This workforce solution was funded by a grant awarded by the U.S. Department of Labor’s Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including information on linked sites and including, but not limited to, accuracy of the information or its completeness, timelines, usefulness, adequacy, continued availability, or ownership.
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 project funded by this grant—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 via technology and mobile learning labs, and 2) develop and implement a redesign of the state’s developmental education (DE) program. More specifically, the COETC project focuses on 1) increasing access to employment opportunities in the state’s energy sector by expanding and providing online and hybrid delivery of energy certificates and degrees, and 2) redesigning DE curricula to accelerate students’ passage of gatekeeper courses.

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

The sections that follow 1) outline the overall study methodology and data sources, 2) provide background information on Aims and its student population, 3) summarize the goals and primary elements of Aims’ COETC program, 4) describe the redesigned DE courses (math and energy) and present data on enrollment and outcomes, 5) assess the success of the career coaching program instituted by Aims as part of its COETC program, and 6) conclude with...
recommendations for Aims 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. (ESCFs record demographic and academic information and track 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. Beginning Fall 2012, the colleges have administered the survey to students in traditional and redesigned DE courses.

The Rutgers team has also been working closely with CCCS and the district colleges to access the Banner student system (and Aims’ 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.

As part of this analysis, team members reviewed relevant documents, text answers from quarterly reports, ESCFs, 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 Aims on November 7, 2012. 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 been participant observers on conference calls with project leads and coaches, as well as in webinars. In addition, they have observed and participated in forums sponsored by CCCS, such as sessions on DE redesign.
COLLEGE DESCRIPTION AND OVERVIEW OF STUDENT POPULATION

Aims is a public, fully accredited, two-year college that is not a part of CCCS. Its main campus is at Greeley, and it offers courses at three additional locations: Fort Lupton, Loveland, and Windsor. Aims offers 160 different degrees and certificates.

Aims’ student body is 57 percent female and predominantly white (63 percent). 55% of students attend Aims part time (2,691 of 4,936) and roughly the same amount receive financial aid (2,672 of 4,936). Aims also has a relatively young student body: 2,231 students – slightly less than half of Aims’ 4,936 students -- are age 21 or under.

AIMS’ COETC GOAL AND PRIMARY PROGRAM ELEMENTS

Aims participated in the energy and DE redesign parts of the COETC grant. Its energy redesign focuses on creating an energy program to help students capitalize on career opportunities in the growing oil-and-gas industry in Colorado. Weld County, home of Aims’ main campus in Greeley, leads Colorado’s oil production with more than 13,000 active oil and gas wells. The jobs being created in Weld County by the oil-and-gas industry will not be outsourced, which provides a high-wage career pathway for a skilled labor force. The energy redesign consists of developing a two-year oil-and-gas program using related, stackable certificates. Aims had also proposed a mobile lab to provide on-site, hands-on education for energy coursework across campuses, but this idea was dropped in favor of developing a new building on campus in which to offer the courses.

For its DE redesign, Aims, like many other COETC colleges, has used the grant to create a DE redesign foundation that will be enhanced later using the State Taskforce guidelines. In the first phase of work, Aims focused on accelerating the DE math pathway through student self-pacing. It also designed contextualized math classes specifically for students in the new oil-and-gas program who have developmental needs. The second phase of Aims’ DE redesign, as noted, will involve implementing the State Taskforce guidelines on DE. Its progress in this regard will be discussed in later reports.

AIMS’ REDESIGNED DE PROGRAM

Pursuant to the grant requirements, as of May 2013, Aims had only redesigned its DE math program. To do this, it created an Emporium Model that replaces lectures with a learning resource center featuring interactive software, in this case Pearson’s MyFoundationsLab, and on-demand personalized assistance. (Aims is exploring software options in addition to Pearson.) The college also created the contextualized math classes mentioned above.
Math Redesign

As part of its accelerated Emporium Model, Aims offers compressed versions of Math 030, 060, and 045. It also created the contextualized course Math 075, or “Math for the Trades,” with the goal of recruiting oil-and-gas students into it.

Math Redesign Innovative Models and Practices

Emporium Model with MyFoundationsLab. The content of Aims’ entire math course is available online. Students can access the class via their own computers, which provides a flexibility that is especially important for nontraditional students with diverse and varying work and family responsibilities. As part of the “Emporium model” employed by Aims, students also take the class at set times on campus in a computer lab with faculty present as facilitators. The technology-based delivery system allows students in part to self-pace. Aims hopes this will help accelerate their progress through the modules. Students can begin with Math 030 and continue through Math 090 or begin at Math 060 and continue through Math 090.

Contextualized Math Courses. Aims developed the “Math for the Trades” class (Math 075) especially for energy program students with developmental math needs. As of May 2013, this course was still in flux. Aims had offered it alongside Energy 101 but experienced limited success in attracting students. In its current design, the course covers some of the curriculum provided in Math 030 and Math 060.

Math Redesign Challenges

Skills Gap. While the Emporium Model allows students to complete coursework more quickly, it also allows them to take as much time as they want. In this regard, Aims has noted that the weak technology skills and self-discipline of many students keeps them from taking full advantage of an acceleration program that requires self-pacing and sets deadlines.

Faculty members also believe current DE students have weaker basic academic skills than in previous years. The number of students enrolling in remedial courses has been rising steadily at Aims. In 2004, the total was 1,203 students and in 2010 it was 2,033 students, a 69-percent increase. Accelerated models and self-paced technology-delivered DE courses are inadequate to meet the increasing remedial needs. Indeed, many students fall behind in this environment and have to work extra hard to catch up in time for exam deadlines. Those lacking adequate software and foundational skills may fail in this regard.

Software Issues. Faculty members are dissatisfied with MyFoundationsLab. (Aims intends to migrate from the Pearson software to MyMathLab.) They also have concerns regarding class size and the attendance for the lab where students can get in-person help from the instructors. These issues require further research.
Energy Redesign

Aims’ energy redesign used the existing Multi-Industry Systems Technician (MIST) certificate and the Associate of Applied Science (AAS) degree program as models to develop new certificates and degrees. The latter is an AAS degree designed to prepare students for immediate employment as full-time oil-and-gas technicians. Given the rising oil-and-gas industry employment in Weld County, Aims expects this option will benefit students.

Aims created its new oil-and-gas program separate from the existing Industrial Technology (IT) program to satisfy industry concerns and position students for this specific job market. Students could register for the degree program and the MIST certificate program beginning in Fall 2012. However, most of the relevant courses were available before then through the IT program and many students started taking these classes. The first certificate students finished in December 2012.

As noted above, Aims offers an AAS degree in “Oil and Gas Technology” and a stackable certificate that students can earn as a stand-alone or as part of the degree process. The AAS degree is a two-year program. The eleven-credit “Introduction to Oil and Gas Technologies” certificate program now available takes one semester. This is the first of the stackable certificates. As of May 2013, the second one was awaiting state approval. The certificate courses are the same as the first semester courses for the AAS degree. Aims hopes to develop more oil-and-gas certificates similar to the four they offer in the IT program.

Aims designed the energy program curriculum in consultation with an advisory committee made up of nine business industry partners. These firms range from companies as large as Halliburton to smaller Colorado-based entities.

Also as of May 2013, Aims was also looking to offer as many courses as suitable for the degree and certificate programs in online and hybrid formats. To this end, it offered the entire “Introduction to Oil and Gas Technologies” certificate online for the Spring 2013 semester.

While Aims’ energy program is relatively new, students applying for jobs are reporting that employers are increasingly aware of it and positive about it. As one student noted,

Yeah, I know of a company called Halliburton and they said that if you were a part of this program that you’re guaranteed an interview. You’re not necessarily guaranteed the job.

Many students have entered the redesigned energy program based on their knowledge of the Weld County job market. They view this program as an opportunity to get a leg up on those applying for jobs right out of high school. According to students and Aims’ CTE faculty, those enrolled in the two programs are generally underemployed or unemployed and from families where at least one other member works in the oil-and-gas field. Aims hopes to expand the
program beyond this population. The plan is to partner with employers to initiate job training for incumbent workers with a goal of improving employee retention. The college expects to see an increase in these types of students within the next semester.

As mentioned earlier, the original energy redesign proposal included a mobile lab. Aims’ focus has changed, however, to create an Aims campus devoted to the oil and gas curriculum. This will be discussed in later reports.

Aims’ redesigned energy program includes six unique course offerings and nine unique section offerings through Spring 2013. Approximately 87 percent of these courses and sections were available in the most recent term. Table 1 displays the course rollout by term, the number of students enrolled, and the percentage of total students enrolled in each term.

<table>
<thead>
<tr>
<th>Term and Year</th>
<th>Percentage of Total Redesigned Energy Population (All Terms)</th>
<th>Number of Students from Redesigned Energy Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2012</td>
<td>12.5</td>
<td>21</td>
</tr>
<tr>
<td>Spring 2013</td>
<td>87.5</td>
<td>147</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>168</td>
</tr>
</tbody>
</table>

In terms of overall student retention, 89.3 percent of students (150) who registered for redesigned energy courses persisted in the course and 10.7 percent (18) withdrew after the term started.

**Energy Redesign Innovative Models and Practices**

*Stackable Certificates.* Aims offers four certificates as part of its IT AAS degree. As of May 2013, it offered only one certificate in the new COETC-funded oil-and-gas program. The college hopes to use the existing IT certificate program as a model to design additional oil-and-gas certificates. As described above, the nondegree certificate available now can be earned by completing the first semester of classes (eleven credits) for the two-year (full-time) AAS “Oil and Gas Technologies” degree. Earning this certificate, which full-time students can do in one semester, allows students to “dip their toes in” the energy arena. It also gives them a means of immediately entering the workforce along with the opportunity to transition to the AAS degree. Students who earn this certificate can also move into related certificate programs based on their career goals or changing interests.

*Industry Involvement.* Aims has recruited, as noted above, a strong group of industry partners for its steering and advisory committee. These firms are helping design the program. They are also potential employers for successful students. As one faculty member observed,
We built that [program] with industry input. And so, they are recognizing it. Most [of] our partners have said if we see that [the energy certificate or degree] on somebody’s resume, we’ll give them an interview. So it’s really built around what they [the industry experts] want us to do.

As of Fall 2012, Aims plans to have this committee meet every semester and provide comprehensive input on the energy program. We will discuss these meetings and any actions that come out of them in detail in later reports.

**Online and Hybrid Course Formats.** As part of the grant, Aims has migrated energy courses into online and hybrid formats to make access easier for students who have diverse personal responsibilities. All entire eleven credits of the “Introduction to Oil and Gas” certificate are now available online. In addition, AEC 233, “Construction Safety/Loss Prevention,” is being offered as a hybrid.

**Program Integration.** Aims has quickened the development of the oil-and-gas program’s and increased its sustainability by drawing on courses in existing programs. Many of the classes being redesigned and delivered in new modalities (like the hybrid discussed above) are also part of other related degree and certificate programs. In addition, Aims has focused its plan for educational equipment procurement such that multiple programs can make use of the equipment.

**Energy Redesign Challenges**

**Lack of Hands-on Learning Opportunities.** Taking online courses may be challenging for students who are hands-on learners, which is how teachers describe many of their oil-and-gas students. The delay in equipment procurement that Aims is experiencing has also limited hands-on opportunities. As the quote below illustrates, the students we interviewed desire greater hands-on training in their courses:

> More hands-on stuff. Definitely more hands-on stuff. I want – I mean I get like when we look at the books, I get like what the wrench looks like or … I want to put things together. I want to like physically see how … something works, or like the pressure gauges go up, stuff like that. I know that we have stuff in one room that I don’t think works, but it would be cool to see some of that stuff actually in action and work. So I’d say more hands-on things.

**Financial Aid Eligibility Issues.** According to Aims’ website, 2,672 students of its students receive financial aid. Students enrolled in the energy degree program can earn the certificate as they progress toward their degree and receive financial aid. In addition, incumbent workers sometimes receive tuition reimbursement from their employers. Students enrolled only in the energy certificate program, however, are not eligible for
financial aid because the program is only 11 credits. Thus, the inability to receive financial aid can be an issue, especially for students who are unemployed.

Advertising Reach Issues. Since the energy program is new, Aims is concerned that it is not yet reaching as many potential students for recruitment as it might. In response, the college is now designing and implementing a marketing strategy that includes radio ads, print ads, and a website redesign. Portions of this strategy have been implemented and been reasonably effective. At least one student we interviewed mentioned learning about the program through a newspaper advertisement.

Redesigned Course Outcomes

To help determine the ongoing effects and outcomes of courses redesigned under the COETC grant, Aims’ project leads reported to the Rutgers team on their redesigned courses and the modality used by developmental education. This information appears below.

Aims offered four unique redesigned DE courses in 57 unique section offerings through Spring 2013. Approximately one-third of all courses were offered in the most recent term. Table 2 displays the rollout of these courses by term, the number of students served each term, and the percentage of the total number of students served each term.

<table>
<thead>
<tr>
<th>Term and Year</th>
<th>Percentage of Total Redesigned DE Student Population (All Subjects)</th>
<th>Number of Students (Redesigned DE Population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2012</td>
<td>2.6</td>
<td>26</td>
</tr>
<tr>
<td>Summer 2012</td>
<td>13.6</td>
<td>135</td>
</tr>
<tr>
<td>Fall 2012</td>
<td>46.4</td>
<td>459</td>
</tr>
<tr>
<td>Spring 2013</td>
<td>37.4</td>
<td>370</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>990</td>
</tr>
</tbody>
</table>

In terms of overall student retention, 88.8 percent of students (880) who registered for redesigned DE courses persisted in the course and 11.2 percent (110) withdrew after the term started.

Table 3 presents the redesigned course offerings by subject. At Aims, these were all math classes.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percentage of Total Redesigned DE Population (All Terms)</th>
<th>Number of Students (Redesigned DE Population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>100.0</td>
<td>990</td>
</tr>
</tbody>
</table>
Table 4 lists the redesigned courses offered by title.

<table>
<thead>
<tr>
<th>Course</th>
<th>Percentage of Total Redesigned DE Population (All Terms)</th>
<th>Number of Students (Redesigned DE Population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compress Pre Alg w/Basic Math</td>
<td>94.2</td>
<td>933</td>
</tr>
<tr>
<td>Fundamentals of Mathematics</td>
<td>1.4</td>
<td>14</td>
</tr>
<tr>
<td>Pre-Algebra</td>
<td>1.2</td>
<td>12</td>
</tr>
<tr>
<td>Spcl Tpcs:Contextual Math</td>
<td>3.2</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>990</td>
</tr>
</tbody>
</table>

Table 5 presents the grouped mean achieved by all redesigned DE students from the beginning of the grant through Spring 2013 for each course. In the months ahead, Rutgers will compare section means to departmental means and include the results in later reports.

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compress Pre Alg w/Basic Math</td>
<td>2.1502</td>
</tr>
<tr>
<td>Fundamentals of Mathematics</td>
<td>1.3846</td>
</tr>
<tr>
<td>Pre-Algebra</td>
<td>2.0000</td>
</tr>
<tr>
<td>Spcl Tpcs:Contextual Math</td>
<td>1.6667</td>
</tr>
</tbody>
</table>

AIMS’ CAREER COACHING 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 issues that inhibit their progress or ability to complete a course of study successfully. 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 COETC’s intent, eligibility for career coach services requires students to be participating in a redesigned DE course or a TAACCCT-supported energy course/program, to have Trade Adjustment Assistance (TAA) eligibility (or be TAA-like), to be unemployed, and/or to be eligible for other U.S. Department of Labor programs.

Unlike many other schools involved in the grant, Aims has clearly delineated the role for its career coach. The college appears to have suffered little confusion in terms of how to connect the academic advising and the career management pieces of the position. Aims
structured the role such that the coach can meet her caseload goal for career coaching while continuing to serve the broader campus community. The career coach hired by Aims has more than ten years of experience in employment and training programs in Colorado. Previously she worked at the Larimer County Workforce Center, where she case-managed Workforce Investment Act (WIA) and TAA-eligible individuals. From this experience and others, she understands the retraining needs of unemployed and dislocated workers.

The career coach’s background has helped Aims develop close relationships with the workforce centers in Larimer County and Weld County (Aims’ service area). The college now provides a link to these centers on its career services webpage. Having the individuals and resources of these centers available is particularly useful since the programs supported by each are different. For example, Weld County only supports those with certificate training, so Aims’ new “Introduction to Oil and Gas Technologies” certificate fits perfectly. The coach’s close contact with and knowledge of these workforce centers helps her steer students to the appropriate programs and financial resources to maximize their career development.

The career coach interacts with TAA and WIA students at Aims to help them develop career plans and make connections with the workforce center. She also assists students by reviewing their resumes, conducting mock job interviews and providing advice on job search strategies. She sees her job as complimenting the case management these students receive through the centers. In essence, she is their case manager at Aims. Framing her position this way helps students easily understand the range of services she can provide.

The career coach has worked on expanding her COETC caseload in several ways. To assist with recruitment, she attends Emergency Unemployment Compensation (EUC) orientations at the Weld County Workforce Center. She gives presentations on resumes and career resources in classes that have unemployed, TAA-eligible, or oil-and-gas program students enrolled. She also works with the voluntary “Emerging Scholars” program, which supports students who have two or more DE needs in reading, math, or English. One incentive that may help registration is that these students may receive an “Emerging Scholar” program scholarship. To be eligible for this, they must meet with the career coach at least three times per semester.

The coach also assists unemployed workers referred to her by advisers in Aims’ separately run academic advising program. In addition, she sees students from the new oil-and-gas program who are referred to her directly by instructors.

The career coach reports that she spends much of her time with students assisting them with life skills, helping them identify resources for overcoming personal challenges that
can impede academic progress, and providing career advancement advice related to job applications.

**Aims’ Electronic Student Case Files (ESCF)**

As mentioned above, the ESCF helps career coaches track student progress with goals. Rutgers hoped that Aims’ 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.

Of the students registered by the career coach, 74 percent (67) have an active ESCF file. As of May 23, 2013, the remaining 26 percent do not have an active ESCF. As with many other colleges in the grant with career coach positions, Aims reports difficulty administering the grant, especially with regard to maintaining ESCF files. Case file updating is tedious and the system is not particularly user friendly.

**Aims Career Coaching Target Performance**

At Aims, the career coach has registered 90 students. This represents approximately 44 percent of the target (206) to be served by career coach under the grant.

**Career Coaching Eligibility Distribution**

After reviewing active ESCF files and cross-referencing these with students enrolled in all redesigned courses, as certified by the project lead, Rutgers has identified the student eligibility for career coaching for 89 percent of all registered students. Table 6 shows the eligibilities of the students using the career coach along with the breakdown of how many students fall into each eligibility category. Of the total, 20 percent of students have been recorded as TAA-eligible and 34.4 percent as TAA-like. Nineteen percent of those recorded as TAA-like have also enrolled in one or more redesigned courses, 8 percent in DE courses, 11 percent in energy courses, and 3 percent in contextual or “multiple redesigned” courses.

---

1 Rutgers defines an active ESCF file as a “response in progress” in which student information has been entered into the ESCF but not submitted to the record. Career coaches can return to and update information in active ESCFs. An ESCF that has been closed or submitted to the system by the career coach is considered inactive.

2 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 has to fill in basic information such as ID number and name but does not have to initiate an ESCF file. Alternatively, a student in this count may have been served by the career coach and the student’s ESCF submitted. Such ESCFs are considered inactive.
Table 6. Course Breakdown for Eligible Students Registered by Aims Career Coach

<table>
<thead>
<tr>
<th>Eligibility Criteria</th>
<th>Percentage of Total Students in Caseload</th>
<th>Number of Students (Caseload Population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAA-Eligible</td>
<td>20.0</td>
<td>18</td>
</tr>
<tr>
<td>TAA-Like</td>
<td>34.4</td>
<td>31</td>
</tr>
<tr>
<td>DE Redesigned</td>
<td>2.2</td>
<td>2</td>
</tr>
<tr>
<td>Energy Redesigned</td>
<td>10.0</td>
<td>9</td>
</tr>
<tr>
<td>Redesigned Contextual</td>
<td>1.1</td>
<td>1</td>
</tr>
<tr>
<td>TAA + DE</td>
<td>7.8</td>
<td>7</td>
</tr>
<tr>
<td>TAA + Energy</td>
<td>11.1</td>
<td>10</td>
</tr>
<tr>
<td>Multiple Redesigned</td>
<td>2.2</td>
<td>2</td>
</tr>
<tr>
<td>Unknown</td>
<td>11.1</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>90</td>
</tr>
</tbody>
</table>

SUMMARY OF LESSONS LEARNED AND INNOVATIVE STRATEGIES

Partnership with Industry

The energy redesign at Aims is being informed by its quality analysis of the service area’s needs. This has been aided by the close relationships Aims has developed with the major and minor local employers in the oil-and-gas industry. These firms have assisted in curriculum development and have an ongoing role in reviewing the program as it grows. These relationships have also connected students directly to potential employers’ needs and raised the energy program’s profile in terms of assisting with workforce placement. Employers have already expressed their willingness to interview program graduates for job openings.

Partnership with Workforce Centers

The Aims’ career coach’s workforce background has helped her to make important connections with local workforce offices. Her experience and relationships allow her to make and receive referrals. It also positions her well to meet potential energy program students at workshops sponsored by the workforce centers. In addition, her close working association with the centers helps her provide complimentary services to students already receiving case management at one of the centers.
**Flexibility**

One advantage the oil-and-gas program is its ability to serve students in multiple ways. It offers career-enabling certificates that students can earn quickly. Alternatively, students to earn a certificate and apply those credits toward their AAS degree in oil and gas. The program’s integration with the IT program also makes it possible for students to earn multiple certificates across CTE offerings at Aims. This puts the program in a good position to adapt as the job market changes. It also increases the program’s sustainability by making grant-funded course offerings applicable across existing programs.

**SUMMARY OF CHALLENGES**

**Program Approval Speed**

It took Aims a long time to get its curriculum for the new program approved by the state. Advisers and instructors felt frustrated and behind on delivery even though the framework for the program already existed within the college. Until the program was approved, it was difficult to get students to take the relevant classes in preparation for its launch. Similarly, equipment procurement has been time-consuming.

**Hiring**

Aims has struggled with finding qualified people to fill part-time appointments. Individuals with specialized skills, for example, are largely unwilling to take part-time data specialist and instructional designer positions.

**ECSF**

Like many colleges involved in the grant, Aims has had difficulty using the case-file management software, which may account for discrepancies between the numbers of students served and the active ECSF files. Those involved view the process as time consuming and overwhelming, especially where the career coach has a large, active case load.

**RECOMMENDATIONS FOR AIMS CC**

- Online classes are often believed to be universally more helpful for students with many personal responsibilities. However, doing coursework in busy homes can be difficult. Indeed, many students we spoke with reported having to do their online classes on campus. Given the situation, Aims should look closely at which courses they choose to make hybrid and which courses will be fully online.
RECOMMENDATIONS FOR CONSORTIUM COLLEGES

- Aims’ strong industry partnership throughout the program development and implementation stage has helped ensure that students receive the training and develop the skills future employers want. The relationship has also raised the program’s visibility among these same employers. Advisory committees like the one at Aims may be successful when implemented at other colleges.

- The workforce background of Aim’s career coach has allowed her to fully develop the career portion of her position. She has attended orientations at the workforce centers to work on recruitment. Other career coaches might consider a more hands-on approach in their relationships with workforce centers in their service areas.