



Improving Academic Achievement

A Report on Colorado GEAR UP II At-Risk
Student Outcomes

1560 Broadway, Suite 1600
Denver, CO 80202
Office: 303.866.2723
Fax: 303.866.4266
www.coloradogearup.org

Executive Summary

The Colorado GEAR UP program provides a comprehensive college preparatory program aimed at addressing at-risk student academic weaknesses through intensive remediation, college readiness, and concurrent enrollment. Colorado GEAR UP II (CGUII) was a federally-funded grant that ran from 2005 to 2012 and served low-income and first-generation students in 12 high schools across the state. CGUII students receive a \$10,000 scholarship for postsecondary enrollment.

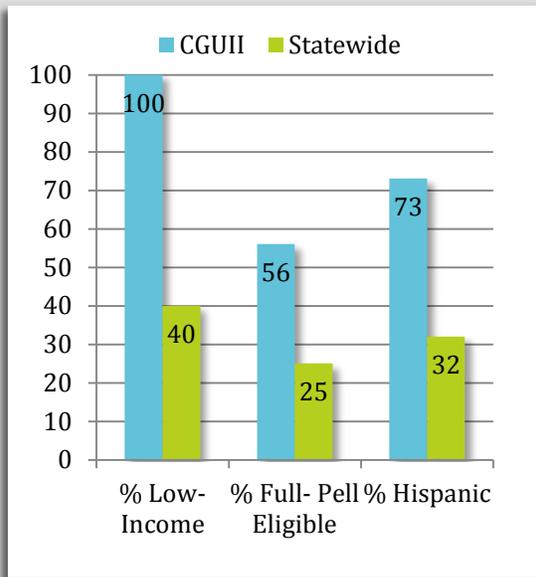
This report describes CGUII successes along four academic outcome measures: high school graduation, college enrollment, college persistence, and expected college graduation. Comparisons are made between CGUII results and Colorado statewide averages. It is important to note that while CGUII data is compared to statewide data, the students within these data sets are not equal. One-hundred percent of CGUII students were low-income when recruited based on their National School Lunch Program status compared to 40% statewide, and 56% were full Pell-eligible compared to 25% statewide. Seventy-three percent of the full participant population was Hispanic/Latino, compared to 32% statewide. CGUII students also fell well below statewide results on the state standardized test (CSAP) in all content areas, including reading (CGUII – 59%, State – 68%), writing (CGUII – 38%, State – 54%) and math (CGUII – 14%, State – 54%). Finally, the CGUII composite ACT score was 17, compared to 19 statewide. Consequently, while the comparisons drawn consider the two populations equal, the CGUII student population faced larger and more numerous obstacles to continue on their educational trajectory.

These obstacles only seemed to motivate CGUII students resulting in higher performance than state averages in all measurable student outcomes. Eighty-seven percent of the CGUII students who began freshman year and remained active through high school graduated compared to a Colorado State graduation rate of 72%. Eighty-four percent of CGUII high school graduates enrolled at a postsecondary institution the following fall, compared to a statewide enrollment rate of 67%. Eighty-one percent of these CGUII enrollees persisted through their first year of college, compared to a statewide average retention rate of 70%. Sixty-nine percent of CGUII students who enrolled at a postsecondary institution are on track to graduate compared to 44% statewide.

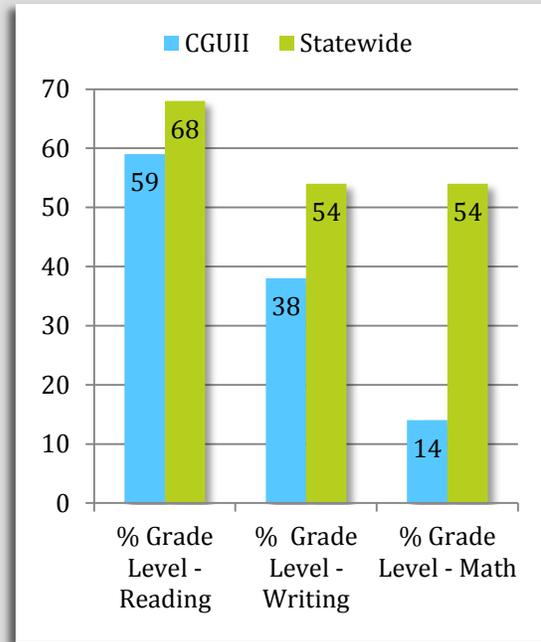
Based on these academic outcomes, a cost-benefit analysis of the GEAR UP program was built by estimating lifetime income of degree-earners. This analysis shows that federal investment in the academic future of at-risk students results more self-sustaining, employed individuals, and a financial net gain for taxpayers.

When combining the findings for all CGUII student outcomes compared to statewide data, the following picture comes into focus: Of 100 students who begin high school as freshmen, 59 CGUII students persist through their freshman year of college, compared to 34 students statewide.

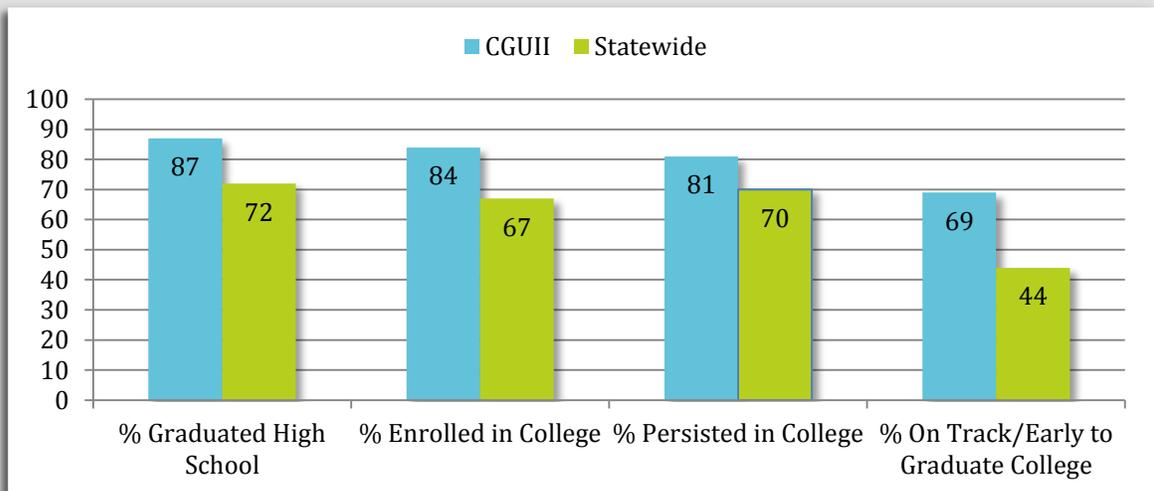
Pertinent CGUII Cohort Demographics Compared to Statewide Demographics



CGUII Cohort at Grade Level Based on 9th Grade CSAP Compared to Statewide Data



CGUII Cohort Outcomes Compared to Statewide Data



Background

Colorado has the country's 2nd highest majority-minority (Caucasian-Hispanic) achievement gap for higher education – a 31% gap, compared to the national average of 19%.¹ White Colorado students outperform Hispanic students on the Colorado Student Assessment Program (CSAP), ACT, and are more likely to graduate high school. Additionally, income levels make a difference. On average, 31% more students from middle- to high-income families scored proficient or advanced on the CSAP than did students from low-income families². Today, only 9% of Hispanic 9th grade Colorado males will graduate from high school, go onto to college, and obtain a postsecondary degree.³ In many ways, Colorado's leaky education pipeline mirrors issues faced by other states and, if left unaddressed, the nation's achievement gap and college going rate will only get worse.

Federal and state pre-collegiate programs have stepped in to change these student outcomes. Colorado GEAR UP is such a program. Its goal is to create an effective student success system by preventing educational stop-outs by students at critical transition points, and by building at-risk student momentum toward post-secondary completion. For the CGUII grant which ran from 2005 to 2012, this was accomplished by providing services to students from 7th grade through the first year of college to educate them on the benefits of postsecondary success. Services included enrollment in rigorous coursework, intensive remediation, concurrent college enrollment, College Level Examination Program (CLEP) testing, tutoring, mentoring and support services, postsecondary preparatory and readiness activities, career planning, college entrance exam preparation, financial aid counseling, general counseling, summer learning programs, campus visits, GEAR UP scholarship awards, outreach and parent engagement, and college matriculation support services. See Appendix A for a full description of services.

GEAR UP II Student Population

Demographics

The findings of this report will focus on student outcomes for the lead cohort of the program who began their high school careers in fall 2007 and college careers in fall 2011. This cohort was used because they began their high school freshman year as active CGUII participants, stayed active throughout the program, completed high school and progressed through one year of college. Their educational trajectory allows for the review of high school graduation, college matriculation, and persistence data. One-hundred percent of CGUII students were considered low-income by the state based on their National School Lunch Program status (Free and Reduced Lunch), compared to 40% statewide⁴, and 56% were full Pell-eligible (88% Pell-eligible) upon college entry compared to 25% statewide. Seventy-three percent of the full participant population

¹ U.S. Census Bureau. (2009). American Community Survey (ACS). Public Use Microdata Sample (PUMS) File.

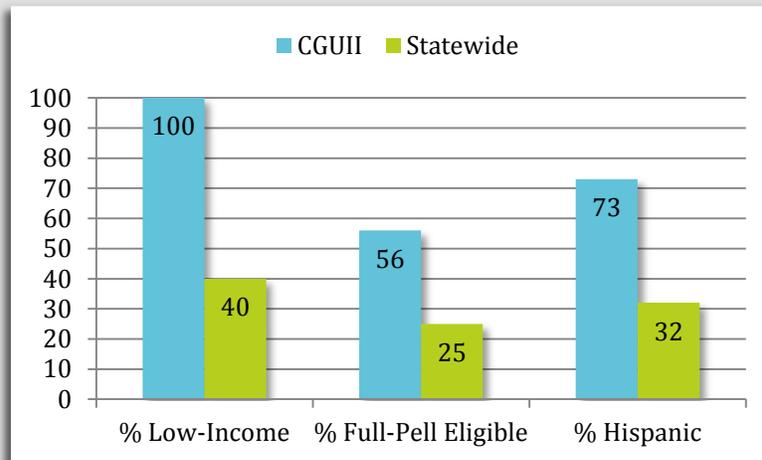
² Sharp-Silverstien, J. (2005). Understanding Colorado's Achievement Gap: An Analysis of Student Performance Data by Race and Income. Denver, CO: The Bell Policy Center.

³ Colorado Department of Higher Education. (2010). The Degree Dividend; Colorado's Strategic Plan for Higher Education. Denver CO: Colorado Department of Higher Education.

⁴ Colorado Department of Education. (2012). <<https://edx.cde.state.co.us/SchoolView/DataCenter/reports>>.

was Hispanic/Latino, compared to 32% statewide.⁵ The CGUII Hispanic/Latino population is specifically referenced because it makes up the vast majority of participants, and because program services were specifically implemented to utilize their language abilities through CLEP testing.

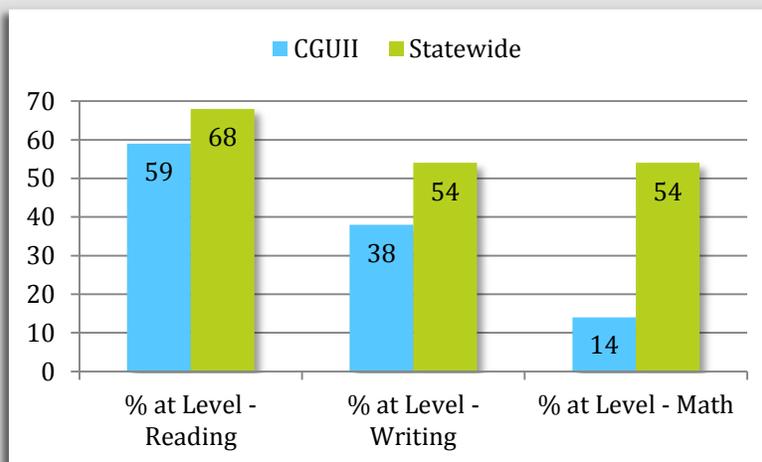
Pertinent CGUII Cohort Demographics Compared to Statewide Demographics



Academic Comparisons

CGUII students also lagged behind state averages academically. Based on 9th grade Colorado CSAP scores, CGUII students tested below the statewide average in every content area including reading (CGUII – 59%, State – 68%), writing (CGUII – 38%, State – 54%) and math (CGUII – 14%, State – 54%)⁶.

CGUII Students at Grade Level Based on 9th Grade CSAP Scores Compared to Statewide Data

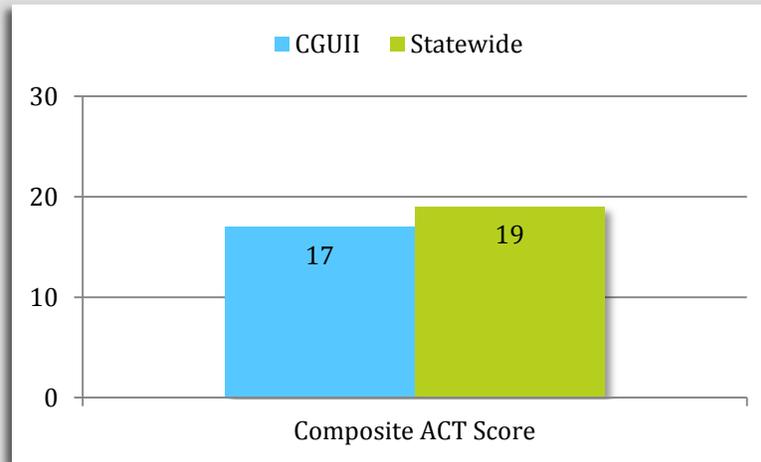


⁵ Colorado Department of Education. (2012). <<https://edx.cde.state.co.us/SchoolView/DataCenter/reports>>.

⁶ Colorado Department of Education. (2012). <http://www.cde.state.co.us/FedPrograms/dl/danda_nclbstrptcrd_0910.pdf>.

Additionally, the CGUII composite ACT score was 17, while the statewide average was 19⁷.

CGUII Composite ACT Scores Compared to Statewide Data



Impact on High School Graduation

Based on student surveys administered to CGUII participants, there are strong indications that program services have an impact on high school graduation rates. The survey was completed by GCUII participants and control group students within the same school on a yearly basis. During 8th grade, responses from both groups on the question, “Will you graduate from high school” were not different based significance testing. However, the 11th grade survey proved that over three years CGUII student aspirations for high school graduation increased beyond their peers⁸. These results were statistically significant, and since students were in no other pre-collegiate program or alternative academic program, CGUII was found to be variable that made the difference.

The survey foreshadowed CGUII graduation rates compared to their peers. Of lead cohort students who began in the program their freshman year and continued as active program participants through high school graduation, 87% graduated from high school⁹ compared to a Colorado statewide graduation rate of 72%¹⁰.

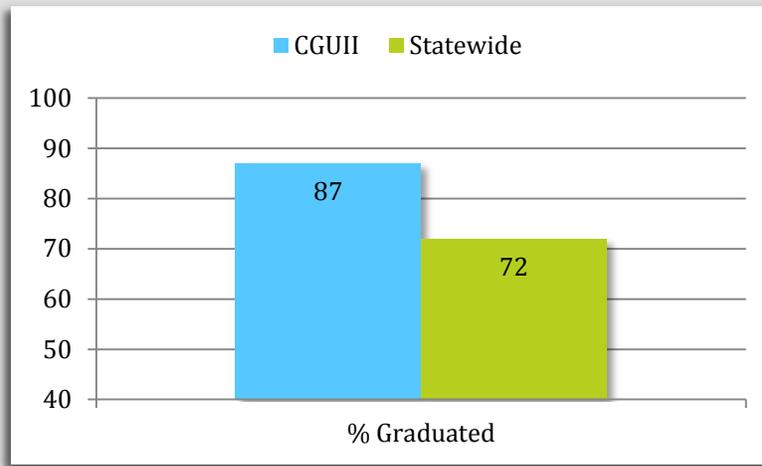
⁷ Colorado Department of Education. (2012). <http://www.cde.state.co.us/FedPrograms/dl/danda_nclbstrptcrd_0910.pdf>.

⁸ Mendelsberg, S. (2012). Logic Modeling to Evaluate Colorado GEAR UP Student Success Outcomes

⁹ Colorado GEAR UP II database (2012).

¹⁰ Colorado Student Unit Record Data System. (2012). <http://higher.ed.colorado.gov/Publications/Reports/Enrollment/FY2010/2010_GradRates.pdf>.

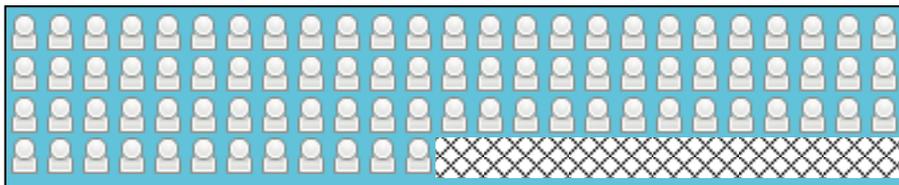
CGUII Active High School Freshman Graduation Rate Compared to Statewide Data



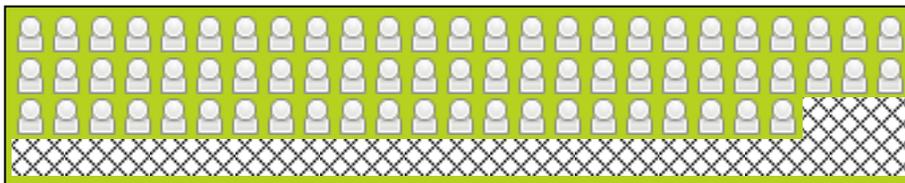
While this would be an impressive result for any program composed of a random makeup of students, CGUII included only students who were economically disadvantaged based on their Free/Reduced Lunch status and behind grade level based on CSAP scores.

CGUII produced higher graduation rates than those found statewide, and it did so serving the most at-risk students. The graphic below compares CGUII and statewide graduation results through a “100 high school freshman” analogy. If beginning with 100 high school freshman, 87 CGUII students graduate, while 72 graduate statewide.

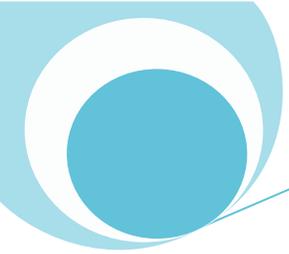
CGUII Active High School Freshman Graduation Rate (87 of 100)



Statewide High School Graduation Rate (72 of 100)



CGUII’s broadest goal was to increase the number of students earning postsecondary degrees and putting those degrees to use through employment. While CGUII services were implemented to generally increase students’ likelihood to continue their education through high school, no services were designed to directly impact high school graduation. However, these graduation results highlight that CGUII services have a secondary effect of increasing student



educational aspirations beyond high school, thus increasing the number of students reaching high school graduation.

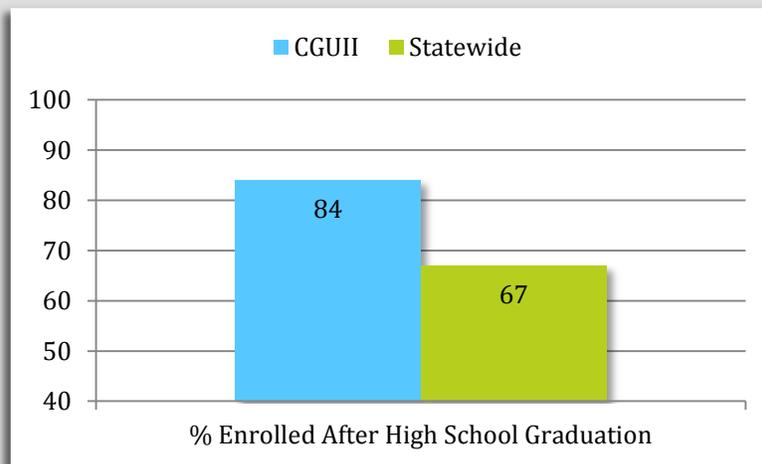
Impact on College Enrollment

The impact of CGUII methods on college enrollment was significant. The survey provided to participants and a control group continued to provide indicators of student perceptions. Comparing 8th and 11th grade survey results on the question, “Will you go on to further education after high school?” CGUII student responses were significantly higher than those of control group members by 11th grade. CGUII students not only wanted to graduate high school, but they wanted to continue their education at higher rates than their peers. In fact, 68% of CGUII participants planned to enroll in a postsecondary institution¹¹.

CGUII students enrolled at an even higher rate than their survey responses predicted. Eighty-four percent of the CGUII cohort enrolled the following fall¹², compared to a statewide enrollment rate of 67%¹³. This statewide rate is well below the GEAR UP rate, even after considering students who enrolled in out-of-state institutions are not counted in the statewide number, which would have added a few percentage points at most.

Nationwide, ACT composite scores are a large factor in postsecondary admissions decisions. In Colorado, the ACT composite score is one of three factors that determines if a school district is preparing students to be postsecondary and workforce ready. Interestingly CGUII students scored two points lower than their peers on the ACT, but enrolled and succeeded in college at a higher rate. These results indicate the value of concurrent enrollment coursework as seen by postsecondary admissions offices should be calibrated closer to the value of ACT scores.

CGUII High School Graduate College Enrollment Rate Compared to Statewide Data



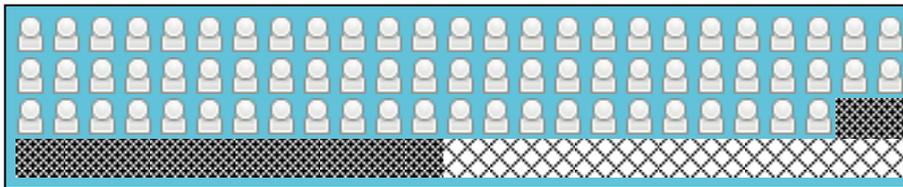
¹¹ Mendelsberg, S. (2012). Logic Modeling to Evaluate Colorado GEAR UP Student Success Outcomes.

¹² Colorado GEAR UP II database (2012).

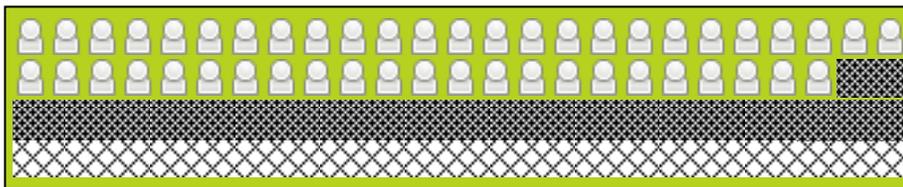
¹³ Colorado Student Unit Record Data System. <http://highered.colorado.gov/Publications/Reports/Enrollment/FY2010/2010_RetentionRates.pdf>.

Again, CGUII is 17% higher than the state average, and CGUII only serves students with numerous strikes against them; namely they have lower family incomes, are first-generation students, and are less academically prepared than their classmates in one or a combination of learning areas including reading, writing, and math. Continuing the “100 high school freshman” analogy, if 84% of the 87 CGUII high school graduates enroll in college, 73 remain in the educational pipeline, while 48 remain statewide.

CGUII College Enrollment Rate (73 of 100)



Statewide College Enrollment Rate (48 of 100)

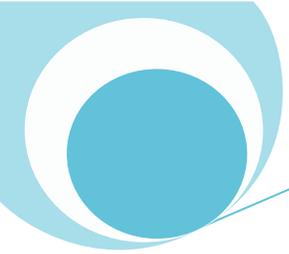


CGUII services were designed to directly impact college enrollment. Beginning in 7th grade, students completed curriculum regarding college knowledge information, degree and career paths, and financial aid options. Senior year students were required to complete three college applications and three scholarship applications. College orientation programs were designed for CGUII students, and CGUII advisors worked with students to assure all administrative tasks were completed (including course registration) prior to the beginning of the term.

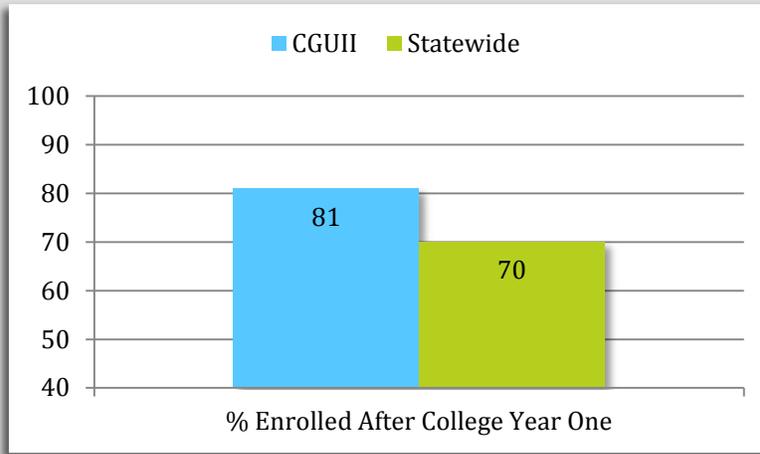
Impact on College Retention

Eighty-one percent of CGUII college enrollees persisted through their first year of college and planned to continue their academic plan into year two¹⁴ compared to a statewide average retention rate of 70%¹⁵. CGUII retention rates will be compared to statewide data once students begin college year two.

¹⁴ Colorado GEAR UP II database (2012).
¹⁵ Colorado Student Unit Record Data System. (2012). <http://highered.colorado.gov/Publications/Reports/Enrollment/FY2010/2010_GradRates.pdf>.

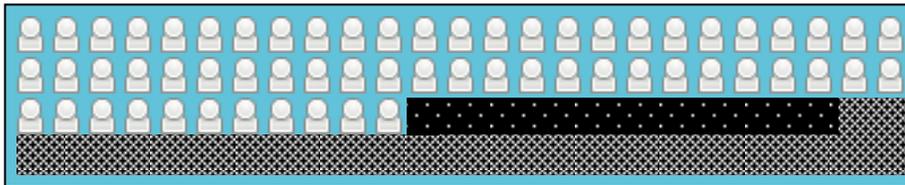


CGUII College Retention Rate for Enrollees Compared to Statewide Data

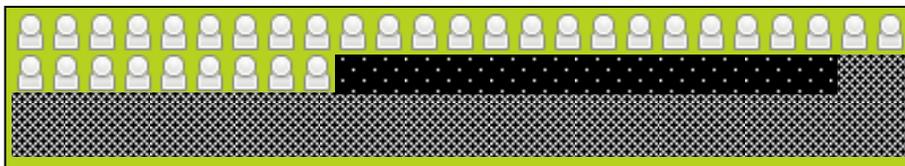


Eighty-one percent of the CGUII college enrollees persist through their first year of college. **In total, if starting with 100 high school freshman, 59 CGUII students persist through their freshman year of college, compared to 34 students statewide.**

CGUII College Retention Rate (59 of 100)



Statewide College Retention Rate (34 of 100)



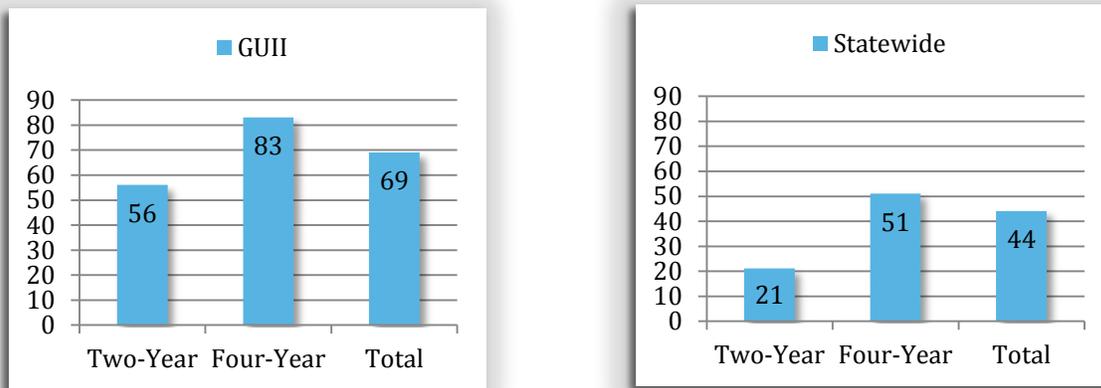
CGUII advisors assisted students as they traversed their first year of college. At the beginning of the year, they worked with students as they received their financial aid disbursement, and ensured that students were attending the first week of classes. Throughout the year, students provided consistent updates on course progress, and grades were submitted on a regular basis. Advisors also served as mentors when students faced social/emotional issues such as making new friends, being away from home, or finding ways to become involved on campus.

Impact on Time to Graduate College

CGUII students are doing very well in their courses while in college, and are on track to graduate from a postsecondary institution at a higher rate than their peers. CGUII students are

passing 63% of the courses they take after college entry¹⁶. Fifty-six percent of CGUII students are set up for on time graduation from a two-year institution, compared to a 21% statewide graduation rate¹⁷. Eighty-three percent of CGUII students are set up for on time graduation from a four-year institution, compared to a 51% graduation statewide. In total, 69% of CGUII students are set up for on time graduation, compared to a 44% graduation statewide. Students on track to graduate are those who have completed 24 or more credits after their first year of college.

CGUII College Enrollees on Track to Graduate by Institution Type Compared to Statewide Graduation Data



Impact of Concurrent Enrollment and CLEP on College Matriculation and Persistence

Concurrent Enrollment

In the world of pre-collegiate programs good results are typically anecdotal and are not replicable across a wide sample. CGUII is unique in that it has documented results based largely on utilizing concurrent enrollment, College Level Examination Program (CLEP) testing and other innovative and non-traditional methods. Rather than just talk about the importance of college coursework in high school, the CGUII advisors enrolled participants from rural, urban, and suburban schools in college credits. Eighty-six percent of all CGUII student enrollments culminated in an earned grade of “C” or higher and over 96% of the CGUII cohort earned college credit while in high school. Of the participants currently in college, each earned an average of 13 concurrent enrollment credits. Concurrent enrollment was a significant aspect of the Colorado GEAR UP program, and its total enrollment accounted for a large percentage of statewide total enrollments. While the Colorado GEAR

¹⁶ Colorado GEAR UP II database (2012).

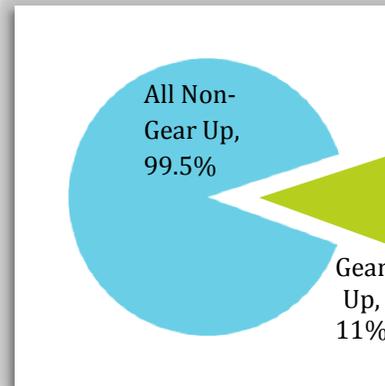
¹⁷ Colorado Student Unit Record Data System. (2012). <http://higher.ed.colorado.gov/Publications/Reports/Enrollment/FY2010/2010_GradRates.pdf>.

UP student population only accounted for .5% of the statewide population, the concurrent enrollments for Colorado GEAR UP students accounted for 11% of the total statewide concurrent enrollments¹⁸.

Fall 2010, Colorado 9-12 Grade Population



Fall 2010, Statewide Concurrent Enrollment



Recent research using the 1988/2000 National Education Longitudinal Study (NELS) and the Post-secondary Educational Transcript Study: 2000 (PETS) has shown that students who participated in dual enrollment programs are 11% more likely to persist through the second year of college, 12% more likely to enter college within seven months of high school graduation, and those who complete 20 or more credits in the first year of college were 28% more likely to persist through the second year in college.¹⁹ Additionally, the U.S. Department of Education concludes that students who complete over 20 credits by the end of their first year of college are more likely graduate with a degree, stating that students who enter college with 12 earned college credits have established momentum toward postsecondary degree attainment.²⁰

These studies analyzed data from numerous types of credit-based transition programs including programs with numerous structures and interventions in place to assure students are supported, to standalone courses with no additional support provided by the secondary or postsecondary school. While there is value in students earning college credits through standalone courses they take in high school, CGUII proved through college matriculation and retention data that a structured program with dedicated staff and planned interventions can impact students' self-perceived abilities to attend and graduate from a postsecondary institution.

CLEP

College Level Examination Program (CLEP) tests allow students to earn college credits within areas that they have prior knowledge or coursework. Historically, CLEP has been used by students

¹⁸ Colorado Department of Higher Education. (2012). <http://highered.colorado.gov/Publications/Reports/Enrollment/FY2011/201011_Concurrent_Summary.pdf>.

¹⁹ Swanson, J. (2008). An Analysis of the Impact of High School Dual Enrollment Course Participation on Post-secondary Academic Success, Persistence and Degree Completion . Iowa City, IA: University of Iowa, College of Education

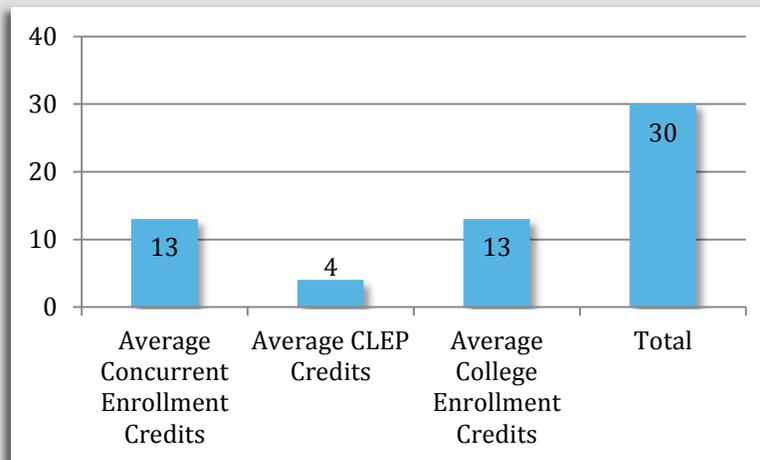
²⁰ U.S. Department of Education. (2006). The Toolbox Revisited: Paths to Degree Completion from High School through College. Washington D.C.: U.S. Department of Education

transferring from a postsecondary institution, or by individuals with prior knowledge/experience in a given field through employment or military service. Colorado GEAR UP in partnership with the College Board offered the Spanish Language CLEP test and some subject tests to participants. Students are able to earn up to 6 credits for a score of 50 or better on the test or up to 12 credits for a 63 or better on the test.

Utilizing CLEP exams not only saves students' time in college but it also saves them money in tuition and fees. CGUII students who are second language learners and fluent in Spanish took the Spanish Language CLEP exam. Many of the Hispanic/Latino students in CGUII were also English Language Learners. The exam gave them an opportunity to turn their knowledge into college credits. Additionally, these students' struggles with English forced them into language interventions. For the first time, their knowledge of a language, Spanish, was celebrated and provided them a leg up on their peers who were not versed in a second language.

Thirty-nine percent of CGUII students completed the test successfully and were eligible to receive credit through their institution. However, the decision to transcribe CLEP credit is made by the credit-receiving institution, and many do not accept CLEP. Thirty-three percent received credit, with 10% receiving 6 credits and 23% receiving 12 credits (for an average of 4 CLEP credits overall).

CGUII College Enrollees Average Credits Earned By Category



Impact

When adding the average of all credits completed by CGUII college enrollees (13 concurrent enrollment credits, 4 CLEP credits, and 13 college year one credits), CGUII students average 30 credits earned by the end of their first year of college, exactly the number of credits they would be expected to have for on-time graduation. Concurrent enrollment course completion and successful CLEP testing have an impact on college enrollment and persistence. Regarding postsecondary enrollment, it shows colleges that students are ready to succeed. Historically, low-income and first-generation students score considerably lower on standardized tests than their counterparts, as highlighted by the average CGUII composite ACT of 17 compared to 19 statewide. Earning college

credit and receiving a passing grade for these courses while in high school is a strong indicator of post-secondary readiness that more colleges are beginning to take into consideration. The more students that have concurrent enrollment credits and become successful in college, the more it will help break down the outdated notions of only using grade point averages and standardized testing as success indicators.

There is more of a direct relationship between credits earned through concurrent enrollment/CLEP testing and postsecondary persistence. At many institutions, these credits are used in factoring grade point averages, which academic warning levels students fall within, and probation categorization. A student who earns a 1.4 college year one GPA may be placed on academic probation, while a student who also earned a 1.4 GPA in year one college classes but brought in concurrent enrollment/CLEP credit may not be placed on probation due to a higher average GPA. This can impact students' ability to register for courses, ability to stay in residence halls, eligibility for specific academic programs, and may negatively impact the awarding of financial aid.

Cost-Benefit Analysis

Based on the number of CGUII students who graduate high school, progress into postsecondary degree programs, persist through their first year, and are on time to graduate, a cost-benefit analysis can be completed to understand the value of the Colorado GEAR UP program. This cost benefit analysis, see table below, of the GEAR UP program takes into account the total costs associated with running the program over 6 years, the number of participants that will graduate from college with an associates or bachelor's degree and the additional taxes, including federal income, Social Security, Medicare, state and local income, sales, and property, that these participants will pay throughout a 40 year work life compared to taxes paid by high school diploma earners.

Costs are fixed at the level the grant was funded at which was \$21 million over 6 years. \$10.5 million was spent on operating costs which included salaries and benefits, materials and supplies, concurrent enrollment tuition and fees and charges for all other programmatic activities. The other \$10.5 million was spent on college scholarships for participants, with each student receiving up to \$10,000.

The economic benefits of the GEAR UP program can best be measured by the impact the program has on the number of students that attain a college degree and the additional taxes that their additional earnings will generate over their lifetime in the work force. Studies have shown that the taxpayer benefit from high state and federal income taxes paid on the higher salaries earned by college graduates varies from \$60,000 to \$740,000 in additional income taxes paid over the work life of the graduate, depending on the selectivity of the college attended and the level of degree earned. For this cost benefit analysis, the conservative estimate of \$88,000 for associates degree earner and \$236,000 for bachelor's degree earners in lifetime taxes paid was used. These figures were derived from the CollegeBoard's Education Pays 2010 report which used IRS and U.S. Census data to determine the median earning and tax payments of different degree earners. The

analysis also estimates conservatively that 56% of CGUII students will graduate with an associates and that 32% of students will graduate with a bachelor’s degree.

GEAR UP Cost Benefit Analysis

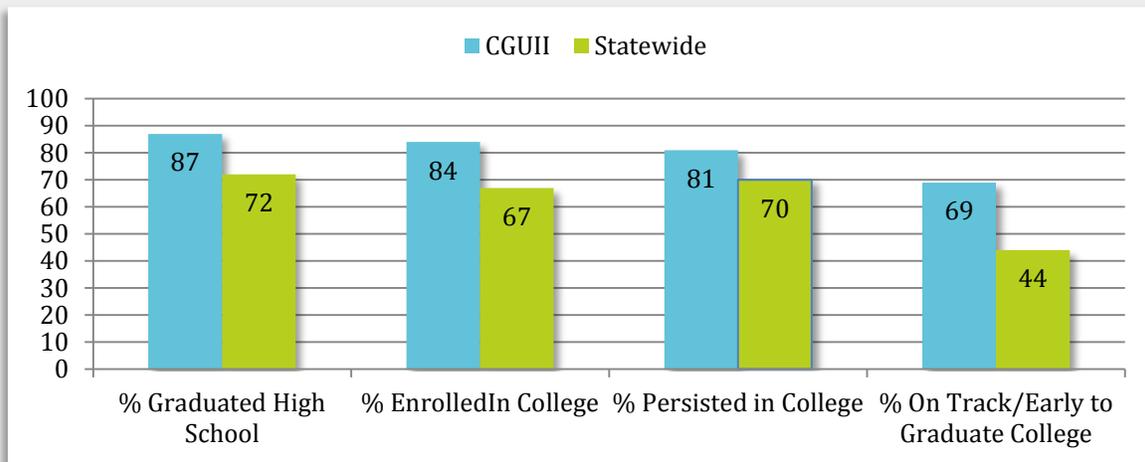
Total Cost of Program			
Operating Funds	\$10,500,000		
Scholarship	<u>\$10,500,000</u>		
Cost over 6 Years	\$21,000,000	Cost per Year	\$3,500,000
Economic Benefits			
Additional Lifetime Taxes Paid by Associates Degree Holders			\$88,000
Additional Lifetime Taxes Paid by Bachelor's Degree Holder			\$105,000
Estimated CGUII Associates Degree Earners/ Bachelor’s Degree Earners			315/367
Additional Taxes Paid by CGUII Associates Earners			\$27,720,000
Additional Taxes Paid by CGUII Students Over Lifetime			\$86,612,000
Less Cost of GEAR UP Program			<u>-\$21,000,000</u>
Total Benefit of GEAR UP II Program Over 40 Years			\$93,332,000
Present Value of Program's Lifetime Benefit Less Costs			
(Discount Rate of 7%, 40 years of Earnings)			\$6,232,747

This analysis indicates that GEAR UP participants that receive a college degree will pay nearly \$115 million in taxes over their work-life beyond what they would have paid if they had only graduated from high school. Subtracting the total cost for the GEAR UP program and calculating a present value of these payments using a 7% discount rate over an estimated 40 year career span results in the benefit of the program equaling around \$6.2 million in today’s dollars. This means that if the option was given to either fund the GEAR UP program or not, the decision to fund the program would yield \$6.2 million dollars in present value. These calculations do not include the impact of non-economic social impacts of a more educated populace, such as lower crime rates, higher home ownership rates, better health, and increased civic responsibility.

Conclusion

Despite CGUII serving much larger percentages of at-risk students than Colorado averages and participants lagging behind statewide CSAP test data and ACT Composite scores, CGUII students beat every statewide average regarding student success outcomes. More CGUII students graduate high school, enroll in college, continue in college through their first year, and are on track to graduate college on time than their peers.

CGUII Cohort Outcomes Compared to Statewide Data



GEAR UP III: Basic Skills Education Courses

According to the Education Commission of the States (ECS), half of the students arriving on two-year campuses in the U.S. require remediation, while about 20% of students enrolling at four-year institutions require remediation.²¹ In Colorado, 58% of recent high school graduates entering a two-year institution need remediation, and 21% of four-year enrollees required remediation, totaling 32% for the state. The estimated costs to the state and estimated tuition costs to the student for remedial courses amount to approximately \$46.5 million in FY2010-11. The financial cost, the impact on momentum toward graduation, and the added time for students to complete remedial courses is too high. Estimates regarding the cost of remedial education to colleges and universities in the United States run anywhere between \$1 billion and \$2 billion per year, and approximately \$700 million annually to students and families²².

Statewide, of students that enter a four-year institution needing any remediation, only 9% graduate in four years. Sixteen percent who need any remediation graduate from a two-year institution in two years²³.

During CGUII, students in partner high schools enrolled in math and English basic skills courses, also known as developmental or remedial education courses. The courses were implemented to increase student aptitude up to college level as determined by the Accuplacer test. Accuplacer is used by the Colorado Community College System to determine if a student begins college in remedial coursework in English, math or reading. Based on test results, students are placed in one of three levels of remedial coursework, or into a college-level course. Through completion of these courses in high school, it is hoped students will test into college level courses in English, math and reading, thus saving them tuition for below college-level enrollment. Within CGUII, 140 students enrolled in remedial math or English courses. Eighty-two percent of these enrollments ended with students passing and either being done with remediation in that subject or ready to begin the next level.

Implementation of basic skills courses has been ramped up within the GEAR UP III grant. In the first year of the new grant, 52 8th grade students were selected within a pilot district to enroll in a math basic skills course. These 52 students were all below grade level in math based on CSAP results. The course is an intervention with students also enrolled in a grade level math class. They utilize mobile lab computers to complete a trajectory of three classes. Students are assessed, and it is determined in which level they should begin and what areas of that course they have already mastered. The courses are self-paced.

The teachers are math teachers or math interventionists, and they work one-on-one with students who need help in a certain area or who are in need of motivation to continue. Teachers do not offer group instruction. This is juxtaposed to a typical classroom where a teacher offers a lesson to the full room of students. Part of the class is bored because they are well beyond the material, part are lost because they

²¹ Education Commission of the States. (2012). *Getting Past Go: Accountability and Continuous Improvement in Remedial Education*. Denver, CO: Education Commission of the States.

²² Handel, S. and Williams, R. (2011). *Reimagining Remediation: Creating First Chances for Second Chance Students*. <<http://advocacy.collegeboard.org/sites/default/files/remedial-education-072411-ah-sjh-4.pdf>>.

²³ Colorado Student Unit Record Data System. <http://highered.colorado.gov/Publications/Reports/Remedial/FY2011/2011_Remedial_relfef12.pdf>.

did not understand the lessons prior to the one currently being taught, and part are learning at the same pace at which the teacher is teaching. Within the GEAR UP III pilot, as every student is working within a different section of the software at their own speed, each student is being challenged every class period.

The program has two administrative providers, ALEKS for math curriculum, and Adams State College who offers a program manager and transcription of credit. The courses are equivalent to the community college Math 030, 060, and 090 remedial classes. To begin introductory math at a college in Colorado, students must either complete one to three of these remedial courses, score high enough on the ACT, or score high enough on the ACCUPLACER test. Once a course is completed, a student can provide a transcript to any Colorado college to assure they do not have to retake the section.

Twenty-four of 52 students completed one course within their first year enrollment, with an additional 16 students set to complete the course within the first three weeks of the next semester. 1 student completed two courses within the enrollment year. All 52 students will continue in the program during their 9th grade year at their high school. The model will offer the courses through senior year to this group unless they all complete the three courses before then.

Ten to 14 additional middle and high schools have signed on to implement the program beginning next semester. Non-GEAR UP districts are in conversations with GEAR UP for potential implementation as well.



Appendix A: CGUII Services

Rigorous Coursework. The Colorado Department of Higher Education (CDHE) has established state-wide admissions standards for undergraduate students. These standards, known as the Higher Education Admission Requirements (HEAR), consist of four years of math with algebra I and II and geometry or equivalent required, four years of English, three years of natural science, three years of social studies, one year of foreign language, and two years of academic electives. To reduce the need for remedial education at the postsecondary level, CGUII students fulfilled HEAR and received the support needed to meet these rigorous standards.

Intensive Remediation. Students assigned to remedial courses are more likely to drop out of college. In Colorado, over 40% of 2003–04 high school seniors who had enrolled in postsecondary education by 2006 required remediation. Colorado GEAR UP addressed remediation directly through early assessment and course placement for every student prior to high school graduation to reduce the need for remedial education at the postsecondary level.

Concurrent Enrollment. CGUII provided students with concurrent enrollment programming so they could graduate from high school with a minimum of five college courses completed. Concurrent enrollment programming provided students with opportunity to establish and build college and career aspirations, eased fears of college by way of achieving early successes in college course completion, provided a jumpstart in degree or certificate attainment, and saved students and their families' money.

College Level Examination Program (CLEP). CLEP, offered through the College Board, allowed students who excelled in specific subject areas the ability to take an exam and earn college credit. Students who earned qualifying scores received up to 12 college credits. Utilizing CLEP exams not only saved students time in college but it also saved them money in tuition and fees. CGU students who are second language learners and fluent in Spanish took the Spanish Language CLEP exam. With large percentages of English Language Learners enrolled in the proposed participating schools, the language exams gave these students an opportunity to turn their knowledge into college credits. Students who excelled in academic subject areas also took CLEP exams. This strategy provided students with early success in earning college credits and it created a pathway to postsecondary education.

Tutoring. To increase secondary school completion, middle school students received intense tutoring in reading, writing, and math to help prepare them for high school and bring them to grade level in order to complete pre-algebra by the end of 8th grade, complete algebra by the end of 9th grade, increase grade point averages and increase grade level completion. CSPA scores and grades were used as a benchmark and to measure academic progress. Tutors were placed in classrooms to help augment instruction and provide additional support. Tutors were also available to assist students in a one-on-one setting. Additionally, CGU provided tutoring for high school math and English courses as well as remediation and concurrent enrollment courses. Tutors were highly qualified in the subject area and provided services at the middle school and high school during the school day.

Mentoring and Support Services. Yazzie-Mintz (2010) notes that a connection to at least one adult significantly influences students' decisions to remain in school and be engaged within the school's

learning environment.²⁴ Pre-collegiate Advisors (PCA) provided intense case managing and mentoring by meeting with students in a one-on-one setting once a month in effort to increase secondary school completion. Mentoring focused on academic and social-emotional needs with an emphasis on college and career readiness. PCAs collaborated with school and community resources to provide direct mentoring services for students. PCAs tracked academic progress and attendance including progress made in remedial and college coursework on a weekly basis. An academic intervention plan—a customized plan of improvement tailored to a student’s specific needs—was developed for students who are not making academic progress or for students who were having attendance issues. Students assigned to an academic intervention plan were monitored closely and will meet with their PCA on a weekly basis. PCAs served as an advocate and liaison between students, parents, administrators, counselors, college instructors, teachers and other school resources until improvements were made. Academic progress and attendance was measured by report cards, transcripts, and attendance records. Students who lack high school credits were placed into online credit recovery programs. PCAs collaborated with credit recovery instructors and monitor and support progress. Additionally, PCAs provided students with academic success strategies by training and providing students with test taking skills, study practices, homework habits, goal setting, time management, note taking, and conflict resolution.

Postsecondary Preparatory Activities. Research demonstrates that low-performing students score higher on the American College Test (ACT) after participating in college preparation activities.²⁵ To increase the percentage of students enrolling in college, CGU offered age-appropriate activities for 8th–12th grade students that helped participants prepare and apply for college. The CGU model provided students with college exposure, exploration, and experience opportunities. CGU designed a postsecondary readiness curriculum that encompassed college preparatory activities, career exploration, and study skills. Postsecondary preparatory activities were conducted on a monthly basis in a workshop setting along with one-on-one follow up sessions.

Postsecondary Readiness Workshops. PCAs facilitated workshops to provide students with information about college options including the value of a college education, college terminology, types of colleges, types of degrees and programs, entrance requirements, testing and assessments, college research, and affordability. Students completed an online college portfolio developed by CGU which helps them plan their high school education to meet higher education requirements, compare colleges, apply to colleges online, learn about financial aid, write a personal statement, and track their academic progress and high school activities. All students applied to a minimum of three colleges if eligible. CGU used the state’s student enrollment data to measure college enrollment rates.

Career Planning Workshops. In collaboration with the CDHE, CGU supported the Individual Career and Academic Plan (ICAP) policy to help decrease dropout rates and increase graduation rates by assisting students in developing a personalized postsecondary plan that will prepare students for

²⁴ Yazzie-Mintz, E. (2010). Leading For. June 10, 2011. <[http://www.indiana.edu/~ceep/hssse/images/Yazzie-Mintz%20Principal%20Leadership%20 March%202010.pdf](http://www.indiana.edu/~ceep/hssse/images/Yazzie-Mintz%20Principal%20Leadership%20March%202010.pdf)>.

²⁵ Haycock, K., Jerald, C. and Huang, S. (2001). Closing the Gap: Done in a Decade. Thinking K- 16. Washington D.C.: The Education Trust.

postsecondary and workforce success. The plan involved both students and parents in exploring postsecondary career and educational opportunities.

Financial Aid Counseling. To increase the knowledge and access to financial assistance for postsecondary education, CGU utilized services of expert partner agencies such as CollegeInvest. PCAs facilitated financial aid workshops and one-on-one sessions for students and their families on federal financial aid, savings plans, cost of attendance and packaging, college affordability, College Scholarship Service Profile, scholarships, grants, loans, work-study and avoiding financial aid scams.

CGU measured success in this area by the number of students and families who complete the Free Application for Federal Student Aid (FAFSA) and the FAFSA 4caster (for juniors). In 2011, 95% of CGU II high school seniors filed a 2011-2012 FAFSA and 100% of CGU II juniors in 2011 filed a FAFSA 4caster. Financial aid literacy was measured annually by the CGU student and parent survey. Additionally, CGU developed a scholarship database that was utilized by students and families to help them apply for a minimum of three scholarships.

Counseling. PCAs served as case managers, mentors and advocates for all students. Students participated in monthly one-on-one sessions to discuss academic progress, high school graduation, and college and career aspirations. Advisors utilized one-on-one time to conduct pre and post questionnaires to ensure students comprehend all college preparatory information. College preparatory information and the aspiration to graduate from high school and enroll in college was measured by the CGU survey yearly.

Summer Learning Program. In order to build sustainability into Colorado's pre-collegiate services, CGU collaborated with existing summer programs and also established new partnerships that provided academic support, career, and college preparatory activities for students. This included summer bridge programs, summer college courses, college visits, job shadows, internships, and community service activities. On average, 85% of CGU II students participated in summer programs.

Campus Visits. CGU participants visited a college campus annually to help develop positive self-efficacy and expose them to colleges' academic and cultural environments, including overnight stays for high school students. College visits included a tour and also a chance for students to audit a college class or shadow a college student.

GEAR UP Scholarship Fund. 50% of project funds (\$17.5 million) were used to award scholarships to eligible CGU students. The CDHE awarded CGU scholarships to full-time degree- or certificate-seeking students attending any public two or four year college. Accredited private postsecondary institutions were reviewed for consideration on a case-by-case basis. Student scholarships were awarded based on the Federal CGU criteria. In 2011, 100% of CGU II seniors who qualified for the CGU scholarship applied for a total of \$2,750,000 to be awarded out over six years.

Outreach and Parent Engagement. Each year CGU hosted a kickoff event to introduce students and parents to the CGU program. The kickoff event was a school-wide recruitment initiative that involved teachers, principals, and other key school personnel. Students attended an interactive presentation about the CGU program. Following the kickoff event, CGU held a one month recruitment period that consisted of evening workshops for parents (or legal guardians) in order to orient families with the program. CGU drove recruitment efforts and fill slots through weekly contests and incentives in order to receive

contracts back in a timely manner. The recruitment period not only drew students but also began to set the stage for a college-going culture.

Parents were required to attend all parent/teacher conferences and back-to-school nights and monthly parent meetings were held to engage parents in their child's college planning. Topics included supporting nightly homework; discussing their child's strengths and weaknesses based on the ACT EPAS program; and college affordability and financial planning. Parents were encouraged to become involved with the PTA and school accountability committees. PCAs helped the leaders of these agencies reach out to CGU parents. PCAs also provided updates on student progress and college preparatory information by telephone, email, and mail on a regular basis.

College Matriculation. To increase the number of students succeeding in postsecondary education, CGU established memorandums of understanding with two-year and four-year colleges and universities to help supplement college matriculation efforts. CGU provided students with CGU College Advisors to support college transition, retention programming, and support through students' first year of college. College Advisors had office space on partner college campuses and held regular office hours to provide mentoring and advising for students.

At the beginning of the students' first term, College Advisors provided a CGU college orientation to get acquainted with the program participants. During the orientation students made connections with other students by participating in team building activities and learning college survival tips and strategies. Students were required to participate in monthly workshops that provided study habits, time management, career planning, and how to navigate the college system. In addition to monthly workshops, each semester during the first year, students were required to meet with their College Advisor on a bi-weekly basis either during office hours, by phone, or online. In collaboration with college partners, CGU implemented an early alert system that helped students identify problems early. Students were provided with a resource guide, in addition to mentoring support from CGU College Advisors to get back on track.

CGU utilized technology and social media sites to stay connected and provide information to students including Facebook, Twitter, and customized YouTube videos. Additionally, College Advisors continued to provide students and family with financial aid counseling. Transition and retention efforts were measured by annual college enrollment rates and by college course completion.