of College Student Retention: May 2006).

<sup>7</sup> Estimate based on California's 2018 minimum wage for employers with 26 employees or more.

### Financial Aid

Students can receive help paying for college through a combination of gift aid (such as public and private grants, scholarships, and tuition waivers); loans; tax credits and deductions; and work-study programs. Because tax credits and deductions are not immediately available to help students afford the cost of college, they are excluded from this analysis. This analysis also excludes loans (because goal of the analysis is to eliminate the need for students to incur student debt) and work-study programs (because work contributions are calculated separately). The amount of aid that students receive varies depending on their income and other factors; therefore, the total program cost for each model depends on the assumed number of students from different income levels. This analysis uses 2016 undergraduate data from NPSAS to stratify students into five income categories: \$0-\$30,000; \$30,001-\$48,000; \$48,001-\$75,000; \$75,001-\$110,000; and \$110,001 and over.

### Federal Aid

This analysis uses NPSAS data to estimate how many students receive federal gift aid from the Pell Grant and the Federal Supplemental Educational Opportunity Grant. Many students from low-income families who qualify for federal student aid do not receive it because they do not fill out the Federal Application for Student Financial Aid (FAFSA).<sup>9</sup> With increased outreach efforts, more students may apply for and receive federal financial aid which would lower the program costs to the state. This analysis uses current average award amounts and assumes that every eligible student would apply for and receive federal financial aid due to increased awareness of available aid, including undocumented students.

- **Pell Grant.** The Pell Grant helps ensure access to postsecondary education for low- and middle-income undergraduate students by providing grants that help meet college costs.<sup>10</sup> The Pell Grant is an entitlement, meaning that all eligible students receive an award. The maximum grant amount that a student is eligible

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<sup>9</sup> Reeves, V and Guyot, K. *FAFSA Completion Rates Matter: But Mind the Data* (Brookings: July 5, 2018).

<sup>10</sup> US Department of Education, "Student Financial Aid: Pell Grant."

for during academic year 2018-19 is \$6,095, although the actual grant students receive varies depending on their EFC and other factors. The average award amount in 2015-16 was \$3,760. This analysis weights the average Pell Grant award by family income for dependent and independent students at each sector.

- **Federal Supplemental Educational Opportunity Grant (FSEOG).** This grant provides need-based aid to eligible undergraduate students to help reduce financial barriers to postsecondary education.<sup>11</sup> This aid is provided to students with exceptional financial need – in 2015-16, 68% of FSEOG recipients came from families with incomes of less than \$30,000 and the average award amount was \$649.<sup>12</sup> Unlike the Pell Grant, the FSEOG is a campus-based program, which means that award amounts are determined by each campus and a student's eligibility depends on family income and on the amount of funds that the campus receives. This analysis weights the average FSEOG award by family income for dependent and independent students at each sector.

### *Existing State and Institutional Aid*

In addition to federal aid, students also receive financial assistance through state financial aid and institutional aid. Since one of the goals of this analysis is to model the cost of a new financial aid system in California, existing state aid and institutional aid is not calculated at the student level. Rather, this analysis deducts the total amount of current state and institutional aid from the costs assumed for each of the three sectors to estimate how much *additional aid* would be needed to fulfill students' unmet financial need, on top of what is already available to them.

State aid refers to aid administered by CSAC and includes undergraduate Cal Grants, Chafee, and Middle Class Scholarship award amounts for academic year 2017-18, inflation-adjusted to 2018-19.

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<sup>11</sup> US Department of Education, "Student Financial Aid: Federal Supplemental Opportunity Grant."

<sup>12</sup> National Association of Student Financial Aid Administrators, *State of Student Aid 2018* (July 24, 2018). [https://www.nasfaa.org/uploads/documents/2018\\_profile\\_slides.pdf](https://www.nasfaa.org/uploads/documents/2018_profile_slides.pdf)

- **Cal Grants** are need-based grants for students who are pursuing an undergraduate degree or vocational or career training at the CCC, CSU or UC, and do not have to be repaid.<sup>13</sup>
- **The Chafee Grant** provides aid for career and technical training for college students who were in foster care between the ages of 16 and 18 and have financial need.<sup>14</sup>
- **The Middle Class Scholarship** provides undergraduate students with family incomes and assets up to \$171,000 a scholarship to attend CSU or UC campuses.<sup>15</sup>

Institutional aid consists of need-based gift aid administered by CCC, CSU, and UC.

(This analysis does not include merit-based aid or private gift aid.) Institutional aid at the CCC consists of the following:

- **Promise Grant** waives tuition for students with family incomes at or below 150% of the federal poverty guidelines.
- **Full-Time Student Success Grant** provides non-tuition assistance for students attending a community college who qualify for the Cal Grant B or C program and enroll in 12 or more credit units per term. This grant is available for up to four years of full-time study (or its equivalent).
- **California Community College Completion Grant** provides additional non-tuition assistance for Full-Time Student Success Grant recipients who enroll in 15 or more credit units per term and develop an education plan. This grant is available for up to three years if students are enrolled in basic skills courses; otherwise, this grant is available for up to two years.
- **Extended Opportunity Programs and Services (EOPS) Grant** offers financial aid and other services to encourage the enrollment, retention, and transfer of students disadvantaged by language, social, economic, and educational

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<sup>13</sup> California Student Aid Commission, "Cal Grant Programs."

<sup>14</sup> California Student Aid Commission, "Chafee Grant."

<sup>15</sup> California Student Aid Commission, "Middle Class Scholarship."

circumstances, and to facilitate the successful completion of their goals and objectives in college.

- **Cooperative Agencies Resources for Education (CARE) Grant** is a supplemental component of EOPS that specifically assists EOPS students with low incomes who are single heads of households with young children by offering supportive services so they are able to acquire the education, training, and marketable skills needed for employment and self-sufficiency for their families.
- **Cooperating Agencies Foster Youth Educational Support (CAFYES) Grant**, also called NextUp, is a supplemental, categorical component of EOPS. The purpose of NextUp is to strengthen the capacity of community college districts to support the higher education success, health, and well-being of some of the nearly 13,000 current and former foster youth who are enrolled in California's community colleges.
- **CalWORKs Grants** helps community college students who are enrolled in CalWORKs or transitioning off the program to achieve long-term self-sufficiency through coordinated student services that include work study, job placement, child care, and (under certain conditions) post-employment skills training.
- **Equity Grants and Other Institutional Need-Based Grants** provide direct, need-based assistance to students.

At the UC, institutional aid reflects the UC Grant, which provides assistance with both tuition and non-tuition costs.<sup>16</sup> At the CSU, institutional aid is composed of the CSU State University Grant, which provides need-based awards to eligible undergraduates, and the Educational Opportunity Grant, which provides financial assistance and support services to economically disadvantaged students admitted to the CSU under the Educational Opportunity Program.

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<sup>16</sup> Legislative Analyst's Office, *2018-19 State Budget: Financial Aid Award Coverage – Need-Based Grants and Waivers* (July 2018).