



Chapter Eight

uniting K-12 and postsecondary leaders to help students persist and succeed

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Problem of Practice

How to improve the successful transition and persistence of pathway graduates into and through postsecondary education?

Abstract

This profile documents how education leaders in Monterey County, California have collaborated across the K-12 and postsecondary sectors to address three interlocking issues: credit-bearing college math placement, college readiness, and college completion. This focused effort, designed to support students to successfully transition to and through college math, aligns with a broader concern: How to create a twelfth grade experience that prepares all students, including first-generation, low-income students, for successful postsecondary trajectories.

Introduction

In their multi-year study of Linked Learning implementation, Caspary and Warner (2017) found that student participation in high-quality pathways tends to increase the number of low-income youth of color who are prepared for admission to two- and four-year degree granting colleges and universities. Most notably, this study found that African-American youth in certified pathways are substantially more likely to meet college admission requirements, and to matriculate at four-year degree granting colleges. Yet, despite the power of strong pathway programs to prepare youth to enter college, students in career-themed pathways are not more likely than non-pathway students to *persist* in college.

One key obstacle to college persistence is that significant numbers of low-income youth and youth of color fail to place into credit-bearing coursework as college freshmen (Ganga, Mazzariello, & Edgecombe, 2018). Indeed, despite having successfully passed three years of college-required math in high school, about one-third of all freshman who enrolled into the California State University (CSU) system in 2015 were placed into developmental-level math (Burdman, 2017). Similar patterns emerged for students attending a California Community College (Burdman, 2015). Students placed in developmental math are less likely to complete college (Ganga, Mazzariello, & Edgecombe, 2018). Research finds, for example, that almost two-thirds of students who drop out of California's community colleges are those who have progressed no further than remedial math (Burdman et al., 2018). Consequently, many analysts have concluded that in order for more low-income minority youth to make successful transitions, persist, and gain the full benefits of



college attendance, K-12 and postsecondary institutions will need to better integrate their curricular approaches and related systems of support for all students (Barnett, Fay, Pheatt, & Trimble, 2016; Burdman, 2015).

An interim indicator of progress toward the goal of attaining a college degree is completion of a credit-bearing course in a gateway subject like math or English in the first year of postsecondary education (Vargas, 2015). Specifically, students who are assessed in eleventh grade as not ready for college-level math would benefit from transitional courses in the twelfth grade. These transitional courses would prepare them for a timely move to credit-bearing courses in college math. The collaborative approach undertaken in Monterey County to impact college math placement and completion aligns with this suggestion and reflects the three-part implementation framework: “Co-Design, Co-Delivery, and Co-Validation” (Vargas & Venezia, 2015).

Background

MONTEREY COUNTY COLLEGE MATH READINESS LANDSCAPE

Monterey County is home to 24 school districts that, along with the county office of education, serve almost 78,000 students. Ten of these districts, along with the county office, enroll approximately 22,000 high school students. Of those, more than 10,000 attend one of the four comprehensive high schools in Salinas Union High School District (CDE DataQuest, accessed 12.12.2018). The county is home to two community colleges, Hartnell College in Salinas and Monterey Peninsula College, serving approximately 17,000 and 15,000 students respectively (California Community Colleges Student Success Scorecard, accessed 12.12.2018) and one four-year university, California State University, Monterey Bay (CSUMB), which serves more than 6,700 undergraduates (College Results Online, accessed 12.12.2018).

Like other California counties, Monterey County’s educational institutions are grappling with challenges related to equitable college access and completion. In 2012, the Monterey Bay region was ranked among the lowest in California for college going, as well as for the rate of students enrolled in advanced math courses (Moore, Tan, & Shulock, 2014). In 2017, the percentage of Monterey County students completing the course eligibility requirements for University of California (UC) and CSU

entrance was around 42%, compared with 47% for the state. In Salinas Union High School District, the rate was slightly higher than the county average, with individual high schools’ rates varying from 39% to 55% (CDE DataQuest).

At Hartnell College, the number of students who placed into one or more remedial math and/or other remedial courses is more than four times the number who placed into college-level courses. This is particularly significant because completion or transfer rates are almost twice as high for those students whose initial placements are into college-level courses (72% compared with 40%) (California Community Colleges Student Success Scorecard). Hartnell is actively working to address these issues, including efforts underway through its “Bridging the Gap” initiative that aims to ensure smooth transitions from high school to college. Through this initiative, regional education partnerships receive support in addressing the critical transitions from high school to postsecondary education, with particular attention to the needs of low-income, under-represented students.

At CSUMB, the six-year graduation rate is 55% (College Results Online). To improve completion rates, CSUMB’s math department has implemented a range of reforms to its developmental math program. This has resulted in reducing the number of initial placements into remedial math and increasing the rate that students who placed into college-level math pass the initial course and advance to the next level. These improvements have informed CSUMB’s design of new course sequences that meet the CSU system goal of eliminating developmental math altogether. In addition, the math department at CSUMB is collaborating with Hartnell College to strengthen curriculum and transfer pathways, and with K-12 school leaders on teacher professional development issues.

ENGAGING PARTNERS TO ENVISION STRONGER K-12 COLLEGE MATH PATHWAYS

Building on these longstanding education partnerships, and fueled by a commitment to address regional issues related to local students’ success in mathematics, CSUMB responded to an invitation from the California Department of Education (CDE) to develop a new twelfth grade math course designed to ensure college readiness. Led by Dr. Joanne Lieberman, a math professor and teacher educator, CSUMB launched a cross-sector project to develop the new course and associated professional development of math teachers. First, Dr. Lieberman partnered with the math

specialist at the Monterey County Office of Education (MCOE) to identify and recruit those districts in the county most interested in participating. Together they reached out to district administrators to, as Lieberman describes, “explain the what and why” of the course. Buoyed by broad collective interest, the CSUMB and MCOE partners established an initial leadership team (including other CSUMB faculty and a longtime collaborating faculty member from nearby San Jose State University) and commenced to organize meetings and informal conversations to clarify common goals, and determine the actions required to achieve the goals. The team sought to ensure that the cross-sector project aligned with each partner’s own educational goals and needs. Over time, district administrators were added to the team to reflect the project’s geography and to contribute to course design, teacher professional development, and engagement of principals and parents. The CSUMB Math Readiness Project was launched.

CONFIRMING COLLECTIVE GOALS AND STRATEGIES

The CSUMB Math Readiness Project codified plans to:

1. Develop and pilot a new twelfth grade math course. A central goal of the project was to design a course that would engage and motivate students; demonstrate the usefulness of mathematics; deepen understanding of math concepts; and reinforce critical problem solving skills to support success in geometry, algebra, statistics, and higher-level math such as graph theory, informatics, and financial decisionmaking.

2. Address Teacher Professional Development. Professional Development (PD) in the partner schools and districts would build capacity for effective implementation of the pilot course and enhance math teaching more broadly. In addition to monthly meetings at school sites and intensive off-site PD for math teachers in all of the participating districts, site-based coaching and online office hours would be offered to teachers of the new pilot course. Principals would also be invited to attend any or all of the PD opportunities.

3. Build a Cross-Sector Professional Learning Community for the Pilot Schools and Districts. A professional learning community for pilot teachers and the leadership team would serve as a venue to share knowledge gleaned through course implementation and provide curriculum-specific professional development.

4. Engage Parents. Family Math Festivals would take place at school sites in the participating districts, designed to

engage families in math activities facilitated by high school students.

5. Build a Countywide Network of Math Educators. The project work group envisioned some countywide strategies, including a math teacher network, that would reach beyond teachers in the pilot program, and provide participants with in-person professional enrichment and support. This countywide math network would include math faculty of local postsecondary institutions, students studying to become math teachers, and secondary school math teachers.

6. Develop a Leadership Collaborative. The work group identified a need to formalize a cross-sector collaborative that could institutionalize the college readiness work after the pilot phase for the math project ended. The collaborative would be comprised of leaders from each partner institution. This leadership group would focus on math readiness but might eventually provide a platform for educators to share and discuss strategies and policies related to college readiness more broadly. This structure would become the Math Advisory Collaborative (Collaborative).

Three-Part Framework of Partner Engagement

In describing how the Math Readiness Project approached collaborating across the K-12 and postsecondary sectors, the deliberate actions taken can be understood by reference to Vargas and Venezia’s implementation framework: “Co-Design, Co-Delivery, and Co-Validation” (Vargas & Venezia, 2015).

CO-DESIGN

Deciding on and designing together courses, curricular pathways, and support systems, as well as professional development opportunities and data platforms, that impact what and how students learn (Vargas and Venezia, 2015: p2).

When secondary and postsecondary educators come together to consider appropriate content and pedagogy, students benefit from the institutions’ shared understanding of the material that is being covered and the ways in which teaching and learning occur. This is especially true in learning pathways where the high school experience is explicitly designed to support student persistence into and through

postsecondary education. For example, some students who excel in Linked Learning in high school struggle to adjust to new expectations and experiences in college. A study of the postsecondary experiences of students who graduated from Linked Learning pathways in San Diego found that many of those interviewed “... hit significant roadblocks that have caused them to question themselves, their academic abilities, and their future potential” (Latimer & Kluver, 2015). Vargas and Venezia suggest that a shared understanding among educators and students about the standards and key skills that students must master will help to smooth student transitions across the education sectors.

CO-DELIVERY

Sharing and coordinating faculty and staff, facilities, and other resources to carry out the co-designed learning experiences and supports (Vargas and Venezia, 2015: p2).

Beyond common agreement on the knowledge, skills, and belief systems that educators need to develop among their students, the framework suggests that students also benefit from cross-sector implementation efforts. While acknowledging that co-delivery is difficult to achieve, Vargas and Venezia suggest that when partnerships extend beyond shared decisionmaking to include jointly undertaking key implementation steps, participants are better able to assess, revise, and continually improve their curricular design decisions. Likewise, experienced technical assistance providers have identified a set of cross-system interventions that K-12 and postsecondary partners can co-deliver to help bridge student transitions from high school to college. These strategies include the collaborative implementation of integrated instruction and student support initiatives or programs (Dadgar, Fischerhall, Collins, & Schaefer, 2018).

CO-VALIDATION

Accepting agreed-upon assessments, successful completion of performance tasks and experiences, and other indicators of learning as evidence of proficiency, including for placement in credit-bearing, college-level courses (Vargas and Venezia, 2015: p2).

For co-design and co-delivery to meaningfully impact students, cross-sector agreements regarding how students will be assessed and the ways in which student success will be measured are important. Fundamentally, co-validation



supports alignment between the last year of high school and the first year of college. It ensures that students understand the relationship between their efforts in twelfth grade and their placement in college level courses. At the same time, this co-validation effort builds the sense of mutual accountability among secondary and postsecondary leaders.

Across all three elements of the framework, past research also highlights the value of student performance and behavior data and research-informed readiness indicators when used collaboratively by colleges and high schools (Grady, 2016). The regular use of such data for planning, inquiry, and continuous organizational improvement can build capacity and commitment for cross-sector collaborations and support students' success as they transition from high school to college.

Collaborating to Create an Integrated Math Experience

Once Dr. Lieberman and her CSUMB colleagues secured agreement on goals and a commitment to work together from their County, K-12, and Community College partners, she moved to reconvene the math project work group. In addition, Lieberman engaged a team from Stanford's John W. Gardner Center for Youth and Their Communities to

help develop the format and content for the countywide Math Advisory Collaborative meetings. The work group understood that the next step was to move beyond abstract discussions to a set of concrete actions and projects focused on creating an integrated math bridge for student success in college. They determined the districts' responsibilities and a timeline to ensure that the new course would be offered in the Fall. This required districts to recruit teachers for three related roles: course developer (lead teacher), course teacher (pilot teacher), and professional development participant (any secondary math teacher in a participating district). The work group supported the recruitment effort, and a grant from the CDE supported stipends for each of the three teacher positions.

The work group established two teams, one to develop the course curriculum and one to plan the professional development.

CO-DESIGNING THE COURSE CURRICULUM

The course development team included representation from both postsecondary and secondary math faculty divided into four sub-teams, each of which developed a particular math unit. Periodically, the full team came together to discuss how the units were evolving and aligning. Together, they considered the ways in which the new math course could support students who were on a path toward college, but were not yet assessed as “college ready” in math. The teams also considered how the curriculum and pedagogy that defined the new math course would support students to think deeply about mathematical concepts, use and articulate reasoning, and instill a growth mindset in math. As well, course planning addressed design features to reflect the partners' deep belief that, as Lieberman articulates:

“all students can learn math, and that struggling over interesting, challenging problems leads to deeper learning.”

In conjunction with designing the course, the team provided the information necessary for each school to receive A-G certification (meeting the subject matter and course sequence requirements for eligibility for undergraduate admission to the UC or the CSU system), as well as any additional information that schools might need to gain approval from their respective school boards to include the course in their fall schedules. Although the timeline was short and the teachers struggled to find the time necessary to fulfill their responsibilities, the team met all deadlines and the course was certified and ready for the opening of school in the fall of 2017.

CO-DESIGNING PROFESSIONAL DEVELOPMENT

In parallel with curriculum design efforts, project leaders convened a team of practitioners from the postsecondary institutions and the county office of education to design professional development activities that would build capacity for high-quality implementation of the new course. The team designed opportunities that would guide teachers to effectively teach the math content, model pedagogical practices associated with the new course, and create classroom conditions to support learning goals. They were charged with developing a plan that would not only instill the philosophy, but provide tools to support growth mindset in math. These competencies would extend to all of the teachers' math courses. In addition, non-pilot math teachers in the participating schools and districts were encouraged to participate, thus broadening the systemwide impact.

While the design team was responsible for content, district administrators took the lead in building agreement on, and commitment to, a calendar for the pacing and timing of professional development activities across the school year.

Collaborating to Deliver the New Course and Professional Development

In Monterey County, the approach to co-delivery was accomplished by weaving together pilot course instruction with concurrent professional development. Typically, classroom instruction and professional development are conceived as separate, asynchronous activities. Participants in this conventional approach often lament that professional development is unmoored from the experience of teachers, fails to acknowledge and capitalize on their current funds of knowledge, and is delivered by trainers who are not familiar with the context in which an intervention is implemented. The simultaneous and integrated approach taken in Monterey County, by contrast, allowed participants to build instructional capacity while engaging in rapid cycles of design-based inquiry and improvement.

SITE-BASED COACHING

CSUMB partners engaged their high school pilot course teachers in ongoing course planning, classroom observations, and site based coaching by a master teacher. They also

provided the pilot teachers with weekly virtual office hours to discuss course content, pedagogy, and challenges, and to obtain student and teacher feedback.

MONTHLY PROFESSIONAL DEVELOPMENT MEETINGS AT IMPLEMENTATION SITES

Staff from CSUMB or the county office of education facilitated these meetings, with high school teachers participating. These sessions were devoted to collaborative lesson-planning, and analysis of teacher practices at each site.

SIX FULL-DAY LEARNING SESSIONS

These sessions provided extended opportunities for pilot course teachers to interrogate implementation challenges at each site, assess student response to the new course across sites, and deepen their understanding of the math in the course.

SPRING-SUMMER MATH INSTITUTES

These institutes are provided for both pilot course teachers and all secondary school math teachers during one Saturday in the spring and three to five days in the summer focused on math content, strategies for facilitating math discussions, and implementation of complex instruction.

On-Going, Design-Based Inquiry: Course and Professional Development

Project leaders engaged Stanford’s Gardner Center to support the design and development of the Math Advisory Collaborative sessions, to ensure that they would be framed by a focus on data and research-informed indicators of college readiness and success. Committed to letting the Collaborative drive the overarching agenda, Lieberman suggested that the first meeting engage partners to consider their interests and concerns. Through input gleaned during this session, the Gardner Center recommended that the process of developing and implementing a new course serve as a starting point for critical inquiry about progress and challenges related to a wide range of college readiness and success indicators. To this end, the pilot project leaders engaged partners to identify and share data related to the course, as well as other information focused more broadly on supports that students need for college readiness and completion.

Reflecting the shared commitment to collecting data that would facilitate learning and improvement, the curriculum design team solicited feedback through a survey of students after the first few months of the course. Written, open ended, anonymous responses provided valuable input into ongoing course planning. Course teachers also shared feedback, and have worked together to address challenges and improve the course’s effectiveness, thus fostering a sense of partnership and collaboration. For example, one challenge raised relates to differences in student learning style (e.g., some students are inquirers, others want to be shown how to do it, and some are less inclined to work independently). While tackling these kinds of issues, teachers built on shared successes.

The ongoing Collaborative meetings, classroom observations, and concurrent professional development have facilitated fast cycles of inquiry and modification of the course content and instruction processes. Teachers have shared changes that they have made in response to student needs, including the addition of exercises to support content knowledge or skill development and assessments, and making revisions to the pacing and sequencing of course content. Further, the professional development focuses on equitable teaching practices, and supporting student learning through an emphasis on group work, complex instruction principles, and the scaffolding of tasks (e.g., designing tasks that provide access and challenge to all learners and acknowledging that verbal explanations are math strengths). In complex instruction, “teachers use cooperative group



work to teach at a high academic level in diverse classrooms. They assign open-ended, interdependent group tasks and organize the classroom to maximize student interaction. In their small groups, students serve as academic and linguistic resources for one another” (Cohen, Lotan, Scarloss, & Arellano, 1999, p.80). As described by Dr. Lisa Jilk in an April 2018 presentation to the Math Advisory Collaborative, Complex Instruction builds equitable math classrooms by creating cultures and norms that honor different student learning styles and strengths and that promote peer-to-peer accountability for learning among students.

While this focus was core to the initial design of the course, early inquiry influenced the design team to further emphasize supports for college math readiness by weaving into the course instructional elements focused on developing student academic tenacity and college knowledge.

Lessons drawn from the pilot course implementation have also impacted partners more broadly. For example, educators across sectors shared their interest in addressing math teaching and learning before and after twelfth grade. Part of this conversation focused on the potential for group work and complex instruction to offer an opportunity for consistency in pedagogy across K-12 and postsecondary education. Complex instruction concepts have been, and continue to be, integrated into the PD for secondary partners. Some district leaders are considering opportunities for complex instruction to be incorporated into lower grades and/or different subject areas. In addition, postsecondary partners are exploring opportunities to incorporate these concepts into their new first year courses for college freshmen, potentially smoothing the transition from high school to college.

CO-VALIDATING THE NEW COURSE AND PROFESSIONAL DEVELOPMENT

As they began the work to implement the new course, the project leadership team wanted to validate that the pilot content and design would successfully engage students and that teachers could execute the pedagogical tasks with both fidelity to the student learning goals, and with context-dependent flexibility in the delivery. These implementation outcomes were important to ensure that the design was sustainable and scalable in the long run.

As noted earlier, the leadership team used student surveys and classroom observations both to better understand the implementation process and to interrogate their course

design. Coaches, teachers, administrators, and postsecondary partners also used these activities to assess the student experience and understand the effectiveness of specific aspects of the curriculum and associated pedagogy in real time. Student surveys revealed, for example, that students liked the group work and the varied learning opportunities associated with the course. Similarly, students reported that the course *benefited them* by helping them to learn new ways of problem solving and to engage in critical thinking, as well as helping them to think more deeply, persist, and learn the material. Further, students indicated that they would *recommend the course* to students struggling with math, and to students who are planning to go to college.

Teachers report that students enjoy engaging in the activities and go beyond what is being asked of them, are making math connections and deepening prior knowledge, and are having deep math conversations. They also report that the tasks are accessible and challenging for all levels of students, and that some who had struggled are now blossoming while others, who had always been successful, are now learning from others’ thinking.

Teachers also conducted before and after assessments of student performance related to math skills and growth mindset and used professional development opportunities and common planning time to analyze data from these assessments to understand the short-term impact of the Pilot Course on student mastery of college-required math.

Beyond their perceptions related to successes and challenges in the classroom, teachers were also afforded the opportunity to assess the professional development. Overwhelmingly positive responses have indicated that the PD has significantly impacted teacher practice, with one teacher calling the experience “life changing.” The input has been used to inform the content and format of PD.

In addition to the more tangible outcomes of the pilot project, the creation of a new course and the provision of opportunities for critical professional development for math teachers, there were also other indications of the pilot’s success. As one district administrator and long-time math teacher described:

“This [math readiness project] has made my dreams come true. I wanted to help the community change their attitudes about math, not just the students. It’s been a catalyst for so many things.”

USING A SUMMER MATH ACADEMY AS A LABORATORY FOR THE NEW COURSE

Project leaders also conceived of a unique way to bring the collaborative course design, delivery, and validation functions together in a sort of real-time implementation and professional development laboratory. This came in the form of a two-week summer math academy that was developed for students who would be taking the course in the fall. One objective of the summer academy was to build students' problem solving skills. But of critical importance for the college faculty partners and county administrators, in tandem with offering a multi-faceted student experience, was using this academy as an opportunity to support PD for teachers as well as to assess the efficacy of different course design elements. Originally planned to take place at a high school campus, partner input resulted in moving the summer academy to the CSUMB campus. Once underway, the academy afforded high school teachers and CSUMB faculty the opportunity to observe and/or teach about 20 rising high school seniors. In the mornings, students worked in groups on complex math problems and received guidance about college applications and financial aid. In the afternoons, the high school teachers and college faculty spent time reflecting on the morning sessions (that they had either taught or observed) and planned for the following morning. The math coaches and county curriculum specialists used the opportunity to engage both the high school and college math faculty in reflections about how they could best support implementation, scale-up, and modifications to the professional development activities. Reflecting on the academy, postsecondary and high school partners expressed appreciation for the opportunity to learn from one another:

"If this kind of learning happens in all classrooms, our problems will go away."

And they were explicit in the learnings they will bring back to their classrooms:

"I saw brilliance in students. I probably have not given avenues for brilliance to come out. I am so focused on finishing prescribed materials. I have just been surviving in the classroom. Now I have strategies and resources."

Ultimately, the Collaborative seeks to confirm that the course will indeed prepare students to succeed in college. Dr. Lieberman and her team have prepared for this by engaging

the Math Advisory Collaborative in early conversations about the data they will collect and track to assess how course participation affects the educational trajectories of students into and through college to successful completion.

Lessons for the Field and Next Steps

The cross-sector development and implementation of the new math course as an integrated student support offered an effective vehicle to rally partners around a collective activity. For secondary and postsecondary institutions, this was a chance to join forces to support their "shared students" in making successful transitions from high school to college. The multi-faceted approach and intentional engagement of cross-sector partners in the course's development and implementation reflected the Monterey County partners' understanding of their educational landscape, as well as the previously established foundation of trust. Development of the course within this place of mutual respect allowed the broader discussion on college readiness and completion to become an authentic search for ways to support all students to be successful on their paths to and through college-level math. Further, the dialogue between postsecondary and K-12 educators improved secondary educators' understanding of the expectations for students entering college-level math. Partners unpacked regional similarities and differences among local high schools. They discovered that while the high schools and districts share some characteristics, they also vary in significant ways, including variations in students' options for a fourth year of math. Similarly, supports for college readiness vary by high school, including tutoring, mentoring, and/or offerings specific to different career



pathways or academies. For example, each of the four high schools in Salinas Union High School District offers students one or two academies, all of which were certified Linked Learning pathways in 2013-14. The academies include engineering and health, agriculture, digital & media arts, green building, and fitness & sports training. In addition, Alisal High School has a “CISCO and Robotics” pathway, designed to explicitly align with coursework at Hartnell College.

Looking ahead, project leaders envision increased alignment of math pedagogy and content across secondary and postsecondary education, especially in first-year math gateway courses that are being developed as part of systemwide changes in the CSU and California Community College systems. In addition, there are opportunities to engage new partners and further enhance the focus on inquiry for learning and improvement through the Math Advisory Collaborative. In this same vein, the leadership team expects to continue its work to date to develop a robust plan for tracking data related to math outcomes, college persistence, and college completion.

Monterey County’s cross-sector, multi-faceted approach to developing a new math course reflects the co-design, co-delivery, and co-validation approach. As the work continues, it is anticipated that this grounding will bring ongoing, collective attention to the needs of students as they move forward on their paths to and through college.



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About the Author

Elizabeth Newman is a senior community engagement associate at the John W. Gardner Center for Youth and Their Communities. Her background includes consulting in the areas of organizational effectiveness, community engagement, communication solutions, and creative documentation. At the Gardner Center, she has engaged with partners in K-12 and postsecondary education, as well as the broader youth development arena and philanthropy. These efforts have included multi-sector collaboratives that build partners' capacity to identify and understand concerns and challenges, and to develop solutions, through a process of data-informed strategy mapping and inquiry. She contributed to *Equitable Access by Design: A Conceptual Framework for Integrated Student Supports within Linked Learning Pathways* and *Where Data Lead, Success Follows: Rural California Districts Band Together to Focus on College Readiness*.

This chapter is part of a guidebook, made possible by a grant from the James Irvine Foundation, on integrated student supports for college and career readiness. The guidebook offers seven illustrative profiles of educators and their partners in California high schools who are working collaboratively to develop comprehensive student supports that “link together” a rigorous academic curriculum, technical education, and workplace opportunities into a coherent learning experience for every youth in their school.