Introduction

In summer 2011, at the onset of the Student Support (Re)defined research study, the RP Group conducted an initial literature review and interviewed community college practitioners and researchers with long term experience delivering and studying student support services inside and outside of the classroom. These efforts served two methodological purposes: (1) to place this study in the context of existing research and current initiatives to strengthen the provision of student supports and (2) to inform our own project’s research activities. As implementation progressed, additional studies were reviewed and their findings used to inform and frame the Student Support (Re)defined research process. We updated the literature review in summer 2014 at the conclusion of the Student Support (Re)defined project with the integration of additional studies, including new research on student supports that had been conducted by other researchers during the course of project implementation.

The approach taken to the literature review is untraditional. The standard practice is for literature reviews to be implemented as a separate and discrete activity that takes place before a study is conducted.
However, the RP Group’s experience has shown over and over again that questions about what others have discovered in relation to a particular practice, approach or policy arise during the course of almost any study. At those times, the research team benefits from returning to the literature review, often with new questions or with the need for a new way to examine a particular issue. As a result, the RP Group, beginning with Student Support (Re)defined, has developed a new type of “live” literature review that is designed to run alongside our studies from the outset through their conclusion. Further, while grounding the “live” literature review in a thorough and ongoing review of secondary sources, we also added to our literature review primary source information, gathered through interviews with national as well as local experts on the subject of student supports. It is the intention of the RP Group to institutionalize this new approach to literature reviews in future projects.

We used the original version of the Student Support (Re)defined literature review to guide the development of the RP Group’s survey and focus groups with almost 1,000 student participants. The final revision of this document took place after the study had been completed and the results disseminated across California. In revisiting and connecting the most recent research on student support to the study’s findings, the research team found that while much can be learned from scholarly peer-reviewed publications, the deepest insights come from the students themselves. As an illustration, hundreds of student responses to questions about what makes them successful confirmed the key finding from the original literature review that student support must be unavoidable and integrated into students’ daily lives inside as well as outside of the classroom. The students in the study also underscored another theme identified in the original literature review—many, perhaps most, community college students arrive on campus doubting whether they belong in a postsecondary institution and concerned about their ability to succeed.

This brief begins with a summary of key findings from our original review of existing studies on student support. This summary is followed by an overview of foundational research related to the six success factors that the original literature review identified as key elements for student success. The brief concludes with a review of research related to the cost-effectiveness of student support.
Key Findings

While the body of research on student support is vast, this literature review particularly focused on existing research that examined supports that lead to increases in students’ success, particularly for underrepresented student populations. The research team also identified and reviewed studies that researched the potential to save money and achieve a return on investment on student supports.

Defining Factors that Support Student Success

Based on the Community College Research Center’s (CCRC) 2011 Assessment of Evidence Series (Bailey, Jaggars & Jenkins, 2011) and a review of hundreds of studies on strategies designed to increase student success, two key findings emerged. Student support activities must be:

- Integrated into students’ daily experience
- Included in the overall curriculum

According to the literature, effective support must address “the whole student” by focusing on both academic and non-academic obstacles to student success: “learning [is] a comprehensive, holistic, transformative activity that integrates academic learning and student development, processes that have often been considered separate, and even independent of each other” (Keeling, 2004, p. 2). Research suggests that, wherever possible, student support structures should be integrated and intrusive in students’ daily experience so that they encounter them inside and outside the classroom, in the curriculum and in their assignments (Bailey, Jaggars & Jenkins, 2011; Karp, 2011; Kuh, Buckley, Bridges & Hayek, 2006; Tinto, 1987). The effectiveness of this integrated and comprehensive approach is supported by several studies, which suggest that, in addition to students’ classroom activities, out-of-class experiences can have an important effect on their development (Cooper, 2010; Kuh, 1995; Terenzini, Pascarella & Blimling, 1996). These findings were corroborated in the recently released Gallup-Purdue Index Report, which directly linked—among many other institutional elements—collegiate participation in extracurricular activities and caring professors with active engagement in the workplace (Gallup, 2014). The bottom line from Gallup and Purdue University is that “what students are doing in college and how they are experiencing it” matters most (Gallup, 2014, p. 6).
Six Success Factors

When reviewed collectively, research indicates that students are more likely to succeed when: (1) they have a goal and a path leading to this goal, (2) they stay motivated to achieve this outcome, (3) they are engaged in the classroom, (4) they feel connected to the college community, (5) they believe that their success matters to others and (6) they feel they are contributing positively to the college culture and community. The RP Group summarized these factors as “directed,” “focused,” “nurtured,” “engaged,” “connected” and “valued.” We defined these factors—from the students’ perspective—as:

- **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

An examination of promising practices and approaches, coupled with insights gathered in interviews with practitioners and researchers, highlighted how these six success factors contribute to an institutional culture where all community college students can thrive. The following section provides a brief summary of research by success factor, including both information on how students experience these factors and what colleges can do to promote them in learners’ experience. The success factors are presented according to the order in which students prioritized them in the study. See also the sidebar at left, *The Six Success Factors Translated into Five Actionable Themes and Strategies*, which offers considerations that the entire college community can draw from to guide action.
The Six Success Factors Translated into Five Actionable Themes and Strategies

In one of several Student Support (Re)defined resources developed for practitioners and decision-makers, the RP Group translated the six success factors into themes and strategies colleges can pursue to provide students with the opportunity to experience the six success factors. The themes include:

1. **Colleges need to foster students’ motivation.** While this research recognizes students as key agents in their own educational success, it also highlights that while many students arrive to college motivated, their drive needs to be continuously stoked and augmented.

2. **Colleges must teach students how to succeed in the postsecondary environment.** Students need assistance in building the specific skills and knowledge necessary to navigate and thrive in their community college, particularly those who are new to higher education or who arrive without a specific goal in mind.

3. **Colleges need to structure support to ensure all six success factors are addressed.** Students noted how experiencing one factor often led to realizing another, or how two factors were inextricably linked to one another. Since students do not experience these factors in isolation, colleges should consider ways to help students attain multiple factors at once.

4. **Colleges need to provide comprehensive support to historically underserved students to prevent the equity gap from growing.** Comprehensive support is more likely to address the multiple needs—academic, financial, social and personal—identified by African-American, Latino and first-generation participants in this study. Colleges must find a way to provide comprehensive support to these student groups—at scale. If they do not, the equity gap will likely grow.

5. **Everyone has a role to play in supporting student achievement, but faculty must take the lead.** Participants underscored the importance of colleges promoting a culture where all individuals across the institution understand their role in advancing students’ success, no matter their position at the college. Yet, students most commonly recognized instructional faculty as having the greatest potential impact on their educational journeys.
Directed

Helping students clarify their aspirations, develop an educational focus they perceive as meaningful and develop a plan that moves them from enrollment to achievement of their goal

Students, particularly those who enter without an educational goal, can easily get lost in the myriad of options most colleges offer. Reports from CCRC, including *The Shapeless River* (Scott-Clayton, 2011) and *How Non-Academic Supports Work* (Karp, 2011), underscore the institutional challenges students encounter as they attempt to navigate college. The University of Southern California Center for Urban Education’s Equity Scorecard adds to the CCRC perspective with its consideration of how students experience systems that are complicated, ambiguous and not developed with the customer in mind (2012).

There are two complementary ways in which colleges can address this barrier and increase students’ direction: make the collegiate system more user-friendly and develop students’ capacity to navigate the system. As an example of the former approach, the CCRC has developed a practitioner packet to help colleges collect data to diagnose where students encounter the greatest barriers within the system of academic decision-making and to then use the evidence to support improvements (Jaggars, Fletcher, Stacey & Little, 2014). On the other side of the equation are strategies that develop students’ navigational skills and endurance. To be effective, these approaches must be grounded in an understanding of the fact that high school students heading for community colleges, particularly those from underrepresented backgrounds, receive far less guidance than do their peers who are headed to four-year institutions. In their study on racial differences and community college transfer, Crisp and Nunez (2014) found that intensive academic advising with underrepresented minority students, beginning in high school, could direct them to enroll in the collegiate courses that count toward transfer. Once these students reach the community college, Crisp and Nunez argue that faculty and counselors must prompt and facilitate student goal setting. If students can connect the college experience to the attainment of a goal that is important to them, they are much more likely to persist. For this reason, it is also critical that colleges help learners clarify their aspirations and develop an educational focus they perceive to be both meaningful and feasible.

However, how can such a wide range of targeted supports and interventions be scaled to enhance students’ direction in college? One strategy is to help students who are most vulnerable develop an overall positive self-concept, in concert with the behaviors and attitudes that are associated with college success. The Academy for College Excellence (ACE) was one of the early pioneers of the self-efficacy approach, a model grounded in psychosocial science, building the affective dimension of academic success and a sense of community among college participants. Research across four cohorts of ACE students from different institutions showed that programs that maintain the core elements of ACE improve students’ affective skills and competencies, help students acquire behaviors and attitudes required to succeed and improve academic outcomes (Farr, Rotermund, Radwin, & Robles, 2012).
Focused
Fostering students’ motivation and helping them develop the skills needed to achieve their goals

In its 2011 Survey of Entering Student Engagement, the Community College Survey of Student Engagement found that nine of ten students “agree or strongly agree” that they have the motivation to do what it takes to succeed in college. To develop and maintain this motivation, it is important to have supports in place that continuously remind students of the big picture—that staying in college and completing a certificate or degree and/or transferring will improve life opportunities. Successful programs help students “imagine their future potential” and how their education will allow them to realize this potential (J. Pieri, personal communication, July 28, 2011). For example, information on specific career and employment opportunities that relate to their studies may help students develop a clearer perception of what it takes to succeed, bringing into focus their long-term goals. In How Non-Academic Supports Work, Karp (2011) emphasizes that community college students are particularly motivated by the connection between education and career pathways, a point reiterated in extant research (Griswald & Ellis, 2012; Grubb, 2006). Completion by Design research—funded by the Bill and Melinda Gates Foundation—reported that “being in programs with well-defined [career] pathways, gave [students] a greater chance of persisting, completing, or transferring” (2012, p.2).

Inside the classroom, all students need resources and tools that can help them do what is required to be academically successful. Instructional strategies such as culturally relevant and collaborative learning encourage students to work in groups to collectively complete projects and assignments that are meaningful and pertinent. Wlodkowski’s framework for multicultural teaching and learning underscores this pedagogical approach, citing four chief conditions of such an environment (1999, p.11):

1. Establishing inclusion: Creating a learning atmosphere in which students and teachers feel respected and connected to one another
2. Developing attitude: Creating a favorable disposition toward the learning experience through personal relevance and choice
3. Enhancing meaning: Creating challenging, thoughtful learning experiences that include students’ perspectives and values
4. Engendering competence: Creating an understanding that students are effective in learning something they value

Nurtured
Conveying a sense of “authentic caring” where students’ success is important and expected

An investment in students’ success and well-being—an “authentic caring” or cariño (Shears, 2010)—is a hallmark of the Puente and Umoja programs. As one practitioner described it in an interview, instructors are “dedicated to [students] shining” and view students’ success as an extension of their own success (L. Dannels, personal communication, July 29, 2011). Cox’s (2009) research uncovers students’ deep fear of revealing their own lack of preparation and their reticence to approach professors, even when their instructors invite them to do so. She
underscores that practitioners must proactively nurture students—rather than assume that learners in need of nurturing will come to them. George’s (2010) article on the ethic of care echoes these sentiments and stresses the role of the nurturing professor, typifying these faculty members as those who genuinely believe in their students, are critically conscious of the student-teacher power imbalance and work to make learners feel respected, and implore students to achieve their personal best. These pedagogical approaches integrate feelings into the classroom and provide a foundation for students to explore their beliefs about themselves as individuals and as learners in a safe environment where their success is supported and expected.

## Engaged

*Actively involving students in meaningful and authentic educational experiences and activities inside and outside the classroom*

Research indicates that engagement can be fostered both inside and outside of the classroom by faculty, peers, mentors and support service professionals alike. Lundberg (2014), for example, found that whether in or outside the classroom, faculty exchanges with students were pivotal to community college student success and, in fact, surpassed other positive collegiate influences like involvement in student clubs and relationships with peers. Though focused strictly on transfer students, Lester, Brown, and Mathias (2013) also captured the importance of faculty-student interactions in their study on social and academic engagement post transfer. Transfer students expressed that faculty engagement took many forms, such as “extensive comments on writing, or instances in which faculty members went beyond student expectations, paying special attention to their progress or regularly assisting with learning the material outside of class” (Lester, Brown, & Mathias, 2013, Definition of and Participation in Academic Engagement section, para. 3).

Concurrently, the recent Gallup-Purdue Index Report (2014) underscores the pivotal role faculty can play in engaging students in ways that will improve not just college success, but also long-term outcomes, such as engagement in work after college. Though the research primarily sampled students who attended four-year institutions, the results have significance across segments in relation to engagement. Specifically, the study found that graduates “who had at least one professor who made them excited about learning, cared about them as a person, and was a mentor, have more than double the odds of being engaged at work and being thriving in well-being” (Gallup-Purdue, 2014, p. 10). However, opportunities for this kind of engagement tend to be much less available to students in community colleges as evidenced by Gallup-Purdue (2014) findings that four-year graduates were five times more likely than two-year graduates to have encountered professors who cared about them and made them excited about learning.

In *A Matter of Degrees* (CCCSE, 2012), the Center for Community College Student Engagement (CCCSE) underscored that engagement has to be “inescapable.” CCCSE notes that a variety of programmatic interventions such as accelerated developmental education, first-year experiences, student success courses and learning communities provide a culture of support that helps students become involved in meaningful learning experiences. This environment is precisely the positive culture that programs such as Puente, Umoja and AANAPISI seek to inject into the
classroom and college community, as campuses strive to **increase welcoming and relevant educational experiences for Latino, African-American, Asian-American, Native-American and Pacific Islander students.**

### Connected

*Creating connections between students and the institution and cultivating relationships that underscore how students’ involvement with the college community can contribute to their academic and personal success*

The more relationships students have with others, the more difficult it is for them to walk away from school. In Schuetz’s (2008) study on theoretical frameworks that drive best practices in the community college, a sense of belonging corroborates the RP Group’s findings on connection. In this context, belongingness is fostered via human connections, spurred largely from “supportive and caring relationships where one’s thoughts and feelings are valued” (p. 23). Thus, connections can form anywhere—during an orientation session, in a student success course, among a group of Math, Engineering, Science Achievement program participants who “hang-out” after class or through culturally-focused programs like Puente that help participants build their social capital by linking them to different personal and professional networks (Rodriguez, 2007). They can be forged with faculty members who have confidence that a student will be successful or whose own experience resonates with the student’s predicament. The CCSSE (2009) report, *Making Connections: Dimensions of Student Engagement*, offers practitioners a number of examples for how these connections can be developed and strengthened, including ideas for how any and all individuals at a college—from peer-tutors, part-time faculty and mentors to maintenance staff—can help students feel they belong on campus.

### Valued

*Providing students with opportunities to contribute to and enrich the college culture and community*

Research indicates that **student success is enhanced when learners have opportunities to share their culture, history and personal experiences on campus and when they feel valued for these contributions.** Programs such as Puente and Umoja focus on making students feel valued not only as individuals, but also as learners by incorporating rituals, content, assignments and leadership opportunities into the classroom that resonate with students’ life experiences and interests and validate them as intellectual and social contributors (Rendón, 2002). Additionally, these programs **encourage students to support their peers by promoting teamwork and by providing opportunities for students to offer constructive feedback and input on each other’s work** (Rendón, 2002).

Practitioners can utilize pedagogical strategies that increase student self-worth and sense of value. In Capps’ portrayal of adult learners in the community college, she identifies numerous “validating practices” such as, “learning and using student’s names, telling them about and encouraging them to use on-campus resources, listening to their concerns and hopes; and characterizing students as competent learners who are capable of overcoming barriers and
persisting in higher education” (2012, p. 42). In addition to classroom-based approaches, students’ sense of worth can be fostered by tutoring peers, being elected to student government, participating in sports and involvement in student clubs—all activities that can be seen as adding value (Astin, 1993b; Kuh, Kinzie, Cruce, Shoup & Gonyea, 2006). These opportunities provide a platform for students to begin to view themselves as having a valuable role to play in the life of the institution both inside and outside the classroom (Pascarella & Terenzini, 2005). College becomes a place where students can positively affect how the institution works in an effort to improve and enhance not only their own lives, but those of their fellow students. In their research on effective practices in minority-serving institutions, Gasman and Conrad (2012) encourage all colleges to “establish environments in which everyone contributes to the success of every student” and to provide students with opportunities to engage in culturally relevant and real-world problem solving (p. 18). In delivering this message, Gasman and Conrad underscore a critically important point that can be all too easily overlooked because so much research focuses on the faculty-student relationship. However, while faculty plays a pivotal role in supporting students, everybody on campus has a role to play in creating an environment and a culture where students can access all six success factors.

Cost-Effective Student Supports

Research in the area of cost-effective supports has often focused on three strategies. The first strategy involves creating a formula or approach to calculate the costs of offering a set of classes, services or activities. For example, studies of acceleration in basic skills examined the costs savings realized when students complete fewer courses and are able to begin college-level instruction sooner (Jenkins, Speroni, Belfield, Jaggars & Edgecombe, 2010; Sommo, Mayer, Rudd & Cullinan, 2012). The second strategy includes determining the costs to the college of student attrition or completion. This approach consists of placing "a dollar value on attrition" by examining the resources expended against the loss of tuition and other funding revenue when a student leaves an institution (Jones, 1986).

A third strategy focuses on calculating the return on investment (ROI) or downstream revenue of the positive effects of change after an intervention. While a particular program or service may cost more, that initiative could arguably be considered cost-effective if the average cost per completer or graduate decreases because more students persist, complete and graduate—particularly those who historically are less likely to do so (T. Rudd, personal communication, July 21, 2011). The Metro Academies Cost-Efficiency Study (Johnstone, 2013) uses this approach, finding that the cost per graduate of the high-touch Metro model is more than recovered in the form of cost reductions per graduate on the backend. As an illustration, an additional investment of less than $1,000 per student per year for the two-year program reduced the cost per completer by almost $23,000.
**Recommendations for Future Research**

Though focused squarely on California, Student Support (Re)defined contributes to a wider body of knowledge honing in on national best practices in the community college. That said, what is missing from the current research became clear while mining extant literature and interviewing hundreds of students. First, future mixed-methods research need to determine what support faculty, student services professionals and administrators, particularly those who are part-time, need to become as effective as possible in their effort to help students succeed. That is, turn the table by examining those who deliver student supports, rather than those who receive it. Second, it is critical to measure the ways in which student-faculty interactions link to community college student success. In essence, what precisely do faculty do to bolster student achievement? Third, expanding support to all students will require technology-supported assessment, education planning and counseling services. Therefore, it is worth investigating how technology can effectively provide, or aid in providing, student support, particularly given the recurring finding that interaction with faculty members is key to student success.

Since California’s 2012 Student Success Act will use technology to comprehensively overhaul how some student supports are delivered, it is important and especially timely to pay attention to the third research recommendation. Thus far, studies of online counseling and other types of web-based support show mixed results. E-advising, when well-designed, can supplement but not supplant personal interaction with a counselor or other human being (Karp & Stacey, 2013). Technology, combined with the effective use of student data, can also be used to identify and target particular student groups for early alert and even preemptive interventions and support. The triage that this kind of targeting allows may help deploy scarce advising services more strategically toward those who need them most while allocating only minimal, and possibly all online advising resources to successful students. However, while there are great opportunities to use data and technology to more effectively support collegiate learners, research consistently acknowledges the limitations of online advising and students’ preference for human interaction (Bettinger & Baker, 2011). Further, early research of how students interpret and use web-based counseling resources indicate the potential for confusion and misunderstandings (Margolin, Miller & Rosenbaum, 2013; Karp & Stacey, 2013).
Conclusion

The Gallup-Purdue Index Report (2014) referred to earlier in this brief found that how students experience higher education impacts career and life satisfaction. The successful student actively seeks out and uses the full range of opportunities offered to him or her inside as well as outside of the classroom, on as well as off campus. However, as Schudde (2014) argues in response to the Gallup-Purdue findings, students who are able to integrate themselves into the college environment in this way, tend to arrive on campus with a considerable amount of cultural, social and academic capital. The opposite is true for so many community college students, especially those who attended under-resourced high schools and are first in their family to attend college. These students arrive on campus feeling that they do not belong. A campus-wide initiative launched in 2013 at the University of Texas at Austin (UT) is seeking to address this major obstacle via a combination of supports that, in addition to changing the students' academic and extracurricular experiences, also provides participants with assignments and messages specifically developed to help them reassess their sense of belonging and their ability to succeed (Tough, 2014). Based on Professor David Laude’s Texas Interdisciplinary Plan (TIP), the institution-wide model incorporates “small classes, peer mentoring, extra tutoring help, engaged faculty advisers and community-building exercises” (Tough, 2014, para. 28).

The approach pursued at UT documents the need for colleges to think about student support in a holistic manner and to recognize that different students require different combinations of academic and non-academic support. More than anything, the Gallup study and the research that prompted UT to try a new approach to reaching and supporting students confirm the need for supports to be intrusive and unavoidable, as the students most in need of support are also those who are least likely to seek it out. These and so many other studies cited in this literature review also underscore the need for supports to be guided by a deep understanding of what motivates and compromises student progress—insights that this project gained by asking almost 1,000 students about what makes them successful.
In Year 1 (2011-12) of Student Support (Re)defined, the RP Group explored students’ perspectives on what they find supportive as they work toward their educational goals through surveys and focus groups conducted at 13 community colleges across California. The RP Group organized this phase of the study around the six student success factors we developed through this literature review. This research investigated how these six factors work in isolation or in combination to impact students’ success and what factors specific student populations, including African-American and Latino learners, find particularly important to their achievement.

In Year 2 (2012-13), the study examined community college practitioner perspectives on how to implement these essential elements of support. Of particular interest was the identification of strategies that show promise for facilitating persistence and completion among underrepresented students. Throughout the project, the RP Group continuously convened stakeholders to review and respond to the findings with focused discussions and research-guided action.

In Year 3 (2013-14), the study concentrated on dissemination of the research findings with an emphasis on taking action to improve success for all students.

For a full description of the project’s methodology, visit: http://www.rpgroup.org/content/research-framework.

For more information
Visit www.rpgroup.org/projects/student-support or contact Dr. Darla Cooper, Director of Research and Evaluation, at dcooper@rpgroup.org
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Expert Interviewees

The RP Group extends a special thank you to the following student support practitioners and research experts who participated in a series of informational interviews that guided and informed the Student Support (Re)defined literature review.

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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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