

Community College of Aurora

Case Study Report – Data as of May 2013

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INTRODUCTION

In 2011, Colorado received a \$17.3 million Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant from the U.S. Department of Labor. The grant-funded project, the Colorado Online Energy Training Consortium (COETC)—has two principal purposes: 1) enhance the state’s energy-related programming by transforming curricula into more accessible formats using technology and mobile learning labs, and 2) develop and implement a redesign of the state’s developmental education (DE) program. Project goals include expanding access to degree and certificate programs in energy-related fields; increasing retention and completion of certificate and degree programs at the community college level; and developing a trained workforce for changing job market.

The COETC project involves the thirteen colleges in the Colorado Community College System (CCCS) and two local district colleges, Aims Community College (Aims CC) and Colorado Mountain College (CMC).

CCCS contracted with Rutgers School of Management and Labor Relations (“Rutgers”) to be the COETC third-party evaluator. In this role, the Rutgers team created and implemented a multi-faceted research assessment design that includes quantitative and qualitative data collection and analysis.

A major component of Rutgers' COETC evaluation is a cohort study that compares the educational outcomes for students enrolled in traditional courses to those for students enrolled in COETC developed and funded courses. In particular, this research focuses on the COETC’s second goal as described above. The study’s objective is to assess the success of DE courses restructured under the guidelines of the Colorado State Task Force on Developmental Education Redesigns (State Task Force) and the success of the redesigned energy courses at the seven participating energy colleges. Specifically, it will evaluate the impact of factors such as demographics, Accuplacer scores, course registrations, student grades, employment status, and wages on rates of retention, program completion, and employment after graduation. The methodology consists of quantitative analyses of student and course data from Fall 2011 through Spring 2014 along with qualitative analyses of student experiences.

Toward the end of the Spring 2013 semester, Rutgers distributed four reports covering the study data collected to date from individual colleges and the consortium as a whole: “Integrated Year End Report,” Career Coach Caseloads Analysis,” “Redesigned Course Outcomes,” and “Master Course List.” This case study provides an interim report, based on data provided in these reports, on the progress to date of the Community College of Aurora (CCA) under the COETC grant as of May 2013.

The sections that follow 1) outline the overall study methodology and data sources, 2) provide background information on CCA and its student population, 3) summarize the goals and primary elements of CCA’s COETC program, 4) describe the redesigned DE courses (math and

English/reading) and present data on enrollment and outcomes, 5) assess the success of the career coaching program instituted by CCA as part of its COETC program, and 6) conclude with recommendations for CCA specifically and for the consortium colleges in general with regard to their COETC-funded programs.

METHODOLOGY/DATA SOURCES

Quantitative Analysis

During the first project year, Rutgers worked closely with CCCS to refine the quarterly reports required from each of the system's participating colleges. Rutgers has used data from these reports to track progress and to provide the foundation for other data collection. In collaboration with CCCS, the district colleges, and college career coaches, Rutgers' developed and revised an Electronic Student Case File (ESCF) to capture data relating to the COETC career coaches' work with grant-eligible students. (The ESCF records demographic and academic information and tracks the issues and goals coaches and students work on and any referrals made.) In addition, Rutgers designed a pre-course survey to collect information on student expectations about course work and career goals. The colleges administered this survey to students in traditional and redesigned DE courses in Fall of 2012.

The Rutgers team has also been working closely with CCCS and the district colleges to access the Banner student system (and CMC's data system) to track student progress and achievement and to collect and analyze data for the cohort study.

Qualitative Analysis

Rutgers' qualitative evaluation focuses on COETC process issues and the experiences of project team members and participating students, faculty, and staff at the 15 colleges in the COETC consortium.

Methods have included document reviews and content analysis of text answers on the quarterly reports; the Electronic Student Case File (ESCFs, surveys, e.g. pre-course survey results, and materials and websites developed by the State Task Force, CCCS, and/or individual colleges. Rutgers team members have conducted phone and in-person interviews with project leads, faculty involved in the restructuring and/or teaching of DE and energy courses, instructional designers, data coordinators, senior college administrators, and, whenever possible, students. They conducted on-site interviews at CCA on January 29 and 30, 2013. The team members have analyzed transcriptions of phone and in-person interviews to identify program achievements to date, best practices, and critical issues for follow-up. Some of the responses from these interviews are quoted in this report.

Rutgers team members have also participated in conference calls with project leads and career coaches and joined in webinars. In addition, they have observed and participated in forums sponsored by CCCS, such as sessions on DE redesigns.

COLLEGE DESCRIPTION AND OVERVIEW OF STUDENT POPULATION

Community College of Aurora (CCA) was founded in 1983 in the Denver suburb of Aurora, Colorado's third-largest city. It serves over 15,000 students on two campuses: CentreTech and Lowry. Its service area spans 350 square miles in three counties with 425,000 residents.

CCA's students can choose from forty degree and certificate programs. The core coursework at CCA is guaranteed to transfer to public colleges and universities in Colorado. CCA is noted for its Emergency Medical Technician program and a highly ranked film school.

CCA's student body is one of the most diverse in the CCCS – 54.8 percent of the population are minority students (the second highest percentage among CCCS colleges). Of these, 25.6 percent are African-American, (the highest percentage among CCCS colleges). Part-time students comprise 76 percent of CCA's population, and 96.6 percent of students reside in close proximity to the school.

CCA is located near a major Air Force Base (Buckley) and so it has a large population of veterans and military family members in its student body. CCA also maintains a partnership with two local public school districts to facilitate concurrent enrollment in high school and college classes. As a result, 19.9% of CCA students are eighteen or younger.

CCA'S COETC GOAL AND PRIMARY PROGRAM ELEMENTS

The principal goal of CCA's COETC project is to reduce the time required (and thus accelerate progress) for low-skilled and other workers enrolled at CCA to complete their DE courses. CCA redesigned eight DE programs to meet this goal. This redesign incorporated open educational resource (OER) developmental math courses, as well as developing other hybrid and online training courses in DE.

The COETC grant also allows CCA to identify students in need of personalized guidance through an "early warning system" in the school's registration database and then provide these students the opportunity to work with a COETC career coach.

CCA'S REDESIGNED DE PROGRAM

CCA redesigned its developmental education curriculum to, as noted, accelerate student progress through DE coursework. In doing so, CCA combined DE reading and English classes and several math classes. It also created a co-requisite course by joining an English/reading DE

course and English 121, a college-level course. This section describes the redesigned courses and then presents enrollment and outcome data.

ENGLISH/READING REDESIGN

CCA redesigned its English and reading curriculum by integrating the separate reading and English 060 courses into one English/Reading 060 class. CCA also created the co-requisite English/reading course mentioned above.

English/Reading Redesign: Innovative Models and Practices

English/Reading Teacher as Career Coach: CCA's career coach also teaches an English/reading course. As a result, her students are more likely to seek her career coaching services. Indeed, CCA has shown a very high rate of career coach involvement with English and reading students.

Coordinated Case Management: Counselors and faculty have coordinated case management so that faculty members who identify students suited for career coach intervention can refer them to the English/reading courses taught by CCA's career coach. While this has not happened often, the coordination between different CCA areas helps make sure students are aware of all resources available to them.

Grammar Workshops: Two teachers created grammar workshops for students in the English 060 course. According to faculty, these workshops accelerated the comprehension of fundamental grammar rules. They also give students the opportunity to meet the faculty they may encounter in their English and reading developmental sequence. In fact, one workshop teacher is the career coach, which provides another avenue for making useful contact with students.

English/Reading Redesign: Challenges

Registration Software Issues: CCA's computer registration system may not be well suited to the school's DE redesign. In particular, the co-requisite process CCA used to integrate DE English courses is unwieldy. Students have a difficult time registering for the classes they need.

MATH REDESIGN

CCA merged several DE math classes. Specifically, 090 and 099 became 095, and 030 and 060 became 045. This integration can shorten the time students spend learning DE math before taking on college-level coursework. In addition to combining courses, CCA developed the following innovative models and practices with regard to the math redesign.

Targeted Coursework: The CCA redesign team noted that attempting to prepare DE students for the entire college-level math curriculum was ineffective. As a result, the team decided to target

the sub-disciplines, whether STEM or non-STEM, within the math curriculum to help students acquire the math skills they would need for future studies.

Laptop Cart: CCA purchased a laptops and a cart to give faculty an opportunity to integrate technology into their math classrooms. Computers had previously not always been available for classroom work. Teachers use the laptops in a variety of ways, one that was discussed with Rutgers is that the laptops are used to show Khan Academy math videos to address particular deficiencies in the students’ math knowledge.

Redesigned Course Enrollment and Outcomes

CCA offered eight redesigned DE courses from Spring 2012 through Spring 2013. These courses served 2,148 students enrolled in 121 sections. Table 1 presents the number of students and the percentage of total students enrolled each semester.

Table 1. CCA DE Redesigned Course Offerings by Term		
Term & Year	Percentage of Total Students Enrolled	Number Enrolled
Spring 2012	25.6	549
Summer 2012	5.5	120
Fall 2012	38.4	824
Spring 2013	30.5	655
Total	100.0	2,148

Eighty percent (1,714) of students who registered for redesigned DE courses completed their course, 0.5 percent (10) dropped the course after the semester started, and 19.7 percent (424) withdrew from the course after the term started.

As Table 2 shows, at CCA 54.6 percent of students served by redesigned DE course enrolled in English, 29.9 percent in math, and 15.5 percent in reading.

Table 2. Enrollment in CCA DE Redesigned Course Offerings by Subject		
Subject	Percentage of Total Students Enrolled	Number of Students Enrolled
English	54.6	1,172
Reading	15.5	334
Math	29.9	642
Total	100.0	2,148

Table 3 shows the number of students and the percentage of total redesigned DE course students enrolled in each of CCA's redesigned courses by title.

Table 3. Enrollment in CCA DE Redesigned Course Offerings by Course Title		
Course Title	Percentage of Total Students Enrolled	Number of Students Enrolled
Combined Intro/Inter Algebra	10.9	234
Compress Pre Alg w/Basic Math	19.0	408
Basic Composition	21.3	457
College Preparatory Reading	4.0	85
English Composition I: CO1	4.5	96
Foundations of Reading	2.0	43
Special Topics in Reading	9.6	206
Writing Fundamentals	28.8	619
Total	100	2,148

Table 4 presents the mean of grades for each individual DE redesigned course. In the months ahead, the Rutgers team will do further analysis of means, comparing section means to departmental means.

Table 4. CCA Academic Outcomes for Redesigned DE Courses		
Course Title	Course Mean	Department Mean
Combined Intro/Inter Algebra	1.8202	1.9358
Compress Pre Alg w/Basic Math	1.9970	1.9358
Basic Composition	0.7439	1.6389
College Preparatory Reading	1.2373	1.2132
English Composition I: CO1	1.9855	1.6389
Foundations of Reading	1.6129	1.2132
Special Topics in Reading	1.1310	1.2132

CCA'S COETC CAREER COACH PROGRAM

As noted in the Introduction, one goal of the COETC program is to expand access to employment opportunities in Colorado's energy sector. To that end, the COETC consortium established the career coach position to facilitate student access and to assist students with any non-academic issues that inhibit their ability to complete a course of study successfully. Among other aid, career coaches provide career counseling and referrals, academic advising related to career choices, and counseling and referrals for a wide range of social and financial support services. To conform to the intent of COETC, eligibility for career coach services requires that a student meet one or more of the following characteristics: participation in a redesigned DE

course or a TAACCCT-supported energy course/program, Trade Adjustment Assistance (TAA)-eligible/like, unemployment, and/or other U.S. Department of Labor program eligibility.

CCA's career coach brought five years of social work experience to her position. She had also helped develop curriculum for a charter school and is ESL certified. Most notably, she is an adjunct faculty member at CCA, teaching English/reading DE classes.

CCA's administration was not sure of the usefulness of a career coach when CCA received the grant. Since then, however, it has developed the position into one that capitalizes on the career coach's abilities to best serve students. The school has focused the position around the career coach's case management skills to help students with non-academic issues (such as family or work concerns) that may affect academic performance and to act as a "liaison between instruction [and] student services." As the position is designed, the career coach also helps the teaching only faculty members focus more on instruction rather than on counseling. In addition, as career services have been removed from the campus, the career coach helps fill the school's needs in this respect.

CCA's career coach has done extensive outreach to increase her visibility and become part of CCA's community. She is always available to meet students in her office and has found that students do not hesitate to meet and discuss academic and non-academic issues. She also requires students to meet with her to drop classes. At that time, she counsels them and attempts to find ways to help the student remain in school. Her close involvement with many students, especially as a faculty member, has made her very effective at populating her caseload.

The career coach has also collected resources for students facing various problems, including housing assistance for convicted felons. At the time of the interview, she had not yet shared these resources with many students. Still, they are valuable tools for dealing with the many problems students face and evidence her willingness to engage students in solving problems encountered outside of school.

The career coach has also made extensive use of the Banner student system. She uses it to search student records and investigate whether holds have been placed on their school accounts. In addition, she uses the system to place holds of her own on student records, which lets students know they need to meet with her. This again reflects her active engagement with students and helps promote her role as adviser and counselor.

CCA Electronic Student Case Files (ESCF)

As mentioned above, ESCFs help career coaches track student progress with goals. Rutgers hoped that CCA's ESCF data would help it better understand student challenges and best intervention practices, as well as the impact of coaching services on student retention and completion rates.

Career coaches initiate an ESCF the first time they meet with a student and then add information as appropriate after subsequent visits and interactions. As of May 23, 2013, only 44 percent (46) of the 104 students registered by CCA's career coach had an active ESCF. This gap needs to be corrected to make sure the coach's work with students is tracked for analysis.

CCA Career Coaching Target Performance

In its COETC proposal, CCA set a target of 206 eligible students to be served by the career coach. As of Spring 2013, 104 students have met with and been registered by the coach, or nearly 50 percent of CCA's target. CCA and the coach have a year remaining on the grant to reach the ESCF registration target.

Career Coaching Eligibility Distribution

As stated above, students are eligible for coaching services if they are enrolled in a restructured DE and/or energy program supported by the COETC grant, are eligible for TAACCCT assistance, or are unemployed or underemployed. Table 5 below shows the distribution of CCA students who have been seen by the career coach as of Spring 2013. The majority of these students are enrolled in restructured DE education courses (95.2 percent).

Table 5. Summary of CCA Student Eligibility for Career Coaching		
Eligibility Criteria	Percentage of Total Students Eligible	Number of Eligible Students
Enrolled in DE Redesigned Course	95.2	99
Unknown	4.8	5
Total	100.0	104

SUMMARY OF LESSONS LEARNED AND INNOVATIVE STRATEGIES USED

CCA administrators have reported that the DE redesign that has merged classes and integrated DE with college-level courses has created a system that better serves students. Previously, students had to navigate multiple systems. Now they are “packaged as one,” giving the grant and redesign a “college-wide impact.”

CCA has done an excellent job in establishing its career coach and integrating the position into the institutional environment. The ease of this may have been helped by the career coach being an adjunct faculty member at the time she was hired. This practice could be implemented at other schools. Deciding how to utilize the COETC grant resources has complicated the program's implementation for many schools. CCA's openness to innovation and success in this regard should be commended.

CCA also used grant resources to help create a sense of community at the college. Specifically, it created a common area with a whiteboard where students and faculty discuss problems outside the classroom. It also expanded a plan to maintain a math lab where students can find help. These advances create a situation where “student learning becomes very visible.”

In addition, the COETC grant has allowed CCA administrators to be “more strategic” with respect to DE redesign. In her interview, the project lead noted that ordinarily an administrator feels like he or she is giving short shrift to faculty or students. The grant has allowed her to be “very supportive” and do a “thorough job.” She also commented that the grant “allowed [CCA] to create a culture and a community [of education]” by making student learning more visible through the mathematics lab.

CCA had actually begun redesigning its DE curriculum before the grant took effect. This provided them some advance experience in what DE redesign involves.

SUMMARY OF CHALLENGES

CCA is concerned that the institution will suffer if funding cannot be found for the career coach position and additional resources for the Academic Achievement Department Chair after the grant ends.

While CCA has successfully integrated the career coach into the college environment as a counselor and adviser, student registration in the ESCF of late system has lagged. This may be due in part to the career coach’s extensive use of the existing CCA registration software, which may have made ESCF registration less of a priority.

RECOMMENDATIONS FOR CCA

CCA should continue building on the substantial coordination it has established between different elements of the institution devoted to counseling students and ensuring their retention and success. Specifically, the CCA faculty’s commitment to working with students outside of the classroom, either during office hours or after hours in common workspaces, should be maintained. This practice helps the students who receive direct aid and creates a culture of availability and mutual help that encourages other students to do what is necessary to succeed.

RECOMMENDATIONS FOR CONSORTIUM COLLEGES

- The practice of making a current teacher the career coach, which facilitates putting “high maintenance” students into the coach’s class through referrals from other faculty members, could be expanded at CCA and/or used at other colleges.
- The list of resources maintained by CCA’s career coach for students facing various non-academic problems could be shared more widely with other counselors and faculty at CCA.