

Kentucky College Coaches

Academic Year 2016 Program Evaluation

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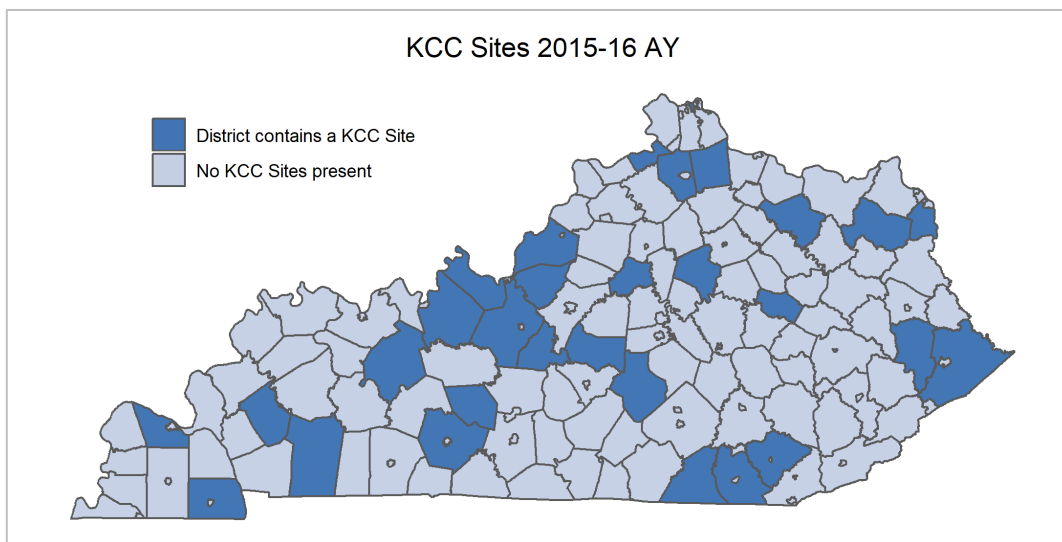
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Executive Summary

Kentucky College Coaches (KCC) served disadvantaged student populations at 30 sites¹ during academic year (AY) 2016. These sites are located across the state of Kentucky as pictured below.² Note: For ease in locating the sites on the map below, the entire school district is highlighted. For a complete list of sites by school district, see Appendix A.



The KCC program was established with the goals of increasing high school graduation rates, improving college readiness, and increasing college enrollment rates among mentored students. Reviewing the program for AY 2016 revealed that:

- The KCC intervention included significantly higher proportion of students who received free lunch (69.6%) and reduced priced lunch (6.9%) in the KCC Core group than at the KCC sites overall.
- The high school senior on-time graduation rate³ was higher for the KCC Core senior class (98.9%), which is 4.1% higher than the KCC Non-Core population rate (94.8%) and 5.9% higher than the state of Kentucky (93%).
- College readiness rate for the KCC Core seniors (65.3%) exceeded the college readiness rate for KCC Non-Core seniors (53.2%) by 12.1% and the state (56.9%) by 8.4%.
- In-state college enrollment rates for KCC Core seniors within one year was 64%,⁴ which is 13.5% higher than the rate of 2016 Kentucky high school seniors attending in-state postsecondary institutions (50.5%).

¹ KCC served individual students in 12 other districts with a coach that traveled to more remote and in-need schools across the state. Data for this coach was excluded from analysis due to both the experimental nature of this coaching model for the KCC program and the coach's limited presence at each of the locations within the timeframe.

² Covington Independent School District is located at the top of Kentucky and difficult to see due to the small size of the district.

³ See page 10 for metric calculation.

⁴ This number only reflects 2015-16 AY HS seniors that enrolled in participating 2- and 4-year universities and colleges in the state of Kentucky during AY 2016-2017, which differs from the 2015 evaluation where a two-year parameter was used for this statistic (<https://applications.education.ky.gov/src/LearningEnvironmentByState.aspx>).

KYSTATS has several recommendations for the KCC Program as it strives to continually improve:

- Carefully delineate the desired characteristics, in terms of demographics and prior achievement, of core students to enable a deep dive at each site on whether faculty and staff recommendations are aligning to KCC recommendations. This will allow KCC Program management staff to intervene at sites that may not be selecting the desired students for the intervention (see page 6).
- Ensure consistency across years in terms of documentation of students and level of student participation.
- Provide evaluators with documentation of changes in program goals and directives across time in order to facilitate longitudinal analysis and future analysis. Specifically, any shifts in KCC Core student recruitment, desired intermediate outcomes, and desired long-term outcomes should be documented as well as when these occurred.

Evaluating the Kentucky College Coaches Program

2016 Academic Year

Project Overview

The Kentucky College Coaches (KCC) program aims to address the problem of low educational attainment and college readiness in the state of Kentucky. The KCC program seeks to increase high school graduation rates, postsecondary readiness and enrollment rates in high poverty and low performing high schools. KCC began in 2010, engaging full-time AmeriCorps members to serve in schools across various underserved counties in the Commonwealth of Kentucky. These AmeriCorps members, or coaches, help underserved students:

1. Develop the aspiration of completing high school
2. Work to become college ready
3. Enroll in postsecondary education

The KCC program places college students and recent graduates in high schools as “near peer” mentors or coaches. These coaches are AmeriCorps members tasked with developing mentoring relationships with students to help build college and career skills such as knowing what classes to take in high school, getting ready for college preparatory tests, finding postsecondary scholarships, filling out the Free Application for Federal Student Aid (FAFSA), and choosing a postsecondary program that is a good fit for their skills and interests. Coaches receive training in utilizing resources such as web based career planning tools, providing classroom instruction on materials at their disposal, and teaching financial literacy. The AmeriCorps members also leverage additional hours of volunteer services to assist the school and/or community in generating a college-going culture. KCC is operated by Kentucky Campus Compact (KyCC) and two intermediaries, each having a cohort of members. Intermediaries include GEAR UP Berea and the Kentucky Higher Education Assistance Authority (KHEAA).

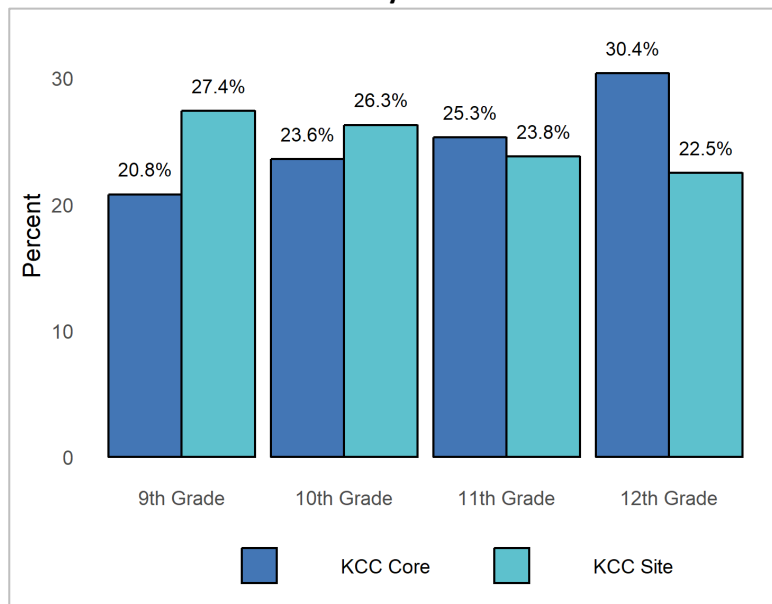
Overview of KCC Core Students

The goal of the KCC program is to identify and coach students who may be overlooked for postsecondary support services. Core students may be underserved, low income and/or the first generation to consider postsecondary education. In this section, we provide demographic and socioeconomic data comparing the Core students to the total KCC Site student population to determine if the target population is being served by the KCC program. KCC Site aggregates will include both KCC Core and Non-Core students to show the congruency or lack thereof between the individuals selected as KCC Core and the KCC Site as a whole. Due to the stated goal of reaching underserved and/or low income students, overrepresentation may be sought on particular demographic characteristics aligned with selection goals. The presentation of KCC Core student characteristics when compared to the KCC sites as a whole is intended to serve two purposes for this evaluation:

- 1) Contextualize future analytic results when addressing the three program goals, and
- 2) Provide feedback on KCC Core student selection to enable program self-evaluation concerning KCC Core recruitment efforts.

The 30 participating sites ranged in size from less than 300 students to nearly 2,000 students. In total, there were 28,736 students located at KCC sites with 1,806 of these students participating as part of the KCC Core student group. However, 72 of these KCC Core students were in an experimental itinerant KCC coach program⁵. Since that program is unique, those students were excluded from the Core student group resulting in 1,734 KCC Core students.

Chart 1 – Student Breakdown by Grade



Students from all grades in the high school can participate in the KCC program. The original grant narrative suggested that an equal distribution of students would be sought across grade levels, whereas an extension to the grant modified this to suggest that an overrepresentation of the later grades was desired. Breakdown of students by grade level at KCC sites showed the normal distribution found in high schools with a slightly larger percentage of the student body derived from the freshman

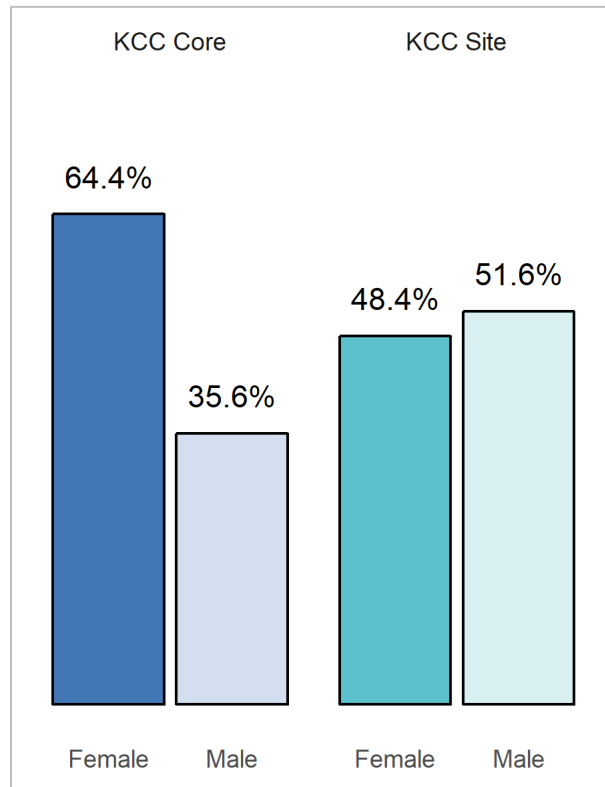
class with class size decreasing as students progress to senior year. In contrast, KCC Core students showed the opposite relationship with representation increasing across each grade from freshman to senior.

Among KCC Core students, 30.4% were in twelfth grade. This compares to 22.5% of all students at KCC Sites. Since the KCC program focuses on high school graduation and postsecondary enrollment, it is not surprising to see this group overrepresented.

⁵ This term was devised by KYSTATS to describe the alteration of traditional protocol involving placing a KCC coach within a single school to create near-peer mentoring. In contrast to the traditional design with one coach immersed in a single site throughout the AY, the itinerant KCC coach program consisted of one coach who moved between a series of sites within the same AY.

An overrepresentation of females has been found in the KCC Core student group since the first KCC evaluation, performed on the 2011-2012 academic year intervention⁶. The 2011-2012 evaluation found this to be consistent regardless of who was administering the intervention: Berea, KHEAA, or Area Technology Centers. This suggests that overrepresentation may be a result of the students suggested for selection by school personnel or by a difference in agreement to participate in the program between the two genders. It is unlikely that the overrepresentation is primarily due to the intervention administrators since there is consistent overrepresentation regardless of administering body found in prior evaluations. If equal gender representation is desired, it is important to identify the root cause of the discrepancy.

Chart 2 – Student Breakdown by Gender

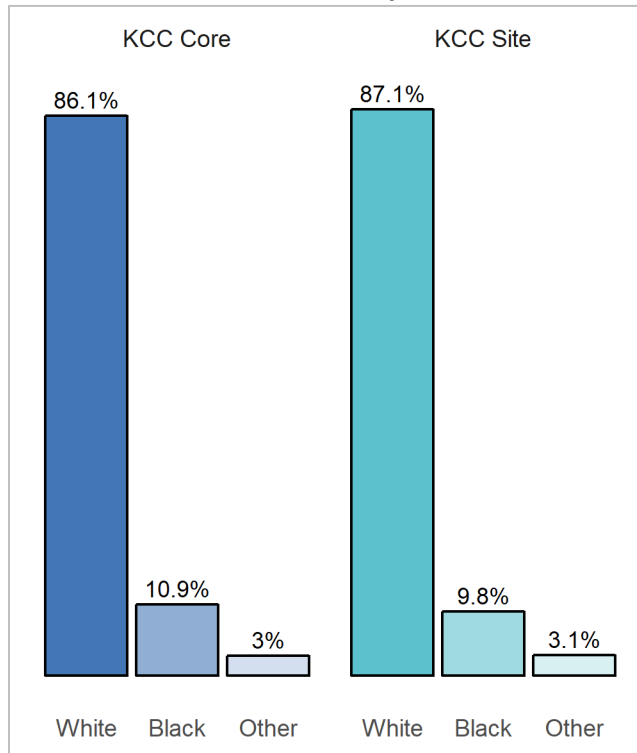


Using data from the 2015-2016 academic year of intervention, this overrepresentation of females⁷ in the KCC Core group mirrors earlier intervention findings. Within the KCC Core, females made up 64.4% of the students compared to 48.4% of the total student body. Recall that the KCC site includes both Core and Non-Core students.

⁶ Valcik, N. A. & Scruton, K. (n.d.). Pursuing Pathways: Evaluating the Kentucky College Coaching Program 2011-2012 (page 25). doi:10.13140/RG.2.2.10920.37121

⁷ The difference in the gender composition between the KCC Core and the KCC sites is significant, $\chi^2(1, N = 28,736) = 165.81$, $p < .001$.

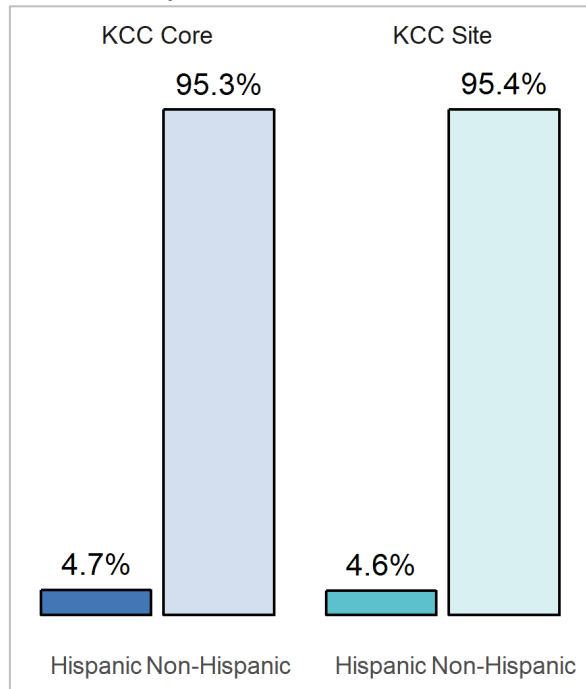
Chart 3 – Student Breakdown by Race



The KCC Core populations of Black and Hispanic students were not significantly different from the KCC Site population as a whole. The Core students were equivalently diverse as the overall KCC Sites¹⁰. Traditionally, researchers are seeking to find no significant differences between the intervention group and the population as a whole; however, with a stated goal of reaching underserved students, it could be expected that the KCC Core student population would over represent traditional minority groups. KCC selection criteria does include an array of variables, such as first generation college going and higher than average disciplinary referrals, which may still be true of the Core student population but is not reflected by race or ethnicity.

Across countries, there are traditional markers that correlate with educational hardships⁸. One important marker is a student’s minority status. KCC Core members did not differ significantly from the population at KCC sites based on race or ethnicity. Eighty-six percent of Core students were White/Caucasian compared to 87% at KCC sites.⁹ The two largest minority groups present in the KCC Site population and linked to relevant research supporting their status as underserved populations when considering race and ethnicity are Black/African American students at 11% and Hispanic students at just under 5%.

Chart 4 – Hispanic Student Breakdown

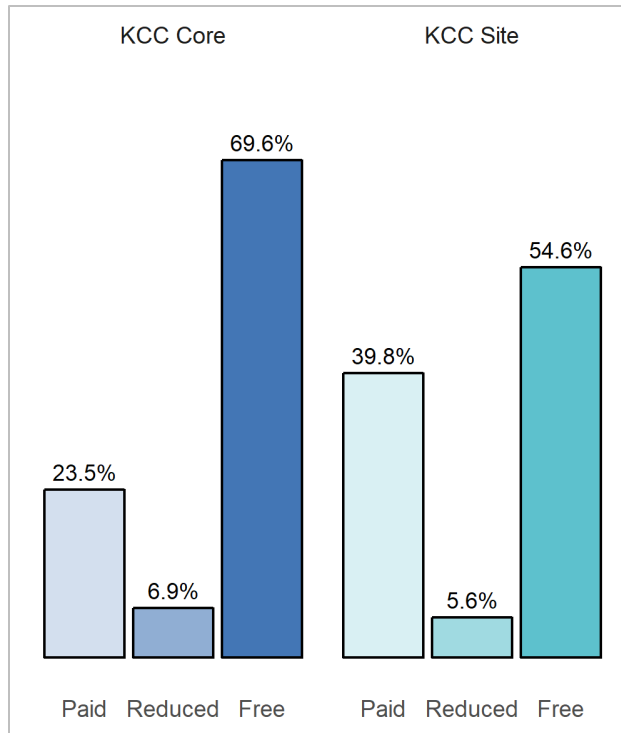


⁸ OECD (2016), *Low-Performing Students: Why They Fall Behind and How To Help Them Succeed*, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/9789264250246-en>

⁹ Proportion of students who are White/Caucasian: $\chi^2(1, N = 28,736) = 1.34, p = .247$

¹⁰ Proportion of students who are Black: $\chi^2(1, N = 28,736) = 2.16, p = .142$; Proportion of students who are Hispanic: $\chi^2(1, N = 28,736) = .069, p = .792$

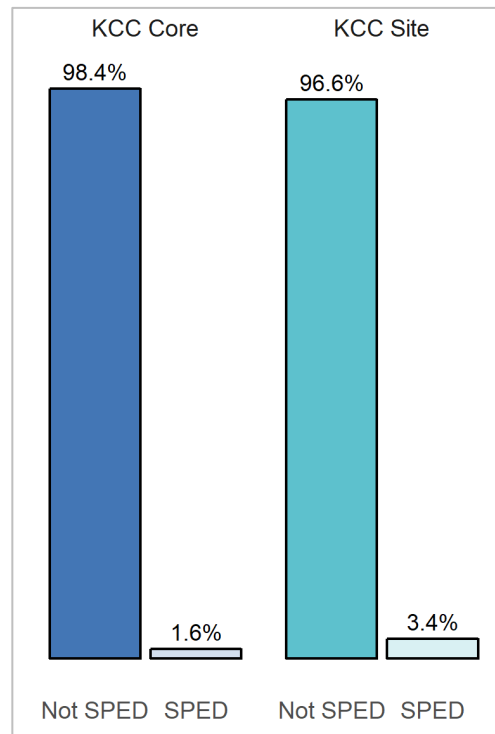
Chart 5 – Student Breakdown by Free and Reduced Price Lunch



KCC specifically seeks out students with particular socioeconomic factors traditionally correlated with disadvantage, including students with access to free or reduced price lunch. The KCC Core students reflect this selection criteria with a much smaller percentage of Core students failing to qualify for either free or reduced price lunch. Only 23.5% of the KCC Core cohort failed to qualify while the sites as a whole had 39.8% of students who failed to qualify for free or reduced price lunch. For the KCC Core cohort, a significantly larger proportion of students received free lunch (69.6%), and a significantly larger proportion of students received reduced prices (6.9%) at the KCC sites overall¹¹.

Students qualifying for special education (SPED) services in primary and secondary schools typically experience decreased high school graduation rates as well as decreased college-going rates. Nearly two percent of KCC Core students (1.6%) received special education services, a significantly lower proportion of the population than the KCC sites (3.4%) overall¹². Special education status is not mentioned in the array of student selection criteria used by KCC; however, this is useful in understanding which students are selected for cohort inclusion.

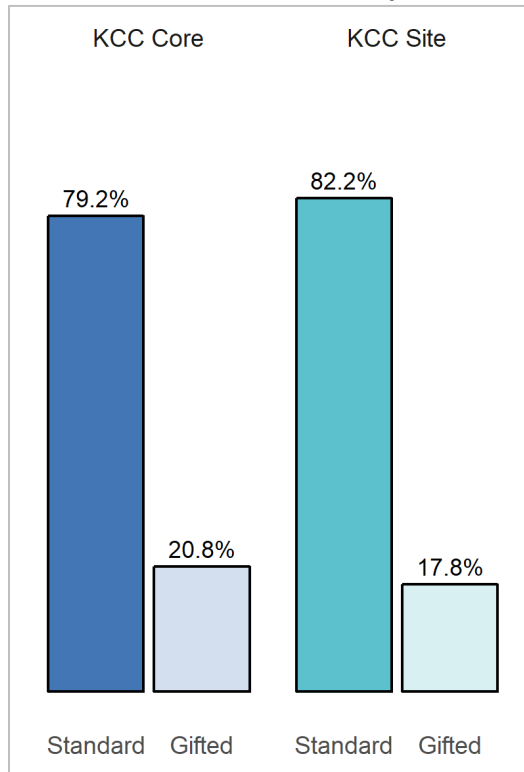
Chart 6 – Student Breakdown by Special Education Status



¹¹ Proportion who are eligible for free lunch: $\chi^2(1, N=28,736) = 148.56, p < .001$; Proportion who are eligible for reduced lunch: $\chi^2(1, N=28,736) = 5.43, p = .020$

¹² $\chi^2(1, N=28,736) = 15.36, p < .001$

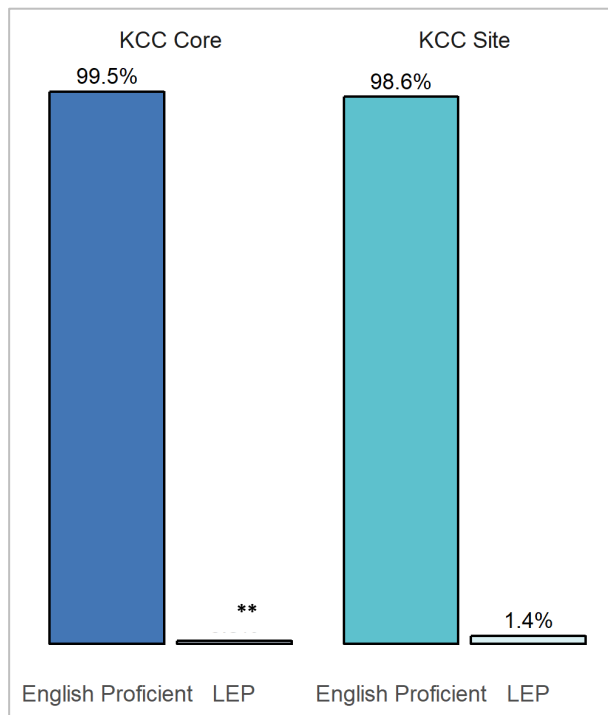
Chart 7 – Student Breakdown by Gifted Status



Although there is potential inconsistency in how the gifted student population is defined, this analysis shows a slightly higher share of KCC Core students with this designation (20.8%) compared to 17.8% of all students at KCC sites¹³. The Kentucky Center for Statistics (KYSTATS) recommends further investigation to ensure this is not an artifact of school administration bias when suggesting students for KCC services.

English language learners or students who are not fully proficient in the English language, are generally considered underserved populations in education settings. This subset of students experience unique challenges that correlate with decreased graduation rates and decreased college-going rates¹⁴.

Chart 8 – Student Breakdown by Limited English Proficiency



Within the KCC Core cohort, less than 1% of the students were English language learners (redacted), significantly less than the overall population at KCC sites (1.4%)¹⁵. This difference may be related to a lack of bilingual coaches. However, limited English proficiency (LEP) status may be a worthwhile avenue for KCC’s future consideration when determining the scope of underserved students.

Objectives for External Evaluation

KYSTATS is conducting an external evaluation of the Kentucky College Coaches Program. KYSTATS is legislatively authorized to collect and integrate education and workforce data from the Kentucky

¹³ $\chi^2(1, N=28,736) = 9.86, p = .002$

¹⁴ <https://www.npr.org/sections/ed/2017/02/23/512451228/5-million-english-language-learners-a-vast-pool-of-talent-at-risk>; OECD, 2016, p. 75; Kanno Y. & Cromley, J. (2013). English language learners’ access to and attainment in postsecondary education. *Tesol Quarterly*, 47(1). Retrieved from: <https://doi.org/10.1002/tesq.49>

¹⁵ $\chi^2(1, N=28,736) \approx 9, p < .01$

Department of Education (KDE), the Council on Postsecondary Education, the Educational Professional Standards Board, and the Kentucky Education and Workforce Development Cabinet into the Kentucky Longitudinal Data System (KLDS). The KLDS is used to generate timely reports about student performance through employment to guide decision-makers in improving Kentucky's education systems and training programs (KRS 151B.132). KYSTATS must also ensure compliance with the federal Family Education Rights and Privacy Act, 20 U.S.C. sec 1232g, and all other relevant federal and state privacy laws, KRS 151B.133(12).

The following questions guide this external evaluation:

1. How effective was KCC in measuring progress toward each goal?
2. What are the strengths and limitations of the research design for investigating the impact of KCC on each goal?

The purpose of this evaluation is to provide formative feedback to the project team related to the efficacy of the intervention in meeting the stated project goals.

Methodology

This evaluation utilizes a mixed methods approach to determine if the project is reaching short- and medium-term goals with a long-term, 3-year evaluation to follow. KCC program data is collected on-site as described in the 2012 Grant Application Narrative:

- KCC AmeriCorps members keep track of hours spent doing community and school-wide outreach, meeting with Core participants, and documenting the progress of Core participants
- Site supervisors check timesheets and data logs, and
- Intermediary program advisors verify the data.

This data are gathered through OnCorps, an online data reporting program, which was shared with KYSTATS. Program participant data were then matched with outcome measures from the KLDS. For academic year 2016, a list of 1,829 Core students was provided by KCC which was then matched with student information from the KLDS. This resulted in 1,816 uniquely identified students. More thorough data examination led to a final cohort of 1,806 students deemed strong enough matches to be suitable for inclusion in the evaluation, a 98.7% match rate. Of this group, the 72 KCC Core students who were participants in the pilot KCC program with an itinerant coach were removed from all subsequent analysis, resulting in 1,734 KCC Core students included in this evaluation.

For the purpose of this evaluation, results generated by the KCC participants, i.e., the Core group, will be compared to the Non-Core group, i.e., the remaining students at the participating high schools, as well as to the state overall when data are available. Data are reported following the same redaction policies as defined in the KYSTATS "Acceptable Use Guidelines"¹⁶. Broadly speaking, this restricts publishable data to cell sizes of 10 people or more. Data that meets the size criteria for publication still warrants

¹⁶ This policy can be accessed through the KYSTATS website or directly at the following location:
<https://kystats.ky.gov/Content/KYSTATS%20Acceptable%20Use%20Guidelines%20December%202017.pdf>

caution when attempting to use the data inferentially. Holding all other factors constant, larger cell sizes are likely to be more reproducible across years.

The overall appropriateness of techniques, results, and conclusions will also be examined by KYSTATS using current research standards and guidelines identified by the Institute for Education Sciences, the National Science Foundation, and the American Educational Research Association.

This evaluation will be organized by the three KCC goals:¹⁷ increase the high school graduation rate, increase postsecondary readiness, and increase postsecondary enrollments. The evaluation of each goal will include a discussion of outcomes, methodologies and recommendations to improve future analyses of the KCC program.

High School Graduation Rate Measures: There is no clear indicator of high school graduation within the KCC program data. There are indirect indicators of high school completion such as anticipated graduation date, college/university applications, and college/university of acceptance. As noted earlier, data collection is three-tiered with checks and balances to ensure accurate data collection. The KCC Coaches are trained to keep track of interactions, site supervisors check the timesheets and data logs, and the intermediary program advisors verify the accuracy. Anticipated graduation date is collected for the Core students but it is unclear if this is a calculated field based on current student grade or if the date is self-reported by the student. There does not appear to be additional follow-up on the actual graduation status of KCC Core students. In terms of college/university applications, the source of the data is also ambiguous. Theoretically, the KCC Coach may be aware of the application through actual assistance in the application process, but it is not clarified whether the data are self-reported by the student, documented by a KCC Coach after an interaction with the student, or recorded by the site supervisor, denoted as typically a guidance counselor, who may be an integral part of the college application process.

Graduation, as calculated by KDE, relies on a cohort model with separate calculations of 4- and 5-year cohort graduation rates. When looking at a cross-sectional snapshot of an intervention that has been implemented for variable timeframes across sites, using a cohort model poses the potential to include information from prior to the start of the intervention. ***Thus, a unique high school graduation metric was calculated by KYSTATS to match KCC goals.*** All senior students at KCC sites during the 2016 AY were matched in the KLDS to determine high school diploma date and classified as on-time or not on-time. ***Senior students who received a high school diploma on or before August 1, 2016 were considered on-time high school graduates.*** The assumption in creating this metric is that Core students working with KCC coaches during their senior year of high school should be provided the support needed to ensure an on-time graduation. As a student may have only started to receive coaching in this particular AY, only seniors can be assessed for this metric.

¹⁷ The Kentucky College Coaches Logic Model, developed in 2014 was used to organize the project goals into short- medium- and long-term outcomes. Despite its creation after the initial grant proposal, it remains consistent with the 2012 grant and provides additional information on specific expected outcomes (see Appendix B).

Postsecondary Readiness Measures: There are several tests administered to students between eighth and twelfth grades to assess college readiness: Explore in eighth grade, PLAN in tenth grade and the ACT in eleventh grade. Scores from the COMPASS test, a computerized college placement test, can also be used though the test is voluntary and not all KCC participants may have taken it. Scores from Explore and ACT will be analyzed in this evaluation. Explore is selected due to its temporal location as a universal eighth grade test. This offers the unique benefit of providing a snapshot of prior student achievement. The PLAN is considered compromised because some, but not all, sites have been consistent KCC sites across several years. Due to the cross-sectional nature of this evaluation, using scores from an assessment administered during high school as a metric of prior achievement would be unwise. Unlike the PLAN assessment, the ACT during junior year (ACT-Junior) is administered near the close of the year, allowing it to be used as an outcome metric for junior year students participating during the specified academic year. For informative purposes, test scores from PLAN and COMPASS can be found in Appendix C.

In addition, there is an individual-level college readiness flag in the KLDS provided by KDE. As defined and classified by KDE, 'college readiness' is based on any given individual meeting specified standards in mathematics, English, and reading. An individual can meet these standards through domain scores from the ACT-Junior or an ACT re-take, the KYOTE, or COMPASS. Comparisons will be made between KCC Core seniors, Non-Core seniors and state seniors overall, regardless of graduation status at the end of senior year.

Postsecondary Enrollment Measures: Unlike the standard metrics used by KYSTATS, all seniors during the 2015-2016 AY are included when determining in-state college-going rate. Individuals are counted as in-state college-going if the individual enrolled in an in-state public 4-year institution, public 2-year institution (Kentucky Community and Technical Colleges), or a private postsecondary institution (Association of Independent Kentucky Colleges and Universities) during the 2017 academic year. Out-of-state college enrollment is not included in this metric; for context, out-of-state college enrollment has historically accounted for an additional 5% of graduating senior college enrollments at the state level.¹⁸

The following language will be used throughout the remainder of the evaluation¹⁹:

- KCC Site: A public high school in Kentucky that received a dedicated coach as part of the KCC program during the 2016 academic year. Outcome measures for the site include all ninth, tenth, eleventh and twelfth grade students regardless of KCC participation.
- KCC Coach: An AmeriCorps member that serves as a near peer mentor to KCC participants.
- KCC Core Students: Students selected as Core students by the KCC program. Core students receive more individual attention and meet more frequently with KCC coaches. Selection into the Core participant group is based on recommendations from high school faculty, staff and/or administration.
- KCC Non-Core Students: Ninth through twelfth grade students located at a KCC site during the requisite year who are not Core students.

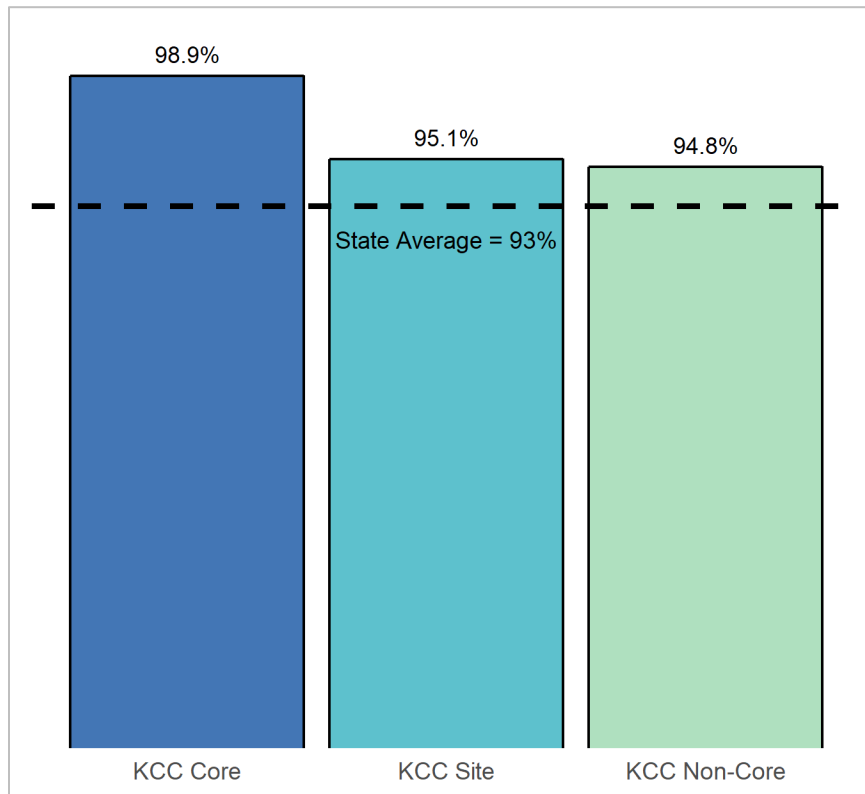
¹⁸ See: https://kystats.ky.gov/Content/Reports/HSFRCG_2014_001_000.pdf

¹⁹ A full list of acronyms used in the report follows the analysis.

Project Goal I: Increase High School Graduation

A fundamental goal of the KCC program is to increase high school graduation rates at low performing schools. Individuals coached through the KCC intervention should be prepared to graduate on-time or early during their senior year of high school. Furthermore, it is assumed that these students should be aware of any potential problems that could place a hold on their diploma.

Chart 9 – 2016 Senior on-time Graduation Rates



To determine high school graduation rates, KYSTATS used data from KDE and the KLDS. Overall, the graduation rate²⁰ for 2016 seniors in the state of Kentucky was 93%. The graduation rate for KCC Core students during the 2016 academic year was significantly higher than both the state average as well as the other students (i.e., Non-Core) at KCC sites. Core students had a graduation rate of 98.9% during Academic Year 2016 compared to 94.8% for Non-Core students.²¹

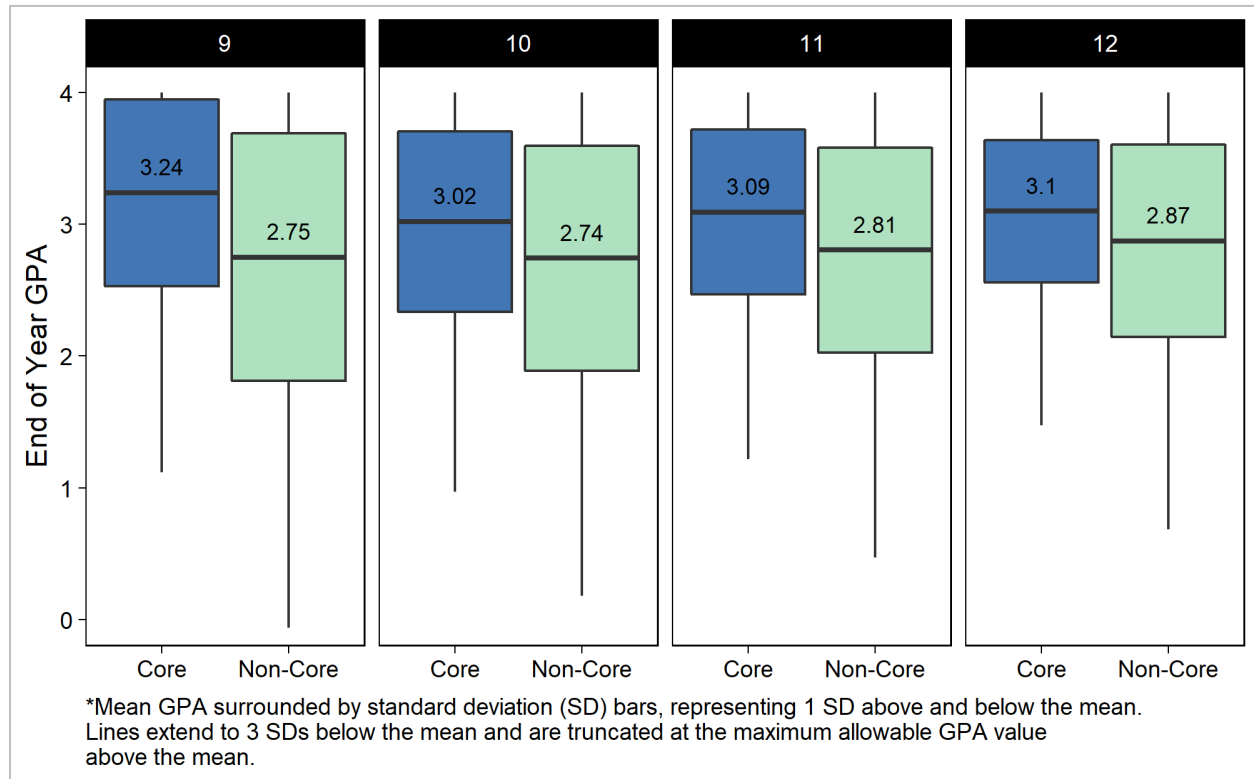
Another factor to consider when evaluating graduation rates and college-going behavior is student grade point average (GPA). As shown in the following chart, the GPA of KCC Core students was significantly higher during AY 2016 than KCC Non-Core students across all grade levels.²² For example, the GPAs of senior KCC Core students were significantly higher (3.10) than Non-Core seniors at KCC sites (2.87).

²⁰ See page 10 for details concerning this particular graduation metric. Although this data can be backfilled using the KLDS to approximate a cohort model of graduation, this would fail to account for when a particular individual began to receive the KCC intervention. Future longitudinal evaluations should assess graduation rate flexibly to account for time of entrance into the KCC Core program.

²¹ $\chi^2(1, N = 6,479) = 16.508, p < .001$

²² For ninth grade students, $t(421.92) = 12.58, p < .001$. For tenth grade students, $t(484.23) = 7.88, p < .001$. For eleventh grade students, $t(534.81) = 9.14, p < .001$. For twelfth grade students, $t(708.32) = 8.89, p < .001$.

Chart 10 – GPA Breakdown by Grade



Since students in all grade levels are included in the KCC program, changes in GPA can theoretically be evaluated at sites where the KCC program has been operating over time. Looking at GPA changes across time necessitates a longitudinal approach rather than a cross-sectional approach and will be reserved for future longitudinal analyses.

Strengths and Limitations Related to Goal

Strengths: One strength of this program is the clarity and simplicity in ultimate goals. High school graduation is a required milestone necessary for many entry-level careers. Increasing this rate is a marker of success and improved outcomes. The KCC Logic Model provides objective guidelines for coaches and evaluators alike.

Limitations: The KCC Logic Model does not offer specific measures to document if and when seniors graduate from high school. However, inferences can be made that graduation has occurred for students that enter postsecondary education since graduation is a requirement for admission.

The data collection process appears to focus on the number of meetings and the length of those meetings focusing on college application preparation. There do not appear to be defined deadlines for which topics or materials should be introduced to the Core students and when they should be introduced. This might present replicability issues since much of the coaching depends upon each individual coach's style. Additionally, there have been no objective definitions of thresholds for qualifying a coach as successfully carrying out KCC goals.

The lack of consistency in data input across years poses issues for future longitudinal analyses. Maintaining a codebook would mitigate these difficulties and allow an external evaluator to improve accuracy in determining program impact. Reducing the data elements to key variables could provide a multitude of benefits. First, it would allow KCC coaches to spend more time enacting the intervention as opposed to performing data entry. In addition, the supervisory chain reviewing the data would be able to focus on the accuracy of a smaller subset of elements, potentially improving overall data accuracy.

Recommendations for Future Evaluations

When looking at high school graduation rates, several ambiguities need clarification to ensure accurate assessment of program impact – time allowable for graduation and the acceptability of a GED as an indicator of high school completion. The Kentucky Department of Education will count an individual as successfully graduated from high school using either of these diploma types so long as the GED is acquired within one year of exit from high school. The KLDS data can determine graduation as well as the time of diploma conferral.²³ If the time range for successful graduation extends indefinitely and a GED diploma is equivalent, additional evidence of graduation can be accrued from Adult Education data²⁴.

A further concern with previous methods of assessing high school graduation impact rate is the focus on comparing Core students *only* to KCC Non-Core students. Although this has a great deal of value, there are some concerns about this as a metric when assessing project-stated goals. On page 10 of the 2012 Grant Application, the goals of the program are stated in terms of school-wide effects: “Over the next three years, the program goal is to increase the high school completion and postsecondary enrollment rates by 6% (2% each year) *at each school* served by KCC” (emphasis added by author). In light of this, the evaluation could be more robust by comparing graduation rate at KCC sites to matched similar sites. An additional benefit to this would be accounting for general trends over time potentially attributable to statewide programs or interventions. The grant application identifies many potential sites for interventions, of which only a subset went on to have KCC coaches in AY 2016. The remaining sites may be strong candidates as a comparison group.

Finally, the KCC program has been operating for several years which will allow researchers to examine changes in graduation rates over time. Although this is beyond the scope of the current evaluation, a future longitudinal component would help in the overall assessment of reaching this goal.

Future recommendations based on Project Goal I:

- Maintain a codebook documenting sources of information (i.e., student self-report, KCC Coach report, or some named external source), definitions of each variable, permissible codes for each variable, and the meaning of missing values (missing = 0).
- Focus KCC Coaches on entering time spent, member interactions, and purpose of activities rather than information already contained within the KLDS.

²³ The current metric disregards diploma type and bases analysis on the time at which the diploma is conferred.

²⁴ A GED acquired within one year of expected graduation will be recorded in data collected by the Kentucky Department of Education: a GED acquired after this timeframe will be recorded in adult education data and can be used to assess graduation after the 1 year timeframe has expired.

- Identify similar sites, using the confluence of selection criteria, to use as a comparison for KCC intervention sites.

Project Goal II: Increase College Readiness

The original grant narrative states that, “College coaches will work intensively with the cohort of students, individually and in small groups, to provide both educational and social support to ensure these students are adequately prepared for postsecondary enrollment.” According to the KCC on Campus (KC3) – Logic Model (see Appendix B), there are several short-term goals to increase postsecondary readiness:

- Increase scores in ACT tests
- Knowledge of what classes to take in high school in preparation for postsecondary goals
- Aspirations of going to college or other career path
- Knowledge of how to get scholarship money for college
- Increase in a college-going culture in high schools around the state

College readiness is officially determined through meeting predefined metrics on the ACT, Compass, or KYOTE tests; however, college readiness is measured, in part, through several ACT tests beginning in middle school when eighth graders take the ACT Explore test to gauge high school readiness. In tenth grade, students take the ACT Plan, which assesses reading, math, science and English and helps predict success on the ACT test taken by all high school juniors. Also discussed in this section is the official college readiness indicator developed by the Kentucky Department of Education and provided to KYSTATS.

Benchmarks are an indicator of postsecondary success either in education or career. Students who meet ACT defined benchmarks have a 50 percent chance of earning a B or better and a 75 percent chance of earning a C or better in corresponding postsecondary courses.²⁵ Upon admission to a public, postsecondary institution, students scoring at or above the Kentucky college readiness benchmark for a given domain will not be required to take remedial courses. Here, scores for the Core and Non-Core groups are compared for statistical differences. As well, the share of students in each group above the benchmark are shown. The table below presents the Kentucky benchmarks for the ACT tests as established by the Kentucky Council on Postsecondary Education.

Table 1 – Kentucky Benchmarks²⁶ for ACT Tests

	Explore	Plan	ACT	Compass
English	13	15	18	74
Reading	15	17	20	85
Mathematics	17	19	19	36

Source: Kentucky Council of Postsecondary Education, *College Readiness Indicators 2016*

<http://cpe.ky.gov/policies/academicaffairs/collegereadinessindicators2016.pdf>

²⁵ Source: <https://www.act.org/content/dam/act/unsecured/documents/pdfs/R1670-college-readiness-benchmarks-2017-11.pdf>

²⁶ Kentucky benchmarks differ from the ACT-defined benchmarks for the flagship ACT test in reading and mathematics. ACT requires a minimum score of 22 on both of these domains to be declared college ready in the specified domain.

ACT Test Scores

The ACT tests test four subject areas – English, reading, mathematics and science. The composite score is an average of the four test scores. The ACT Explore assessment given in eighth grade provides information about a student’s readiness to enter high school. The average Explore scores for ninth graders, both Core and Non-Core cohorts, are shown below. The ACT Explore scores range from 1 to 25. Core ninth graders had an average score of 15.3 for the English test, which is statistically different from Non-Core students who averaged 13.98. For comparison, the benchmark score was 13 during AY 2016. More than 71% of Core students met or exceeded the benchmark compared to 57.6% of Non-Core students. According to the ACT, students that score at or above the benchmark scores are likely to be on track to do well in entry level college courses in these subjects²⁷.

The ACT Explore test is administered in eighth grade, prior to the KCC intervention. The existence of significant differences between the Core and Non-Core ninth grade cohorts suggests that those individuals recruited and choosing to participate in the KCC intervention in the 2016 AY were performing better than their Non-Core peers. This may suggest that recruitment efforts should be revisited and assessed to ensure that the appropriate individuals are being targeted for intervention.

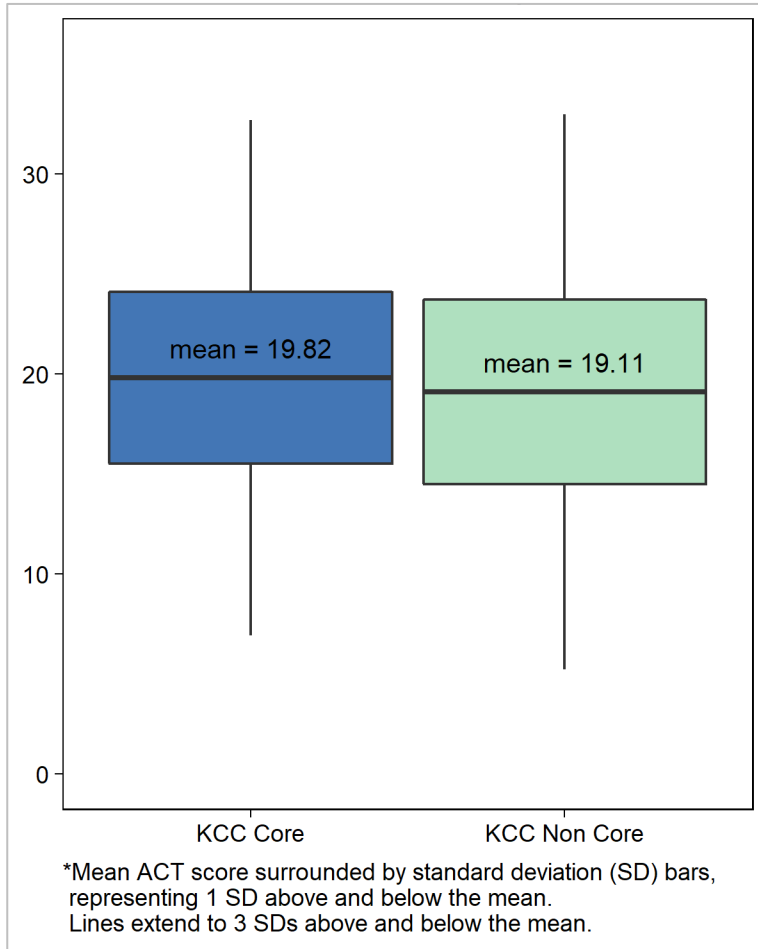
Table 2 – ACT Explore Scores (taken in eighth grade) for Ninth Graders, AY 2016

	Eighth Grade Explore		Benchmark	Share Meeting or Exceeding Benchmark	
	Core	Non-Core		Core	Non-Core
English	15.30*	13.98	13	71.1%	57.6%
Reading	14.86*	13.88	15	48.1%	35.0%
Mathematics	15.90*	14.65	17	41.0%	28.9%
Science	17.21*	16.16	20	18.3%	12.5%
Composite	15.95*	14.80	–	–	–

* The mean difference is significant between Core and Non-Core students at the .01 level (2 tailed)

²⁷ Allen & Radunzel (2017).

Chart 11 – ACT Composite Scores* for Eleventh Graders, AY 2016

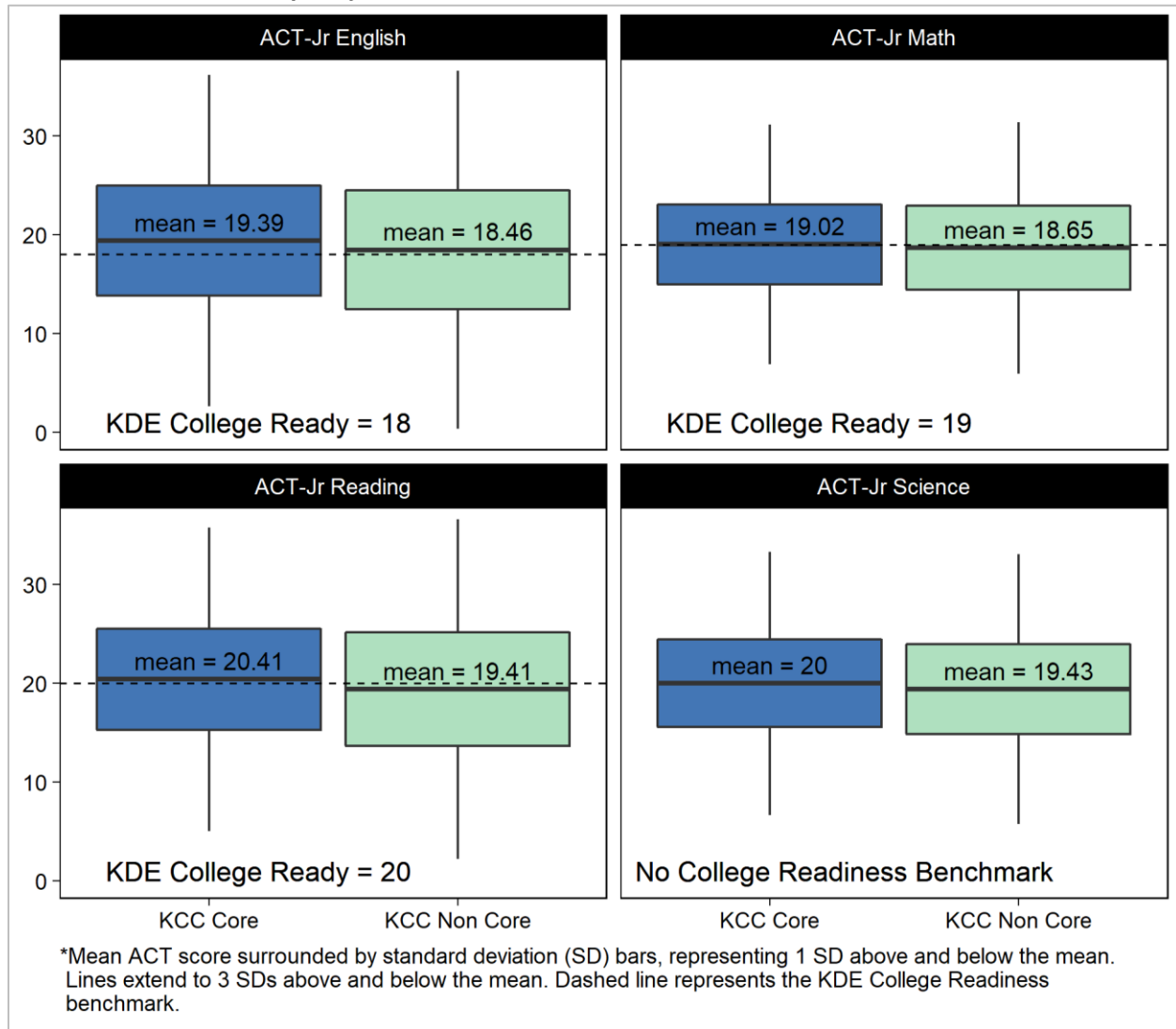


During the eleventh grade, all Kentucky students take the ACT to assess college readiness. Scores range from 1 to 36. The following chart shows the composite scores for eleventh graders during AY 2016. KCC Core students average 19.82 compared to 19.11 for Non-Core students.

The chart on the following page presents the ACT scores by subject for eleventh graders in AY 2016. The ACT scores of Core students are significantly higher than the scores of Non-Core students in all subjects with the exception of math.²⁸

²⁸ All t-tests were performed two-tailed in order to minimize assumption bias in assessing differences between Core and non-Core eleventh graders at KCC sites. Were a 1-tailed test used, mathematics would also show a significant difference at the $p = .05$ level.

Chart 12 – ACT Scores* by Subject for Eleventh Graders, AY 2016²⁹



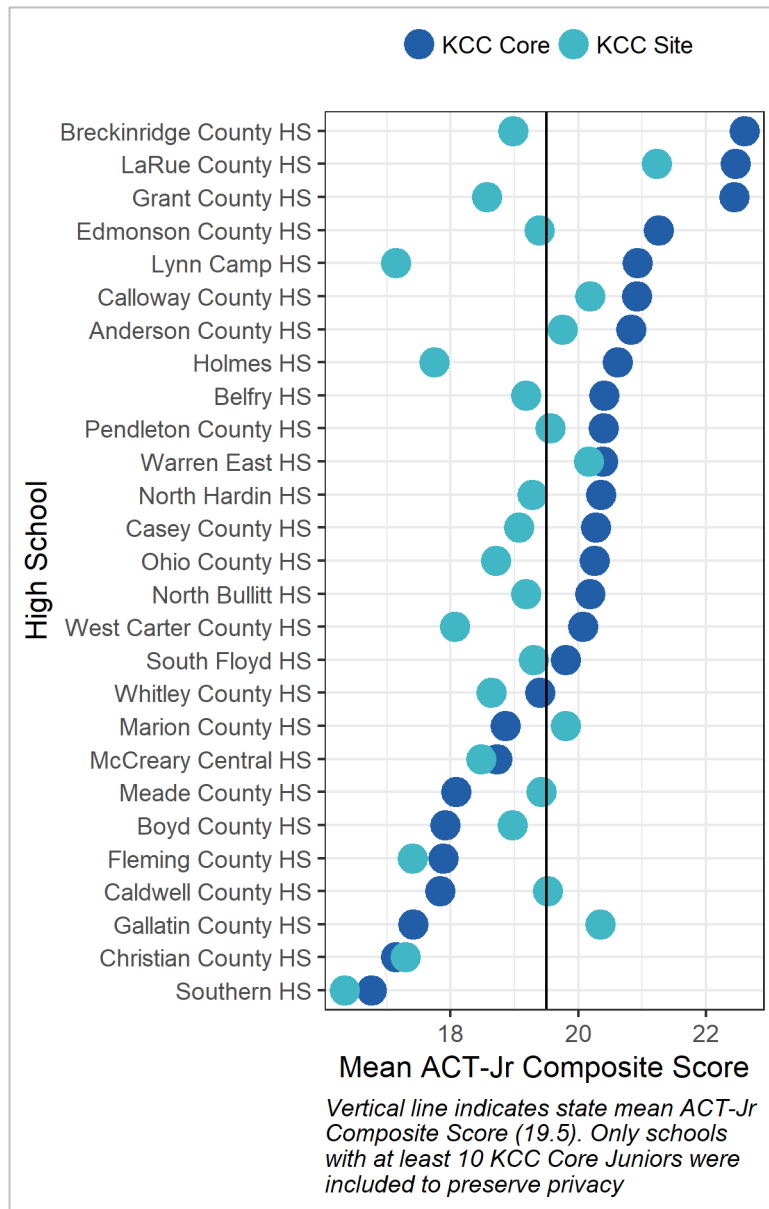
The table below presents the share of Core and Non-Core students that met or exceeded the state ACT benchmark scores. For all measures, the share of the Core group was higher than the Non-Core group.

Table 3 – ACT Assessment Benchmark Scores for Eleventh Graders, AY 2016

	Benchmark Score	Share Met or Exceeding Benchmark	
		Core	Non-Core
		English	57.4%
Reading	55.7%	45.8%	
Mathematics	39.8%	38.1%	

²⁹ Two-tailed results: English: $t(491.06) = -3.28, p = .001$; Mathematics: $t(6,335) = -1.72, p = .09$; Reading: $t(496.51) = -3.84, p < .001$; Science: $t(483.59) = -2.53, p = .01$

Chart 13 – Mean ACT Composite Score for High School Junior, AY 2016



The following chart compares the mean ACT Composite score between KCC Core students and the KCC site as a whole for all high schools with at least 10 KCC Core eleventh graders during the 2015-16 AY. The state mean ACT Composite score for the same AY is presented as a vertical line for comparison.

Of the 30 KCC high school sites, 27 had sufficient KCC Core eleventh graders with ACT-Jr Composite test scores to display. Sites displayed in the adjacent chart had between 10 and 29 KCC Core eleventh graders. The chart shows that KCC Core students exceeded the state mean ACT-Jr Composite score at 17 of the 27 sites displayed (63%) and Core students exceeded the site average at 19 of the 27 sites (70%). This relationship can be further explored through future longitudinal analysis.

College Readiness

According to the Kentucky School Boards Association, college readiness is defined as “The level of preparation a first-time student needs to succeed in a credit-bearing

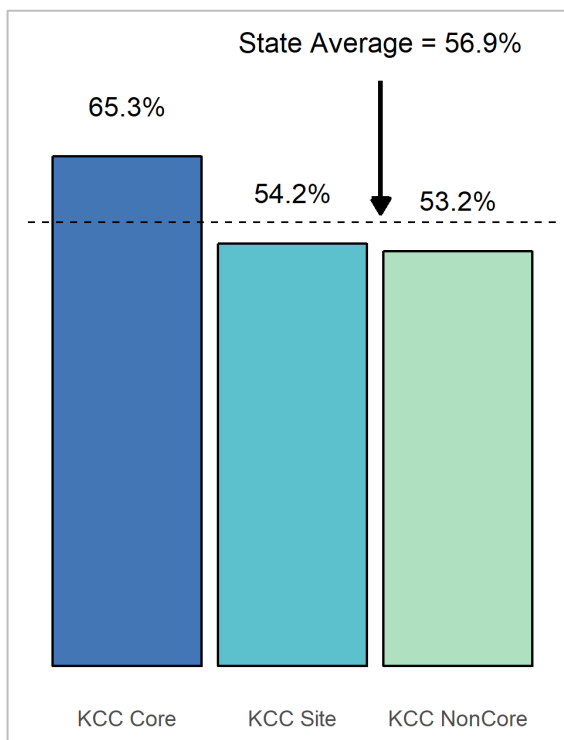
course at a postsecondary institution. ‘Success’ is defined as completing entry-level courses at a level of understanding and proficiency that prepares the student for subsequent courses, without the need for developmental education courses or supplemental coursework.”³⁰ If a high school graduate is not ready for college-level work in reading, writing or mathematics, the student may be required to take remedial courses, which may not earn college credit. Due to either the increased time-to-degree or lack of content knowledge needed for progression, the majority of these students do not complete their college

³⁰ Source: <https://www.ksba.org/CollegeandCareerReadiness-aprimer.aspx>

degrees.³¹ This is costly to students, families, institutions and taxpayers, and poses a challenge to increasing Kentucky’s education attainment levels.

All Kentucky students get a chance to establish college readiness through the statewide administration of the ACT during a student’s junior year of high school. Administration occurs at the end of junior year, traditionally in March. Students who meet the benchmarks in English, reading, and math are declared college ready. A student failing to meet these standards on any or all domains has the opportunity to demonstrate college readiness through retaking the ACT or passing the appropriate subject test on one of the alternative approved exams. Presumably, the process of preparing for the retest aids the student in achieving college readiness in the subject area.

Chart 14 – Senior College Readiness Rate

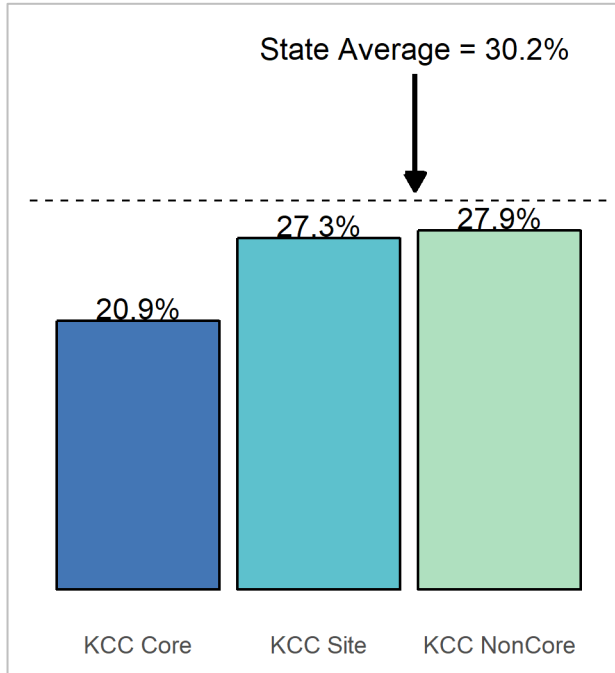


When including all students classified as seniors during the 2015-16 AY, KCC Core students demonstrated a higher percentage of college readiness (65.3%) when compared to KCC Sites (54.2%), KCC Non-Core students (53.2%), and the state as a whole (56.9%).³² Using cross-sectional data allows for the establishment of a relationship between KCC Core membership and college readiness rates as well as the possibility of temporal precedence as the intervention occurred while there was still time to attain college readiness. However, this does not rule out selection bias on behalf of KCC Core students (the following section will address the likelihood student selection bias).

³¹ Source: <http://cpe.ky.gov/ourwork/collegereadiness.html>

³² This difference in proportions was statistically significant both when comparing KCC Core and the KCC Sites [$\chi^2(1, N = 5,952) = 23.882, p < .001$] and when comparing KCC Core students to the State overall [$\chi^2(1, N = 47,655) = 14.531, p < .001$].

Chart 15 – Senior College Readiness Rate Based Only on ACT-Junior Test, AY 2016



To address this point, this same group of individuals was examined for college readiness under the hypothetical condition that only the scores on the junior year administration of the ACT were used to determine college readiness classification. Under this hypothesis, an individual had to meet the Kentucky Department of Education benchmarks for all three domains during this single testing administration. KCC Core seniors in the 2016 AY lagged behind the state average by 9.3% and behind KCC Site populations by 6.4% when viewed as a whole.

This reversal in performance of the KCC Core students from less to more college ready after intervention suggests that individuals are being assisted in meeting college readiness benchmarks

through the intervention process. Longitudinal analysis that accounts for potential college coach presence across multiple years is needed to be confident in the nature of this relationship.

Alignment to literature: In the 2016 AY, the senior college readiness rate for the state of Kentucky was 56.9%, exceeding the rate found for KCC onsite Non-Core seniors but not the rate found for KCC onsite Core seniors. This places the college-readiness of KCC Core students above the rate found for both Non-Core students and the state as a whole.

Strengths and Limitations Related to Goal

Strengths: One strength is in gathering data from the ACT to determine college readiness in KCC participants. Inclusion of the Explore, PLAN, and ACT scores allows for assessment and monitoring of progress towards the ultimate goals, which is included by the Kentucky Department of Education to indicate college readiness.

Limitations: The current data is suggestive of causality but unable to triangulate it. A longitudinal dataset paired with quasi-experimental methods can be used to strengthen this association in future iterations. Furthermore, a greater understanding of the instructions given when determining Core students for inclusion in the intervention may allow for the matching of Core students with similar students at non-KCC sites to strengthen the comparison.

Of note, data pertinent to this section only addresses an increase in college-readiness. The KCC Logic Model outlines several additional short-term goals unable to be assessed in the current data collection (see Appendix B). Possible solutions are contained in the following table.

Short-Term Goal	Future Measurement	Caveats
Knowledge of what classes to take in high school in preparation for postsecondary goals	Possible with data in the current KLDS. High school Transcript data can be used to assess whether students take suggested coursework	This depends on an extant commonality of coursework recommendations. Even with common recommendations, a failure to take the coursework could reflect failure of a coach to recommend the coursework or failure of the student to follow the recommendation
Aspirations of going to college or other career path	Relies on KCC data collection. Indirect indicators of aspirations can be gleaned from behaviors such as completing the FAFSA or submitting college applications. Alternatively, a survey that assesses college and/or career aspiration could be administered pre- and post- KCC intervention.	Indirect behaviors are suggestive at best; however, survey administration would necessitate IRB approval, consent documentation, and identifying an appropriate instrument.
Knowledge of how to get scholarship money for college.	This can be indirectly measured for the College Access Program Grant, Kentucky Tuition Grant, Dual Credit Scholarship, and PELL grant through the KLDS.	This assesses actual acquisition of scholarship/grant monies rather than knowledge of how to acquire scholarships and/or grants.

Recommendations for Future Evaluations

- Transform standardized test data prior to comparing and include appropriate matched comparison groups.
- Report regular monitoring of annual student change for assessments to ensure that students receive increased attention to improve assessments as required.

In terms of actually assessing program impact on college readiness rates, the long-term goal is college success with the ultimate goal of workforce participation.

Project Goal III: Increase Postsecondary Enrollment

A medium-term outcome in the KCC Logic Model is to increase the number of students in postsecondary education. This includes enrolling and going to either college or other training programs. The corresponding long term outcome is completion of training or education that leads to a meaningful career with a living wage or higher (see Appendix B).

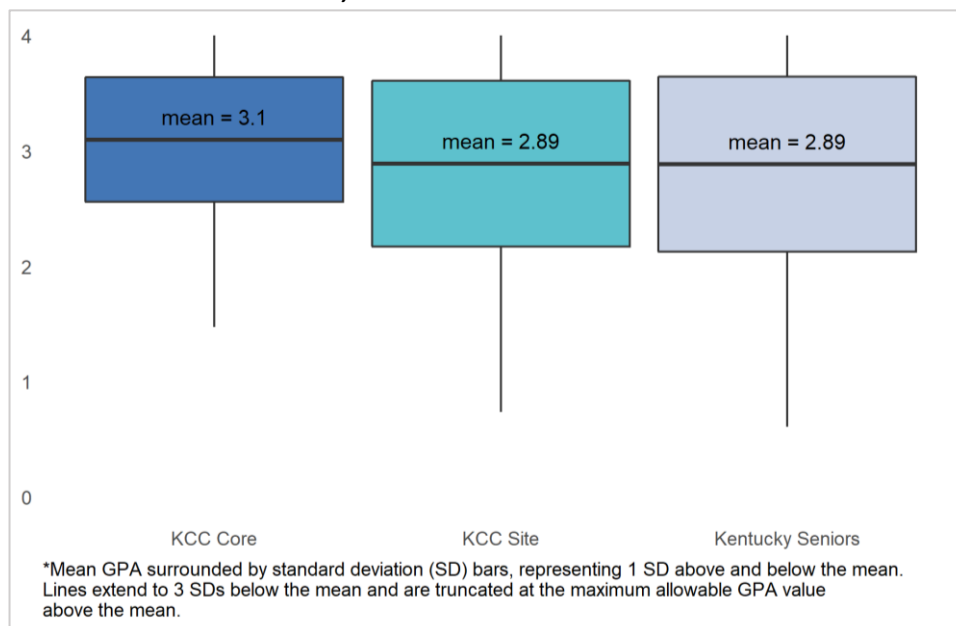
The metric for college-going behavior is actual college enrollments and attendance; however, acquiring this information would require following students post-high school. Within the KCC program, the metrics to indicate increases in college-going behavior are college applications and college acceptance. However, it is not clear how this data are gathered. The KCC Coach may be aware of the application through actual assistance in the application process, but it is not clarified whether the data are self-reported by the student, documented by interaction with a Coach, or recorded by the site supervisor, denoted as typically a guidance counselor, who may be an integral part of the college application process. Therefore, data from the KLDS is used to show the in-state college going rate for KCC Core students (see 'Project Overview' for postsecondary metric definition).

KCC Coaches are also tasked with “helping each individual high school student find the postsecondary match that is right for them.” Currently, information measuring participant skills and aspirations is unavailable in the data, leaving this an unknown factor.

Senior Grade Point Average

When applying for postsecondary education, students have to include their GPA. Using the KLDS, the grade point average for seniors was compared among Core students, all seniors at KCC sites and the state average. As shown in the chart below, the average GPA for seniors in the KCC Core group was 3.10 compared to 2.89 for the KCC sites and the state overall.

Chart 16 – GPA* for Seniors, AY 2016



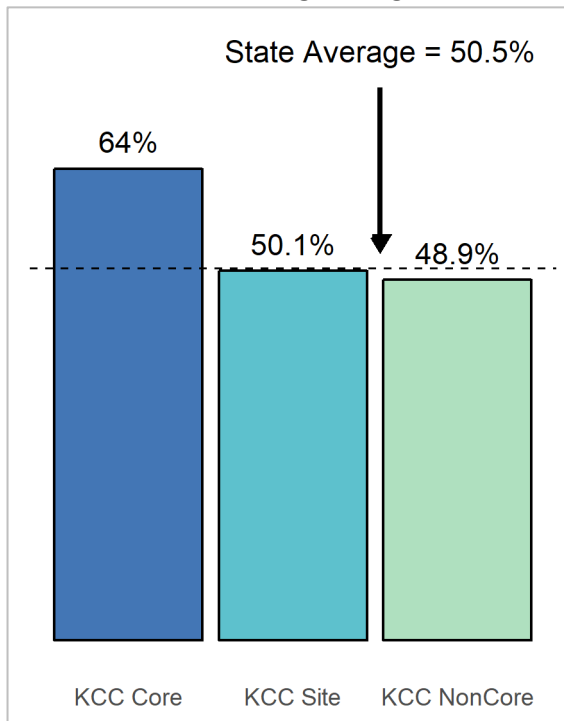
In addition to the average GPA, the chart shows the range of GPAs. The box itself is a single standard deviation (SD) above and below the means while the line shows 3 SDs. GPAs for Core seniors were more concentrated around the mean than for KCC Sites and Kentucky seniors as a whole. For both the

KCC Site and Kentucky seniors, the extensions reach to lower GPAs than they do for KCC Core seniors. Significance testing reveals that KCC Core seniors have significantly higher GPAs when compared KCC Non-Core students.³³

In-State College Going Rate

Data from the KLDS can show what percentage of Kentucky high school 2015-16 seniors enroll in Kentucky postsecondary institutions in academic year 2017. This includes community and technical colleges, colleges and universities, public, private and independent schools. Data are not available for out-of-state schools.

Chart 17 – In-State College Going Rate, AY 2016



In Kentucky, just over half (50.5%) of 2015-16 high school seniors enrolled in postsecondary schools within Kentucky the following academic year. Significantly³⁴ more KCC Core seniors enrolled, with nearly two-thirds of KCC Core seniors (64%) enrolling at an in-state institution during the following academic year.

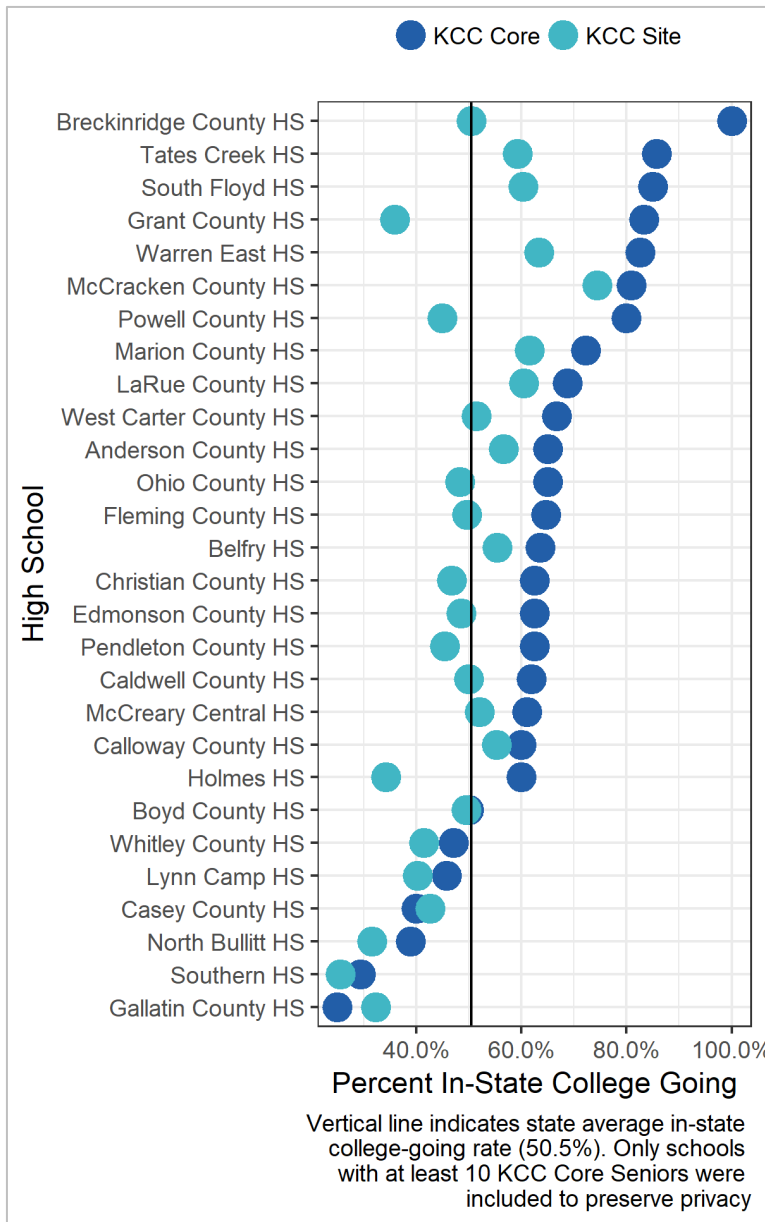
Since the data does not include out-of-state schools, a comprehensive understanding of how many graduating seniors enrolled in postsecondary education is not available. Although it is possible that more Non-Site Kentucky seniors enrolled in out-of-state schools rather than in-state schools, it is unlikely that there are enough out-of-state enrollees to make up the percentage difference between the Core seniors and the state as a whole. In order for the state rate to be equivalent to the KCC Core enrollment rate,

almost 6,500 individuals would need to have enrolled in an out-of-state postsecondary institution, making out-of-state enrollments slightly over 20% of all first-time postsecondary enrollments.

³³ $t(683.79) = -7.4808, p < .001$. 95% confidence interval of the difference between the two groups is .16 to .27.

³⁴ When comparing Core seniors to the site as a whole: $\chi^2(1, N = 7,006) = 36.8, p < .001$. When comparing Core Seniors to KY Seniors: $\chi^2(1, N = 48,182) = 37.2, p < .001$.

Chart 18 – In State College Going Rate by KCC Site, AY 2016



This information can also be broken down by KCC site as shown in the following chart. To protect student privacy, only KCC sites with more than 10 KCC Core seniors were analyzed. Of the 30 participating high schools in AY 2016, 28 had met this criteria. Among these 28 sites, Breckenridge County HS had the highest share of KCC Core seniors enrolling in in-state colleges – 100%. This compares to a state average of 50.5%. The majority of KCC Sites, 21 of 28, had in-state college-going rates higher than the state average. In only two cases did the KCC Site rate exceed the KCC Core rate.

Strengths and Limitations Related to Goal

Strengths: One strength to this approach is that many of the stepping-stones to attending college are recorded. This enables the KCC program to look deeper into any potential drop-off points and assess whether changes in these behaviors can impact enrollments. A further benefit to this metric is simplicity. The goal is simple and the method is simple. Percentage change in a key outcome is understandable and powerful. Within

the KCC framework, a final benefit to student observation is the potential psychological ramifications for the student in knowing that behaviors will be documented. The sheer act of being observed may increase the likelihood that students engage in these actions. With the addition of the KLDS data, actual in-state college going rates can be measured.

Limitations: One main limitation of previous data collection has been the inability to measure the outcome of interest, relying on intermediary behaviors as indicators instead. Even when a student has successfully applied and been accepted to a postsecondary institution, there are multiple potential obstacles that may still prevent a student from actually attending the postsecondary institution.

A further limitation is the lack of indicators for the secondary purpose of aligning student skills and aspirations to future career paths. In order to assess whether alignment is occurring, indicator data needs to be quantified and recorded for these Core students.

Recommendations for Future Evaluations

- Continue pairing with the KLDS to incorporate actual college attendance rates into both current and historical data.
- Determine potential direct or indirect measures of student participant skills and aspirations to demonstrate appropriate alignment.

Conclusion

The Kentucky College Coaches program has been operating since 2010. The program seeks to increase high school graduation rates, postsecondary readiness and enrollment rates in high poverty and low performing high schools. During Academic Year 2016, 30 high schools participated. Staff at these KCC sites identified students who may be overlooked for postsecondary support services to be coached by KCC mentors. In total, 1,806 students took part in the KCC program during AY 2016.

This evaluation focused on the performance of KCC participants compared to non-participants at the same school as well as to all students in Kentucky. Since staff selected participants in the KCC, it was important to compare the KCC Core students to Non-Core students on several characteristics. KCC Core students were from all grades though there was an overrepresentation of eleventh and twelfth graders. There were more female students participating in the KCC program than males as compared to the KCC sites overall. The racial and ethnic breakdowns were similar among KCC Core and Non-Core students but Core students were more likely to be receiving free or reduced price lunch, more likely to be in gifted classes, and less likely to be classified as special education or Limited English Proficiency.

During AY 2016, the KCC program accomplished its three goals:

Goal 1 – Increase High School Graduation

- Core students had a senior on-time graduation rate of 98.9% during Academic Year 2016 compared to 94.8% for Non-Core students.
- The GPA of KCC Core students was significantly higher during AY 2016 than KCC Site students across all grade levels.

Goal 2 – Increase College Readiness

- During the eleventh grade, all Kentucky students take the ACT to assess college readiness. KCC Core students had an average ACT score of 19.82 compared to 19.11 for Non-Core students.

Goal 3 – Increase Postsecondary Enrollment

- The average (mean) GPA for seniors in the KCC Core group was 3.10 (SD = .54) compared to 2.89 for the KCC sites (SD = .72) and the state (SD = .76) overall.
- In Kentucky, just over half (50.5%) of 2015-16 high school seniors enrolled in postsecondary schools within Kentucky the following academic year. Nearly two-thirds of KCC Core seniors (64%) did.

Recommendations for Future Research

Evaluation of Sites Selected as KCC sites and students selected as KCC Core

Sites are selected based on a confluence of criteria inclusive of, but not limited to, high poverty and low performance. The KCC intervention is designed to increase performance for both the KCC Core students and the site as a whole. The KLDS can be leveraged to create a comprehensive look at whether the selected sites met these specified criteria prior to the introduction of the intervention in a future longitudinal analysis.

When looking at the sample of students selected as KCC Core compared to the KCC Site population as a whole, KCC Core students did show significantly larger proportions of both free and reduced price lunch status. One question for the future is whether the students recommended as KCC Core students are maintaining consistency with the initially stated grant goals. Future longitudinal research should focus on assessing the veracity of this assumption by comparing KCC Core student performance to the site as a whole upon first entering the KCC Core group.

Evaluation of the Coaches

In the grant proposal, the three primary roles of KCC coaches are outlined:

1. To establish and maintain mentoring relationships with a cohort of students;
2. To provide whole-school activities such as FAFSA workshops and scholarships nights; and
3. To encourage school and community support in developing a college-going culture.

There are no indicators on which to evaluate the effectiveness of the coaches in these roles. Although we can determine how many students each coach mentored, there is not a metric to evaluate the strength or duration of the relationship. Indicators of this could consist of: number of hours spent mentoring students, whether students stay in the program across years, or whether students spent time with the mentor during both semesters of the academic year. As we continue to cultivate better data systems, continual student participation can be looked at in future evaluations.

The second of the three primary roles for coaches involved providing school-wide activities geared toward attending college. These school-wide activities provide a prime opportunity to assess impact. Documentation of the quantity and purpose of school-wide activities would enable sites to be compared on indicators of the specific outcomes targeted. A classification system that linked each school-wide activity to which of the three main project goals it was intended to promote would enable targeted assessment of efficacy (i.e., 2 FAFSA workshops were held by college coach X from site Y with the intent to help increase college enrollments).

The final role of college coaches was defined as encouraging and developing a college-going culture. This outcome could be assessed through a collection of artefacts or a series of focus groups encompassing participating students, non-participating but on-site students, and similar but non-

participating sites. Further digging into pertinent research may also reveal an easily administrable survey assessing college-going culture.

Overall Data Management

Data management capacity has increased across the years. The level and detail of data collection across the years is impressive; however, the current high load of data collection seems likely to be overwhelming to the KCC coaches and other staff. Furthermore, much of this information is already collected and managed by other agencies. If KCC plans to continue its partnership with KYSTATS and the KLDS, much of this burden can be eliminated as the Plan, EXPLORE, ACT, GPA, college readiness, high school graduation, and college attendance are already integrated within the KLDS system. The benefit of this move is two-fold as this allows increased attention on ensuring data accuracy related to the KCC intervention as well as a decreased burden on the coaches and support staff.

Although a great deal of data have been collected across the years, the documentation of these data elements has been sparse. This is a common problem as the same people who generate great programs are often not the same people who spend all day manipulating data. KYSTATS is willing to provide some examples of data codebooks to guide strong documentation practices.

One data component that was not mentioned in this analysis was the amount of hours mentored as it relates to program outcomes. The variability in hours reported mentoring led to some questions of data accuracy. A cross-examination of this data is necessary before more complex analysis is possible.

Intervention Focus and Consistency

KCC has demonstrated an ability to work well with support staff and integrate within the high schools through its sustained presence across the years. The majority of KCC sites in AY 2016 had been intervention sites since at least the 2013 AY. KCC delineated several seemingly simplistic but powerful goals initially (e.g., increase high school graduation, increase college-readiness, and increase college-going) and has maintained focus on these goals across the time frame.

Overall Program Impact

In this analysis, it was found that KCC Core ninth graders performed significantly better on the eighth grade Explore assessment when compared to Non-Core ninth graders as a whole. If Core students are starting out from an improved position, this lessens confidence that the intervention itself is causing increases in later outcome metrics as selection bias may be contributing to this outcome. However, the deeper dive into the college readiness rate for 2015-16 KCC Core seniors showed that initial ACT-Junior college readiness rates were lower than the state as a whole while the college readiness rate by the end of the 2015-16 AY exceeded that of the state as a whole. This reversal in pattern lends support to the overall efficacy of the program. On the overall outcome metrics, KCC Core students are surpassing both Non-Core students and the state as a whole.

Although this evaluation has focused on college readiness and college-going behaviors (college enrollment within one year of high school graduation), future evaluations can include college success

measures to assess the impact KCC high school mentors have on later college success. College success would include measures of attrition, uninterrupted enrollment, and graduation.

List of Acronyms

AY	Academic Year (August through July)
Core Students	Students selected as Core students by the KCC program. Core students receive more individual attention and meet more frequently with KCC coaches. Selection into the Core participant group is based on recommendations from high school faculty, staff and/or administration.
FAFSA	Free Application for Federal Student Aid
GPA	Grade point average
HS	High school
KC3	Kentucky College Coaches on Campus
KCC Coach	An AmeriCorps member that serves as a near peer mentor to KCC participants.
KCC Site	A public high school in Kentucky that received a dedicated coach as part of the KCC program during the 2016 academic year. Outcome measures for the site include all ninth, tenth, eleventh and twelfth grade students regardless of KCC participation.
KCC	Kentucky College Coaches
KDE	Kentucky Department of Education
KHEAA	Kentucky Higher Education Assistance Authority
KLDS	Kentucky Longitudinal Data System
KyCC	Kentucky Campus Compact
KYOTE	Kentucky Online Testing
KYSTATS	Kentucky Center for Statistics
Non-Core Students	Ninth through twelfth grade students located at a KCC site during the requisite year who are not Core students.
SD	Standard deviation

Appendix A: KCC High School Sites and Corresponding School District

Participating KCC High School	District
Anderson County High School	Anderson County
Boyd County High School	Boyd County
Breckinridge County High School	Breckinridge County
North Bullitt High School	Bullitt County
Caldwell County High School	Caldwell County
Calloway County High School	Calloway County
West Carter County High School	Carter County
Casey County High School	Casey County
Christian County High School	Christian County
Holmes High School	Covington Independent
Edmonson County High School	Edmonson County
Tates Creek High School	Fayette County
Fleming County High School	Fleming County
South Floyd High/Middle School	Floyd County
Gallatin County High School	Gallatin County
Grant County High School	Grant County
North Hardin High School	Hardin County
Southern High School	Jefferson County
Lynn Camp School	Knox County
LaRue County High School	Larue County
Marion County High School	Marion County
McCracken County High School	McCracken County
McCreary Central High School	McCreary County
Meade County High School	Meade County
Ohio County High School	Ohio County
Pendleton County High School	Pendleton County
Belfry High School	Pike County
Powell County High School	Powell County
Warren East High School	Warren County
Whitley County High School	Whitley County

Appendix B: Kentucky College Coaches (KCC)/KCC on Campus (KC3) – Logic Model

Project Resources	Core Project Components	Evidence of Project Implementation and Participation	Evidence of Change		
INPUTS	ACTIVITIES	OUTPUTS	OUTCOMES		
			Short-Term	Medium-Term	Long-Term
What we invest (# and type of AmeriCorps members)	What we do	Direct products from program activities	Changes in knowledge, skills, attitudes, opinions	Changes in behavior or action that result from participants' new knowledge	Meaningful changes, often in their condition or status in life
Kentucky College Coaches (KCC)					
40 half time AmeriCorps members are placed in high schools and area technology centers across the state of Kentucky.	<ul style="list-style-type: none"> ▪ Each member has a core group of 50-60 students (9th, 10th, 11th, and 12th graders) whom they serve through one-on-one meetings, small groups and workshops. ▪ Each member serves the school wide by providing workshops, class presentations, college visits, and other college related activities. ▪ KCC has developed a curriculum for members to follow. The curriculum maps out what activities are appropriate for each grade level during each month of the school year. 	<ul style="list-style-type: none"> ▪ Mentoring sessions ▪ Workshops (FAFSA, Operation Preparation, Scholarships, ACT Preparation) ▪ College visits ▪ Classroom presentations ▪ Session with parents 	<ul style="list-style-type: none"> ▪ Increased scores in ACT tests ▪ Knowledge of what classes to take in high school in preparation for postsecondary goals ▪ Aspirations of going to college or other career path ▪ Knowledge of how to get scholarship money for college ▪ Increase in a college-going culture in high schools around the state 	<ul style="list-style-type: none"> ▪ Students have a plan for their lives after high school, so that ▪ More students graduate from high school, and ▪ More students enroll and go to college or other training program 	<ul style="list-style-type: none"> ▪ Students graduate from college or a certificate program or military training, etc., so that ▪ More students enter a meaningful career that provides a living wage or above ▪ More students are connected to their communities and engage as active citizens

Project Resources	Core Project Components	Evidence of Project Implementation and Participation	Evidence of Change		
INPUTS	ACTIVITIES	OUTPUTS	OUTCOMES		
			Short-Term	Medium-Term	Long-Term
What we invest (# and type of AmeriCorps members)	What we do	Direct products from program activities	Changes in knowledge, skills, attitudes, opinions	Changes in behavior or action that result from participants' new knowledge	Meaningful changes, often in their condition or status in life
Kentucky College Coaches on Campus (KC3)					
12 minimum time (300 hour) members serve on 8 campuses around the state of Kentucky	<ul style="list-style-type: none"> ▪ Each member has a core group of 20-30 freshmen whom they serve through one-on-one mentoring meetings, small groups and service projects. ▪ National Campus Compact has piloted 9 different strategies for supporting first generation and low income students. Each campus will choose its strategy or will be able to use their own if it is evidenced based. 	<ul style="list-style-type: none"> ▪ Mentoring sessions ▪ Support for faculty teaching developmental classes to the member's Core students ▪ Service projects ▪ Connecting Core students with the campus 	<ul style="list-style-type: none"> ▪ Knowledge of where to go for help ▪ Feeling a connection to other students and to faculty on campus ▪ Understanding what it takes to complete a college degree ▪ Aspirations of completing a degree ▪ Understanding how to apply learning to being an active citizen ▪ 	<ul style="list-style-type: none"> ▪ Increase in academic development ▪ Increase in social integration ▪ Increase in personal development ▪ 	<ul style="list-style-type: none"> ▪ Successful completion of a college degree ▪ A plan for a career path

Appendix C: High School Assessment Comparisons by Grade and KCC Status

Table 4 – Ninth Grade Student Scores for Eighth Grade Explore Assessment, 2016 Academic Year

KCC Site 9 th Grade Explore Statistics	KCC Core Ninth Graders				KCC Site Non-Core Ninth Graders			
	Min	Max	Mean	SD	Min	Max	Mean	SD
Explore Composite	8	24	15.95	2.98	7	25	14.80	3.14
Explore English	5	25	15.30	4.06	2	25	13.98	3.96
Explore Math	6	25	15.90	3.37	3	25	14.65	3.76
Explore Reading	7	25	14.86	3.6	1	25	13.88	3.45
Explore Science	5	25	17.22	2.84	1	25	16.16	3.14

Table 5 – Eleventh Grade Student Scores for Tenth Grade PLAN and Eleventh Grade ACT Assessments, 2016 Academic Year

KCC Site 11 th Grade PLAN and ACT Statistics	KCC Core Juniors				KCC Site Non-Core Juniors			
	Min	Max	Mean	SD	Min	Max	Mean	SD
ACT-Jr Composite	12	35	19.82	4.30	10	36	19.11	4.63
ACT-Jr English	7	36	19.39	5.60	5	36	18.46	6.05
ACT-Jr Math	13	34	19.02	4.04	3	36	18.65	4.25
ACT-Jr Reading	10	36	20.41	5.12	5	36	19.41	5.73
ACT-Jr Science	10	36	20.00	4.44	6	36	19.43	4.55
PLAN Composite	11	30	17.61	3.32	9	31	17.03	3.58
PLAN English	7	32	16.94	4.02	2	32	16.17	4.24
PLAN Math	4	31	17.45	3.81	4	32	17.08	4.34
PLAN Reading	4	28	17.12	3.91	1	30	16.48	4.16
PLAN Science	8	32	18.47	3.52	3	32	17.88	3.58

Table 6 – Comprehensive Look at Assessment History for Twelfth Graders, 2016 Academic Year

12 th Grade KCC Assessment History	KCC Core Seniors				KCC Non-Core Seniors			
	Min	Max	Mean	SD	Min	Max	Mean	SD
ACT-Jr Composite	10	33	18.98	4.15	10	35	19.08	4.80
ACT-Jr English	7	35	18.45	5.48	5	36	18.63	6.11
ACT-Jr Math	8	35	18.11	3.81	7	36	18.63	4.35
ACT-Jr Reading	9	35	19.59	5.21	5	36	19.50	5.70
ACT-Jr Science	9	33	19.24	4.47	4	36	19.08	5.02
Compass Math	15	88	37.44	13.31	15	89	34.31	13.84
Compass Reading	19	99	78.05	14.33	19	99	73.98	17.94
Compass Writing	1	99	62.67	29.77	1	99	57.11	31.46
Explore Composite	9	24	15.47	2.77	6	25	15.33	3.15
Explore English	3	25	14.49	3.81	1	25	14.33	4.17
Explore Math	4	25	15.62	3.07	2	25	15.55	3.49
Explore Reading	7	25	14.66	3.37	6	25	14.50	3.69
Explore Science	6	25	16.62	2.87	3	25	16.43	3.14
PLAN Composite	9	31	17.27	3.10	8	32	17.28	3.54
PLAN English	7	32	16.57	3.92	4	32	16.64	4.33
PLAN Math	7	31	16.90	3.44	3	32	16.96	4.04
PLAN Reading	6	30	17.04	3.74	4	30	16.93	4.19
PLAN Science	7	31	18.03	3.24	4	32	18.06	3.55