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LEVERAGING OUTCOMES-BASED FUNDING POLICIES AT THE INSTITUTIONAL LEVEL

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Abstract

Policymakers are moving to outcomes-based funding in an effort to inspire public higher-education institutions to drive the transformative change required to expand access, increase graduation rates and contain costs. For outcomes-based funding to have a significant effect on student outcomes, system and institutional leaders must successfully translate these policies into action. In an effort to inform the design, development and implementation of future outcomes-based funding policies, this paper presents a real-time account of how the prospect of outcomes-based funding, and the financial incentives that have been put in place by the state of California and the California State University system, have provided a frame for California State University, Fullerton to engage and mobilize its campus community to improve student outcomes, advance the institution's mission and achieve its strategic goals.

SECTION 1 Overview

It has been six years since President Barack Obama publicly prioritized college completion as a means to improve economic competitiveness,ⁱ and nine years since Secretary of Education Margaret Spellings' Commission on the Future of Higher Education called on policymakers to "address the needs of higher education in order to maintain social mobility and a high standard of living."ⁱⁱ

Since then, educational attainment and social mobility goals have been widely embraced, and many educational organizations and policymakers have made them central tenets of their reform agendas. Lumina Foundation's Goal 2025 aims to increase the proportion of Americans with high-quality degrees and credentials to 60 percent by the year 2025ⁱⁱⁱ. Complete College America's sole focus is on working with states to enact financial policies and adopt system and institutional practices proven to increase educational attainment levels and narrow achievement gaps.^{iv}

In spite of these ambitious goals and an increased focus on outcomes, however, the state of higher education in America is still not as strong as it could and should be. Student-loan debt has surpassed the \$1 trillion mark and is now higher than automobile and credit-card debt^v. Persistently low degree-completion rates, particularly among students of color and low-income students, continue to limit social mobility and, in the process, threaten our nation's competitiveness. By age 24, for example, young people from families in the bottom income quartile are seven times less likely to have a bachelor's degree than those from families in the top quartile^{vi}, and the United States ranks near the bottom in the developed world in the educational attainment of young people when compared against that of their parents.^{vii}

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The challenge faced by our higher education institutions is clearly formidable. In a nutshell, we are asking them to expand access, improve program quality, increase completion rates, narrow historical gaps in access and achievement, reduce time-to-degree, push the frontiers of knowledge, better serve our communities, produce significantly more civic-minded, workforce-ready graduates in the areas that our states need most, and to do all this while keeping costs low for their states, students and families.

In an effort to set conditions for this challenge to be met, governors and legislators in several states have enacted or are planning to enact outcomes-based funding policies designed to drive institutional improvement in areas of student access, student success and cost-effectiveness.

For many reasons, early performance-based funding¹ policies and financial incentives have not yielded widespread improvement of student outcomes^{viii}. An important and often overlooked reason is that the objectives of performance- or outcomes-based funding can easily get lost in translation^{ix} in the long path between state-level policymakers and campus-level institutional agents, and moreover, the financial incentives associated with such funding can get diluted as they flow through the many administrative layers that separate policymakers from faculty, staff and students. This problem is rather easy to visualize, as there can be up to

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The objectives of performance- or outcomes-based funding can easily get lost in translation in the long path between state-level policymakers and campus-level institutional agents, and moreover, the financial incentives associated with such funding can get diluted as they flow through the many administrative layers that separate policymakers from faculty, staff and students.

¹"Performance funding" refers to a broad set of policies linking allocation of resources to accomplishment of certain desired objectives. Historically, postsecondary performance funding models were often add-ons or bonuses to base institutional allocations that institutions earned for meeting various goals or benchmarks. Additionally, many of these earlier models included measures focused more on inputs or processes than student progression and outcomes and were not intended to drive increased student completion. Today's outcomes-based funding models similarly seek to motivate and reward progress toward a set of stated goals, but have a direct link to the state's higher-education attainment needs and place primary emphasis on student completion and on narrowing attainment gaps across racial, ethnic, and socioeconomic groups, though they often include measures beyond student progression and completion. Advanced outcomes-based funding models also determine how a significant portion of the state's general budget allocation to institutions is determined.

seven such layers: Board of Trustees, System Office, Campus President's Office, Division Offices (e.g., Academic Affairs, Student Affairs, Administration and Finance), College Offices (e.g., College of Humanities and Social Sciences), Academic Unit Offices (e.g., Division of Politics, Administration and Justice), and Academic Program departments (e.g., Political Science).

Fortunately, many educational reform organizations, policymakers, and system and institutional leaders are aware of this buffering effect and are actively working to enact and implement outcomes-based funding policies that link improved outcomes to institutional missions and strategic priorities. The state of California, for example, has in the past three years steadily moved away from funding its three systems of higher education (i.e., California Community Colleges, California State University and the University of California) through enrollment-based formulas and targeted earmarks and signaled its intent to start funding the segments through an outcomes-based funding framework. While this transition to outcomes-based funding has not been without controversy and many questions remain unanswered, it is proving to be helpful for those institutions that see the potential to leverage outcomes-based funding to intensify and accelerate their longstanding efforts to improve student outcomes.

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In an effort to inform the design, development and implementation of future outcomes-based funding policies, this paper presents a real-time account of how the prospect of outcomes-based funding, and the financial incentives that have been put in place by the state of California and the Cal State system, have driven California State University, Fullerton to engage and mobilize its campus community, sharpen a shared focus on student achievement, advance its mission and deliver on its strategic goals.

The prospect of outcomes-based funding, and the financial incentives that have been put in place by the state of California and the Cal State system, have driven California State University, Fullerton to engage and mobilize its campus community, sharpen a shared focus on student achievement, advance its mission and deliver on its strategic goals.

To this end, Section 2 describes California's purposeful transition to outcomes-based funding. Section 3 provides a brief overview of how the Cal State system has responded to and helped shape the state's move to outcomes-based funding, while monitoring and reinforcing the efforts of its 23 campuses on behalf of student success. Section 4 tells the story of how Cal State-Fullerton is leveraging outcomes-based funding, highlighting how leaders are framing the outcomes-based funding

conversation on campus, deploying actionable data and technology tools to drive action, and restructuring its budget processes to be better positioned for the advent of outcomes-based funding in the state and, more importantly, to invest resources in those areas that will maximize institutional value. Finally, Section 5 presents some considerations regarding the role of finance policies within the student success agenda and outlines specific recommendations for policymakers and institutional leaders on how to optimize the effectiveness of outcomes-based funding policies.

SECTION 2

From Enrollments to Outcomes: California's Journey to Outcomes-Based Funding

With all of its historical shortcomings and current challenges, the California Master Plan^x is an often-cited example of a state's ability to produce relatively simple policies to address problems others consider intractable. Some recent examples of this ability (at the state and system level) include the following:

- Cal State's Early Assessment program, which provides timely feedback to 11th-graders about their prospects of being placed in credit-bearing courses upon admission to a public higher-education institution in the state;^{xi}
- Cal State's Early Start program, which gives students an opportunity to complete their developmental or remedial courses the summer prior to their first semester of college, thus reducing time-to-degree;^{xii} and
- California's Student Transfer Achievement Reform Act (2010), which guarantees students with an approved course of study in community colleges that they will need no more than 60 additional units to complete their bachelor's degree in a four-year college.^{xiii}

While some of the above policies have served the state well and others are showing promise, significant challenges remain in the areas of increasing degree completion rates and narrowing achievement gaps. The following subsections provide a high-level description of how the state of California is adopting outcomes-based funding as a tool to effectively address said challenges.

2.1

The Fiscal Year 2012-2013 Budget: Restoring Funding

The first official indication that the state of California was moving toward outcomes-based funding was registered in the state's Fiscal Year 2012-2013^{xiv} higher education budget. This was the first budget since 2008-2009 that contemplated the potential to begin restoring funding to the Cal State system, after general fund appropriations dropped from \$2.97 billion in Fiscal Year 2007-2008 to \$2.00 billion in 2011-2012. Specifically, the Fiscal Year 2012-2013 budget promised a \$125 million budget increase contingent on passage of Proposition 30^{xv}—authorizing a sales-tax increase for all Californians and an income-tax increase for some—and warned that if the ballot measure did not pass, the Cal State system would instead face an additional \$250 million budget cut.

Some important aspects of the budget signaled the state's deliberate movement to outcomes-based funding. First, the state did not link new funding to enrollment targets. (These were detached from budget allocations in response to cuts in Fiscal Year 2009-2010.) Second, the state conditioned new funding on the Cal State system rolling back previously enacted student tuition and fees for Fiscal Year 2012-2013. Third, the state gave evidence of its intention to hold institutions accountable for student outcomes by significantly capping CalGrant^{xvi} financial aid awards to students attending for-profit institutions and eliminating eligibility for new students enrolling in institutions with graduation rates lower than 30 percent or loan cohort default rates above 15.5 percent.

2.2

The Fiscal Year 2013-2014 Budget: Setting Expectations

The voters approved Proposition 30. Armed with the ability to reinvest in higher education, the state made its move to outcomes-based funding even more explicit in Fiscal Year 2013-2014. In the Fiscal Year 2013-2014^{xvii} budget, state representatives presented a four-year plan that promised up to a 20 percent increase in General Fund appropriations for each of the state's three segments of higher education. For the Cal State system, this meant a \$125 million increase to the General Fund in the first year of this four-year plan. As in the previous fiscal year, the \$125 million investment was not linked to enrollment targets—but there were other strings attached. Specifically, the multi-year plan was conditioned on: 1) systems and institutions not raising the cost of tuition and fees; 2) universities improving the "quality, performance, and cost effectiveness of their educational systems"; and 3) systems and institutions reporting "on graduation rates, the number of transfer students from community colleges, and the number of degrees completed" and what those metrics looked like for first-time freshmen students, transfer students, low-income students and graduate students.

Seeking to reduce the cost burden to students and their families, the Fiscal Year 2013-2014 budget also introduced a Middle Class Scholarship program to "provide scholarships of up to 40 percent of tuition for University of California and Cal State students with annual family incomes of up to \$150,000."

2.3

The Fiscal Year 2014-2015 Budget: The Writing on the Wall

The state's move to outcomes-based funding was further advanced in the Fiscal Year 2014-2015^{xviii} budget. The budget continued the prior years' funding plan commitment. In the case of the Cal State system, the second year of this four-year plan resulted in a \$142.1 million increase to its general fund. As with previous years, the state did not link the new funding to enrollment targets, but it clearly asks institutions to freeze tuition and fee increases while using new dollars to "maintain affordability, decrease the time it takes students to complete a degree, increase the number of students who complete programs, and improve the transfer of community college students to four-year colleges and universities."

The Fiscal Year 2014-2015 budget unequivocally affirmed that the state's long-term plan is to move away from enrollment-based funding because, unlike with outcomes-based funding, enrollment-

based funding “does not encourage institutions to focus on critical outcomes—affordability, timely completion rates, and quality programs—nor does it encourage institutions to better integrate their efforts to increase productivity given the state’s investment.” Future funding through the multi-year funding plan established in Fiscal Year 2013-2014 is contingent on “the UC Regents and the CSU Board of Trustees adopting three-year sustainability plans that set targets for key measures², within resource assumptions provided by the Department of Finance,” and on the expectation that institutions will “implement reforms to improve student success and to realize institutional efficiencies.” In addition to the funding stability, student success and affordability themes showcased in the previous year, the Fiscal Year 2014-2015 budget also introduced an innovation theme, establishing a \$50 million Awards for Innovation in Higher Education grant program that rewards campuses that significantly increase bachelor’s degrees awarded, allow students to complete such degrees within four years and ease student transfers among institutions.

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2.4

The Road Ahead

California’s journey to outcomes-based funding is not yet complete. Important questions remain as to how the state, system and institutional policymakers will navigate and act within the outcomes-based funding design space, especially when it comes to linking outcome metrics with funding levels. For example:

- How will outcomes-based funding models differentiate among institutional missions?
- Will the models inspire competition among institutions or reward institutional self-improvement?
- How much funding will actually be available for improving outcomes, and will it be enough to accelerate progress?
- Will the funding flow to individual institutional actors or be diluted by system and campus bureaucracies?
- Will the state and the systems level the playing field to ensure that all institutions have adequate levels of base funding from which to launch their efforts?
- Will the state and the systems provide institutions the funding and flexibility they need to address the challenges they face with faculty and staff compensation, tenured and tenure-track faculty density and deferred maintenance?

²Refer to Section 6.1.

- How will outcomes-based funding support institutional efforts to review curricula, adapt pedagogical approaches, and invest in student services that will better serve the increased numbers of traditionally underserved K-12 students seeking and gaining admission into, and completing, their programs?
- Will the state commit to multi-year budget plans that will guarantee a minimum amount of funding that could be augmented if the state's economy allows (thus linking the prosperity of the state to the institutions that contribute to that prosperity)?

As policymakers consider the above questions, they should be mindful that that the resulting answers will shape the theories of action that will drive or stall change at the institutional level.^{xix} Hence, it is important that policymakers engage system and institutional leaders in every step of the road ahead.

SECTION 3

Responding to the Challenge: California State University

To date, the Cal State system's response to the state's move toward outcomes-based funding can generally be characterized as assertive and very much driven by the system's mission.³

The Cal State system has been working to position its 23 campuses and 45,000 faculty and staff to better serve their more than 447,000 students in the emerging era of outcomes-based funding. Specifically, the system allocated funding to various competitive award programs geared to identifying, validating, scaling and replicating existing and emerging institutional programs that have shown or show promise to significantly accelerate the system's ability to improve student outcomes.

In Fiscal Year 2013-2014, for example, the Cal State system designated \$17.2 million (\$7.2 million ongoing and \$10 million one-time) to fund campus proposals in the areas of course redesign, hybrid courses⁴, virtual labs⁵, electronic advising (e-advising), "bottleneck courses"⁶ and supplemental instruction programs. The system again allocated \$10 million in one-time funding for similar efforts in its Fiscal Year 2014-2015 budget.

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³Refer to Section 6.2.

⁴Hybrid courses combine in-person and online instruction.

⁵Virtual labs emulate a physical science laboratory in an online setting.

⁶"Bottleneck courses" have a high demand but low student success rate.

In January 2014, months before the state approved the Fiscal Year 2014-2015 budget, Cal State's chancellor announced that the system would invest \$50 million in Fiscal 2014-2015 "to advance student achievement and bolster degree completion." Specifically, the \$50 million would be invested in seven areas of priority:

- 1) Hiring more highly qualified tenure-track faculty members to drive student success. This effort will help build capacity for academic units to invest more attention on program reviews, course redesign and faculty-student engagement initiatives.
- 2) Enhancing student advising by hiring more advisors and expanding the effective use of technology. Reducing the ratio of students to advisors and arming the advisors with technology tools such as student success dashboards, predictive analytics platforms and integrated degree audit systems will result in more timely and effective student-advisor interactions that will result in a reduction of "non-productive" units and time to graduation.
- 3) Finding solutions (e.g., flipped classrooms, supplemental instruction and expanded course availability) to course bottlenecks that slow student progress.
- 4) Helping freshmen attain college readiness by expanding the Early Start program, which gives students an opportunity to complete their developmental or remedial courses the summer prior to their first semester of college, thus reducing time-to-degree;
- 5) Increasing opportunities for students to engage in high-impact practices^{xx} (e.g., service learning, undergraduate research and learning communities) that are shown to improve retention and graduation rates;
- 6) Expanding the strategic use of data in decision-making to ensure that investments target the right programs, at the right times, for the right students; and
- 7) Improving degree completion of transfer students by strengthening articulation agreements⁷ with community colleges.

Through efforts like those described above, the Cal State system is working hard to ensure that the objectives of outcomes-based funding are not lost in translation and that the financial incentives associated with outcomes-based funding reach the institutional actors whose efforts ultimately drive student outcomes. A real-time, on-the-ground example of how this is playing out at the campus level is illustrated by the case of Cal State-Fullerton.

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⁷Articulation agreements document partnerships between two postsecondary institutions that provide formalized pathways for student transfer. Allocation to institutions is determined.

SECTION 4

Accelerating Progress: California State University, Fullerton

The state of California's steady move to outcomes-based funding, and the corresponding financial incentives provided by the state and the Cal State system, have coincided with Cal State-Fullerton's renewed and concentrated focus on student success. For context, Cal State-Fullerton is one of the largest, most diverse comprehensive universities in the United States. The university serves more than 38,000 students (approximately 50 percent first-time freshmen and 50 percent upper-division transfers), awards approximately 9,000 degrees annually (with more than half going to students who are first among their family to earn a degree), and ranks first in the state of California and fifth in the nation among top universities awarding bachelor's degrees to Hispanics. The following subsections tell the story of how Cal State-Fullerton is leveraging the prospect of outcomes-based funding to accelerate its efforts to advance its mission and deliver on its strategic goals.

4.1

Organizing for Success

In October 2012, facing potentially devastating budget cuts in the following year if voters were to reject Proposition 30, and responding to concerns raised by its regional accreditors, Cal State-Fullerton launched a university-wide effort to develop a five-year, mission-driven strategic plan.^{xxi} In April 2013 the strategic planning committee presented the results of the campus's efforts to several hundred faculty members, students and staff. Like the institution's mission, the strategic plan is well aligned with the goals of outcomes-based funding.

Cal State-Fullerton's 2013-2018 strategic plan supports the university's vision to "become a model public comprehensive university, nationally recognized for exceptional programs that prepare our diverse student body for academic and professional success" through the following four overarching, interlinked goals:

- **Goal 1:** Develop and maintain a curricular and co-curricular environment that prepares students for participation in a global society and is responsive to workforce needs.
- **Goal 2:** Improve student persistence, increase graduation rates university-wide, and narrow the achievement gap for underrepresented students.
- **Goal 3:** Recruit and retain a high-quality and diverse faculty and staff.
- **Goal 4:** Increase revenue through fundraising, entrepreneurial activities, grants and contracts.

While the efforts associated with each of these four goals have the potential to positively shape the outcomes measured by the metrics included in California's emerging outcomes-based funding framework, Goal 2 is the most explicitly connected.

In Goal 2, Cal State-Fullerton acknowledges that "a critical measure of a university's performance is the effectiveness with which it employs its resources to ensure students meet their educational goals in a timely manner. This institutional and social priority must be accompanied by a commitment to the success of all students, including those from historically underrepresented groups. Improving persistence of our students, especially in their entering year, is an important first step in this process.

High-impact practices, those pedagogical and programmatic approaches that promote student engagement, retention and graduation, are integral to these efforts." Through this goal, the strategic plan specifically commits the university to achieving the following outcomes:

- Increase the overall six-year graduation rate, such that the graduation rate of the Fall 2012 cohort of first-time, full-time freshman is at least 10 percentage points higher than that of the Fall 2006 cohort.
- Increase the four-year transfer graduation rate, such that the graduation rate of the Fall 2014 cohort is at least 10 percentage points higher than that of the Fall 2008 cohort.
- Reduce by at least half the current 12 percent achievement gap between underrepresented and non-underrepresented students.
- Increase participation in high-impact practices and ensure that 75 percent of the university's students participate in at least two by graduation.

Of course, lofty vision statements and perfectly aligned strategic plans do not guarantee that goals and objectives will be achieved. Successful change depends on the intentionality behind goals and strategies and on the quality of execution of those strategies by people on the ground.

Cal State-Fullerton's intentional resolve to achieve the goals presented in its strategic plan is evident in the 15 strategies that it developed to guide the necessary work. For example, the following strategies were developed for Goal 2:

1. Identify and expand programs that have a documented effect on increasing student achievement in bottleneck, gateway⁸ and low-success-rate academic courses.
2. Identify and increase participation in new and ongoing efforts that support underrepresented-student persistence and achievement.
3. Identify, track and integrate curricular and co-curricular high-impact practices and ensure participation in one such practice in the first year and one subsequent in each student's major field.
4. Establish accountability metrics at the division, college, department and program levels to ensure progress on retention and graduation rate strategies.

Acknowledging the importance of intentionality and execution, and mindful of the need to focus the campus community's attention on its strategic priorities, Cal State-Fullerton established 11 strate-

⁸Gateway courses are foundational courses that may be non-credit-bearing developmental education courses and/or college-credit-bearing lower-division courses.

gic task forces—composed of administrators, faculty, staff and students—to drive progress on the most pressing issues associated with its strategic plan, while working to harness the time, talent and energy of existing committees (e.g., the 17 Academic Senate committees) and administrative groups (e.g., the more than 50 members of the Council of Department Chairs) to move strategic priorities forward. The following subsections describe how the campus community is leveraging the prospect of outcomes-based funding to accelerate the work of these groups.⁹

4.2

Engaging and Mobilizing the Campus Community

Galvanizing the campus community around a focused agenda can be a difficult task, even when agendas capture the institution's aspirations and are developed, like Cal State-Fullerton's strategic plan was, through an inclusive process. There are many reasons for this, most of them not exclusive to higher education organizations. For many organizations, it is a challenge to prioritize collective over individual aspirations. This challenge, however, can be overcome.

At Cal State-Fullerton, the state's move to outcomes-based funding and the Cal State system's response is helping bridge the gap that separates individual aspirations from institutional ones. Specifically, the institution is working hard to infuse outcomes-based funding into campus-wide conversations and to educate the campus community on how elements that are important to the community but not explicitly captured in the current sustainability metrics (which are expected to inform or become outcomes-based funding metrics in time) are in fact embedded in them. For example: research activities (undergraduate research is a recognized high-impact practice that improves graduation rates); program quality (the state is interested in high-quality degrees, and academic rigor is a recognized factor in driving student success); community engagement (service learning is a recognized high-impact practice that improves graduation rates); and access mission (the best way for campuses where the number of applications far exceeds the number of seats available to preserve their access mission is to increase graduation rates and reduce time-to-degree).

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⁹While the intensification of much of the work described to yield enhanced results over the next several years, it is important to note that short-term results have already been registered. Since the launch of the Strategic Plan in 2012, Cal State Fullerton's six-year graduation rate has improved from 54 percent to 62 percent in 2015, with a projected rate of 65 percent in 2016. As of June 20, 2016, the achievement gap was 6.5 percentage points, nearly half what it was in 2014.

The Office of the Provost has organized outcomes-based-funding-specific conversations. For example, several viewing parties of the two-hour webinar “Preparing for Performance Funding 2.0: Critical Questions in Designing Formulas” delivered by the Education Advisory Board were organized for the members of the President’s cabinet, Council of Deans, Academic Senate Executive Committee, the campus’s Planning, Resource and Budgeting Committee, and the Council of Department Chairs, among others. These events afforded campus leaders an opportunity to learn about outcomes-based funding and discuss how the campus could best influence the development of outcomes-based funding policies in California and better position itself to leverage said policies to advance its mission.

Interestingly, while many initially express skepticism about the ability of outcomes-based funding to drive change and are suspicious of the state’s intentions, most accept that under a well-crafted, well-funded outcomes-based funding allocation model, Cal State-Fullerton could only stand to benefit. There are three main reasons for this conclusion:

- 1) The university is well-positioned to benefit from outcomes-based funding: The Education Trust in 2012 identified Cal State-Fullerton as one of only five four-year institutions in the country meeting minimum thresholds along the dimensions of access, success and affordability.^{xxii}
- 2) Under the existing enrollment-based funding model, Cal State-Fullerton is the lowest-funded campus on a per full-time-equivalent basis in the Cal State system and can only benefit from a change to the current funding model;
- 3) Given the university’s institutional vision and student outcomes-driven strategic goals, an outcomes-based funding model is intuitively a better-suited way to fund the institution’s efforts.

While much work remains, the campus community’s understanding of outcomes-based funding has matured significantly, and the technical and philosophical underpinnings of outcomes-based funding are now routinely part of formal and informal conversations across campus. A good example of how the campus’ understanding of outcomes-based funding has progressed is a quotation from one of the communication pieces developed by the university’s Graduation Initiative Committee—a group of faculty members charged with developing a campaign to educate faculty on the importance of improving student outcomes to advance the University’s mission and position it well in light of the state’s move toward outcomes-based funding:

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“The role of CSUF faculty and staff members is to shift leadership on this issue from Sacramento and the Chancellor’s Office to our own classrooms and departments. We must shift the focus of our conversation from statistics to people. The numbers can mask the human consequences of the failure to graduate.”^{xxiii}

Indeed, the prospect of outcomes-based funding has influenced in various ways the narratives that have led to important institutional initiatives designed to foster student success, including the

development of a General Education Pathways pilot program, the establishment of college-level student success teams, the reconceptualization of advising structures, the development of plans for assessing institutional educational effectiveness, the development of an academic master plan, the re-envisioning of Cal State-Fullerton's Irvine Branch Campus, and the Academic Senate's systematic review of all existing academic policies.

4.3

Deploying Actionable Data and Technology Tools

It is true that in higher education, financial resources are often scarce. Data, however, are generally abundant yet rarely used to full effect. Indeed, in higher education, data are used more often as defender of the status quo and as friend of the annual report than as a catalyst for change or a tool for driving action.^{xxiv}

But when considering those colleges and universities that show large improvement in student outcomes, data use is always at the heart of the improvement strategies. In these institutions, data are not confined to the institutional research office. Instead, one finds people all over campus "slicing and dicing" data to identify policy and practice problems and make necessary corrections, and leaders at every level using data to drive conversations, design solutions and monitor progress.

Cal State-Fullerton understands how invaluable actionable data are to improve student outcomes and recognizes that in the era of outcomes-based funding, the institutions that will be most likely to deliver on their goals and meet system and state expectations are those that make data come alive for faculty, staff and students. That is why the institution is investing heavily in the generation, socialization and framing of actionable data. The following subsections present just two of many efforts in this area.

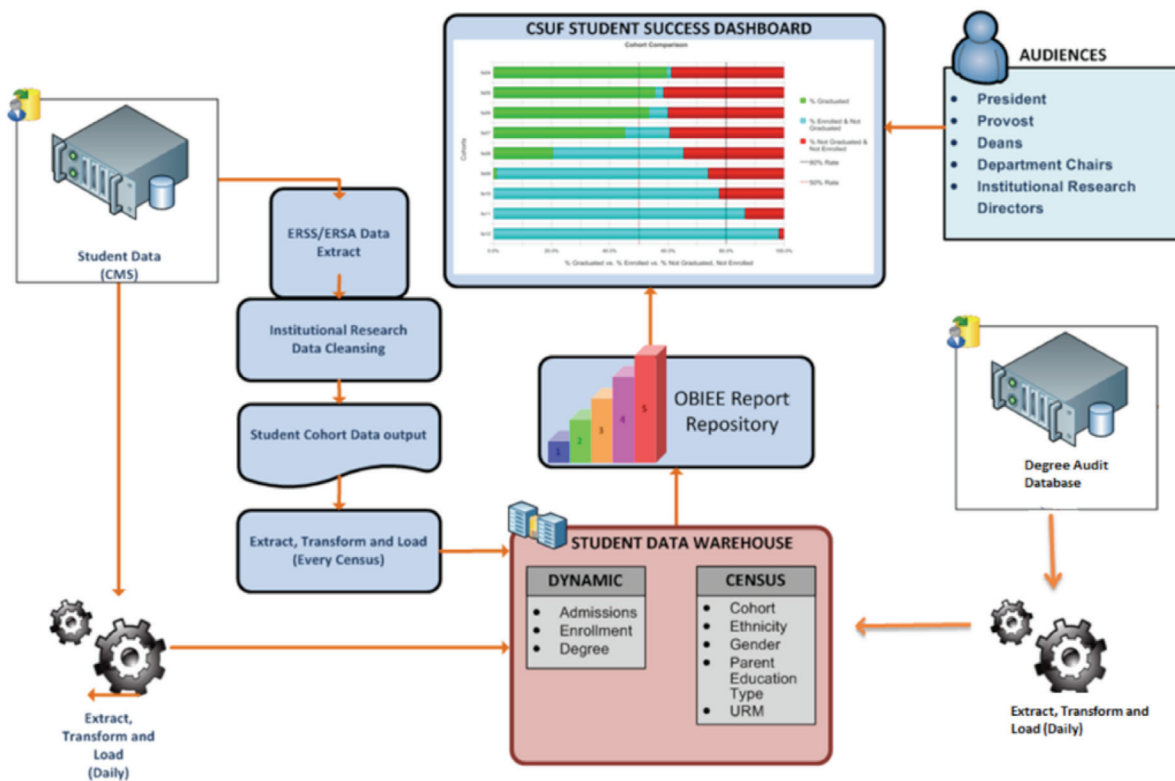
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4.3.1

Cal State-Fullerton's Student Success Dashboard

The university has developed a near real-time Student Success Dashboard^{xxv} that tracks and displays important student academic performance indicators (e.g., units approved, high school and college grade point average) and enrollment transactions (e.g., units enrolled, classes dropped). Specifically, the dashboard integrates data on a nightly basis from various campus databases that previously had been siloed and allows student advisors to track the progression of first-time freshmen and transfer students from their first day on campus. **Figure 1** presents a high-level architectural diagram of the Student Success Dashboard.

Figure 1. Cal State-Fullerton's Student Success Dashboard



A cross-divisional team, composed of members of the university's institutional research and analytical studies unit and information technology group, developed the dashboard. After less than four months of development, in spring 2013 the dashboard was piloted by a select group of faculty members and department chairs.

The results achieved to date have been impressive. Thanks to the interventions guided by effective use of the Student Success Dashboard, more than 2,400 students who would otherwise have seen their graduations delayed were able to earn their degrees in the 2014-15 school year. For example, the dashboard allowed institutional agents to identify and counsel: 1) students with a high number of units to take the right courses to finish their degree; 2) students who had applied for graduation but were not enrolled in the courses they would need to actually meet degree requirements; and 3) students who were eligible for a degree but had not applied for graduation. The dashboard also allowed agents to identify certain graduation-check policies and practices that needed to be changed to remove barriers to students' timely graduation (e.g., paying a \$115 graduation fee). The use of this tool has been so successful that the university hired nine "graduation specialists" whose main responsibility is to use the tool to minimize the number of students whose graduation dates are unnecessarily deferred and to particularly support traditionally underserved student populations to earn their degrees.

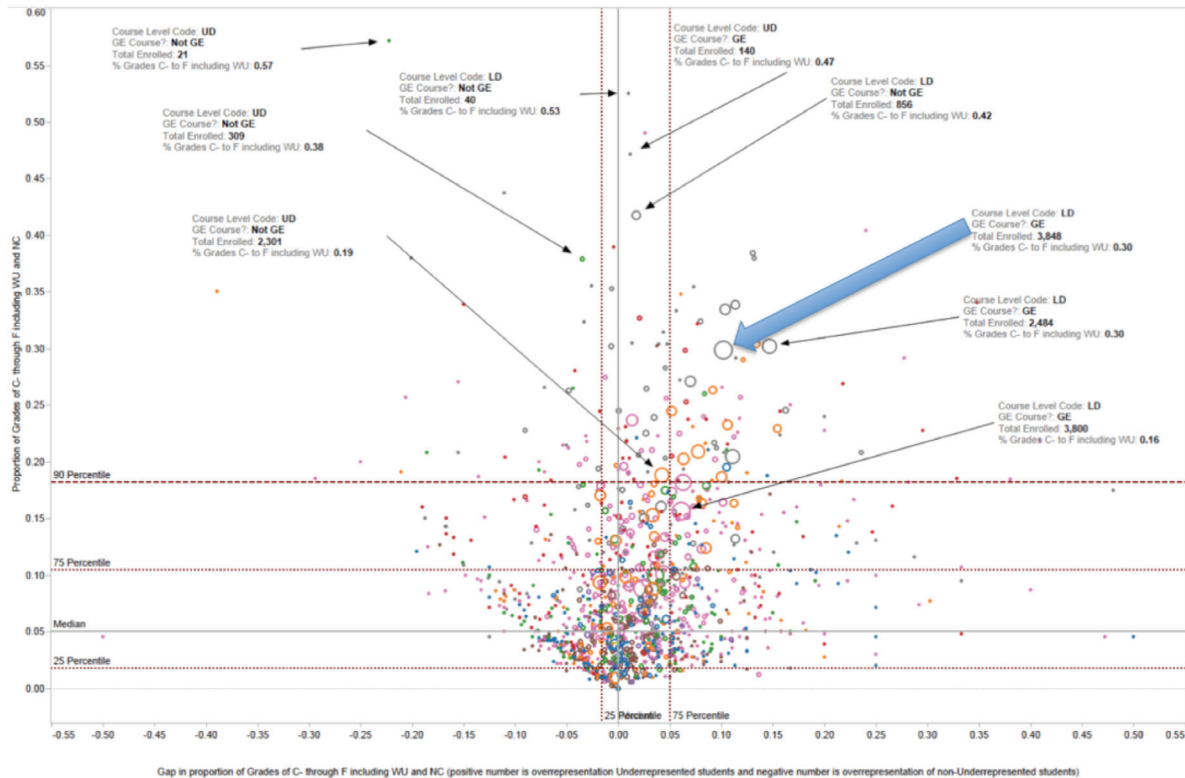
Cal State-Fullerton's Student Success Dashboard has been highlighted in various Cal State system-wide meetings and presented to the Cal State-Fullerton Board of Trustees as an innovative example of campuses using technology and data to drive student success.

4.3.2

Accelerating Action through Data Visualization

Cal State-Fullerton has intensified use of data visualization tools such as Tableau to produce timely graphs and charts that, with proper framing, can help accelerate the pace with which campus conversations transform into action. One example is the chart shown in **Figure 2**, which depicts so-called “bottleneck” courses—those with high demand but a low student success rate. These courses need special attention because they not only slow down student momentum toward a degree but also disproportionately contribute to achievement gaps. This chart was produced shortly after Governor Jerry Brown signaled an increased focus on “bottleneck” courses and was used to frame discussions with the university’s Council of Deans and the Bottlenecks Strategic Task Force.

Figure 2. Data Visualization of Bottleneck Courses



The size of the bubble is proportional to the number of students enrolled in the course. The vertical axis represents the percentage of students who dropped the class or obtained a grade of C- or below. The horizontal axis represents the gap in course failure rates between students of color and their counterparts. The larger bubbles in the upper right quadrant are the most pronounced bottlenecks; those further to the right have larger achievement gaps relative to other courses.

For example, the highlighted bubble represents a course that enrolled nearly 4,000 students, of whom approximately 1,200 dropped the class or obtained a grade of C- or below. That course exceeds the 75th percentile in terms of the disproportionate way in which students of color fail to earn a grade of C or better.

Faced with these data, and spurred by a student-success Request for Proposals sponsored by the Cal State Chancellor's Office, Cal State-Fullerton faculty produced a large number of course redesign and supplemental instruction proposals to turn things around. This effort yielded significant dividends. In the 2013-2014 academic year, the university captured \$814,432 (including \$480,000 in baseline funding) of the funding made available by the Chancellor's Office. To capitalize on faculty interest and maintain momentum, the Cal State-Fullerton Office of the Provost awarded an additional \$359,000 to six worthy proposals that were not submitted to the Chancellor's Office because of limits on the number of proposals that each one of the 23 Cal State campuses could submit. Overall, from 2012 to 2015, nearly 75 Cal State-Fullerton faculty members were recipients of funding for course-redesign projects totaling \$1.9 million.

4.4

Restructuring Budget Processes

In Fiscal Year 2013-2014, informed by the prospect of outcomes-based funding, fueled by the calls from its accreditor to better link its budgeting process to its strategic priorities, and driven by the need to advance its strategic plan, Cal State-Fullerton's Planning, Resource and Budget Committee embarked on a year-long effort to reformulate the institution's annual budgeting process. As a result of these efforts, the committee—composed of senior-level administrators, faculty, staff and students—developed new committee bylaws and a new policy statement that clearly delineates a strategic approach for developing institutional budgets. The committee's resulting proposal, unanimously approved by the Academic Senate in May 2014, establishes a process whereby budget decisions will be informed by "key indicators demonstrating progress towards divisional priorities, strategic plan objectives, and University Mission."

In parallel to the Planning, Resource and Budget Committee's efforts, the Office of the Provost worked with the Council of Deans, Associate Deans, and Department Chairs to set the foundation for an outcomes-based-funding-inspired framework for the Division of Academic Affairs—a framework that, when fully implemented, will allocate funding to academic departments based both on their enrollments and well as their outcomes. On July 1, 2014, the Office of the Provost presented the end result of the first phase of these efforts: a new core budgeting framework for Academic Affairs. The framework addresses the following issues:

- **Fairness:** The cost differences among various types of academic offerings are now explicitly captured in the division's budget model; budget allocations recognize that some colleges and departments have more revenue sources than others and can be expected to cover more of their operational costs (e.g., College of Business vs. College of Humanities and Social Sciences). Baseline adjustments were made to level the playing field for units that had previously taken budget cuts in areas that have yet to be replenished at the university level. For example, some colleges took cuts in faculty lines and others in ordinary expenses and equipment. As new

monies have flowed into the university, funding to the former has been largely restored, but funding for the latter has not.

- **Transparency:** The budget framework was presented in a format that provides visibility into how the overall budget was constructed (baseline and one-time funds from various funding streams); identified the major elements that contribute to the total state funding available for faculty, staff, and supplies and services; and identified investments in faculty travel, assessment coordinators, advising and other areas of strategic importance.
- **Timeliness:** The budget was presented to colleges and departments on the first day of the fiscal year, months before it had been presented in the past. This addressed a longstanding concern that units did not have time to adequately plan and manage their investments, leading to suboptimal use of the scarce funding available.
- **Strategic Investments:** As a first step toward reallocating baseline funding to strategic initiatives, the Office of the Provost established a multi-year, strategic investment fund to support promising student-success-related proposals from individual faculty members, academic programs, departments and colleges. The Office of the Provost is developing the mechanisms through which these funds—a combination of a new annual fee structure and available carry-forward funding—will be allocated. In addition, each college has developed a strategic investment plan for its existing carry-forward funding.

The work of the Planning, Resource and Budget Committee and the Division of Academic Affairs positions the university well for state and/or system-level outcomes-based funding policies and additional financial incentives. It is precisely the prospect of these policies and availability of incentives that has fueled the intentionality with which the university has pursued this work.

To guide these efforts, the Office of the Provost convened a task force of faculty and administrators and charged them to sketch out a phased approach for adopting an outcomes-based funding allocation model for units within Academic Affairs. The Office of the Provost has engaged college-level administrators in initial conversations that have yielded potential metrics in student advising, student success, high-impact practices, generation of external revenue, and efficiency resource allocation. The Office of the Provost also engaged in department-level conversations, inviting each department to share thoughts on current and aspirational initiatives for student success.

In parallel, the university began work to develop an Academic Master Plan that would clarify and articulate our core institutional values and provide guiding principles for the university's decision-making bodies. The results of these conversations will impact the division's approach to the development of a core budget model in which the allocation of funds will be aligned with the metrics contemplated in the state's and Cal State's eventual outcomes-based funding models. In recognition of those areas that are important to Cal State-Fullerton's institutional mission but not explicitly captured in the state's key measures for sustainability (and likely outcomes-based funding in time), the metrics that will guide the division's budget allocations will be a superset of those presented by the state.

SECTION 5

Conclusions

The case study presented here shows how Cal State-Fullerton is leveraging outcomes-based funding policies and financial incentives to advance its mission and accelerate its strategic goals on behalf of better student outcomes. Based on this account, the following are considerations that policymakers should keep in mind when revamping existing outcomes-based funding policies or developing new ones:

- 1. Framing the Policies:** Outcomes-based funding policies and financial incentives should be designed, developed and implemented in a way that will allow system and campus leaders to leverage them not only to improve the outcomes explicitly measured by the funding metrics but also to advance their institutional missions and strategic priorities.
- 2. Developing the Metrics:**

Policymakers should work closely with higher-education leaders in choosing and defining the metrics that will guide their outcomes-based funding investment decisions to ensure that they are consistent with system and institutional missions and are framed in a way that will help intensify focus and accelerate efforts to drive student success at the institutional level.

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- 3. Pacing the Rollout:**

Policymakers should allow time for systems and campuses to position themselves for success by identifying, validating and scaling successful programs, investing in promising programs and ideas, and transitioning their financial systems and processes to better aid the goals supported by outcomes-based funding.
- 4. Promoting Accountability:** Policymakers should hold system leaders responsible for ensuring campus accountability. This provides system offices an opportunity to factor differences in institutional missions and operational realities among their institutions when setting expectations and allocating funding to campuses.
- 5. Providing Flexibility:** Policymakers should remove constraints in how systems and institutions invest their funds, except for mission-critical efforts, and should provide flexibility in how institutions can address structural problems exacerbated during tough financial times (e.g., employee compensation, deferred maintenance).
- 6. Supporting Funding Stability:** Policymakers should commit to multi-year minimum funding plans for higher education. The stability allows for better planning, particularly as the systems and campuses transition to outcomes-based funding. The funding plans should be adjusted to ensure that the state's investment in higher education tracks with the state's prosperity.

The following are key takeaways for systems and institutions, based on Cal State-Fullerton's reaction to outcomes-based funding to date:

1. Engaging and Mobilizing Campus Communities: Academic leaders (administrators, faculty and staff) can leverage outcomes-based funding to engage and mobilize campus communities to intensify efforts and accelerate progress toward improving student outcomes, advancing institutional missions and achieving strategic goals and objectives. If framed correctly, campus communities (especially those that are particularly committed to student success) are quick to realize that well-crafted, outcomes-based funding policies and incentives can work to their benefit.

2. Deploying Actionable Data and Technology Tools: In the era of outcomes-based funding, the institutions that will be most likely to deliver on their goals and meet system and state expectations are those that make data come alive for faculty, staff and students. To this end, system offices should alleviate the compliance burden on its campuses so that the campuses can dedicate their institutional research teams to strategic initiatives.

3. Restructuring Budget Processes: Outcomes-based funding affords an opportunity to eliminate some of the most glaring unintended consequences and perverse incentives associated with enrollment-based funding models.

While expenditures for full-time-equivalent students will always need to factor into the equation, campus communities should proactively work to align budgeting processes with desired *institutional* outcomes and, in doing so, position their institutions for the corresponding system and state outcomes-based funding processes.

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Surely, the most important takeaway is that for our nation to once again lead the world in educational attainment, policymakers, higher-education leaders and campus communities must work together in a thoughtful, yet purposeful, manner and must remember that transformational change need not be slow to be steady, nor disruptive to be transformative. Indeed, we will only succeed if the intensity and coherence of our actions matches the magnitude of the challenge we face.

For our nation to once again lead the world in educational attainment, policymakers, higher-education leaders and campus communities must work together in a thoughtful, yet purposeful, manner and must remember that transformational change need not be slow to be steady, nor disruptive to be transformative.

SECTION 6

Appendix

6.1 The Key Measures

The key measures in the sustainability plans mentioned in the Fiscal Year 2014-2015 budget refer to 16 metrics in the areas of access, success, degree completion, momentum (defined as unit accumulation), cost-effectiveness, and degree production in science, technology, engineering and mathematics (often referred to as STEM).^{xxvi} A brief overview of the metrics, as they apply to the Cal State system, is presented below:

- **Access:** The number of California Community College transfer students enrolled and the percentage these students represent of the overall undergraduate student population; the number of new community-college transfer students enrolled and the percentage they represent of the overall new undergraduate students enrolled; the number of low-income students enrolled annually and the percentage they represent of the total number of undergraduates enrolled; the number of new low-income students enrolled annually and the percentage they represent of the total number of new undergraduates enrolled.
- **Success:** The systemwide four- and six-year graduation rate for each cohort of students who entered the university four years and six years prior and, separately, for low-income students in that cohort; the systemwide two- and three-year transfer graduation rates for each cohort of students who entered the university two years and three years prior and, separately, for low-income students in that cohort; the two-, three- and four-year transfer graduation rates for students who entered the university four years prior and, separately, for low-income students in that cohort.
- **Degree completions:** The number of degree completions annually, in total and for the following categories: freshman entrants; California Community College transfer students; graduate students; and low-income students.
- **Momentum (unit accumulation):** The percentage of first-year undergraduate freshman entrants who have earned sufficient course credits by the end of their first year of enrollment to indicate that they will complete a degree within four years; the percentage of California Community College transfer students who have earned sufficient course credits by the end of their first year of enrollment to indicate that they will graduate within two years.
- **Cost-effectiveness:** For all students, the total amount of funds received from all sources for the year, divided by the number of degrees awarded that same year; for undergraduate students, the total amount of funds received from all sources for the year expended for undergraduate education, divided by the number of undergraduate degrees awarded that same year; the average number of Cal State course credits accumulated by students at the time they complete their degrees, disaggregated by freshman entrants and transfers and the total course credits, including credits accrued at other institutions, accumulated by all undergraduate students who graduated, and separately for freshman entrants and California Community College transfer students.
- **STEM:** The number of degree completions in science, technology, engineering and mathematics fields, disaggregated by field in total, and separately for undergraduate, graduate and low-income students.

6.2 The Cal State System's Mission

California's move toward outcomes-based funding presents an opportunity to support and reward the Cal State system in meeting its mission.

First, the access, success, work force readiness and affordability goals that outcomes-based funding policies and financial incentives support have been front and center in Cal State's mission for decades. Indeed, the system's mission^{xxvii} includes "preparing significant numbers of educated, responsible people to contribute to California's schools, economy, culture, and future," "encouraging and providing access to an excellent education to all who are prepared for and wish to participate in collegiate study," and "providing public services that enrich the university and its communities."

Second, the system lives this mission. Annually, 100,000 Cal State system graduates (including more than half of all Latino, African-American and American Indian graduates in the state) are prepared for and enter the workforce with earned bachelor's degrees in disciplines such as information technology, business, engineering, life sciences, health care, public administration, education, agriculture, hospitality, media and entertainment. In terms of "return on investment," the system yields \$5.43 for every \$1 invested by the state.^{xxviii}

Third, the Cal State system has a strong track record of improving student outcomes, even under very challenging budgetary conditions. In 2007, before President Obama challenged the nation to once again lead the world in educational attainment, Cal State, along with 20 other systems of public higher education, launched the national Access to Success Initiative.^{xxix} Through this initiative, participating systems acknowledged that, given demographic trends across the country, our nation could not achieve substantially higher rates of postsecondary educational attainment without fixing the college-going and completion gaps that separate underrepresented and low-income students from their peers. To address this, the Cal State system committed to increase the number of degrees earned by its students, increase graduation rates by 8 percentage points, and halve the achievement gap by the year 2015. In fall 2016, the Cal State system will launch the Graduation Initiative 2025, which will build on the momentum achieved thus far to improve student success and narrow gaps in access and degree attainment.^{xxx}

Author Bio

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