Student Support (Re)defined

Equitable
Integrated
Cost Effective

A Student Support (Re)defined Case Study:
the Academy for College Excellence

Integrating Student Transformation, Support, and Accelerated Learning in the Classroom



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The RP Group strengthens the abilities of California community colleges to gather, analyze and act on information in order to strengthen student success. This brief draws on the RP Group's Student Support (Re)defined study, a multiyear project funded by The Kresge Foundation. For more information on the RP Group, visit http://www.rpgroup.org. For further information on Student Support (Re)defined, visit http://www.rpgroup.org/projects/student-support.

The ACE Center partners with community colleges across the nation, serving college-ready and under-prepared students with a wide range of developmental needs to increase their certificate, degree, and transfer completion rates. For more information on ACE, visit http://academyforcollegeexcellence.org/.

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Introduction

Student Support (Re)defined

Student Support (Re)defined is a three-year study (2011-2014) funded by The Kresge Foundation and designed by the RP Group to:

- Ask students what factors are most important to their success, paying special attention to what African Americans and Latinos cite as critical to their achievement (Year 1)
- Engage practitioners in assessing their own colleges' approach to support based on what students say they need to succeed and identifying opportunities for related institutional change (Year 2)
- Highlight practices that illustrate how colleges might fundamentally rethink what support means and how it is delivered in alignment with Year 1 findings; promote dialog and action at both the college and system levels about approaches that strategically improve student support and increase completion, particularly for historically underrepresented groups (Ongoing, focused in Year 3)

The nationwide push to increase community college completions and California's own Student Success Act have many practitioners seeking the most effective ways to fully support students in achieving their educational goals. Launched as the Watsonville Digital Bridge Academy in 2003 at Cabrillo College, the Academy for College Excellence (ACE) model aims to help colleges meet their completion agenda in a focused and cost-effective manner. The model's primary goal is to ensure that underprepared students can complete their first transfer-level English and math courses through a practical, sustainable approach. It departs from the traditional separation of instruction and support services. Instead, the ACE model uses curricula intentionally designed to holistically meet the needs of 21st century students, with a heavy emphasis on students' affective development. It provides a series of program variations that are designed to be adaptable depending on a college's needs and resources and the population it hopes to serve, coupled with professional development and ongoing mentoring for faculty and administrators. Today, the ACE model shows proven impact on students at multiple institutions both inside and outside California.

The following research brief is the result of a collaboration between the Academy for College Excellence Center and the Research and Planning Group for California Community Colleges (RP Group). It aims to illuminate and activate the findings from Student Support (Re)defined—an RP Group study designed to understand how community colleges can feasibly deliver support both inside and outside the classroom to improve success for all students (see text box, *Student Support (Re)defined*). As part of this research, the RP Group asked nearly 900 students from 13 California community colleges what they think supports their success, paying special attention to the factors that African Americans and Latinos cite as important to their achievement. These student perspectives revealed numerous key findings and themes that have a direct alignment with the approach ACE takes to helping learners prepare for college, professional and personal success.

The RP Group has engaged multiple stakeholders—administrators, faculty and instructional deans, counselors and other student services professionals, trustees and students—with these findings and themes through presentations and research convenings. Throughout this process, practitioners shared their own experiences with strengthening support on their campuses and repeatedly requested more concrete examples of how to realize what students say they need to succeed. The ACE model represents the first of multiple examples the RP Group will profile of the different ways colleges, programs and practitioners have pursued change initiatives to improve student support.

How did Student Support (Re)defined and ACE come together?

The RP Group and the ACE Center partnered on this brief because the ACE model brings to life the findings of Student Support (Re)defined in the following ways.

The ACE model …

- Offers colleges a fundamentally different approach to promoting success found so critical in Student Support (Re)defined—specifically support through curriculum and instruction that holistically addresses students' needs rather than as a discrete set of services
- Is comprehensive in its approach, addressing all six success factors and five key themes from Student Support (Re)defined
- Helps colleges achieve their completion agenda and addresses specific elements of the new Student Success Scorecard by accelerating students through transfer-level English and math
- Can be implemented in a variety of ways to serve different types of learners, including basic skills, transitioning, CTE and college-ready students
- Is scalable and sustainable through delivery of support through curriculum in the classroom
- Can be replicated across different institutions, based on proven outcomes

How can you use this brief?

The RP Group and the ACE Center designed this report for practitioners seeking specific solutions for advancing student success, particularly community college faculty, instructional administrators, counselors and student services professionals. We intend this document to:

- Feature the ACE approach and how it fundamentally differs from traditional student support programs
- Highlight recent research demonstrating how the ACE model improves outcomes for students across multiple institutions
- Show how the key themes identified in Student Support (Re)defined are achieved through ACE
- Share implications of this research for community college practitioners as they work to improve student completion

The brief begins with an overview of the ACE model and the different program variations a college can adopt based on its own unique goals and target populations. We then offer a high-level summary of evaluations showing how one program variation, the ACE bridge semester,[1] impacts participants. Following, readers will find a brief description of each of the five key themes from Student Support (Re)defined, coupled with a discussion of how the ACE bridge semester accomplishes that theme in its work with students and faculty. We then present considerations for colleges specifically interested in replicating the ACE model and generally engaged in improving completion outcomes for their students. We conclude with discussion questions intended to facilitate reader reflection and dialog with colleagues about how the ACE model can strengthen student support and success on your campus.

What is ACE?

Many California community college practitioners might have heard about ACE (or the Digital Bridge Academy) and may have certain ideas and/or questions about how it works in action. How is it different from other support programs that seek to promote student success? Is it only for basic skills students? What exactly do students and faculty do in ACE? Can it be scaled and replicated?

To begin, the Academy for College Excellence is not a program per se, but rather a *model* for student engagement and support. After 15 months of researching, designing and piloting curricula, Cabrillo College launched this model in 2003 under the name Digital Bridge Academy (DBA). Over time, Cabrillo collaborated with other California community colleges to pilot DBA on their own campuses—ultimately forming a network of institutions both in the state and across the nation that are replicating this approach. In 2010, DBA changed its name to the Academy for College Excellence to more fully represent the experience it aims to promote with students, teachers and institutions. In addition to the replication sites, several colleges now implement components of and variations on the ACE model. The ACE Center, a not-for-profit organization operating independent of Cabrillo, provides training, technical assistance, support and resources to institutions, administrators and faculty exploring or adopting the model on their own campuses (ACE, 2012c). As of summer 2013, ACE has served 154 cohorts totaling nearly 3,450 students at nine partner colleges since its first cohort enrolled in 2003. Over 900 faculty, staff and administrators have been trained on delivering the model from over 55 institutions.

What makes the ACE model different?

Said simply, the ACE model represents a departure from many support approaches. ACE's founders started with careful reflection on who today's community college students are and a review of research from a range of disciplines about what supports their success. For example, it draws on evidence indicating that students are more likely to succeed if they have certain affective behaviors when they begin their higher education journey (Farrington et al., 2012). It also responds to other research showing that how students experience the first three weeks of college enrollment can significantly impact their achievement (CCSSE, 2012). In addition, it aims to address evidence indicating that accomplishing 20 units in a student's initial year at college can advance her/his likelihood for success in completing transfer-level English and math courses (Offenstein, Moore, & Shulock, 2010; Horn & Lew, 2007). Finally, ACE's approach aligns with a growing body of evidence on accelerating the movement of students with basic skills needs to transfer-level English and math coursework (Edgecombe, 2011; Hern, 2012).

In turn, developers of the ACE model made intentional choices to focus on building students' intrinsic growth or internal capacity to take care of themselves and each other, rather than provision of services *to* students. Instead of support experienced separate from the classroom, ACE's coursework is supportive in nature. Classroom experiences build strong community between students and faculty and help identify and address the needs of learners. The ACE model is designed for early impact and intensity, working to strengthen students' affective behaviors in the first two weeks of the semester, including how they perceive themselves and how they relate to and interact with others in an effort to achieve their goals. Complementing the emphasis on students' affective development, it also focuses on preparing participants with the academic, professional and personal competencies necessary for college completion *and* success in the 21st century workplace.[2]

Moreover, the one-to-many nature of faculty working with a group of learners allows for broader impact than the traditional one-on-one support approach. Peers are actively engaged in helping one another to overcome challenges and stay on track. Faculty refer participants to any service available to all students at the college as needed to complement their ACE experience and encourage their achievement. Because ACE happens in the classroom, it ultimately offers a low-cost solution that can be readily supported through FTES, rather than depending on external funding (FSG, 2010).

Does the ACE model just serve basic skills students?

The ACE model recognizes that *all* students can benefit from experiencing a stronger foundation for success based on its approach and has adapted its methodology to serve the range of learners found in community colleges. The ACE model offers colleges the opportunity to choose from a variety of program variations based on each institution's unique completion goals and the specific target populations it seeks to serve. These different program variations can be used with college-ready, transitioning, CTE and basic skills students and can be applied to support existing learning communities or success initiatives. While key components of each program variation can vary by its target population, all approaches have the same common interests: (1) helping students learn 21st century skills, (2) developing their affective domain, (3) drawing on learners' experiences and interests as a catalyst for learning, and (4) building community among participants. Table 1 highlights these different program variations, including the population each targets and the programmatic components each includes.

ACE's Mission

- Give underprepared community college students the opportunity to better their lives by helping them develop the academic qualifications, professional skills and personal attributes necessary to succeed
- "Bridge" students into regular community college courses via one full-time, semester-long, credit-bearing transformative learning environment focused on academics and self-efficacy
- Increase the number of students who emerge from community college prepared for professional careers with a future

http://academyforcollegeexcellence.org/

TABLE 1 **ACE Program Variations**

Program Variations	Target Student	Examples	ACE Program Variation Coursework: Foundation Course	ACE Team Self-Mgmt	Other College Coursework
Affective Orientation	College Prepared Students	Orient to professional skills, behavior, mindsets, and college culture: Nursing, Gen. Ed. requirements, Rad Tech, etc.	●		Students attend regular college courses and programs.
Affective Summer Bridge	Transitioning Students	Provide rich academic and community-building experience leveraging the student's exposure to social injustice.	●	●	Social Justice Experiential Course
Affective Support for CTE	CTE Students	Medical Assisting, Green Jobs, Sustainable Construction, Agricultural Machinery, Respiratory Care, etc.	●	●	Career Technical Education
Affective Booster – Learning Community (LC)	LC Students	Provide 24/7 peer-support in hyper-bonded community, through ACE affective curriculum	●	●	Linked courses
Accelerated Academic Learning	Developmental Education / STEM Students	Accelerated English and math, and Integrated Science using a project based course around which to integrate curriculum	●	●	Project-based course to integrate curriculum

The original and most comprehensive ACE variation is the *Accelerated Academic Learning* program, referred to in this brief as the "ACE bridge semester," (see *Figure 1: ACE Bridge Semester Experience*). ACE designed this bridge semester primarily for underprepared students who have struggled in past educational environments and who come to college with a variety of risk factors likely to challenge their achievement. **We primarily focus on the ACE bridge semester throughout this brief and describe it in detail below.**

FIGURE 1 **ACE Bridge Semester Experience**



What do students and faculty do in the ACE bridge semester?

The ACE bridge semester specifically targets underprepared students and is designed to fast-track their entry into transferable coursework in English and/or math. We describe the key components of this semester-long, full-time experience for both students and faculty below (ACE, 2012a).

For Students

- ***Foundation of Leadership Course (FC).*** This 56-hour orientation generally happens just before the semester starts or within the first two weeks of the term. It primarily focuses on promoting students' personal development, lighting or reigniting their passion for learning and introducing them to communication skills and work styles critical for team collaboration. FC also works to intentionally initiate a peer support community. FC is considered an ACE "signature" course. (3 degree applicable units)

- ***Bridge Semester Coursework.*** This full-time bridge semester includes a series of integrated courses over a 12- to 16-week period and totals between 9 and 13.5 units. The *Team Self-Management Course* and the *Social Justice Research Course* are also considered ACE signature courses. Coordinated academic courses can vary by college and are also degree-applicable, credit offerings.

  - *Team Self-Management Course (TSM):* This course extends the FC learning, continuing to help students strengthen their ability to communicate and work in a team, manage their personal responsibilities both inside and outside the college, and explore and improve themselves. The TSM is designed to continue nurturing community and providing a structure for peer support. (2 degree applicable units)

  - *Social Justice Research Course (SJRC):* In this project-based class, participants select a local social issue to explore. They then form teams and use primary research tools (e.g., surveys) to conduct a local community study and prepare and deliver a public presentation based on their discoveries. Student teams direct their own projects start to finish, developing critical

ACE Bridge Semester:
For Students

- **Foundation of Leadership Course (FC):** 56-hour orientation before or during the first two weeks of the semester
- **Bridge Semester Coursework:** full-time semester including a series of integrated courses taken over a 12 to 16 week period; includes *Team Self-Management* and the *Social Justice Research Course* as well as a series of coordinated academic courses
- **Behavior System:** system designed to help make expectations explicit to students and support their progress
- **Cohort Experience**: community of peers who take FC and bridge semester coursework as a group

project management and teamwork skills. (4.5 degree applicable units)

- *Coordinated academic courses:* ACE students additionally enroll in a series of content courses which can include accelerated English, math, computer skills, career planning and movement. The English course is one level below transfer; it readies students for quick entry into related transferable coursework upon completion of the bridge semester. Any student with a reading level of 7th grade or above can participate, so the English class may have students of varying levels enrolled. Similarly, the pre-statistics math course prepares participants for rapid entry into college-level statistics coursework, regardless of their math placement. The coordinated academic courses are aligned with the SJRC curriculum in such a way that classes complement and build on one another to ensure students can fully conduct and communicate their social justice research *and* prepare for entry into transferable coursework. (1 to 4 degree applicable units per course)

- ***Behavior System:*** The entire ACE bridge semester is supported through a system designed to make expectations explicit and help participants develop the cultural and behavioral skills needed to succeed in college and the workplace. Through this system, ACE instructors work as a team to transparently evaluate students' progress and growth through weekly meetings. The faculty team meets with individual learners as needed to address commonly-identified issues.

- ***Cohort Experience.*** Student travel with their peers from the FC into the following ACE bridge semester coursework and staytogether as a learning community throughout the term.

ACE Bridge Semester:
For Faculty

- **Five-Day Experiential Leadership Institute (FELI):** five day, experiential professional development institute for any instructor planning to implement ACE
- **Regular Collaboration:** weekly 90-minute meetings designed to align curriculum and discuss student progress and support needs
- **Ongoing Support:** mentorship during first semester of bridge implementation and participation in a Community of Practice `make expectations explicit to students and support their progress

For Faculty

- ***Five-day Experiential Learning Institute (FELI):*** ACE starts not with the students it serves but with the faculty who will implement any version of the model. Before instructors take on the implementation of ACE, they participate in a five-day, experiential professional development institute that actively engages instructors with the curriculum they will use with students. Faculty who will teach the FC must also participate in a practicum before delivering this course.

- ***Regular Collaboration:*** Teachers implementing the ACE bridge semester participate in a 90-minute meeting each week to align and calibrate course curricula. This alignment helps students to gain skills in the coordinated academic courses just in time, where they can immediately and actively apply them in the SJRC. Meetings also include discussions of individual students' performance, progress and needs and ongoing dialog about calibrating course curriculum and consistently implementing the Behavior System.

- ***Ongoing Support:*** Instructors involved in the delivery of the ACE bridge semester receive mentorship throughout their first semester of implementation and participate in an ongoing Community of Practice.

Note: The FELI for faculty and the Foundation of Leadership Course for students act as the common denominator for nearly all program variations, including the ACE bridge semester and the other program variations described above on p. 3. The Team Self-Management Course is included when academically underprepared students are being served.

Can the ACE model be scaled and replicated?

As with all innovations, practitioners naturally want to know if the ACE model can be scaled to reach and impact as many students as possible and replicated in a variety of institutional settings while maintaining the outcomes achieved in its initial implementation. While we will discuss the scalability and replicability of the ACE approach throughout the remaining sections of this brief, it is worth underscoring here a few points on this issue. As mentioned, the departure point for the support the ACE model offers is the instruction and the curriculum that students experience. Support is integrated into the classroom. There is a range of program variations as well as professional development, technical assistance and resources in place for faculty, staff and administrators. In turn, the model can be applied to any institution and with as many students as desired, based on the college's unique local context (for more information, see p. 23, *What if our institution is not ready to implement the ACE bridge semester?*). With multiple colleges now implementing the ACE bridge semester and the growing body of evidence of its impact on students' outcomes, the ACE model offers colleges a viable approach to improving completion not just for a few but many learners. We now turn to a discussion of this evidence.

ACE's Impact

Rigorous research comparing the academic outcomes of ACE bridge semester students at multiple colleges to their non-ACE peers finds that participants are significantly more likely to:

- Complete degree-applicable and transferable English and math courses
- Enroll full-time in the semester following bridge participation
- Accumulate more degree-applicable units in the semesters following bridge semester participation

Additionally, a quantitative study of non-cognitive factors at multiple colleges also finds a positive impact on students' affective behaviors, motivation and academic goals. Research shows these changes happen within the first two weeks of the semester, and hold, if not improve, over time.

How does the ACE model impact students?

Since its inception, ACE developers have both collected their own data on a variety of participant outcomes and engaged in numerous qualitative and quantitative studies of the model by external entities. ACE maintains a culture of inquiry and actively utilizes this evidence to revise, improve and expand its model. At this point, most of the examination of the ACE model's impact has been on students involved with the fullest and most comprehensive of program variations—the ACE bridge semester.

One of the most compelling aspects of the ACE bridge semester is that it offers colleges the potential for addressing a clear completion goal in a substantial way. ACE aims for this particular approach to (1) specifically target the basic skills and at-risk students so many institutions struggle to serve, early in their college experience; (2) prepare participants for transfer-level English and math coursework in an accelerated manner; and (3) serve significant numbers of students through an instructional approach. The ACE model benefits from a growing body of evidence proving this impact, both for students at Cabrillo College where the ACE bridge semester originated and now at five other colleges where the program has been replicated. We summarize two recent rigorous studies of ACE bridge semester student outcomes, one focused on those participating at Cabrillo (Jenkins, Zeidenberg, Wachen, & Hayward, 2009) and the other examining student impact at both Cabrillo and other replication sites (Farr, Radwin, & Rotermund, 2012).

ACE at Cabrillo College

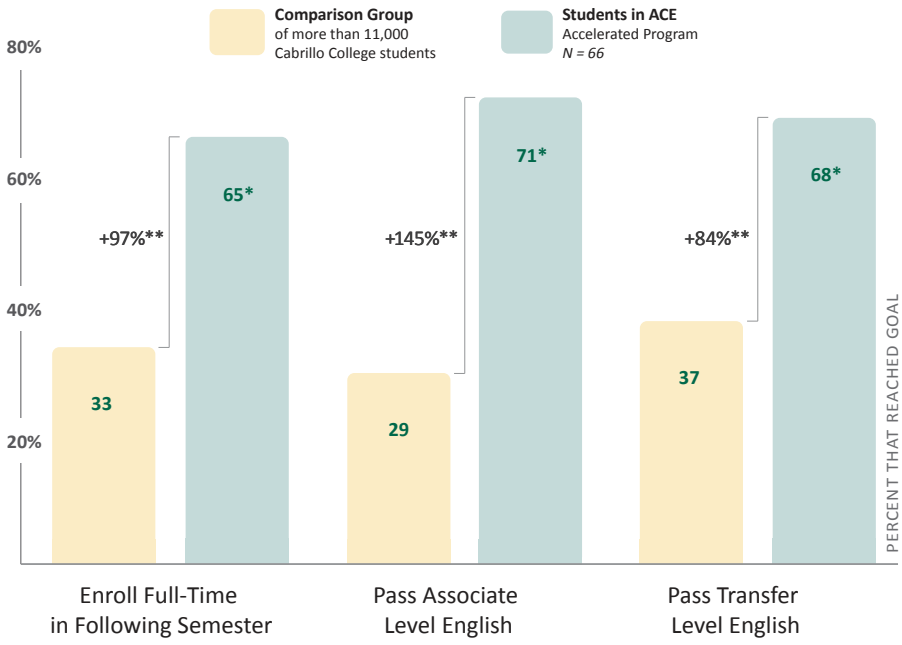
The majority of research on the ACE bridge semester centers on the experience of students at Cabrillo. In an early study of the ACE bridge semester funded by the National Science Foundation, found improved course completion, unit attainment and full-time re-enrollment for participants when generally compared to California Community College students (Badway, (Badway, 2005, 2007). In 2009, the Community College Research Center (CCRC) at Columbia University Teacher's College extended this research. CCRC released a longitudinal study of nine student cohorts enrolled in Cabrillo's ACE bridge semester between 2003 and 2007, conducted in partnership with the college's institutional research office (Jenkins, Zeidenberg, Wachen, & Hayward, 2009). Using data drawn from Cabrillo's management information system (MIS), the study tracked academic outcomes for a total of 208 ACE students enrolled in different variations of the program over nine semesters and compared these participants to a control group of over 11,500 Cabrillo students who took an English placement test in the same semesters. Controlling for a variety of student characteristics and factors, CCRC discovered the following notable outcomes (ACE, 2013) about the 66 students specifically participating in the ACE bridge semester (see also *Table 2: ACE Bridge Semester Demographics, 2009 CCRC Study* and *Figure 2: ACE Bridge Semester Student Academic Outcomes, 2009 CCRC Study* on this page):

TABLE 2
ACE Bridge Semester Demographics, 2009 CCRC Study

	Comparison Group	ACE Bridge Semester
N	*11,578*	*66*
Mean Age	21	23
Latino	32%	83%
Female	50%	53%
Prior College Credits	18	11
No High School Diploma	12%	15%
Low Income Zip	27%	85%
ESL Student	4%	8%

- ***Course completion:*** ACE bridge semester students were more than twice as likely to pass associate-level English courses (71% vs. 29%) and nearly twice as likely to pass transfer-level English as their non-ACE peers (68% vs. 37%)
- ***Unit accumulation:*** Participants earned an average of 21 more degree applicable credits than their non-ACE peers over the four semesters following the ACE bridge semester
- ***Full-time enrollment:*** ACE bridge semester students were almost twice as likely to enroll full time in the following semester when compared to their non-ACE peers (33% vs 65%)

FIGURE 2 **ACE Bridge Semester Student Academic Outcomes, 2009 CCRC Study**



*statistical significance < .01 two-tailed test
**Δx% = [(ACE-Control)x100]/Control
Source: Jenkins, D., Zeidenberg, M., & Wachen, J. (2009)

CCRC noted that the study could not definitely conclude that ACE *caused* these improved results given that students were not randomly assigned into treatment and control groups—rather that these successes *correlated* with participation (Jenkins, Zeidenberg, Wachen, & Hayward, 2009). It is possible that some characteristics of those who choose to apply to ACE or some aspect of the selection process inherently impacted ACE students' outcomes. However, CCRC underscored that the ACE participants in the study were more likely to exhibit more significant risk factors when compared to Cabrillo students with similar levels of preparation. Given this context, CCRC concluded it is possible that the effect of ACE participation could be even greater than that demonstrated in the study's findings.

ACE at Replication Sites

While the CCRC research results showed notable impact on Cabrillo participants, practitioners understandably want to know if these same outcomes can be replicated in other institutions. A recent study performed by MPR Associates, Inc. (Farr, Radwin, & Rotermund, 2012) with funding from the Bill and Melinda Gates Foundation confirmed that **other colleges could in fact realize similar success with their owvn ACE bridge semester students.** This research examined student outcomes at Cabrillo as well as six other replication sites: Berkeley City College (Berkeley, CA), Delaware County Community College (Media, PA), Hartnell College (Salinas, CA), Las Positas College (Livermore, CA) and Los Medanos College (Pittsburg, CA) and Southwest Virginia Community College (Richlands, VA). The study included two key components for measuring ACE bridge semester impact on students: (1) an academic quantitative analysis examining students' academic outcomes at four sites (Cabrillo, Berkeley City, Hartnell and Los Medanos);[3] and (2) a non-cognitive quantitative analysis assessing changes in participants' affective behavior at all seven sites, based on the administration of the College Student Self-Assessment Survey (CSSAS) (for more information, see p. 11, *What is the CSSAS?*).

Research across six colleges confirms that institutions other than Cabrillo could in fact realize similar success with their own ACE bridge semester students.

TABLE 3
ACE Bridge Semester Demographics, 2012 MPR Study

N	*658*
Mean Age	24
African American	13%
Latino	59%
Female	40%
Prior College Credits	3.4
GED or HS Dropout	24%
Placed 2+ levels below College English	50%
Placed 1 level below College English	40%

The academic quantitative analysis included the examination of three semesters of students (fall 2010, spring 2011 and fall 2011) totaling 658 participants (over 25 cohorts of students) who were compared to a control group of equal numbers using propensity score matching—a process of pairing each ACE participant to the "most similar non-participant in a given college and semester," (Farr, Radwin, & Rotermund, 2012).[4] Students were tracked longitudinally through fall 2011.[5] The research found the following enhanced academic outcomes for ACE bridge semester students (see also *Table 3: ACE Bridge Semester Demographics, 2012 MPR Study* and *Figure 3. ACE Bridge Semester Student Outcomes, 2012 MPR Study*).

- ***Course completion:*** ACE bridge semester students were more likely to complete degree-applicable and transferable English than their non-ACE peers; one replication site piloted accelerated math and showed promising results for improved completion of transferable math by ACE participants.

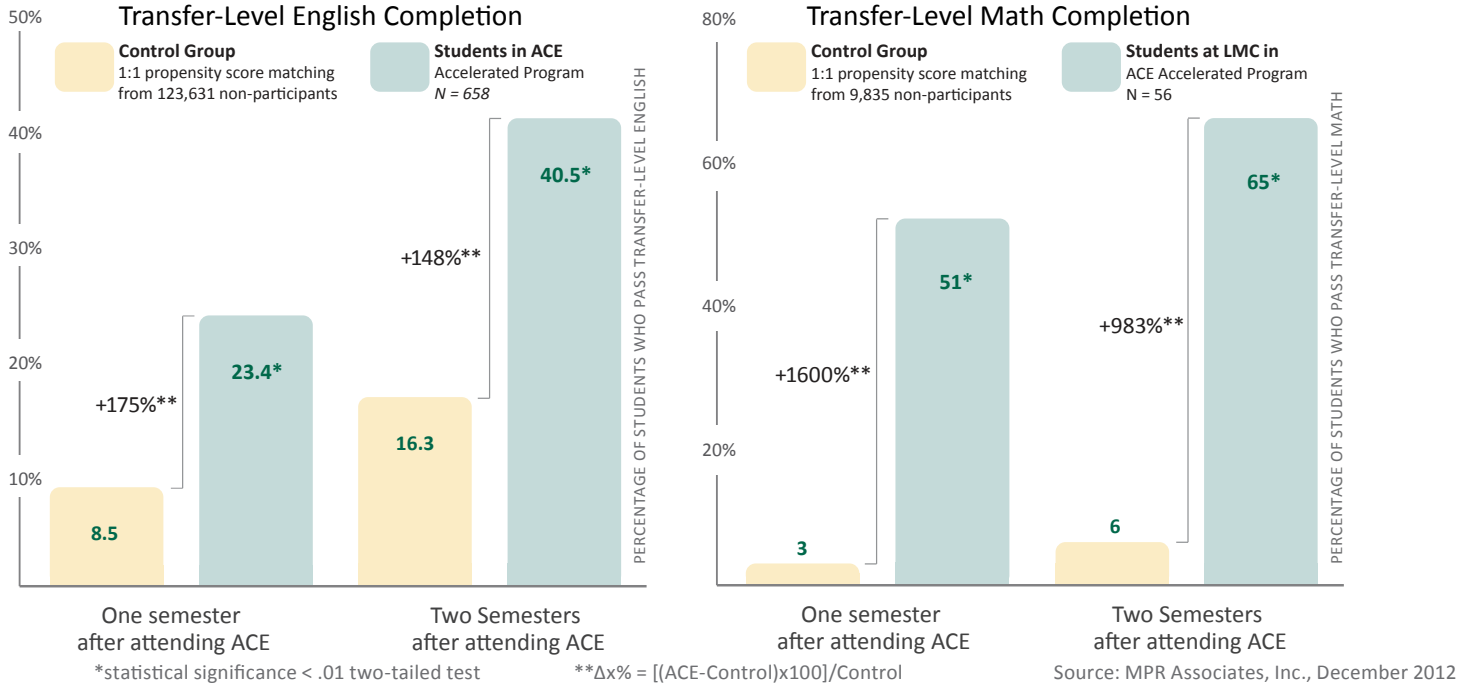
  - *English:* The study looked at ACE participants' completion of both degree-applicable English (which is embedded in the model) as well as transferable English following the bridge semester at four colleges. Not surprisingly, most ACE participants completed degree-applicable English in the bridge semester—more than double the rate of their non-ACE peers. More notable, ACE participants were nearly three times as likely (23.4% vs. 8.5%) to complete transferable English one semester after bridge participation and over twice as likely two semesters out (40.5% vs. 16.3%), when compared to non-ACE peers.

  - *Math:* One replication site provided a pre-statistics course in addition to an accelerated English course, as part of in its ACE bridge semester. MPR assessed the results of 56 students participating in this version of the ACE model and found that 51% completed transfer-level math one semester after the bridge (compared to just 3% of non-ACE peers) and that 65% had passed by the end of the second semester after ACE (compared to just 6% of non-ACE peers).

- ***Unit accumulation:*** ACE bridge semester participants were more likely to accrue degree-applicable credits both during and after their bridge semester. For example, ACE students earned an average of 11 degree-applicable units during their bridge semester compared to an average of four units accumulated by their non-ACE peers. This difference generally persisted one and two semesters after bridge participation. At the same time, ACE participants earned slightly fewer transferable credits one and two semesters after bridge participation when compared to their non-ACE peers, although neither group accumulated many of these units. For example, ACE participants accrued eight transferable units in the two semesters after bridge participation versus the nine units earned by their non-ACE peers.

- ***Persistence and full-time enrollment:*** ACE bridge semester participants were more likely to persist at their colleges in the term following bridge semester participation when compared to their non-ACE peers (70% vs. 59%). Moreover, ACE bridge semester students were more likely to enroll full time in the following semester when compared to their non-ACE peers (44% vs. 27%).

FIGURE 3 **ACE Bridge Semester Student Academic Outcomes, 2012 MPR Study**



*statistical significance < .01 two-tailed test **Δx% = [(ACE-Control)x100]/Control Source: MPR Associates, Inc., December 2012

In addition to evaluating participants' academic outcomes, the MPR study also looked at ACE bridge semester participants' non-cognitive gains through implementation of the College Student Self-Assessment Survey (CSSAS). In this portion of the study, MPR assessed the survey results of 535 ACE bridge semester students across all seven sites between fall 2010 and spring 2012. These students took the CSSAS at three points in time—(1) before the ACE bridge semester and Foundation of Leadership Course participation, (2) after FC completion but before bridge semester enrollment, and (3) after ACE bridge semester completion. Findings revealed the following (see also *Figure 4: ACE Bridge Semester Student Non-Cognitive Quantitative Outcomes, 2012 MPR Study*).

- ACE bridge semester students show significant gains in seven of eight factors measured by the CSSAS
- The greatest gains occurred in self-efficacy, teamwork and college identity
- The largest changes came after completion of the Foundation of Leadership Course and are maintained, if not increased, throughout the ACE bridge semester completion

What is the CSSAS?

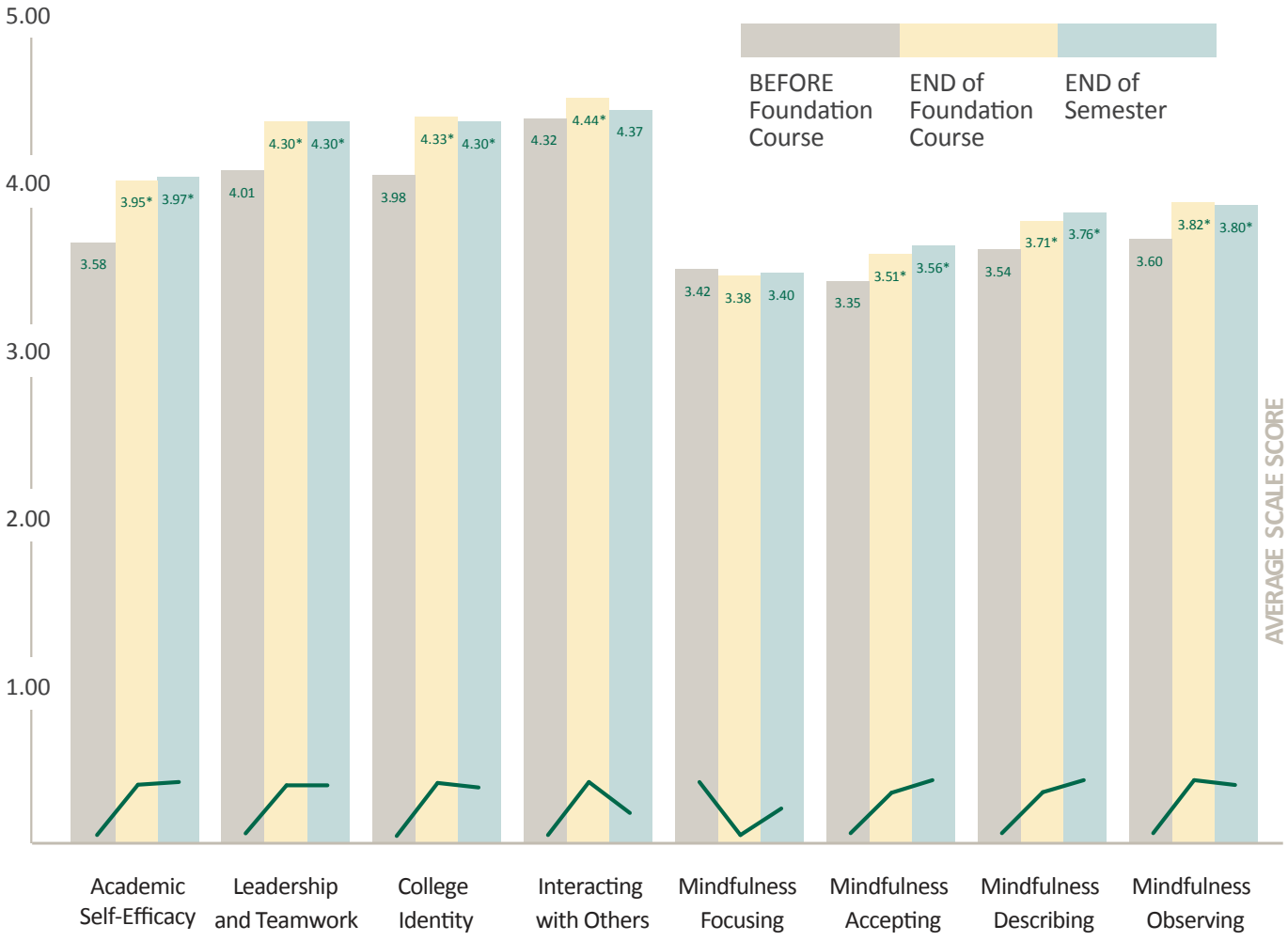
MPR and ACE jointly developed, tested and revised the College Student Self-Assessment Survey (CSSAS) to rigorously measure significant changes in a variety of affective factors among bridge semester participants (Farr, Radwin, & Rotermund, 2012). These factors fall into eight categories: academic self-efficacy and hope, teamwork and leadership, college identity, interacting with others and four related to mindfulness (focusing, accepting, describing and observing).

In addition, the study compiled results from end of semester surveys with 926 participants, including responses to open-ended questions regarding their bridge semester experience. A sampling of findings includes the following.

- ACE bridge semester enrollment appears to positively impact students' affective behavior, with more than half of participants reporting improvements in all 21 behaviors listed on the survey
- Half of participants reported they had made new decisions about their future because of ACE and three quarters of participants indicated they made positive changes in how they thought about and approached college as a result of ACE
- Half said they planned to complete an associate's degree while one third stated they intended to achieve a baccalaureate degree
- A large majority said ACE made them more motivated to complete (80%) and more likely to graduate (78%)

The results of these various studies combine to show considerable promise for the ACE bridge semester approach to have significant positive impact on the success of students across California's community colleges. With this evidence in mind, we now turn to a discussion of the key themes discovered in Student Support (Re)defined and what the ACE bridge semester looks like in the context of this student perspectives research.

FIGURE 4 **ACE Bridge Semester Student Non-Cognitive Outcomes, 2012 MPR Study**



Survey responses were based on a five-point scale, from "strongly disagree to strongly agree" for the non-mindfulness items and from "never or very rarely true" to "always or almost always" true for the mindfulness items

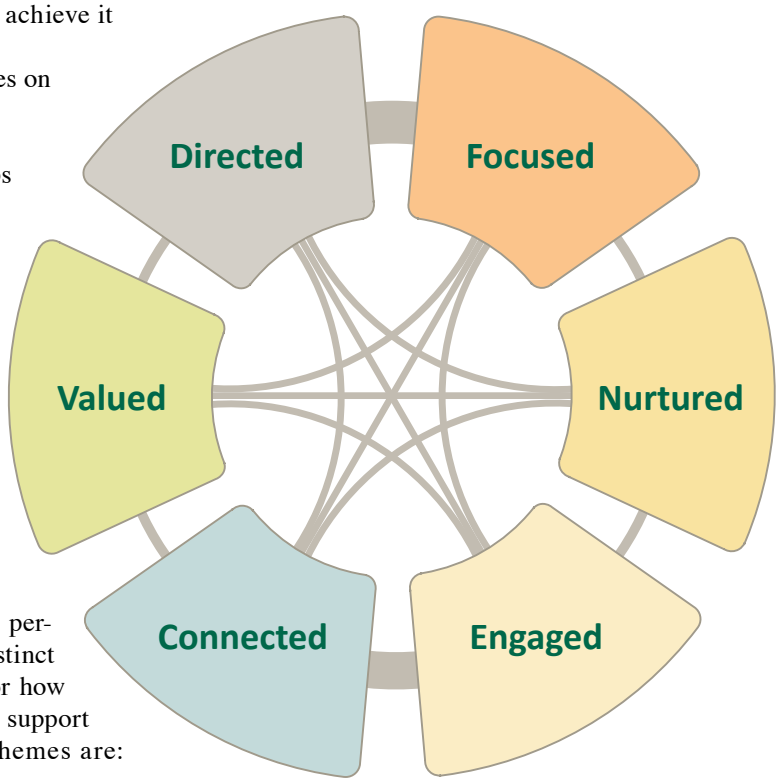
*p<.001; statistical significance is based on comparison with Time 1 scores.

Source: MPR Associates, Inc., December 2012

How does ACE align with findings from Student Support (Re)defined?

The RP Group's Student Support (Re)defined study centers on understanding how students perceive six success factors in their efforts to achieve their educational goals. The RP Group developed these success factors based on a review of existing research on effective support practices and interviews with practitioners and researchers. The six success factors served as the framework for the study and are listed below in the order of importance according to students participating in this research.[6]

- **Directed:** students have a goal and know how to achieve it
- **Focused:** students stay on track—keeping their eyes on the prize
- **Nurtured:** students feel somebody wants and helps them to succeed
- **Engaged:** students actively participate in class and extracurricular activities
- **Connected:** students feel like they are part of the college community
- **Valued:** students' skills, talents, abilities and experiences are recognized; they have opportunities to contribute on campus and feel their contributions are appreciated



When looking at the key findings from the student perspectives research on these success factors, five distinct themes emerged. These themes have implications for how colleges might increase completion through targeted support that helps students achieve these factors. These themes are:

1. Colleges need to foster students' motivation.
2. Colleges must teach students how to succeed in the postsecondary environment.
3. Colleges need to structure support to ensure all six success factors are addressed.
4. Colleges need to provide comprehensive support to historically underserved students to prevent the equity gap from growing.
5. Everyone has a role to play in supporting student achievement, but faculty must take the lead.

In reflecting on the ACE approach to supporting and serving basic skills students, accelerating their readiness for transfer-level coursework and preparing them for success in college and the 21st century workplace, each of these key themes is at work in the ACE bridge semester. This next section provides readers with a picture of how these themes, including the six success factors, can look in action.[7] We provide a high-level summary of each Student Support (Re)defined theme followed by a related discussion of the ACE bridge semester. While in total this program variation meets all aspects of the Student Support (Re)defined research, at times we feature specific components or aspects of the ACE bridge semester to underscore a particular key theme.

Theme 1
Colleges need to foster students' motivation.

Student Support (Re)defined recognized students as key agents in their own educational success. Yet, it also highlighted that while many students arrive to college motivated, their drive needs to be continuously stoked and augmented. Findings suggested that undecided and first-generation students in particular may need additional support to find, hone and maintain their motivation. Students' suggested several ways that colleges could take a role in this process. Ideas included helping learners develop an educational plan and monitor progress, making direct links between their educational experience and their goals for career mobility and a better life, engaging them with content in meaningful ways, providing opportunities to connect with peers and instructors and fostering students' sense of belonging on campus.

These student suggestions closely align with the design principles and specific components of the ACE bridge semester. In terms of design principles, ACE inherently believes that any student is capable of success, particularly if provided the opportunity to understand and strengthen the skills and knowledge necessary for achievement; it also believes the college has a specific role in supporting this process of development. In turn, the ACE bridge semester is crafted to *intrinsically* motivate and engage students and intentionally increase their affective capacity. Activities aim to transform students from "the inside out" by offering them structured opportunities to reflect, build on and apply their strengths, interests and experiences in the educational setting (ACE, 2012a). The curriculum clearly seeks to help participants individually improve their ability to set and accomplish goals while forming a supportive community to this end. This program variation specifically works to initiate this transformation in the first two weeks of a students' term and continue this experience with full-time intensity throughout the bridge semester, based on the research showing that what learners experience can significantly impact their long-term achievement (CCSSE, 2012).

ACE bridge semester participants are often those individuals that Student Support (Re)defined suggests need more assistance finding and maintaining their drive. The specific components of the ACE model combine to ignite these students' motivation and help them remain focused throughout the bridge semester and beyond. "Lighting the fire" in participants happens in the intensive orientation found in the **Foundation of Leadership Course** (FC), where students reflect on their own experiences inside and outside of school, consider their own strengths, learn about their work styles, set goals for their education and begin developing the skills for effective teamwork (Schirmer, Rosner, London, & Bullock, 2007). The **Team Self-Management Course** (TSM) offers a venue for underprepared students to deepen their internal capacity for staying dedicated to their learning. The TSM also continues building and sustaining a peer community that both supports students in remaining motivated and helps hold them accountable for their goals. The **Social Justice Research Course** (SJRC) and integrated **coordinated academic courses** offer students the opportunity to explore meaningful issues and learn academic and professional skills in a real-time, authentic and project-based way.

The **cohort** approach, which includes structured peer experiences implemented in curriculum exercises in the FC, TSM and SJRC courses, generates strong bonds among participants and between students and faculty. The **Behavior System** helps students track their progress and master the cultural codes and behavioral expectations they will find in both higher education and the professional workplace. As a whole, these components work not just to improve students' academic outcomes, but also their sense of self, motivation and behavior as learners (as outlined in the section above, *How does the ACE model impact students?*).

Theme 2
Colleges need to teach students how to succeed in the postsecondary environment.

Student Support (Re)defined findings also implied that colleges may need to do more to show students how to translate their motivation into success. Students need assistance in building the specific skills and knowledge necessary to navigate and thrive in their community college experience. Again, those who are new to higher education or who arrive without a specific goal in mind may need particular help in developing this understanding. Students suggested that colleges require first-time learners to enroll in a high-quality student success course and raise students' awareness of the assistance, supports and services available on campus to facilitate their success.

Clearly, students themselves recognize the need for more support upfront as they enter their college careers. The state's Student Success Act seconds this notion in recommended changes to Title 5 such as the requirement that colleges engage new, first-time students in mandatory orientation (California Senate, 2012). Institutions often orient students to campus in short, optional workshops that overwhelm learners with information on where to find resources and services and some basic information on what it means to be a college student. Student success courses may extend this learning over the semester, possibly focusing on study skills and time management (Asera & Navarro, 2013a), but a small percentage of students enroll. When rigorously studied, these courses often show marginal impact on students' long-term success (Zeidenberg, Jenkins, & Calcagno, 2007).

The ACE model provides an alternate vision of what teaching students to succeed can look like. While the entire ACE bridge semester supports this learning, the Foundation of Leadership Course at the beginning of the semester and the Team Self-Management Course and Behavior System implemented throughout the term particularly focus on this development. At its heart, the ACE model aims not only to strengthen participants' capacity as postsecondary students but as people who will ultimately seek work in the 21st century knowledge economy. In turn, the curriculum and instruction students encounter in the FC and TSM courses and the Behavior System implemented by faculty throughout these classes reflect this goal. We describe these components of the model below.

Foundation of Leadership Course

As mentioned above, this course is an intensive, 56-hour orientation to college that generally occurs in the two weeks prior to or at the start of a semester. In alignment with the findings of Student Support (Re)defined, the FC is intended to help participants immediately find direction and motivation upon entry, countering the drift many students experience once enrolled. The course structure itself is designed to promote the concepts of teamwork, community, self-exploration, commitment, punctuality and time management. The intensity of working with one cohort of students begins to cement a support network for participants that they can look to as they venture into the bridge semester and carry with them during their college career.

Reflective of this Student Support (Re)defined theme, the curriculum for this orientation is well-choreographed and introduces students to the communication skills and work styles required to be part of a team and the affective behaviors we discussed earlier that are critical to their success. The instruction is highly experiential and requires participants to actively engage in (1) reflecting on their own experiences inside and outside the classroom, (2) thinking about their own strengths, (3) understanding their ways of communicating and collaborating with others and (4) considering others' work styles. Activities are authentic and interesting to students, often drawing from a broad range of resources including corporate executive education curriculum (to which most college students are never exposed), professional role models, books, movies, popular culture and real-world events as well as their own personal experiences.

Because this orientation is so different from what most students expect or have encountered when they come to school, ACE asserts this approach can "reset" students' prior habits, behaviors and ideas about school that may have previously thwarted their success. ACE notes that the Foundation of Leadership Course is not just experiential but experimental (Asera & Navarro, 2013a). It allows ACE learners to "try on the new identity of a successful student, practice it and become comfortable with it"—all in a safe and supported environment (Asera & Navarro, 2013b). Research shows that students take home what they learn about effective communication and work styles—skills and knowledge they are able to apply and practice. The findings from the College Student Self-Assessment Survey mentioned above indicate that the Foundation of Leadership Course does in fact help students make the critical shift in identity and behavior that will help propel them toward successful achievement of their goals. In fact, the shift occurs in nearly all factors assessed, in just the first two weeks (Farr, Radwin, & Rotermund, 2012).

Team Self-Management Course

ACE participants enroll in this class alongside the Social Justice Research Course and their coordinated academic courses during the bridge semester. This two-unit course is specifically designed to support students in continuing on the focused plan of action they launched in FC. It aims to continue strengthening community and building the peer support network among participants as well as help students "decode" what behaviors are required for college success by reflecting on their own and others' experiences and actions (Navarro, 2008). The TSM further provides students a structured venue for applying this understanding through thoughtful planning and proactive management of the day-to-day challenges they encounter that can so easily pull them away from their educational goals. The TSM activities help students further strengthen their self-efficacy and confidence as learners and workers, the capacity for self-regulation, the skill to focus their attention and their ability to communicate and collaborate with others (Farr, Radwin, & Rotermund, 2012).

Behavior System

ACE faculty and staff concretely provides participants with a set of expectations for how they should act in order to succeed both in the bridge semester and beyond as well as what they can expect from the college environment. The ACE model pairs these expectations with related consequences for if and when these guidelines are not met, particularly in the areas of attendance, assignments and disruptive behaviors. For example, students receive a documented series of six "Traits of Successful Students" such as "Successful students attend every class," and "Successful students pay attention in class, stay focused and do not distract others from doing their work" (ACE, 2011). Each trait includes an explanation of what it means and specific examples for how it can be realized by students. ACE faculty and staff work to reinforce these expectations through all aspects of the FC and bridge semester. The instructional team collaborates to support students' attendance, progress and achievement; identify composite behavioral issues that cross multiple classes; provide addition support as needed to keep students on track; and acknowledge participants' success.

Theme 3
Colleges need to structure support to ensure all six success factors are addressed.

In Student Support (Re)defined, participants confirmed that the six success factors—directed, focused, nurtured, engaged, connected and valued—were important to their progress and achievement. They further indicated that these factors interact with each other in various ways. Students noted how experiencing one factor often led to realizing another, or how two factors were inextricably linked to one another. Given that students do not experience these factors in isolation, this research suggests that colleges should consider ways to help students experience all six success factors throughout their postsecondary experience; possibly more desirable, institutions might pursue solutions that enable learners to attain multiple factors at once. The study also suggests that colleges might consider timing support interventions to coincide with specific stages of students' educational journey.

The ACE bridge semester realizes this theme in a variety of ways. It provides students a support network through an intensive and immersive instructional experience that uniquely reinforces all six success factors in a holistic experience. It is also organized to serve students early in their college career, putting them on a path toward achievement and helping accelerate toward accomplishment of their goals. We briefly explain how each factor comes to life throughout the ACE bridge semester below.

Directed and Focused

Student Support (Re)defined found that directed and focused are particularly linked—that when students find direction, they feel more motivated, or conversely, that by remaining committed to learning, students can ultimately zero in on a specific goal. As discussed above, the ACE bridge semester helps students find direction and maintain focus though several interrelated components of the model, including the Foundation of Leadership Course, Team Self-Management Course and the Behavior System—all of which provide a structure for setting goals, sustaining motivation and growing awareness of how to succeed in a postsecondary setting. The career planning course also helps participants hone their understanding of themselves as professionals, further identify and refine objectives and develop a related education plan.

Additionally, the Social Justice Research Course requires students to form teams and collectively direct a project from conception to completion, helping them to advance their planning, coordinating and management skills in a significant way. Through SJRC, student teams develop research questions, design and conduct a survey of between 100 and 150 people, compile data using descriptive statistics, analyze and determine key findings, identify a community action plan and present the results to the public.

Nurtured

Student Support (Re)defined found that feeling nurtured was vital to participants' success and that when someone cared about a student's achievement, s/he was also likely to experience the other factors explored in this study. The ACE bridge semester is designed to provide nurturing to students in two key ways—(1) through a community of caring instructors and (2) a cohort of supportive peers. ACE faculty take an active role in showing students they want participants to succeed. They get to know participants as individuals, offer guidance, track their progress throughout the experience, identify when they are exhibiting behaviors that inhibit performance, and connect students with assistance when they are struggling.

The ACE model also focuses on helping participants provide critical support to one another. Students forge a strong sense of accountability to one another in Foundation of Leadership Course activities. This commitment is reinforced throughout the ACE bridge semester as students take all their classes together, work regularly in teams to produce their social justice research, and help one another address academic, social and professional challenges through the Team Self-Management Course.

Engaged and Connected

Like focused and directed, the Student Support (Re)defined research found that students made strong associations between being engaged and feeling connected to their colleges—often talking about the ways they experience each factor synonymously. The ACE bridge semester is inherently designed to address these factors. The high bar the ACE model sets for students through its rigorous, full-time curriculum gets at the heart of what many Student Support (Re)defined participants said promotes their engagement—an opportunity to be challenged and meet their instructor's high expectations.

The cohort experience, coupled with the instructional approach and curriculum implemented by ACE, also strengthens participants' relationship with the college and identity as postsecondary students. From the beginning of the term, the FC plants the seeds for connection to one another and the institution through the formation of a cohort. The Team Self-Management Course solidifies and accelerates students' bonding, creating what ACE refers to as a "virtual dormitory"—a sense of deep community and support among the cohort that occurs without a physical place (Navarro, 2012).

At the same time, the Foundation of Leadership Course asks students to explore their own experience and interests, which many learners find highly compelling. The use of experiential learning and project-based instruction continues to promote engagement throughout the semester, providing the practical and hands-on opportunities Student Support (Re)defined participants said they were seeking in their coursework. The Social Justice Research Course particularly allows students to choose an issue of authentic interest and try on the skills and knowledge they are developing in their coordinated academic courses and, at the same time, see the importance and relevance of their English, math and computer skills content. The heavy emphasis on teamwork in SJRC additionally aligns with findings from Student Support (Re)defined where many students, particularly underrepresented minority and first-generation, said their learning was improved by working with their peers.

Valued

Student Support (Re)defined participants indicated that both being valued for their unique history, cultures and traditions and adding value to their campuses, particularly through helping other students, were important to their success. ACE fundamentally works to draw on students' own experiences, often seen by others as deterrents rather than assets to their academic success. The model offers several opportunities for participants to reflect on these experiences and consider how they can contribute to their college achievement. For example, participants create life maps in the TSM to begin thinking about the significant events that have shaped their lives. Students then write a personal history paper to delve into the aspects of their family's experience that can both hinder and help their success. SJRC in particular allows students to explore issues of deep personal meaning and make contributions to solving critical concerns in their community through the research they conduct.

In addition, one key aspect of feeling valued cited by Student Support (Re)defined participants was having the opportunity to share feedback with their instructors and their college. The ACE model incorporates feedback loops at every stage of the students' experience—from daily reflection at the end of each day in the FC to regular opportunities to share insights and suggestions throughout the bridge semester. ACE uses this input from students to make course corrections and refine its model.

Theme 4

Colleges need to provide comprehensive supports to underrepresented students or the equity gap will grow.

Student Support (Re)defined found that a comprehensive approach to support is more likely to address the multiple needs—academic, financial, social and personal—identified by African-American, Latino and first-generation participants in the study. These students were more likely to cite a lack of academic support, the absence of someone at the college who cared about their success and insufficient financial assistance as reasons not to continue their education. In turn, the research suggests that colleges should find a way to provide comprehensive support to these student groups—at scale. Otherwise, it is highly possible the equity gap will continue to expand.

The founders of ACE launched their effort with a strong equity focus in mind and the specific goal of helping those in poverty transform their lives through postsecondary education (ACE, 2012c). The ACE model achieves this goal by recruiting underprepared and underrepresented students who have not historically been part of and/or succeeded in a traditional educational setting. At its inception, the ACE model targeted rural Latino students from the agricultural communities surrounding Cabrillo College. Cabrillo and the other colleges implementing the ACE bridge semester have continued to recruit students who generally come to their institutions with a myriad of factors that have been identified as likely to challenge their performance, progress and achievement.

The most recent longitudinal study of the ACE bridge semester (Farr, Radwin, & Rotermund, 2012) illustrates the program's success in serving their intended audience. This research drew data from 634 participant intake forms completed at four colleges implementing the ACE bridge semester between fall 2010 and spring 2012. Findings revealed that 77% of students were at a "high risk" for failing education programs when they enrolled in the program. High-risk factors included (but were not limited to) coming from an unstable home, having been arrested, having been on probation, having been homeless or having a gang association. Many also enrolled with other factors typically thought to put a student at risk, including being first in their families to attend college, having learning difficulties or receiving government benefits.

ACE's commitment to equity shows not just in who is targeted for bridge participation but also in what students experience during the semester. As mentioned, the ACE approach to comprehensive support is fundamentally different because it comes not through the provision of specific services to students. Participants are referred to assistance such as EOPS, DSPS, tutoring, financial aid or counseling as needed by ACE faculty and staff throughout the semester. Rather, support comes through the (1) coherent educational activities in which students engage, (2) the Behavior System that reinforces norms for success, (3) the deep sense of community formed between cohort participants, and (4) the integration with rigorous academic coursework. The support is comprehensive in that the curriculum is intentionally designed to meet students where they are educationally, emotionally, socially and professionally upon enrollment. It aims not just to help them confront the life challenges and barriers that have historically compromised their success, but also to find ways to capitalize on these experiences and translate them into benefits in the academic environment.

Additionally, the ACE model's focus on affective and pyschological development uniquely builds students' internal capacity to identify and address their own related needs, well past bridge semester completion. Caring faculty and peers assist throughout this process of discovery and development in a structured manner. Moreover, the ACE bridge semester helps participants form and quickly reach a clear goal of preparing for transfer-level English and/or math—alleviating the often lengthy, confusing and discouraging journey many underprepared students take when they enter the institution with a basic skills placement.

Theme 5

Everyone has a role to play in student success, but faculty need to take the lead.

In Student Support (Re)defined, participants most commonly recognized instructional faculty as having the greatest potential impact on their educational journeys and suggested multiple ways teachers can support their progress both inside and outside class. A sampling of the most frequently cited ideas for faculty included: (1) ask if students understand their course material; (2) deliver relevant content through interactive and engaging instruction, (3) show care and concern for students' success, (4) incorporate one's own stories and expertise in the classroom, (5) integrate academic and career advising into the coursework, (6) provide opportunities for learners to work with and support one another, (7) give students input on their performance and progress; (8) offer them the chance to provide feedback, and (9) connect students with resources outside the classroom.

When faculty dedicate themselves to teaching the ACE bridge semester, they make a commitment to realizing all of these suggestions with their students. The ACE model is predicated on instructors taking a fundamentally different approach to students, to teaching and to one another. Underprepared students are viewed not as failures but as learners who enter with significant strengths and potential that need to be nurtured. Faculty facilitate the provision of support by encouraging students' connections to one another and by brokering connections to resources that can assist learners in achieving their goals. This curriculum and instructional approach places faculty in the role of facilitator and guide rather than just the holder of knowledge and information. Instructors work not alone but in a team, aligning content across all coursework and collaboratively identifying and addressing issues that students might encounter during the semester.

The ACE model brings the same level of intention to supporting faculty in this nontraditional role as it does to transforming the lives of students. ACE's developers recognize that many faculty do not come to higher education with the preparation required to teach and work in this way. In turn, ACE instructors receive a myriad of graduated supports. Any faculty considering implementation of the ACE bridge semester at their college starts with participation in the Five-Day Experiential Leadership Institute (FELI), personally experiencing in the same kinds of self-exploration, discovery and improvement activities they might deliver to their students.

Once a college commits to implementing the bridge semester, those who will teach the FC must take part in a practicum prior to teaching the class to try out delivery of the curriculum themselves with the support of an experienced ACE instructor. Faculty receive curriculum kits for the Foundation of Leadership, Team-Self Management and Social Justice Research Courses; participate in workshops on how to deliver these courses and the Behavior System; and also partner with master mentors—peers who have taught in ACE—throughout the first term of delivery. Teachers can also join a Community of Practice that meets regionally one time per semester, allowing them to connect in formal and informal ways with other faculty to share experiences, implementation ideas and suggestions for improvement in a supported way. Many faculty who deliver the ACE bridge semester report not only deeper connections with their students but also a better understanding of themselves, decreased isolation and stronger bonds with their colleagues and heightened professional satisfaction (London, Smith, & George, 2006; Schirmer, Rosner, London, & Bullock, 2007; Asera, 2011).

While faculty played a starring role in the Student Support (Re)defined findings, participants also noted how everyone on a campus can affect their achievement. Their responses underscored the importance of colleges promoting a culture where all individuals across the institution understand their role in advancing students' achievement, no matter their role at the college. Similarly, ACE's developers have come to recognize that different stakeholders within community colleges need support in shifting their institutional cultures to focus on student success in nontraditional ways. Any faculty can participate in a FELI, even if their college does not intend to implement the ACE bridge semester; as part of the FELI training, instructors re-

ceive a guidebook with activities that can be used in their classes with non-ACE students. ACE also offers professional development to administrators and staff working in a range of divisions throughout colleges including financial aid, admissions, student services and instruction. Additionally, administrators can take part in ACE's Executive Leadership workshops where administrative teams can focus specifically on exploring cultural changes in their colleges that recognize the needs of today's adult learners and take into account not just their cognitive, but affective, development.[8]

What are the implications for colleges interested in replicating ACE?

Implementation of the ACE model has taken on many forms, from enhancing existing CTE programs and learning communities to strengthening the orientation of college-ready students. The ACE bridge semester in particular offers a promising prospect to colleges seeking to improve the success of learners with developmental education needs: double the number of basic skills students completing transfer-level English and do it in an accelerated, low-cost way. Because ACE provides its educational support and experiences to participants through classroom instruction, it alleviates many of the sustainability and scalability issues programs struggle to address when funded through external grants or allocations. While initial training and early implementation requires an upfront investment by colleges, the cost per cohort and student decreases considerably over time—eventually reaching nearly the same implementation cost as other community college classes (FSG, 2010; ACE, 2012b). ACE offers a train-the-trainer approach so that colleges can expand the number of cohorts that they serve using in-house expertise.

We recognize that this prospect will leave many readers intrigued about the potential for implementing the ACE bridge semester on their campuses and others skeptical. Either way, it raises a number of questions colleges might consider if interested in replicating ACE. How much can I customize the ACE bridge semester for my campus? What kind of investment is really required? Can anyone teach ACE? If my college is not ready to implement the full bridge semester model, what other options do I have? Will ACE work in any institution?

How much can I customize the ACE bridge semester for my campus?

Experience and evidence shows that the model can be replicated with the same impact on learners at different institutions. At one college, eight cohorts have run at any given time reaching upwards of 350 students annually. Another college recently launched its first year of the ACE summer bridge model with 250 students. All are experiencing similar levels of impact on students' academic outcomes and affective development.

That said, ACE underscores that realizing these outcomes requires a commitment to implementing the model with integrity and that a departure from the model as prescribed may not bring about the same results. Integrity to the model happens in a number of ways. It starts with specific delivery of the curriculum as outlined for the ACE signature offerings: Foundation of Leadership, Team-Self Management and Social Justice Research Courses. It requires that institutions enable students to enroll and travel as a cohort through the bridge semester and that faculty are provided the space and time to align course content, discuss student progress and implement the Behavior System. It asks that colleges recognize students' bridge semester English and/or math coursework as preparatory for related transfer-level classes, regardless of the level at which they originally assessed. The ACE model also stipulates that faculty and staff delivering the bridge semester participate in specific professional development before and throughout implementation.

On the other hand, a college adopting the ACE bridge semester can determine whether or not to include certain coordinated academic courses (e.g., computer skills, movement or career planning). Students also identify the topics

to pursue in the Social Justice Research Course, reflecting the unique local context of the participants, faculty and college.

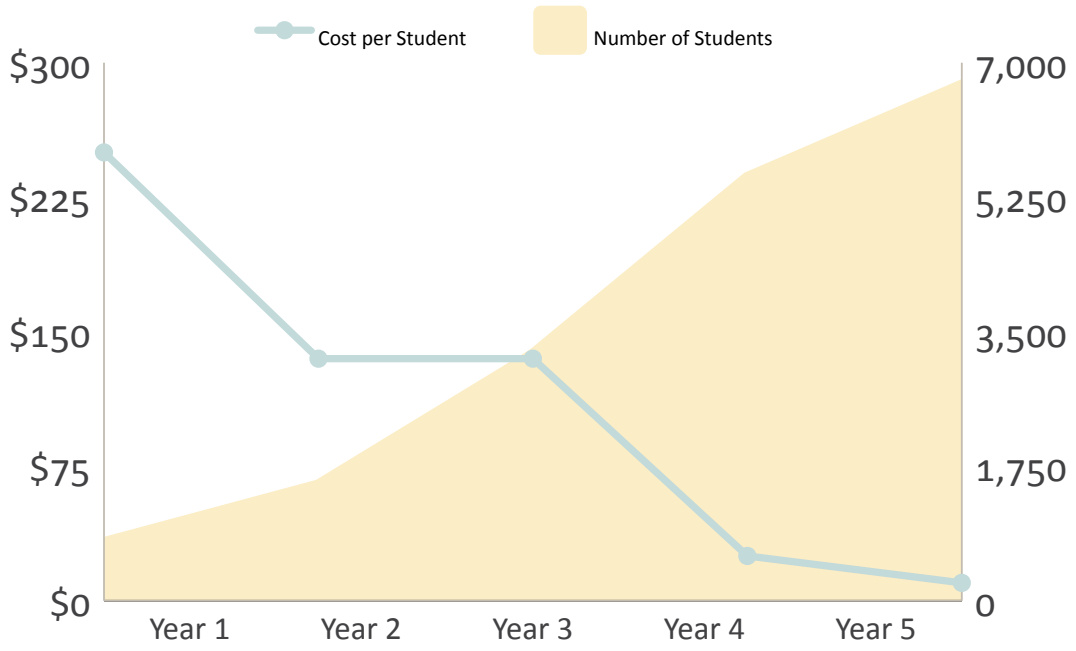
What kind of investment is required to launch the ACE bridge semester?

While analysis shows that, over time, colleges can implement the ACE bridge semester at nearly the same cost as other courses, institutions must make an upfront investment to launch the model (FSG, 2010). Any practitioner interested in implementing the bridge semester must take part in the Five-Day Experiential Leadership Institute. Faculty who intend to teach any of the ACE signature courses must undergo additional training—preparation that covers course curriculum and pedagogy and that varies in length and intensity depending on the offering. Once a college has funded this training, it must then make a commitment to funding any new courses and to remunerating teachers for weekly meetings. Course costs should decrease over time given that ACE happens through course instruction that can be covered through FTES *(see Figure 5: Implementation Costs of ACE Model over Time)*. Colleges often creatively cover regular faculty meetings by counting this time as office hours, as fulfillment of a shared governance commitment or as flex credit.

Can anybody teach in ACE?

If a college chooses to implement an ACE program variation, any faculty from a range of disciplinary backgrounds can teach if they are willing and interested. Many instructors participate in the FELI and find they are compelled by the approach and the opportunity to have clear guidance and structure for teaching experientially. At the same time, some practitioners go through the FELI and determine that teaching within the ACE model is not for them. Implementation of the ACE bridge semester curriculum inevitably requires that instructors not only work to guide transformation in their students, but open themselves up to change as well. Some faculty may be uncomfortable with the ACE model requirement for them to reflect on their own lives and share their experiences with other students and instructors.

FIGURE 5 **Implementation Costs of ACE Model Over Time**



Others may not like adhering to a specific curriculum, as outlined for the ACE signature courses, even though many faculty appreciate this level of support when teaching experientially for the first time. Still others may be unprepared for the intensity of the relationships that form between students and teachers and the sometimes intense emotions generated by the activities and experiences of the semester. In this way, the FELI serves not just to inspire faculty and staff to move forward with bridge semester implementation, but also serves as a reality check for some educators about whether or not the approach fits with their own teaching style, philosophy, interests and capacity (Schirmer, Rosner, London, & Bullock, 2007).

What if our institution is not ready to implement the intensive ACE bridge semester?

As mentioned in our earlier description of the ACE model *(see p. 3, What is ACE?)*, colleges can choose from a range of program variations based on their unique local context and the target population they aim to serve. Not all colleges have the goal of accelerating basic skills students to transfer-level coursework, and therefore do not want or need to implement the intensive bridge semester; conversely, a college might have this goal for students focused on a specific cluster of disciplines such as STEM. In turn, the ACE Center will work with a college to adopt components of the model depending on its local capacity, the group of learners it intends to target and the goals it hopes to achieve with that population. Some examples include the following.

- ***Faculty professional development:*** Many instructors complete the FELI and incorporate the experience and lessons learned into how they teach students in their traditional courses and programs. As of August 2013, faculty from over 55 colleges both in California and across the country have participated in a FELI.

- ***FC for targeted student group:*** Some colleges have used the Foundation of Leadership Course to provide an affective orientation to a target group of college-ready learners (e.g., nursing programs at Cabrillo College and Hartnell College, Radiological Technology and Dental Hygiene programs at Cabrillo College, and student leaders at Broward College and De Anza College).

- ***Affective booster for existing program:*** Colleges have incorporated the FC and the TSM into a learning community or CTE program, infusing an emphasis on building students' affective domain and strengthening the network of peer support for participants. For example, Berkeley City College has applied this approach to its Public Health and Human Services program and Los Medanos College is using it with its Process Technology program.

- ***Summer bridge:*** Institutions have implemented a summer bridge experience inclusive of the FC, the TSM and a Social Justice Topics[9] course—supporting new-first time students as they transition into the college. For example, Broward College has adopted this approach for underprepared and underrepresented students entering the institution. Their first implementation supported 250 students.

- ***Integrated science semester:*** A variation on the ACE bridge semester, this implementation approach helps students with basic skills needs prepare for entry into STEM programs. In addition to FC and Team Self-Management, it includes Fundamentals of Integrated Science, Introduction to Scientific Method, Integrated Science Lab, Writing for Science and Science Research Project courses (see *Figure 6)*. Cabrillo has piloted this approach for four semesters with support from the National Science Foundation and is in the process of replicating at other colleges.[10]

FIGURE 6 **ACE Accelerated Academic Learning Program**



Can any college implement ACE?

Not exactly. The ACE Center is eager for institutions to adopt this approach to supporting student success and offers many ways to customize its model based on different goals and contexts. At the same time, they have found colleges must have more than a group of interested faculty in place. The ACE model requires a bottom-up and top-down commitment to instituting change, particularly if the desire is to impact student achievement at scale. Faculty drive the adoption because they find rejuvenation in its approach and success with students. Administrators support the change because of the scalability and affordability of the model.

The success or failure of the ACE model, if not any improvement effort, depends heavily on having an institutional culture that supports this kind of innovation and is comfortable with change. Successful implementation rests on colleges utilizing a structured process for dialog and action planning. It stipulates that colleges have a clear completion goal in mind and specific understanding of their target populations—based on evidence. It requires that colleges can match this analysis to one of the multiple ACE program variations, whether it is engaging a core group of faculty in FELI participation, enrolling large numbers of students in an ACE bridge semester or somewhere in between. It requires that colleges have a long-view on implementation, a commitment to professional development, the capacity to monitor progress and the willingness to improve delivery as needed over time.

Where do I start?

Ultimately, considering adoption of ACE starts with a discussion among colleagues and across the institution about how to best impact student success at scale. Colleges interested in implementing ACE—whether by engaging a target group of basic skills students in a bridge semester experience or enrolling all first-time students in a Foundation of Leadership Course—might consider the following questions to guide this dialog. You can explore these questions through a team discussion at the program or division level; through a student success initiative on campus; or in regular meetings of your college's mid- and top-level leaders. We strongly encourage colleges to involve their institutional research offices to help inform this inquiry process.

What types of data do we have and/or should we generate to determine who our students are, what challenges they may be experiencing and, in turn, how the ACE approach might strengthen their success?

- What do the data say about our students and which groups do we specifically want to target with a success initiative (first time, basic skills, low income, etc.)?
- What ACE program variation(s) make sense for these groups?
- What faculty are willing to initiate an ACE program through the necessary channels (e.g., curriculum, faculty and student recruitment, scheduling) and implement it on our campus?
- What other initiatives already exist on our campus to serve our targeted student group(s)? How should these efforts be engaged in an ACE planning process?
- What kind of support do we have from our institutional, instructional and student services leadership to launch this effort?
- What other resources exist to facilitate the adoption of the ACE model? What additional resources do we need?

Conclusion

While many practitioners might resonate with the key themes emerging from Student Support (Re) defined, determining how to enact these findings can be challenging. The ACE model illustrates that these ideas about changing the way we approach student support are in fact possible; and it offers colleges a range of program variations based on their unique priorities, populations and resources. The ACE model shows that when we fundamentally restructure students' classroom experience to be supportive of their needs, appreciative of their experiences and responsive to their interests, students are motivated and engaged. It shows that when we focus on strengthening students' affective capacity as well as their cognitive ability, we teach students the skills and knowledge necessary for academic, personal and professional success. It underscores that when we intentionally foster peer networks, students feel more connected and accountable. The ACE model shows that students who arrive at college with significant barriers to their success can improve their achievement with effective, intentional support. It shows that with training, tools and support, faculty can take a significant role in helping their learners access the support they need to succeed. The ACE model demonstrates that when we take this alternative approach, we can significantly impact the achievement of underprepared students and do so in a scalable way.

If your college seeks to redefine support in a way that is proven to increase student success, we encourage you to learn more about the Academy for College Excellence by:

- Visiting http://www.academyforcollegeexcellence.org
- Attending a Five-Day Experiential Learning Institute
- Reading the evidence about ACE's impact on students at http://academyforcollegeexcellence.org/evaluations/
- Talking with colleges implementing different versions of the ACE model by visiting ACE classrooms and interacting with teachers and students currently participating in an ACE program
- Contacting ACE at http://academyforcollegeexcellence.org/contact/

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Notes

1. The ACE bridge semester can be adapted by colleges that use the quarter system.

2. The academic, professional and personal competencies required for the 21st century workplace stem from research conduct ed by ACE founder Diego James Navarro in Hewlett Packard Labs on user need analysis for computer support for professionals across many sectors including the pharmaceutical, manufacturing, engineering, automotive, education, research and medical fields. The push for educators to develop and teach these skills and competencies has been echoed in multiple reports over the past decades, starting with the Secretary's Commission on Developing Necessary Skills formed by the Department of Labor in 1990s and most recently in the National Research Council publication Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century.

3. MPR will release a final report, likely in early 2014, including all six sites in the quantitative analysis of students' academic outcomes.

4. Propensity score matching is considered to be one of the most effective non-experimental research methodologies. At the same time, MPR also conducted a regression analysis on a comparison group of over 125,000 students which confirmed the same trends as the propensity score matched pairs.

5. Because the study tracked students just through fall 2011, it could only examine post-ACE bridge semester outcomes for the fall 2010 and spring 2011 cohorts. No longitudinal outcomes could be collected for fall 2011 on ACE participants. The final report will include data from fall 2011, spring 2012, fall 2012 and spring 2013.

6. Find a full definition of these factors in the study's literature review brief at http://www.rpgroup.org/content/research-framework.

7. Find a full report of key findings about the six success factors at: http://www.rpgroup.org/sites/default/files/StudentPerspectivesResearchReportJan2013.pdf. Find a complete discussion of the key themes at: http://www.rpgroup.org/sites/default/files/StudentPerspectivesResearchBriefJan2013.pdf.

8. For more information, visit http://academyforcollegeexcellence.org/institutes/.

9. The Social Justice Topics course is based on the Coro Foundation pedagogical approach and integrates inquiry methods designed to help students evaluate different future scenarios for a selected social justice issue.

10. For more information, visit http://www.iscs-ace.org/default.html.

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