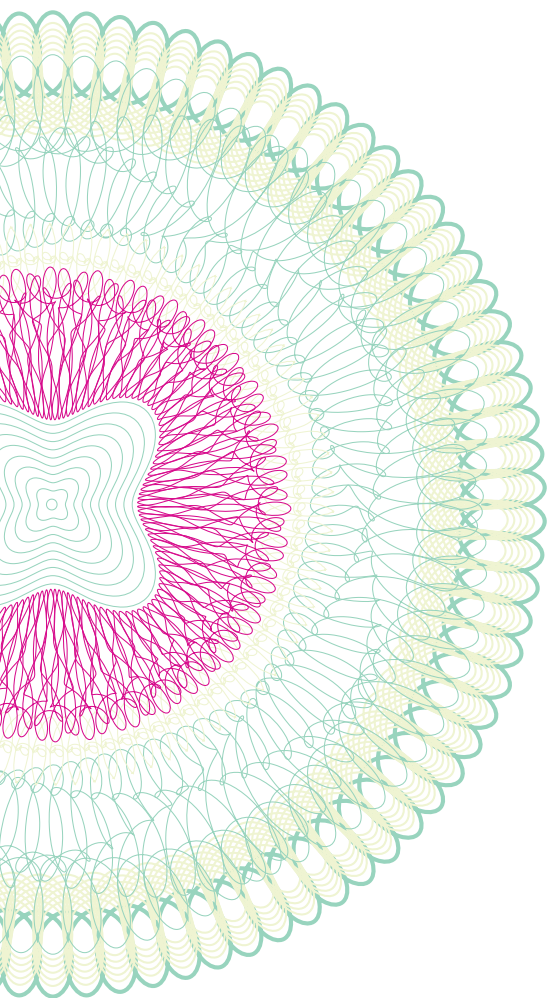


JULY 2015

Core Research Program: Student Baseline Data



GEAR UP COLLEGE AND CAREER READINESS
EVALUATION CONSORTIUM

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As part of its contribution to CCREC, ACT is leading the core research program, a longitudinal study of the effectiveness of fourteen GEAR UP state grants on the academic achievement, college going, and college retention of low-income and other at-risk students.

Introduction

Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) is a federal discretionary grant program designed to increase the number of students from low-income schools who are prepared to enter and succeed in postsecondary education.¹ The program provides six- or seven-year grants to states and local partnerships to provide services at middle schools and high schools that educate primarily low-income students.² GEAR UP has three broad objectives:

- Increase academic performance and preparation for postsecondary education.
- Increase the rate of high school graduation and participation in postsecondary education.
- Increase educational expectations and student and family knowledge of postsecondary educational options, preparation, and financing.

In order to better understand GEAR UP across programs, fourteen state GEAR UP grants funded in the 2011 or 2012 fiscal year (FY) award cycles have partnered with the National Council for Community and Education Partnerships (NCCEP) and ACT to form the College and Career Readiness Evaluation Consortium (CCREC). This research partnership focuses on the effectiveness of the fourteen state GEAR UP programs in meeting these three objectives.³ As part of its contribution to the consortium, ACT is leading two research efforts on behalf of CCREC:⁴

1. The core research program is a longitudinal study of the effectiveness of GEAR UP state grants on the academic achievement, college going, and college

retention of students who are eligible to receive grant-funded services, many of which are from low-income families or otherwise underserved. This research program will follow CCREC students and a matched comparison group of nonparticipants over time using assessment data from ACT Explore[®], ACT Plan[®] or ACT Aspire[®], and the ACT[®] test and college enrollment data from the National Student Clearinghouse (NSC) to examine differences in the academic growth and educational outcomes of these two groups.

2. The supplemental research program, addressed in more detail in other reports prepared for CCREC, is a study of the impact of good educational practices delivered through two commonly offered GEAR UP-funded services, tutoring and mentoring, on the academic achievement and noncognitive outcomes (e.g., academic self-confidence and commitment to school) of GEAR UP participants. Unlike the core research program, the supplemental research program is not intended to address the causal effect of GEAR UP. Instead, the supplemental research program intends to help consortium member states and other GEAR UP programs better understand the relationships between the structure and quality of services commonly offered by GEAR UP programs and the relationships among service structure and quality, academic achievement, and noncognitive outcomes.

This report focuses on the core research program, beginning with an overview.

Next, we provide descriptive data and narrative discussions on student background characteristics followed by baseline data on academic achievement, educational plans, and self-reported needs of the GEAR UP and comparison sample data. The comparison sample in this report will be used to construct a matched group for future analysis and reporting. The report concludes by identifying future reporting of the CCREC core research.

Core Research Program

ACT's longitudinal CCREC core research program will compare the academic growth, college-going rates, and college retention rates between a treatment group of students who were eligible to receive GEAR UP-funded services in the fourteen CCREC member states and a matched comparison group of low-income students who did not receive GEAR UP-funded services. Through this nearly decade-long study, we seek to provide a reasonable answer to the general causal question of interest to the core research program: Are students who are eligible to receive services funded by GEAR UP state grants better off educationally than they would have been in absence of that funding?

This report provides baseline information about the students eligible to receive GEAR UP services through the fourteen CCREC state GEAR UP grants and about students in a key comparison group. These comparisons of academic achievement levels between CCREC and non-GEAR UP low-income students provide the baseline information necessary for performing a longitudinal study on the relationship between academic outcomes and GEAR UP.

Baseline Primary Research Questions

The following research questions for the base year are not intended to address the causal effect of GEAR UP. Rather, they establish a baseline for estimating the effect of GEAR

UP and informing the selection of a matched comparison group for GEAR UP participants:

1. Among eighth graders who took ACT Explore during the 2012–13 or 2013–14 academic years,⁵ to what extent do CCREC students and non-GEAR UP low-income students differ with regard to their background characteristics?
2. To what extent do CCREC students and non-GEAR UP low-income students differ in their academic achievement levels in the areas of English, mathematics, reading, and science, as measured by ACT Explore?
3. To what extent do CCREC students and non-GEAR UP low-income students differ in being on track for college readiness, as measured by their attainment of ACT Explore Benchmarks in the areas of English, mathematics, reading, and science?
4. To what extent do CCREC students and non-GEAR UP low-income students differ in their high school and post-high school plans, as self-reported on ACT Explore?
5. To what extent do CCREC students and non-CCREC students differ with regard to their self-reported educational planning and academic skill needs?

Data Collection and Sample

Data Collection

ACT will collect all data supporting the core research program from one of four assessments (i.e., ACT Explore, ACT Plan/ACT Aspire, and the ACT) or from its partnership with NSC.⁶ Over the course of this longitudinal study, five separate data collections will occur. The first collection will take place in the base year in eighth grade (ACT Explore), and there will be four follow-up data collections: in tenth grade (ACT Plan or ACT Aspire), in eleventh and/or twelfth grade (the ACT), in the first year of college (NSC), and in the second year of college (NSC).⁷

Among the CCREC members states, nine were awarded grants in FY2011 and five were awarded grants in FY2012 (see appendix table A1). Due to these different funding years for member states, the core research program follows, longitudinally, two waves of students. This report presents combined findings on those students from both data collection waves (i.e., 2012–13 and 2013–14) when students were in the eighth grade.⁸

CCREC Study Sample

The sample for the core research program comprises those students in the fourteen CCREC member states eligible to receive GEAR UP services prior to taking ACT Explore in the eighth grade. Nine CCREC member states are administering either a cohort-only program model or a blend of cohort and priority student program models (see appendix table A1).⁹ Within these states, the core research program follows those students initially assigned to GEAR UP under the cohort model. Four states are administering a priority-only program model, but assignment of students to GEAR UP services under these models varies across the states. Given the focus of the core research

program on the academic growth, educational plans, and eventual college enrollment and retention of students assigned to receive GEAR UP services, priority students are incorporated into the longitudinal design by including those students who are served across years and fit into the “cohort” structure where they received GEAR UP services before taking ACT Explore in eighth grade. Although this approach excludes a number of priority students because they are outside the cohort structure included in the study, the focus of the core research program is on understanding the benefits of GEAR UP on those students who were eligible to receive the services over the full course of the grant (grades 7–12) as they matriculate through middle and high school.

For the baseline, data collection took place with the administration of ACT Explore in the 2012–13 and 2013–14 academic years, depending on the year students took the assessment. In total, 41,588 students who were eligible to receive GEAR UP services across 365 schools in fourteen states took ACT Explore (see table 1). Just under half of these students were from Kentucky, Tennessee, or Oklahoma.

Table 1. Number of CCREC Schools and Students Identified in ACT Explore Research Data File

State	Schools	Students	Percent of total students
Arizona	22	3,047	7.3
Idaho	28	4,430	10.7
Kentucky	30	7,448	17.9
Minnesota	7	939	2.3
Montana	19	1,451	3.5
Nevada	19	2,342	5.6
New Mexico	13	1,444	3.5
North Carolina	24	3,913	9.4
Oklahoma	24	5,935	14.3
Tennessee	61	6,518	15.7
Utah	9	236	0.6
Washington	30	3,191	7.7
Wisconsin	14	321	0.8
Wyoming	65	373	0.9
Total	365	41,588	100.0

Comparison Group

Excluding Non-CCREC GEAR UP Students

To identify students who were potentially receiving GEAR UP services funded by a grantee other than the fourteen CCREC state grantees (“non-CCREC GEAR UP students”), the Consortium requested a data file from the US Department of Education that provided a list of schools participating in GEAR UP as reported by grantees in their 2013 and 2014 Annual Performance Report submissions. After removing CCREC schools from this list, ACT matched the remaining schools against ACT Explore test records for the 2012–13 and 2013–14 school years to identify potential non-CCREC GEAR UP students. Students at identified non-CCREC GEAR UP schools were excluded from the study to ensure that CCREC GEAR UP students were not being compared to students in other GEAR UP programs. Thus, the final comparisons are between students in GEAR UP CCREC schools and students in non-GEAR UP schools.

Including Non-GEAR UP Students

All ACT Explore-tested students in public schools not identified as being served by CCREC or non-CCREC GEAR UP were considered non-GEAR UP students for the purposes of this study. Non-GEAR UP students were subdivided into two groups by the percent of students at the school who were eligible for the federal free or reduced-price lunch program. Students attending a non-GEAR UP school with a free and reduced-price lunch rate of less than 50%, referred to as non-GEAR UP high-income students, were excluded from the study. Students attending a non-GEAR UP school with a free and reduced-price lunch rate of 50% or higher, referred to as non-GEAR UP low-income students, make up the comparison group. Students in the comparison group are from 4,538 schools located across 41 states (see table 2).

For future analysis and reporting, a matched-comparison group will be constructed from the non-GEAR UP low-income comparison group used in this baseline report.

Baseline Findings

Background Characteristics

The ACT Explore data include information about students' demographic, socioeconomic, and educational backgrounds. This report section compares CCREC and non-GEAR UP low-income students' background characteristics.

Gender

There were equal percentages of females (50%) and males (50%) among CCREC students taking ACT Explore. Among students attending non-GEAR UP low-income schools, however, there was a slightly larger percentage of students reporting their gender as male (51%) than as female (49%).

Race/Ethnicity

Compared to non-GEAR UP low-income students, a larger percentage of CCREC students reported they were American Indian, Hispanic, White, or two or more races; a smaller percentage were African American, Asian, or Pacific Islander (see table 3). The largest percentage-point differences between the groups were in the percent who reported they were African American (13 percentage points) or White (5 percentage points).

State of Residence

CCREC students were located within the fourteen participating member states. Roughly half of all CCREC students were concentrated within three states—Kentucky, Oklahoma, and Tennessee (see table 4). An additional quarter of CCREC students were located within three additional states—Idaho, North Carolina, and Washington. Compared to CCREC students, students in the non-GEAR UP low-income comparison group represented a larger number of states, and these students were more widely distributed across the states. However, roughly half of all non-GEAR UP low-income students were concentrated within six states (Alabama, Illinois, Louisiana, Michigan, North Carolina, and Tennessee).

Table 2. Number of States, Schools, and Students across Baseline Comparison Groups

	CCREC	Non-GEAR UP low income
States	14	41
Schools	365	4,538
Students	41,588	888,053

Table 3. Percent of Students by Race/Ethnicity

Race/Ethnicity	CCREC (N = 41,588)	Non-GEAR UP low income (N = 888,053)
African American	10	23
American Indian	5	2
Asian	1	2
Hispanic	18	16
Pacific Islander	0.3	0.8
White	49	44
Two or more races	4	2
Prefer not/no response	12	11

Table 4. Percent of Students by State of Residence

State	CCREC (N = 41,588)	Non-GEAR UP low income (N = 888,053)
Alabama		8.3
Arizona	7.3	4.0
Arkansas		4.9
California		0.6
Colorado		1.0
Delaware		0.03
Florida		0.3
Georgia		0.3
Hawaii		1.5
Idaho	10.7	0.1
Illinois		5.8
Indiana		1.0
Iowa		1.0
Kansas		1.1
Kentucky	17.9	5.0
Louisiana		7.7
Maryland		0.01
Michigan		5.9
Minnesota	2.3	1.2
Mississippi		0.5
Missouri		2.6
Montana	3.5	0.01
Nebraska		0.4
Nevada	5.6	0.03
New Jersey		0.5
New Mexico	3.5	0.2
New York		0.1
North Carolina	9.4	13.2
North Dakota		0.0
Ohio		2.8
Oklahoma	14.3	5.1
Oregon		0.8
Pennsylvania		0.1
South Carolina		4.9
Tennessee	15.7	8.1
Texas		5.8
Utah	0.6	1.8
Virginia		0.4
Washington	7.7	0.1
West Virginia		2.7
Wisconsin	0.8	0.6
Wyoming	0.9	0.0

Parents’/Guardians’ Education Level

A slightly larger percentage of CCREC students than non-GEAR UP low-income students had parents or guardians with no postsecondary training or education (see figure 1). Between both student groups, roughly seven out of ten students have parents or guardians who have not earned a bachelor’s or graduate-level degree, although roughly one out of three students have parents or guardians who have earned some postsecondary training or education below a bachelor’s degree.

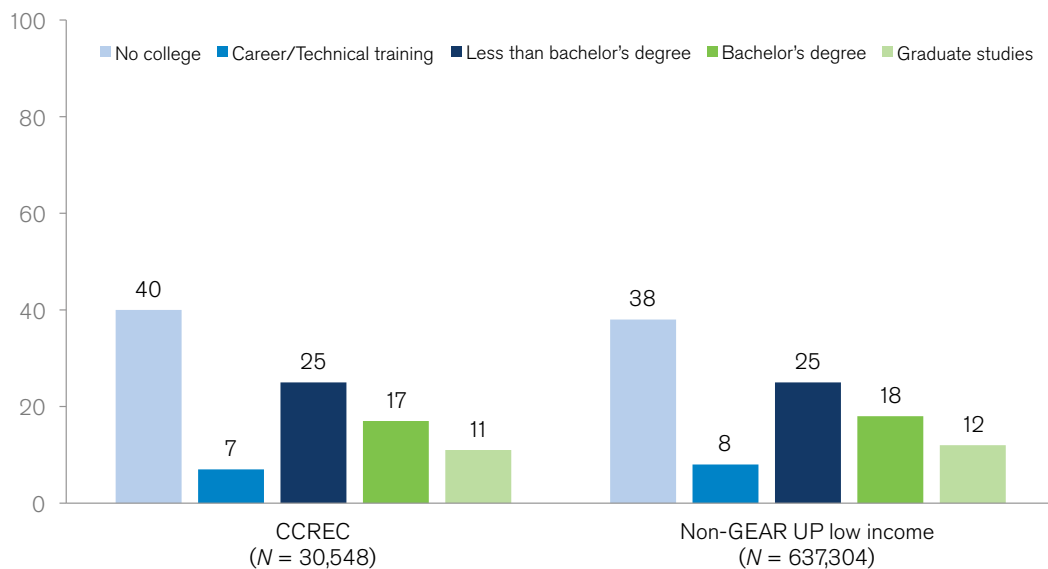
Special Status Codes

Each ACT Explore answer folder includes a section for identifying the test records of students with particular characteristics for subgroup analysis. This section is completed by the test supervisor after students have finished testing and therefore indicates official school designations for the student as opposed to student self-reported information. Each special

status code has its own response field, and supervisors are instructed to mark all fields that apply. Although a marked field indicates the student has been assigned that special status by the school, the absence of a mark in a field does not necessarily imply that the student does not have that special status. Not all schools complete this section of the answer folder, so it is difficult to distinguish between the absence of a special status and school nonresponse.¹⁰ The comparative information provided in this section should therefore be interpreted with this caveat in mind.

About one out of three CCREC students and non-GEAR UP low-income students were reported to receive free or reduced-price lunch (see table 5). Unlike students in the comparison group, a far larger percentage of CCREC students were designated as receiving Title I math or reading services—a difference of 13 percentage points between the two groups for both subjects.

Figure 1. Percent of Students by Parents’/Guardians’ Education Level



Note: Parent/guardian education level data are reported by students.

Academic Achievement

As previously mentioned, base year comparisons of academic achievement levels among CCREC students and non-GEAR UP low-income students are not intended to address the causal effect of GEAR UP. Instead, this report establishes a baseline for estimating the effect of GEAR UP over time and inform the selection of a matched non-GEAR UP comparison group. These baseline data will be used in subsequent data collection periods to estimate the causal effect of GEAR UP.

Average ACT Explore Scores

The score scale for each ACT Explore subject test and the Composite score ranges from 1 to 25. As shown in table 6, mean ACT Explore scores for CCREC students and students in the non-GEAR UP low-income comparison group were not statistically significantly different.

ACT Explore Readiness Benchmarks

The ACT College Readiness Benchmarks for ACT Explore were developed using large data sets of students who had taken ACT Explore, ACT Plan, and the ACT. First, the probabilities at each ACT Explore and ACT Plan test score point associated with meeting the appropriate Benchmark for the ACT were estimated using logistic regression. Then, the ACT Explore scores in English, mathematics, reading, and science that corresponded most closely to a 50% probability of success at meeting each of the four Benchmarks established for the ACT were selected. The eighth-grade Benchmarks for ACT Explore, as updated in 2013, are a score of 13 for English, 17 for mathematics, 16 for reading, and 18 for science.¹²

Table 5. Percent of Students with School-Reported Special Status Codes¹¹

Status Code	CCREC (N = 41,588)	Non-GEAR UP low income (N = 888,053)
Special Education	7	11
Limited English Proficiency	3	3
Free/Reduced Price Lunch	31	31
Title I Math	21	8
Title I Reading	21	8

Table 6. Adjusted Mean ACT Explore Scores

Subject test	CCREC (N = 41,588)	Non-GEAR UP low income (N = 888,053)
English	13.4	13.4
Mathematics	14.5	14.6
Reading	13.7	13.7
Science	15.8	15.8
Composite	14.5	14.5

Note: Mean ACT Explore scores were adjusted by test date using ordinary least squares regression to account for academic growth over the span of the academic year.

The same percentages of CCREC and non-GEAR UP low-income students met or exceeded the ACT Explore Benchmarks in all subject areas but English (see figure 2). A slightly larger percentage of comparison group students (54%) than CCREC students (52%) met or exceeded the ACT Explore Benchmark in English.

About two out of three CCREC students and students from non-GEAR UP low-income schools met or exceeded one or fewer ACT Explore Benchmarks, whereas about one out of four students in either group met or exceeded the benchmark in three or more subject areas (see figure 3). A slightly larger percentage of CCREC students (43%) than non-GEAR UP low-income students (41%) did not meet any of the ACT Explore Benchmarks.

Self-Reported Grades

Students may self-report their academic performance in each subject area over the previous and current academic year at the time they take ACT Explore. Table 7 provides the percentage of students in the CCREC and the non-GEAR UP low-income groups who self-reported earning mostly As or Bs in each of the core subject areas. As seen in the table, a slightly larger percentage of CCREC students than non-GEAR UP low-income students reported earning mostly As or Bs in the areas of mathematics and natural sciences. However, less than half of all CCREC students (47%) and non-GEAR UP low-income students (45%) reported earning As or Bs in all four core subject areas.

Figure 2. Percent of Students Meeting or Exceeding ACT Explore Subject Area Benchmarks

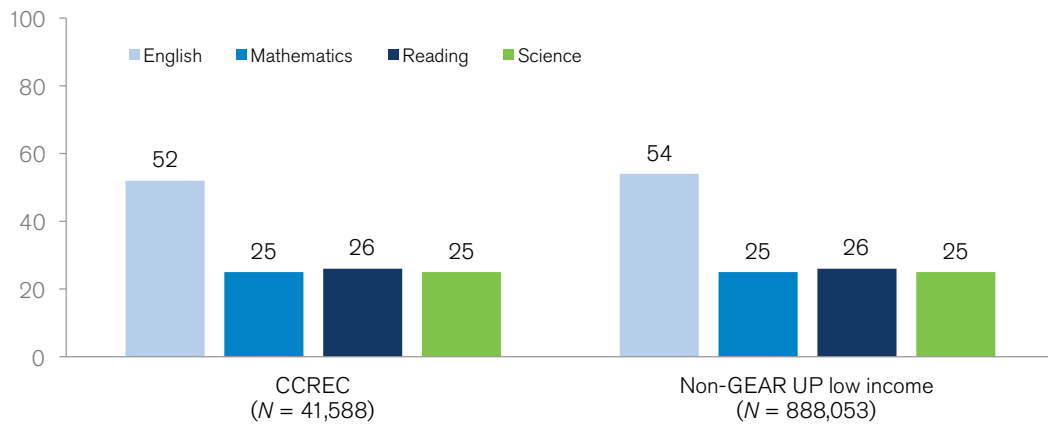
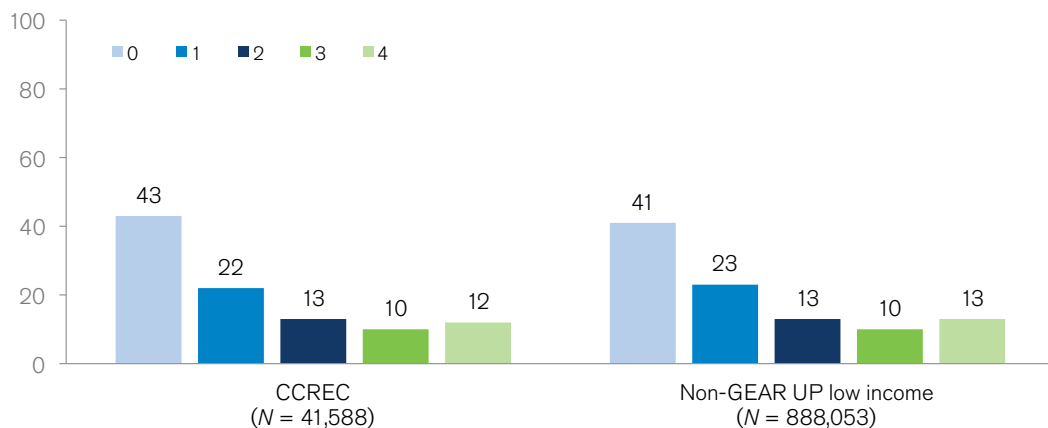


Figure 3. Percent of Students Meeting or Exceeding Number of ACT Explore Benchmarks



Educational Plans

Accelerated/Honors Course Taking

Students may indicate at the time they complete ACT Explore whether or not they have taken accelerated or honors courses. About one out of three CCREC students (32%) or non-GEAR UP low-income students (33%) reported participating in one or more accelerated or honors courses (see figure 4).

College-Preparatory Coursework

Roughly six out of ten ACT Explore-tested CCREC students (62%) indicated at the time they took the assessment that they planned to pursue a college-preparatory program of courses during high school (see figure 4). The same percentage (62%) of non-CCREC low-income students was planning to pursue such coursework.

Table 7. Percent of Students Who Reported Earning As or Bs by Subject Area

Subject area	CCREC (<i>N</i> = 38,943)	Non-GEAR UP low income (<i>N</i> = 817,841)
English	75	75
Mathematics	69	68
Social studies	73	73
Natural sciences	72	71
All four	47	45

Figure 4. Percent Taking Accelerated/Honors Coursework and Planning to Pursue a College Preparatory Curriculum

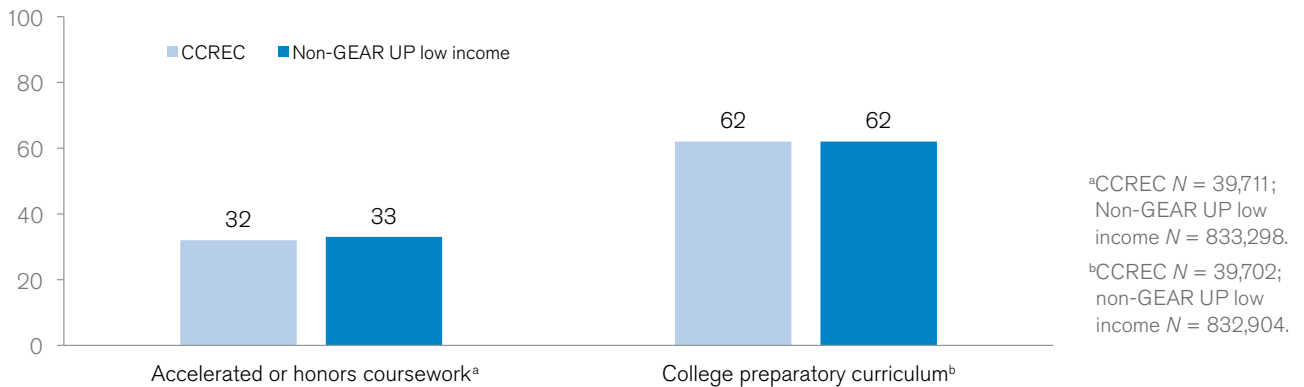


Figure 5. Percent of Students Planning to Pursue a College Preparatory Curriculum by Gender

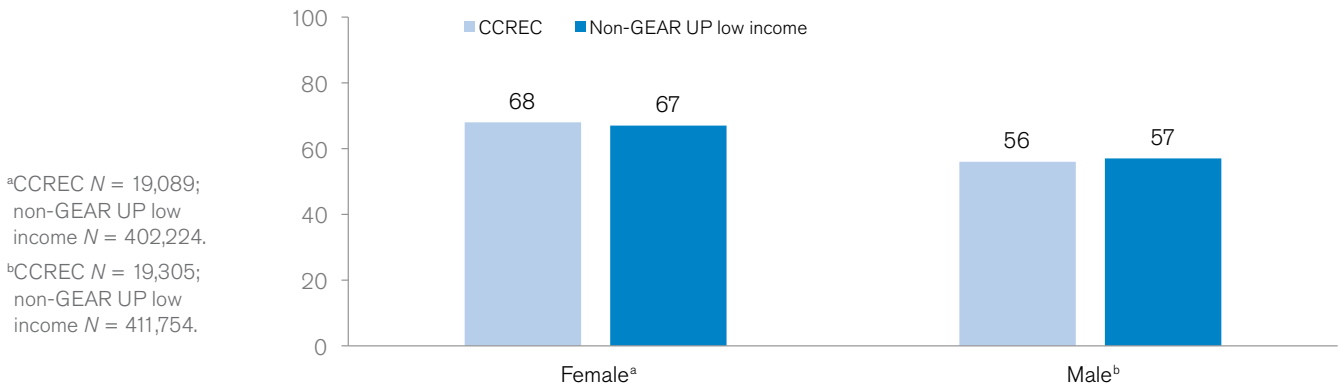


Figure 6. Percent of Students Planning to Pursue a College Preparatory Curriculum by Race/Ethnicity

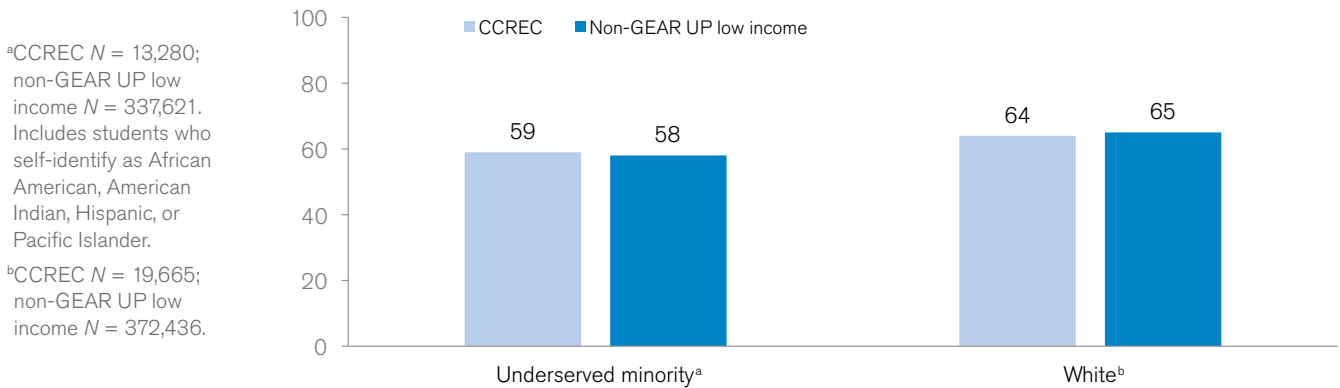
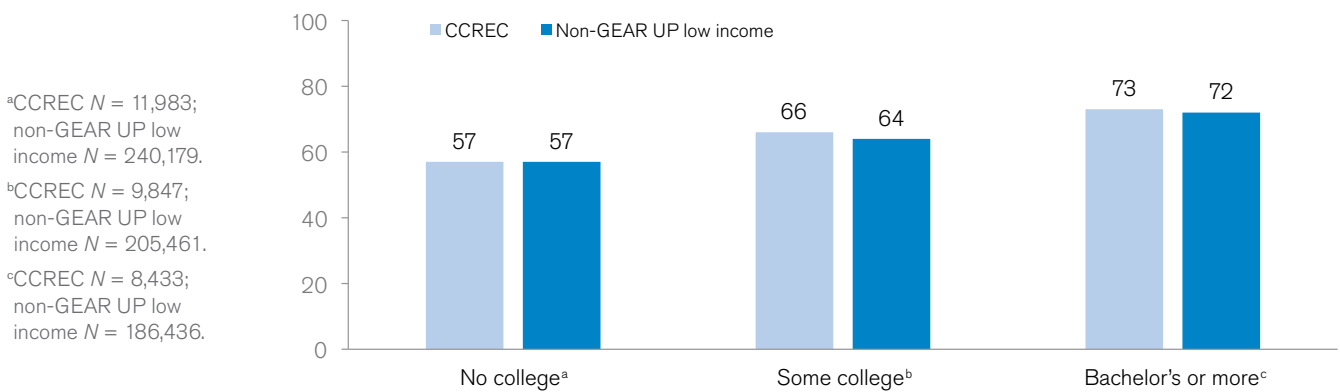


Figure 7. Percent of Students Planning to Pursue a College Preparatory Curriculum by Parent/Guardian Education Level



The percentage of students planning to pursue a college-preparatory program of courses during high school differed more by gender than by student group (see figure 5). Regardless of group, nearly seven out of ten female students planned to pursue a college-preparatory program, while fewer male students (by 10 to 12 percentage points) planned to do so.

White students were more likely to plan to pursue a college-preparatory program of courses during high school than were underserved minority students (i.e., African American, American Indian, Hispanic, or Pacific Islander students), regardless of student group (see figure 6). Underserved minority CCREC students were slightly more likely to plan to take a college-preparatory program than their underserved minority non-GEAR UP low-income peers, while White non-GEAR UP low-income students were slightly more likely to do so than White CCREC students.

The percentage of students planning to pursue a college-preparatory program of courses during high school differed more by parent/guardian

level of education than by student group (see figure 7). Larger percentages of students whose parents or guardians had higher levels of education planned to take a college-preparatory program than did their peers. Differences between CCREC and non-GEAR UP low-income students based on parent/guardian level of education were small (1 to 2 percentage points).

ACT-Recommended Core Curriculum

The core curriculum ACT recommends consists of four years of English and three years each of mathematics, science, and social studies. The benefits to students of taking a suitable number of core preparatory courses in high school have been documented by ACT research.¹³

As compared to non-GEAR UP low-income students, comparable percentages of CCREC students planned to take the ACT-recommended years of coursework in the areas of mathematics and English; a smaller percentage of CCREC students planned to take the ACT-recommended years of coursework in social studies and the natural sciences (see table 8). Only about

Table 8. Percent of Students Planning to Take the ACT-Recommended Years of Coursework in Specific Subjects

Subject area (years)	CCREC (N = 39,124)	Non-GEAR UP low income (N = 822,623)
English (4)	44	42
Mathematics (3+)	55	55
Social studies (3+)	41	43
Natural sciences (3+)	48	49
ACT-recommended core	28	30
Female ^a	29	31
Male ^b	27	29
Underserved minority ^c	25	24
White ^d	31	35
<i>Parent/guardian education</i>		
No college ^e	27	27
Some college ^f	28	30
Bachelor's degree or more ^g	32	35

^a CCREC N = 18,846; non-GEAR UP low income N = 398,251.

^b CCREC N = 18,991; non-GEAR UP low income N = 405,692.

^c CCREC N = 13,068; non-GEAR UP low income N = 332,681. Includes students who self-identify as African American, American Indian, Hispanic, or Pacific Islander.

^d CCREC N = 19,406; non-GEAR UP low income N = 368,452.

^e CCREC N = 11,843; non-GEAR UP low income N = 237,109.

^f CCREC N = 9,715; non-GEAR UP low income N = 203,021.

^g CCREC N = 8,311; non-GEAR UP low income N = 184,520.

one out of four CCREC eighth graders (28%) planned to complete the ACT-recommended core curriculum. This percentage is slightly lower than that of non-GEAR UP low-income students.

Differences by gender, race/ethnicity, and parent/guardian education level in the percentage of students who planned to complete the ACT-recommended core curriculum are evident in both the CCREC and non-GEAR UP low-income student groups. In both groups, females, White students, and students whose parents or guardians were more highly educated were more likely than males, underserved minority students, and students whose parents or guardians were less educated to plan to complete the ACT-recommended core curriculum. The percentages were lower for CCREC students than for the comparison group students for all but two subgroups. In particular, underserved minority students in the CCREC were slightly more likely than their peers in the non-GEAR UP low-income group to plan to complete the ACT-recommended core curriculum, whereas CCREC students whose parents or guardians did not attend college were as likely to plan to complete the ACT-recommended core curriculum as their peers in the non-GEAR UP low-income group.

Post-High School Plans

At the time they took ACT Explore, roughly one out of eight CCREC and non-CCREC low-income students had no education or other training planned for after high school or were undecided about their future educational plans (see figure 8). Among students in both groups, two out of three students planned to obtain a bachelor's or graduate degree, whereas about one out of five planned to obtain some education or training below the bachelor's degree. A slightly larger percentage of CCREC students than non-GEAR UP low-income students planned to pursue career or technical training after high school, whereas a slightly larger percentage of non-GEAR UP low-income

students than CCREC students planned to pursue their postsecondary education through a graduate degree program.

Self-Reported Needs

ACT Explore includes a section in which students can indicate areas where they feel they need additional help. Table 9 shows the percentage of students in each of the two groups who indicated they needed assistance with various educational plans and academic skills. As seen in the table, students' self-reported needs do not vary to a great extent by student group. Despite the student group and the specific need in question, the majority of students responding to the needs assessment felt they did not need help. As mentioned in previous sections of this report, under half of all students in either student group reported earning As and Bs in all four core subject areas, and roughly 1 out of 4 of these students did not meet any of the ACT Explore Benchmarks. Taken together, these findings suggest that a number of students who are struggling academically do not feel they need assistance to improve upon their academic skills.

Discussion

This report compares the background characteristics, academic achievement and being on track for college readiness, educational plans, and academic skill needs of CCREC and non-GEAR UP low-income eighth graders who took ACT Explore during the 2012–13 or 2013–14 academic years.

The CCREC GEAR UP group and the non-GEAR UP low-income group are reasonably similar on these measures. These baseline data comparisons give confidence that the non-GEAR UP low-income group is a suitable comparison group for informing the selection of a matched non-GEAR UP comparison group for use in subsequent ACT-authored CCREC reports.

Figure 8. Percent of Students by Educational Plans after High School

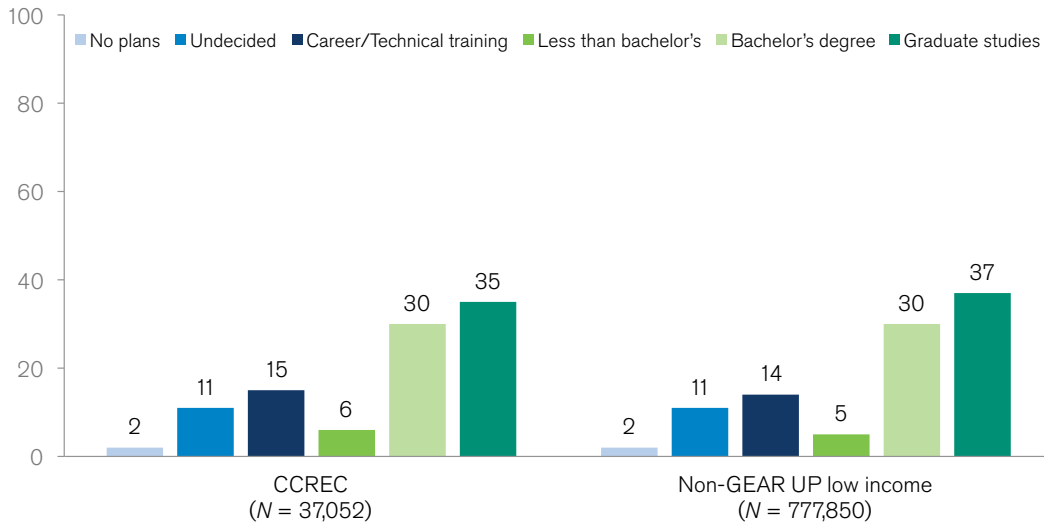


Table 9. Percent of Students Indicating They Need Assistance

Need	CCREC (N = 40,706)	Non-GEAR UP low income (N = 869,504)
Exploring options after high school	36	35
Improving writing skills	31	30
Improving reading speed or comprehension	25	26
Improving study skills	35	37
Improving mathematical skills	38	39
Improving computer skills	19	18
Improving public speaking skills	38	35

Highlights of the baseline observations include:

Background Characteristics

- The two groups were similar on most background characteristics, with three exceptions:
 - ~ self-identification as African American (13 percentage-point difference in favor of the comparison group)
 - ~ receiving Title I math or reading services (13 percentage-point difference in favor of the CCREC group for both subjects)
 - ~ geographic dispersion (much more dispersion in the comparison group)
- A substantial share of students in each group—about 40%—have parents or guardians with no college experience.

Academic Achievement and Being On Track for College Readiness

- In both groups, most students are not on track to be academically ready for college by the time they graduate from high school. Only about 25% in each group met or exceeded the ACT Explore Benchmarks in reading, mathematics, or science; just over 50% did so in English.
- Over 40% in each group met none of the Benchmarks and only about 35% met more than one.

Educational Plans

- The majority of students in each group—about two-thirds—plan to obtain a bachelor's or graduate degree.
- Nearly two-thirds of students in each group plan to pursue a college-preparatory program of courses in high school.

Academic Skill Needs

- About two-thirds of students in each group felt that they did not need academic help, suggesting that many students who are struggling academically do not feel they need assistance to improve upon their academic skills.

Taken together, these findings paint a profile of low-income or otherwise underserved middle school students who have college aspirations (with many planning to pursue at least a four-year degree), who are not yet on the path to be academically prepared to be successful in college but do not feel that they need academic assistance. Within both of these groups, students seemingly are on a path where their aspirations do not match their level of preparation. As we continue our study, we will seek to determine whether in these fourteen states GEAR UP can modify that path so students have the preparation and planning they need to enter and be successful in college.

Future ACT Reports on the CCREC Core Research Program

This report of baseline data is the second ACT-authored report on the core research program for the CCREC. A previous publication, *Core Research Program: Results from the First Wave of the Base Year Data Collection*,¹⁴ reported baseline data for the 2012–13 CCREC cohort of eighth graders and three potential comparison groups, all of which tested with ACT Explore within the same testing year.

Beginning in 2017, future ACT CCREC publications will report on the first follow-up for the core research program and will identify how well CCREC students and a matched comparison group of students are doing as they progress through the tenth grade. Future reports will include:

- comprehensive research analysis presenting comparative findings between the two groups on intermediate academic outcomes, including data on academic achievement and being on track for college readiness
- summary report encapsulating key findings from the comprehensive research report
- several one-page briefs highlighting salient and illuminating analyses of findings from the comprehensive research report ■

Appendix

Table A1. CCREC Member States

State	FY funding	Model	Data collection wave	
			1	2
Arizona	2012	Cohort		✓
Idaho	2011	Cohort	✓	✓
Kentucky	2011	Cohort	✓	✓
Minnesota	2011	Hybrid	✓	✓
Montana	2011	Hybrid	✓	✓
Nevada	2012	Cohort		✓
New Mexico	2012	Priority		✓
North Carolina	2012	Hybrid		✓
Oklahoma	2011	Priority	✓	✓
Tennessee	2012	Hybrid		✓
Utah	2011	Priority	✓	✓
Washington	2011	Hybrid	✓	
Wisconsin	2011	Priority	✓	
Wyoming	2011	Priority	✓*	

* Although Wyoming received its grant during the 2011 award cycle, the state will not test students with ACT Explore until their ninth-grade year (i.e., 2013–14).

Table A2. Characteristics of CCREC and Comparison Groups

Characteristic	CCREC	Non-GEAR UP low income	Difference (abs. value)
<i>N</i> count			
States	14	41	NA
Schools	365	4,538	NA
Students	41,588	888,053	NA
	Percentage of sample		Percentage points
Race/Ethnicity			
African American	10	23	13
American Indian	5	2	3
Asian	1	2	1
Hispanic	18	16	2
Pacific Islander	0.3	0.8	0.5
White	49	44	5
Two or more races	4	2	2
Prefer not to respond/no response	12	11	1
Parent/guardian education			
No college	40	38	2
Career/Technical training	7	8	1
Less than bachelor's	25	25	
Bachelor's degree	17	18	1
Graduate studies	11	12	1
Special status			
Special education	7	11	4
Limited English proficiency	3	3	
Free/Reduced price lunch	31	31	
Title I math	21	8	13
Title I reading	21	8	13
Academic achievement			
	Mean score		Mean score points
<i>ACT Explore</i>			
English	13.4	13.4	
Mathematics	14.5	14.6	0.1
Reading	13.7	13.7	
Science	15.8	15.8	
Composite	14.5	14.5	
	Percentage of sample		Percentage points
<i>Met ACT Explore Benchmark</i>			
English	52	54	2
Mathematics	25	25	
Reading	26	26	
Science	25	25	

Table A2. (continued)

Characteristic	CCREC	Non-GEAR UP low income	Difference (abs. value)
	Percentage of sample		Percentage points
<i>Number of ACT Explore Benchmarks met</i>			
0	43	41	2
1	22	23	1
2	13	13	
3	10	10	
4	12	13	1
<i>Earned As or Bs</i>			
English	75	75	
Mathematics	69	68	1
Reading	73	73	
Science	72	71	1
All four subjects	47	45	2
High school curricular plans			
Accelerated/Honors coursework	32	33	1
College preparatory curriculum	62	62	
<i>Core Curriculum</i>			
English	44	42	2
Mathematics	55	55	
Social studies	41	43	2
Natural sciences	48	49	1
All four subject areas	28	30	2
Post high school plans			
No plans	2	2	
Undecided	11	11	
Career/Technical training	15	14	1
Less than bachelor's	6	5	1
Bachelor's degree	30	30	
Graduate studies	35	37	2
Self-identified areas in need of assistance			
Exploring options after high school	36	35	1
Improving writing skills	31	30	1
Improving reading speed or comprehension	25	26	1
Improving study skills	35	37	2
Improving mathematical skills	38	39	1
Improving computer skills	19	18	1
Improving public speaking skills	38	35	3

Notes

- 1 “Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP);” US Department of Education, last modified September 29, 2014, <http://www2.ed.gov/programs/gearup/index.html>.
- 2 More information about GEAR UP can be found on the US Department of Education's Frequently Asked Questions page on GEAR UP, <http://www2.ed.gov/programs/gearup/faq.html>.
- 3 The fourteen states are Arizona, Idaho, Kentucky, Minnesota, Montana, Nevada, New Mexico, North Carolina, Oklahoma, Tennessee, Utah, Washington, Wisconsin, and Wyoming. More information about the College and Career Readiness Evaluation Consortium can be found at the website of the National Council for Community and Education Partnership, <http://www.edpartnerships.org/college-and-career-readiness-evaluation-consortium-ccrec>.
- 4 Ty Cruce, *ACT-CCREC Core Research Program: Study Questions and Design*, ACT Working Papers Series WP-2015-01 (Iowa City, IA: ACT, 2015), <http://www.act.org/research/papers/pdf/WP-2015-01.pdf>.
- 5 CCREC grants were funded in two different funding years. The core research program follows, longitudinally, two waves of students. This report presents findings on those students from both waves of data collection (i.e., 2012–13 and 2013–14) of the base year when students were in the eighth grade.
- 6 More information about the data collection instruments used for the core research program can be found in the technical manual of each associated assessment: ACT, *ACT Explore Technical Manual* (Iowa City, IA: ACT, 2013), <http://www.act.org/explore/pdf/TechManual.pdf>; ACT, *ACT Plan Technical Manual* (Iowa City, IA: ACT, 2013), <http://www.act.org/plan/pdf/PlanTechnicalManual.pdf>; ACT, *The ACT Technical Manual* (Iowa City, IA: ACT, 2014), http://www.act.org/aap/pdf/ACT_Technical_Manual.pdf.
- 7 Although data collection for the ACT core research program ends after the second year of college, a separate consortium-led evaluation will follow students through college completion.
- 8 Although Wyoming received its grant during the 2011 award cycle, the state did not test students with ACT Explore until their ninth-grade year (i.e., 2013–14). A few CCREC schools in New Mexico and Minnesota also tested students as ninth graders. Test scores and benchmarks for these students have been adjusted to take grade-level differences into consideration.
- 9 GEAR UP grants generally fall into one of two models: cohort model or priority student model. In a cohort model, all students within a participating grade are eligible to receive GEAR UP services. In a priority model, GEAR UP services are provided to priority students who meet certain legislatively mandated eligibility criteria. Some grants operate under a third model whereby the grant employs a cohort approach and priority approach simultaneously (e.g., serves all students in a cohort and priority students outside of the cohort). More information about GEAR UP program models is located on the US Department of Education's Frequently Asked Questions page on GEAR UP, <http://www2.ed.gov/programs/gearup/faq.html>.
- 10 Thirty-six percent of CCREC schools and 43% of non-GEAR UP low-income schools have no reported information in the special status code section of the ACT Explore answer folder.

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- 11 GEAR UP grants using a cohort model must provide services to a cohort at a participating school in which at least 50% of all students are eligible for the federal free or reduced-price lunch program. Reasons for the lower reported percentages of students eligible for the free or reduced-price lunch program could include underreporting of eligibility by staff, the distribution of lunch-eligible students among grades within the schools served by GEAR UP, or a combination of these and other reasons.
- 12 For ninth grade, the ACT Explore Benchmarks are a score of 14 for English, 18 for mathematics, 17 for reading, and 19 for science.
- 13 See, for example, ACT, *The Condition of College and Career Readiness 2014* (Iowa City, IA: ACT, 2014), <http://www.act.org/research/policymakers/cccr14/pdf/CCCR14-NationalReadinessRpt.pdf>; ACT, *Mind the Gaps: How College Readiness Narrows Achievement Gaps in College Success* (Iowa City, IA: ACT, 2010), <http://www.act.org/research/policymakers/reports/mindthegaps.html>; Krista Mattern and Justine Radunzel, *Who Goes to Graduate School?: Tracking 2003 ACT-Tested High School Graduates for More Than a Decade* (Iowa City, IA: ACT, 2015), http://www.act.org/research/researchers/reports/pdf/ACT_RR2015-2.pdf.
- 14 ACT, *Core Research Program: Results from the First Wave of the Base Year Data Collection* (Iowa City, IA: ACT, 2014), <http://www.act.org/research/policymakers/pdf/CoreResearchReport.pdf>.

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