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Photo of students in internship provided courtesy Sacramento City Unified School District. Photo of students on college visit courtesy of Berkeley Unified School District’s Academy of Medicine and Public Service.

Suggested Citation

“Equity in education cannot be accomplished solely within the context of education.”
Introduction

While college and career readiness has become a common goal in the last decade, our secondary schools were designed to divide students into college OR career. In the 21st century, however, success in most careers requires postsecondary education or training. CCP programs combine career technical education (CTE) with rigorous academics, work-based learning, and coordinated, integrated systems of student supports that personalize the learning experience to provide equitable access to postsecondary opportunities. CCP programs and approaches designed with these characteristics, like the California Partnership Academies and Linked Learning, evidence promising impacts on equity in student outcomes, from credits earned to degree completion and long term income (Visher and Stern 2015, Kemple and Willner 2008, Lafors and McGlawn 2013, Warner and Caspary 2017).

Yet there is much we do not know about CCP design and implementation practices, such as how the specific CCP components affect equity in student outcomes, and how to revamp school systems to allow CCPs to flourish and scale with quality and fidelity. As CCP programs and approaches move from alternative spaces to the mainstream, scaling them up raises important questions about how to transform educational systems historically designed to sort students, into equitable systems that empower students.
EXECUTIVE SUMMARY

About the College and Career Pathway Research Symposia

UC Berkeley’s College and Career Academy Support Network facilitated a team of ten research and policy based organizations to examine how research could best inform college and career pathway (CCP) policy and practice. Researchers and practitioners from across the country convened in four symposia to identify critical structural issues impacting the promise of equity as CCPs scale up. They collaboratively developed recommendations for high priority research topics and approaches, compiled relevant literature, and created a network of collaborating researchers, organized around those prioritized topics.

Using a grounded theoretical approach, participants brought forward key literature on an aspect of CCPs, and worked to apply an equity lens to analyze and prioritize. Each iteration of the symposium process expanded participation and grounded the work in equity-based problems of practice. Ultimately practitioners were central to defining research priorities. Philanthropic, community, and policy advocates also participated, for example, vetting criteria for research topic prioritization.

Key lessons emerged on the implications of an equity lens in determining research priorities as CCPs scale-up:

1. the importance of scholar-practitioners’ role in the co-creation of research priorities through investigation of practical problems affecting equity in CCPs;
2. the value of Research-Practice Partnerships for mutual learning and capacity building, and the commitment required for effective RPP collaborations with CCP stakeholders— to address the causes of inequity and remove systemic barriers; and
3. the role of research on best practices that enhance equity in CCP outcomes— to both guide practice and inform local and state policymakers responsible for the systemic supports needed to scale CCP programs.

Four reports describe both the process and recommendations, including the literature referenced, and organized by topic. They are available on the CCASN website, as is the final report synthesizing findings from this three-year effort.
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College and Career Pathway Research Symposia Series

Challenge: Need to Identify Research Priorities in order to Scale-Up College and Career Pathways Equitably

Foundation Leaders
Researchers
CCASN
Scholar-Practitioners
Policy Advocates

Planning Committee

Four inclusive participatory working symposia: Measuring Success in the Student Experience; Equity Issues in Teaching and Learning; Leadership and Capacity Building; and Aligning Systems for Equity

Reviewed and Compiled Literature
Identified Priorities and Research Recommendations
Created College and Career Pathway Research Network

Challenge: Siloed Stakeholders and Strained Power Dynamics
Inclusive Research Partnerships

Challenge: Inequitable Design of Education Systems
Research to Drive Systems Change

Challenge: Complexity of College and Career Pathway Design
Research to Guide Practitioners’ Work

Career-Oriented Small Learning Community
Integrated Academic and Technical Program
Work-Based Learning
Embedded Student Supports
Inclusive Research Partnerships to Focus an Equity Lens

Transforming education systems so that CCPs can flourish and grow is particularly challenging because those systems are not structured to support the key elements of CCP programs. Inclusive research-practice partnerships (RPP) build mutual learning and capacity among researchers, education leaders and community stakeholders, who collaborate to:

- understand the complex problems affecting equity in CCP student outcomes
- adapt research-based solutions to particular contexts
- develop and document best practices, and
- inform policy decisions (Coburn and Penuel 2016)

The bedrock of an effective RPP is trust, which grows when stakeholders collaborate around a mutual commitment to educational justice. RPPs built upon mutual trust can empower all stakeholders’ to press for access to resources and changes in policies that address the causes of inequity, dismantle barriers and build bridges to student success.

Research to Drive Systems Change

System leaders prioritized research that can drive systems change to improve equity in CCP student outcomes, including leveraging systemic mechanisms:

- How policies enhance or obstruct equitable access to CCP-related opportunities, from dual enrollment, to English Learner and Special Education programming, to counseling and student supports
- Designing and documenting the scaling of best practices that improve equitable outcomes
- Measuring work-based learning (WBL) outcomes as indicators of college and career readiness for state accountability systems
- Designing new ways to recruit for and organize 21st century educator pathways, as well as to integrate CCP instructional practices into educator preparation programs and professional development.

Educator pathways are a critical equity concern. Teacher shortages undermine innumerable students’ access to quality instruction, leave key pathway classes without teachers, and particularly affect low-income schools and high demand sectors. Special education and bi-lingual teacher shortages severely impact integrated student supports in CCPs.

Research to Guide Practitioner’s Work

Most research priorities identified in the symposia involve research that can guide practitioners’ work developing equitable, high quality pathways. Research recommendations aligned with the four components of the CCP design (Stern and Hoachlander 2011) are described on the following page.
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A small learning community with a teacher team that collaborates and shares responsibility for a cohort of students interested in a specific career field

Collaborative, inclusive research can help build capacity to create and lead CCP teams. Site and district leaders need guidance on:

- How to create CCP structures, e.g. common planning time, student cohorts and shared leadership
- Best practices for training teachers to collaborate, contextualize subject matter and apply “deeper learning” pedagogical approaches to a specific career field
- How to prepare leaders and educators at all levels to facilitate CCP development, e.g. to prepare counselors to lead in integrating career education and embedded student supports

A college preparatory program of study with hands-on career-themed integrated project based learning, and a strong technical core

A framework that defines and describes CCP instructional practices that support diverse students’ success and promote equitable student outcomes is an essential priority for teacher professional development. Tools built upon that framework could measure quality in CCP instructional programs, support teacher growth, and weigh equity in access to quality instruction across career pathway programs. Additionally, research is needed on:

- How best to build teacher capacity to contextualize subject matter by industry fields
- How to develop interdisciplinary project-based curriculum
- How to align programs of study for equitable access to postsecondary pathways, such as with Dual Enrollment courses, including appropriate embedded student supports

“A framework that defines and describes CCP instructional practices, that support diverse students’ success and promote equitable student outcomes, is an essential priority for teacher professional development.”
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Work-based learning, including internships and other activities that introduce students to career options and real world applications of academic content

Ensuring equity in WBL access and outcomes while scaling up is particularly challenging as it occurs outside of the school context, and common measures of quality are not in place. Inclusive research approaches, involving educators, employers, students, and community-based organizations that provide WBL opportunities, would enhance research on:

- How to prepare faculty in CCPs to use WBL to integrate real-world applications into academics and prepare students to be career ready
- Valid measures of student learning from students’ WBL experiences, to inform policy on career readiness indicators and to support expanding access to critical WBL experiences
- Program structures that promote equity in access to WBL experiences during scale-up, and how to align educator and industry goals in creating WBL programs
- Return on investment (ROI) for districts and employers who allocate resources for WBL; ROI and opportunity costs for student participation in WBL

Comprehensive embedded student supports

Foundational research is lacking for this critical CCP component. Counselors were identified as grossly underutilized, and key to successful post-secondary transitions. Research partnerships involving community-based organizations that provide student supports would be valuable, if trusting RPP relationships can be built. Research is needed to understand:

- what constitutes a quality program of embedded student supports,
- how student supports should be integrated into the instructional program,
- who currently delivers which types of student supports,
- how student supports are differentiated for specific sub-groups
- what impact specific supports have on students

Comprehensive and integrated student supports are critical to achieving equity in student outcomes. Historically, community- and school-based student support providers have not often been afforded the opportunity to contribute to systematically ensuring student success. Seminal research led by Stanford’s Gardner Center could inform work in this essential area, particularly *Equitable Access by Design* (Ruiz de Velasco et al., 2016) and *A Guide to Student Supports for College and Career Pathways* (Ruiz de Velasco, 2019).
Conclusion

As college and career pathways scale up, persistent historic inequities in education systems give rise to critical equity issues. Priority research, we concluded, must support practitioners to negotiate the complex equity-based problems involved in scaling up pathways. Investigation of these priorities is critical for informing policies that can significantly impact equity in students’ pathway outcomes.

Inclusive research approaches promote mutual learning, and common goals. Researchers allied with school communities can contribute to transforming schools into wellsprings of educational justice, in which college and career pathways serve as an avenue toward a more just society.

Each of the four symposia reports presented strong arguments for CCP research priorities and approaches, as well as valuable compilations of the related literature. With inclusive partnerships and a collective commitment to address these priorities, the CCP network we initiated through this work is poised to promote these research approaches and priorities.
References


The Planning Committee for the Symposia Series included representatives from the following organizations:

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For more information, find us on the web at ccasn.berkeley.edu