Student Support (Re)defined

Equitable
Integrated
Cost Effective

CASE STUDY

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

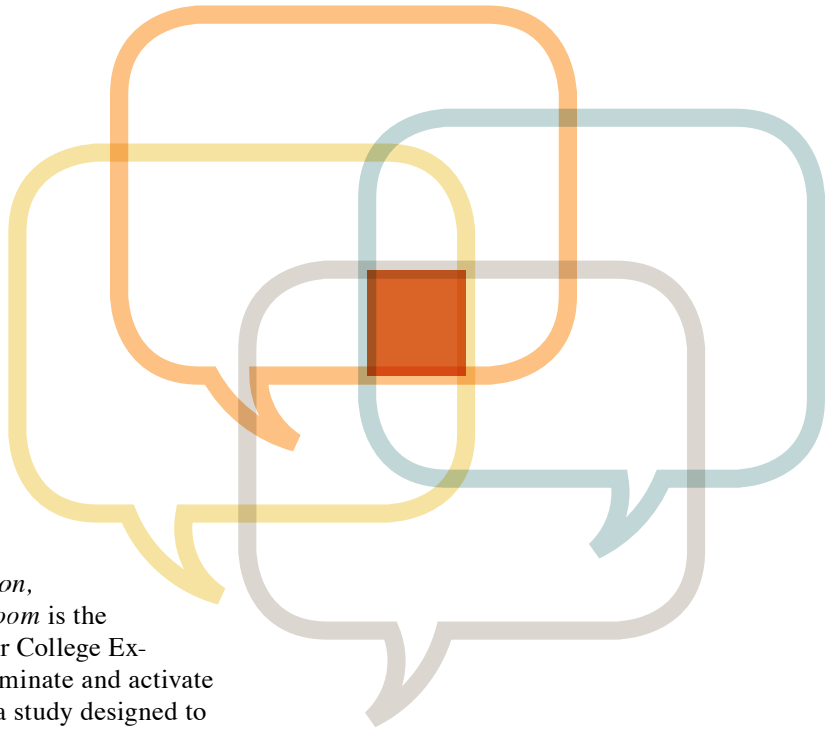
Excerpts from the *Student Support (Re)defined Case Study: the Academy for College Excellence*[1]

Introduction

This document is comprised of excerpts from the Research and Planning Group for California Community College's (RP Group) Student Support (Re)defined case study of the Academy for College Excellence (ACE), formerly known as Cabrillo College's Watsonville Digital Bridge Academy.

This document addresses:

- What makes the ACE model different
- Components of the ACE model
- How the ACE model impacts students
- Evidence of student academic outcomes at multiple colleges
- Scaling and replicating the ACE model
- ACE alignment with findings from Student Support (Re)defined



The case study *Integrating Student Transformation, Support and Accelerated Learning in the Classroom* is the result of a collaboration between the Academy for College Excellence Center and the RP Group. It aims to illuminate and activate the findings from Student Support (Re)defined—a study designed to understand how community colleges can feasibly deliver support both inside and outside the classroom to improve success for *all* students. 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 full case study can be found at:
http://www.rpgroup.org/projects/student-support

How did Student Support (Re)defined and ACE Come Together?

The RP Group and the ACE Center partnered 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

What Makes the Academy for College Excellence Model Different

The ACE model provides an alternate vision of what teaching students to succeed can look like. 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.[2]

It also responds to other research showing that how students experience the first three weeks of college enrollment can significantly impact their achievement.[3] 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.[4]

In addition, ACE 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.[5] 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.[6]

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.[7]

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.

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 below highlights these different program variations, including the population each targets and the programmatic components each includes.

Components of the ACE Model

The original and most comprehensive ACE variation is the Accelerated Academic Learning program, referred to as 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.

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.[8] The **Team Self-Management Course** (TSM) offers a venue for underprepared students to deepen their internal capacity for staying dedicated to their

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

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.

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 the ACE Model Impacts 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.

Evidence of Student Academic Outcomes at Multiple Colleges

A recent study performed by MPR Associates, Inc.[9] with funding from the Bill and Melinda Gates Foundation **confirmed that other colleges could in fact realize similar success with their own 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);[10] 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).

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."[11] Students were tracked longitudinally through fall 2011.[12] The research found the following enhanced academic outcomes for ACE bridge semester students (see also Table 2: ACE Bridge Semester Demographics, 2012 MPR Study and Figure 1. ACE Bridge Semester Student Outcomes, 2012 MPR Study).

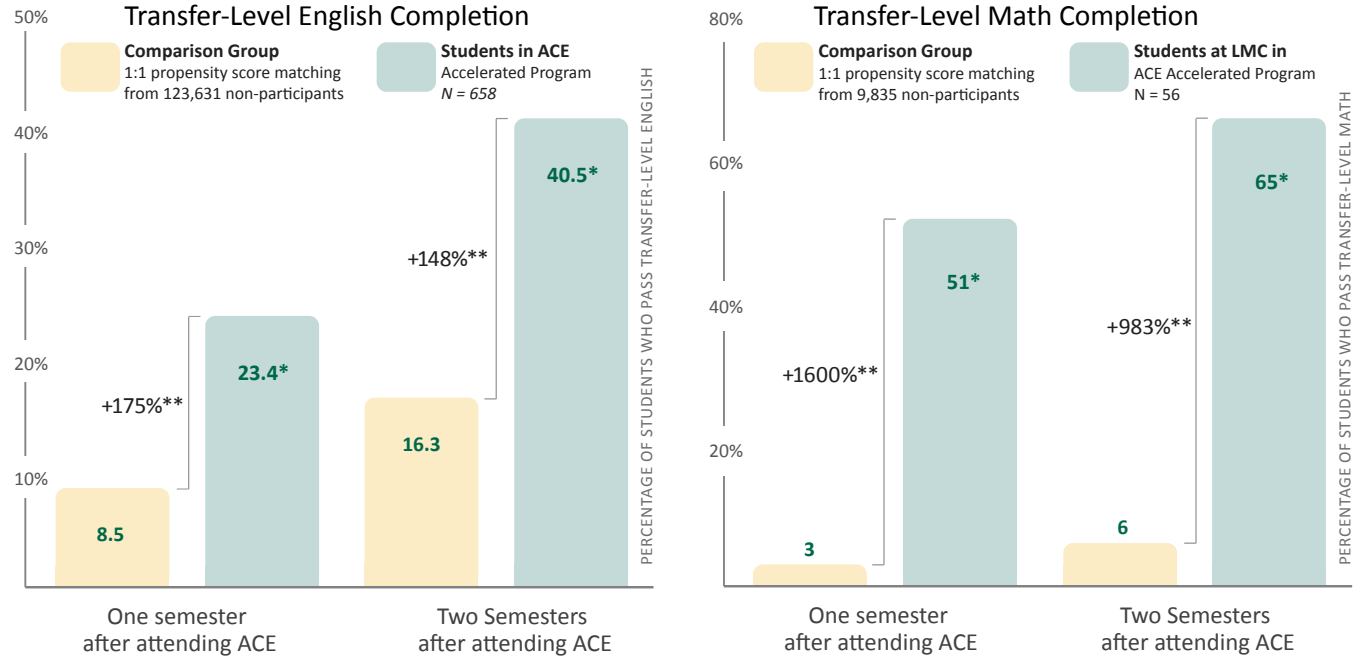
- **Course completion:** ACE bridge semester students were more likely to complete degree-applicable and transferable English than their non-ACE peers; one replication site piloted accelerated math and showed promising results for improved completion of transferable math by ACE participants.

- **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).

TABLE 2
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%



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

Figure 1 ACE Bridge Semester Student Academic Outcomes, 2012 MPR Study

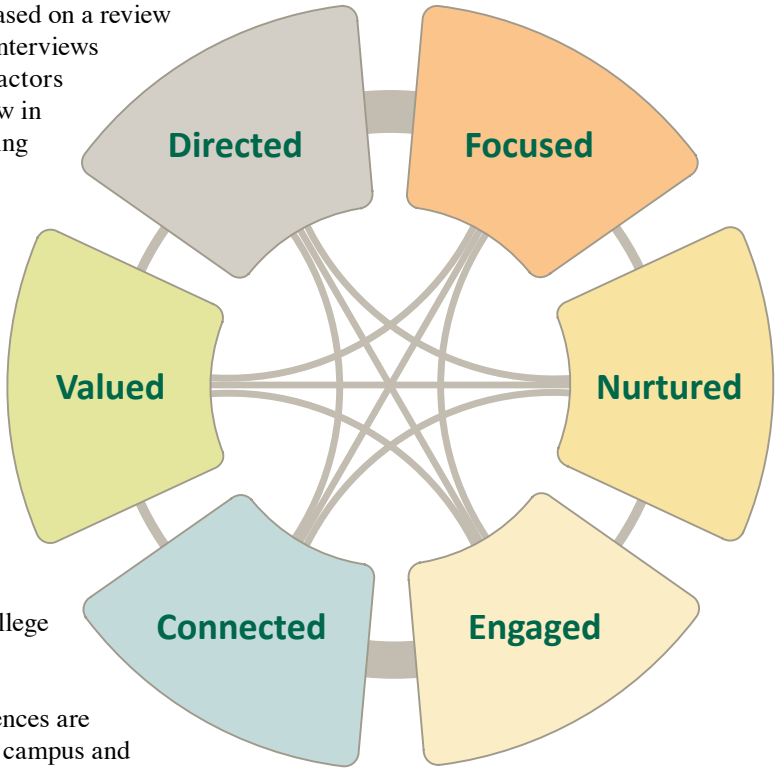
Scaling and Replicating the ACE Model

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. 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. 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.

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.[13]

ACE Alignment with Findings from the Student Support (Re)defined Study

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.



- **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.

When 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. The full ACE Case Study provides readers with a picture of how these themes, including the six success factors, can look in action. In the full ACE Case Study 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 in the full Case Study specific components or aspects of the ACE bridge semester to underscore a particular key theme.

Conclusion

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 reading the full report at:
http://www.rpgroup.org/sites/default/files/student_support_redefined_case_study_2013.pdf

For more information on redefining student support, visit
http://www.rpgroup.org/projects/student-support

Notes

1. This document is excerpted from Integrating Student Transformation, Support and Accelerated Learning in the Classroom A Student Support (Re)defined Case Study: the Academy for College Excellence, authored by Kelley Karandjeff (Senior Researcher) and Dr. Darla Cooper (Director of Research and Evaluation) of the RP Group

2. Farrington, C.A., Roderick, M., Allensworth, E., Nagaoka, J., Seneca Keys, T., Johnston, D.W., & Beechum, N.O. (2012). *Teaching adolescents to become learners: The role of noncognitive factors in shaping school performance – A critical literature review*. Chicago, IL: Consortium on Chicago School Research at the University of Chicago.

3. Community College Survey of Student Engagement (CCSSE). (2012). *Survey of Entering Student Engagement (SENSE) 2012 key findings*. Austin, TX: Author. Retrieved from http://www.ccsse.org/sense/survey/survey.cfm.

4. California Senate. (2012). *SB 1456, Lowenthal - Community colleges: Seymour-Campbell Student Success Act of 2012*. Retrieved from http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120SB1456.

5. Offenstein, J., Moore, C., & Shulock, N. (2010). *Advancing by degrees: A framework for increasing college completion*. Washington, DC: The Education Trust.; Horn, L., & Lew, S. (2007). *California community college transfer rates: Who is counted makes a difference*. Berkeley, CA: MPR Associate, Inc. Retrieved, August 21, 2013, from http://www.mprinc.com/products_and_publications/pdf/horn_ccc.pdf.

6. Edgecombe, N. (2011) *Accelerating the academic achievement of students referred to developmental education*. New York, NY: Columbia University, Teachers College, Community College Research Center.; Hern, K. (2012). *Acceleration across California: Shorter pathways in developmental English and math*. *Change: The Magazine of Higher Learning,* 44(3), 60-68

7. The academic, professional and personal competencies required for the 21st century workplace stem from research conducted 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*.

8. Schirmer, M., Rosner, R., London, R., & Bullock, H. (2007). *Feeding the Fire: Professional Development and the Digital Bridge Academy Faculty Training*. Santa Cruz, CA: University of California – Santa Cruz, Center for Justice, Tolerance and Community (CJTC).

9. Farr, B., Radwin, D., & Rotermund, S. (2012). *Evaluation of the Academy for College Excellence: Report on academic outcomes (Spring 2010 – Spring 2011)*. Berkeley, CA: MPR Associates, Inc.

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

11. Farr, B., Radwin, D., & Rotermund, S. (2012). *Evaluation of the Academy for College Excellence: Report on academic outcomes (Spring 2010 – Spring 2011)*. Berkeley, CA: MPR Associates, Inc.; 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.

12. 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.

13. FSG Social Impact Advisors. (2010). *Academy for College Excellence strategic plan and growth strategy*. (Unpublished document). San Francisco, CA: Author.

The Research and Planning Group for California Community Colleges (RP Group) strengthens the ability of California community colleges to undertake high quality research, planning and assessments that improve evidence-based decision making, institutional effectiveness and success for all students.

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