



CALIFORNIA Data System

College Access, Completion, and the Long-Term Effects of Access to State Financial Aid

June 2020 Research Agenda Subcommittee

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In 2019, California enacted the Cradle-to-Career Data System Act (Act), which called for the establishment of a state longitudinal data system to link existing education, social services, and workforce information.¹ The Act also articulated the scope of an 18-month planning process to be shaped by a workgroup that consists of the partner entities named in the Act.² Suggestions from this workgroup will inform a report to the legislature and the designs for the state data system to be approved by the Governor's Office. The Research Agenda Subcommittee will support the workgroup by helping to identify parameters for research on the six priority areas spelled out in the legislation (see box on page 2).

This brief supports the ongoing efforts of the Research Agenda Subcommittee by describing how other states and researchers have utilized linked data systems to examine the fifth of the six priority areas outlined in the Act: college access, completion, and the long-term effects of access to state financial aid (each meeting of the Research Agenda Subcommittee will focus on one of the priority areas).

¹ Read the California Cradle-to-Career Data System Act at:

https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=EDC&division=1.&title=1.&part=7.&chapter=8.5.&article=

² The partner entities include the Association of Independent California Colleges and Universities, Bureau for Private Postsecondary Education, California Community Colleges, California Department of Education, California Department of Social Services, California Department of Technology, California Health and Human Services Agency, California School Information Services, California State University, California Student Aid Commission, Commission on Teacher Credentialing, Employment Development Department, Labor and Workforce Development Agency, State Board of Education, and University of California.

Priority Policy Questions from the California Cradle-to-Career Data System Act

Without a state data system that links information between agencies, it is difficult to answer foundational questions about the impact of state policies and investments. Legislators identified the following topics, which the state data system must be able to address:

- The impact of early education on student success and achievement as a student progresses through education segments and the workforce;
- The long-term effect of state intervention programs and targeted resource allocations in primary education;
- How prepared high school pupils are to succeed in college;
- How long it takes students who transfer from community college to the University of California, the California State University, or another four-year postsecondary education institution to graduate with a baccalaureate degree;
- **College access, completion, and long-term effects of access to state financial aid; and**
- The workforce effect of graduation from high school, community college, and four-year postsecondary education institutions.

Crafting a Research Agenda for College Access, Completion, and Effects of Financial Aid

Postsecondary education and training are essential for social and economic mobility. At the same time, higher education is increasingly cost-prohibitive for many aspirational, but underprivileged students (The College Board, 2019a). Federal and state governments provide substantial financial aid to college students. According to the College Board (2019b), undergraduate and graduate college students received a total of \$246 billion in federal, state, and other grants in 2018–19. On a per-student basis, undergraduate students in 2018–19 received over \$10,000 in need- and merit-based aid. While growth in the net cost of college has slowed due to increases in state and institutional grants and more stable college tuition (The College Board, 2019a), the COVID-19 crisis threatens to reverse this trend.

As millions of displaced workers seek out employment opportunity through additional postsecondary training, dramatic reductions in economic activity stemming from social distancing measures have led to extraordinary cuts to California's segments of higher education. The state's primary financial aid program, the Cal Grant, was not targeted for reduction in the Governor's May revise. But it is likely that other services and programs used by the most vulnerable Californians, which help defray the net cost of college attendance, may be impacted.

By allowing researchers to answer crucial yet under-researched questions related to both the short- and long-term impacts of access to financial aid, a linked, longitudinal California data system could inform and support decision making in the state. For example, student data linked across secondary and postsecondary segments in the state could be used to research the relationship between financial aid and college enrollment and completion. Connected to workforce data, policymakers and researchers could analyze the extent to which access to aid drives economic activity. For parents and other stakeholders, public-facing data dashboards could visualize the educational and workforce pathways of students who do and do not receive grant funding. Finally, a state data system could help identify and close inequities in access to state financial aid.

Research into the Effects of Access to Financial Aid

There is a large body of academic literature related to college access, completion, and the long-term impacts of financial aid (for comprehensive reviews, see Dynarski & Scott-Clayton, 2008; Long, 2008; Nguyen et al., 2019). This brief does not aim to survey the entirety of this literature; the goal, rather, is to highlight several of the most widely cited and rigorously designed studies in order to illustrate possible research avenues for a California data system.

Regarding college access, Kane (1995) used data from the National Longitudinal Survey of Youth (NLSY), the High School and Beyond senior survey, and the October Current Population Survey to estimate the effectiveness of different forms of financial aid in increasing access to college. The results of Kane's study were that states with higher public tuition levels have lower rates of college entry and that the gaps in college enrollment between high- and low-income youth were greater in high-tuition states. Seftor and Turner (2002) also used October Current Population Survey data to explore the relationship between federal financial aid and the college enrollment rate

among potential students. They concluded that increased availability of federal financial aid significantly increased college enrollment, particularly among older (i.e., 25–30) college students. Like, Kane (1995), Dynarski (2003) used NLSY data and reported that the availability of financial aid increased college attendance by over 20 percentage points. In sum, the overall body of empirical literature utilizing natural experiments is “remarkably consistent” (Dynarski, 2002, p. 281): grants and subsidies increase college access. “All aid is not equal” (Long, 2008, p. 34), however, and while grant aid has been linked consistently with improved rates of access and college enrollment, loans and tax credits appear to be less effective at promoting this outcome (Long, 2004).

Regarding completion, the overall body of research literature indicates that financial aid supports college student persistence and completion. For example, Dynarski (2003) found Social Security student benefit program eligibility increased the probability of completing at least one year of college by 16 percent. In another analysis using data from Arkansas and Georgia, Dynarski (2005) found that merit-based grants led to a sizable increase in the share of young people with a college degree. The estimated effects were strongest among nonwhite and Hispanic women. After averaging 75 effect estimates reported across 43 studies employing a causal design,³ Nguyen, Kramer, and Evans (2019) recently concluded that grant aid increases the probabilities of persistence and degree completion by approximately 2 to 3 percentage points.

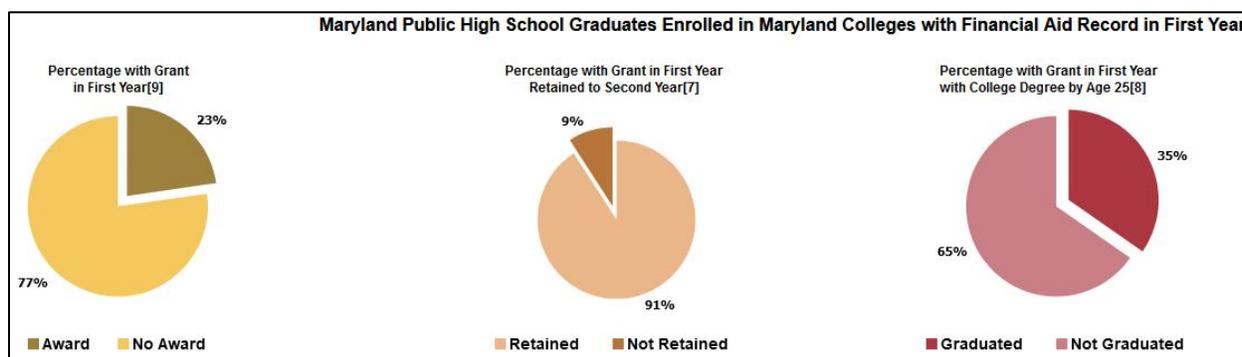
Fewer studies have examined the long-term effects of access to state aid, such as bachelor’s degree attainment and earnings. However, the studies that do exist and that employ plausibly causal estimates appear to reach similar conclusions. For example, in their analysis of West Virginia’s merit-based PROMISE scholarship, Scott-Clayton and Zafar (2016) found that grant recipients were more likely to attain bachelor’s degrees and increased earnings. Denning, Marx, and Turner (2017) used Texas administrative data to explore the long-term effects of state aid and found that eligibility for state grant aid substantially increased students’ postsecondary attainment and earnings.

³ Causal studies focus on the “cause and effect” of certain variables.

Use of Financial Aid Data by State Data Systems

A scan of state longitudinal data system (SLDS) websites reveals that several, though surprisingly few, provide publicly available analyses or data dashboards related to college access, completion, and the long-term effects of access to state aid. The Maryland Longitudinal Data System (MLDS) Center hosts a suite of public-facing dashboards related to financial aid. Figure 1 provides a screenshot of one dashboard, which displays college enrollment, retention, and attainment of Maryland public high school graduates who have received financial aid in their first academic year. Of the 23 percent of students who received a state-financed Howard P. Rawlings Educational Excellence Award, 91 percent returned to college in their second year and 35 percent earned a college degree by age 25.

Figure 1: Maryland Dashboard on Outcomes of Students Receiving Financial Aid⁴



The Washington Education Research Data Center (ERDC) published a report on the “Trends in Higher Education Finance: Enrollment Patterns, Student Financial Aid, Net Price, and Completion.”⁵ However, while this particular report yielded insight into student financial aid trends among public and private sectors within Washington, the data used to populate this report came largely from IPEDS and not the state’s P20W data system. A separate published analysis, which leveraged the state’s longitudinal data system, reported that need-based financial aid was positively associated with

⁴ See the Kentucky High School Feedback Report at <https://mldscenter.maryland.gov/Dashboards.html>

⁵ Read the ERDC report at <https://erdc.wa.gov/publications/higher-education-finance/trends-higher-education-finance-enrollment-patterns-student>

increased probabilities of degree completion, especially among students who started at a community or technical college.⁶

Figures 2 and 3 contain images taken from an annual report published by the Alaska Commission on Postsecondary Education on the effectiveness of the Alaska Performance Scholarship (APS), a state merit-based grant. Figure 2 illustrates that an overwhelming share of APS recipients attended one of the University of Alaska institutions. Figure 3 illustrates that APS recipients have higher employment rates six years after high school graduation, but roughly equivalent annual wages.

Figure 2: Alaska Dashboard on Where Financial Aid Recipients Attend College⁷

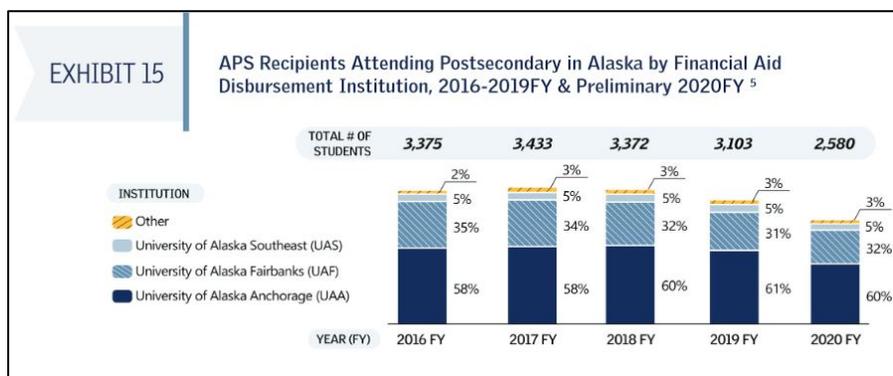
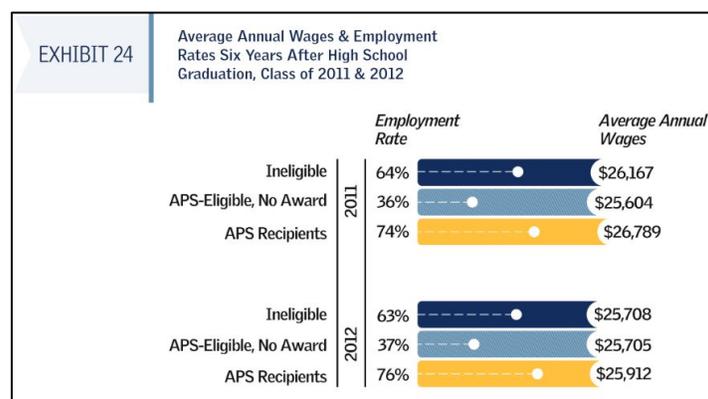


Figure 3: Alaska Dashboard on Earnings of Financial Aid Recipients



⁶ Read the ERDC report at <https://erdc.wa.gov/publications/student-outcomes/analysis-alternative-financial-aid-interventions>

⁷ Read the Alaska Performance Scholarship outcomes report at https://acpe.alaska.gov/Portals/3/APS/Pubs/APS_Outcomes_Report_2020.pdf

Effects of Access to State Financial Aid in California

California's college students benefit from a range of federal, state, and institutional grants to support their higher education achievement. The principal administrator of financial aid in the state is the California Student Aid Commission (CSAC), which oversees—among other targeted state scholarships—the Cal Grant Program, the Middle Class Scholarship, and the Chafee Grant Program for foster youth. Of the available state aid programs administered by CSAC, the Cal Grant Program is the largest, providing more than \$2 billion of funding to over 255,000 new awardees in 2019–20 (California Student Aid Commission, 2020b).

Academic researchers with access to sufficient California data have previously researched the link between access to California state financial aid and college access and success. For example, using data supplied by CSAC that were then matched with National Student Clearinghouse student records, Kane (2003) found that Cal Grant applicants were 3 to 4 percentage points more likely to enroll in college.

In their analysis of Cal Grant applicants, Bettinger, Gurantz, and Kawano (2019) found that Cal Grant eligibility had no meaningful impact on college enrollment. However, the researchers did find aid eligibility increases enrollment at four-year private institutions over attendance at public two- and four-year schools. They also demonstrated positive long-term effects of access to state financial aid. Specifically, they found that Cal Grant eligibility increased bachelor's degree attainment by 3 to 4.6 percentage points. Furthermore, Cal Grant eligible students were more likely to complete graduate school, remain in-state, and perform better in the labor market.

While federal and state financial aid programs, like the Cal Grant, may increase degree attainment, some students struggle to maintain access to aid. For example, Schudde and Scott-Clayton (2014) noted that while eligibility for federal Pell grants are based on financial need, students who receive Pell support must demonstrate satisfactory academic progress (SAP) in order to renew their award. Using a regression discontinuity design to estimate the impact of academic probation policies among community college Pell recipients, Schudde and Scott-Clayton (2014) also report that nearly 40 percent of community college Pell recipients fail to meet grade point average and credit completion requirements for SAP in their first year. The consequences of failing to meet SAP are mixed, with negative impacts on persistence but positive impacts of associate degree attainment and vertical transfer.

In addition to these research studies, many of California's policy and advocacy organizations have leveraged K–12, economic, and financial aid data to make policy recommendations for improving state financial aid, college access, and success—with a focus on equity (Rose, 2019; The Institute for College Access and Success, 2019).

For example, the Campaign for College Opportunity (2020) used data from a CSAC dashboard to demonstrate that in 2018–19, 46 percent of students did not complete the Free Application for Federal Student Aid (FAFSA) or the California Dream Act Application (CADAA), which provides financial aid for undocumented students and other California non-residents who meet certain criteria. For the competitive Cal Grant, only 25,750 awards were issued for more than 325,000 eligible students. This gap in aid applications may help to explain Bettinger, Gurantz, and Kawano's (2019) finding that aid eligibility was not predictive of attending public colleges.

The Education Trust-West (2019), along with other advocacy organizations such as the Campaign for College Opportunity, has proposed that FAFSA/CADAA completion should be a high school graduation requirement, as is the case in states like Tennessee and Louisiana. This policy has already been implemented in the Val Verde Unified District in California, which doubled the number of students awarded financial aid, from 28 percent to 60 percent (Gordon, 2019).

Before the disruption of the pandemic, and in alignment with recommendations from advocacy groups, CSAC released a proposal to better support the growing number of Californians struggling to pay for college (California Student Aid Commission, 2020a). Specifically, CSAC recommended simplifying Cal Grant awards, reducing eligibility barriers, addressing total cost of attendance, and providing additional tuition and non-tuition aid. Existing awards would be consolidated into two programs, one for community colleges and one for four-year institutions. The proposal also recommends eliminating grade point average verification for community college students and providing access awards of up to \$6,000 for students with the highest needs. Access to data from the California Cradle-to-Career Data System could help to validate and evaluate the suggested reforms.

Potential Research Questions

California education stakeholders have identified the following questions related to college access, completion, and long-term effects of access to state financial aid:

- Which students are applying for and receiving financial aid?
- To what degree does access to financial aid improve educational attainment?
- What are the persistence rates of financial aid recipients?
- To what extent does financial aid impact earnings?
- How much aid is “left on the table” by eligible students who do not access aid? What would the total cost be to fund all of the unmet financial need for higher education in California? What would the return on investment be?

Preparing for the Subcommittee Meeting

The June 2020 subcommittee meeting will focus on a draft research agenda document related to financial aid, including:

- information that will be presented in a public dashboard, including a top-level infographic and drill-down functionality
- questions that could be answered using the query builder tool, along with a list of data elements included in the query builder tool
- priority topics for research studies

The research agenda document includes several of the topics posed in this background paper, which will be added to and amended during the meeting.

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