

Research Report

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Examining the Efficacy of Career & College Clubs: Initial Results and Implications for Practitioners



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About the Authors

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About this Study

This study was done in collaboration with the National Council for Community and Education Partnerships (NCCEP) and Alliance College-Ready Public Schools (Alliance). This report explores the development of college readiness skills in over 900 Alliance students enrolled in Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) who were taking the Career & College Clubs (CCC) curriculum during their first three years of high school, beginning in the 2018–2019 school year. To measure the impact of the CCC curriculum, we used a series of surveys to explore the developmental trajectory of students' social and emotional skills, knowledge of postsecondary education, and education intentions.

So What?

Findings from the current study provide insight into how college readiness skills develop in high school students through intervention and offer initial efficacy evidence for the use of the CCC curriculum as part of GEAR UP programming. On average, participating students experienced growth each year in each area addressed by the CCC curriculum, even given the disruptions and changes to learning caused by the COVID-19 pandemic. While growth occurred each school year, this growth was not always linear and, in some cases, appeared to show patterns similar to those seen in the learning of core academic content, such as summer slide.

Now What?

The results of this study suggest that the use of the CCC curriculum during GEAR UP programming can help build high school students' college and career readiness skills. Additional research to examine the relationships between growth in these skills and student outcomes, such as grade point average and attendance, is forthcoming in another report.

Executive Summary

ACT, the National Council for Community and Education Partnerships (NCCEP), and Alliance College-Ready Public Schools (Alliance) collaborated to examine the efficacy of NCCEP's Career & College Clubs (CCC) curriculum for increasing college readiness skills in high school students participating in Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP). A brief description of each program is provided in Appendix A at the end of the report. This report is designed with educators, especially GEAR UP practitioners, in mind. The study described in this report explores the longitudinal impact of GEAR UP and the CCC curriculum on student development in the following areas: social and emotional skills, knowledge of postsecondary education, and education intentions.

In collaboration with Alliance schools, we conducted multiple waves of survey research with students from seven high schools over the course of three academic years, beginning in the fall of 2018 and continuing through the spring of 2021. This report explores the following research questions:

- Q1: How have students' social and emotional skills developed over the course of three academic years?
- Q2: How has students' knowledge of postsecondary education developed over the course of three academic years?
- Q3: How have students' education intentions developed over the course of three academic years?

Each of the three areas examined in this report is important for building life skills as well as college and career readiness. On average, students experienced growth in each of the areas we explored. This growth happened in spite of (or perhaps, in some cases, because of) the COVID-19 pandemic, which has greatly impacted schools since March of 2020. This growth was not linear. Growth tended to happen over the course of the school year, with dips over the summer and sometimes through the winter. This pattern of results has implications for how best to support students' development and mastery of these critical knowledge and skill areas.

Study Background

ACT, the National Council for Community and Education Partnerships (NCCEP), and Alliance College-Ready Public Schools (Alliance) collaborated to conduct a longitudinal study examining the efficacy of NCCEP's Career & College Clubs (CCC) curriculum. This curriculum was provided during GEAR UP programming. The study examined the impact of this programming on college readiness skills in high school students who come from communities that have been historically marginalized and underrepresented in higher education (e.g., students of color, students from low-income households, and/or first generation college students). CCC is a college and career preparation program for grades 7 through 12. The CCC program centers on peer-to-peer learning and mentoring, which involves students guiding each other through the comprehensive, standards-aligned curriculum of engaging activities and projects. The program seeks to increase the number of students who enroll in and complete postsecondary education.



Informed by the ACT® Holistic Framework® (Camara, O'Connor, Mattern, & Hanson, 2015), the CCC contains sequenced lessons and activities for each grade level. These activities prepare students for postsecondary success by developing their knowledge and skills in five research-supported domains (College and Career Preparation and Readiness, Academic Preparation, Leadership Development, Social and Emotional Learning, and Professional Etiquette) and emphasizing the development of academic skills, social and emotional skills, and the knowledge necessary to successfully apply to, transition to, and succeed in college. The current report focuses on the influence of the CCC curriculum on the development of social and emotional skills, knowledge of postsecondary education, and education intentions.

Social and Emotional Skills

Social and emotional skills include interpersonal, self-regulatory, and task-related behaviors that allow people to be successful in school and work settings; examples include managing emotions, setting and achieving personal goals, and maintaining

relationships with others (Casillas, Way, & Burrus, 2015; Collaborative for Academic, Social, and Emotional Learning [CASEL], n.d.).

Social and emotional skills are important for both college and career. Many of the behaviors that allow a student to be successful in school also provide a basis for success in the workforce. For example, research has shown that behaviors such as turning in work on time, trying your best, and identifying main ideas to study in school (which are captured in our survey through the Sustaining Effort domain, shown in Table 3 on page 9) are associated with higher levels of educational attainment and higher income later in life (Spengler, Damian, & Roberts, 2018). The number of jobs requiring social and emotional skills has grown and is expected to continue growing (Deming, 2017), and surveys of employers have found that many want job candidates to have “behavioral skills” or “soft skills,” such as good communication skills (Bauer-Wolf, 2019). Additionally, survey research conducted by ACT has revealed that the majority of both supervisors and employees agree that it is important to assess and develop social and emotional skills in the workplace, with between 87% and 97% agreement depending on the skill (ACT, 2020).

Postsecondary Education Knowledge

Another important piece of the CCC curriculum is teaching students about their postsecondary options. Information such as how to apply to college and for financial aid, as well as the importance of having an education plan, is consistently taught throughout the curriculum. Additionally, providing students with the skills and knowledge needed to pursue higher education is part of NCCEP’s mission (National Council for Community and Education Partnerships [NCCEP], n.d.).

Education Intentions

Finally, two other measures of college readiness are whether students can see themselves attending college and whether they have a plan for higher education. The CCC curriculum includes standards for college and career readiness and provides numerous lessons and activities related to students having a plan for postsecondary education. For example, in 11th grade, students are asked to create a personal and professional plan, which includes creating their own path to college and considering what kind of degree they will need in order to pursue a desired career.

Research Questions

The focus of this study was the efficacy of the CCC curriculum within the context of GEAR UP programming in helping students develop skills in three areas: social and

emotional skills, knowledge of postsecondary education, and education intentions. Table 1 summarizes the available survey data.

Table 1. Survey Focus Areas

Focus area	Survey item and scale descriptions
Social and emotional skills	Scales measuring sustaining effort, getting along with others, growth mindset, maintaining composure, and leadership constructs
Knowledge of postsecondary education	Items related to knowledge of college and career, including processes such as getting accepted to college
Education intentions	Items asking about students' plans after high school

The following research questions guided the analysis of the data.

- Q1: How have students' social and emotional skills developed over the course of three academic years?
- Q2: How has students' knowledge of postsecondary education developed over the course of three academic years?
- Q3: How have students' education intentions developed over the course of three academic years?

Study Design

This study was conducted using surveys administered to GEAR UP students at Alliance schools who were receiving the CCC curriculum. As of spring 2021, a total of eight surveys have been given to this cohort of students. The surveys are administered to students using an online software platform, and students are emailed an individual link to each survey. The surveys contain mostly Likert items, with some knowledge questions and open-ended questions included at various points. While some questions have been added or removed at various times, the questions that are the focus of this study remained constant; in the case of the social and emotional scales, administration began in the fall of 2018, and for both postsecondary knowledge and education intentions, administration began in the spring of 2019. The surveys take approximately 30 minutes.

During the first survey administration (the fall of 2018), students were beginning their first year of high school, and they had not yet been exposed to the CCC curriculum. The most recent survey administration was during the spring of 2021, when students had just completed their junior year of high school. Six attention checks are built into each survey to make sure that students are reading each question and not merely

clicking through the survey. Students who missed more than two attention checks were excluded from the analysis.

Study Participants

The students in this study include over 900 high school students participating in GEAR UP at seven different high schools that are part of Alliance. Beginning in 2018–19, during the students' 9th-grade year, participating students began using the CCC curriculum. They have continued to use the CCC curriculum each year, and in 2019–20, Alliance hired GEAR UP coaches at each school to help facilitate CCC. These GEAR UP coaches are typically Alliance alumni who mentor students and help facilitate the CCC content. As of this writing, students in this cohort have completed their 11th-grade year of high school. We surveyed the same cohort of students two to three times per year during this time to collect data on the efficacy of the curriculum.

The first survey, administered in September of 2018, was given prior to students' exposure to the CCC curriculum; since then, students have completed eight surveys assessing the broad range of knowledge and skills that are the focus of the curriculum. In the first wave of data collection, students were asked for their demographic information. Of the 759 responses, approximately 41% of the students identified as male, 46% identified as female, and 13% declined to answer. Approximately 83% of the students identified as Hispanic or Latino, 4% identified as non-Hispanic or Latino, and 13% declined to answer. Each survey measured students' knowledge of, attitudes toward, and behaviors related to social and emotional learning and college readiness skills.

In March of 2020, Alliance students transitioned to online instruction due to the COVID-19 pandemic. Although the surveys were still administered through email, students have since taken the surveys at home instead of in the school building. As a result of the transition to online instruction, student response rates to the surveys have decreased somewhat; however, there is a subset of students who have taken the surveys multiple times, allowing for an examination of longitudinal trends. While over 900 students are in the cohort, response rates for the surveys have varied between approximately 57% and 88%. Any student who completed at least one survey is included in the results, though most students are represented in at least two surveys. Table 2 shows the number of students who completed each survey and passed the attention checks at each time point.

Table 2. Number of Students Who Completed Each Survey

Survey administration	Number of students
Fall 2018	819
Spring 2019	759
Fall 2019	873
Winter 2019	707
Spring 2020	589
Fall 2020	633
Winter 2020	629
Spring 2021	540

Measured Outcomes

The survey included scales designed to measure students' attitudes and behaviors related to social and emotional skills, since much of the content taught in the CCC curriculum falls under the umbrella of social and emotional skills. For example, in 9th grade, students learn about topics such as relating to others, showing respect, understanding conflict, and finding motivation.

When considering the following data related to social and emotional skills, be aware that social and emotional development is not linear, especially during adolescence when students are in their middle and high school years. This means that while individuals tend to build social and emotional skills throughout childhood and adolescence, some of these skills show uneven growth and may even decrease before they improve. For example, some research has shown that social and emotional skills such as self-discipline and agreeableness decrease during early to mid adolescence before increasing in late adolescence and early adulthood (Soto, John, Gosling, & Potter, 2011). Other related skills, behaviors, and cognitions have also been shown to decline in adolescence, such as school participation, self-regulated learning, and feelings of belonging at school (Wang & Eccles, 2012).

Response choices to these questions are on a six-point Likert scale ranging from "disagree a lot" to "agree a lot." Sample items and the reliabilities for each scale can be found in Appendix B. Table 3 summarizes the social and emotional skills assessed in the survey. This summary is followed by an examination of the change in each of these skills between the fall of 2018 and the spring of 2021.

Table 3. Surveyed Social and Emotional Skills

Domain	Scale	Definition
Sustaining Effort	Academic Discipline	Degree to which a student is hardworking and conscientious, as evidenced by the amount of effort invested in schoolwork
	Goal Setting	The extent to which a student sets high but achievable goals for self-improvement and advancement
	Study Skills	The extent to which students believe they know how to assess an academic problem, organize a solution, and successfully complete academic assignments
Getting Along With Others	Respect for Others	The extent to which a student considers others' feelings and points of view when communicating
	Interpreting Emotional Reactions	The extent to which a student responds appropriately to emotional reactions from others
	Collaboration	The extent to which a student completes group tasks and achieves group goals by effectively interacting with others
Growth Mindset	Conflict Management	The extent to which a student works through conflicts and disagreements productively
	Growth Mindset	The belief that one's abilities and skills can be developed through dedication and hard work
Maintaining Composure	Worry Management	The extent to which a student does not allow anxiety and fear to impact the completion of daily activities or tasks
	Managing Feelings	The tendency to manage the duration and intensity of negative feelings, and to find appropriate ways to express these feelings
Leadership	Advocating for Causes	Promotion of issues that the student cares about
	Effective Communication	Behaviors that promote the successful delivery of information in interpersonal contexts (e.g., speaking clearly, making eye contact)
	Leadership Intentions	Expressing the desire to guide others and/or provide leadership
Self-Knowledge	Promoting Self-Knowledge	Promotion of perceptions of a student's own abilities, interests, skills, values, attitudes, and beliefs that contribute to understanding the self
	Career Exploration	The extent to which students know how to find information and support related to future career interests

Postsecondary Education Knowledge

Students were also asked about their knowledge related to applying to college. Table 4 contains the items asked in the survey that relate to students' knowledge of postsecondary education, as well as the areas they correspond to. These items are yes/no responses.

Table 4. Surveyed Postsecondary Education Knowledge

Area	Item
College Admissions Knowledge	Do you believe you are on track to have enough information about college entrance requirements to apply to college when the time comes? Do you know what to do to get accepted into a four-year college?
High School Experiences and Future Education and Career	I understand how my high school experiences connect to my future education and job/career.

Note: While this question specifically asks about knowledge of admittance to a four-year college, GEAR UP also focuses on other avenues to higher education, including two-year, certificate, and other post-high school credentials.

Education Intentions

The questions listed in Table 5 were used to determine students' higher education intentions. The first two items listed, "I can see myself attending college" and "I have an idea of what type of school I want to go to after high school," used a six-point Likert scale ranging from "disagree a lot" to "agree a lot." For the other two items, response items were multiple choice and included options ranging from no high school diploma to a doctorate.

Table 5. Surveyed Education Intentions

Area	Item
Education Plans	I can see myself attending college. I have an idea of what type of school I want to go to after high school.
Educational Aspirations	How far would you like to get in your education? What is the highest degree of education you expect to earn?

Development of Student Skills, Knowledge, and Education Intentions

Using the three years of survey data, we examined the development of social and emotional skills, knowledge of postsecondary education, and student education intentions. Each section that follows provides the results and a discussion of student development in one of these areas. The social and emotional skills are measured using scales for each area, meaning the results reported are the sum of the items measuring each skill. Knowledge of postsecondary education and student education intentions were measured using single items, so they are reported as the percentage of students who endorsed each item.

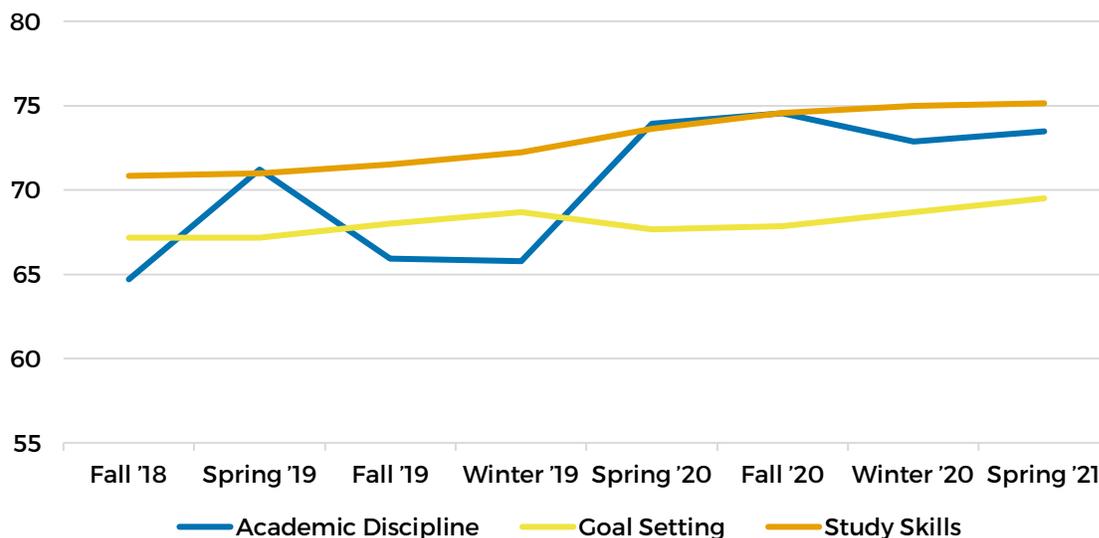
Development of Social and Emotional Skills

The following sections contain information about the development of each scale from fall 2018 to spring 2021. Each scale has been standardized so the range spans from 0 to 100, which allows for direct comparisons between each scale. Each measured domain has an associated figure containing graphed data points across three years. It is important to note that these graphs each have different y-axis ranges in order to allow us to more readily see the trends in these skills across time.

Sustaining Effort

The skills in the Sustaining Effort domain, which have to do with working hard, setting goals, and using good study habits, have a particularly robust, positive relationship with academic achievement (Noftle & Robins, 2007; Poropat, 2009). Figure 1 shows the average scores for each scale in the Sustaining Effort domain at each measured time point. As you can see, the trajectory has not been linear for any of these skills; however, over the period of three years, each skill has shown growth. While both Goal Setting and Study Skills showed modest but incremental growth (from 67.2 to 69.5 and from 70.8 to 75.1, respectively) between the fall of 2018 and the spring of 2021, Academic Discipline was more variable but showed more growth overall (from 64.7 to 73.5). Academic Discipline is also a skill that saw a sharp increase between the winter of 2019 and the spring of 2020.

Figure 1. Development of Sustaining Effort Scales

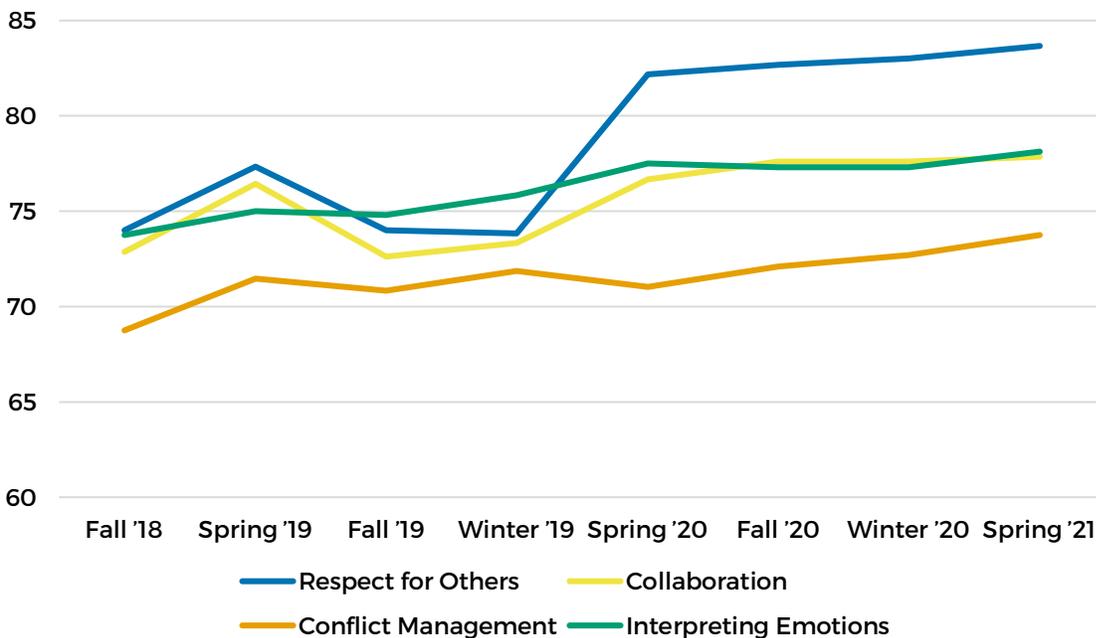


Getting Along With Others

The Getting Along With Others domain includes four interpersonal skills. These include behaviors such as showing respect and empathy for others, as well as being

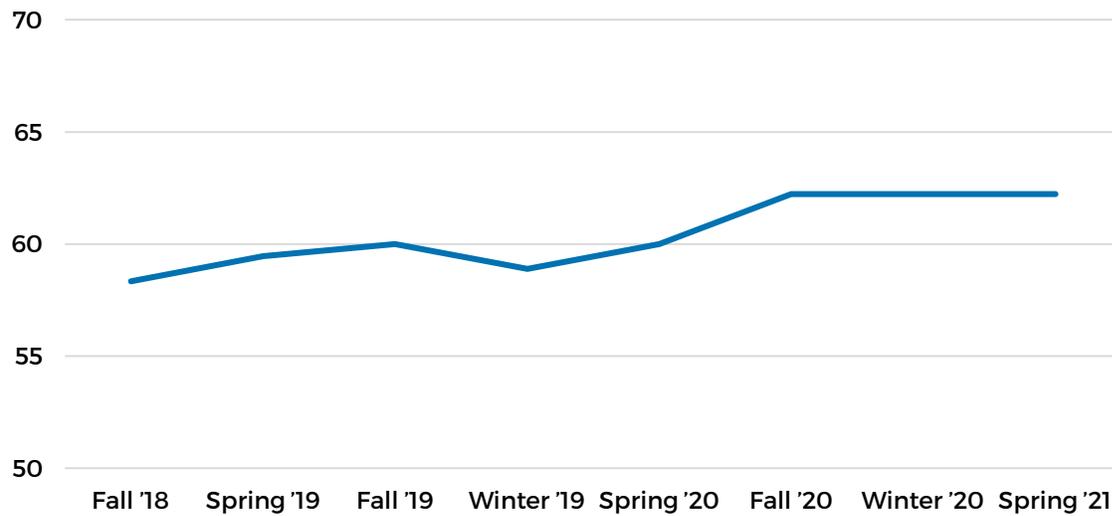
able to work effectively with others while managing conflict. Research shows that these skills are associated with successfully transitioning to college from high school, as well as with higher levels of retention in higher education (Parker, Hogan, Eastabrook, Oke, & Wood, 2006). Figure 2 shows the development of the skills found in the Getting Along With Others domain. Interpreting Emotions, which relates to empathy, saw steady growth during these three years (from 73.8 to 78.1). Conflict Management and Collaboration were more variable but also showed growth during these three years (from 68.8 to 73.8 for Conflict Management and from 72.8 to 77.9 for Collaboration). Finally, after an initial increase during year one, Respect for Others decreased before seeing a sharp increase between the winter and spring of 2020; overall this skill increased from 74.0 to 83.7.

Figure 2. Development of Getting Along With Others Scales



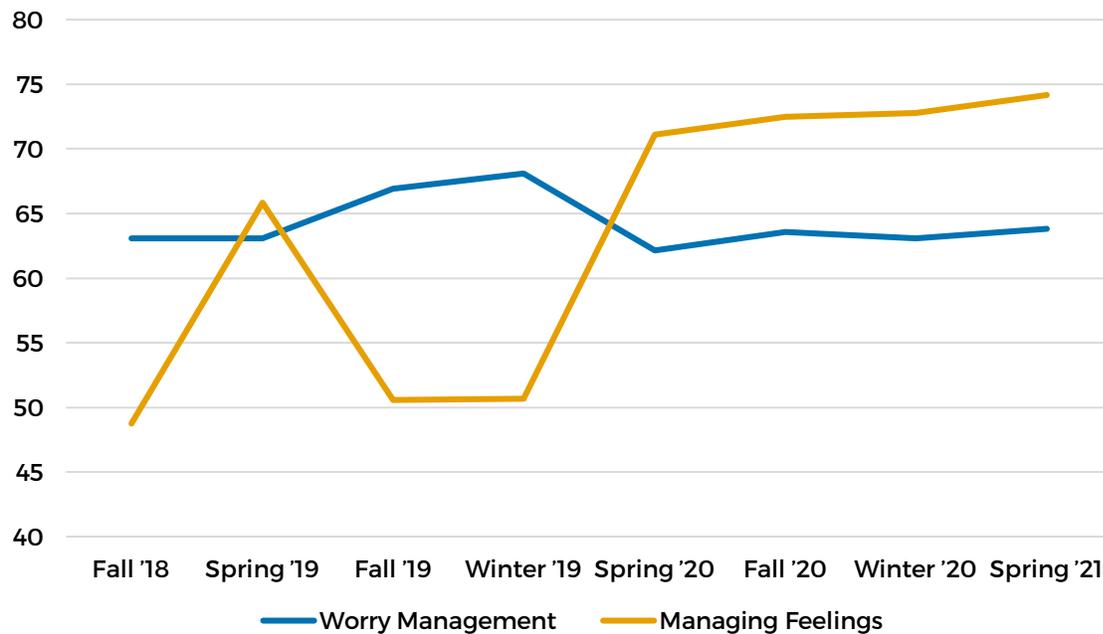
Growth Mindset

Growth Mindset, or the belief that one can improve skills and attributes, is associated with increased academic performance (Haimovitz & Dweck, 2017). Like many of the social and emotional skills measured throughout this time, Growth Mindset showed some initial increases, followed by a dip, with the skill ultimately showing growth over the three-year period, increasing from 58.3 to 62.2.

Figure 3. Development of Growth Mindset Scale

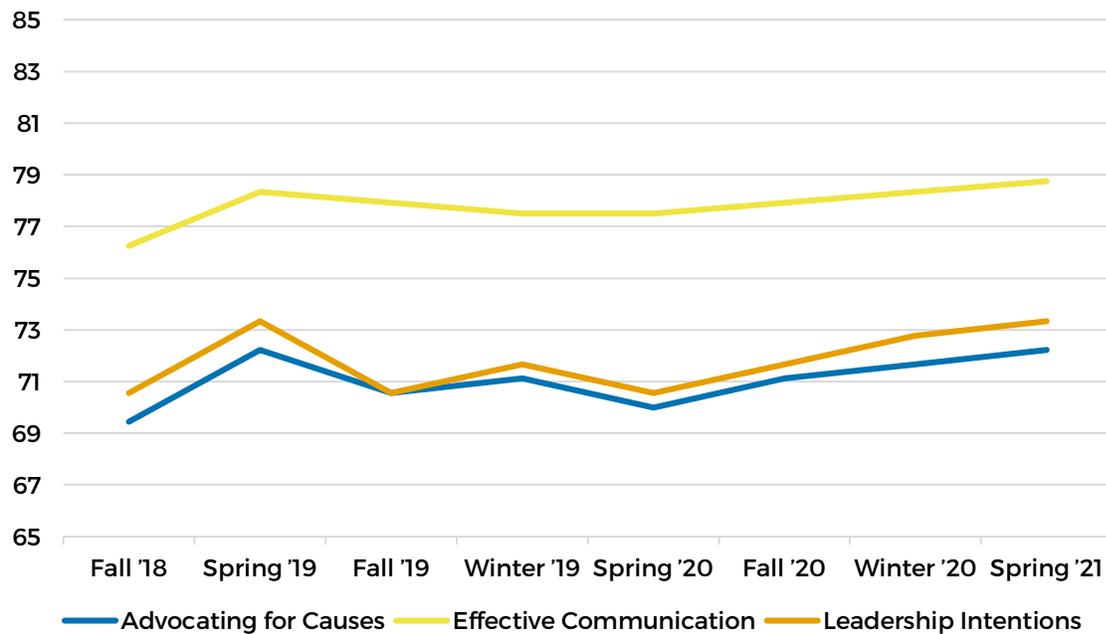
Maintaining Composure

The skills in the Maintaining Composure domain, which deal with managing negative emotions such as stress and anger, are important not only personally but also academically. Research has shown that higher levels of emotional stability are associated with fewer absences from school (Lounsbury, Steel, Loveland, & Gibson, 2004). Due to the uncertainty and stress faced by most of us, these skills are likely to have been the most highly impacted by the COVID-19 pandemic. We can see that some major changes occurred between the winter of 2019 and the spring of 2020 (before and after COVID-19 began affecting the United States, respectively). While average Worry Management scores decreased, Managing Feelings increased substantially. Between the fall of 2018 and the spring of 2021, Worry Management increased very slightly overall (from 63.1 to 63.8), and Managing Feelings increased considerably (from 48.8 to 74.2).

Figure 4. Development of Maintaining Composure Scales

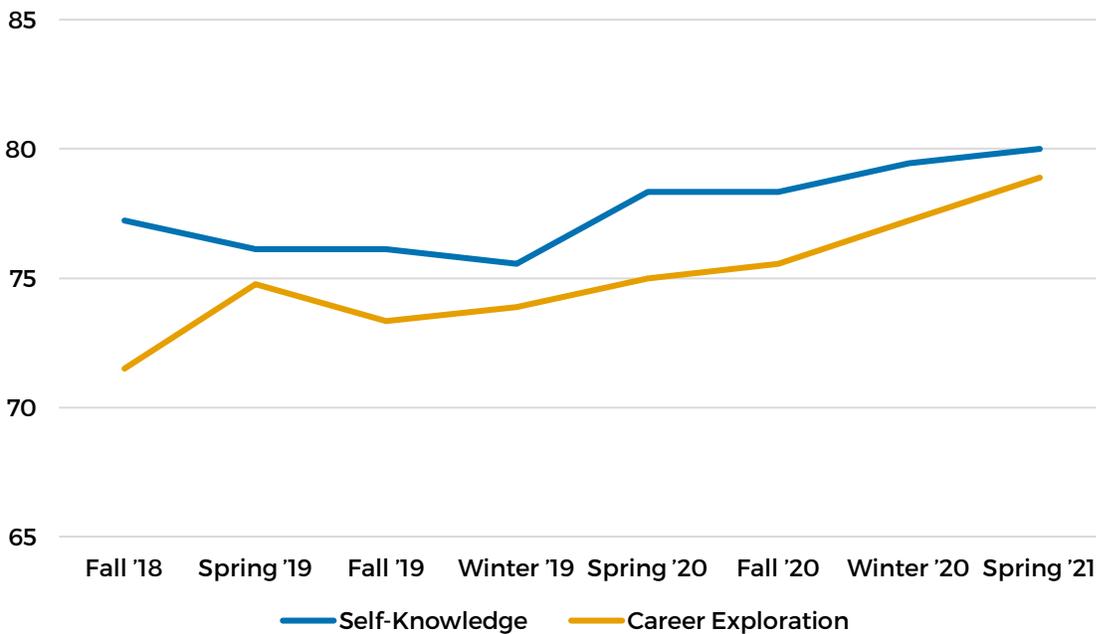
Leadership

The Leadership domain includes behaviors such as promoting issues that students care about, knowing what it takes to be a leader, and using good communication skills. Research has shown that participation in education designed to promote leadership skills can have a positive impact on students, prompting growth in areas such as civic responsibility and personal and societal values (Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001). As with many of the social and emotional skills measured, the skills in the Leadership domain grew rapidly during students' first year of the CCC curriculum. While Effective Communication leveled off, students experienced more change in Advocating for Causes and Leadership Intentions. Between the fall of 2018 and the spring of 2021, Effective Communication grew from 76.3 to 78.8, Advocating for Causes grew from 69.4 to 72.2, and Leadership Intentions grew from 70.6 to 73.3.

Figure 5. Development of Leadership Scales

Self-Knowledge

The Self-Knowledge domain includes understanding how to find information related to future careers, as well as knowing how personal skills and interests might fit into those careers. Experts suggest that high school is a good time to begin thinking about future careers in order to explore interests and develop good habits (Torpey, 2015). Career Exploration followed a pattern similar to that of many other skills, seeing an initial rise before dropping slightly and then continuing to grow. Self-Knowledge, however, experienced a dip before increasing. This skill deals with students understanding their strengths in relation to school and future jobs. The delayed growth in this skill could be a reflection of students beginning to figure out who they are and how this knowledge fits into their longer-term goals. Between the fall of 2018 and the spring of 2021, average scores on Self-Knowledge grew from 77.2 to 80.0, and Career Exploration grew from 71.5 to 78.9.

Figure 6. Development of Self-Knowledge Scales

Development of Postsecondary Education Knowledge

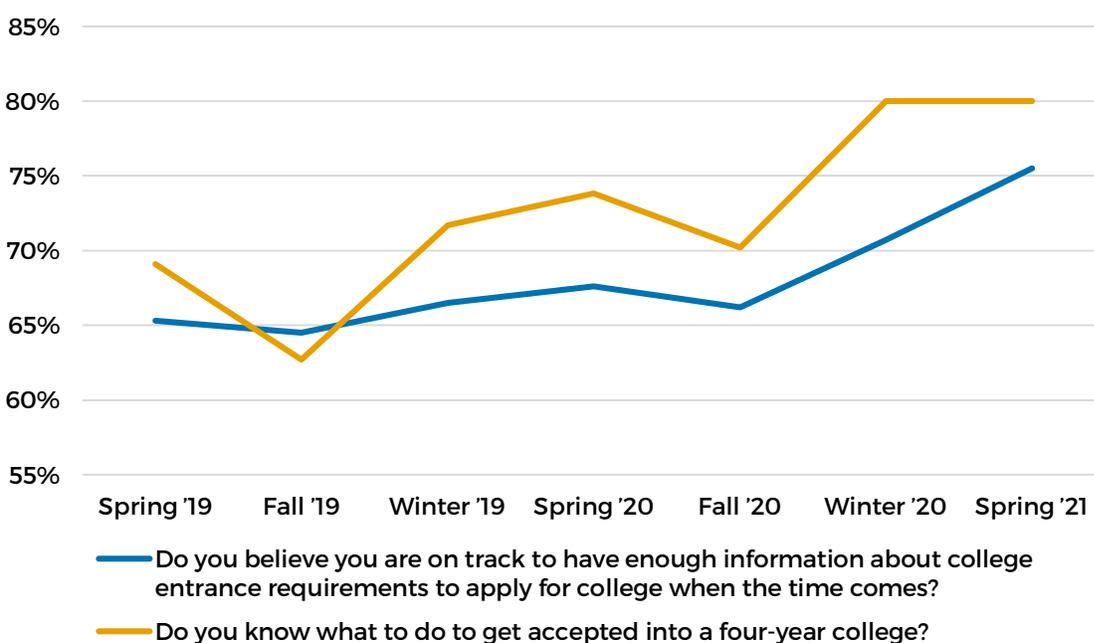
The questions related to postsecondary knowledge deal with college admissions information and the influence of high school experiences on students' future education and careers. Unfortunately, questions related to postsecondary knowledge were not introduced in the student survey until the spring of 2019, which means that we do not have a measure of this before the students' exposure to the CCC curriculum. However, the data suggest that the students have been increasing their level of postsecondary education knowledge regarding issues such as how to apply to college and what to do to be admitted. Learning about college admissions and processes is an important part of the CCC curriculum.

As part of this survey, students were also asked what kind of postsecondary information they had heard about through GEAR UP. In the spring of 2019, 96% of the surveyed students said that someone at their school or GEAR UP had spoken to them about college entrance requirements, and 92% reported hearing about the availability of financial aid to pay for college. Additionally, in the spring of 2021, 94% of students said someone at their school or GEAR UP had spoken to them about successful college habits and skills, and 95% agreed they had been spoken to about which courses they should take in high school to prepare for college, indicating that the GEAR UP program is helping students gain knowledge related to postsecondary education.

College Admissions Knowledge

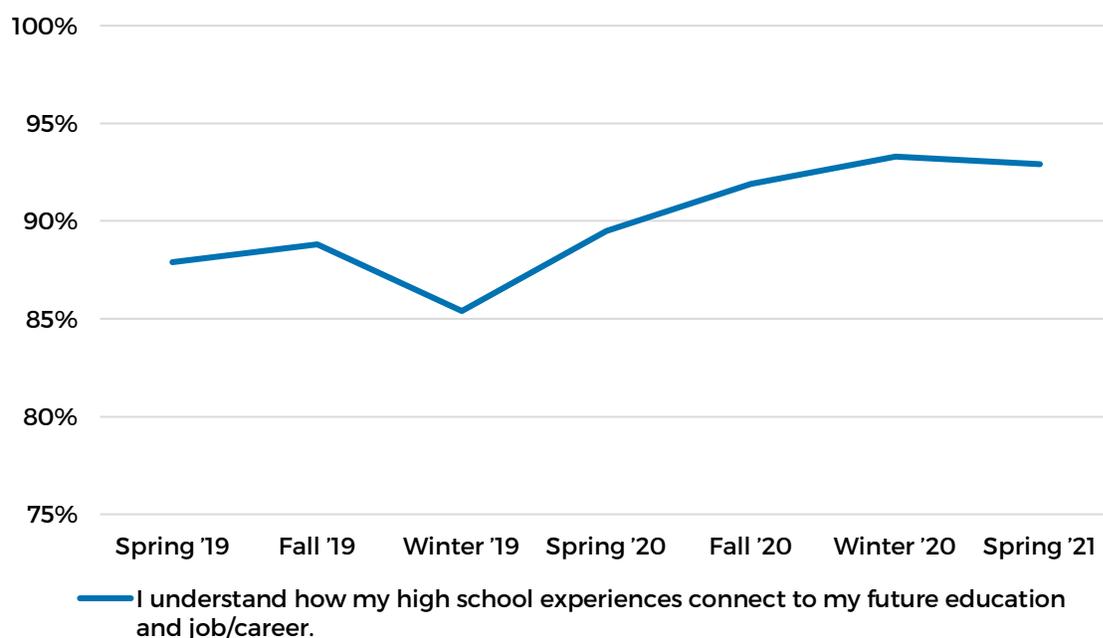
While we do not have a data point for the fall of 2018, it seems likely that average scores for each of these questions related to college admissions grew over the course of students' first year in high school, as knowledge of postsecondary education is a fundamental part of both GEAR UP and the CCC curriculum. Additionally, much like other content areas, this area shows some evidence of summer slide occurring between school years. Overall, the trend is positive, suggesting that students are continually learning the information they need to successfully apply to college. In the spring of 2019, 65.3% of students reported being on track to have enough information to apply to college, and in the spring of 2021, this had increased to 75.5%. Similarly, 69.1% of students knew what to do to be accepted into a four-year college in 2019, and this increased to 80% of students in 2021.

Figure 7. Development of College Admissions Knowledge



High School Experiences and Future Education and Career

Students were also asked whether they understood how their high school experiences connected to their future education and career. As you can see in Figure 8, while there was some backsliding between the fall and winter of 2019, students have been making growth in this area on average, with approximately 93% agreeing with this item in the spring of 2021, as opposed to almost 88% in the spring of 2019.

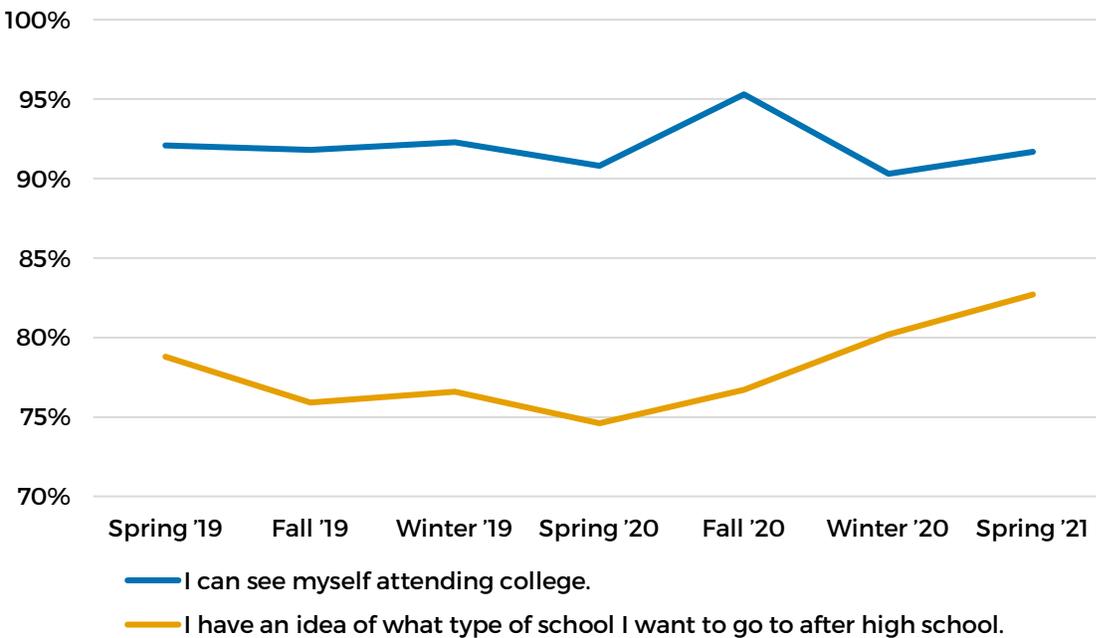
Figure 8. High School Experiences and Future Education and Career

Development of Education Intentions

The questions related to students' education intentions give us a picture of how students see their own educational futures. Research has shown that having plans for attending postsecondary school can help students increase motivation and effort while in high school (Domina, Conley, & Farkas, 2011; McMahon, Griffith, Mariani, & Zyromski, 2017). Beginning in the spring of 2019, students were asked whether they could see themselves in college and how far they wanted to get in their education.

Education Plans

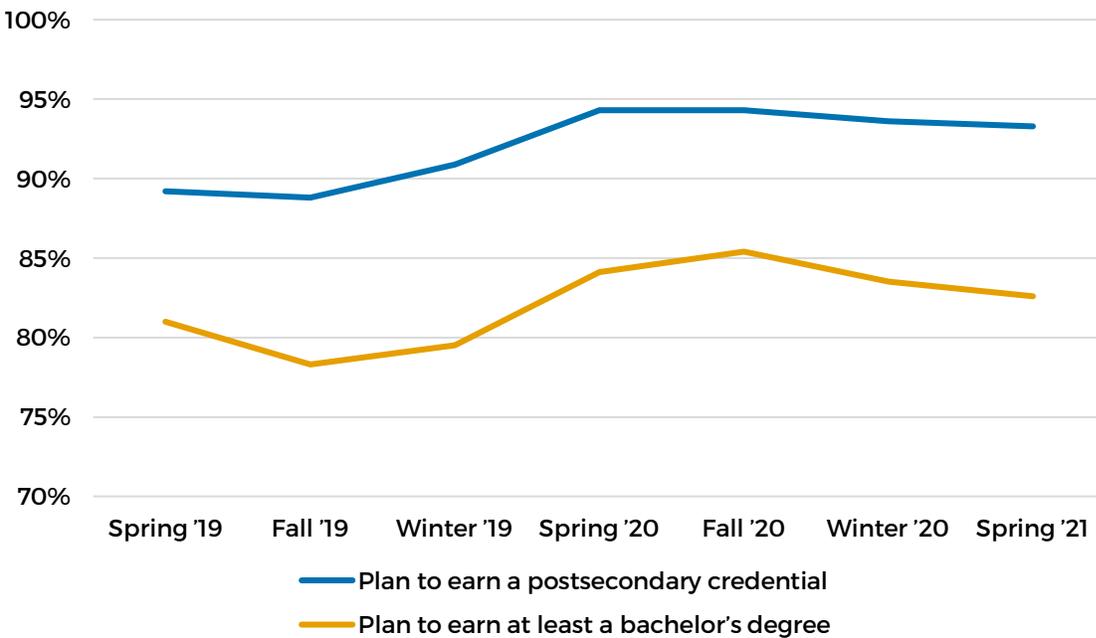
This area of the survey includes students being able to see themselves in college and knowing what kind of postsecondary institution they would like to attend. In response to the statement "I can see myself attending college," there was some variability between the spring of 2020 and the spring of 2021, which may in part be related to the COVID-19 pandemic. Overall, the percentage of students agreeing with that statement decreased slightly between the spring of 2019 and the spring of 2021, from 92.1% to 91.7%. The percentage of students agreeing with the other statement, "I have an idea of what type of school I want to go to after high school," saw decreases before steadily increasing between the spring of 2020 and the spring of 2021, suggesting that students are using the information they are learning about themselves and higher education to determine where they fit. Ultimately, between the spring of 2019 and the spring of 2021, the percentage of students agreeing with this statement grew from 78.8% to 82.7%.

Figure 9. Student Education Plans

Educational Aspirations

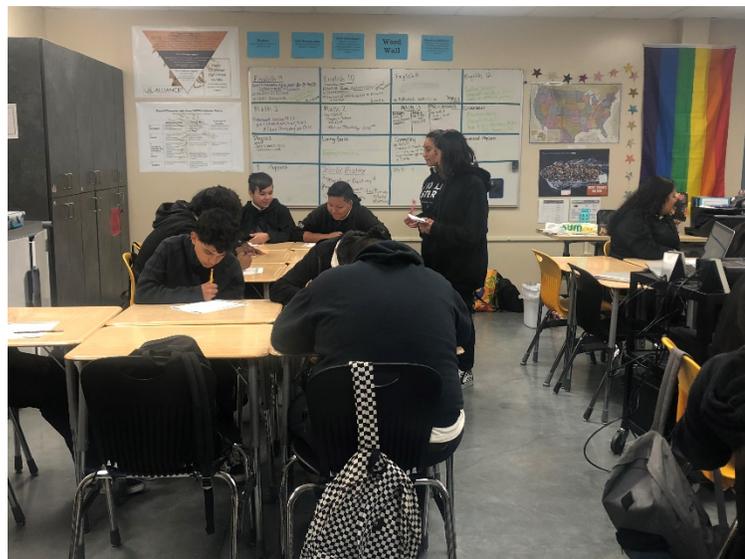
The Educational Aspirations part of the survey asked students how far they would like to go in their education. The vast majority of students wanted to earn some kind of postsecondary credential, which included technical school, two-year programs, and higher. The percentage of students wanting a postsecondary credential grew from 89.2% in the spring of 2019 to 93.3% in the spring of 2021. A smaller percentage, but still reflecting most students, planned on earning a bachelor's degree or higher; this percentage increased from 81.0% in the spring of 2019 to 82.6% in the spring of 2021. Between fall 2020 and spring 2021, there were some very slight declines in the numbers of students planning on postsecondary education. Like declines seen in many other areas discussed in this report, this could be due to the pandemic. COVID-19 has caused many disruptions, and college enrollment is one area that has been especially negatively impacted (Ryeberg & Warren, 2021).

Figure 10. Student Educational Aspirations



Study Discussion

The focus of this study was to examine the efficacy of the CCC curriculum within the context of GEAR UP programming in helping students develop skills in three areas: social and emotional skills, knowledge of postsecondary education, and education intentions. To that end, research questions relating to the development of these skills guided this report. A discussion of each of these research questions follows.



Q1: How have students’ social and emotional skills developed over the course of three academic years?

Overall, students’ social and emotional skills have shown growth over the three years studied. Most of the social and emotional skills studied did not show linear growth, but rather showed a mixture of periods of growth followed by periods of small

declines. This trajectory is consistent with those observed in prior research relating to the development of social and emotional skills during adolescence (Soto et al., 2011; Wang & Eccles, 2012). Additionally, given the pattern of decline during the summer months, it is likely that students may also be experiencing some summer slide (Quinn & Polikoff, 2017).

Another factor to keep in mind is that the COVID-19 pandemic undoubtedly influenced all of these areas, and there are initial findings that it has impacted social and emotional skills in a variety of ways. Initial research has suggested that during the pandemic, adolescents may have experienced decreases in feelings of wellbeing (Flanagan et al., 2021) and increases in negative affect (Rogers, Ha, & Ockey, 2021), but they may also have experienced growth in being able to manage some of these feelings (Walton & Murano, 2020). The data described in this paper show similar patterns, with decreases in Worry Management (related to managing fear and anxiety) but increases in Managing Feelings (related to managing anger and/or managing feelings of being out of control). Other skills also showed sharp increases after the COVID-19 pandemic emerged, such as Academic Discipline and Respect for Others, though we do not know to what extent this is related to the events of 2020.

Students experienced the largest gains in social and emotional skills during their first year of the CCC curriculum, suggesting that the curriculum may have been a catalyst in building students' skills in this area. Some of the concepts covered in depth in this first year included strategies for doing well in school and relating to others. In fact, the skills covered most comprehensively in the 9th-grade CCC curriculum were the ones that showed the largest growth, including Sustaining Effort and Getting Along With Others. Continued growth in social and emotional skills beyond students' first year of the CCC curriculum suggests that students are continuing to learn and build these skills.

Q2: How has students' knowledge of postsecondary education developed over the course of three academic years?

Both standard GEAR UP programming and the CCC curriculum emphasize knowledge of postsecondary education to help students prepare for college, so it is not surprising that students grew in this area. This includes knowing things such as admissions requirements and how to apply to school, as well as understanding which experiences are needed in high school in order to succeed in college. While we do not have data regarding growth for the 2018-19 school year, the data points available show that students have increased their knowledge of postsecondary education. The percentage of students who agreed that they knew what to do to be admitted to a four-year college increased from 69% to 80%. Similarly, agreement that students understood how high school experiences connect to college and career increased

from 88% to 93%. Additionally, there was a high level of agreement among students that they had access to activities and information designed to increase their postsecondary awareness.

Q3: How have students' education intentions developed over the course of three academic years?

One important component of any GEAR UP program is helping students become college-ready by increasing their postsecondary expectations (NCCEP, n.d.). Likewise, the CCC curriculum also has activities specifically designed to help students understand how they can fit as scholars in the college environment. Unfortunately, as with the postsecondary knowledge questions, students were not asked about their college intentions until the spring of 2019. Therefore, we do not know where students' education intentions started during their first year of high school.

In 2019, the majority of students could see themselves at college (92%) and planned on earning a postsecondary credential (89%). These percentages have shown some change, but without having information from 2018, we do not know if students grew during their first year of the CCC program. However, it is worth noting that the vast majority of students seem to have expectations for attending college, with 93% of students reporting in the spring of 2021 that they planned to earn some kind of postsecondary credential. One topic in this portion of the survey that did show positive change was students knowing what kind of school they wanted to attend after high school, which grew from 79% of students agreeing in the spring of 2019 to 83% in the spring of 2021. Interestingly, students did not experience linear growth in this area; agreement with this question reached a low of 75% in the spring of 2020 before again showing growth. The COVID-19 pandemic may have played a role in this result. In one study, 75% of surveyed households with plans for at least one person to attend higher education in the fall of 2020 reported that their plans had to change due to the pandemic (Ryeberg & Warren, 2021). Though these GEAR UP students were still in high school, it is likely that their perceptions of education shifted during this time, causing more uncertainty.

Study Limitations

There are several limitations to this study. One important limitation is that without a comparison group, we could not isolate the impact of the CCC curriculum on any of the skills discussed in this report. Additionally, it is also not possible to isolate the impact that other GEAR UP programming may have had on the results. Since GEAR UP programs also heavily emphasize college and career readiness skills, they also likely had an impact on student skill development. However, given what we know about social and emotional skill development during adolescence, as well as the

large growth that students experienced during their first year of the curriculum, this exploration suggests that CCC played an important role in this development. For the questions related to postsecondary knowledge and education intentions, a further limitation is that these questions were not asked until the spring of 2019, a full school year after students began the CCC curriculum. Nevertheless, it is probable that these skills were also influenced by the CCC curriculum, along with other GEAR UP programming, as these are key goals for GEAR UP programs in general.

Additionally, not all students in this cohort are represented at each time point, so some caution is needed when interpreting the results, as the samples are not identical. Analysis involving only students who have completed multiple surveys is planned for a future paper. Another limitation, and one that was impossible to control for, is the extent that the COVID-19 pandemic influenced these results. As we begin to more fully understand the impact of the pandemic on students, and in particular on their social and emotional skill development, we may have a more informed answer to this question. Finally, we do not know to what extent some students choose to answer questions based on what they believe is the desirable or “right” answer.

Study Implications

Each of the three areas examined in this report—social and emotional skills, postsecondary knowledge, and education intentions—is foundational for building important life and career skills, as well as college readiness. Social and emotional skills are positively related to academic achievement (Noftle & Robins, 2007; Poropat, 2009; Simpkins et al., 2020), school attendance (Kanopka, Claro, Loeb, West, & Fricke, 2020; Lounsbury et al., 2004), and school persistence and retention (Parker et al., 2006; Taylor, Oberle, Durlak, & Weissberg, 2017), as well as job performance and satisfaction (Spengler et al., 2018; Topino, Di Fabio, Palazzeschi, & Gori, 2021). Perhaps more important than their influence in academic or work contexts, social and emotional skills are also important for students’ wellbeing, and social and emotional programming can improve students’ prosocial behavior, attitudes, and capacity to manage emotional distress (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Taylor et al., 2017).

Knowledge of applying to and navigating postsecondary institutions and of acquiring financial aid is also important for college readiness, and it may be particularly important for historically underrepresented students, such as those in GEAR UP. First generation college students do not have access to the same level of college-going social capital as students whose parents attended college, which can put them at a disadvantage (Hooker & Brand, 2010). Programming such as GEAR UP and the CCC curriculum can provide a pathway for these students to gain critical information and

establish social capital. Finally, planning to attend college is also an important piece of college readiness. Students who have plans to attend postsecondary school show increased levels of motivation and effort while in high school compared to students without these plans (Domina et al., 2011).

The results presented in this report suggest that the CCC curriculum, within the context of GEAR UP programming, can increase students' college readiness by supporting and building students' social and emotional skills, postsecondary knowledge, and education intentions. Over the course of students' first three years of high school, they have demonstrated growth despite the change and turmoil caused by the COVID-19 pandemic. While it is not yet clear what impact the pandemic had on these results, it is evident that students showed remarkable resilience despite the difficulty.

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Appendix A

Name	Acronym/Shorthand	Description
Gaining Early Awareness and Readiness for Undergraduate Programs	GEAR UP	A program designed to improve college readiness and attendance in students who come from low-income schools
Alliance College-Ready Public Schools	Alliance	Group of nonprofit public charter schools in Los Angeles, California, that specialize in helping underserved students become college-ready
National Council for Community and Education Partnerships	NCCEP	A national association designed to support underserved students in postsecondary education; also provides training and technical assistance to GEAR UP programs
Career & College Clubs	CCC	A peer-to-peer learning model focusing on college and career readiness, 21st century skills, and community engagement

Appendix B

Domain	Scale	Sample item	Number of items & α^*
Sustaining Effort	Academic Discipline	I stay on task in my classes.	11 items; $\alpha = .90$
	Goal Setting	Each year I commit to pursuing important goals.	10 items; $\alpha = .87$
	Study Skills	I summarize important information in diagrams, tables, or lists.	12 items; $\alpha = .93$
Getting Along With Others	Respect for Others	I treat others with the same respect that I expect for myself.	10 items; $\alpha = .87$
	Interpreting Emotional Reactions	I check in with people if they seem upset.	8 items; $\alpha = .85$
	Collaboration	I like working with others.	7 items; $\alpha = .85$
	Conflict Management	I can compromise to resolve an argument.	8 items; $\alpha = .86$
Growth Mindset	Growth Mindset	It is possible for you to change your level of intelligence.	3 items; $\alpha = .80$
Maintaining Composure	Worry Management	When stressed out, I can usually calm myself down.	7 items; $\alpha = .74$
	Managing Feelings	I'm good at controlling my emotions when I'm angry.	12 items; $\alpha = .85$
Leadership	Advocating for Causes	I talk to people about causes I care about.	3 items; $\alpha = .85$
	Effective Communication	I try to speak clearly when talking with others.	4 items; $\alpha = .83$
	Leadership Intentions	I want to be a leader within my school and/or community.	3 items; $\alpha = .86$
Self-Knowledge	Promoting Self-Knowledge	I have a sense of how my interests and abilities might fit with different jobs.	3 items; $\alpha = .84$
	Career Exploration	I know how to find information about different jobs and careers.	3 items; $\alpha = .86$

*Cronbach's alpha (α) is a measure of internal consistency reliability, meaning how items hold together as a group. The alphas here reflect the reliabilities for the spring 2021 survey. Alphas in the .70s indicate a moderate level of consistency, and alphas in the .80s and .90s indicate a high level of consistency.