



TEACHERS COLLEGE, COLUMBIA UNIVERSITY

Promoting College Access among Underrepresented and Underprepared Students through Supportive Career- Technical Dual Enrollment Programs

Clive Belfield, Linsey Edwards, Katherine Hughes, Melinda
Mechur Karp, and Olga Rodriguez

American Educational Research Association

April 2011

*CCRC is a division of Teachers College at Columbia University and
was established by the Alfred P. Sloan Foundation in 1996.*

Concurrent Courses Initiative: Pathways to College and Careers

Funded by the James Irvine Foundation and U.S.
Department of Education

- Supports 8 secondary/postsecondary partnerships in CA as they develop, enhance and expand career-focused dual enrollment programs
 - Target population: low-income youth who are struggling academically or within populations underrepresented in higher ed
 - 5 core components
- What is DE and why use this as a strategy?

CCI Partnerships

- Hail from across the state of CA
- Significant numbers of minority, limited English proficient, or first generation college-going
- Variation in specific features of partnerships and delivery of services

Student Supports

- Crucial feature of the Initiative, particularly given the target population
- Supports provided before as well as during course enrollment
- Academic and non-academic services (8):
 - Orientation (initiative, college, and/or career)
 - Academic preparation and/or support
 - Work-based learning
 - Supplemental financial support
 - Leadership activities

Purpose and Questions

- Program evaluation and analysis of student outcomes
 - Provide evidence as to the effectiveness of career-focused dual enrollment in promoting positive outcomes
- Research Questions
 - Is the program reaching the intended student population?
 - What are students' participation patterns?
 - What are participants short-term outcomes?

Data

- Administrative data provided through Cal-PASS
 - Student background, academic achievement, and high school and college course taking
- Custom data file collects data on students' CCI experiences
 - DE course location, type of instructor, support services received

Treatments and Outcomes

- **Treatment Options:**
 - CCI dual enrollment with supplemental support
 - CCI dual enrollment only
 - CCI supplemental support only
- Treatment option that is the focus of today's presentation is CCI dual enrollment, with or without supplemental support
- **Outcomes:**
 - Performance in dual enrollment course
 - High school grade point average
 - High school graduation (12th grade sample)

Methodology

- Descriptive statistics on CCI participation and performance in dual enrollment courses
- Regression analysis with controls and Propensity Score Matching
 - Used to examine the impact of CCI dual enrollment on high school GPA and high school graduation
 - *Controls include:* Gender, race/ethnicity, primary language spoken at home, parental education, grade level, prior standardized test scores, and prior grade point average

Enrollment in CCI

- When compared to their respective district enrollment, CCI dual enrollees are more likely...
 - to be members of minority groups
 - to come from families with lower levels of parental education
 - to be English language learners
- There exists variation by site in enrollment by gender, average test scores, GPA, and HS graduation rate

Enrollment in CCI

- 1,594 CCI dual enrollees across 6 sites
- 97% of CCI dual enrollees also received supplemental support
- Enrollment varied by site: from 1,149 at the largest to 32 at the smallest
- On average, students took 1.2 DE courses
- 64% of DE courses taught by college professors
- 39% of DE courses taught on a college campus

Results

Performance in CCI Dual Enrollment (DE)

- **Grades Received:** Across all six sites, 87% of students passed their DE course.
- **College Credits:** Attempted an average of 2.6 college credits and earned 2.5.
- **Performance by type of Instructor:** No clear pattern of which produces better passing rates.
- **Performance by Location:** No clear pattern of which produces better passing rates.

Results

Effect of CCI DE on student GPA

- Regression with Controls
 - Positive and statistically significant effect for 3 sites—equivalent to going from a 3.0 to 3.3 GPA
 - Small negative and statistically significant effect for one site—equivalent to going from a 3.0 to a 2.9 GPA
 - No statistically significant effect for two sites
- Propensity Score Matching
 - Positive and statistically significant effect for 2 sites—equivalent to going from a 3.0 to a 3.5 GPA
 - No statistically significant effect for all other sites

Results

Effect of CCI DE on high school graduation

- Regression with Controls
 - Positive and statistically significant effect for three sites
 - No statistically significant effect for three sites
- Propensity Score Matching
 - Positive and statistically significant effect for one site—The graduation rate for CCI dual enrollees is 22.5 percentage points higher compared to similar district students
 - No statistically significant effect for all other sites

Discussion

- This initial investigation of CCI should be regarded as illustrative and preliminary
- Outcomes analyses are based on first year of implementation
 - Initiatives were still unfolding and were small scale in many sites
- However, while preliminary, results indicate several positives associated with CCI

Next Steps

- Next step is to incorporate year two data into the analysis. This will allow us to explore:
 - Which program model or approach is more correlated with improved student outcomes
 - Impact of the intensity of treatment (number of courses and support services)
 - Post-secondary enrollment and outcomes

The Community College Research Center

<http://ccrc.tc.columbia.edu>

Concurrent Courses Initiative

<http://concurrentcourses.org>