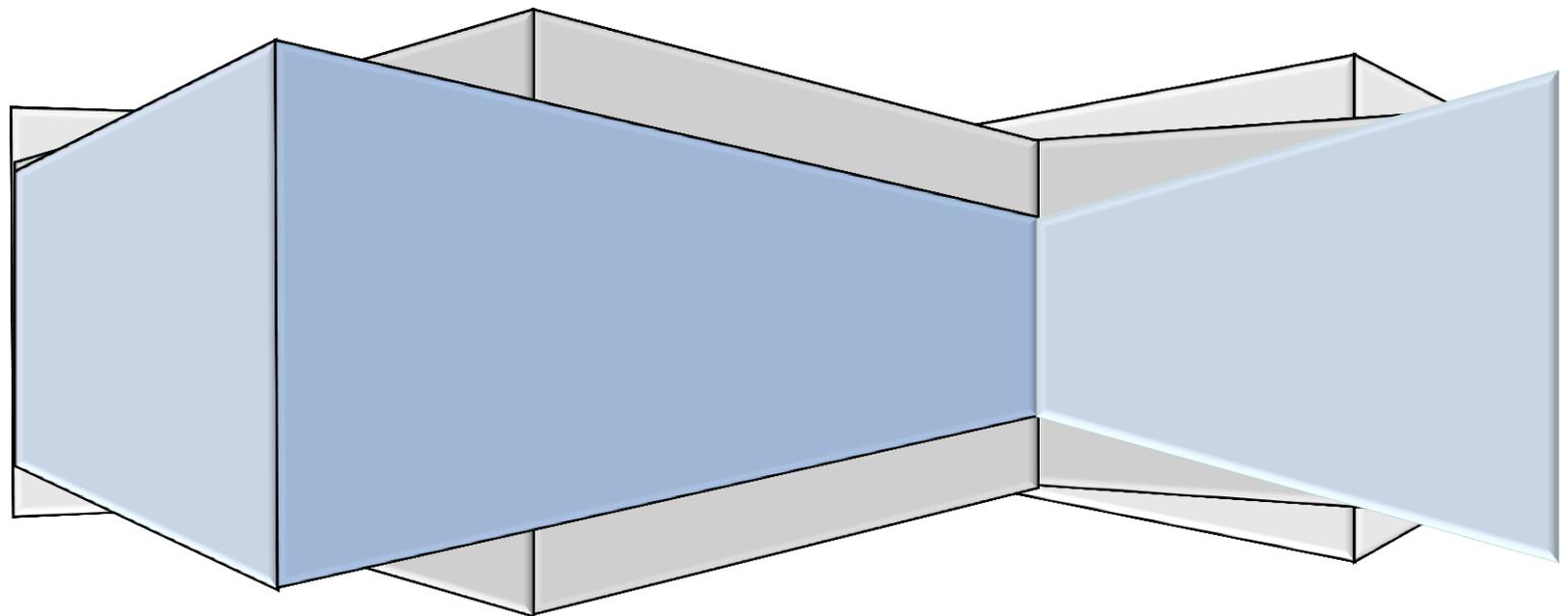


Ready for College in Colorado

Evaluation of the Colorado SUN and the College Connection Program

Debra D. Bragg

December 15, 2010



Support for this work was funded by a consulting agreement between the Colorado Community College System (CCCS) Foundation and the author, drawing on federal funds from the Ready for College program of the Office of Vocational and Adult Education (OVAE), U.S. Department of Education. The contents of this report do not necessarily represent the positions or policies of CCCS, the OVAE, the U.S. Department of Education, or the author's employer, the University of Illinois at Urbana-Champaign. Comments or inquiries about this publication are welcome and should be directed to Debra Bragg at dbragg@illinois.edu.

The author acknowledges the generous support of an untold number of Colorado students, faculty, counselors, and administrators in the seven community colleges (Community College of Denver, Front Range Community College, Lamar Community College, Northeastern Junior College, Morgan Community College, Red Rocks Community College, and Southwestern Community College) that piloted the College Connection program between 2007 and 2010. She is indebted to the professionals employed by the CCCS who so generously shared their experiences and insights, including Kristin Corash, the project director for Colorado's Ready for College grant; Kendra Rodriguez, the project manager; Elaine Baker, Community College of Denver; and Doug Glynn, Colorado Department of Education, Adult Education and Family Literacy, who were key to creating and sustaining the project throughout the grant period. The author is also grateful for the able assistance of Sharon Kristovich, Jason Taylor, and Donna Dare who contributed their time and talents on various points in the evaluation when their assistance was needed, particularly with the qualitative and quantitative analysis. Their contributions to and enthusiasm for this work were enormously uplifting to me. The author also acknowledges the fine editorial work of Susan Krusemark and assistance provided by Linda Iliff in preparing this manuscript for dissemination. Finally, a project of this scope requires many personal sacrifices, and the author extends her most sincere gratitude to her husband, Michael, and son, Matthew, for their patience and support during this three-year journey.

Suggested citation: Bragg, D. D. (2010, December). *Ready for College in Colorado: Evaluation of the Colorado SUN and the College Connection program*. Champaign, IL: University of Illinois, Office of Community College Research and Leadership.

Executive Summary

In fall 2007, the state of Colorado received one of four federal grants from the Ready for College (RFC) grant program of the Office of Vocational and Adult Education (OVAE), U.S. Department of Education. The Colorado (CO) SUN project (where SUN stands for Success UNlimited) was designed to identify and enhance innovative practices from Colorado's Adult Education and Family Literacy program and extend them to other Adult Secondary Education centers across the state. The project was commissioned by the Colorado Community College System (CCCS) Foundation, and it aligned well with other initiatives of the Governor's P-20 Education Coordinating Council, the Colorado Adult Education and Family Literacy Act, Title II Workforce Investment Act, and other state agencies.

The overarching goal of CO SUN was to create innovative transition programs and practices to promote the successful transition of out-of-school youth to community colleges. As conceptualized in the original proposal, the CO SUN initiative emphasized implementation of College Connection, an 8-week accelerated bridge program designed to transition out-of-school youth into college and to assess student outcomes associated with their transition-to-college experience. The College Connection program was modeled after the FastStart program developed by the Community College of Denver, and it integrated instructional strategies and student supports used by the Community College of Denver with approaches used by Colorado's Adult Secondary Education programs. In particular, the College Connection program integrated the core academic subjects of math, English, and reading with critical thinking, career exploration, academic advising and college success. College Connection also included professional "navigators" or case managers who were committed to assisting students to overcome barriers to their successful transition to college. Colorado SUN was initially implemented by five community colleges in the first year and expanded to seven community colleges in the second year. During the third year when a no cost extension was secured, three sites continued to offer one or two cohorts. Overall, the seven sites offered one to four cohorts of College Connection beginning summer 2008 through September 2010, totaling 15 cohorts. Six of the seven sites enrolled RFC-qualified students in their cohorts.

This evaluation utilized qualitative and quantitative methods to examine Colorado's RFC initiative, including documenting implementation of key components of the College Connection program and assessing student performance on required OVAE performance measures and related outcomes identified by the CCCS leadership as important to the Colorado context. The primary objectives of the evaluation of CO SUN were a) to determine the extent to which the CO SUN initiative resulted in positive outcomes for out-of-school youth, including learning gains, college readiness, and transition to the community college, b) to assess student perceptions of CO SUN components and strategies, particularly college validation, navigator support, college readiness, and student supports and services, and c) to describe how key CO SUN strategies encourage retention and transition of out-of-school youth and contribute to student success.

The core components of the CO SUN model include the College Connection program that offers accelerated and compressed curriculum in math, English, and reading. Learner-centered instructional

strategies and support services are offered to enhance the success of the learners. Student recruitment, learning communities, navigators or case managers, wrap-around services, and formal and informal assessments are also implemented to encourage student success. This student-focused teaching and learning process is bolstered by professional development and continuous improvement that brings staff together to examine their practices and use data to make improvements. Together, these core components coalesce to promote successful student outcomes.

Results of the evaluation reveal promising outcomes for the overall learner group, referred to as the CO SUN participants, and for the sub-group of students who met the RFC criteria: a) was 18 to 24 years of age prior to or during the CO SUN program, b) had taken the TABE reading or math pretest, or both, and c) had 60% or better attendance in the CO SUN program. The following results provide insights into the impact of the College Connection program on student outcomes:

- The majority of RFC learners showed gains on the TABE reading and math tests. Of the 56 RFC learners who had the pre- and posttest scores required to compute gain scores, 38 (67.8%) showed a gain of one level or more on the TABE reading test, math test, or both.
- A total of 16 (26.2%) RFC learners tested college ready in at least one subject. For these 16 RFC learners, 7 placed into college-level English, 7 placed into college-level reading, and 5 placed into college-level math. Six RFC learners were college-ready in more than one subject.
- The majority of RFC learners in five of six pilot sites showed one or more level gains in developmental math, with 64.6% of the RFC learners in Site 1, 73.9% in Site 2, 100% in Site 3, and 50% in Sites 4 and 5 showing one or more level gains. A sizeable percentage of RFC learners showed two or more level gains in math in three sites, specifically 35.2% of RFC learners in Site 1, 30.4% in Site 2 and 100% in Site 3.
- RFC learners in five sites showed gains of one or more levels in developmental reading, with 59.9% of RFC learners in Site 1 showing a gain of one or two levels and 55.5% of RFC learners in Site 2 showing a similar level of achievement. Half to two-thirds of RFC learners in two other sites demonstrated a gain of one level.
- RFC learners in two pilot sites showed gains of one or more levels in developmental English, specifically 59.5% of RFC learners at Site 1 and 50% of RFC learners at Site 3. Between 22% and 37.5% of RFC learners in three other sites showed a one-level gain.
- A total of 49 (80.3%) of the 61 RFC learners enrolled in college-level community college courses, either while participating in the CO SUN program or after completing it. The average number of college credits earned was 10.2.

These quantitative results are supported by qualitative data gathered through one-on-one and small group interviews with students and instructors, and through the open-ended responses of students on a questionnaire about the College Connection program. To provide an understanding of students' appreciation for the program and how it contributed to their learning experience, selected comments follow:

“I have experienced the best summer out of all of them. It’s been a lot of help because I finally found what my true passion is. I have learned many time-management skills and ways to work around my schedule. I have learned a lot and feel prepared for college.”

“Being in College Connection felt like it was a helping hand [and a] stepping [stone] into college. It helped me lose some [of my] fear of college as well as helped me gain more confidence with basics in literacy and math.”

“The teachers and the navigator helped me with not only school but [with] issues that were preventing me from succeeding in college. I had no home to call my own, and with their help I received the encouragement to find a home and apply for a home.”

The following recommendations support future implementation of college transition programs that serve out-of-school youth.

- Adult education and developmental education instructors should work collaboratively to offer accelerated and compressed curriculum and help students make the “college connection”.
- Qualified professionals from across relevant sectors should engage in aligning pre-college instruction with college level content and instruction.
- College transition programs for out-of-school youth should include a student support professional or case manager who helps to “navigate” students through their initial college transition experiences and support their success.
- Educational leaders across the system should create bridges through policy and program mechanisms that enhance students’ opportunities to achieve successful outcomes.
- Diverse formats should be used to deliver professional development opportunities for instructors, including meetings where staff are physically present and engaged in active learning activities and formats such as video conferencing, online coursework and other technology-enhanced formats that engage educators in their own settings.
- Data should be collected and analyzed on an on-going basis to assess program quality and student outcomes and support continuous program improvement that is dedicated to student success.
- Changes associated with CO SUN that show promising outcomes should be institutionalized and integrated into the larger state adult and postsecondary education systems.

Table of Contents

Introduction1

The Evaluation Questions2

Evaluation Methods and Measures2

 Institutional Review Board (IRB) Approval.....2

 Quantitative Methods2

 Qualitative Methods3

 Survey Data Collection4

 OVAE Measures4

 Other Data Collection5

 Limitations of the Study6

The College Connection Program6

 The FastStart Model7

 Colorado SUN and the College Connection Program7

Results11

 The Sites11

 The Students12

 Student Outcomes14

 Educational Gain14

 College Readiness15

 Entered Postsecondary Education or Training26

 Student Experiences and Perceptions29

 Retention and Transition Strategies38

 Accelerated Curriculum and Contextualized Instruction39

 College and Career Success Course.....41

Learning Communities.....	42
Student Recruitment.....	43
Formal and Informal Assessment	43
Navigators or Case Managers	44
Wrap-around Services	44
Professional Development	46
Continuous Improvement	46
Conclusions and Recommendations	47
College Connection	47
Instructional Innovation	48
Navigator	48
Bridging Institutions	48
Professional Development	48
System Change	49
Continuous Improvement	49
References	50
Appendix A: Colorado SUN College Connection Survey	A-1

List of Tables

Table 1. Description of the Pilot Site Location and Number of Cohorts and Participants	12
Table 2. Adult Basic Education Pre-intervention Placement Levels of Ready for College Learners, Based on TABE Results	17
Table 3. Pre-intervention Developmental and College Levels of Ready for College Learners, Based on ACCUPLACER Results	18
Table 4. Frequency of Level Change on the ACCUPLACER Placement Test by Ready for College Learners, by Site	22
Table 5. Frequency of Postsecondary Entry and Enrollment of Ready for College Learners, by Site	27
Table 6. Ready for College Learners' Level of Agreement with Instructor Validation Items	31
Table 7. Ready for College Learners' Level of Agreement with Navigator Items	34
Table 8. Ready for College Learners' Level of Agreement with Student Perceptions of College Knowledge and Behavior	37

List of Figures

Figure 1. Core components of the College Connection program8

Figure 2. Percentage of Colorado SUN program participants who were Ready for College learners13

Figure 3. Comparison of Ready for College learners with Colorado SUN participants on selected demographic characteristics14

Figure 4. Percentage of Ready for College learners who achieved college-ready status16

Figure 5. Percentage of Ready for College learners by number of required developmental subjects, based on ACCUPLACER results19

Figure 6. Percentage of Ready for College learners by number of placements at the Developmental-Basic level, based on ACCUPLACER results19

Figure 7. Percentage of Ready for College learners who achieved college-ready status compared with the total number of Colorado SUN participants23

Figure 8. Percentage of Ready for College learners who showed gains of one or more levels in reading, by site24

Figure 9. Percentage of Ready for College learners who showed gains of one or more levels in English, by site24

Figure 10. Percentage of Ready for College learners who showed gains of one or more levels in math, by site24

Figure 11. Comparison of the percentage change in reading by Ready for College learners and Colorado SUN participants25

Figure 12. Comparison of the percentage change in English by Ready for College learners and Colorado SUN participants25

Figure 13. Comparison of the percentage change in math by Ready for College learners and Colorado SUN participants25

Figure 14. Comparison of the percentage of RFC learners who enrolled in the community college to the total Colorado SUN participant group.....28

Figure 15. Percentages of Ready for College learners and total percentage of Colorado SUN participants level of agreement with the instructor validation items33

Figure 16. Percentages of Ready for College learners and total Colorado SUN participants' level of agreement with navigator support items36

Figure 17. Percentages of Ready for College (RFC) learners and total Colorado SUN participants' level of agreement with college readiness items38

Figure 18. Percentage of RFC learners participating in student services and supports45

Introduction

In fall 2007, the state of Colorado received one of four federal grants from the Ready for College (RFC) grant program of the Office of Vocational and Adult Education (OVAE), U.S. Department of Education. The Colorado (CO) SUN project (where SUN stands for Success UNlimited) was designed to identify and enhance innovative practices from the Adult Secondary Education program of Colorado's Adult Education and Family Literacy Act and expand these strategies to other Adult Secondary Education centers across the state. The project was commissioned by the Colorado Community College System (CCCS) Foundation, and it was aligned with other initiatives in the state to give it visibility and enhance opportunities for sustainability, including the work of the Governor's P-20 Education Coordinating Council, the Colorado Adult Education and Family Literacy Act, Title II Workforce Investment Act, the Colorado Department of Labor and Employment, and the Colorado Department of Local Affairs, and the Colorado Office of Workforce Development.

The overarching goal of CO SUN was to create innovative transition programs and practices that would promote the successful transition of out-of-school youth to community colleges. As conceptualized in the grant proposal, the CO SUN initiative emphasized implementation of College Connection, an 8-week accelerated bridge program designed to transition out-of-school youth into college and assess student outcomes associated with their transition-to-college experience. The College Connection program was modeled after the FastStart program developed by the Community College of Denver, and it integrated instructional strategies and student supports used by the Community College of Denver with approaches used by Colorado's adult education system, Adult Secondary Education. In particular, the College Connection program integrated the core academic subjects of math, reading and writing with critical thinking, career exploration, academic advising and college success. College Connection also included professional "navigators" or coaches who were committed to assisting students to overcome barriers to their successful transition to college. Colorado SUN was initially implemented by five community colleges in the first year and was expanded to seven community colleges in the second year. During the third year of the grant (a 1-year extension period), three sites offered cohorts. Overall, the seven sites offered one to four iterations of the College Connection program beginning in summer 2008 and extending through September 2010.

This report presents qualitative and quantitative results for Colorado's RFC initiative, including a description of the evaluation methods, an explanation of key components of the College Connection program, an assessment of student performance on required OVAE performance measures, an assessment of related outcomes identified by the CCCS leadership to help explain the OVAE performance measures, and a discussion the implementation of CO SUN at seven sites, including promising practices. This report ends with conclusions and recommendations for the CCCS as well as OVAE.

The Evaluation Questions

The evaluation of CO SUN was conducted by an external evaluator, as specified by the OVAE grant. The primary objectives of the evaluation of CO SUN were as follows:

- to determine the extent to which the CO SUN initiative resulted in positive outcomes for out-of-school youth, including learning gains, college readiness, and transition to and retention in the community college.
- to assess student perceptions of CO SUN components and strategies, particularly college validation, navigator support, college readiness, and student supports and services.
- to describe how key CO SUN strategies encourage retention and transition of out-of-school youth and contribute to student success.

Evaluation Methods and Measures

This section describes the evaluation design and mixed methods used for the external evaluation. The discussion begins with an assurance of Institutional Review Board (IRB) approval of the CCCS and proceeds to present information about the qualitative and quantitative methods used throughout the project.

Institutional Review Board (IRB) Approval

In May 2008, the external evaluator obtained IRB approval from the Colorado Community College System (CCCS) to engage in the qualitative and quantitative data collection, including interviews with pilot site personnel (administrators, instructors, counselors and other support staff) and students, and in the administration of the College Connection Student Survey.

Quantitative Methods

The evaluation included both qualitative and quantitative methods, including documenting the performance measures required of the projects by OVAE. Data on student transition were obtained through the creation of the Colorado SUN database, which was used to capture relevant program-, institutional-, and state-level data. Most data were obtained at the local level and submitted by the pilot sites through a secure server maintained by the CCCS. The project manager at the CCCS monitored data submission for completeness and quality and ensured the security of the database, including the appropriate use of data by the external evaluator. The data maintained in the CO SUN database provided cross-sectional and longitudinal information on students enrolled in the Colorado SUN program. Information on any student who enrolled in the CO SUN program was entered into the database, and data on students defined as “Colorado SUN program participant” were extracted from this file for the purpose of OVAE-reporting. The data provide evaluative evidence of participation and retention

in the College Connection program, and provided a baseline for measuring whether students transitioned from the College Connection program to the community college. The creation of the CO SUN database began almost immediately upon notification of funding from OVAE. Because the database is longitudinal, efforts to collect data and maintain up-to-date files within the database continued throughout the project. (Additional information on the CO SUN sample is presented in the section on student outcomes.)

With respect to student-level quantitative data, all sites administered pre- and posttests of the Test of Basic Education (TABE) and ACCUPLACER to all students who enrolled in College Connection program. Gain scores were computed according to instructions from OVAE to ascertain the required performance measures. Specifically, TABE and ACCUPLACER test scores were used to compute student-level changes in math, reading and writing competence as a result of the students' enrollment in the College Connection program. These results provided evidence of student gains on end-of-program outcomes relative to entry-level academic preparation.

Qualitative Methods

Qualitative were collected by the external evaluator at all seven sites associated with CO SUN to gather perceptions of the success of the CO SUN initiative and of the College Connection program in particular. One- to 2-day site visits were made to all sites about two-thirds of the way through delivery of each program. Thus, for programs offered from mid-June to early August, the evaluator visited the program in mid-July at the point when the instructors and students were sufficiently engaged to be able to talk about their experiences but before the end of the class when posttests were administered.

For sites that offered multiple cohorts, the external evaluator visited each offering from summer 2008 through fall 2009. In total, 15 cohorts were offered by the seven pilot sites, and the external evaluator visited 13 of these cohort offerings. During each visit, the evaluator observed the College Connection classes (math, English/reading, and college and career success) and she conducted individual and small group interviews with the professional staff, including the instructors and the navigator. The evaluator also conducted individual or small (focus) group interviews with all enrolled students who had reached the age of 18 to comply with the OVAE guidelines and IRB requirements. Students were encouraged to explain their decision to enroll in the College Connection program and their personal experiences, observations, and perspectives on any aspect of the program that had helped or hindered their learning and influenced their transition to the community college. The evaluator also interviewed former CO SUN students during her return visits to the pilot sites. These opportunities were used to talk with graduates about their continued enrollment at the community college, including the adequacy of their preparation for community college-level coursework and their successes and failures at the collegiate level.

The interviews included questions targeted to the various stakeholder groups, including questions asked of instructors such as, “How do you know that your students are learning?” and questions asked of navigators such as, “What challenges are your students overcoming to participate and engage in learning via College Connection?”. To project managers or coordinators, the evaluator asked questions such as, “What data are you gathering about how your program is (or is not) working?” and “How are you using data to make your program better?” In addition, the evaluator capitalized on the extensive program reporting tools being used by the CCCS project manager to gather additional qualitative data, especially for the purposes of triangulating data; this included reviewing the report forms completed by the local project managers and navigators. In addition, the evaluator drew on her own extensive professional experience with continuous process improvement, and she used this knowledge to integrate lessons learned as the project was unfolding. Contrary to the traditional approach to summative evaluation in which information is not disseminated until the project ends, this evaluation emphasized open and candid dialogue among all the stakeholders involved in the project, including state leaders and local practitioners.

Survey Data Collection

In addition to these quantitative and qualitative methods, the external evaluation collected data on students’ insights into the quality of their educational experience and its impact on their readiness for transition into college and their perceptions of themselves as college students. This qualitative data collection involved using a questionnaire to gather students’ experiences associated with the College Connection program, including data on whether they were validated as college learners, their transition into college, student supports, and the value of the navigator. The data on validation were gathered using a scale developed by Barnett (2009) in which she cited the research of Rendon (1994) who argued that validating non-traditional and underserved students is critical to their persistence and success. Rendon conceptualized validation as “an enabling, confirming and supportive process initiated by in- and out-of-class agents” (p. 44) that could lead to positive academic and interpersonal outcomes. She observed that validation occurs naturally for students who expect to attend college and who prepare to do so, but students who do not anticipate attending college and who have limited preparation for college do not integrate into the postsecondary environment without deliberate assistance and support. According to Rendon’s research, nontraditional and underserved students are much more likely to succeed in college when instructors and other professionals make purposeful efforts to integrate these learners into college and legitimate them as college-level learners.

OVAE Measures

Data were collected and submitted to the CO SUN database by local community college program coordinators who transmitted password protected files to the CCCS office. Project staff at each community college performed data entry which included working with the CO SUN project staff at CCCS to obtain a unique identification (ID) number for each student. The unique ID that each student was assigned was used consistently for all data reporting, in compliance

with the Institutional Review Board approval that was granted by the CCCS at the beginning of the project. De-identified student records were accessed by the external evaluator using a password-protected system maintained by the CCCS, and these data were analyzed using appropriate security protocols to ensure the anonymity of all students.

In addition to the student-level data supplied by the local community colleges, a researcher employed by the CCCS office queried the state's community college data system to obtain records on myriad postsecondary variables of importance to this evaluation study, including postsecondary attempted and earned credit hours; developmental and college course attempted and earned credit hours; and credentials including certificates and degrees earned. These data were captured and included in the CO SUN data file after student records were frozen to avoid discrepancies between the data maintained by local community colleges and by the CCCS office. The last point when the CCCS office queried the state's data file was in July, 2010.

One important deviation from the original plan for this analysis involved the inability of CCCS staff to obtain data from the Colorado Adult Education System for Accountability and Reporting, named CEASAR. Because of changes in the state's CAESAR system, the Colorado Department of Education was unable to provide the CCCS office with student-level data in the time frame that was needed to conduct the data analysis for this project. To address this concern, the CCCS CO SUN project leadership used an alternative method of data collection that involved developing a customized data system for this project, drawing on the expertise of CCCS management information systems personnel, CCCS researchers, and the CO SUN project manager. The external evaluator was also engaged in consultation during the development of the system. The CO SUN project manager assumed responsibility for training staff at the pilot sites to gather and input data, and she provided ongoing support for and oversight of the timeliness and quality of the data. An asset of this project was that the CO SUN project manager was employed on the RFC grant throughout the entire project, providing consistent support for the pilot sites from start to finish. The high quality of the data collected for the CO SUN project is due, in large part, to this individual's commitment to data quality and accountability.

Other Data Collection

In addition to the aforementioned methods, the professionals involved in the CO SUN project were engaged in numerous active, research-based dialogues regarding College Connection curriculum and instruction and related strategies, including critical thinking and student support. For example, in August 2008, the entire group of site directors met in Colorado Springs to create plans for and begin developing teaching materials for critical thinking in association with the College Connection program. This iterative process to enhance the GED curriculum produced a rich dialogue that was shared with the external evaluator. Later in the project, in April 2009, the entire group of professionals associated with the pilot sites gathered in Denver for 1.5 days to discuss implementation successes and challenges and lessons learned.

The external evaluator took notes based on the verbal insights and exchanges that occurred among the professionals attending this meeting.

Limitations of the Study

This report is limited to descriptive and evaluative (quantitative and qualitative) data. Because CO SUN and the College Connection model were initiated in association with the RFC grant, the programs that were studied were all newly developed and the enrollments were deliberately small, averaging 8 to 12 participants. The small enrollment had the advantage of providing a great deal of one-on-one attention for students, but it created a challenging environment for assessing student outcomes. Plans for comparing sites were not feasible because of the small cohort sizes, and it was not possible to identify a valid comparison group from the larger GED population because of the limited number of out-of-school youth whose characteristics were similar to those of the program participants. A wide range of factors, including the diversity of learners who engaged in the programs, influenced the decision to limit this evaluation to assessing program participants without a comparison group. As a result, although these results are undoubtedly useful in depicting the outcomes of CO SUN participants, readers are cautioned not to generalize the results too broadly. Lessons can be learned that transfer to other programs for out-of-school youth, but the present results do not provide a definitive answer to the question of “what works.” To be sure, this report provides meaningful insights into student outcomes for out-of-school youth enrolled in Colorado’s CO SUN initiative, but judgments regarding whether this model would be successful in other settings should be made by educators who are familiar with the circumstances in their setting and who understand the potential for adoption and the impact at their level.

The College Connection Program

The College Connection program, which is core to the CO SUN initiative, was modeled after the College Connection program piloted at Community College of Denver in 2007 as part of the college’s Breaking Through grant, a joint project of the National Council of Workforce Education and Jobs for the Future, funded by the Charles Stewart Mott Foundation. CCD’s College Connection pilot had been adapted from FastStart@CCD, an accelerated instructional approach for remediating students testing into multiple levels of developmental education begun in 2005 through a grant from the Lumina Foundation for Education. FastStart and Breaking Through director, Elaine Baker, saw the OVAE RFC grant as a way to replicate the accelerated instructional approach for out-of-school youth to other colleges within the system and to disseminate the model to the field. Success of the CCCS Foundation in securing federal funds to develop and implement the College Connection program was met with enthusiasm and a commitment to improve transition-to-college opportunities for out-of-school youth throughout the state, in terms of both expanding the program to more pilot sites (and students) over time and learning from the pilot sites so that additional programs could be implemented and larger system change could occur.

The FastStart Model

The FastStart model was developed to provide an accelerated instructional experience for learners of all ages who enter the Community College of Denver and who are required to enroll in developmental math and English (reading and writing) (see, for example, Baker, 2010; Bragg, 2009; Bragg, Baker, & Puryear, 2010). FastStart uses a cohort-based, learning community approach that compresses classroom-based academic learning experiences into an intensive instructional format (often doubling the pace of a regular class) and uses contextualized learning strategies, including integrated and contextualized academic and career content. Specifically, developmental math and English courses are complemented by a student success course that focuses on both college and career preparation. The FastStart model also provides students with one-on-one advising, tutoring, and other support services to supplement their classroom learning.

Colorado SUN and the College Connection Program

Drawing largely on the FastStart model that had been implemented at the Community College of Denver, leaders of the CO SUN project sought the opportunity to extend important components of the FastStart model to out-of-school youth. According to the CCCS definition of the Colorado SUN program, the Colorado SUN initiative is “a college prep program that moves GED graduates and adult learners forward, reduces remedial training, and builds confident, successful students who are ready for college and careers” (see CO SUN website at <http://www.cccs.edu/Foundation/SUN.html>). The CO SUN website also contends that “Colorado has more than 1 million adults with no postsecondary education who could benefit from what we are doing in the Colorado SUN initiative.” To address these challenges, the CO SUN program seeks to transition GED completers into college using a holistic approach called College Connection. The College Connection program delivers approximately 110 instructional hours that are distributed as follows: 40% Reading/English, 40% Mathematics, and 20% AAA 101, College and Career Success. The programs are offered as a summer bridge or concurrent with the regular fall or spring semesters for a period of 8 to 12 weeks.

The core components of the College Connection model are displayed in Figure 1 where the inner circle includes two smaller overlapping circles that depict the core curriculum of accelerated and compressed core academics of math and English (reading and writing). Surrounding the core curriculum are components of College Connection that support the instructional and support services elements of the model. These elements are closest to the students and are viewed by CO SUN leaders as critical to students’ success. Thus, the learning community concept, the navigator and case manager, wrap-around services, formal and informal assessment, and student recruitment are all components of the College Connection model that are student-focused and critical to student success. The outer ring includes professional development and continuous improvement, which are focused on professional educators and administrators (instructors,

counselors, program coordinators). These functions are critical to engaging professionals in the delivery of College Connection in a way that produces successful student outcomes.

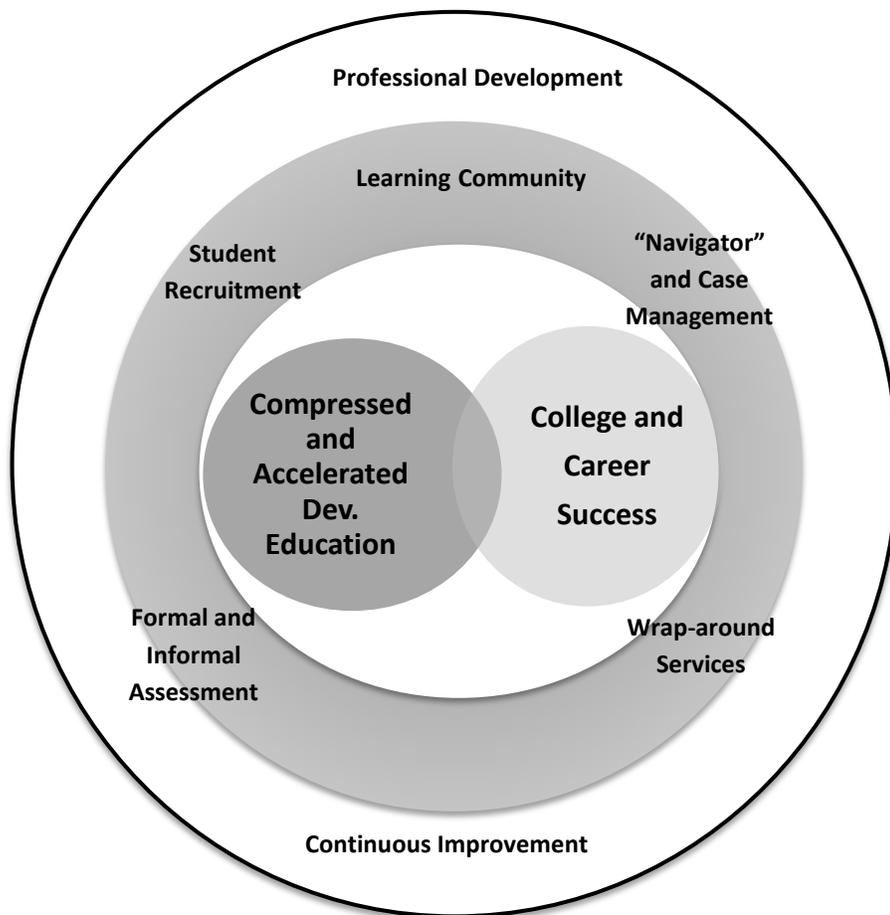


Figure 1. Core components of the College Connection program.

The core components of the College Connection program, as envisioned by Elaine Baker and other educational leaders in Colorado who were instrumental in implementing the RFC grant as a spin-off of the FastStart@CCD program follow:

- **An accelerated curriculum using contextualized instruction, active learning, and computer-based instruction are core the instructional approach.** Students accelerate through combined (compressed) levels that correspond to courses offered by the CCCS curriculum, with an emphasis on moving students toward and achieving, when possible, college readiness in the core academic content of mathematics, English (writing), and reading. As part of this instruction, the curriculum emphasizes students' critical thinking and ability to apply their knowledge at the college level to further success as they pursue other college subject matter and eventually prepare for employment and careers. The

developmental math course sequence that is offered by the CCCS and therefore all pilot sites follows: MAT 030 (Basic), MAT 060 (Intermediate), and MAT 090 and MAT 099/106 (Advanced). The English curriculum offered by the CCCS system in English (writing) and reading follows: English (ENG) 030 (Basic), ENG 060 (Intermediate), ENG 090 (Advanced), and Reading (REA) 030 (Basic), REA 060 (Intermediate), and ENG 090 (Advanced). The levels of the math and English curriculum equate to K-12 grades as follows: Basic: Grades 3-5, Intermediate: Grades 6-8, and Advanced: Grades 9-12.

- **A College and Career Success course (AAA 101) compliments the developmental curriculum.** Initially focused on college success, through developmental efforts associated with FastStart@CCD, AAA 101 was adapted to integrate a larger focus on career success, and this version of the course was encouraged for pilot sites adopting College Connection. The College and Career Success course focuses on college and career preparation by engaging students in contextualized, project-based instruction that encourages the development of “college knowledge” (Conley, 2010) and reinforces college behaviors, such as study skills and the productive use of college resources. Simultaneously, the CO SUN students are engaged in career exploration activities and projects that enable them to consider future careers and understand how their college studies will align with career-entry requirements. Students are awarded a college credit for successful completion of this course.
- **Cohorts of students acting as learning communities support and enhance learning,** including integrating academic, career and social learning activities. Drawing on the work of Smith, MacGregor, Matthews, and Gabelnick (2004), Taylor and Bragg (2010) defined learning communities as embodying both a uniquely structured learning environment and specific pedagogical strategies aimed at building community among learners and encouraging student success. Smith et al. define learning communities as “a variety of curricular approaches that intentionally link or cluster two or more courses, often around an interdisciplinary theme or problem, and enroll a common cohort of students. They represent an intentional restructuring of students’ time, credit, and learning experiences to build community, enhance learning, and foster connections among students, faculty, and disciplines” (p. 20). Learning communities are applied to developmental education in community colleges (see Bloom & Sommo, 2005; Scrivener et al., 2008) for the purposes mentioned by Smith et al. (2004). With respect to College Connection, students are encouraged to learn collaboratively and to support one another, with faculty playing a deliberate role in nurturing a community of learners who mutually support student success. Some sites also scheduled weekly study groups that include instructor support to help students learn how to study together outside class time.

- **Student recruitment uses a wide range of strategies to enroll students designated by the OVAE RFC grant as the primary target audience.** Recruitment for College Connection is focused on students designated as the target population for RFC, namely, high-intermediate students in the Adult Basic Education program and low or high students in the Adult Secondary Education program who have either completed a GED or are high school graduates and who are 18 to 24 years of age. In addition to these students, the CO SUN sites enroll students who are older than the out-of-school youth group when it is clear that the program can meet the needs of these students and space is available in the programs to accommodate these students.
- **Formal assessments supplemented by locally developed diagnostics identify students who can benefit from the program.** Students take the ACCUPLACER placement tests consistent with the CCCS college placement policy. Results of the placement exams are used to assess where in the teaching process the instructors should focus during the College Connection program to best engage the students and focus on the competency areas they need to develop. The TABE is also used to pretest students, but this test is not aligned with the Colorado community college developmental curriculum and therefore is not used for placement into the College Connection program. The test is used to measure gains in association with the Adult Education and Family Literacy Act (Title II of the Workforce Investment Act of 1998).
- **A navigator helps students develop individualized education and career plans.** The navigator acts in a role similar to a case manager or academic adviser to work closely with students to enhance their success in all aspects of their education, career, and life planning, including helping them to understand and use existing college student support services, particularly financial aid, academic and career advising, personal counseling, tutoring, and other services (mentioned below). Navigators are also use a wide range of strategies to promote relationship-building between the instructors and students and between the students themselves, including encouraging communication that will yield positive college behaviors. Strategies used most frequently are one-on-one advising, group meetings, and teaching of the College and Career Success course.
- **Wrap-around services are instrumental to support student success.** In addition to the role played by the navigator, support services offered in association with the College Connection program include financial aid, career counseling, academic advising, tutoring, etc. Financial aid is especially important because of target audience of low income students often the know-how to access financial aid. Providing ABE and ASE students with the information they need to access the financial resources (to fill out the forms and submit them at the right time) and to successfully acquire financial aid to attend college is recognized as critical to student success. Students are introduced to on-campus and online learning resources and supports to make it easy for them to access

information on or off campus and take care of the necessary paperwork to acquire financial aid to attend college.

- **Professional development is important to the quality and consistency of delivery of College Connection.** Instructors and support staff are actively involved in professional development that is important to the quality and consistency of delivery of all components of the College Connection program. With respect to instructors who have experience teaching adult education, developmental education, or both, professional development is necessary to sharing instructional methods and enhancing classroom management practices to meet the needs of the students. A wide variety of instructional methods are used to engage professionals in learning activities, including face-to-face meetings, video conferences, online instruction, and telephone conference calls.

Continuous improvement processes provide the basis for program improvement and student outcomes assessment. The extension of the FastStart model to the College Connection program represents a form of continuous improvement in that lessons learned from FastStart’s data-driven implementation process created the opportunity to pursue the Ready for College grant and develop the College Connection program. Evaluation conducted in association with the College Connection program includes a deliberate commitment to collecting and sharing data that are used for measuring program improvement and assessing student outcomes. Rather than distance the evaluation from the professionals engaged in program implementation, the evaluation utilizes developmental evaluation (Patton, 2011) to integrate formative and summative evaluation into system change. This approach maximizes communication regarding how data can be used to enhance program quality and student performance.

Results

This section begins with a snapshot of the seven pilot sites and a description of students who were designated as the target student group for the required OVAE performance measures; these students are called the “RFC learners”.

The discussion of students also includes a brief description of the total group of College Connection program participants. This section also presents results on the four evaluation questions, as well as results on the OVAE performance measures, students’ experiences with and perceptions of the College Connection program, and lessons learned by leadership on implementation, continuous improvement, and sustainability.

The Sites

The seven sites were located in different regions of the state, but several were located within close proximity to the major metropolitan area of Denver. Table 1 presents a concise

depiction of the seven sites, their geographic location (metropolitan or rural), and the number of cohorts and students considered Colorado SUN participants and RFC learners.

Table 1

Description of the Pilot Site Location and Number of Cohorts and Participants

Pilot Site	Locale	Number of Cohorts	Total Number of Colorado SUN Participants	Total Number of Ready for College Learners
1	Metro	3	46	19
2	Rural	4	45	23
3	Rural	2	18	4
4	Metro	2	22	4
5	Rural	1	15	2
6	Rural	2	24	9
7	Metro	1	16	0
Total		15	186	61

The Students

As noted in Table 1, the CO SUN initiative reported some level of enrollment by 186 individuals at seven sites that offered 15 cohorts, with each cohort averaging 12 students. Of the 186 enrollees, 61 students matched all the RFC criteria: a) 18 to 24 years of age prior to or during the CO SUN program, b) had taken the TABE reading or math pretest, or both, and c) had 60% or better attendance in the CO SUN program. This treatment group, which we labeled RFC learners, constituted 32.8% of the total 186 enrollees. These RFC learners were drawn from six community college sites that offered 14 cohorts, with an average of 4 students in each cohort (see Figure 2). One site had no CO SUN enrollees who met the criteria for inclusion in this evaluation, so this site was dropped from the student-level analysis, leaving six sites. The largest group of CO SUN enrollees removed from this analysis was the group who did not complete 60% of the CO SUN program (35% of the 186), and the second largest group was the group with individuals older than 24 years of age prior to or during the CO SUN program (27% of the 186). Only a small number of CO SUN enrollees were omitted from the analysis because they had not taken the TABE pretest, with this group representing less than 10% of the total.

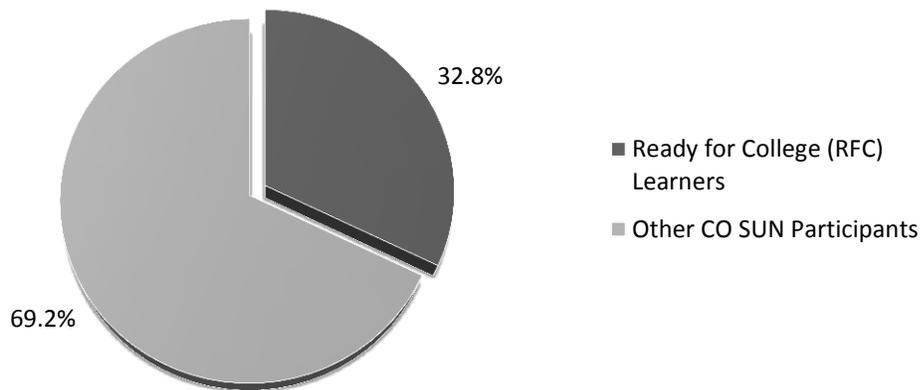


Figure 2. Percentage of Colorado SUN program participants who were Ready for College learners.

In terms of the target population and in accordance with the CCCS Foundation’s proposal to OVAE, the CO SUN program enrolled students who were high school graduates or GED completers who were not “college ready” as evidenced by their scoring below college level based on the ACCUPLACER test, which is used by all community colleges in the CCCS. This means 100% of the RFC learners were assessed below the college level on at least one of the ACCUPLACER placement tests (math, reading or writing), with 41 (67.2%) of the RFC learners having completed their GED or being in the process of completing it. Qualitative data collected in one-on-one interviews with the students and navigators confirmed that a small group of students had completed their GEDs during the CO SUN program, and some students were recent high school graduates who were not college ready according to test results on the TABE and ACCUPLACER test. The group of recent high school graduates grew as the CO SUN program matured, in part to bolster numbers in the 18 to 24 age range and in part to recognize and attempt to address high school students’ lack of college readiness.

Demographic characteristics of the RFC learner group follow: 57.4% were female, 55.7% were minority, 4.9% were English Language Learner (ELL), and 67.2% held a GED or were only one test short of completing the GED test battery.

Figure 3 compares the demographic characteristics of RFC learners with the total group of 186 CO SUN participants, of which the RFC learners were a part (and were thus a subgroup within the total CO SUN program). Results indicated that slightly fewer of the subset of RFC learners were female, were English as a second language (ESL) learners, and had completed, or were in the process of completing, their GED compared to those in the total CO SUN group; however, a slightly higher percentage of the RFC learner subgroup identified themselves as members of a minority group, mostly Hispanic (see Figure 3).

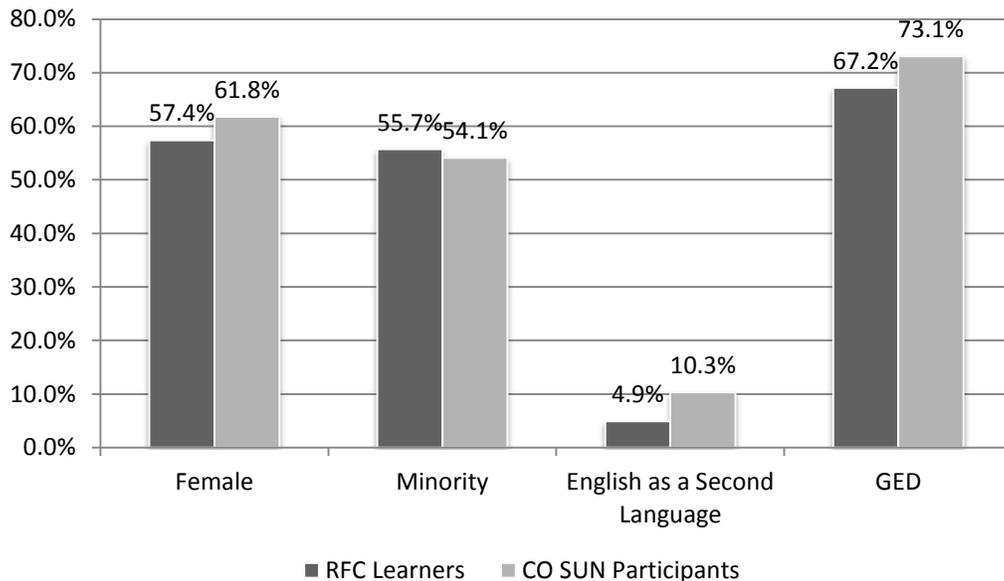


Figure 3. Comparison of Ready for College Learners with Colorado SUN Participants on Selected Demographic Characteristics.

Student Outcomes

This section reports results on the OVAE performance measures and addresses the following evaluation objective: **To determine the extent to which the CO SUN initiative results in successful outcomes for out-of-school youth, including learning gains, college readiness, and transition to the community college.** Results presented in this section rely on data compiled in the CO SUN dataset, supplemented with qualitative data gathered by the external evaluator during site visits and from follow-up phone calls and e-mail. Data for this section were also obtained from documents, reports and other materials supplied by the CO SUN project manager with the external evaluator.

Educational Gain. To obtain this computation, the evaluator queried the CO SUN database to identify all RFC learners who were initially tested between November 2006 and June 2010 by using the TABE version 9/10, forms 9 and 10, for reading, math, or both, with some variation between sites because of differences in the ability level of students who had been recruited and enrolled. Approximately 8 weeks after the pretest, the posttest was administered to all RFC learners (56, or 92%, of the total 61 RFC learners) who had participated in the posttest administration of the TABE, and who therefore had gain scores.

The majority of RFC learners showed gains on the TABE reading and math tests. Of the 56 RFC learners who had the pre- and posttest scores required to compute gain scores, 38 (67.8%) showed a gain of one level or more on the TABE reading test, math test, or both.

Of the 56 RFC learners who took pre- and posttests on the TABE reading test, math test, or both and who had the results to compute gain scores, 38 (67.8%) showed a gain of one level or more on the TABE reading test, math test, or both. An even higher number of the RFC learner group, 47 (83.9%), showed a greater-than-zero gain of one or more levels on one or both TABE scores. When TABE reading was looked at specifically, 26 (61.9%) of the 42 RFC learners who had taken posttests in reading showed a greater-than-zero gain in the scaled score, and 20 (76.9%) of these 26 showed a gain score of one or more levels. When TABE math was looked at specifically, 44 (83.0%) of the 53 RFC learners who had taken posttests in math showed a gain greater than zero, and 34 (77.2%) of these 44 showed a gain of one or more levels.

In interpreting these TABE test results, it is useful to consider qualitative results pertaining to the use of the TABE test. Key stakeholders of the CO SUN program, including program designers and numerous state and local professional staff (coordinators, instructors, navigators, and other support service personnel) observed that the TABE test is not aligned with the ACCUPLACER test with respect to the content that is tested or the level of performance that is commensurate with grade-level proficiency. Because the ACCUPLACER is the test is used to place incoming students into college-level courses throughout the CCCS, many stakeholders shared concerns about the use of the TABE test as a posttest measure for the RFC initiative; their main concern was that contradictory results on the TABE and ACCUPLACER tests would send confusing signals to RFC learners. In qualitative interviews, numerous stakeholders pointed to inconsistencies in the content and level of performance on the TABE commensurate with gains on the ACCUPLACER tests, and they reiterated the priority of focusing students on preparing for the ACCUPLACER tests. Thus, although RFC learners were encouraged to do their best on all tests, it was not possible to know the extent to which student motivation might have influenced test performance, including diminishing the performance of RFC learners on the TABE. Interviews conducted by the external evaluator revealed that the RFC learners understood the importance of performing to the best of their ability on the ACCUPLACER exams. They frequently expressed their appreciation for participating in simulated ACCUPLACER test exercises and rarely mentioned their preparation for or participation in the TABE posttest.

College Readiness. The CCCS officials noted that, consistent with CCCS statewide policy, the OVAE-approved RFC application stated that the CO SUN project would use the ACCUPLACER tests to verify college readiness, thus signifying the ability of students to benefit

from college credit-bearing classes in reading, English, or math. A score of 80 or higher on the ACCUPLACER reading test, a score of 85 or higher on the ACCUPLACER math test, and a score of 95 or higher on the ACCUPLACER English test signified college readiness in each subject. For OVAE-approved college readiness performance measure reported herein, college readiness was demonstrated when an RFC learner achieved the specified scores on any of the ACCUPLACER tests in math, reading, or writing.

A total of 16 (26.2%) RFC learners tested college ready in at least one subject. For these 16 RFC learners, 7 placed into college-level English, 7 placed into college-level reading, and 5 placed into college-level math. Six RFC learners were college-ready in more than one subject.

Given the extreme lack of college readiness of the RFC learners at the time they began College Connection, it is noteworthy that 16 (26.2%) of the group tested college ready in at least one subject (see Figure 4). For these 16 RFC learners, 7 (43.8%) of the RFC learners placed into college-level English, 7 (43.8%) placed into college-level reading, and 5 (31.3%) placed into college-level math. Six (37.5%) RFC learners were college-ready in more than one subject.

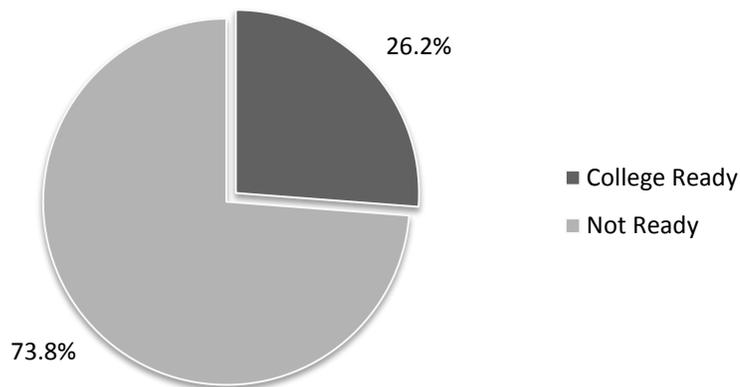


Figure 4. Percentage of Ready for College learners who achieved college-ready status.

To interpret RFC learner performance on the college readiness measure, it is important to understand students' pre-intervention placement levels. Table 2 shows the Adult Basic Education (ABE) pre-intervention placement levels based on the TABE for RFC learners, and Table 2 and Figures 5 and 6 show their placement levels using the ACCUPLACER test. These

results confirm that a large proportion of RFC learners placed below the college level in multiple subjects, with 6 (9.8%) placing below the college level in one subject, 12 (19.6%) placing below the college level in two subjects, and 43 (80.3%) placing below the college level in all three subject areas. Table 3 also shows the number and percentage of RFC learners by number of 030 (most basic) placements. Results revealed that 15 (24.5%) of the RFC learners had no placements at the basic level, but 4 (6.5%) of the RFC learners had three placements, 5 (8.2%) had two placements, and 37 (60.6%) had one placement at the basic level (see Figure 6). Placement at the basic level means the RFC learners were beginning their course work three levels below the entry-level (gatekeeper) courses, which suggests that it would be highly unlikely, or nearly impossible, for the students to reach college level in 8 weeks, even considering the accelerated curriculum. Because the program typically involves accelerating students through two levels of developmental course work, only a small number of RFC learners would be qualified to reach the college level. Specifically, 15 (24.5%) of the RFC learners who had no basic-level placements would have been expected to reach the college level as a result of College Connection (see Figure 7). When this is taken into account, the results discussed later in this report are striking. Despite the unlikelihood of RFC learners progressing more than two levels, a few surpassed these expectations and reached the college level having successfully completed CO SUN.

Table 2

Adult Basic Education Pre-intervention Placement Levels of Ready for College Learners, Based on TABE Results

Level							
	<4	4-5.9	6-8.9	9-12.9	>12.9	NA	Total
Reading							
No. of Students	1	5	12	30	6	7	61
Percentage of Students	1.6%	8.2%	19.7%	49.2%	9.8%	11.5%	100%
Math							
No. of Students	1	3	33	19	4	1	61
Percentage of Students	1.6%	4.9%	54.1%	31.1%	6.6%	1.6%	100%

Note: NA=Not Applicable.

Table 3

Pre-intervention Developmental and College Levels of Ready for College Learners, Based on ACCUPLACER Results

Reading	Below College Level			College Level		Total
	030	060	090	130	151	
No. of Students	10	19	17	1	14	61
Percentage of Students	16.4%	31.1%	27.9%	1.6%	22.9%	99.9%*
Total	75.4%			24.5%		
English (Sentence Skills)						
Level	030	060	090	121	N/A	Total
No. of Students	5	15	33	8	0	61
Percentage of Students	8.2%	24.6%	54.1%	13.1%	0	100%
Total	86.9%			13.1%		
Math						
Level	030	060	090	121	N/A	Total
No. of Students	44	11	5	1	0	61
Percentage of Students	72.1%	18.0%	8.2%	1.6%	0	99.9%*
Total	98.3%			1.6%		

Note. An asterisk (*) indicates the row does not add to 100% because of rounding. NA = not applicable.

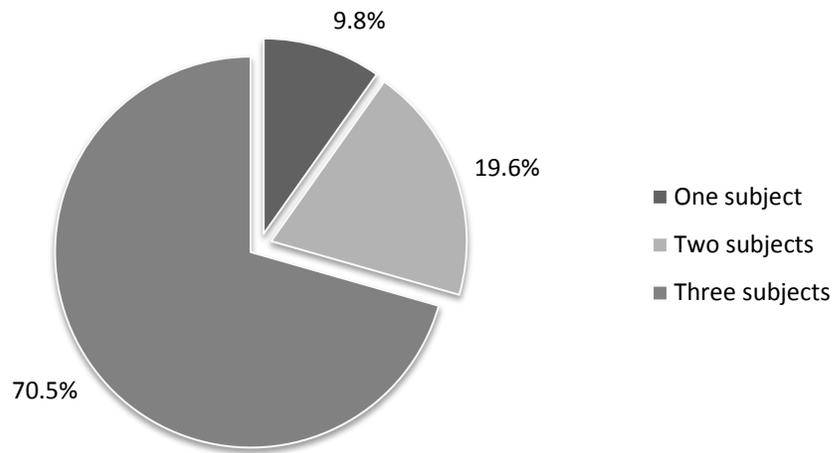


Figure 5. Percentage of Ready for College learners by number of required developmental subjects, based on ACCUPLACER results.

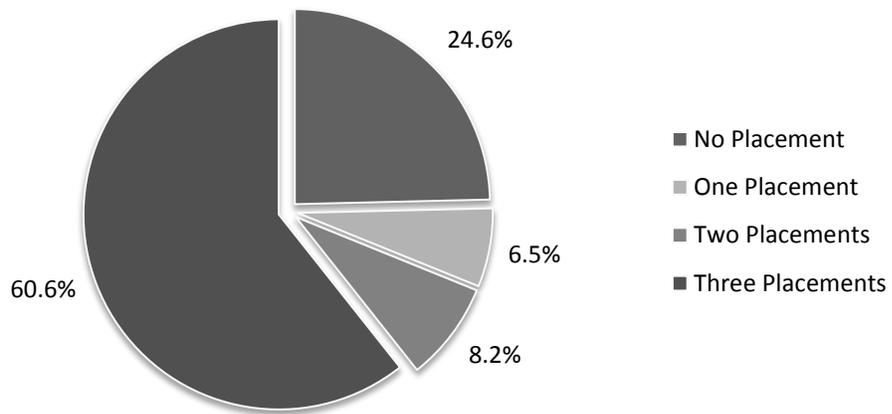


Figure 6. Percentage of Ready for College learners by number of placements at the Developmental-Basic level, based on ACCUPLACER results.

The majority of RFC learners in five of the six pilot sites showed one or more level gains in developmental math, with 64.6% of the RFC learners in Site 1, 73.9% in Site 2, 100% in Site 3, and 50% in Sites 4 and 5 showing one or more level gains during the College Connection program. A sizeable percentage of RFC learners showed two or more level gains in math in three sites, specifically 35.2% of RFC learners in Site 1, 30.4% in Site 2 and 100% in Site 3.

Table 4 shows the amount of gain the RFC learners achieved in the three subjects, by site, and Figures 8 through 10 provide a graphic depiction of the average percentages for number of gains in reading, English and math for the six sites on a site-by-site basis. Understanding the high occurrence of developmental course-taking among in-coming community college students, it was encouraging to find that a high percentage of RFC learners showed gains of one or more levels of math at five of the six CO SUN pilot sites evaluated. The results were especially impressive in the three sites that demonstrated the highest level of fidelity in implementation of the math curriculum (indicated by the shaded columns in Table 4.)

Specifically, 64.6% of learners at Site 1, 73.9% at Site 2, and 100% at Site 3 had gains in math of one level or more while participating in the CO SUN program. The percentage of RFC learners at these sites showing gains in math of two or more levels was also impressive: 35.2% of learners at Site 1, 30.4% at Site 2, and 100% at Site 3. In addition to these three sites, 50% of the RFC learners at Sites 4 and 5 showed gains in math of one or more levels. Although caution should be used in interpreting these results because the number of students is small, results are strong for RFC learners taking developmental math at Sites 1, 2, and 3 (where the curriculum and instruction was most highly aligned with the prescribed core components of College Connection).

RFC learners in five sites showed gains of one or more levels in developmental reading, with 59.9% of Site 1 RFC learners showing a gain of one or two levels and 55.5% of Site 2 RFC learners showing a similar level of achievement. Half and two-thirds of RFC learners in two other sites demonstrated a gain of one level.

For reading, RFC learners in five of the six sites showed a gain of one or more levels in reading, ranging from 11.5% to 75.0% with one or more level gain. Similar to math, Sites 1, 2 and 3 posted the highest level of gains, with 59.9% of RFC learners at Site 1 showing one or two levels (13.3% with a two-level gain), 55.5% of RFC learners at Site 2

showing one or two levels (5.5% with two-level gain), and 75.0% of RFC learners in Site 3 showing a one-level gain. In addition to these sites, 50% of RFC learners in Site 4 showed a one-level gain.

RFC learners in two pilot sites showed gains of one or more levels in developmental English, specifically 59.5% of RFC learners at Site 1 and 50% of RFC learners at Site 3, and between 22% and 37.5% of RFC learners in three other sites showed a one-level gain.

The RFC learners were slightly more modest in English, a course focused mainly on writing. Site 1 and 3 showed 41% and 50% of RFC learners, respectively, achieving a 1-level gain. Also in Site 1, one student (5.5%) showed a 2-level gain, meaning the performance of RFC learners in this site in English accumulated to 59.5% of RFC learners having a 1-level or 2-level gain. RFC learners in Sites 4 and 6 also showed positive gains for English, with 25.0% and 37.5% of these learners demonstrating a 1-level gain.

Modest enrollments suggest caution in generalizing results beyond the pilot sites; however, these data reveal hopeful results for the College Connection program, suggesting the potential for out-of-school youth to progress toward college readiness in association with the CO SUN initiative.

Table 4

Frequency of Level Change on the ACCUPLACER Placement Test by Ready For College Learners, By Site

Subject	Amount of Level Change in ACCUPLACER Placement	Site 1 (Metro)	Site 2 (Rural)	Site 3 (Rural)	Site 4 (Metro)	Site 5 (Rural)	Site 6 (Rural)
Reading	No positive level change	6 40.0%	8 44.4%	1 25.0%	2 50.0%	2 100%	7 87.5%
	One positive level change	7 46.6%	9 50.0%	3 75.0%	2 50.0%	0	1 11.5%
	More than one positive level change	2 13.3%	1 5.5%	0	0	0	0
	Total	15	18	4	4	2	8
English	No positive level change	9 52.9%	14 77.8%	2 50.0%	3 75.0%	2 100.0%	5 62.5%
	One positive level change	7 41.2%	4 22.2%	2 50.0%	1 25.0%	0	3 37.5%
	More than one positive level change	1 5.9%	0	0	0	0	0
	Total	17	18	4	4	2	8
Math	No positive level change	6 35.2%	6 26.1%	0	2 50.0%	1 50.0%	5 55.5%
	One positive level change	5 29.4%	10 43.5%	0	2 50.0%)	0	0
	More than one positive level change	6 35.2%	7 30.4%	4 100%	0	1 50.0%	4 44.5%
	Total	17	23	4	4	2	9

Note. 1) Site 7 was omitted from this analysis because no students from that site met the RFC learner criteria. 2) Drawing on a combination of quantitative and qualitative data, the evaluator assessed Sites 1 and 2 as having implemented their CO SUN programs with the highest level of fidelity to the prescribed curricular treatment. These two sites also offered the most cohorts (Site 1 offered three cohorts, and Site 2 offered four cohorts) of all the pilot sites, and therefore enrolled the highest number of RFC learners. In addition, the developmental math course offered by Site 3 showed a very high level of fidelity with the original CO SUN math design.

A comparison of college-ready status between the RFC learner subgroup and the total group of CO SUN participants (which includes the RFC learner group) revealed that a higher percentage of the RFC learners reached college-ready status than the total group of CO SUN participants. Slightly more than 26% of the RFC learners achieved college-ready status compared with almost 22% of the total group of CO SUN participants (see Figure 7).

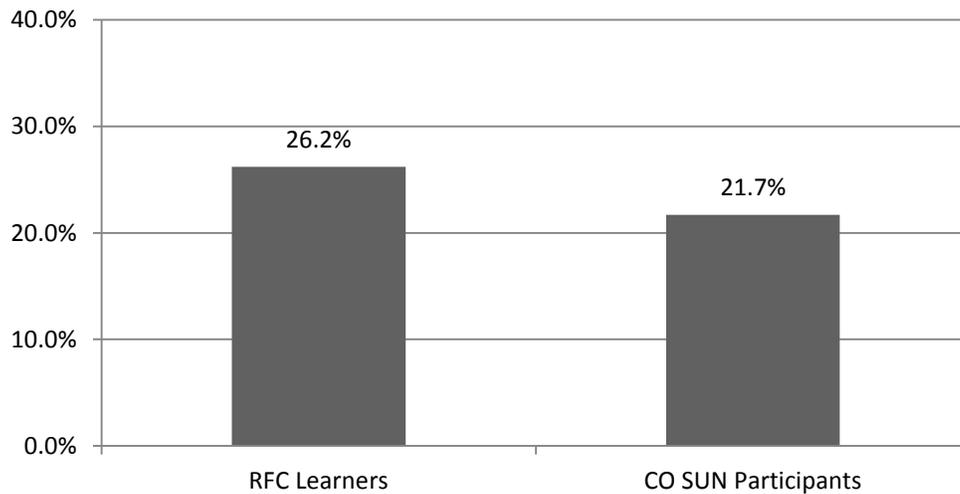


Figure 7. Percentage of Ready for College learners who achieved college-ready status compared with the total number of Colorado SUN participants.

The following pages present Figures 8 through 10, which show the percentage of RFC learners at each site who demonstrated gains of one level or more in reading, English, and math, by site. These results demonstrate substantial variation among the sites in all three subjects, with the most substantial gains being in reading and especially in math.

Figures 11 through 13 provide a comparison of the RFC learners with the total group of CO SUN participants (of which the RFC learners are a part) on the percentage gains in reading, English, and math. Results show the groups performed similarly on the three core subjects, with a slightly higher percentage of the total group of CO SUN participants advancing in reading and math, and a slightly higher percentage of the RFC learner group progressing in reading. Again, these results show that student performance is higher in reading and math than in English, which focused primarily on writing and sentence structure.

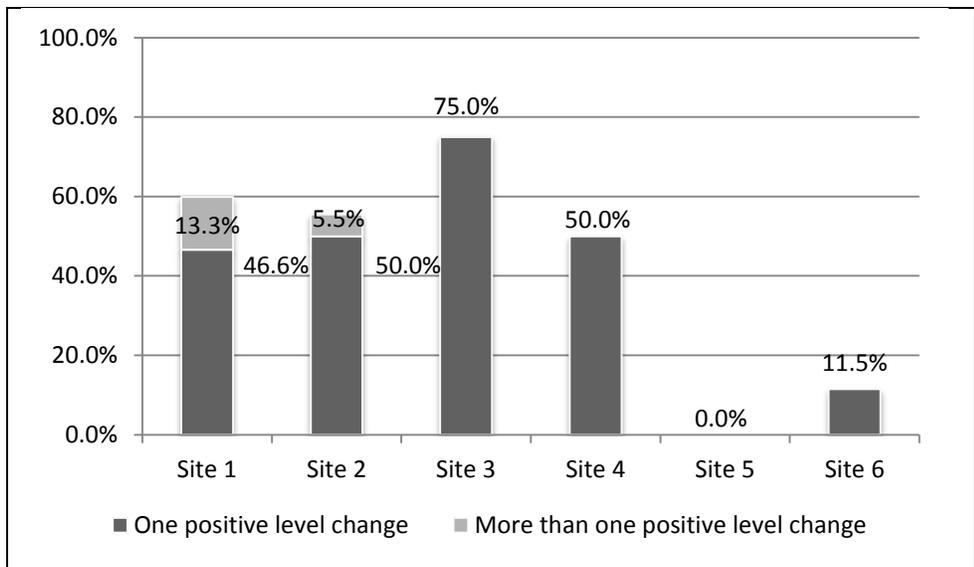


Figure 8. Percentage of Ready for College learners who showed gains of one or more levels in reading, by site

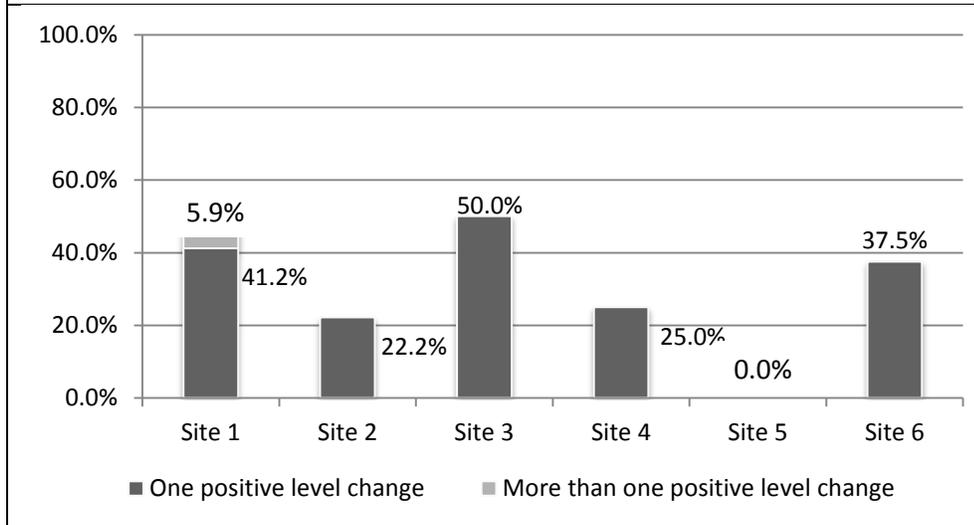


Figure 9. Percentage of Ready for College learners who showed gains of one or more levels in English, by site

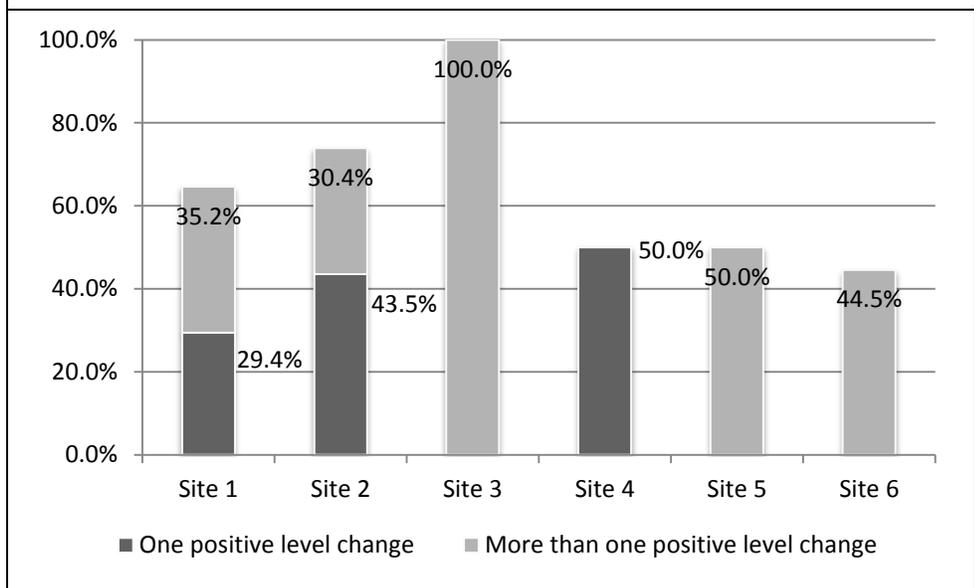


Figure 10. Percentage of Ready for College learners who showed gains of one or more levels in math, by site

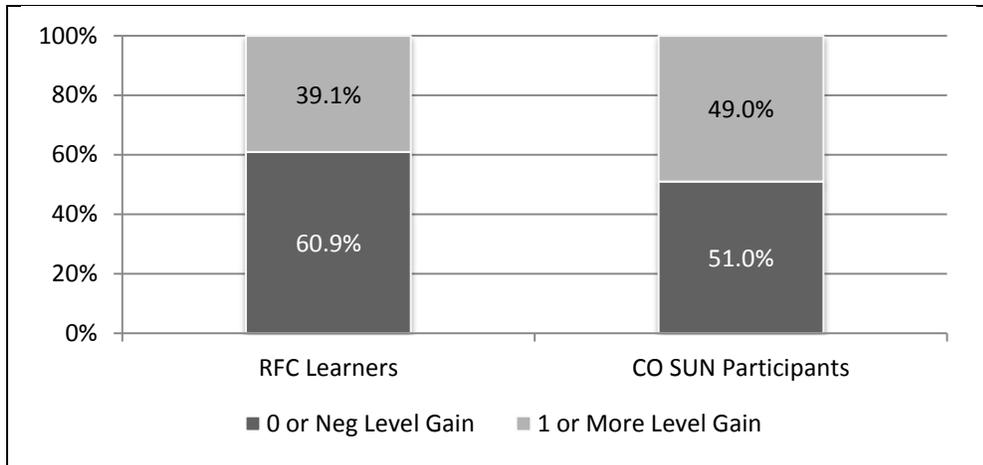


Figure 11. Comparison of the percentage change in reading by Ready for College (RFC) learners and Colorado (CO) SUN participants.

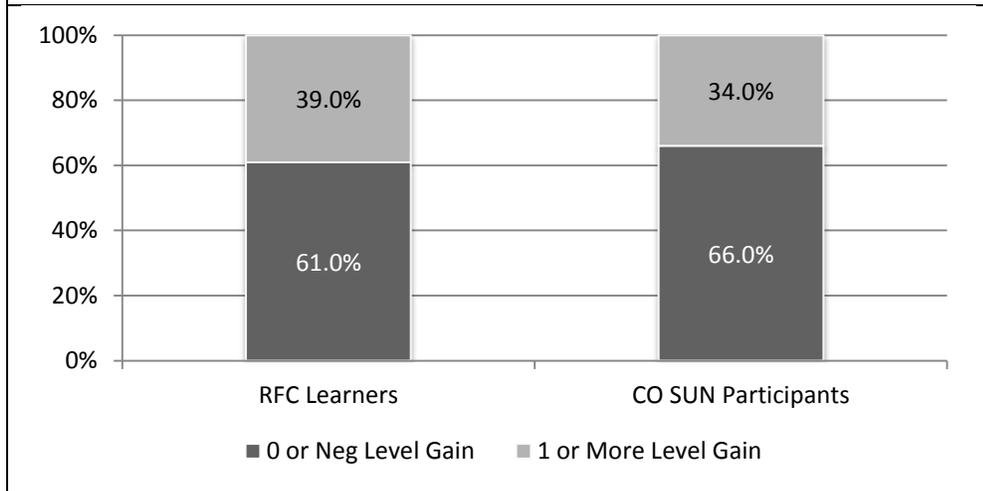


Figure 12. Comparison of the percentage change in English by Ready for College (RFC) learners and Colorado (CO) SUN participants.

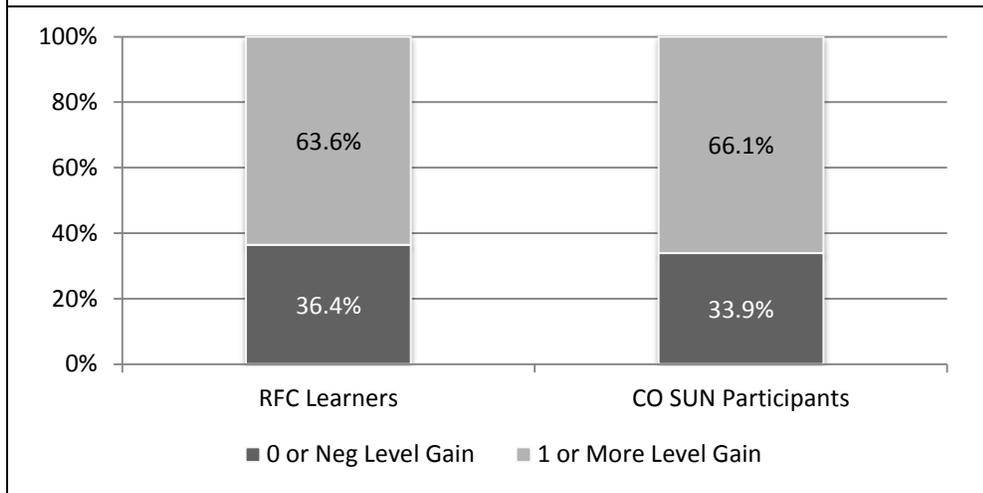


Figure 13. Comparison of the percentage change in math by Ready for College (RFC) learners and Colorado (CO) SUN participants.

Entered Postsecondary Education or Training. Postsecondary education or training was measured by querying the CCCS data set to identify students who were enrolled in the state's CCCS institutions. The state's data system provides information on enrollment in any of the community colleges in the CCCS, so postsecondary entry results are inclusive measures of student enrollment in any institution in the state's community college system. One limitation of this analysis is that results do not show enrollment in other institutions of higher education in Colorado. Therefore, results are specific to the matriculation patterns within the community college system.

Another limitation of this evaluation is the relatively minimal time that was allowed for follow-up of participants prior to the conclusion of the RFC grant awarded by OVAE. With respect to CO SUN, a number of cohorts (4 of the 15) had a very limited time to enroll at the postsecondary level after completing the program. A total of 19 (31%) of the 61 RFC learners participated in the CO SUN program during the 2009–2010 academic year or during summer 2010. Although these students had some opportunity to enroll at the postsecondary level, their chances were more modest than those of the RFC learners, who enrolled in CO SUN in summer 2008 (the first time the CO SUN program was offered at two sites) or during the 2008–2009 academic year. For students who had enrolled in the 2009–2010 academic year or in summer 2010, the number of terms to enroll at the postsecondary level after completing CO SUN was one regular academic-year term or the summer term, or at most, one regular term plus summer. As more time passes, it is expected that performance on the postsecondary education and training entry measure will increase for CO SUN students, although initial results are already impressive.

A total of 49 (80.3%) of the 61 RFC learners enrolled in college-level community college courses, either while participating in the CO SUN program or after completing it. The average number of college credits earned was 10.2.

As of the summer 2010 census, 49 (80.3%) of the 61 RFC learners had enrolled in college-level community college courses, either while participating in the CO SUN program or after completing it. Table 5 shows the enrollment of RFC learners on three levels: 1) the developmental education level, 2) the developmental education and college levels, and 3) the college level only. Of these three options, the largest percentage (76%) of the 54 RFC learners who had matriculated to a community college had enrolled in a combination of developmental education and college-level courses. Another 15% had enrolled in college-level courses only. Also important was that only 5 (10%) of the RFC learners had enrolled in developmental education courses only. This means the preponderance of RFC learners were not enrolled in developmental education courses only, but rather, they were enrolled in developmental education

concurrently with college-level course work. It also suggests that the estimate was accurate that 15% of RFC learners who would be qualified to reach college-level only courses because their ACCUPLACER test scores placed them above the basic developmental level (at 1 or 2 levels below college). Thus, a very high proportion of RFC learners who were on track to reach the college level did so. These findings confirm that a high proportion of students who were capable of reaching the college level did so, and that a substantial percentage of the remaining students advanced despite not reaching the college level.

Table 5

Frequency of Postsecondary Entry and Enrollment of Ready for College (RFC) Learners, By Site

Postsec. Level	Postsecondary Entry and Enrollment	Site 1 (Metro)	Site 2 (Rural)	Site 3 (Rural)	Site 4 (Metro)	Site 5 (Rural)	Site 6 (Rural)
Dev Only	Number and Percentage Attempting Hours	0	4 20.0%	0	0	1 50.0%	0
	Credits earned (mean)	0	7.6	0	0	1.0	0
Both Dev and College Credit	Number and Percentage Attempting Hours	14 73.7%	16 80.0%	2 100%	2 66.7%	1 50.0%	6 75.0%
	Developmental Education Credits Earned (mean)	4.2	12.9	3.5	.5	4.0	12.9
	College Credits Earned (mean)	5.8	7.0	20.0	2.0	15.0	7.0
College Credit Only	Number and Percentage Attempting Hours	5 26.3%	0	0	1 33.3%	0	2 25%
	College Credits Earned (mean)	5.5	0	0	21.0	0	32.5
Total		19	20	2	3	2	8

Note. 1) For Site 1, the earned hours for the cohort that enrolled in summer 2010 and continued to postsecondary education and training in fall 2010 are incomplete, and the earned hours listed are incomplete because of insufficient time to gather follow-up data. 2) Site 7 was omitted from this analysis because no students there met the RFC learner criteria. 3) Drawing on a combination of quantitative and qualitative data, the evaluator assessed Sites 1 to 3 as having implemented the CO SUN program with the highest level of fidelity to the prescribed curricular treatment. Two of these sites also offered the most cohorts (Site 1 offered three cohorts, and Site 2 offered four cohorts) of all pilot sites, and therefore enrolled the highest number of RFC learners. Dev = developmental.

The results shown in Figure 14 compare the percentage of RFC learners with the percentage of the total group of CO SUN participants who entered the community college after completing the College Connection program. The percentage of RFC learners entering the community college was substantially higher than the percentage of the total group of CO SUN participants (which included the RFC learners), at 80.3% compared with 56.4%. These results suggest the College Connection program demonstrated substantial success in assisting the population of out-of-school youth with their transition into the community college. Clearly, not every RFC learner progressed to college, but a very high percentage did so.

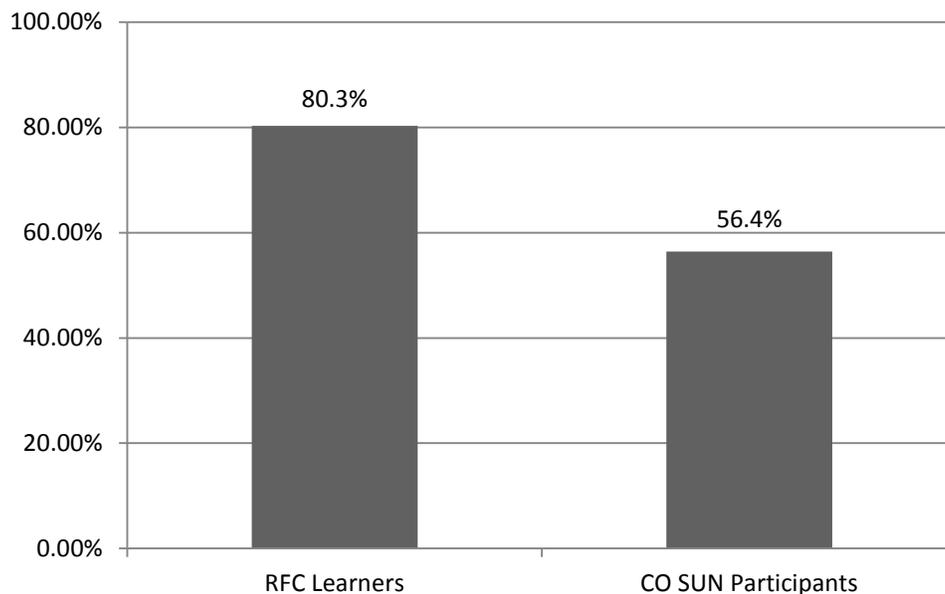


Figure 14. Comparison of the percentage of Ready for College learners who enrolled in the community college to the total Colorado SUN participant group.

Despite the need that most RFC learners displayed to take some additional developmental course work, this requirement did not appear to preclude them from enrolling in college-level courses. In fact, the practice of concurrent enrollment in developmental and college-level course work is one that the CCCS and CO SUN program designers endorsed for students who demonstrated progress toward reaching the college level and who displayed readiness to engage in some college-level studies. The rationale for this practice was that students who demonstrated progress should not be prevented from engaging in college-level courses as long as the courses were ones that presented the student with a reasonable opportunity to succeed. Allowing students to enroll in college-level classes was undoubtedly motivating to students and potentially instrumental in their retention and progression toward completing a college credential.

The average number of earned hours (developmental education and college level) across all sites and for the 50 RFC learners for whom the earned credit hour calculation was possible was 15.8. The average number of earned developmental credits was 7.1, and the average number of earned college credits was 10.2. The results for the RFC learner sub-group exceed those of the CO SUN group as a whole, for whom the total average number of earned credits computed for 127 students was 13.1, with a total average of 6.6 for earned developmental credits and 8.5 for earned college credits. Again, these results on earned credits are depressed because the cohort of students enrolled in summer 2010 did not have time to earn any credits beyond the summer term when they enrolled in the College Connection program.

Given that CCCS and the seven community colleges affiliated with the CO SUN initiative operate on a semester format, this result indicates that the average level of earned credits for RFC learners (and for the total CO SUN group) provided about one semester of credits toward a college credential, certificate or degree, assuming a typical 60-credit semester-length program of study format. Given that the highest level of attrition typically occurs at the beginning of students' collegiate studies, this finding is encouraging. It suggests that the majority of students enrolled in CO SUN were transitioning to the community college, earning college credits, and progressing toward college degrees. Further follow-up is needed to determine the longer-term enrollment of these students and their success in acquiring college credentials at the 2-year level or in transferring to the baccalaureate-degree level.

Student Experiences and Perceptions

This section reports on results of students' perceptions of the CO SUN program and their experiences as students in the program. The evaluation objective associated with this section of the report was **to assess student perceptions of CO SUN strategies, particularly instructor validation, navigator support, college readiness, and student supports and services.** This section draws on the "Colorado SUN College Connection Survey" that was administered to all students who were enrolled during the sixth or seventh week of the 8-week program, giving them sufficient opportunity to experience the program and develop opinions about how the program had influenced their learning and their sense of accomplishment and success.

This section begins with a presentation of results of the CO SUN College Connection Survey (see Appendix A) on items soliciting students' perceptions of instructors' validation of them as competent college-level learners. The items asked students to assess their instructors' willingness to encourage and support their learning, including the instructors' acceptance, respect, belief, allocation of time and support, and caring. Students' responses to these items were overwhelmingly positive. Table 6 shows the responses of RFC learners to 14 items related to instructors' validation of the students as competent learners, on a Likert scale that extended

from *very strongly disagree* to *very strongly agree*. It is interesting to note that, whereas most of the items had 58 or 59 responses from the 61 RFC learners, two items had a substantial number of nonresponses. These two items were “my instructors are interested in what I have to offer in class,” and “my instructors treat me equally and respectfully to other students in class.” It is impossible to know why the responses to these items were far lower than the responses to others, but it is possible that the items elicited a higher level of concern and students therefore declined to respond. Both of these items dealt with issues related to students’ involvement in class, which is an important aspect of student engagement and validation. However, without more details and a deeper understanding of this response pattern, it is impossible to interpret these results and unwise to speculate further. Nevertheless, the qualitative data did not reveal discontent among the students concerning their classroom experiences, except in a few isolated cases.

Results for the validation items that appear in Table 6 and Figure 15 showed a very high level of agreement with items dealing with instructors’ validation of the RFC learners as college learners. These items were particularly sensitive to the role instructors played in the educational experiences of students in the College Connection program, and they demonstrated an overwhelmingly positive experience for the RFC learner subgroup as well as for the group of CO SUN participants as a whole. On items dealing with students’ self-perception of their acceptance, their ability to make valuable contributions in the classroom, and their opinions, there was a very high level of positive agreement. The items also suggest that the students perceived their instructors to be interested, encouraging, supportive, and caring. These results suggest the learners felt validated as college-level learners, and these results bode well for their retention in college studies.

Figure 15 displays the survey responses on instructors’ validation that compare the percentage of RFC learners with the percentage of all CO SUN participants (of which the RFC learners were a part). These results showed similar levels of responses for the groups, with a slight tendency for the RFC learner subgroup to rate the validation items higher than did students in the CO SUN group. These differences tended to be minor, however, and are probably not indicative of a substantive difference.

Table 6

Ready for College Learners' Level of Agreement with Instructor Validation Items

CO SUN College Connection Survey Item	n	Very Strongly Disagree	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Very Strongly Agree
I feel accepted as a capable student by my instructors	58	0	0	0	0	8 13.8%	8 13.8%	42 72.4%
I feel accepted as a person by my instructors	59	0	0	1 1.7%	1 1.7%	5 8.5%	11 18.6%	41 69.5%
My instructors are interested in what I have to offer in the class	45	0	0	0	2 4.4%	4 8.9%	16 35.6%	23 51.1%
My instructors make me feel as though I bring valuable ideas to class	59	0	0	1 1.7%	4 6.8%	5 8.5%	22 37.3%	27 45.8%
My instructors understand that students come from different backgrounds	58	0	1 1.7%	0	1 1.7%	5 8.6%	10 17.2%	41 70.7%
My instructors are interested in what I have to offer in class.	59	0	0	1 1.7%	3 4.9%	4 6.6%	21 34.4%	30 49.2%
My instructors seem to genuinely care how I am doing	59	0	0	0	2 3.4%	6 10.2%	10 16.9%	41 69.5%
I am encouraged by my instructors to openly share my views in class	58	0	0	1 1.7%	5 8.6%	5 8.6%	14 24.1%	33 56.9%
I can express my honest opinions in my classes	59	0	1 1.7%	1 1.7%	4 6.8%	6 10.2%	14 23.7%	33 55.9%

CO SUN College Connection Survey Item	n	Very Strongly Disagree	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Very Strongly Agree
My instructors treat me equally and respectfully to other students.	44	0	0	1 2.3%	1 2.3%	4 9.1%	5 8.2%	33 72.1%
My instructors show that they believe in my ability to do the class work.	59	1 1.7%	0	0	2 3.4%	7 11.9%	8 13.6%	41 69.5%
My instructors are willing to take as long as needed to help me understand the class material.	59	1 1.7%	0	0	0	11 18.6%	14 23.7%	33 55.9%
It seems like my instructors really care about whether I am learning	59	0	0	1 1.7%	1 1.7%	3 5.1%	10 16.9%	44 74.6%
My instructors are willing to give me individual help when needed	58	0	0	0	0	8 13.8%	8 13.8%	42 72.4%

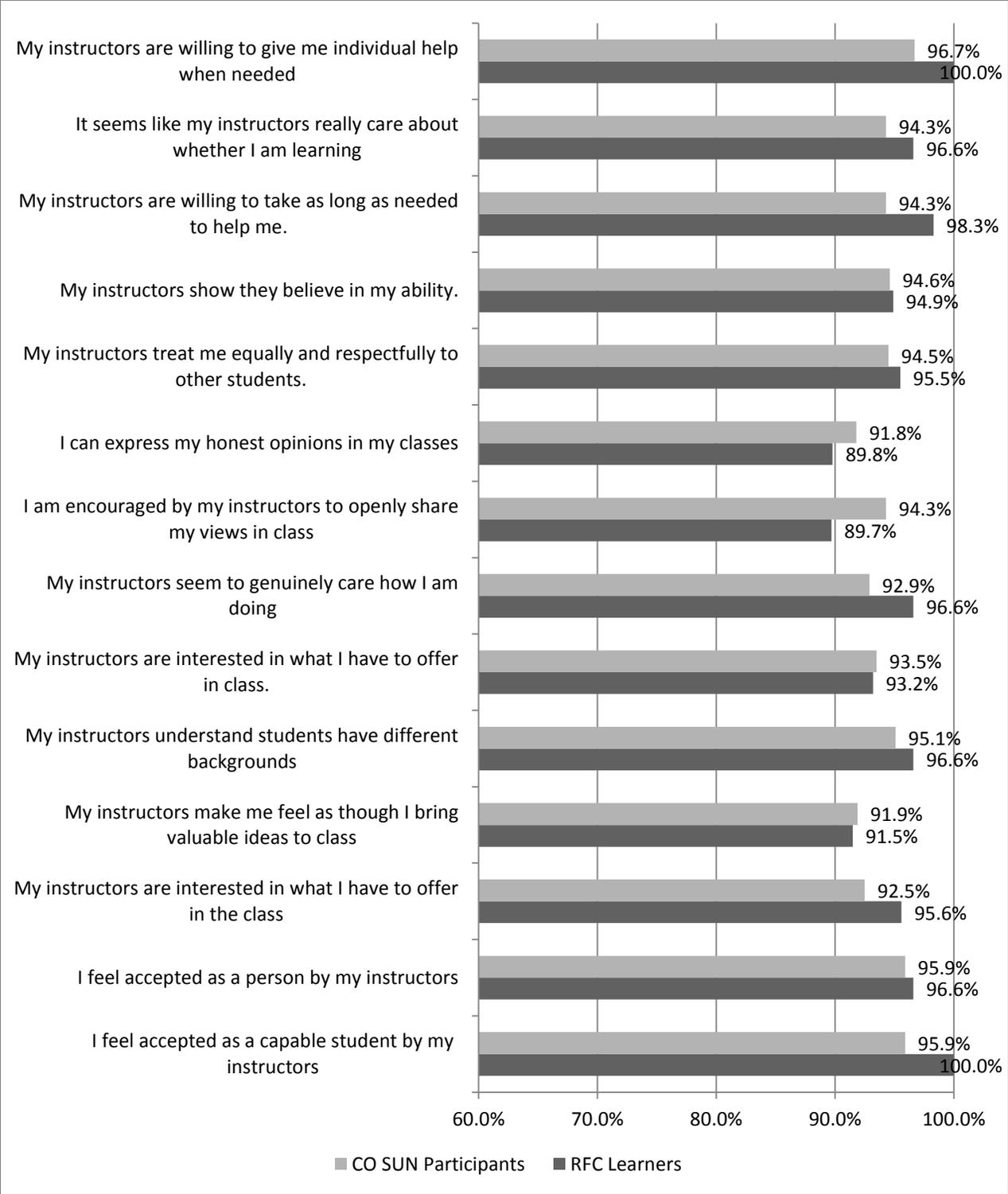


Figure 15. Percentage of Ready for College learners and total percentage of Colorado SUN participants' level of agreement with instructor validation items.

Results on students’ assessment of the support provided by navigators were also positive, but were slightly less strong than results on instructors’ validation of students as college students. Table 7 displays results on items dealing with the contribution of the navigator to working with students’ challenges, assisting with college and careers, providing support in dealing with a range of problems, including personal challenges, and the trustworthiness of in the navigator as a guide. Two items had a lower response rate on this scale, including the item that stated, “I have learned about careers that interest me because of assistance provided by my navigator,” and “I have felt motivated to do well in school because of advice given by my navigator.” In these two cases, it is possible the students did not engage in conversations with their navigator about careers or seek advice from their navigator, causing them to decline to respond. Regarding the item dealing with careers, it is the case that the College Connection programs dealt with career exploration in different ways and at different levels of intensity. Therefore, it is possible, and even likely, that some students did not know how to respond to the item dealing with careers because the link between the content of the program and careers seemed weak.

Table 7 and Figure 16 display results in tabular and graphic form showing similar levels of responses for the RFC learner subgroup and the total group of CO SUN participants, with the CO SUN group tending to rate the navigator items slightly higher than did the RFC learners.

Table 7

Ready for College (RFC) Learners’ Level of Agreement with Navigator Items

CO SUN College Connection Survey Item	n	Very Strongly Disagree	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Very Strongly Agree
My navigator gives me as long as it takes to answer my questions and address my challenges	58	0	0	1 1.7%	6 10.3%	15 25.9%	11 19.0%	25 43.1%
My navigator has helped my address barriers that have arisen during my summer classes	57	0	0	3 5.3%	7 12.3%	8 14.0%	14 23.0%	25 43.9%
My navigator has advised me on how to resolve personal problems	59	1 1.7%	1 1.7%	4 6.8%	8 13.6%	11 18.6%	15 23.7%	20 33.9%
I have learned about careers that interest	44	3 6.8%	1 2.3%	1 2.3%	6 13.6%	5 11.4%	7 15.9%	21 47.7%

CO SUN College Connection Survey Item	n	Very Strongly Disagree	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Very Strongly Agree
me because of assistance provided by my navigator								
My navigator genuinely cares about how I am doing	59	0	1 1.7%	2 3.4%	2 3.4%	9 15.3%	8 13.6%	37 62.7%
I have talked with my navigator about my goals for attending college	58	0	0	2 3.4%	5 8.6%	9 15.5%	15 25.9%	27 46.6%
I am able to share information with my navigator that I know will be kept private	59	1 1.7%	0	3 5.1%	7 11.9%	3 5.1%	11 18.6%	34 57.6%
My navigator has helped me find resources and services to succeed in school	58	0	0	2 3.4%	5 8.6%	10 17.2%	12 20.7%	29 50.0%
I have felt motivated to do well in school because of advice given by my navigator	45	0	1 2.2%	2 4.4%	3 6.7%	6 13.3%	8 17.8%	25 55.6%
I trust that my navigator has my best interest at heart	59	0	0	0	3 5.1%	10 16.9%	13 22.0%	33 55.9%
My navigator as helped me understand what I need to do to enroll and succeed in college	59	0	0	1 1.7%	2 3.4%	9 15.3%	12 20.3%	35 59.3%
My navigator treats me equally and respectfully to other students	59	0	0	0	3 5.1%	5 8.5%	10 16.9%	41 69.5%

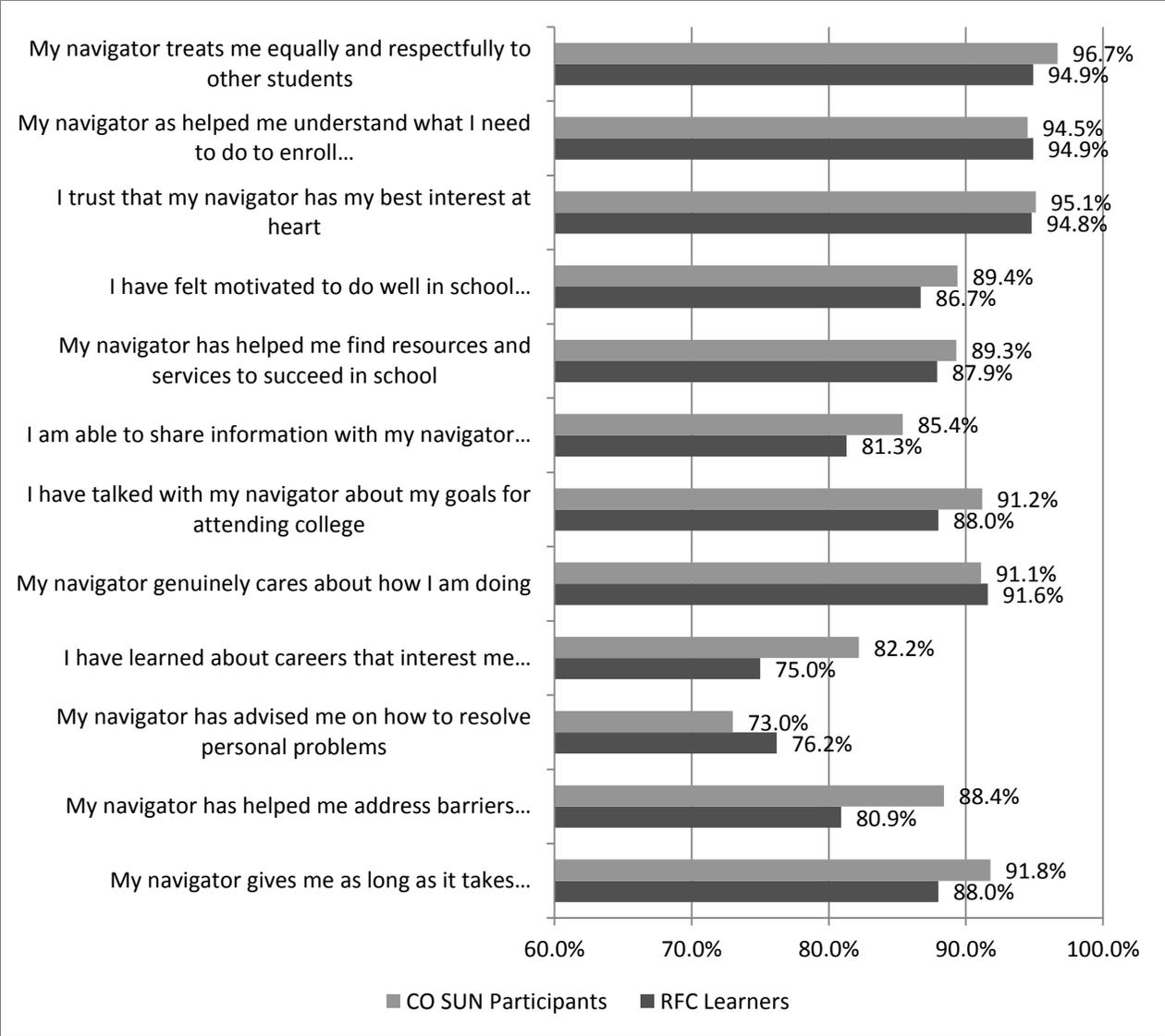


Figure 16. Percentage of Ready for College learners and total Colorado SUN Participants’ level of agreement with navigator support items.

The last set of items on the survey dealt with college readiness, and they were drawn from the literature, including the work of David Conley (see, for example, Conley, 2010). These items garnered the response of nearly all RFC learners (see Table 8 and Figure 17), except for the item dealing with careers, which gives credence to the notion that the students may have not understood the role of careers in the College Connection program, although this speculation cannot be confirmed. Certainly, most of the pilot sites emphasized college and careers in accordance with the College Connection program, and students enrolled in these programs responded to these topics with a great deal of satisfaction, based on the qualitative data. However, it is possible that some sites gave less emphasis to careers, leaving students uncertain

how to respond to the survey. In these cases, the students may have decided not to provide a response at all.

Table 8

Ready for College Learners’ Level of Agreement with Student Perceptions of College Knowledge and Behavior

CO SUN – College Connection Survey Item	n	Very Strongly Disagree	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Very Strongly Agree
I am developing the skills that I need to be successful in college	58	1 1.7%	1 1.7%	1 1.7%	0	9 15.5%	10 17.2%	36 62.1%
I am gaining confidence in myself and believing that I can be successful in college	59	1 1.7%	1 1.7%	1 1.7%	0	8 13.6%	18 30.5%	30 50.8%
I am certain I can do the most difficult course work in college	57	2 3.5%	0	1 1.8%	8 14.0%	17 29.8%	12 21.1%	17 29.8%
I plan to continue my education and go to college	59	0	0	2 3.4%	4 6.8%	5 8.5%	7 11.9%	41 69.5%
I expect to complete a college certificate or degree	59	0	0	1 1.7%	2 3.4%	2 3.4%	8 13.6%	46 78.0%
I have an idea of what I want to do with my career	45	0	0	1 2.2%	1 2.2%	6 13.3%	8 17.8%	64.4%
I am committed to finishing college and pursuing my chosen career	59	0	0	1 1.7%	0	2 3.4%	6 10.2%	50 84.7%

The results shown in Figure 17 provide an overall positive picture of the students’ sense of readiness for college, with only slight differences between the RFC learner subgroup and the total CO SUN group. Nearly all items received a response of more than 90% from both groups, indicating the students felt prepared for college, felt prepared to complete a college credential, and felt they were doing well in college. A lower percentage of both groups responded favorably to an item dealing with certainty about the ability to perform in “the most difficult course,” but

this response was not unexpected. Many learners are uncertain whether they have the confidence to understand extremely challenging material, including those who are well prepared for college.

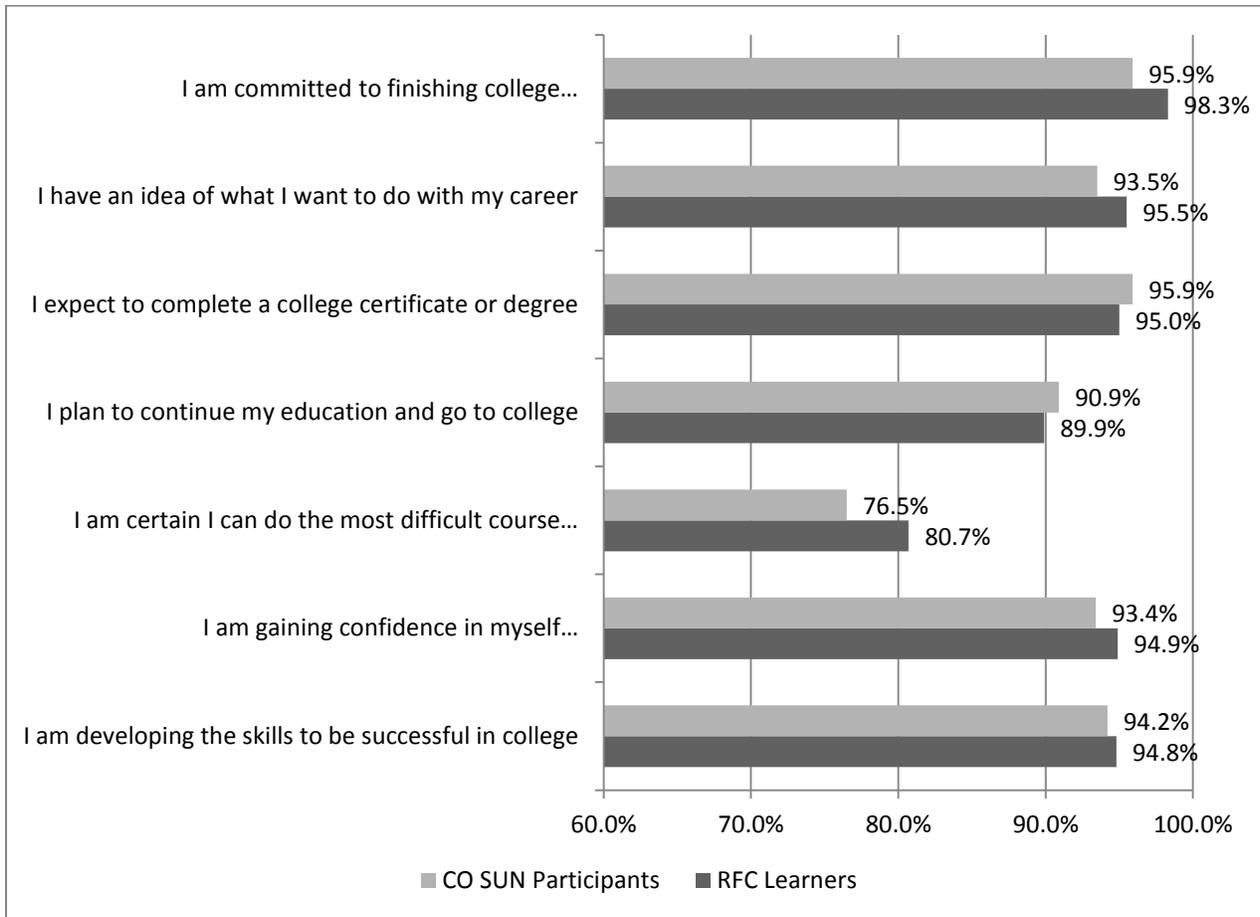


Figure 17. Percentage of Ready for College learners and total Colorado SUN participants’ level of agreement with college readiness items.

Retention and Transition Strategies

This section reports results on the instructional and support strategies that the CO SUN programs implemented to enhance student success. The evaluation objective associated with this section of the report is **to describe how key CO SUN strategies encourage retention and transition of out-of-school youth and contribute to student success, and document these strategies mature and are sustained.** This section presents each component of the College Connection program (introduced on pages 9 to 14) from the perspective of its contribution to student success in terms of RFC learner retention and transition to college using the quantitative and qualitative data. This section does not repeat earlier text but rather attempts to deepen understanding of how

the core components of College Connection influence student outcomes, including how the pilot sites' efforts attempted to address challenges and overcome implementation barriers.

Accelerated Curriculum and Contextualized Instruction. The findings confirm that the RFC learners achieve positive outcomes, particularly in math, where 50% or more of RFC learners had a gain of at least one level at five of the six sites evaluated. This finding is important because of the preponderance of remedial need that incoming students show in math, and because research has shown the detrimental impact of having a high level of remedial need on students' retention and completion (Attewell, Lavin, Domina, & Levey, 2006). The CCCS has conducted a follow-up study of students enrolled in Colorado's community colleges in fall 2003 and has found those who entered developmental math at the lowest level had only a 4% chance of graduating with a degree from a Colorado community college, whereas students entering at the highest level of developmental math had a 12% chance (Colorado Community College System, 2009). In either case, the chances of completing a degree were reduced dramatically when students began at the community college below the college level.

RFC learners were aware of the importance of performing competently in the developmental curriculum despite prior struggles and fear of failure, and they spoke positively about how their experiences in the College Connection program helped them overcome concerns. Students interviewed by the external evaluator spoke about their lack of competence in all subjects, particularly math, including fears of past failure. Comments made by the RFC learners demonstrated positive perceptions of the math and other courses (literacy, reading) associated with College Connection, and they made numerous positive references to their instructors:

“Being in College Connection felt like it was a helping hand [and a] stepping [stone] into college. It helped me lose some [of my] fear of college as well as helped me gain more confidence with basics in literacy and math.”

“I have rarely had more attentive teachers! My math teacher helps me "see" math, [and] I've never seen it before!”

“My math, right now, is the class that has helped me the most. Reading and writing are coming to me more and more, but that just takes time.”

“I found the math to sometimes to be very challenging [but] the teacher took the extra time to help me understand it.”

“I learned Math. I never knew math until [my teacher] taught me. I learned college is very easy and, I'll be able to succeed. I also understand reading. I feel I can pass the ACCUPLACER very well.”

“Math was one of my problems, but now I feel much better.”

These results point to the importance of experienced instructors supporting the students' learning. Some instructors had considerable experience teaching adult education and working closely with students pursuing the GED, and others had substantial experience teaching developmental education in the community college. Whereas the quantitative results suggest the RFC learners rated their instructors very highly on college validation (see again Table 6 and Figure 15), qualitative data suggest that prior experience teaching developmental education may be especially helpful to students enrolled in College Connection. One-on-one interviews with the instructors and focus group interviews with the students suggest the knowledge and skills that developmental education instructors bring to teaching core academic subjects is different than adult education. Some of the difference in the teachers of adult education and developmental education appears to relate to their comfort with accelerating instruction, with engaging students in independent assignments and homework, and in giving letter grades instead of pass/fail grades. These initial results seem to suggest instructors who had experience in both sectors of education (adult, developmental) are especially attune to the needs of the students and capable of preparing them for collegiate level studies.

In addition, with respect to the curriculum, several pilot sites enrolled matriculating CO SUN students in developmental course work and college-level courses. This method of accelerating students through the transition process was believed to motivate students to remain in college and help them advance toward their college credentials. This approach recognized that students often feel they are wasting time in developmental course work and sometimes become so discouraged that they drop out. The CO SUN initiative understood that students need the opportunity to build a college-credit portfolio to encourage and support their commitment to remain enrolled in college.

With respect to challenges to teaching the College Connection program, the instructors noted problems teaching some of the out-of-school youth, particularly male students, in terms of their displaying immature and disruptive classroom behavior. These challenges were addressed by the instructors in various ways, including confronting the behavior and persuading the students to change their behavior. Another challenge pertained to students' attendance problems, wherein family and jobs contributed to inconsistent enrollment. To respond to these situations, the instructors and support personnel met with the students to help them problem solve to find solutions to minimize attendance problems; however, especially challenging cases were not rectified, and some students chose to leave the program. In nearly all cases, the instructors and support personnel developed deep knowledge of the students' situations, and they were extremely generous with contributing their time to help students overcome difficulties and to facilitate successful completion.

College and Career Success Course. Complementary to the math, English, and reading courses associated with the College Connection curriculum is the AAA 101 course. This course

emphasizes both college preparation and career exploration and preparation. Results suggest that, without this course, many of the College Connection students would not have felt prepared to engage in college, and they would have lacked an understanding of careers they could pursue. Whereas many community colleges across the country have developed and offered college success courses to enhance incoming college students' college knowledge (Zeidenberg, Jenkins & Calcagno, 2007), the CO SUN college success course is unique in that it focuses on enhancing college knowledge and college behavior (Conley, 2010) as well as career development. Taking the position that students are unlikely to be retained and successful if they do not know what they intend to do with their college credentials, the AAA101 engages students in project-based learning that connects college to career exploration and decision making.

Students at all six sites spoke about the value of the AAA 101 giving them a better understanding of college and what it would mean to make a successful transition. Examples of comments that students made about their preparation for college as a result of participating in AAA 101 follow:

“I have experienced the best summer out of all of them. It’s been a lot of help because I finally found what my true passion is. I have learned many time-management skills and ways to work around my schedule. I have learned a lot and feel prepared for college.”

“They helped with both computer and study skills. They had many talks about what to expect from a student and instructor standpoint.”

“The AAA 101 class project, the Power point, it helped me find answers to a lot of the questions I have about my career. AAA 101 helped me enhance my study skills.”

The survey results for College Completion suggested some variability in the ways the students experienced the career component of AAA 101; this finding is consistent with the qualitative, field notes. Whereas some sites integrated information about college and careers from the beginning, other sites spent only a modest amount of time on career exploration during their first delivery of College Connection. As additional cohorts were offered, the integration of college and careers developed and deepened. The value of career exploration is impossible to miss in students' comments about AAA 101. A few examples follow.

“The career assessment classes and stress management have been incredibly helpful! I will take these helpful hints into every part of my life!”

“Our career goal exploration [project] helped me a lot in figuring what I want to do. The time all the staff took in making sure I knew as much as I needed [was valuable].”

“Exploration in finding a career has really helped me gain knowledge about which direction I might take in my career, [including] getting an interview with someone connected to the area of interest then processing where we were before and what direction we think we may be headed [in] after the experience of the interview.”

Learning Communities. The CO SUN model emphasizes that learning is facilitated when interdependence is created among the students and between the students and the instructors. Based on the qualitative data collected from students, the importance of the learning community approach to College Connection is unmistakable. The results show that the small group of students encouraged and helped each other to learn and grow in their knowledge of the core academic subjects, in their understanding of how to navigate college, and in how to think about pursuing a career. The social learning component of learning communities was a deliberate component of CO SUN, and students attributed a great deal of their satisfaction, motivation, and performance to their ability to participate in a shared learning experience. The students valued the opportunity to establish friendships and to give support to and receive support from one another, including meeting together socially outside class and forming study groups, which were attributed with boosting academic performance. Instructors and navigators also valued the learning community format and postulated that this format was partially responsible for students' retention and successful classroom performance.

One designer of the College Connection program observed that some of the contributions of the learning community format bolster students' confidence of their ability to succeed. One instructor explained,

“They feel they have confidence in a college level course, and they feel more prepared. They also feel more a part of the college than other students. They'll use the [support] services more. They have more confidence. They talk to their teachers more and tell them a little more about themselves. [They realize that they] can do it. They've taken the hard classes... Their confidence is higher. They see themselves as a [college] student, and they see their identity here and a part of the college... They feel they belong.”

Some RFC learners echoed this observation about the College Connection program, explaining how the learning community format is different from high school. For example, one student noted that,

“With the SUN program, it's more like they treat you like an adult and in high school it's more like you're a kid, 'here's the work, do this and do that.' With how they [the instructors] make you want to do the work more it pushes me more. I like the respect I'm given, and I give respect [to others] better. It's just way better [because of] the way they treat each other and us”.

This observation points to the importance of learning communities where individuals rely on one another to learn together, and it reinforces the notion that the success of collaborative learning hinges on mutual respect.

Student Recruitment. At the beginning of the project, the pilot sites had difficulty recruiting out-of-school youth, and they adjusted to this challenge by utilizing a range of strategies for

recruitment, including increasing communication with GED and adult education centers and reaching out to high schools. Adult students were often more eager about and interested in the program than youth, and these mature students also appeared to be more prepared to benefit, including being willing to make personal sacrifices and dedicate the time required to participate in the accelerated curriculum. As time passed, the pilot sites became increasingly sophisticated, with strategies to contact prospective students and give them information about the College Connection program. Intake interviews, student assemblies, and GED graduation ceremonies were used by all the sites to reach the target audience and encourage their participation. As the College Connection programs evolved, the following recruitment strategies were added, and these evolved into more fully developed processes to recruit students, particularly out-of-school youth:

- Face-to-face meetings offered in one-on-one and small group formats
- Referrals, personal phone calls and relationship-building by adult education administrators and staff who know the students and wish to garner their trust and interest
- Fact sheets, flyers, and brochures distributed to GED centers, adult education centers, community colleges, workforce centers, food banks, and other community organizations
- College/career fairs and education fairs with information booths and scholarship drawings, including an information booth outside Wal-Mart
- Postcard mailing and posters with “tear-off” (post-it) contact information
- Web pages on college web sites and text messaging (after receipt of consent to engage in further contact with the students)
- Newspaper and radio advertisements, and movie theater screen advertisements
- Open houses (with icebreaker activities)

Formal and Informal Assessment. Students generally understood the reasons for the college assessments that they were required to take despite showing anxiety, or even distress about taking the exams. Some students commented on their frustrations about having to take the post-test exam after completing their developmental courses, particularly when they had received a grade indicative of success in the course. The following are a few of the comments that students offered about taking the ACCUPLACER college placement test:

“I am overcoming the disappointment that these classes don't help you advance once completed. You still have to take the ACCUPLACER.”

“One of our instructors gives us a daily problem from the practice test on the ACCUPLACER so we get an idea of the questions that will be on the test.”

Navigators. Whereas results of the student survey showed some variability in the contributions of the navigators or case managers, the qualitative results provided extensive documentation of the importance of the navigators to students' perceptions of themselves as building confidence

and achieving success. The following are statements made by students that are indicative of the positive experiences they had with their navigators and the value they attributed to the relationships:

“My navigator was exceptionally helpful by helping me with my financial situation. She did what I thought would be impossible; she got me in state tuition.”

“My experience with my navigator brought me encouragement to pursue my education, [and it] has been outstanding. I don't think I would have continued without her encouragement.”

“The teachers and the navigator helped me with not only school but [with] my issues that were preventing me from succeeding in college. I had no home to call my own, and with their help I received the encouragement to find a home and apply for a home.”

“I'm scared about going to college but throughout the class and [with the help of] my navigator I think I can do it!!!!”

Several pilot sites extended components of the CO SUN experience beyond the intervention, insuring that students would continue to engage with their navigator, instructors and peers as they transitioned from College Connection into the community college. Examples of practices used by the pilot sites include students' continuing their relationship with the navigator by having that professional continue to be their college advisor, pairing students so that they would have a “buddy” as they matriculate into advanced developmental or college level courses, and assigning students one of the CO SUN instructors so that they could take advanced coursework from an instructor they already knew and with whom they had already established a productive relationship.

Wrap-around Services. Figure 18 displays RFC learners' self-reported responses on services they accessed as part of the College Connection program, and these results are compared with those of the overall CO SUN participant group. Results show that a very high percentage, more than 50%, of the RFC learners, sought financial aid advising and academic advising, and a substantial proportion also reported accessing other financial aid, tutoring, career counseling, tuition and books, and other services. Interestingly, a higher percentage of the RFC learner group reported accessing most services compared with the overall CO SUN participant group, particularly services associated with financial aid and scholarships as well as academic advising, tutoring, and so on. In qualitative interviews conducted one-on-one and through small groups, a relatively common observation made by the students was the importance of the student services component to their staying in College Connection and their feeling that participation in the program would make a difference in their ability to be successful as they proceed to college. Finding that more members of the RFC learner group accessed these services than the overall CO SUN group was not anticipated, but it may account for some differences, albeit minor, in the college readiness results of the groups.

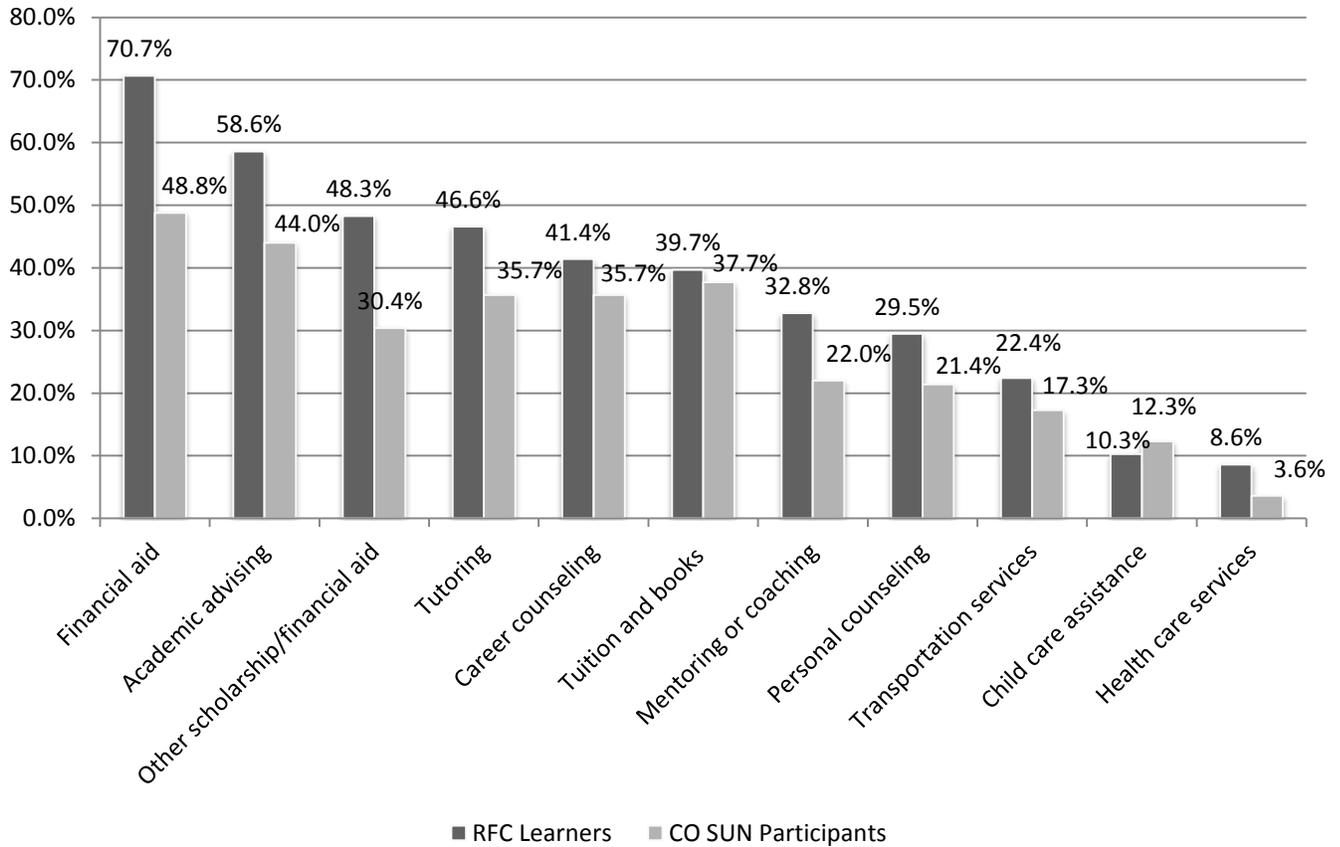


Figure 18. Percentage of Ready for College learners participating in student services and supports.

Most of the pilot sites scheduled time outside of CO SUN classes for students to interact with the instructors and peers. In some cases, these extra study sessions were anticipated and scheduled from the beginning of the semester, and in a few cases, the study sessions were added as instructors realized students needed additional support in the form of supplementary instruction, tutoring, or group study. This structured or supplementary study time was sometimes offered for 1 hour per week, and sometimes 2 or 3 days per week. Some sites encouraged a group study and facilitation format, involving an instructor in the support role, and some provided time when students could bring questions to an instructor on a one-on-one basis, which allowed the instructor to convene the group for joint instruction if there was a common challenge among the learners.

Experimentation with curriculum and instruction was a very important aspect to the College Connection program. This included engaging the program coordinators, instructors, navigators, and other staff in sharing lessons learned as they progressed through delivering the first, second, and sometimes third and fourth cohorts. The instructors and support service staff were eager and

appreciative of opportunities to participate in professional development that was offered by the CCCS office. Meeting periodically in face-to-face format in Denver, in association with professional development meetings, or via video/online format, the instructors and support service personnel shared what they were learning, and they compared teaching materials and instructional strategies that they believed to be effective based on their own professional experience. The contribution of professional development is always difficult to measure in terms of its effect on program quality and student outcomes; however, there is no doubting that professional development contributed to greater consistency in delivery of instruction than had these activities not taken place. With the pilot sites distributed over such a large geographic area, the use of online, electronic, video, and other media provided opportunities that would not have been affordable otherwise.

Continuous Improvement. The CO SUN program leadership team as well as most pilot site teams were hungry for evaluation data, showing a high level of interest in program implementation and student outcome data. Various formats were used to share program- and student-level results with the pilot site personnel, and a number of convenings, meetings and face-to-face activities were held to encourage a dialogue about embedding the CO SUN model into community colleges and partner adult education provider organizations. Conversations were also held online and via telephone conference calls, and these activities were conducive to two-way communication to ensure many opportunities for all stakeholders, including the evaluator, to learn and grow from the CO SUN experience. The following data collection involved CO SUN staff throughout the project:

- Frequent navigator reporting and monitoring by the CO SUN project manager and evaluator;
- Monthly site director conference calls with the project director and project manager;
- Monthly reporting by navigators;
- Monthly navigator conference or videoconference with the project manager;
- Quarterly reporting by site directors;
- Site visits by the CO SUN management team to five sites;
- Site visits by the evaluator to 13 cohorts between February 2008 and December 2009, with all but one pilot site visited at least twice;
- Professional development meetings held in March 2008, August 2008, November 2008, December 2008, April 2009, and April 2010 (via the CCCS teleconference system) to plan and review CO SUN implementation and use of data to improve program practices;
- Field notes and pilot-site reports created by the external evaluator and shared with all pilot sites, and follow-up telephone calls to review results and consider implications for the local sites;
- Numerous telephone conference calls with the CCCS leadership team, the CO SUN project manager, the CO SUN program designer, local pilot site teams, and the external

evaluator to review results and consider implications for improving programs and practices; and

- Numerous telephone conference calls with the CCCS leadership team and the external evaluator to define data collection and analysis needs.

Conclusions and Recommendation

With respect to the CO SUN initiative in general and the College Connection program specifically, results demonstrate positive student outcomes, particularly student entry into postsecondary education and training. The College Connection program demonstrated success in transitioning the RFC learners into college, almost all of whom had completed one or more levels of developmental education and a few whom had completed all developmental courses despite the extensive number of levels of developmental coursework that was needed to enroll at the college level. These results lead the external evaluator to urge the CCCS, as the leader of the CO SUN and College Connection program, to continue to support community colleges and partner adult education providers in implementing College Connection programs and measuring student success. Similarly, OVAE is encouraged to fund additional initiatives such as RFC that seek to better prepare youth and adults to make a successful transition to college.

The following recommendations are made to support future implementation of transition programs that support underserved youth and adults to prepare for and enroll in college.

College Connection. Adult education and developmental education instructors are encouraged to work collaboratively to offer accelerated and compressed curriculum and instruction similar to that in CO SUN, where students are supported to engage in multiple levels of developmental course work during the time that is normally required to finish one course. This recommendation is supported by the promising impact of RFC learners. Embedded in this approach is the use of a wide range of instructional approaches that are tied to advancing students through the core academic curriculum (math, reading, and English) at a pace that demands a high level of engagement and commitment. Although not all learners were successful, as would be expected for this high at-risk population, the level of success that was apparent for RFC learners who participated in the majority of the course work was impressive.

Instructional Innovation. The careful selection, recruitment, and development of qualified instructors is needed to ensure that the developmental instruction is aligned with college level content. An important observation made by the external evaluator involves the impact that instructional professionals make on student engagement and learning, particularly in the context of a learning community environment. Whereas some instructors associated with the CO SUN program had considerable experience teaching adult education and the GED; others had substantial experience teaching developmental education, with a small number having

experience in both settings. Where instructors had experience with developmental education or both developmental and adult education, the quantitative and qualitative data seem to show an advantage on student outcomes, particularly college readiness. Personal interviews with the instructors and students suggest this finding may be related to the knowledge that developmental educators bring to delivering subject matter where the pace of instruction is accelerated, where the level of expectations for student assignments is high, and where approaches to grading are specific to the college level.

Navigator. College transition programs designed for out-of-school youth should include a student support professional or case manager who engages in a role similar to the navigator position associated with the College Connection program. Complementary to the accelerated and compressed curriculum, a student support professional such as a navigator or transition advisor fulfills an invaluable support role for out-of-school youth and other underprepared students who desire the opportunity to enroll in college. Beginning with recruitment and one-on-one engagement, many navigators attended the College Connection classes regularly and held meetings with students on a small group and one-on-one basis. They found a way to get to know the students on a deep level and use their personal relationships to help them gain confidence in themselves and develop a desire to succeed.

Bridging Institutions. Leaders of the educational system, especially community college and adult education (in the case of Colorado, the adult education system which is funded by the Colorado Department of Education), should work together to fund and support programs such as CO SUN. This engagement needs to begin when project planning starts and needs to extend throughout the implementation and institutionalization phases. Successful programs for out-of-school youth require intensive partnering and strong relationships between adult education and community colleges, in which professionals share their educational philosophies and instructional approaches and find ways to learn from one another. These kinds of relationships are not built in a day; they require extended relationship-building, which includes sometimes challenging conversations about effective teaching practices, student motivation and instructor expectations, and student performance.

Professional Development. Various formats should be used to deliver professional development opportunities for instructors, including meetings at which staff are physically present and engaged in active learning tasks, using formats such as video conferencing, online course work, and other online formats that engage educators in their own settings. The CO SUN initiative used all these formats because of the geography of the state and the distance from one pilot site to another. Professionals associated with the pilot sites had opportunities to attend state and national professional meetings that they might not have attended had the grant not prompted their interest in research and development and innovation, including the Colorado Adult Educator Professional Association, National College Transition Network,

CoABE/Proliteracy, and the American Educational Research Association. These meetings were recognized as providing valuable lessons because they generated opportunities for professionals to meet and interact with one another in ways that facilitated productive working relationships.

Continuous Improvement. Initiatives like CO SUN create data sets useful to external funders to determine program quality and measure student outcomes for the purposes of understanding the impact of the grant, but these data sets can also be valuable to practitioners at the state and local levels, particularly when the data show course-, program-, and student-level performance. Data sets that identify student backgrounds and educational experiences (such as via student surveys or classroom performance) and student outcomes (such as course completion, TABE gain scores, college readiness, entry to college) are important to programs such as College Connection, and they remain important to documenting student outcomes beyond the length of the grant. In the case of CO SUN, the leadership team and the local pilot teams were hungry for and highly appreciative of evaluation data, and they showed a high level of interest in using the data to understand how program implementation was affecting student outcomes. Data were presented in different formats to facilitate communication and shared learning. The CCCS and its partners, including the Colorado Department of Education, are encouraged to maintain the data collection associated with CO SUN to determine the success of the program over the long term. Through additional follow-up of the students, it will be possible to learn more about how students benefit from the program, and these results can help shape future program implementation.

System Change. Various components of the CO SUN initiative found their way into the larger postsecondary and adult education systems in Colorado. Never intended to be a stand alone program, CO SUN succeeded at being infused into instructional policy and practice in the CCCS in a number of ways, and this is an important finding. This includes advancing the notion of accelerating developmental education so that students can participate in multiple courses that are compressed, by integrating developmental course work with AAA101 (College and Career Success), and by further accelerating students who complete College Connection by co-enrolling them in developmental and college-level course work. Through these kinds of deliberate efforts to change the system, lasting improvements may be realized.

References

- Attewell, P., Lavin, D., Domina, T., & Levey, T. (2006). New evidence on college remediation. *The Journal of Higher Education*, 77 (5), p. 886-924.
- Baker, E. D. (2010). *Initial thoughts on the 2nd annual acceleration conference at Community College of Baltimore County*. Unpublished manuscript, Denver, CO.
- Barnett, E. (2006). *Validation experiences and persistence among urban community college studies*. Unpublished doctoral dissertation at University of Illinois at Urbana-Champaign.
- Bloom, B. & Sommo, C. (2005). *Building learning communities: Early results from the Opening Doors Demonstration at Kingsborough Community College*. Retrieved March 27, 2008 from <http://www.mdrc.org/>
- Bragg, D. D. (2009, September). *Community College of Denver Breaking Through outcomes report*. Unpublished report submitted to Jobs for the Future, Boston, MA.
- Bragg, D. D., Baker, E. D., & Puryear, M. (2010). *2010 follow-up of the Community College of Denver FastStart Program*. Champaign, IL: Office of Community College of Research and Leadership, University of Illinois.
- Colorado Community College System. (2009). *Remedial math tracking project*. Denver, CO: Author.
- Conley, D. (2010). *College and career ready: Helping all students succeed beyond college*. San Francisco, CA: Jossey-Bass.
- Patton, M. Q. (2011). *Developmental evaluation: Applying developmental concepts to enhance complexity and use*. New York, NY: The Guilford Press.
- Rendon, L. (1994). Validating culturally diverse students: Toward a new model of learning and student development. *Innovative Higher Education*, 19, 33-51.
- Scrivener, S., Bloom, D., LeBlanc, A., Paxson, C., Rouse, C.E., & Sommo, C., with Au, J., Teres, J.J., and Yeh, S. (2008). *A Good Start: Two-Year Effects of a Freshmen Learning Community Program at Kingsborough Community College*. New York: MDRC.
- Smith, B., MacGregor, J., Matthews, R., & Gabelnick, F. (2004). *Learning Communities: Reforming Undergraduate Education*. San Francisco: Jossey-Bass.

Taylor, J., & Bragg, D. (2010, April). *Nurturing community, creating opportunity: How out-of-school youth experience the "College Connection" program*. Paper presented at the American Educational Research Association meeting in Denver, Colorado.

Zeidenberg, M., Jenkins, D., & Calcagno, J. C. (2007, June). *Do student success courses actually help community college students succeed?* Community College Research Center Brief, No. 36. New York City, NY: Community College Research Center, Teachers College, Columbia University.

APPENDIX A



COLORADO SUN COLLEGE CONNECTION SURVEY¹

Spring 2010

INSTRUCTIONS

1. There are 36 statements in this survey. Please think about each statement in relation to your participation in the College Connection program. Give the answer that best applies to you and not what you would like to be true, or what you think others want to hear.
2. Think about each statement by itself. Do not be influenced by your answers to other statements.
3. Give your responses on the survey form by circling the number that best fits your answer.
4. You have the right to not answer any or all of the questions in this survey. This first page will cover your answers so that no one else will see what you have said.

¹ Items in pages 1 and 2 of this questionnaire were adapted from Barnett, E. (2006). *Validation experiences and persistence among urban community college studies*. Unpublished doctoral dissertation at University of Illinois at Urbana-Champaign.

COLLEGE CONNECTION SURVEY

When I think about my College Connection classes, I would say that.....	CIRCLE THE ONE BEST ANSWER:						
	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
1. I feel accepted as a capable student by my instructors.	1	2	3	4	5	6	7
2. I feel accepted as a person by my instructors.	1	2	3	4	5	6	7
3. My instructors are interested in what I have to offer in class.	1	2	3	4	5	6	7
4. My instructors make me feel as though I bring valuable ideas to class.	1	2	3	4	5	6	7
5. My instructors understand that students come from different backgrounds.	1	2	3	4	5	6	7
6. My instructors are interested in what I have to offer in class.	1	2	3	4	5	6	7
7. My instructors seem to genuinely care how I am doing.	1	2	3	4	5	6	7
8. I am encouraged by my instructors to openly share my views in class.	1	2	3	4	5	6	7
9. I can express my honest opinions in my classes.	1	2	3	4	5	6	7
10. My instructors treat me equally and respectfully to other students.	1	2	3	4	5	6	7
11. My instructors show that they believe in my ability to do the class work.	1	2	3	4	5	6	7
12. My instructors are willing to take as long as needed to help me understand the class material.	1	2	3	4	5	6	7
13. It seems like my instructors really care about whether I am learning.	1	2	3	4	5	6	7
14. My instructors are willing to give me individual help when needed.	1	2	3	4	5	6	7

When I think about my program's Navigator, I would say that....	CIRCLE THE ONE BEST ANSWER:						
	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
15. My navigator gives me as long as it takes to answer my questions and address my challenges.	1	2	3	4	5	6	7
16. My navigator has helped me address barriers that have arisen during my summer classes.	1	2	3	4	5	6	7
17. My navigator has advised me on how to resolve personal problems.	1	2	3	4	5	6	7
18. I have learned about careers that interest me because of assistance provided by my navigator.	1	2	3	4	5	6	7
19. My navigator genuinely cares about how I am doing.	1	2	3	4	5	6	7
20. I have talked with my navigator about my goals for attending college.	1	2	3	4	5	6	7
21. I am able to share information with my navigator that I know will be kept private.	1	2	3	4	5	6	7
22. My navigator has helped me find resources and services to succeed in school.	1	2	3	4	5	6	7
23. I have felt motivated to do well in school because of advice given by my navigator.	1	2	3	4	5	6	7
24. I trust that my navigator has my best interest at heart.	1	2	3	4	5	6	7
25. My navigator has helped me understand what I need to do to enroll and succeed in college.	1	2	3	4	5	6	7
26. My navigator treats me equally and respectfully to other students.	1	2	3	4	5	6	7

When I think about making the transition to college, I would say that....	CIRCLE THE ONE ANSWER THAT FITS BEST:						
	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree
27. I am developing the skills that I need to be successful in college.	1	2	3	4	5	6	7
28. I am gaining confidence in myself and believing that I can be successful in college.	1	2	3	4	5	6	7
29. I am certain I can do the most difficult course work in college.	1	2	3	4	5	6	7
30. I plan to continue my education and go to college.	1	2	3	4	5	6	7
31. I expect to complete a college certificate or degree.	1	2	3	4	5	6	7
32. I have an idea of what I want to do with my career.	1	2	3	4	5	6	7
33. I am committed to finishing college and pursuing my chosen career.	1	2	3	4	5	6	7

34. Read each item below and check the ones that you have used during your CO SUN course.

- Academic advising
- Career counseling
- Personal counseling
- Tutoring
- Mentoring or coaching
- Special academic services
- Financial aid
- Transportation assistance
- Child care assistance
- Housing assistance
- Tuition and books (full or partial assistance)
- Other scholarships and financial aid
- Job placement
- Health care services (physical, mental)
- Drug and alcohol counseling
- Part-time job assistance
- Other:

35. Briefly describe a few experiences that you have had this semester that stand out as very important to helping you meet your college and career goals.

36. Briefly describe a few challenges that have had this semester that made it difficult for you to meet your college and career goals. Explain in a few words how you were able to overcome the challenges.

Student ID Number: _____

Thank you for completing this survey!