

Lamar Community College

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 the 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 of Lamar Community College (LCC) 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 LCC and its student population, 3) summarize the goals and primary elements of LCC’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 LCC as part of its COETC program, and 6) conclude with recommendations for LCC specifically and for the consortium colleges in general in 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 Web sites developed by the State Task Force, CCCS, and/or individual colleges. Rutgers team members have conducted telephone 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. Interviews were conducted onsite at LCC on January 28, 2013. The team members have analyzed transcriptions of telephone 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.

BRIEF OVERVIEW OF LCC

Founded in 1937, Lamar Community College (LCC) is tucked into the golden plains of southeastern Colorado. Its service region includes Prowers, Baca, Kiowa, and Cheyenne counties, a largely rural area with a primary economic base in agriculture, specifically cattle ranching and farming.

LCC offers multiple occupational and degree programs focused on agriculture and farming, allied health, and historic preservation; as well as other transferable and industry-specific programs such as criminal justice.

In 2012, 1,195 students attended LCC, making it the smallest school in the CCCS system. LCC also has the lowest average student age, at twenty-three. The student body is majority white (65.7 percent) and female (56.5 percent). Of the CCCS schools, Lamar has the highest percentage of full-time students at 42.6 percent, double the system-wide average. About 300 of LCC's students are residential—many of these students are athletes from outside the service region. LCC's retention rates and graduation rates have consistently been above the state average.

For the 2011-2012 school year, LCC had only 14.9 percent of its students enrolled in remedial courses, compared to the CCCS average of 28.2 percent. Statewide, during the 2011-12 academic year, 60.1 percent of students enrolled in DE courses were enrolled in a math course (46,913), compared to only 25.9 percent in English (20,243), and 13.1 percent in reading (10,877).¹ Mirroring state trends, historically about 30 percent to 40 percent of LCC's DE students require remediation in English, in contrast to 70 percent requiring remediation in math. Further, the students who do place into DE English/reading tend to score higher on DE placement tests than those who test in math.

LCC's COETC GOALS AND PRIMARY PROGRAM ELEMENTS

LCC's primary goal for the grant was to assist with academic acceleration to more quickly prepare students for the workforce through the compression and acceleration of development education classes. Modularization of courses was initially proposed but was never pursued. In addition, a career coach was hired under the grant to assist students with academic issues, as well as non-academic issues that may impede their academic success and program completion.

¹¹ See CCCS (2010). Academic Year 2011-12 Remedial Enrollment and Course Completion Rates. <http://www.cccs.edu/Docs/Research/AY2012RemedialEnrollmentandCompletion.pdf>

LCC's REDESIGNED DE PROGRAM

The redesign of developmental education at LCC has occurred in three phases: Phase I was under a Complete College America grant; Phase II was prior to and concurrent with the State Task Force; and Phase III has been subsequent to the curriculum redesigns stipulated by the State Task Force. This report will only focus on Phase II.

LCC streamlined its Developmental Education model by eliminating and combining courses across levels and subject matter. For example, math 030 and 060 were combined and compressed to become 045; reading and English were combined and compressed to include 060 and 090 in a single course. The compression replaced the tradition of broad skill building with "reverse engineering," or "targeted curriculum," that focused on the specific skill sets students need to progress into college-level course work. During the site visit, faculty spoke positively about the possibility of mixing students who score at different levels in the same compressed class. They saw it as an opportunity for reinforcement of content for those students at a more advanced level, and road mapping, if not stimulation, for the students at a lower level.

Redesigned Course Outcomes

LCC redesigned four unique DE courses and offered nineteen unique sections of these courses through spring 2013. Approximately 40 percent of all sections were offered during the Spring 2013 term. Table 1 shows the rollout of these course offerings by term, as well as the percentage and number of total students served by these courses (221 students).

Term & Year	Percent of Total Redesigned DE Population (All Subjects)	N (Redesigned DE Population)
Summer 2012	8.6	19
Fall 2012	55.2	122
Spring 2013	36.2	80
Total	100.0	221

In terms of overall student retention, 71.5 percent of students (n=158) who registered for redesigned DE courses persisted in the course, while 24.4 percent (n=54) dropped the course during the add/drop period, and 4.1 percent (n=9) withdrew from the course after the start of the term.

Table 2 presents the course offerings by subject. At LCC, approximately 72 percent of students served by redesigned DE course were enrolled in math subjects, followed by English (24 percent), and reading (3.2 percent).

Subject	Percent of Total Redesigned DE Population (All Terms)	N (Redesigned DE Population)
English	24.0	53
Reading	3.2	7
Math	72.8	161
Total	100	221

Table 3 shows the number of LCC students enrolled in redesigned DE courses by course title.

Course Title	Percent of Total Redesigned DE Population (All Terms)	N (Redesigned DE Population)
Foundations of Reading	3.2	7
Writing Fundamentals	24.0	53
Compress Pre Alg w/Basic Math	38.9	86
Introductory Algebra	33.9	75
Total	100.0	221

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

Course Title	Course Mean Grade² (All Terms and Redesigned Sections Combined)
Compress Pre Alg w/Basic Math	1.2609
Introductory Algebra	1.5965
Foundations of Reading	1.0000
Writing Fundamentals	1.8333

² In order to conduct this analysis, the grades were converted to a 4.0 grade point average (GPA) at the system schools. Although DE course grades are not calculated within the student GPA, the conversion was made for the purpose of this comparative analysis. All grades earned by students in the redesigned course, regardless of term or section, were averaged for this calculation.

ACHIEVEMENTS

As of spring 2013, a total of 148 unique students have enrolled in DE, or more than 211 percent of the target of 70 for the life of the grant.

INNOVATIVE MODELS AND PRACTICES

Advance in Academic Achievement ("AAA") classes

AAA classes, though not designed specifically to address reading/English or math issues, have been used by LCC to help develop basic college skills such as class attendance and timely completion of work, two major functional barriers to success in development education classes. Anecdotally, students have reacted very positively to these courses.

Small class sizes

As the smallest CCCS school, LCC has the advantage of capping DE classes at 15 students, allowing greater direct instructor interaction with students. Small class sizes coupled with course compression have had a positive outcome at LCC. Students may test at a similar level but develop skills at a different speed. With the course compression model, instructors can take advantage of small classroom sizes and encourage students to skip ahead through the sequence by mastering the level's concepts on an individual basis. It is possible for a student in a combined 060/090 class who tested into 060 to enroll in 121 (the college-level core class) next without having to take 090.

As with most other CCCS colleges, LCC does not require the completion of all DE courses as a prerequisite for many of its 100 courses, e.g. psychology 101. In the past, some students, by virtue of the close connection between students and instructors, were advised to skip the higher level DE courses and enroll in 100 levels courses with tutoring assistance. Under the new Task Force models, there is now more attention to student pacing, and the formalization of support for students testing close to college levels on their Accuplacer exams.

CHALLENGES

Student resistance

LCC faculty reported acceptable learning outcomes in its accelerated redesigned courses. Yet, during the site visit, faculty noted that: "A lot of the students didn't like the compressed (class), even though it got them through quicker."

Faculty suggested that some students may suffer "math phobia." Students expressed concerns to them that a rapid pace might result in them missing important material. However, according

to LCC faculty, instructors have not seen any lower levels of success, even for students who expressed reservations.

Adjunct Faculty

Many faculty members at LCC are adjunct, and are not available to assist students outside the classroom to the same degree as full-time faculty. Thus, they are not available to “just sit down with the student and just get to know them.”

LCC's COETC CAREER COACH PROGRAM

Across the COETC consortium, the career coach position was established to facilitate students' access to careers in the energy sector and to assist students with any non-academic issues that inhibited their progress or ability to successfully complete a course of study. Coach functions were envisioned to include career counseling and referrals, academic advising as it 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.

LCC hired a career coach who began work in July 2012. LCC's first coach had a background in psychology and a master's degree in school counseling. This skill set was particularly useful considering the social developmental needs and relatively young average age of LCC's student body.

The career coach, despite the title, actually engaged in counseling and coaching across the board. Her primary functions were to teach the Advanced Academic Achievement (AAA) course, redesigning/planning LCC's career fair, and assisting students in utilizing campus services like tutoring.

Students responded very strongly to the supportive atmosphere the AAA courses created—building community among students and providing them with a staff member whom they felt was genuinely invested in their success and overall well-being. Students reported a sense of trust and a high quality of rapport with the career coach.

Many community college students have work and family responsibilities that may interfere with class work. One of the important services that the coach therefore provided was following students in regard to their personal problems and the effect of those problems on academic progress and success. Some students with low levels of concentration and/or maturity reported struggling to get “back in the saddle” after falling behind in a particular class. The career coach was instrumental in helping these students and, often physically, referring them to campus services. For example:

His math class, he just kind of—he didn't understand it, he wouldn't go to tutoring, he quit showing up. So then he's like, "I don't want to go back to class because I haven't been there for so long." And I said, "Well, what about tutoring?" He's like, "I don't know, I don't know." And so, I finally realized that he was just embarrassed to go to tutoring. He didn't know anybody there, so we went down there together. We introduced him, and I actually went to tutoring with him.

However, since intensive advising and interacting with the career coach is voluntary, many students who could benefit from similar assistance did not seek it. The coach's attempts to contact every student in the redesigned development education classes were overall unsuccessful. Students often did not check e-mails, changed their phone numbers without warning, or were not regularly attending class, so therefore were difficult to contact directly.

The coach was a primary organizer of a very successful career fair, held in February 2013. The fair introduced LCC students and local high school students to local employers in a structured environment designed to make connections based on interests and aptitudes. The career coach designed an assessment instrument around the Colorado Career Clusters model. Students visited vendors based on their assessments and spent an average of four minutes at the table asking questions and exploring career opportunities.

The career coach leveraged the AAA course to increase her caseload. Students taking the AAA course were required to attend a minimum of three office visits per semester. However, of the students who regularly visited the career coach, 60 percent came for reasons other than the AAA requirement. The majority of students who made regular use of the career coach for supportive counseling services were traditional students (those under age twenty-five); non-traditional students were less likely to have sustained contact and more likely to come for a specific issue such as registration information or an employment- or workforce-related issue.

The major challenge for the career coach was the career side of the job description. While she made contact with the local workforce center, she reported difficulty in developing a sustained collaborative relationship with the people there. While the workforce center referred people to her, the number of referrals was quite low. This may have been the result of miscommunication—the workforce center employees understanding they were only supposed to refer people interested in the renewable energy program, which LCC ended up not offering at all. Further, most energy programs being developed in the COETC have not been fully accessible in online formats, presenting challenges given LCC's distance from the other CCCS colleges.

There has been a great deal of confusion about the grant overall, and this has also filtered into the definition of the career coach's role. The counseling side was more fully developed in the coach's day to day work than in the career side. In spring 2013, LCC was looking to develop more advising into the role to assist students in selecting programs that were suitable for their

aptitudes. There was also some discussion of finding resources to train the coach further on career counseling/planning.

Last summer, the LCC career coach left to take a counselor position at a local high school and another member of the LCC staff was assigned to the career coach position. However, the new staff person only works 50 percent of the time as a coach under the COETC grant. More information on how this position has developed since the staffing change will be provided in future reports.

Electronic Student Case File (ESCF)

The ESCF was developed to capture the work of the career coaches and to track students' progress with their goals. It was hoped that data from the ESCF would contribute to an understanding of student challenges and best intervention practices, as well as the impact of coaching services on student rates of retention and completion. The ESCF includes demographic and academic information, the issues and goals on which the coach and student work, and any referrals made.

Coaches open up an ESCF for each eligible student with whom they meet, adding additional information for subsequent visits and interactions. Of the students registered by LCC's career coach, 78 percent (50) have an active ESCF. For the remaining 22 percent of students (14), there is no active ESCF as of May 23, 2013.³

Career Coach Registration Targets

At LCC, the target number of students to be served by the career coach under the grant is 115. As of May 23, 2013, the total number of students registered by the career coach was 64. This represents approximately 56 percent of the number of students (115) expected to be served by the career coach under the grant.⁴

Career Coach Eligibility Distribution

As stated above, eligibility for coaching services includes enrollment in a restructured DE and/or energy program supported by the COETC grant, eligibility for TAA assistance, or

³An active ESCF file is defined by Rutgers as a "response in progress" to which students' information has been entered into the ESCF, but is not yet submitted to the record. Career coaches have the ability to return and update information in an active ESCF. An inactive ESCF is considered a file that has been closed or submitted to the system by the career coach.

⁴ Students registered by the career coach may not have an active ESCF file. In order for the student to be considered registered, the career coach filled in basic information for a student such as ID number and name, but did not go to the next step of opening up an ESCF file. Alternatively, a student in this count may have been served by the career coach and the student's ESCF has since been submitted; it is then considered inactive.

unemployment/under employment. Table 5 below shows the distribution at LCC of the students who were seen by the coach as of spring 2013.

After reviewing the active electronic student files created in the ESCF and cross-referencing to those students enrolled in redesigned DE courses certified by the Project Lead, Rutgers has identified the student eligibility for 75 percent of all registered students. Student eligibility is presented in Table 5. Of this total, 29.7 percent of students have been recorded as TAA-like. If all those students whose status is unknown were confirmed as TAA-like/eligible, then 54.7 percent of students seen by the coach would be TAA-like. An additional 18.8 percent of students registered by the coach enrolled in a redesigned DE course offered during the Spring 2012 term through Spring 2013. Another 26.5 percent of those recorded as TAA-like have also enrolled in one or more redesigned courses: 25 percent in DE courses, and 1.5 percent in contextual or multiple redesigned courses.

Eligibility Criteria	Percent of Students in Caseload	N (Caseload Population)
TAA-Like	29.7	19
DE Redesigned	18.8	12
TAA + DE	25	16
TAA + Contextualized	1.5	1
Unknown	25	16
Total	100	64

SUMMARY OF LESSONS LEARNED AND INNOVATIVE STRATEGIES

Career Coach

Anecdotally, the introduction of the career coach as someone who intervenes when students are struggling has been extremely beneficial to those students who have taken advantage of it. Students who have taken the AAA classes also report high satisfaction with the support and rapport that it has afforded them with other students and the career coach. Currently, there is discussion about making these courses required for all students who test into developmental education, which would increase the reach of the career coach, whose services would most benefit students who are least likely to take advantage of them. LCC has found that enrollment in AAA courses leads to participation in intensive advising.

Acceleration

LCC has systematized the advantages of its size (allowing instructors to accelerate students on an ad hoc basis), by compressing and accelerating its developmental education classes. Despite student concerns, faculty report positive learning outcomes, and students are more quickly funneled into college level course work.

SUMMARY OF CHALLENGES

Confusion over grant/personnel changes

The team that developed the grant proposal was not the same as the team that implemented it. This has led to general confusion about the role of the career coach, as well as exactly what programs LCC is implementing and who is responsible. This problem is compounded by LCC's size, which requires administrators to split their focus and wear numerous "hats." The career coach has also changed since the evaluation process began, and no information is available about the effect these changes may have on delivery of services to students.

Lack of services

The majority of students at LCC are commuting to campus, and the rural nature and small size of the college does not allow for a child care facility on campus. The lack of evening child care complicates the process of scheduling developmental education classes.

RECOMMENDATIONS FOR LCC

- Require an AAA course for all students requiring developmental education classes. This will bring the students directly into contact with the career coach to initiate a relationship. The career coach had less success finding students by entering the classrooms. The career coach has proven beneficial in connecting students with other campus resources, so this may increase student utilization of these college services. The career coach has fostered an environment that helps students build the confidence necessary to be comfortable with the accelerated and compressed developmental education redesign.
- Faculty reported varying levels of involvement and communication surrounding this project. Therefore, an orientation for faculty about the DE redesign, requirements, and goals would be beneficial for reducing confusion regarding the redesigned courses and for educating faculty to better address student concerns.
- Issues surrounding adjunct faculty engagement have come up at other colleges in the consortium. At least one other college is reversing its faculty arrangement, having full-time faculty teaching the lower-level DE courses while adjunct faculty are teaching the

higher-level courses. This is being pursued as a way to increase student engagement and allow for students to reach faculty regularly on campus outside of class time. A strategy similar to this, or restructuring the adjunct model to allow for one-on-one access and engagement outside of the classroom, may be beneficial to LCC.

RECOMMENDATIONS FOR CONSORTIUM COLLEGES

- The career coach's integration of the Colorado Career Clusters model in the career fair could be expanded to assist with their advising role across consortium colleges. This would allow targeting of aptitude assessment and course selection.
- Colleges not offering an AAA or equivalent class, should consider doing so. Students report higher levels of confidence with redesigned courses after taking the AAA class, and the career coach has increased her caseload because of it. Since student confidence and coach caseload are both fairly common concerns among the consortium, introducing a soft-skills course could be beneficial to those colleges not currently offering one.