Summer Bridge's Effects on College Student Success

By Beth Bir and Mondrail Myrick

With a national high school graduation rate of 47%... it is no wonder that black males are underrepresented in college.

Abstract: ***This study considered whether participation in a rigorous, intense summer bridge program had a significant effect on the academic success of African-American male and female students in developmental education, compared to nonparticipants, at a four-year Historically Black University in terms of retention, progression, and graduation from 2008-2012. Participants in the summer bridge program entered with significantly lower test scores and high school grades than nonparticipants, yet for all cohorts combined the summer bridge participants achieved significantly higher college GPAs and were retained to the second and third year at significantly higher rates. Female participants showed the greatest gains in all categories, with significantly higher GPAs and retention, for all cohorts. Male participants' GPAs and retention, were, overall, not significantly higher. Graduation rates for females were also encouragingly higher, though they did not reach a level of significance.***

At a time when many colleges and universities are judged by both internal and external stakeholders based on their retention, progression, and graduation rates, and when funding is being reduced for many supplemental and developmental programs, questions regarding how to increase student success are more relevant than ever. Those questions encompass all areas of university life, from admission to coursework and academic support to social and financial aspects; programs intended to increase success include living-learning communities, blended teaching, and paired courses among many others. Summer bridge programs providing intensive, short-term academic and social activities are one possible means to increase success for developmental African-American students and other groups that are traditionally underrepresented in higher education. Often tied to admission, summer bridge programs allow access to college for students who need an academic boost, and these programs are designed to supply academic and cultural tools intended to assist with long-term success. However, summer bridge programs have received uneven research attention, (Cabrera, Miner, & Milem, 2013; Douglas & Attewell, 2014; Maggio, White, Molstad, & Kher, 2005; Walpole, 2008;) leading to thus-far inconclusive evidence of their effectiveness in helping developmental students and students of color achieve the goals of retention, progression, and college graduation. This study sought to determine whether participation in a high-quality summer bridge program made a significant long-term difference to the success of African-American students in developmental education programs as a whole and disaggregated by gender in terms of retention, GPA, and graduation at a midsize public Historically Black University.

Background

African-American Students' Success

In order to appropriately understand the background of African-American students' potential response to summer bridge participation, we will begin by discussing some of the literature related to the overall college experience of black students. Black students have made gains over the past 20 years—for example, between 1991 and 2006, black men's graduation rates moved from 28% to 35%, while black women improved from 34% to 46% ("Black student," 2006). Nevertheless, black college students are attending college, progressing through, and graduating at significantly lower rates than their nonblack counterparts; this gap is especially large in males, who achieve below the rates of other male students and far below their female counterparts (Strayhorn, 2010a). Gaps in college attainment are stagnant or increasing between blacks and whites as well as males and females. Two-thirds of black students who enroll in college are female, and, of the males who enroll, two-thirds do not graduate (Strayhorn, 2010b). This gender gap exists at both Predominantly White Institutions (PWI) and Historically Black Colleges and Universities (HBCU; Kimbrough & Harper, 2006).

Many reasons have been suggested for the lower rates of academic achievement among African-American students, particularly males. One likely factor is lack of rigorous academic preparation before applying to college. Academic success in high school is the best predictor of academic success in college, and academic difficulty in high school similarly predicts academic difficulty in college (Glenn, 2007). With a national high school

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graduation rate of 47% according to the Schott Report (*Yes We Can,* 2010), it is no wonder that black males are underrepresented in college. Students who enter college with gaps in their academic preparation–developmental students–typically have lower GPAs, retention rates, and graduation rates than their better-prepared counterparts, and fewer than half complete the developmental coursework sequence they are assigned to within 3 years (Bailey, 2008). Many four-year colleges and universities had developmental programs cut or eliminated beginning in the 1990s (Damashek, 1999), initiating a trend that continues today, and limits the support institutions can provide to developmental students, if they can admit those students.

Another set of challenges for these students stems from cultural factors. For African-American males, the most significant factor is negative stereotyping that can be embedded in the minds of others as well as internalized (Strayhorn, 2010a). The concept of manhood that is celebrated and revered in pop culture for young African-American men involves hyper-masculinity, physical power, egotism, suppression of emotion and vulnerability, and quick access to money (Hurt, 2008). These cultural attributes develop as a means of asserting manhood in a society where other forms of power—"economic success, head-of-household status, traditional civic involvement"—have historically been denied, and these attributes are generally counterproductive to achieving academic success (Cuyjet, 2006, p. 16). Hand-in-hand with this kind of cultural positioning comes what Cuyjet (2006) calls "psychological frailty," which refers to the mental construction of oneself in opposition to the mainstream, a feeling of being "permanently marginalized" (p. 17). In many ways, this mindset can set up black men for failure in college, as they often see themselves as temporary and unwelcome interlopers in higher education institutions. These unique cultural issues combine with other risk factors that are not unique, including first-generation status and low socioeconomic status (SES), often resulting in black students, especially males, dropping out of high school or, if enrolling in college, dropping out before completing a college degree.

Several other factors also play significant roles in whether or not these students succeed in college. One factor is if the college is an HBCU or a PWI, probably because it often affects important intrinsic qualities, such as personal resilience and self-efficacy (Kitsantas, Winsler, & Huie, 2008; Morrison, 1999; Strayhorn, 2010a). These intrinsic qualities are compounded, both positively and negatively, by the atmosphere in which students matriculate. At PWIs many male students of color report feeling isolated and out of place (Allen, 1992; Bennett, 1995; Watson et al., 2002). They also report a lack of access to student services, are unhappy with social engagement, and perceive racism and hostility (Palmer & Young, 2010). At HBCUs, however, their levels of engagement and achievement increase. Male students of color report positive psychosocial adjustments, cultural awareness, increased confidence, and higher academic performance (Palmer & Young, 2010). For these students, interaction with peers both inside and outside of the classroom occurs more often at HBCUs than PWIs (Bennett & Xie, 2003). Seifert, Drummond, and Pascarella (2006) have found that African-American students experienced significantly greater levels of "good practice" at HBCUs over PWIs, following Chickering and Gamson's (1991) model that includes "student-faculty contact, cooperation among students, active learning, academic effort/time on task, prompt feedback to assignments, high expectations, and diversity experiences" (p. 185). One of the fundamental advantages to black male students at HBCUs is the role of the faculty. Spence (2006) describes faculty at HBCUs as routinely acting in the role of mentor, surrogate parent, personal consultant, career advisor, and role model. Spence also points to institutional qualities like connection to mission, appreciation for diversity, and scholarly engagement. Palmer and Young (2010) likewise identify faculty relationships, caring and accessible administrators, mentors and role models, and supportive campus climate as advantages. Black students agree with these findings, reporting higher levels of engagement with both faculty and peers at HBCUs than at PWIs (Stewart, Wright, Perry, & Rankin, 2008).

More black HBCU graduates go to graduate school and professional schools than those who graduate from PWIs.

Harper, Carini, Bridges, and Hayek (2004) further investigated the role of engagement at HBCUs. Using data from the National Survey of Student Engagement from 12 four-year HBCUs, they found that male and female students reported statistically indistinguishable levels of engagement in six of eight measures: active and collaborative learning, supportive campus climate, general educational gains, personal and social gains, practical competence gains, and overall satisfaction. In two areas, however, students differed by gender. Female students scored significantly higher on academic challenge, "which is based on the amount of study time, reading, writing, and degree to which higher order thinking skills are required in courses" (Harper, Carini, Bridges, & Hayek, p. 277). In other words, female students worked harder at academic tasks. Men, on the other hand, scored higher at student-faculty interaction. The authors suggested this may be precisely because male students do not spend as much time at their studies; instead, they use "face time" to compensate with extra assistance in and out of class. It seems likely that male students' lack of time and effort spent on educational tasks may be a significant contributor to their lack of retention and graduation.

For all the stated reasons, black students experience disproportionate gains in academic performance depending on institutional type. Black students at PWIs achieve at half the rate of their white counterparts, but they achieve at similar rates at HBCUs (Stewart, Wright, Perry, & Rankin, 2008). Black students report increased levels of academic rigor at HBCUs but also increased support, and they have higher grade point averages (GPAs), higher graduation rates, and higher career aspirations than those at PWIs (Bennett & Xie, 2003). Indeed, more black HBCU graduates go to graduate school and professional schools than those who graduate from PWIs (Cokely, 1999). Pascarella and Terenzini (2005) summarize many studies by arguing that the supportive social environment of HBCUs gives an indirect advantage to persistence. Seifert, Drummond, and Pascarella (2006) report that the positive outcomes across all types of HBCU institutions—research, regional, or liberal arts—are the result of "an uncompromising attendance to a clearly defined mission of student learning [which] manifests a purposeful social-psychological environment of which good practices in undergraduate education serve as the foundation" (p. 199).

In sum, the most commonly reported problems that black students, especially males, experience during college would seem to be alleviated somewhat in the atmosphere of an HBCU (Seifert, Drummond, & Pascarella, 2006). In addition, HBCUs are especially good at addressing developmental issues. HBCUs have in common that they commit to student engagement, provide a family atmosphere, overtly address racial issues, supply mentors, and work through practical and personal issues. These qualities have proven helpful to black college students, especially male students.

Summer Bridge Programs

After identifying influential factors for African-American students in developmental education—dissonance between self-identity and academic success, lack of role models, need for personal interaction, and high levels of hands-on engagement—we asked ourselves whether a short term summer bridge program built upon these foundations might be able to provide a significant boost to long-term performance. Summer bridge programs are an early form of intervention for at-risk students consisting of intensive academic and residential experiences that are meant to strengthen the academic foundation students bring to college. For

many campuses, they are a mechanism by which students with lower incoming high school GPAs (HSGPAs) and SAT scores may be admitted to the university. Studies suggest that participants in a summer bridge tend to be more likely to persist to the second year (Pascarella &Terenzini, 2005; Walpole, 2008). Research on the effectiveness of summer bridge programs, however, is uneven in scope and usefulness. Only one study (Douglas & Attewell, 2014) has examined the effects of participation in a summer bridge program on degree completion, finding a distinct advantage for students at community colleges and less selective four-year institutions: Summer bridge participants are 10 percentage points more likely to graduate within 6 years. The study, based on a representative national sample of college freshmen from the National Center for Education Statistics, also found that the highest effects on graduation rates were experienced by those at higher risk, including black and Hispanic students and those who were less academically prepared. This study provided a holistic picture of the effect of summer bridge participation, but grouping all students together regardless of program type or institution type did not address the question of efficacy for particular groups and institutions. Another recent study (Cabrera, Miner, & Milem, 2013) tracked rates of retention and persistence, finding that both were higher at a significant level than rates for nonbridge participants. Their program was open to all entering first-time, full-time freshmen, however, rather than restricted to developmental or at-risk populations, and the study looked only at short-term effects, stopping after the first year.

Similarly, a large study of summer bridge effectiveness covering eight summer bridge programs in Texas showed high rates of fall enrollment for bridge participants, greater likelihood of passing grades in the follow-up English and math courses in fall, and a greater likelihood to attempt college-level courses (Wathington, Barnett, Weissman, Teres, Pretlow, & Nakanishi, 2011). However, seven of the eight programs studies were at community colleges rather than four-year schools, and the students' enrollment was not dependent upon their success in the program. An older study evaluated results from six summer bridge programs taking place during the Summer of 1998; a total of 397 students were tracked for 3 years and results reported in 2001. The programs varied in size (from 36 to 111 students), length, residency, and services provided; institutions varied in type and geographical location, making it difficult to draw conclusions from the study (Maggio, White, Molstad, & Kher, 2005). A third study, also linked to community college students, found that participation in summer bridge provided a significant help for the first year, with a 93% retention rate to the third semester as compared to 83% for the campus as a whole (Santa Rita & Bacote, 1996). These studies show that summer bridge programs offer short-term academic and social assistance to developmental students, especially at community colleges. However, even with the positive results reported by Douglas and Attewell (2014) it is difficult to draw conclusions from these studies about long-term effects of summer bridge participation, especially for African-American students who face a unique set of challenges as they enter college.

Purpose

As stated, a number of studies have highlighted reasons for the academic achievement gap between black and nonblack college students, as well as best practices for engaging and retaining black college students. However there are important holes left by the research. First, many research studies of black college student experiences are set within the context of PWIs where some problems are significantly different from those experienced at HBCUs. There is also a lack of recent published research on academic practices taking place on HBCU campuses, although there is a plethora of research on mentoring and other affective concerns. Second, most studies available from HBCUs do not disaggregate data by gender, so it is difficult to discern whether certain practices are particularly helpful to male or female students; it is necessary to disaggregate by gender because black males' performance gap is larger than females'. Kimbrough and Harper (2006) suggest a need for more study on HBCUs' supportive campus climate and its effect on male students. Third, published studies on summer bridge effectiveness tend to focus only on short-term results and are usually linked to community college students, rather than long-term progression and graduation rates from a four-year institution. The one study that does examine graduation rates considers a national sample that does not differentiate by institution type or program purpose.

Summer bridge participants are 10 percentage points more likely to graduate within 6 years.

This study addresses gaps in the research. With the understanding that many developmental black students are unsure of their place in the academy and are hindered by less rigorous academic preparation, we attempted to clarify whether the positive effects of enrollment at an HBCU for African-American students placed in developmental education, especially males, could be enhanced through a unique, intense experience built on developmental research findings and encapsulated in a short-term time period.

Method

Program Design

The summer bridge program CHEER (Creating Higher Expectations for Educational Readiness) at our midsize regional HBCU has served conditionally admitted, first-time, full-time freshmen students since 2008; students are selected for conditional admission based on SAT score (720-790) and high school GPA (less than 2.3). The program runs concurrently with the university's second summer session of classes, a 4- to 5-week span. Students are enrolled in the first of the required English composition and math sequences, both of which are credit-bearing courses. The set-up of the program follows recommendations for developmental education as laid out by Boylan (2002), including overt use of a clear set of goals and program philosophy, mandatory placement and support, use of learning communities, and use of active learning. Faculty are hired on the basis of demonstrating engaging teaching to first-year students, and students are required to participate in two forms of academic support: daily lab sessions supervised by faculty and daily review sessions supervised by peer academic leaders. Students must earn a minimum grade of C in both courses in order to enroll as first-time freshmen in the fall semester. Students participate in daily classes and weekend activities as members of learning communities of around 18 students, each of which has one male and one female peer mentor. The mentors, mostly CHEER alumni, live in the residence halls with the students and act as guides to the program and to the university.

A weekend program called Wise Choices supplements their CHEER academic experience and helps address the affective factors that often compound academic challenges for developmental students (Fowler & Boylan, 2010). Program topics include conflict resolution, financial literacy, gender relations, and social networking, and students engage in social gatherings with international students and others with varying political, social, and religious views, many of which stand in contrast to students' own backgrounds and familiarity. Athletic and social events are also part of the CHEER experience and include basketball tournaments, talent shows, dances, and pool parties. Coincidentally, all faculty teaching math are male, whereas nearly all faculty teaching English are female; race of instructors varies with multiple faculty who are black, who are white, and who are Asian. Students are therefore virtually guaranteed one instructor of each gender as well as one peer mentor of each gender, providing some gender balance and racial diversity in institutionally supported role models.

The CHEER program embodies factors researchers have identified as helpful to

African-American male students. It takes place in a supportive environment; fosters relationships with faculty and peers; provides academic and social mentors, overtly connects students to the program's and university's mission; and addresses self-efficacy, resilience, and confidence (Seifert, Drummond, & Pascarella, 2006). The unique, intensive academic, cocurricular, and social experience of CHEER has proven successful for its most immediate purpose: earning full admission to college for freshmen whose SAT or HSGPAs denied them direct entry. A total of 439 students have completed the program with a C or better over the three cohorts in the study, with 434 CHEER students, previously conditionally admitted, enrolling for the fall semester. This is an immediate success rate of 99%.

Once students have successfully completed CHEER, they are integrated into the larger freshman class and participate in the first-year programs designed for all students, maintaining CHEER identity only through informal biweekly discussion groups with their summer mentors. Although the overall first-year program is also structured and supportive, it is less invasive than the CHEER summer program, leaving students to make decisions about time management, for example, more independently than in the summer and with less immediate consequence for poor decisions. Rather than being faced with immediate dismissal from college for lack of attendance or participation, all first-year students must await first-semester grades, which may place them on academic probation if under 2.0. However, they cannot be removed from the university until the end of the probation period, a further semester. One major purpose of this study was to investigate whether the progress toward success begun during the intense summer program would have a significant lasting effect on students' academic retention, progression, and ultimate graduation.

Data Collection

We collected retention, progression, and graduation data from the student data file from the university's Office of Institutional Research for first-time (no previous college record), full-time freshmen (12 or more credit hours) who were U.S. citizens under the age of 20—in other words, "traditional college students"—for the years 2008-2014. Nine variables were analyzed across three cohorts of students (2008, 2009, 2010). Three additional variables (see Table 1) were analyzed using the 2008 cohort.

The sample size of 1,891 consisted of 62% females, 21% CHEER participants, and an overall average GPA of 2.52 (for all students: male, female, CHEER, and non-CHEER). These students also had an average SAT combined score of 853. The first year retention rate was 70% and the second year was 53%. The graduation rates were based on the 2008 cohort. There is no significant difference between the sample and published population data for these cohorts.

An analysis of variance (ANOVA) was used to determine significant differences in groups, and the data was disaggregated by gender to compare the significant differences in CHEER versus non-CHEER male and female students. Finally, 4-year graduation rates were analyzed for CHEER and non-CHEER males and for CHEER and non-CHEER females from the 2008 incoming cohort.

Findings

The main question prompting this study is whether CHEER makes a difference to the academic success of developmental African-American students in terms of retention, GPA, and graduation rates. It should be noted that for all cohorts, CHEER students had significantly lower HSGPAs, and SAT scores than non-CHEER students. In spite of this fact, the CHEER students, in the aggregate, achieved significantly higher GPAs, as well as first

Table 1

Definitions of All Analyzed Variables

Variable	Definition
CHEER	1 = Participated in CHEER, 0 = Did not Participate
Sex	1 = Female, 0 = Male
HSGPA	High School GPA
SAT Math	SAT Mathematics test score
SAT Verbal	SAT Verbal test score
SAT Combined	SAT Combined Math plus Verbal test score
GPA	Cumulative GPA after 1st Fall Semester
Retention YR1	Fall to Fall 1 rate of retention. 1 = Retained, 0 = Dropped out after 1st year
Retention YR2	Fall to Fall 2 rate of retention: 1 = Retained after 2nd year, 0 = Dropped out after 2nd year
4-yr. Graduation Rate	1 = Graduated within 4 years, 0 = Did not graduate within 4 years (using the 2008 cohort)
5-yr. Graduation Rate	1 = Graduated within 5 years, 0 = Did not graduate within 5 years (using the 2008 cohort)
6-yr. Graduation Rate	1= Graduated within 6 years, 0 = Did not graduate within 6 years (using the 2008 cohort)

Table 2

Descriptive Statistics for CHEER Cohort

Variable	Min.	Max.	Mean	*SD*
CHEER	0	1	0.21	0.41
Sex	0	1	0.62	0.49
HSGPA	1.63	4	2.83	0.52
SAT Math	220	690	434.64	60.36
SAT Verbal	270	690	418.52	61.52
SAT Combined	580	1330	853.15	102.39
GPA	0	4	2.52	0.98
Retention YR1	0	1	0.70	0.46
Retention YR2	0	1	0.53	0.50
4-yr. Graduation Rate*	0	1	0.17	0.38
5-yr. Graduation Rate*	0	1	0.29	0.45
6-yr. Graduation Rate*	0	1	0.35	0.48

Note. N = 1891). *From 2008 Cohort

year and second year retention rates than did their non-CHEER counterparts (see Table 3).

Female and male CHEER students had significantly lower HSGPAs and SAT scores than non-CHEER students. The female CHEER students had significantly higher first and second year retention rates than non-CHEER females. The male CHEER students had higher but not significantly higher retention rates than non-CHEER male students. Overall findings demonstrate that CHEER makes a difference to all students, male and female, whether by actually boosting performance above better-prepared peers or by leveling the playing field between the underprepared and the better prepared students (see Tables 4 and 5).

Table 3

Cheer and Non–Cheer Incoming Academic and Outcome Statistics

	CHEER (*n* = 402)		Non-CHEER (*n* = 1489)		
Variable	**Mean**	***SD***	**Mean**	***SD***	***t***
HSGPA	2.59	0.40	2.90	0.53	–10.86**
Sex	0.60	0.49	0.63	0.48	0.76
SAT Math	384.44	33.46	448.78	58.69	–20.64**
SAT Verbal	364.99	35.00	433.61	58.92	–21.85**
SAT Combined	749.43	37.29	882.39	95.71	–26.76**
GPA	2.65	0.67	2.48	1.05	3.20*
Retention YR1	0.77	0.42	0.68	0.47	3.41*
Retention YR2	0.58	0.49	0.51	0.50	2.65*

Note. *$p < .05$. **$p < .001$.

Table 4

Incoming Statistics, GPA, and Retention for Male CHEER and Non-CHEER Students

	Male CHEER (*n* = 159)		Male Non-CHEER (*n* = 558)		
Variable	**Mean**	***SD***	**Mean**	***SD***	***t***
HSGPA	2.46	0.35	2.81	0.54	–7.79**
SAT Math	390.46	36.48	459.10	61.76	–12.99**
SAT Verbal	362.05	38.84	434.68	63.70	–13.28**
SAT Combined	752.52	39.60	893.78	103.70	–16.38**
GPA	2.46	0.70	2.31	1.07	1.68
Retention YR1	0.71	0.46	0.66	0.47	1.12
Retention YR2	0.53	0.50	0.47	0.50	1.37

Note. **$p < .001$.

Table 5

Incoming Statistics, GPA, and Retention for Female CHEER and Non-CHEER Students

	Female CHEER (*n* = 243)		Female Non-CHEER (*n* = 931)		
Variable	**Mean**	***SD***	**Mean**	***SD***	***t***
HSGPA	2.68	0.41	2.96	0.52	–7.74**
SAT Math	380.59	30.84	443.28	56.09	–16.49**
SAT Verbal	366.86	32.25	433.29	55.83	–17.49**
SAT Combined	747.46	35.69	876.57	89.83	–21.61**
GPA	2.78	0.62	2.58	1.03	2.93*
Retention YR1	0.81	0.40	0.70	0.46	3.22*
Retention YR2	0.62	0.49	0.54	0.50	2.10*

Note. *$p < .05$. **$p < .001$.

The findings from the ANOVA analysis of all groups (Male CHEER, Female CHEER, Male Non-CHEER, Female Non-CHEER) revealed that female CHEER students had significantly higher retention rates than male non-CHEER students (see Table 6). As stated in Table 5, females had a 81% retention rate, compared to the males 66%, stated in Table 4. Another finding, which is illustrated in both Tables 5 and 6, was that female CHEER students have significantly higher retention rates then female non-CHEER students.

In terms of graduation, female CHEER students graduated in 4 years at a higher rate than female non-CHEER students, 26% compared to 19%, but it was not at a statistically significant level. Male CHEER students graduated in 4 years at a comparable but lower rate than non-CHEER males, 10% compared to 12%. The overall 4-year graduation rate for all, CHEER and non-CHEER, was 17%. When comparing the 5-year and 6-year graduation rates, CHEER students have higher but not significantly higher graduation rates. Again, even though the CHEER students came to college less academically prepared than the non-CHEER students, they had a higher graduation rate overall (21%, as opposed to the non-CHEER students at 16%; see Tables 7, 8, 9, p. 27).

CHEER students' retention to the second year was higher than for non-CHEER students across all three cohorts combined. However, the clearest gains appear in female CHEER students. For female CHEER students, 1-year retention and 2-year retention rates were significantly higher than their non-CHEER counterparts, as were their GPAs. This group also had consistently higher graduation rates than the non-CHEER female group. Although male CHEER students came less academically prepared, they were not significantly behind the non-CHEER male group in their GPA, retention, or graduation.

In sum, data show that participation in CHEER, a rigorous short-term academic intervention program for developmental students, increased outcomes for female participants versus nonparticipants in retention, GPA, and graduation rates. CHEER participation leveled the playing field for male participants versus nonparticipants so that their outcomes were comparable to their nondevelopmental peers.

Discussion

Data are conclusive that participation in CHEER provides a significant boost to incoming developmental female students, notably because students begin their first year of college with more student credit hours (SCH). Data are favorable regarding the long-term effects of the program for male and

female students. In terms of retention for male students, retention is higher for all years in CHEER males versus non-CHEER males. For the 2008 cohort, retention for CHEER males significantly exceeded that of non-CHEER males. A similar story exists in terms of graduation rates. CHEER females in the 2008 cohort graduated at a rate higher than non-CHEER females, though not at a statistically significant level, but CHEER males graduated at a slightly lower but comparable rate.

Even without statistical significance in all categories, the trend is positive. The short term effects are clear: Both male and female students who attend a summer bridge are more likely to be engaged in their first year of college and are more likely to return to school after that first crucial year. The decision to stay or leave college can be related to a number of factors, some of which cannot be controlled by the institution such as family and financial issues, for example. However, of the students who choose to leave due to factors that institutions can influence, most make their decision to do so within the first year. Nearly all of the previously mentioned components identified by first-year researchers, including strong relationships with faculty and peers, high academic standards coupled with strong support structures, and students' perception that a college education is relevant to their personal goals, are included in the summer bridge program structure. This structure was successful in engendering the engagement necessary to student success.

Differences between the long-term outcomes of male and female participants mirror the differences shown by male and female students nationally and are reflected in the results of the Douglas and Attewell (2014) study as well. Although female college students outperform their male counterparts across all racial groups, the differences are particularly pronounced for black students (Lopez & Gonzalez-Barrera, 2014). One reason for this difference is that female students tend to work harder at academic tasks (Harper, Carini, Bridges, & Hayek, 2004). They spend more time reading, writing, and studying than male students do. Female students may pursue such study habits because they have a different relationship to academics than male students; that is, they are more likely to believe that their work will yield positive results both in grades and in career goals.

The unique cultural positioning experienced by black men, on the other hand, may lead them to opposite conclusions: Their work will not yield improvement and is not the only route by which to earn a satisfactory income (Cuyjet, 2006; Hurt, 2008; Strayhorn, 2010a). This feeling of being permanently marginalized from the mainstream is very difficult to overcome in 4 or 5 weeks: A student who has consistently encountered academic difficulty and who has seen dozens of role models find success in

Table 6

ANOVA by Gender and CHEER Participation

Groups	Mean Difference	*SE*	*p*	95% Confidence Interval	
				Lower Bnd.	Upper Bnd.
Male CHEER – Female CHEER	−0.10	0.046	0.163	−0.22	0.02
Male CHEER – Male Non-CHEER	0.05	0.041	0.658	−0.06	0.15
Male CHEER – Female Non-CHEER	0.01	0.039	0.998	−0.09	0.11
Female CHEER – Female Non-CHEER	0.10	0.033	0.009*	0.02	0.19
Female CHEER – Male Non-CHEER	0.14	0.035	0.001**	0.05	0.23

Note. *$p < .05$. **$p < .001$.

Table 7

Incoming Statistics and Graduation Rates for 2008 CHEER and Non-CHEER Students

Variable	CHEER ($n = 112$)		Non-CHEER ($n = 470$)		
	Mean	*SD*	Mean	*SD*	*t*
HSGPA	2.60	0.41	2.94	0.56	−5.94**
SAT Math	380.46	31.16	454.54	57.46	−12.99**
SAT Verbal	367.25	36.99	439.53	60.36	−11.96**
SAT Combined	747.71	28.14	894.07	97.48	−15.51**
GPA	2.70	0.65	2.55	1.04	1.44
Retention YR1	0.85	0.36	0.71	0.45	2.95*
Retention YR2	0.61	0.49	0.52	0.50	1.72
4-yr. Graduation Rate	0.21	0.41	0.16	0.37	1.10
5-yr. Graduation Rate	0.32	0.47	0.28	0.45	0.92
6-yr. Graduation Rate	0.40	0.49	0.34	0.48	1.18

Note. *$p < .05$. **$p < .001$.

Table 8

Incoming Statistics and Graduation Rates for 2008 Male CHEER and Non-CHEER Students

Variable	Male CHEER ($n = 40$)		Male Non-CHEER ($n = 182$)		
	Mean	*SD*	Mean	*SD*	*t*
HSGPA	2.46	0.37	2.82	0.57	−3.83**
SAT Math	381.05	33.11	460.94	60.69	−7.85**
SAT Verbal	362.11	43.63	437.12	57.83	−7.53**
SAT Combined	743.16	27.72	898.06	97.22	−9.72**
GPA	2.56	0.67	2.35	1.06	1.18
Retention YR1	0.90	0.30	0.69	0.46	2.70*
Retention YR2	0.65	0.48	0.47	0.50	2.11*
4-yr. Graduation Rate	0.10	0.30	0.12	0.33	−0.37
5-yr. Graduation Rate	0.18	0.39	0.23	0.42	−0.70
6-yr. Graduation Rate	0.33	0.47	0.30	0.46	0.35

Note. *$p < .05$. **$p < .001$.

nonacademic arenas (i.e., pop culture) is likely to retain some question as to whether he belongs in college, even if successful in his first college courses. During a summer bridge like CHEER, he will be required to participate in academic support activities and will be sharing a common purpose—enrolling in the fall semester—with his fellow bridge students. Once the program ends, he will have to maintain or develop new study habits and positive peer groups, and he will have to maintain his intrinsic motivation in the face of inevitable personal and academic challenges. This is a difficult task to take on and to sustain over 4, 5, or 6 years. Given these challenges, the fact that CHEER allows male students in developmental education the opportunity to access college at all, and also levels the playing field between them and their better prepared peers represents a qualified success.

Finally, this study took place on the campus of an HBCU, and HBCUs have been tied to increased levels of engagement and achievement in black students because of their commitment to developing relationships, providing a supportive environment, and promoting active and collaborative learning (Palmer & Young, 2010; Seifert, Drummond, & Pascarella, 2006; Stewart, Wright, Perry, & Rankin, 2008). For students to feel that they belong in college, especially underprepared or underserved populations, they must see people like themselves succeeding in college; they must develop connections to faculty and staff, and they must feel that they are in a supportive environment. These feelings are often well-served by HBCUs, but they are far from exclusive to HBCUs. Douglas and Attewell's (2014) results suggest that similar success is likely at diverse campuses across the nation; we believe that the unique positioning of the HBCU to students' perspectives and needs is part of the larger fabric of students' success, but a similar pairing of high expectations and support will be effective anywhere.

Limitations

One limitation of this study is the lack of a control group. CHEER students are conditionally admitted, and students with similar academic profiles who do not attend CHEER are not admitted to the university. Therefore, we compared the outcomes of the CHEER cohorts to the entire non-CHEER cohort for each year, an unequal comparison. Another limitation is that the study uses data from a single HBCU, which limits transferability of findings. Further studies are recommended to determine success rates of developmental summer bridge students at other types of institutions as well as in other kinds of summer programs.

For students to feel that they belong in college...they must see people like themselves succeeding in college.

Implications for Practice

Most institutions concerned with first-year retention, progression, and graduation rates have already taken steps to build first-year programs in various ways: developing a freshman seminar course, implementing learning communities, strengthening academic support. All of these programs are important, but they take place within the larger college environment that also offers a number of distractions and difficulties, and they often do not address developmental students' need to juggle questions of belonging in college at the same time that they manage coursework, job, and family responsibilities. A summer bridge intensifies these programs into one short-term concentration that addresses multiple issues–academic achievement, developing peer and mentor relationships, clarifying personal motivation, and establishing structures that continue into the academic year–in a context of greatly reduced distraction. Establishing a strong connection to college and introducing students this way is especially necessary to assist the culture structure of postsecondary settings to help increase rates of retention, progression, and graduation.

The key features of the program are those that foster engagement with the university experience. For CHEER, those features include students living together on campus, attending class and required support time in learning communities, developing close relationships with faculty and staff, and attending social and cocurricular programming to attend to affective issues as well as academic ones. Those key features could look different in other institutional settings while maintaining the degree of engagement necessary to hook developmental students. For example, students might take developmental coursework that does not bear academic credit, or they might take field trips on the weekends. There are many approaches to a summer bridge program that could result in students believing in their abilities to succeed and increasing their willingness to put forth effort for academic tasks. The inclusion of mentors and faculty who mirrored the participant demographics of the CHEER program at an HBCU was an intentional characteristic of the program supported by research (Spence, 2006). Any institutions building or initiating a bridge program should study their participant demographics and structure their staff/instructors to parallel the group as closely as possible. Cabrera, Miner, and Milem (2013) suggest that the most important effects of summer bridge participation are indirect, in that students are thus connected to social and academic support networks that will sustain them beyond the summer experience. To foster such connections, we recommend additional structures even after the bridge program ends. During the regular academic year, male mentoring programs might provide a source of strength and continuity for some male students, for example, or required academic support built into coursework and earning credit might be necessary for students in gatekeeper courses. For students who are experiencing success and engagement with academics for the first time or in competition with engagement with nonacademic pursuits, a sustained effort by the institution to maintain involvement will be needed to increase success leading all the way to graduation.

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Table 9

Incoming Statistics and Graduation Rates for 2008 Female CHEER and Non-CHEER Students

	Female CHEER (*n* = 72)		Female Non-CHEER (*n* = 288)		
Variable	**Mean**	***SD***	**Mean**	***SD***	***t***
HSGPA	2.68	0.41	3.01	0.54	–4.77**
SATM	380.14	30.31	450.61	55.12	–10.37**
SATV	370.00	32.91	441.01	61.92	–9.32**
SATC	750.14	28.26	891.62	97.72	–12.06**
GPA	2.78	0.63	2.68	1.02	0.81
Retention YR1	0.82	0.39	0.73	0.45	1.63
Retention YR2	0.58	0.50	0.55	0.50	0.53
Graduation Rate	0.26	0.44	0.19	0.39	1.44
5-yr. Graduation Rate	0.40	0.49	0.31	0.46	1.46
6-yr. Graduation Rate	0.44	0.50	0.37	0.48	1.11

Note. $^{**}p < .001$.

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Perhaps the most important implicationof this study in the current financial climate is the relatively low cost in terms of resources relative to the impact of the program. Institutions planning to initiate a bridge program should take an internal inventory to identify if they already have the necessary components to make summer bridge work and consider the following: Academic Affairs likely employs effective instructors, staff, and tutors and Student Affairs may provide housing and some activities. Pulling these resources together under the umbrella of one program is neither as difficult nor as costly as creating new programs during the academic year, but the long-term gains of such an effort can be meaningful. For campuses searching for programs that work for their developmental students without taking on a difficult shift in campus culture or a significant new source of revenue, summer bridge programs are an often overlooked opportunity. Finally, state policy makers, many of whom provide federal and state funding for bridge programs, should be reminded that "these programs are important and should be cultivated, especially in terms of recruiting students who need them the most" (Douglas &Attewell, 2014, p. 104).

Conclusion

African-American students face a number of challenges when entering higher education, including the struggle to fit in, a need for personalized instruction, lack of role models and peer groups with similar goals, and gaps in academic backgrounds. When these challenges were met in a short-term, highly structured summer bridge program at an HBCU, the students were successful at attaining the immediate goal of passing the initial required English and math course to gain admission to the university. Further, the intense levels of engagement during the summer bridge program may provide tools for increasing engagement in the long term. Bridge participants showed greater retention, higher GPAs, and increased graduation rates than their nonbridge peers despite significantly lower incoming academic profiles. As students move forward from the first year into their majors, it is logical to assume that other factors may be needed to keep students engaged and productive. This study adds to the research on summer bridge programs (Cabrera, Miner, & Milem, 2013; Douglas & Attewell, 2014; Santa Rita & Bacote, 1996) by disaggregating findings by gender and via its setting at an HBCU. One intense program cannot and ought not replace long-term quality teaching and advising and positive faculty/staff and peer relationships. What it can do, however, is provide the emotional engagement and initial academic success necessary to help students believe that they do belong in college. Summer bridge is not a panacea that can overcome all challenges experienced by African-American college students, but it may make an important positive difference.

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