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# **From Community College to University Expectations for California's New Transfer Degrees**

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## Summary

The ability to transfer from community college to university is vital in California, where access to public universities is limited to the top one-third of high school graduates and all others have access to baccalaureate education through the California Community Colleges (CCC). Yet a complex transfer process has led to low transfer rates and inefficient student enrollment patterns. In an effort at fundamental reform, the state enacted legislation in 2010 requiring the CCC to develop “associate degrees for transfer” that would facilitate students’ admission to the California State University (CSU), with some guaranteed benefits. In 2012, the Legislative Analyst’s Office and the Campaign for College Opportunity reviewed the progress of the reform effort and found it wanting in a number of respects. The legislature responded to the reviews by passing another bill that sought to increase student access to the new transfer pathways.

This study assesses progress at CCC and CSU in meeting the goals of the legislation since the 2012 reviews. We find that the reform is leading to the development of clearer transfer pathways for students. However, it is not yet clear to what extent the reform will reduce the number of college credits students take along the new transfer pathways, an important goal for two related reasons. If the excess units students often accumulate can be reduced through this reform, students will graduate more quickly and lower their own educational costs. When students move more efficiently through to graduation, space is freed up in the CCC and CSU systems to serve additional students. Despite significant progress, many community colleges still offer transfer degrees in only a few majors, and some CSU campuses accommodate the transfer degree curriculum in only some of their baccalaureate degree programs.

The mechanisms aimed at encouraging students to follow the new associate degree pathways to transfer appear to be having mixed effects. There is good alignment between student interest in transfer and the availability of transfer degrees, but awareness among students of the new degrees is low, and the problem of limited capacity in the CSU to accommodate additional students may counteract the intended incentives for students to follow the pathways. The profile of CCC students and the complexities of transfer decisions place very real boundaries on the extent to which the reform, even when fully implemented, can propel students along the envisioned “60+60” pathway to the baccalaureate, in which students earn 60 credits each at CCC and CSU. This finding emphasizes the need for realistic expectations about the impact of the new degrees.

Our research leads us to offer a number of recommendations for improving the implementation effort:

- The CSU Chancellor’s Office should coordinate a review of the decisions about accepting the transfer degrees at each of its campuses, and should review the effectiveness of the mechanism for granting priority in admission to students with transfer degrees.
- The CCC Chancellor’s Office should coordinate efforts to help community colleges share curricula and resources to allow smaller colleges to offer more transfer degrees.
- The legislature should consider “clean up” legislation that provides more flexibility to make transfer degrees work for more majors and concentrations.
- The legislature should also provide funding to expand and coordinate efforts to increase student awareness of transfer degree options, given the stated goal of having these degrees become the primary pathway to transfer.
- The community colleges and state universities should develop a standardized degree verification process that would allow both systems to know which students are intending to earn a transfer degree.
- The community colleges and state universities should also consider system-wide policies for granting priority course registration to students following the new transfer pathway.
- Efforts to extend the provisions of the legislation to the University of California, and to private universities where appropriate, should intensify in order to expand the pool of students who can be well served by the reform.

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[www.ppic.org/content/pubs/other/314CMR\\_appendix.pdf](http://www.ppic.org/content/pubs/other/314CMR_appendix.pdf)

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## Acronyms

AA-T	Associate of Arts – Transfer
AS-T	Associate of Science - Transfer
CCC	California Community Colleges
CCCCO	California Community Colleges Chancellor’s Office
CSU	California State University
CSUCO	California State University Chancellor’s Office
CTE	Career Technical Education
GE	General Education
LAO	Legislative Analyst’s Office
STEM	Science, Technology, Engineering and Mathematics
TMC	Transfer Model Curriculum
UC	University of California

# Introduction

Recent analyses suggest that the supply of workers with at least a bachelor's degree will not meet the projected demand in California's economy. The Public Policy Institute of California has estimated that if current trends continue, the state will have about one million fewer adults with bachelor's degrees than the workforce requires in 2025. This will be due to both the retirement of the highly-educated baby boom generation and demographic shifts toward groups that have historically low rates of earning a college degree (Reed 2008; Johnson and Sengupta 2009).

Recent recession-related budget cuts imposed on California's public colleges and universities have exacerbated the situation. In response to a reduction in state funding, tuition has risen and enrollment has been restricted in all three segments of public higher education – the University of California, the California State University, and the California Community Colleges. These responses have led to a decline in the rate of college enrollment among high school graduates (Johnson 2012).

Community colleges play a critical role in California's higher education system, educating the majority of the state's undergraduates and providing a pathway for students seeking to transfer to both public and private universities. Under the state's Master Plan for Higher Education, direct access to the state's public universities is limited to the top one-third of high school graduates. However, the Master Plan also promises that community college students who have completed a prescribed plan of study with a satisfactory grade point average can transfer to a public university.

This vital transfer function is not working well. A complex process that relies on campus-to-campus rather than system-wide course-transfer agreements has led to inefficiencies and low transfer rates (Moore, Shulock, and Jensen 2009). Students often earn many course credits at the community colleges that do not count toward the specific requirements for a bachelor's degree, or they are required to repeat similar courses when they transfer to a university.<sup>1</sup> Such "excess" units increase the cost of a degree, both to students and the state, and limit access, as students take up seats in courses that could be filled by others. The crux of the problem is that course requirements to prepare for admission as a junior in a particular major vary across university campuses. This makes it difficult for students to know which community college courses to take and contributes to the problem of excess units as students, uncertain of their admission prospects at a specific institution, complete courses to meet the requirements of multiple campuses.

Another evident problem is that the requirements for transfer are not aligned with the requirements for an associate degree, so most students who transfer to a public university do so without having earned a degree. Moore and Shulock (2010) found that only one-quarter of CCC students who transferred to a university had earned an associate degree.

Unfortunately, reform efforts over the years have achieved little success and have arguably added more complexity to the transfer process by proliferating local agreements between pairs of community colleges and public universities, rather than introducing statewide patterns that students might follow regardless of which college and university they may wish to attend.

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<sup>1</sup> The CCC Chancellor's Office estimates that students at the community colleges who transfer to a California State University have earned, on average, about 80 units (<http://californiacommunitycolleges.cccco.edu/Students/AssociateDegreeforTransfer.aspx>).

Aware of these shortcomings in past reform efforts, California policymakers enacted legislation in 2010 with several goals in mind: *first*, to create clearer transfer pathways that reduce excess units (and thus increase capacity) at both community colleges and the California State University; *second*, to create strong incentives for students to earn an associate degree at the community colleges prior to transfer; and *third*, to increase the number of students who transfer to a university. The legislation (SB 1440, Chapter 428, Statutes of 2010) requires community colleges to develop 60-unit associate degrees for transfer that include general education requirements and a minimum of 18 units in a major or area of emphasis.<sup>2</sup> The California State University must admit a student who earns one of these degrees to one of its campuses as a junior and must grant the student priority in admission to an academic major that is *similar* to the program the student completed at the community college. Determination of which CCC and CSU programs are “similar” is left to individual CSU campuses. The state university must also guarantee that transfer students admitted with an associate degree need to complete no more than 60 additional units of coursework to earn a bachelor’s degree,<sup>3</sup> and the university cannot require students to repeat any courses that are similar to those they successfully completed at the community college level.

SB 1440 authorizes individual community college districts to decide which courses to include in the 18-unit major or area of emphasis. This might have perpetuated the problem of variation in course requirements if each community college were to choose a different set of courses to include within a particular discipline leading to an associate degree, and if each CSU campus had to make a separate decision about the similarity of each college’s degree to the university’s major in that discipline. Fortunately, a more uniform approach has been undertaken in implementing the law. The Academic Senates of CCC and CSU worked together to develop Transfer Model Curriculum (TMC) that defines the 18 units of coursework to be included in the associate degree for each major (Patton and Pilati 2012). Twenty-five TMCs have been approved to date and several others are under review.<sup>4</sup> Approved programs in the science, technology, engineering, and mathematics (STEM) disciplines award Associate of Science-Transfer (AS-T) degrees, as do fields designated as career technical education (CTE). All other disciplines award Associate of Arts-Transfer (AA-T) degrees.

The uniform approach in defining the content of AS-T/AA-T degrees prevented variation in the content of the degrees across the campuses that adopted them, but not in the number of degrees adopted by individual community colleges or the number of TMCs that each CSU campus might deem similar to its own majors. Thus, there are variations in the acceptance of the degrees across CSU campuses and across concentrations or options within majors at a single campus. Early reviews of the implementation of SB 1440 expressed concern about the effect of this variation on student access to these degrees (Legislative Analyst’s Office 2012; The Campaign for College Opportunity 2012). As a result of these reviews, additional legislation was recently

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<sup>2</sup> Title 5 of California’s Code of Regulations, Section 55063, specifies the requirements for the associate degree. It includes a requirement that a degree include 18 semester units “in a single discipline or related disciplines ... or in an area of emphasis involving lower division coursework which prepares students for a field of study or for a specific major at the University of California or California State University.”

<sup>3</sup> The legislation specifies that students can be required to complete more than 60 units at CSU if the bachelor’s degree requires more than the standard 120 units.

<sup>4</sup> To develop the TMCs, both academic senates appointed faculty from each discipline to a respective Faculty Discipline Review Group (FDRG) and tasked them with identifying the set of courses that should be in a TMC for their particular discipline. After developing a draft TMC, the FDRGs sought input from discipline faculty across the CCC and CSU systems, then made revisions as needed to derive the final TMCs. The 25 approved TMCs are Administration of Justice, Anthropology, Art History, Business Administration, Communication Studies, Computer Science, Early Childhood Education, Elementary Education, English, Film/Television/Electronic Media, Geography, Geology, History, Journalism, Kinesiology, Mathematics, Music, Philosophy, Physics, Political Science, Psychology, Sociology, Spanish, Studio Arts, and Theatre. TMCs are currently under review for Agriculture, Chemistry, Economics, Child and Adolescent Development, and Nutrition/Dietetics. For a description of the coursework included in each TMC and information on additional TMCs and other model curricula currently under development, see [www.c-id.net/degreereview.html](http://www.c-id.net/degreereview.html).

passed to attempt to increase the number of transfer degrees adopted by the CCCs and the number of majors and concentrations accepted by CSU (SB 440, Chapter 720, Statutes of 2013). The stated goal of SB 440 is that “the associate degree for transfer becomes the preferred transfer pathway for all students across the state.” The new law seeks to accomplish this goal by requiring that each community college adopt an associate degree for transfer in every major offered at the college that has an approved TMC, and that each CSU campus “make every effort” to accept the degrees in each concentration of a major.

## Organization of This Report

This study examines whether the implementation of the new transfer degrees is on track to meet the goals of SB 1440 and 440. As noted above, the Legislature passed SB 1440 in 2010; and in 2012, the lawmakers requested a progress report from the LAO on the status of the implementation. Dissatisfied with the findings of that report, the Legislature responded with SB 440, seeking to speed up the implementation process.

### Goals of SB 1440 and SB 440

1. Create clearer transfer pathways that reduce units and increase capacity in the CCC and CSU systems.
2. Increase the number of transfer students earning an associate degree.
3. Increase the number of students transferring to the university system.
4. Make associate degrees the preferred transfer pathway for all students.

The LAO’s findings in 2012 provide an important baseline for measuring progress to date, and we begin our analysis by comparing the current number of degrees adopted by community colleges and accepted by CSU campuses to the numbers in place when the Legislative Analyst’s Office issued its 2012 report. Generally, the students earning the new degrees in the first few years of implementation would be those whose course-taking patterns happened to match up well to the TMCs, since most would have already been enrolled (and accumulating units) for some time before the new degrees were first available.<sup>5</sup> As of today, relatively few students with the degrees have transferred to CSU, and there has not been enough time for them to earn a bachelor’s degree. Nonetheless, we are able to examine patterns of implementation in the two systems to assess progress and identify any obstacles to successful implementation.

We first examine the progress that has occurred since 2012 across the CCCs in adopting the new transfer associate degrees and by the CSU system in declaring majors and concentrations “similar” to the degrees. Next, we examine the perceptions of administrators, faculty, and staff in the CCC and CSU systems about the value of the degrees and how implementation has proceeded at their campuses. We then focus on the perceptions of students—how they feel about this new pathway to transfer, as expressed by student leaders throughout the CCC system.<sup>6</sup> We then consider the extent to which the degrees adopted to date provide a

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<sup>5</sup> Fall 2011 was the first term in which some transfer degrees were approved and in place across the colleges, although the number of such degrees was minimal.

<sup>6</sup> Student leaders in the CCC—those serving as officers in local associated student organizations or as members of the Student Senate for the California Community Colleges—generally have opportunities to learn about major policy issues and policy changes in the CCC. They would be more likely to be aware of and have a better understanding of a large policy change such as SB 1440 than the general student population.



reasonable set of pathways to a baccalaureate degree, given historical transfer patterns and the needs of California’s economy for workers with that level of education. We conclude the report with a number of recommendations for increasing the likelihood this reform will succeed in achieving its goals.

## Methodology

Our analyses of the implementation of SB 1440 and SB 440 are derived from three data collection efforts.

1. We conducted semi-structured interviews with over 70 individuals, including officials in both chancellors’ offices, statewide representatives in the Academic Senates of both systems, state policy staff, and administrators, faculty, and staff from six community colleges and six CSU campuses. Interviews focused on awareness and understanding of SB 1440, attitudes and opinions about the reform effort, and the level of progress on and perceived barriers to implementation. We offered anonymity to participating institutions and individuals, and hence we do not identify the 12 institutions. We selected them in such a way as to ensure some variation in location, the scale of their transfer function, and their early response to SB 1440— i.e., number of degrees approved (CCC) or majors declared similar (CSU).
2. We conducted a survey of student leaders across the CCC system (N=84) to assess their knowledge and opinions about the AA-T/AS-T degrees and their perception of the level of knowledge and interest in the new degrees among students on their campuses. (The sample of student leaders cannot be assumed to be representative of student leaders across the system or of CCC students more generally.)
3. We collected various publicly available data, including historical patterns of transfers and degrees awarded by discipline, transfer degrees adopted across the CCC system, majors/concentrations designated “similar” by CSU campuses, the award of AA-T/AS-T degrees by each college, and projections of California’s labor market needs related to various disciplines.

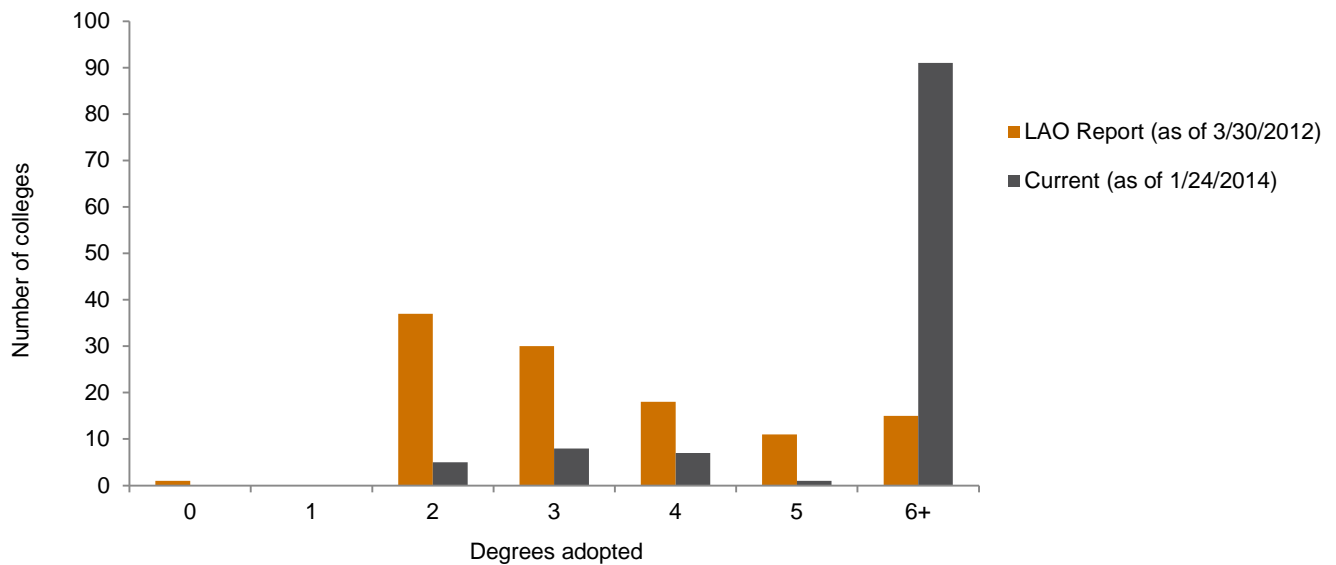
See [Technical Appendix A](#) for additional information on research methods.

# Adoption of Transfer Degrees in California's Community Colleges

## Progress Is Significant, But Some Colleges Still Offer Only a Few Degrees

In its review of the implementation of SB 1440, the LAO (2012) concluded that while a number of community colleges were moving quickly to develop associate degrees for transfer, most colleges had adopted only a few degrees, and some colleges were reluctant to embrace the new reform. As shown in Figure 1, significant progress has occurred since the LAO review. While the LAO found that as of March 2012, only 15 of the 112 colleges had adopted six or more degrees, 91 colleges now offer at least six degrees.<sup>7</sup> In fact, a different scale than the one used by the LAO better demonstrates the progress. Figure 2 shows that nearly half of the colleges (54 of 112) offer 10 or more transfer degrees, and those colleges account for 56 percent of enrollment in the CCC and 59 percent of all CCC transfers to CSU. However, despite this significant progress, many colleges still offer only a few degrees, raising questions about equal access by students to this transfer pathway. Some of the colleges offering only a few transfer degrees are small colleges in rural areas (e.g., Barstow and West Hills Coalinga) while others are large colleges in urban or suburban areas (e.g., Contra Costa and Laney and most of the colleges in the Los Angeles Community College District). Fourteen colleges offer only two or three degrees, and 58 of the 112 colleges offer fewer than 10 degrees.

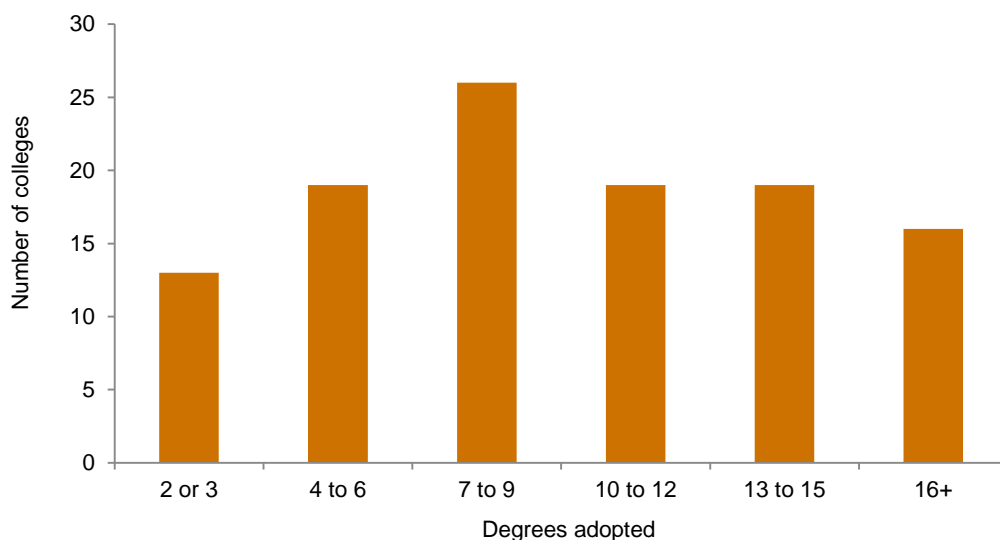
**FIGURE 1**  
Considerable progress has been made in adopting AA-T/AS-T degrees at community colleges



SOURCE: Authors' calculations based on examination of CCCCO Curriculum Inventory.

<sup>7</sup> See [Technical Appendix B](#) for a complete accounting of the progress by college in the number of AA-T/AS-T degrees offered. The number of degrees offered is based on information in the CCC Curriculum Inventory as of January 24, 2014.

**FIGURE 2**  
**Almost half of CCCs offer 10 or more associate degrees for transfer**



Share of 2012–13 CCC Enrollment	9%	11%	24%	18%	19%	19%
Share of Fall 2012 Transfers to CSU	5%	11%	25%	17%	19%	23%

SOURCE: Based on authors' examination of CCCCCO Curriculum Inventory (degrees adopted), CCCCCO Datamart (enrollment), and CSU Analytic Studies Statistical Report *CCC Transfers to the CSU System Fall 2012 Profile*.

## Number of Degrees Awarded in the Community Colleges Is Increasing

The CCC awarded just over 800 associate degrees for transfer in 2011–12, the first year the degrees were offered. The number of degrees awarded increased to nearly 5,400 in 2012–13, for a total of about 6,200 over the first two years of implementation, an average of about 55 degrees per college.<sup>8</sup> To put these early outcomes in context, transfer degree awards accounted for about 3 percent of total associate degrees awarded over the two-year period.<sup>9</sup> As shown in Figure 3, there is considerable variation across the colleges in the number of AA-T/AS-T degrees awarded, with none awarded in 2012–13 at 10 colleges and fewer than 10 degrees awarded at another 25 colleges, but more than 250 awarded by Pasadena City, Fullerton, Citrus, and Diablo Valley. Fifteen colleges (13% of colleges) accounted for half of all the AA-T/AS-T degrees awarded so far. This variation across colleges is only partly due to variation in the number of disciplines in which degrees are available across colleges. Some colleges that have adopted a large number of degrees have awarded very few to students.<sup>10</sup> For example, Butte College has adopted AA-T/AS-T degrees in 17 disciplines, only two fewer than the 19 offered at Moorpark College, a college of similar size (enrollment of about 17,000 and 18,000, respectively). But Butte has only awarded a total of 18 AA-T/AS-T degrees to students through 2012–13, compared to 239 awarded by

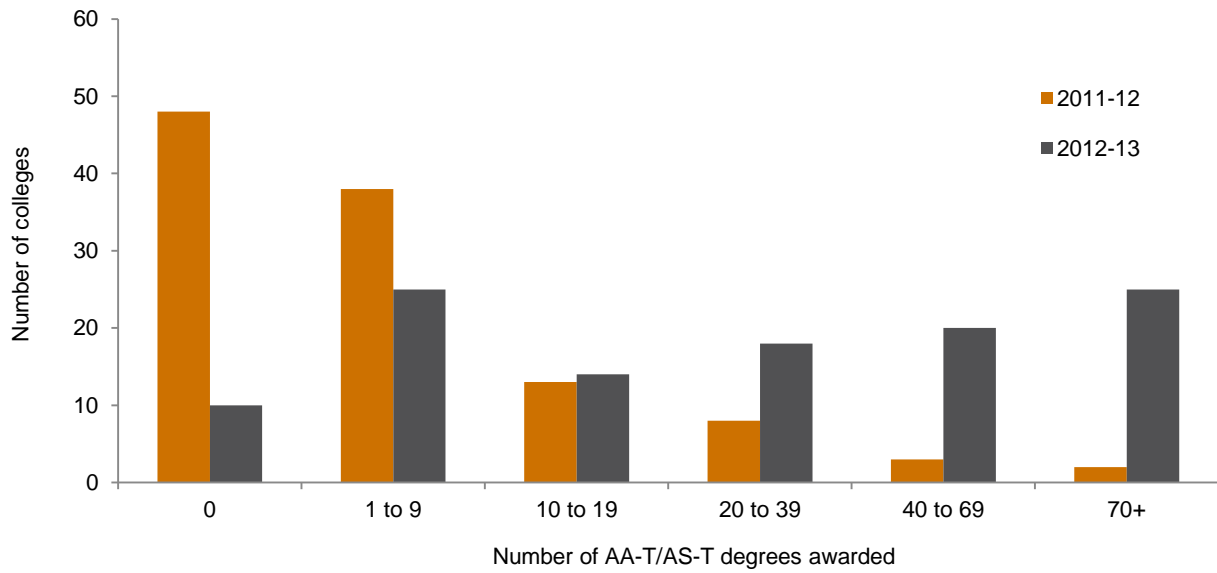
<sup>8</sup> See [Technical Appendix B](#) for the number of AA-T/AS-T degrees awarded by each college in 2011–12 and 2012–13.

<sup>9</sup> According to personal communications with the CSUCO, based on the preliminary census data for fall 2013, 2 percent of transfers to CSU from the CCC in fall 2013 entered with an AA-T or AS-T. This small percentage is not unexpected. The students who earned those degrees generally did so after just happening to have taken courses that fit into the approved degrees after the fact, since the degrees were not even available during most of the time they would have attended the CCC.

<sup>10</sup> See [Technical Appendix D](#) for additional graphical presentations on the number of transfer degrees awarded to date by the colleges.

Moorpark. Clearly, these data show that the development and approval of the degrees is a necessary, but not sufficient, step to ensure the success of this effort to improve the transfer process.

**FIGURE 3**  
**Most colleges are not yet awarding many associate degrees for transfer**



SOURCE: CCCC Datamart.

# Designation of “Similar” Majors at the California State Universities

## Progress Is Significant, But Student Choices Are Still Limited at Some Campuses

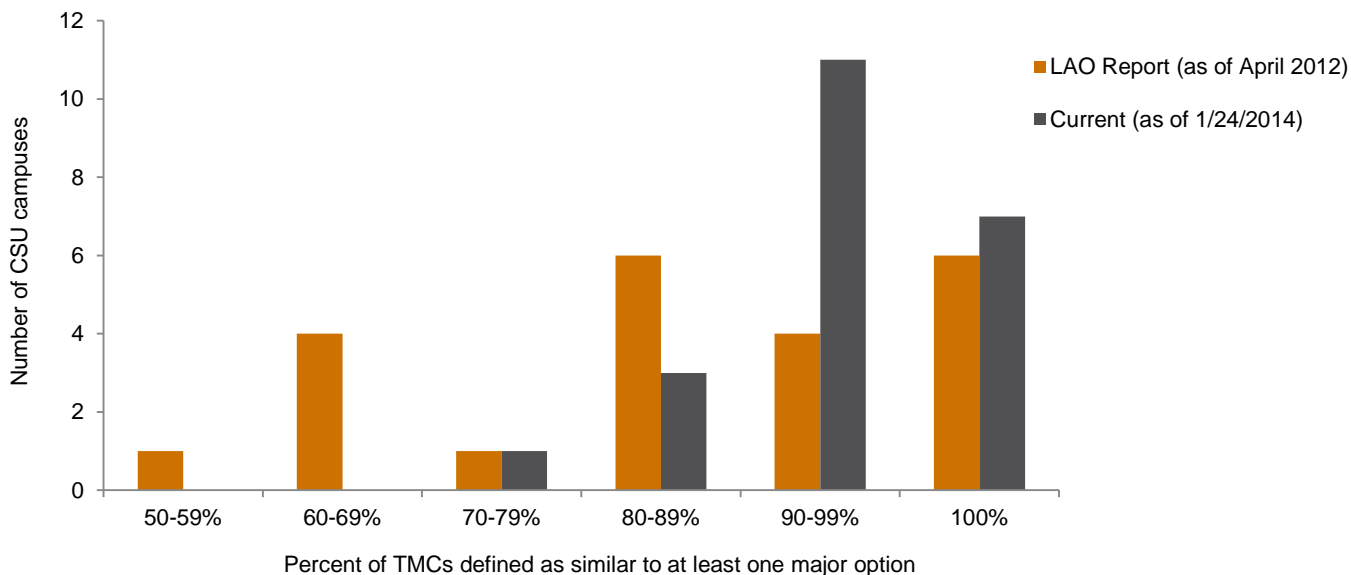
In its review of the implementation of SB 1440, the LAO concluded that acceptance of the AA-T/AS-T degrees was far from universal and that it varied substantially across campuses, disciplines, and concentrations within majors. The LAO concluded that the effort to define similar programs did not meet the expectations of the legislation. According to the LAO, many CSU campuses were simply determining which TMCs they could accommodate within the 60-unit limitation, given their existing curricular patterns, rather than adjusting programs to enable students who had completed degrees based on the TMCs to finish a bachelor’s degree within 60 units. The LAO expressed concern that “students could find that SB 1440’s guarantee of priority admission and a 60-unit cap at CSU comes with a long line of asterisks and a short list of degree options within their major to which it applies” (LAO 2012, p. 21).

As shown in Figure 4, the CSU campuses have made significant progress in increasing the share of TMCs they accept as “similar” to at least one option in a major.<sup>11</sup> Since the publication of the LAO report (reflecting CSU status as of April 2012), the number of approved TMCs has increased from 18 to 25. The number of campuses accepting all approved TMCs as similar to at least one option in a major (out of the majors actually offered) has increased from six to seven, or about one-third of the 22 state university campuses included in this study (we do not include Maritime Academy, see footnote 11). Eleven CSU campuses now accept at least 90 percent (but not 100%) of all TMCs as similar to a major, nearly three times the number of campuses that accepted that share at the time of the LAO report.

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<sup>11</sup> See [Technical Appendix C](#) for tables showing the TMCs accepted at each CSU, both at the time of the LAO report and currently. We excluded CSU Maritime Academy from our review because it has very specialized programs and only offers one major with a related TMC (Business Administration).

**FIGURE 4**  
**Acceptance of Transfer Model Curricula as "similar" has increased among the California State Universities**



SOURCE: Authors' calculations based on examination of CSU Chancellor's Office's CSU-TMC Alignment report.

Some TMCs are more challenging than others for the CSU campuses to accommodate within the 60-unit limit. For example, all campuses that offer a major in Anthropology, Art History, Early Childhood Education, English, History, Philosophy, Physics, Political Science, Sociology, Studio Art, and Theatre Arts accept the TMCs in those disciplines for at least one option within the major. However, among the 16 campuses that offer a major in Journalism, seven have decided the TMC is not similar enough to their local lower division major preparation to allow for completing the bachelor's degree within 60 credits. The TMC in Film, Television, and Electronic Media has been deemed "not similar" by five CSU campuses, and the TMCs in Computer Science and Geology have been deemed not similar by four campuses.

In addition to whether the campuses accept the TMCs as similar to at least one option or concentration within a major (e.g., General Business), we examined how broadly the campuses accept the TMCs into the various concentrations available within majors (e.g., various business concentrations such as Marketing, Finance, and Management). Although we found improvement after the LAO report (which expressed concern about student access to majors and concentrations), access issues persist.<sup>12</sup> As an example of the variation across campuses, CSU Bakersfield and CSU East Bay both accept all of the TMCs for all majors offered, but while Bakersfield accepts the TMCs into most or all of the options within every major, East Bay limits the acceptance of six of the 24 TMCs it accepts to half or fewer of the options within those majors. CSU San Marcos accepts the Business Administration TMC only into its major in Economics and not into any of the concentrations in the Business Administration major that are likely to be of interest to most students earning a transfer degree in Business.

CSU Fullerton serves as an example of the progress made since 2012. Until recently, Fullerton also accepted the Business Administration TMC only into its major in Economics, but now accepts the TMC in most options within its Business Administration and International Business majors as well as in Economics.

<sup>12</sup> Table C2 in *Technical Appendix C* includes indicators of the acceptance of the TMCs within options/concentrations in each major at each CSU campus.

San Diego State University presents an ambiguous example of change that followed the publication of the LAO report. At that time, San Diego State accepted only half of the TMCs as similar to a major. The campus now accepts all but two of the TMCs, although to only limited options in many cases. In some majors, including Communication Studies, English, Psychology, and Geology, San Diego has developed “applied” concentrations specifically to accommodate students with the transfer degrees, rather than finding ways to accommodate them in existing concentrations in those majors. It is unclear at this early point how well these new concentrations, which certainly follow the letter of the law if not the spirit, will provide access to students intending to transfer to San Diego State in those fields.

# Faculty and Staff Perspectives on Implementation Efforts

Faculty in both systems have been instrumental in implementing the new policy. The Academic Senates led efforts to define and develop the TMCs, and faculty in departments across the colleges and universities have considered whether and how to accommodate the transfer degree curriculum within their disciplinary offerings, consistent with the fundamental role that faculty play in curriculum development. Their opinions and efforts are therefore important touchstones for understanding the implementation and future prospects of the reform effort.

## Faculty and Staff Have Mixed Opinions About the Value of the Degrees

Our interviews with faculty and administrative and support staff at the CCC and CSU campuses, as well as staff in the system-level offices, revealed mixed opinions about the value of the degrees as a pathway to transfer, with most people viewing the degrees as an improvement overall, but with benefits that apply only to a subset of students. The issues most commonly cited as positive aspects of the degrees by interviewees in both systems include:

- The consistent pathway and common set of lower-division courses needed to prepare for a particular major make course selection easier for students who know which major they want to pursue and who are open to considering multiple CSU campuses;
- The alignment of the requirements to transfer with those to earn an associate degree is a clear improvement from the past, when students who wanted to transfer were discouraged from earning an associate degree because it required additional coursework with no obvious benefit in facilitating their goal to transfer;
- The AA-T and AS-T degrees offer students important guarantees, including admission somewhere in the CSU system in the student's chosen major and an assurance that all 60 units will be accepted, avoiding the need to repeat similar courses at the state university; and
- They have fostered useful conversations across the CCC and CSU systems about essential components of degree programs in particular disciplines, leading colleges and CSU campuses to review and update their own curricula and degrees.

Individuals in the community colleges also noted that the degrees offer an opportunity for the colleges to award more associate degrees, a recognized benefit in the context of increased calls for accountability for student outcomes.

There were some differences in views across the two systems about the more questionable aspects of the degrees as a pathway to transfer. Interviewees in the community colleges noted that the required 18 units of preparation in the major meant that students would need to choose a major very early if they are to reap the benefits of the degree, thus limiting students' choices of coursework and discouraging broad exploration. CCC officials noted that the degrees fail to offer a truly "statewide" pathway because the University of California is not included in the reform, and the coursework required by UC campuses varies and does not match the TMCs, complicating the choices of students who wish to retain the option of transferring to the UC. The variation among CSU campuses as to which majors and concentrations accept students with transfer degrees also limits the "statewide" promise of the reform and complicates students' choices about whether the transfer degree is the best route to their preferred CSU campus and major. Officials at some



colleges emphasized that the degrees have disrupted local transfer agreements that were working well, and that the new degrees have made it more difficult for their students to gain admission to “impacted”<sup>13</sup> CSU campuses based on local priority because CSU campuses must now give priority to students across the state with AA-T/AS-T degrees.

A common critique we heard among CSU respondents was that the reform does not address what many view as the real problem with transfer—inadequate advising of community college students. Many noted that the transfer process remains complex, even with the prescribed degree pathways, given the multiple courses that can be selected within some of the TMCs and the varying application of the degrees across the CSU campuses by major and area of concentration. Close tracking of student goals and robust advising are still needed to help students get through the process, neither of which is widely undertaken in the community colleges. Others noted that the reform focuses too narrowly on the efficiency goal of limiting the units taken and, in so doing, may reduce the quality of degree programs or limit the educational value students receive from broad exploration. Some believe that it does not include sufficient incentives for students to choose the transfer degree pathway to a state university since most CCC students want to transfer to their local CSU and can do so without the degree, while taking fewer lower-division courses in their major. Many believe the mechanism of “admission priority”—i.e., giving students with degrees a small “bump” of 0.1 or 0.2 points in their GPA—is not an effective incentive. They argue that the GPA bump is probably unnecessary at non-impacted campuses and programs, where admission is already assured by the priority given to CCC transfers (and to local CCC students in particular), and that it is likely too small to make a difference at impacted campuses and programs unless a student’s GPA is just below the cut-off. A number of CSU officials believe that a more persuasive mechanism for motivating students to follow the transfer degree pathway would be to offer them priority registration for courses, at both the community colleges and the state universities.

Interviewees in both systems noted there was some faculty and staff resistance to a reform seen as imposing a statewide approach on what have traditionally been local curriculum decisions. Many in the CCC noted that the variation in college responses to the legislation reflected differences in college leadership, differences in “campus culture,” and the priority placed on the transfer mission. Those in the CSU observed that the degree of faculty resistance to the curricular mandate varied not only across campuses but also across departments within a campus.

In spite of these many concerns, interviewees in both systems confirmed that momentum toward more extensive implementation has been building. Many campus officials reported that initial reluctance to embrace the reform reflected a bit of “initiative fatigue” and uncertainty about commitment to the reform at the state level, but they believe that this reluctance has generally subsided as officials in the Chancellor’s Offices of both systems continue to emphasize the importance of SB 1440 and monitor its implementation. Some in the CCC reported that the varying response at CSU campuses led some colleges to take a “wait and see” approach out of fear that the degrees would not benefit their students if the local CSU campus didn’t embrace the reform. Many noted, however, that the pressure to develop the degrees was heightened when the CSU Chancellor’s Office, responding to budget constraints and the need to limit enrollment, announced that only students with transfer degrees would be considered for admission in Spring 2013.

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<sup>13</sup> A major or campus is designated as “impacted” when the number of applications received from qualified applicants exceeds the number of available spaces. Majors or campuses designated as impacted use supplementary admission criteria to screen applications. Five CSU campuses are impacted in every program—Fullerton, Long Beach, San Diego, San Jose, and San Luis Obispo. Only Dominguez Hills and Monterey Bay have no impacted programs.

## Implementation Has Been Complicated by Complex Processes, Fiscal Challenges, and Lack of Infrastructure

The officials we interviewed in the CCC noted the significant challenges and time commitment involved in revising their curricula to match the TMCs, given their lengthy and variable curriculum review processes. The 60-unit limit to meet the requirements of the degree forces colleges to make difficult choices about which courses to eliminate, and to find ways to reduce the number of units in some high-unit courses.<sup>14</sup> The officials also noted that the legislation has called for changes in the curriculum during a time of significant cuts to college budgets, reducing the likelihood of allocating faculty and staff resources to the effort.

The 60-unit limitation was reported to be the most difficult challenge for CSU as well, particularly in STEM majors and at campuses with local graduation requirements (e.g., foreign language) or unique curricular structures in some programs. Some noted the challenge of including within the 60 units the six units in American Institutions required by CSU, as they could not assume that students in the community colleges would have met the requirement.<sup>15</sup> The TMCs also pose a challenge for CSU campuses that offer certain majors with special accreditation.<sup>16</sup> And as was the case in the CCCs, CSU staff noted that making curricular changes is time consuming and resource intensive, and made more difficult by the austere fiscal environment of the campuses over the past few years.

Officials in both the CCC and CSU mentioned that the lack of an adequate foundational infrastructure to support a statewide transfer system was a significant barrier to implementation of the transfer degrees. For example, California does not have a comprehensive common-course numbering system across, or even within, the CCC and CSU systems, slowing the process of matching college curricula to the TMCs.<sup>17</sup> Nor is there a technical infrastructure or set of processes that would easily allow the community colleges to identify which students are intending to earn one of the transfer degrees, or to easily verify for CSU which transfer applicants are nearing completion of a degree. Since CCC students generally do not enroll in programs or formally declare a major, the application for graduation is the first indication a college has of a student's intent to earn a degree. And only a subset of campuses in each system have the ability to generate and easily share electronic transcripts, making it difficult for CSU campuses to get the information they need to grant priority in the admissions process, as required by the legislation.

While it would be difficult to measure some of the factors mentioned by interviewees as barriers to implementation or as explanations for variable campus responses (such as college culture or different approaches in leadership), other factors can be explored with data. We found a moderate positive

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<sup>14</sup> Some colleges have engaged in "unit creep" (i.e., the gradual increase in the number of units, primarily in English and math courses) from the standard three units to four or five units, ostensibly as a way to allow for more faculty time to help students master important foundational skills. Reducing the courses to three units is necessary to fit all the coursework within the 60-unit total for a degree, but this then requires other solutions for improving student mastery of skills and reduces enrollment-counts for funding purposes.

<sup>15</sup> CSU requires students to demonstrate competence in United States history and government, referred to as the American Institutions (AI) requirement. While some campuses allow students to take comprehensive exams to demonstrate the appropriate knowledge in these areas, others require students to take two courses (6 units). It is possible for students to meet the AI requirement through courses taken at the CCC, but they are not required to do so, and thus some campuses believe that their determination of "similar" should assume that students would have to take those 6 units as part of the 60-unit limit after transfer. In 2011, the CSU Board of Trustees amended the regulations to allow campuses to seek waivers for CCC transfer students under certain conditions, but some interviewees seemed unaware of this and cited it as a barrier.

<sup>16</sup> As an example, we were told that the American Association of Collegiate Schools of Business, an organization that provides special accreditation for bachelor's degree programs in Business Administration at some CSU campuses, has standards that require students to take a calculus course, but the TMC in Business Administration allows students to choose calculus, statistics, or finite mathematics.

<sup>17</sup> The CCC has a Course Identification Numbering (C-ID) system, but it was only in the early stages of implementation when SB 1440 was passed, so the process of aligning courses to course descriptors in the C-ID system had not yet been accomplished in many colleges at the time they were beginning to develop AA-T/AS-T degrees.

correlation ( $r = .36$ ) between the number of transfer degrees a community college adopted early in the implementation process and the relative magnitude of its transfer mission.<sup>18</sup> On average, colleges with a higher ratio of transfers to enrollment—an indicator of a more robust transfer orientation—moved more quickly toward adopting the new degrees. There is also a modest positive correlation ( $r = .2$ ) between college size and the number of degrees adopted, supporting the argument that implementation has been somewhat easier for large community colleges with more resources and more existing degree programs. In the case of CSU, we found no statistically significant relationship between the early response of the CSU campuses to SB 1440 in terms of the share of TMCs designated as similar to a major and either the dependence of the campus on transfer students or the size of campus enrollment.

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<sup>18</sup> See Technical Appendix D for results of our statistical analyses.

# Student Opinions about Transfer Degrees

## Awareness and Understanding of the New Degrees Is Limited, Reflecting Insufficient Efforts to Inform Students

Our survey of CCC student leaders, while not necessarily representative of the circumstances among all students across the community colleges, suggests there is little general knowledge of the new associate degrees. Students in leadership positions on the campuses are usually more aware than other students of major policy changes in the system. Yet over one-third (36%) of survey respondents had not heard of the new degrees, despite over 90 percent reporting that transferring to a university was their primary goal in enrolling in a CCC and nearly 90 percent saying that they were at least “somewhat informed” about the process of transferring to a university (49 percent said they were “well informed”). Student leaders believe that awareness is even lower among the general student population, with only about 10 percent responding that many or most students on their campus know about the degrees. Among student leaders who had heard of the degrees, most (66%) reported that they had little or no understanding of how this pathway differs from others in terms of preparing for transfer to the CSU system.

These responses confirm what we heard throughout our interviews, that few students are aware of the new degrees and that those who have heard of them are largely confused about the provisions and how the degrees might benefit them (or not), given their academic major and preferred transfer destination. College officials reported a variety of approaches for informing students about the degrees—incorporating the information into orientation and transfer workshops, developing flyers distributed through counseling offices and transfer centers, and posting information in college catalogs and on websites—but most believed the efforts to inform the student population have been insufficient. Some said it was difficult to promote the degrees while they were still in the process of being developed and approved. Counselors reported some hesitation to advise students about the degrees because of the difficulty of determining and explaining to students how particular CSU campuses (and majors) might respond to the degrees. SB 1440 did not include funding for marketing and outreach efforts, but the chancellors’ offices of the two systems worked together to obtain some funding for marketing materials through Complete College America, as well as donations of radio airtime, online advertisements, and website development.<sup>19</sup> The CCCCCO has allocated some funds to continue the marketing efforts, but officials believe more funding is needed to develop large-scale efforts that include outreach to high school students.

The student survey results lend strength to the general belief that college efforts in promoting the transfer degrees have been insufficient. Over half the respondents rated their colleges’ efforts to inform students ineffective; 40 percent considered the efforts somewhat effective, and fewer than 10 percent considered them very effective. Among those who had heard of the degrees, just over half (55%) heard about them from a counselor. Other ways students learned about them were through a college website (30%) or course catalog (27%), from an instructor (27%), at a transfer workshop (26%), or through emails (24%). Few student leaders reported seeing posters on campus (5%), finding information through social media (10%), or hearing about the transfer degrees on the radio (5%).

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<sup>19</sup> Information on these marketing efforts is summarized in the *Complete College America Grant: California Community Colleges and California State University Associate Degree for Transfer Campaign: Final Report*, available from the California Community Colleges Chancellor’s Office.

## Interest in the Degrees Is Greater Than Awareness

Among the student leaders we surveyed who are planning to transfer, 45 percent indicated interest in earning a transfer degree, 34 percent expressed no interest, and another 19 percent weren't sure. Among those indicating no interest in earning a transfer degree, the most common reasons were that they were not planning to transfer to a CSU campus, didn't know enough about the degree, or that their college didn't offer an AA-T or AS-T degree in their major. Among the 45 percent of student leaders who expressed interest in a transfer degree, one of the most commonly cited reasons for their interest was that it might provide guidance in selecting appropriate courses.

When asked about their expectations with regard to the effectiveness of the new degrees in achieving some of the goals of the legislation, the share of student leaders who believed the degrees would be "very effective" was largest in three areas of their concern: reducing mistakes in choosing courses for preparing to transfer (45%), improving the academic advice students receive in preparing to transfer (43%), and reducing the time it takes for students to transfer and earn a bachelor's degree (43%). Somewhat fewer students expect the degrees to be very effective in reducing the total number of units students earn at the CCC before transferring (36%) or at CSU after transferring (27%) or in opening up spaces in transferable courses at the CCC (34%).

On questions relating to the potential effect of the degrees on students' choices when it comes to transferring, student leaders were most likely to believe that the degrees would significantly change whether students earn an associate degree before transferring (56%). Fewer believed there would be a significant change in students' choices about which CSU to attend (23%), which major to pursue (21%), or which university system to choose as a transfer destination (20%). Asked if they could think of any problems that might be created by the degrees, the students said they were concerned that the degrees might lead to some uncertainty in the transfer process (especially in the case of transferring to the University of California) as well as confusion about the differences between these degrees and other associate degrees.

# Assessing the New Pathways

## Pathway Activity of New Degrees Is Similar to Historical Transfer Activity, but there are Gaps

To determine whether SB 1440 is providing a reasonable set of pathways, given the historical patterns of various majors in the CSU system, we reviewed the historical data on student transfers from the community colleges to CSU by major discipline, as well as data on the awarding of bachelor's degrees by discipline at CSU. Unfortunately, data are not available on transfers from the community colleges into specific majors and concentrations at CSU, or on the number of degrees awarded by CSU in specific majors and concentrations, but only for broader discipline areas.<sup>20</sup> System-wide, disciplines related to the 25 TMCs account for over 70 percent of the transfer activity from the community colleges to CSU, as measured by both the share of transfers to CSU and the share of bachelor's degrees awarded by CSU to students who transferred from the CCC. Likewise, the 25 TMCs cover disciplines that account for over 70 percent of all bachelor's degrees awarded by the CSU system (whether to transfer-students or native freshmen), and more than 75 percent when taking into consideration the several TMCs nearing completion (Biology, Chemistry, Economics, Information Technology). Thus, the TMCs cover the vast majority of the transfer activity between the CCC and CSU systems, although it varies for individual campuses within each system.

Table 1 shows, for a sample of CCCs, the share of transfer activity that occurs in disciplines that have related transfer degrees.<sup>21</sup> There is substantial variation in how much of a college's transfer activity is potentially encompassed by the degrees developed to date at that college.<sup>22</sup> For example, the 18 degrees offered at Fullerton College appear to cover much of its historical transfer activity, with those disciplines accounting for 69 percent of its transfers to CSU and 73 percent of the bachelor's degrees awarded to students who transferred from Fullerton College to a CSU campus. At the other end of the spectrum, the three degrees offered by Los Angeles Mission College are in disciplines that account for only about 8 percent of its transfers to CSU and 7 percent of the bachelor's degrees awarded by CSU to students who transferred from Los Angeles Mission College. As one would expect, the share of transfer activity in disciplines with transfer degrees generally increases along with the number of degrees. However, Orange Coast College offers 16 AA-T/AS-T degrees in disciplines that account for 62 percent of its transfers to CSU, while Butte College offers 17 degrees that cover less than half of its transfers. While the 25 TMCs cover the disciplines representing the bulk of transfer activity from the community colleges to CSU, the extent to which the degrees offer a reasonable pathway for students depends on the decisions made by individual community colleges about how many, and which, of the degrees to offer.

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<sup>20</sup> The available data show transfers and degrees awarded by Classification of Instructional Program (CIP) code. CIP codes do not reflect all concentrations in each major, and the CSU campuses vary in their use of CIP codes when reporting data on enrollment and degrees awarded by discipline. See the discussion of research methods in [Technical Appendix A](#) for a summary of how we matched CIP codes to TMCs.

<sup>21</sup> We selected a subset of colleges that provides some variation in the number of AA-T/AS-T degrees offered and location in the state.

<sup>22</sup> This represents an upper bound estimate, since some of the transfer activity would have occurred in concentrations within the majors that some CSU campuses have deemed "not similar" to the degrees.

**TABLE 1**  
**Historical transfer activity in disciplines with AA-T/AS-T degrees in selected community colleges**

College	Number of AA-T/AS-T degrees offered <sup>1</sup>	Share of activity in disciplines with transfer degrees	
		Transfers to CSU <sup>2</sup>	Bachelor's degrees awarded by CSU to CCC transfer students <sup>3</sup>
Moorpark	19	63%	58%
Fullerton	18	69%	73%
Diablo Valley	18	56%	61%
Butte	17	46%	48%
Orange Coast	16	62%	70%
Modesto	15	47%	40%
San Diego Mesa	14	52%	52%
Chabot	14	43%	51%
American River	14	58%	55%
Irvine Valley	13	56%	61%
Grossmont	13	46%	44%
Crafton Hills	12	44%	54%
Long Beach City	11	40%	50%
Fresno City	11	36%	44%
Riverside City	9	16%	24%
Alameda	4	38%	49%
Redwoods	4	19%	11%
Evergreen Valley	4	9%	13%
West Los Angeles	3	27%	11%
Los Angeles Mission	3	8%	7%

NOTES:

<sup>1</sup> As noted in the CCCCCO Curriculum Inventory as of January 24, 2014.

<sup>2</sup> Based on the number of transfers from the college to the CSU system in 2008–10 that were in disciplines for which the community college offers a degree (AA-T/AS-T). Data on transfers by discipline were obtained from the archived California Postsecondary Education Commission's (CPEC) online data for "Fall-Term Transfers to Public Institutions by Discipline/Instructional Program." [www.cpec.ca.gov/OnLineData/SelectFirstOptions.ASP?ReportType=Transfer](http://www.cpec.ca.gov/OnLineData/SelectFirstOptions.ASP?ReportType=Transfer).

<sup>3</sup> Based on the number of bachelor's degrees awarded by the CSU in 2008–10 to students who transferred from the community college in disciplines related to transfer degrees offered by the college. Data on bachelor's degrees awarded by discipline were obtained from the archived CPEC data for "Degrees by Source Community College and Discipline/Instructional Program." [www.cpec.ca.gov/OnLineData/SelectFirstOptions.ASP?ReportType=Degree](http://www.cpec.ca.gov/OnLineData/SelectFirstOptions.ASP?ReportType=Degree).

Table 2 shows the share of bachelor's degrees awarded at each CSU campus in disciplines related to the 25 TMCs (2nd column) and the share of degrees awarded in disciplines related to the TMCs that each campus actually accepts as similar to at least one concentration in the major (5th column). To the extent that a CSU campus accepts as similar all TMCs for which it offers a related major, the two shares are equal. If the shares are unequal, it indicates that the campus offers majors that are not accessible to students entering with the degrees, with the difference between the two figures (last column) representing the share of bachelor's degrees awarded in disciplines for which the related TMCs have been designated "not similar."

The share of bachelor's degrees awarded in disciplines related to the 25 TMCs varies across campuses, but generally ranges from 60 percent to more than 80 percent. These disciplines account for only 40 percent of the degrees awarded at Cal Poly San Luis Obispo, which has a more limited set of majors primarily focused on the sciences and engineering. At most campuses, the TMCs that are accepted as similar to at least one option within a major encompass nearly all of the degrees awarded in disciplines related to the approved TMCs. For example, San Francisco State offers majors related to all 25 of the approved TMCs. While it does not accept the TMC for Journalism, that major accounts for only 2 percent of the bachelor's degrees awarded by the campus. The San Luis Obispo campus awards a significant share of degrees in disciplines for which it does not currently accept the associated TMCs into any major, indicating that a larger portion of its popular programs will not be accessible to students coming in with the transfer degree unless the campus accepts additional TMCs.

**TABLE 2**  
**Transfer activity at each CSU campus in disciplines related to the TMCs**

CSU Campus	Share of bachelor's degrees awarded in disciplines related to the 25 TMCs <sup>1</sup>	Number of approved TMCs with related major offered <sup>1</sup>	Number of TMCs accepted as similar to at least one concentration in a major <sup>2</sup>	Share of bachelor's degrees awarded in disciplines with TMCs accepted as similar <sup>1</sup>	Share of bachelor's degrees awarded in disciplines with TMCs NOT accepted <sup>1</sup>
Channel Islands	85%	17	17	85%	0%
Bakersfield <sup>3</sup>	86%	21	21	85%	1%
Stanislaus	84%	23	23	84%	0%
Fullerton	84%	24	23	81%	3%
Northridge	80%	24	23	77%	3%
East Bay	77%	24	24	77%	0%
Sonoma <sup>3</sup>	82%	21	21	77%	5%
San Bernardino	81%	22	18	75%	6%
Los Angeles	74%	24	23	74%	<1%
San Diego <sup>4</sup>	74%	23	21	71%	3%
San Marcos	78%	21	19	71%	7%
Sacramento	71%	25	24	70%	1%
San Francisco	70%	25	24	68%	2%
Fresno	68%	24	22	68%	<1%
Long Beach	67%	25	25	67%	0%
San Jose	68%	25	24	67%	1%
Monterey Bay	74%	20	18	66%	8%
Dominguez Hills	71%	24	20	65%	6%
Humboldt	62%	25	24	62%	<1%
Chico	61%	25	25	61%	0%
Pomona	61%	22	18	58%	3%
San Luis Obispo	40%	19	14	27%	13%

NOTES:

<sup>1</sup> Based on the number of bachelor's degrees awarded in 2008–10 that were in disciplines related to the 25 TMCs, using CIP codes as depicted in Technical Appendix A. Data were obtained from the archived CPEC online data for "Degrees/Completions by Discipline/Instructional Program." [www.cpec.ca.gov/OnLineData/SelectFirstOptions.ASP?ReportType=Degree](http://www.cpec.ca.gov/OnLineData/SelectFirstOptions.ASP?ReportType=Degree).

<sup>2</sup> As noted in the Chancellor's Office CSU-TMC Alignment summary report as of January 24, 2014.

<sup>3</sup> The campus accepts all TMCs related to majors that are offered, as determined by the Chancellor's Office. The share of degrees awarded in disciplines with TMCs *not* accepted reflects the fact that the campus awards degrees with CIP codes related to TMCs that the Chancellor's Office has indicated are not "potentially similar" to a major at the campus. For example, Sonoma awards degrees with CIP codes related to computer science (1107) and kinesiology (3105, 5109, 512308), but the CSU-TMC Alignment summary report indicates that the campus does not offer majors that are "potentially similar" to those TMCs.

<sup>4</sup> As shown in Table C2 in Technical Appendix C, San Diego State has the largest number of majors that accept the TMCs into only limited concentrations.

While the TMCs that are not accepted as similar to any major account for only a small share of bachelor's degrees awarded at most campuses, the analysis in Table 2 likely understates the problem of access for transfer students, because decisions about which options within a major are considered to be similar to the TMCs could change the picture. For example, as shown in Table 2, CSU East Bay offers majors related to 24 of the TMCs, and accepts all 24 as similar to at least one concentration within the majors it offers. However, the campus only accepts the Business Administration TMC for the corporate management option, and not for the 11 other concentrations within the business major. Data are not available on what proportion of business degrees awarded by CSU East Bay is in the management concentration that accepts the TMC, but it is likely small relative to all the other concentrations. This situation would significantly affect CCC students transferring to CSU East Bay, because over one-quarter of the bachelor's degrees awarded by CSU East Bay



in 2012–13 were in business administration.<sup>23</sup> Similarly, San Diego State accepts the Psychology TMC only for an “applied” concentration created for the specific purpose of accepting that particular TMC, potentially limiting the options of transfer students, given that the campus awards more bachelor’s degrees in Psychology than in any major other than Business Administration.<sup>24</sup> Better data on degree activity by major and concentration would be needed to fully assess the extent to which narrow acceptance of the TMCs is a significant factor limiting students’ access to preferred majors through this transfer pathway.

## **Alignment with Economic Needs Is Good, But a Byproduct of Other Factors**

Our interviews in both systems confirmed that meeting the needs of California’s economy for workers with bachelor’s degrees in specific fields was not a consideration in decisions about which disciplines should receive priority in the development of TMCs at the state level, which degrees should be adopted at individual colleges, or which majors and concentrations should be deemed similar by CSU campuses. The primary criterion in developing TMCs was student interest, based on past transfer activity by discipline. Some disciplines were “low-hanging fruit” because the courses offered were similar across community colleges and the lower-division coursework was similar across CSU campuses, reflecting broad agreement about appropriate preparation for the major (e.g., Communications Studies). Other disciplines, while popular, were more challenging due to greater variability in existing programs, less agreement about what to include in the TMCs, or difficulty in adhering to the required “60 + 60” format. STEM disciplines, in particular, have posed a significant challenge, given that many existing degrees in these fields exceeded 60 units at the CCC and 120 units at CSU. In addition, the curricular structure of STEM programs at some CSU campuses require students to take more math and science coursework in the first two years and reserve some of the general education coursework for the last two as a way of ensuring acquisition of foundational skills and avoiding excessive advanced math and science coursework in the junior and senior years. This structure does not fit the TMC format, which includes all lower-division GE coursework and a more limited set of major preparation courses in the first two years to meet associate degree requirements.

The same considerations were behind the creation of degrees at community colleges and the matching of majors and concentrations at CSU campuses. That is, disciplines with existing programs that already fit within the 60-unit limitation and included coursework that matched easily with the TMCs were accomplished first, and those requiring more difficult choices about how to change or restructure curriculum proceeded more slowly. The process did not involve any consideration of workforce needs. Many respondents in both systems argued that such needs should not be a consideration in the process, noting that workforce demands change and that employers, when considering employees at the bachelor’s-degree level, are more interested in a prospect’s communications and critical thinking skills than college major. Others did think it would be reasonable to account for workforce needs in establishing new transfer degrees, but this has not been undertaken to date.

Despite the lack of labor force considerations, many of the TMCs approved or under development appear to match reasonably well to occupations projected to need more workers with a bachelor’s degree. As shown in Table 3, all of the occupations with the most projected job openings have either a related TMC approved or

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<sup>23</sup> See Table 5.3 in “CSU East Bay Degrees Conferred,” available at [www.csueastbay.edu/ira/factbook/degreesConferred.html](http://www.csueastbay.edu/ira/factbook/degreesConferred.html).

<sup>24</sup> See “SDSU Degrees Granted by Year, 2008–2009 through 2012–2013,” available at [http://asir.sdsu.edu/app/reports/degree/all\\_degmaj\\_1213.pdf?CFID=324422&CFTOKEN=32932027](http://asir.sdsu.edu/app/reports/degree/all_degmaj_1213.pdf?CFID=324422&CFTOKEN=32932027).

under development, or have some other model transfer curriculum being developed.<sup>25</sup> The degree to which these curricula are likely to produce the number of graduates needed in different fields is beyond the scope of our analysis. It would be affected by how widely the pathways are ultimately implemented and how many students actually follow them; and it would be challenging to estimate, given that graduates of many liberal arts and sciences programs are employed in a wide variety of occupations.

**TABLE 3**  
Match of TMCs to bachelor’s degree-level occupations with the most projected job openings

Occupation	Related approved TMC	Related TMC or other curriculum under development
Elementary School Teachers	<ul style="list-style-type: none"> <li>Elementary Teacher Education</li> </ul>	
Accountants and Auditors	<ul style="list-style-type: none"> <li>Business Administration</li> </ul>	
Market Research Analysts and Marketing Specialists	<ul style="list-style-type: none"> <li>Business Administration</li> </ul>	<ul style="list-style-type: none"> <li>Economics TMC</li> </ul>
Computer Systems Analysts, Computer Programmers, and Software Developers	<ul style="list-style-type: none"> <li>Computer Science</li> </ul>	
Management Analysts	<ul style="list-style-type: none"> <li>Business Administration</li> </ul>	
Secondary School Teachers	<ul style="list-style-type: none"> <li>Mathematics</li> <li>English</li> <li>History</li> </ul>	<ul style="list-style-type: none"> <li>Biology TMC</li> <li>Chemistry TMC</li> </ul>
Advertising, Marketing, Promotions, Public Relations and Sales Managers	<ul style="list-style-type: none"> <li>Business Administration</li> <li>Communications Studies</li> </ul>	
Financial Analysts and Personal Financial Advisors	<ul style="list-style-type: none"> <li>Business Administration</li> <li>Mathematics</li> </ul>	<ul style="list-style-type: none"> <li>Economics TMC</li> </ul>
Network and Computer Systems Administrators, Information Security Analysts and Computer Network Architects		<ul style="list-style-type: none"> <li>Information Systems TMC</li> <li>Information and Communication Technologies TMC</li> </ul>
Engineers (especially Civil, Mechanical and Computer/Electronics)		<ul style="list-style-type: none"> <li>Engineering Model Curricula</li> </ul>
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	<ul style="list-style-type: none"> <li>Business Administration</li> </ul>	

NOTES: Occupations are based on California Employment Development Department’s *Occupational Employment Projections 2010–2020*; includes occupations with annual projected job openings of at least 2,000 that have an entry-level education requirement of a bachelor’s degree and work experience requirement of “none” or “1–5 yrs.” The match of occupation to approved TMC or TMC/Model Curricula under development is based on a review of the National Center for Education Statistics Standard Occupational Classification (SOC)-2010 to Classification of Instructional Programs (CIP)-2010 crosswalk file.

<sup>25</sup> For example, faculty in the CCC and CSU systems are working on model curricula for engineering that, while not meeting the “60+60” structure required by SB 1440, will result in more standardized transfer preparation across the systems and a clearer transfer pathway into the engineering fields.

# Conclusions

This section summarizes our conclusions about the progress of implementation in relation to the four goals set forth by the two pieces of legislation—SB 1440 and SB 440.

## **Goal 1: Create clearer transfer pathways that reduce excess units and increase system capacity**

It is evident that the implementation of the transfer-degree reform is leading to the development of clearer transfer pathways. Less evident at this point is the extent to which the new pathways will reduce the number of academic units students accumulate and increase capacity in the CCC and CSU systems.

The process of discipline faculty working across college and system lines to define the core competencies for each associate degree will establish a legacy of clearer pathways, aside from any effect on excess units or capacity. Through the mechanism of the Transfer Model Curriculum, each major for which a new degree has been developed has a common set of 18 substantive course units. Development of the TMCs and corresponding degrees has accelerated since the LAO and the Campaign for College Opportunity issued their reports in 2012. Many more degrees have been approved in the community colleges, and more majors and concentrations have been deemed similar at the CSU campuses.

Implementation has been impeded, however, by several factors. The lack of common course numbering between and within the two postsecondary systems slows the process of matching curricula to degrees. Some faculty and staff have resisted the statewide approach to what have traditionally been local curriculum decisions, and others have chosen to “wait and see” if this reform has staying power. Severe budget constraints have clearly slowed implementation by limiting the availability of faculty and staff to work through the complex development and approval processes. Some smaller community colleges are unable to offer all of the classes included in the TMCs. Recent actions by the legislature and the system chancellors to underscore the priority of the new degrees, as well as an improving budget picture, should reduce some of these barriers to more thorough implementation. However, as we discuss under Goal 4, there are many reasons why students might follow the new pathway yet end up with more than the ideal 120 units, although even a marginal reduction in total units taken by transfer students should be considered a positive outcome of the legislation.

## **Goal 2: Increase the number of transfer students earning an associate degree**

While still too early to reach firm conclusions, it appears that the various mechanisms designed to provide students with strong incentives to follow the new associate degree pathway toward transfer are having mixed effects.

The alignment of the requirements to transfer with those to earn an associate degree will surely increase the number of students who earn associate degrees. However, the guarantee of admission somewhere in the CSU system may not be compelling for students who wish to transfer to the local CSU or whose area of concentration has not been deemed “similar” by their preferred CSU campus. With admission to some CSU campuses becoming very competitive in recent years, exacerbated by budget and enrollment constraints, the small “GPA bump” provided under the law to those who obtain a transfer associate degree is not perceived to be very effective in improving students’ chances of admission in many cases. More generally, capacity constraints across the CSU system are likely to counteract the intended incentives if the “somewhere in the system” guarantee becomes applicable to fewer and fewer campuses.

### **Goal 3: Increase the number of students transferring to the university system**

The potential to substantially increase the number of transfers is strong but could be negatively affected by resource constraints.

We found that new transfer degrees have been developed in most of the disciplines that provided the majority of transfers in the past. This suggests a strong alignment between student interest in transferring and the availability of transfer degrees. With pathways clearer than in the past, more of the student interest should translate into transfer success. However, it is not clear that the CSU system has the capacity to accommodate large numbers of additional transfers. Budget cuts have reduced CSU enrollments and have led some campuses to severely restrict transfer admissions. The CSU admission guarantee may be increasingly difficult to implement in ways that will serve students who are not mobile or not willing to attend the campus that accepts them. Additionally, the number of CCC students now choosing this route is small because student awareness of the degrees is limited and efforts to inform them have been insufficient. SB 440 attempted to address this problem by requiring more extensive outreach efforts, but the legislation did not provide any funding to either system for that purpose. Finally, the administrative infrastructures to support additional transfer activity are under-developed. Colleges are not able to readily identify which students are intending to transfer and how far along they are in the process, thus limiting the schools' ability to provide advisory and other support services that would improve the likelihood of success in the transfer program.

### **Goal 4: Make the associate degree the preferred transfer pathway for all students**

The profile of CCC students and the complexities of transfer decisions place very real boundaries on the extent to which the reform, even when fully implemented, can propel large numbers of students along the envisioned "60+60" pathway to the baccalaureate. Without the involvement of the University of California, it is unlikely that the degree, as currently prescribed by law and policy, can become the preferred pathway for all students.

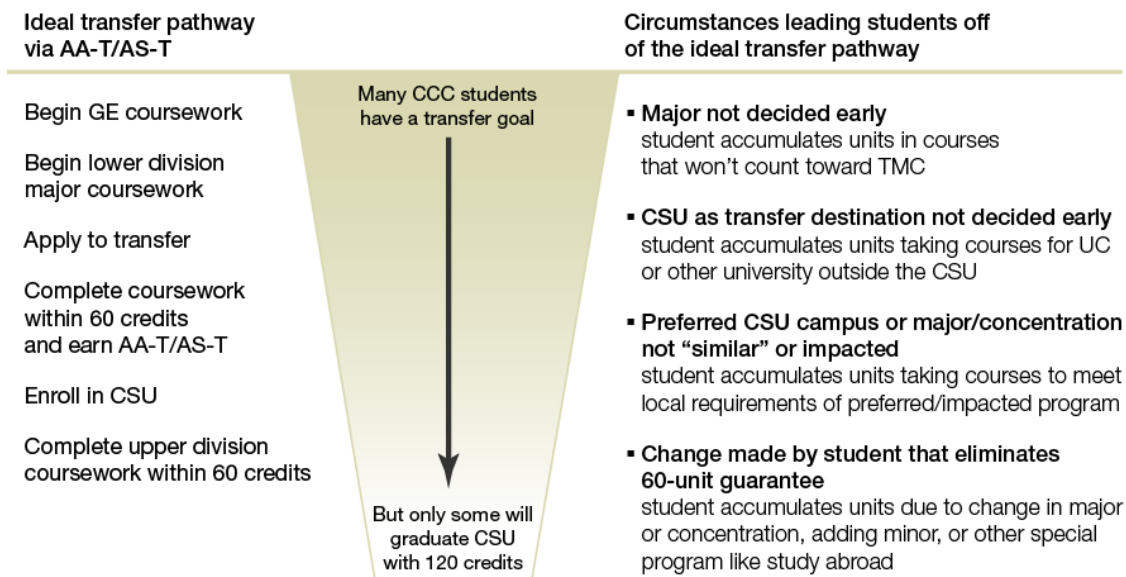
SB 1440 was enacted with the laudable goal of establishing consistent transfer requirements throughout the state to better serve students and thereby increase transfer rates. Progress on this goal has been steady and remains promising, but its implementation faces considerable headwinds and multiple challenges. One of the challenges is that the new pathways are being superimposed onto an intricate set of local articulation agreements and institutional relationships, many of which have worked well for certain students in certain majors under certain circumstances. As the new legislation tries to generalize the benefits of transfer policy to broader groups of students and a broader set of circumstances, it unavoidably disrupts some of the local and specialized arrangements—potentially even to the disservice of some students. With time, many of these issues can likely be resolved.

We are less sanguine, however, about the subsequent SB 440 mandate that all community colleges and all CSU campuses, adopt and accept, respectively, transfer degrees in every discipline and every concentration they offer where a TMC is available, with the goal of making the transfer associate degrees the preferred pathway for all students. There appear to be legitimate arguments that the one-size approach does not fit all. In some cases, it may be that 120 units are not sufficient for a student to acquire the necessary knowledge in a discipline or concentration, or that the 120 total units cannot readily be divided into 60 lower division units at the community colleges followed by 60 upper division units at CSU. In other cases, there may be unique local circumstances whereby students are better served by a different pathway. The creation of several degree options at San Diego State that comply with the letter if not the spirit of the law points to the unintended consequences that can arise from mandates like those in SB 440. If additional flexibility in the

design of transfer degrees were allowed, we suspect that the transfer degree might indeed become the preferred pathway for many more students.

Even so, the characteristics of the community college student population would seem to place natural limits on the upside effects of the reform, suggesting that reasonable expectations should be adopted with regard to the ultimate reach of the new degrees. Figure 5 illustrates the divergence between the “ideal” transfer degree pathway and the actual patterns by which community college students experience and move through their college careers. The ideal pathway requires that students enter the community college knowing, or very quickly learning, about the degrees, decide early on a major, decide early that CSU is their transfer destination, get accepted in a CSU that offers a “similar” program of interest to them, and avoid certain choices once in the CSU. In reality, there are reasons that students might accumulate extra units, or otherwise not follow this pathway. Community college students often have less “college knowledge” than those who go directly to a university, entering with uncertain goals and less awareness of the wide array of choices in major and concentration. Those with the most college knowledge and best preparation may be more likely to prepare for transfer to the University of California and thus will be poorly served by the new degrees. Even if students know they want to transfer to a CSU and they choose a major fairly quickly, the variation in acceptance of the degrees by campus and major in the state universities can lead students to accumulate extra credits at the community colleges. If their preferred program is not “similar” to the TMC, or if it is designated as impacted, students may take extra courses to meet the local requirements set out in the standard campus-to-campus articulation agreements in order to enhance their chance of admission. They may even decide that pursuing an AA-T/AS-T degree is not their best option. Finally, even after transferring to the CSU, students may decide to change their major or concentration, add a minor, or take some other action that eliminates the guarantee of graduation within 60 units. While relatively small numbers of students have transferred with these degrees to date, some of our respondents in the CSU reported that such practices are common among those who have arrived at the university and discovered other options.

**FIGURE 5**  
**Many circumstances can lead students off of the “ideal” pathway envisioned in SB 1440**



# Recommendations

Our study has led us to a number of specific recommendations for legislators and decisionmakers throughout the CCC and CSU systems.

- The CSUCO, with academic senate participation, should coordinate a review of those majors/concentrations across the campuses that have been designated “not similar” to determine whether such designation is warranted and to explore alternative approaches that might offer more flexibility in the designation, along with clear criteria for when such flexibility is justified, while preserving the intent of SB 1440.
- Following the CSUCO review, the legislature should consider “clean up” legislation that provides more flexibility with regard to the distribution of the 60 units between general education and major specialization at the CCC and/or the 60-unit maximum at the CSU (e.g., allowing 63 or 66 units) for selected disciplines and concentrations.
- The legislature should provide funding to the two systems to expand and coordinate communication and marketing efforts to increase student awareness of transfer degree options, given the stated goal of having these degrees become the primary pathway to transfer. Efforts should extend to ensuring that faculty and staff who engage in academic advising fully understand the transfer degree pathways so they can properly advise students. Increasing awareness among current and prospective students of the existence and benefits of the transfer degrees would help accelerate the acceptance and implementation of SB 1440.
- The CCCCO should coordinate efforts to help colleges share curricula and resources, including online courses, to allow smaller colleges to offer more transfer degrees than they can do independently. Funds provided in the 2013–14 budget, and subsequently, for online education, should be used in part to support courses that meet the requirements of transfer degrees.<sup>26</sup>
- The CCCCO and CSUCO should develop a standardized degree verification process that would allow both systems to know which students are intending to earn a transfer degree (identifying such students early, possibly through the new educational plans implemented pursuant to the Student Success Act, SB 1456, Chapter 624, Statutes of 2012). The capacity to share electronic transcripts across campuses in both systems would improve the ability to advise students and monitor their progress. This close coordination would help students complete their degrees in a more timely and efficient manner. It would also generate useful information to policymakers and system leaders about the extent to which the law is meeting its goals of encouraging associate degree completion among transfer students, while reducing the number of units undertaken and the corresponding time-to-degree.
- The CSUCO should review the effectiveness of the current mechanism for granting priority in admission to transfer students with AA-T/AS-T degrees (i.e., the GPA “bump”), given its importance as a means of incentivizing student participation. In addition, both the CCCCO and CSUCO should consider system-wide policies for granting priority course registration to students following this pathway, given the important role such priority can play in incentivizing particular student behaviors (Bahr et al. 2013 ).

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<sup>26</sup> With the targeted funding included in the 2013–14 budget, the CCC Board of Governors recently awarded a \$16.9 million grant to the Foothill-DeAnza and Butte-Glenn community college districts to develop a statewide online education portal which would allow CCC students to enroll in courses from participating colleges across the state.

- Efforts to extend the provisions of SB 1440 to the University of California, as well as to private universities in California where appropriate, should intensify in order to expand the pool of students who can be well served by the reform.

These actions will promote the realization of the goals of SB 1440 and improve the pathway for community college students seeking a baccalaureate degree. However, lawmakers must have realistic expectations about the impact of the new associate degrees. Even when implementation is complete and even if resistance is overcome, the ideal vision of these associate degree pathways will be applicable only to a subset of California's community college students, as depicted in Figure 5. The goal of educators and policymakers should be to increase the number of students in this subset, and then see whether additional approaches can be devised to better serve those students who may not be able to take advantage of the transfer associate degrees.

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