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Networking 101: Exploring Within-Group Differences Between High-Achieving Black African and Black American Engineering Community College Student Peer Groups

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This qualitative study compares high-performing Black male transfer students' social groupings. Black American men in the study engaged with a heterogeneous set of peers in community college. By contrast, Black African men most often worked alongside their peers from African countries. Results also indicate that the participants' community college acknowledged within-group diversity and created an ethos that supported their transfer aspirations. Implications include a call to expand research on successful Black male STEM experiences in community colleges, and to develop a greater awareness of intra-racial dynamics at both two- and four-year institutions.

Keywords: Black males, high achieving, community college transfer

Introduction

Recent reports have decried the extent to which the United States' lack of science and engineering professionals has compromised its competitive edge (Carnevale, Smith, & Melton, 2011; National Science Board, 2014). One proposed way of addressing this issue has been to increase the low numbers of underrepresented racial and ethnic minorities (URMs) – classified as Black Americans, Hispanics/Latinos, American Indians, Alaskan Natives, Native Hawaiians, and Pacific Islanders – in these disciplines (National Science Board, 2014; Museus, Palmer, Davis, & Maramba, 2011). However, this has not been a straightforward task. For example, while the number of Black bachelor's degree recipients in engineering rose from 1980 to the mid-1990s, it has since remained constant at around 5% (National Science Board, 2014).

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Additionally, the federal government's emphasis on community colleges under former President Obama's administration has placed increased attention on the nation's two-year schools.¹ Early in his first term, President Obama charged higher education leaders with the goal of producing five million new community college graduates (The White House, 2009). In 2015, President Obama further proposed that community college tuition should be free to students (Calvert, 2015). Given these recent developments, it may be interesting to explore how educational scholars with STEM emphases are including community colleges in their research. Although researchers have documented the need to support more Black students in STEM majors, the characteristics of these students are painted broadly with little attention to nuance.² Thus, for example, within the rapidly growing African immigrant demographic, a general pan-African approach in the literature disregards generational status, country of birth, English language levels, and citizenship/documentation status. In addition, scholarship has typically not studied high-achieving Black STEM students in community colleges as a subgroup to learn about the strategies that they have employed to be successful. As a result, consumers of scholarly literature may unwittingly believe that all Black community college STEM students have similar demographic and academic backgrounds.

A small body of research has started to disaggregate Blacks in STEM by geography, distinguishing factors consistent with U.S.-born Blacks from those born in the West Indies or sub-Saharan Africa (Bonner II, Alfred, Lewis, Nave, Frizell, 2009; Burrell, Fleming, Fredericks, & Moore, 2015; Fredericks, Fleming, & Burrell, 2012; Fries-Britt, Mwangi, & Peralta, 2014; Williamson, 2010). However, the focus has primarily been on Blacks in four-year schools, including Historically Black Colleges and Universities (HBCUs). Scholars have not explicated the within-group differences among Black men in community colleges who eventually transfer to four-year STEM programs. These distinctions may affect Black male socialization patterns on campus, including the formation of peer study groups. This study begins to fill this lacunae through a fuller examination of the academic pathways of high-achieving Black male engineering undergraduates who transfer from community colleges.

Purpose of Study

This article draws from a larger qualitative study that explored perceived factors enabling a group of six high-achieving Black students, five of whom identified as males, to transfer from a community college into a selective four-year engineering school (Berhane, 2016). Participants reported peer support as a key factor in facilitating transfer. However, findings also revealed a number of group distinctions between Black males born in the U.S. and those educated in sub-Saharan Africa, including differences in the demographic composition of their respective peer

¹ There are different types of two-year schools, which can include vocational-technical colleges, community colleges, and career colleges. For this article, "two-year college" refers specifically to community college, and as such I will use the terms "two-year college" and "community college" interchangeably throughout this document

² Although researchers and government publications use the descriptors "Black" and "African American" interchangeably, the term "Black" is better suited for this study. (The exceptions to this are direct quotes from participants, who often used the term "African Americans" to refer to Blacks raised in the U.S.). I also frequently use the term "sub-Saharan Africa" as opposed to Africa throughout this study because scholars tend to distinguish the educational, health, and economic trends in sub-Saharan Africa from those in North Africa (Hargreaves, Bonell, Boler, Boccia, Birdthistle, Fletcher, Pronyk & Glenn, 2008).

networks. The results of that study are presented in this article, which explores the following research question: *What are some of the within-group differences in peer groups among high-achieving Black African and Black American male students who transfer from a community college to a competitive engineering school?*³

Literature Review

This review draws from three subject areas. Peer support and engagement in the STEM fields for Black students comprise the first topic. Second, the review examines findings from studies on Black community college student enrollment as well as transfer from two- to four-year schools. Finally, it builds on literature that explicates within-group differences between Black STEM students.

Peer Support and Engagement for Blacks in STEM

In his study of University of California, Berkeley students, Dr. Uri Treisman concluded that Black undergraduates' tendency to study alone contributed to their lower academic achievement in a Calculus course (Treisman, 1992). Treisman compared the lack of peer engagement among Black students with the evidence of regular study groups among Chinese students in the same class, noting that Chinese undergraduates typically outperformed Blacks. While his research methods and findings were valid, the data from his study cannot necessarily be generalized to other contexts involving underrepresented students of color. In fact, across the spectrum of more recent studies on URM student achievement in STEM fields, a consistent theme is the effectiveness of peer engagement for high-performing Black students (Hurtado, Newman, Tran, & Chang, 2010; Maton & Hrabowski, 2004; Museus et al., 2011; Palmer & DuBord, 2013). These studies do not necessarily suggest that peer groups should consist of students who possess a singular racial identity. Yet, another group of scholars speak specifically about the importance of garnering support from peers of the same race. These scholars infer that Black students are more likely to describe the existence of a supportive environment at HBCUs than Predominately White Institutions (PWIs) (Fries-Britt, Younger & Hall, 2010).

The extant literature seems to offer two viewpoints on the issue of race as it relates to peer support. On one hand, some works suggest that students can – and arguably should – interact with diverse groups of peers when possible. Yet, it is inconclusive as to whether peer support leads to better outcomes when students are all URMs or even of the same race/ethnicity. Furthermore, although a body of research evidences the reality that strong peer networks exist at HBCUs, these studies have not explored the presence of effective peer associations within the community college context. Thus, the capacity for peer groups to facilitate transfer for Black male engineering community college students has mostly been an unexplored topic.

³ I use the term “competitive” to describe an engineering school ranked in the *U.S. News & World Report's* top 25 list of institutions at least twice in the last five years (Standifird, 2005)

Community College Persistence and Transfer to Four-Year Schools

Black and Latino students are more likely to enroll in two-year schools than in four-year schools (National Center for Education Statistics, 2012; Malcom, 2010). Yet, while there is a clear body of literature on Latino STEM transfers, most scholarship on Black students focuses broadly on factors that impact their enrollment in the community college, rather than on their performance/persistence in specific disciplines (Malcom, 2010). Wood (2010) conducted a detailed analysis of the extant literature on Black American males in two-year schools, and determined that scholars generally examined barriers that negatively impacted this population. Examples of some of these barriers include poor academic preparation, economic setbacks, discrimination, and a lack of diversity on the campus. In his own research on a group of Black male community college students, Wood (2014) instead looked at students who were persisting in their studies. Wood found that the following four themes were most critical determinants of students' success: 1) The role of faculty; 2) Family involvement; 3) Students' focus on their academic studies; and 4) Personal motivation. While Wood explored the impact of peer study groups on Black males' ability to be successful, study groups did not appear to be as significant as these other components. Furthermore, although Wood researched Black males in community colleges, it was unclear whether or to what extent his findings pertained to their persistence specifically within STEM disciplines like engineering.

In fact, according to Dowd (2012), “the body of literature focusing specifically on transfer in STEM is not robust enough to substantiate conclusions about the unique programmatic features that are necessary to design effective STEM transfer pathways” (p. 122). More specific to underrepresented groups, Palmer and Wood (2013) note that researchers have written surprisingly little about URMs in STEM who begin their postsecondary careers at community colleges. Thus, educational researchers have given short shrift to the factors that enable academically talented Black males to transfer into four-year STEM undergraduate programs. Moreover, literature has included little about demographic differences between Black male STEM transfer students.

Within-Group Differences Among Black Students

Researchers have found that African immigrants – most of whom come from sub-Saharan countries – have higher rates of bachelor's and advanced degree attainment than the U.S. population (Capps, McCabe, & Fix, 2012; National Center for Education Statistics, 2012). Children of Black immigrants typically outperform Blacks born in the U.S. in terms of their postsecondary education levels (Thomas, 2009). In fact, by the second generation, Black students born to first-generation parents demonstrate significant educational strides (Thomas, 2009).

Burrell et al. (2015) studied 15 Black males at an HBCU who were pursuing bachelor's degrees in engineering. Their results indicated that faculty expected non-native students (undergraduates educated outside of the U.S.) to outperform their American counterparts. Burrell et al. also learned that Black native students (undergraduates educated in the U.S.) were expected to be academically inferior to other students, including their non-native peers. Similarly, Williamson (2010) found that Black male STEM majors who were born in the U.S. typically reported less positive academic experiences and fewer engaging interactions with faculty members than their peers from African countries or the West Indies. Williamson (2010) also looked at a concept that he described as “Black Distance,” which described the extent to

which Black males from one ethnic group did not interact with Black males from another ethnic group on campus. He noted that “Black Distance appears to negatively impact academic integration because it is preventing the students from forming relationships with other Blacks that could evolve into a support group or study group” (p. 66). In their study of Black physics students, Fries-Britt, Mwangi, and Peralta (2014) similarly noted that often Black students raised in the U.S. initially held negative stereotypes about undergraduates from African countries. However, their study also found that these stereotypes could be replaced with more positive perspectives as Black Africans demonstrated their ability to be successful in class.

This suggests that the oft-lamented achievement gap between White and Black students may be nonexistent or less stark for African immigrant populations (Condrón, Tope, Steidl, & Freeman, 2013; Gaddis & Lauren, 2014; Hartney & Flavin, 2014). Furthermore, it calls into question the tendency for scholars to include African-born children in the Black American student narrative. Rather than extol the virtues of young people who are achieving on par with – and even outperforming – many of their White counterparts, most scholars have been fairly silent about this group of young scholars.

At the same time, there is a risk of interpreting scholarship that magnifies the achievements of Black non-native students as reifying notions of Black American inferiority. That is, while articles such as these celebrate high-performing Black African and West Indian undergraduates in STEM fields, they can inadvertently perpetuate long-held negative stereotypes about Blacks males raised in the U.S. Research that simultaneously extols the achievements of both Black non-native *and* native men can at once recognize the nuanced differences between Black subgroups. Furthermore, studies that take this simultaneous approach can reframe the deficit-oriented lens through which Black American male students are often depicted in literature.

Theoretical Perspectives and Conceptual Framework

This study builds upon the success-oriented work of scholars including Fries-Britt et al. (2010), Harper (2012), and Strayhorn (2012), who have studied high achieving Black males in STEM and other disciplines. Comparative analyses have often positioned URM students below their White and Asian counterparts in terms of their achievement levels. As a counterpoint to these works, the success-oriented perspective is employed to contribute to the reshaping of discussions around Black undergraduate men. In choosing to implement this perspective, this work builds upon a scholarly tradition that purposefully focuses on academic success narratives. The success-oriented lens counters a dominant theme in some literature that focuses almost exclusively on three major challenges to Black males pursuing STEM fields: 1) Weak academic preparation in middle and high school, leading to academic underperformance in post-secondary institutions; 2) Unwelcoming cultures in colleges and universities that may act as deterrents to persistence; and 3) Negative perceptions about STEM, including the notion that these fields may not align with students’ cultural interests (Palmer & DuBord, 2013; Palmer, Maramba, & Gasman, 2013). While these challenges are pervasive, they can, if not situated against success narratives, further a deficit-oriented perspective that suggests Black male inferiority.

Additionally, other perspectives were considered, including the cultural-historical perspective. This approach maintains that students are defined in large part by the cultures and histories that they bring with them to the classroom (Gutiérrez & Rogoff, 2003). The dual imbrication theory also drives the approach to this work. According to Kibour (2001), “the dual

imbroglio theory contends that African immigrants' experience in the United States includes an additional dimension: within-group ethnic diversity” (p. 49). The dual imbroglio theory acknowledges the cultural richness that benefits African immigrants in their home countries and contrasts that with negative stereotyping that Blacks often face in the U.S.

Research Methods

This research draws from a larger study examining factors participants believed to be the most helpful to them in transferring to a four-year competitive engineering college. The study also examined within-group differences between Black African and Black American students who transferred. In the study there were relatively high numbers of Black American and Black African engineering undergraduates at the sending institution, compared to lower numbers of West Indian students. Because of this, only Black American and Black African undergraduates were recruited. Four male engineering undergraduates were interviewed, in addition to one male who had recently earned his Bachelor of Science in engineering.

Qualitative Study Setting

Eastern College (EC, a pseudonym), the site for this study, is located in the same state as Tech College (pseudonym), a highly competitive four-year school.⁴ Of all community colleges in the country, EC sends the highest number of engineering transfer students each year to Tech. Both EC and Tech College are located in the Mid-Atlantic region of the U.S. Based on data obtained in 2015, 1,482 students at EC identified engineering as their major as of 2015 (Interim Dean, Joint meeting of EC and Tech College administrators, October 8, 2015). This number is over twice the number of students who were declared engineering majors at EC in 2003, when the same figure was only 700. Furthermore, the community college has set an ambitious goal of enrolling 2,000 engineering students by the year 2020. These enrollment numbers underscore EC's history of and commitment to developing future engineers in partnership with four-year colleges and universities.

As of 2014, 36% of all EC engineering students were classified as Black (E. Thomas, personal communication, December 16, 2014). Among the Black engineering students, 55% were non-U.S. citizens (E. Thomas, personal communication, December 16, 2014). In fact, according to faculty and staff at EC, many in-state domestic students and international students who move to that region of the country choose to enroll at the school. As such, EC is racially, ethnically, and culturally diverse.

Participants

Each participant in the study transferred from EC to Tech College of Engineering. Tech mandates that all incoming transfers have at least a 3.0 cumulative grade point average from their previous courses, and complete certain prerequisite science and math courses. Each participant selected for this study also fulfilled the following criteria: 1) The student identified as Black on his application to Tech; 2) The student indicated that he was educated in a high school either in

⁴ For the purposes of this research, a school was considered competitive if it was included in *U.S. News and World Report's* list of its top 25 engineering programs for undergraduates at least one year since 2010.

the U.S. or in a sub-Saharan African country; 3) The student enrolled at EC prior to attending Tech College; 4) The student was at least 18 years of age at the time of the interview.

Working with the admissions office at Landing University (puseudoymn), a list of Black students who transferred to Tech between 2009 and 2014 was obtained (Tech College is one of several colleges on the campus of Landing University). After receiving responses from prospective participants, each respondent was reviewed to ensure that he met all four of the before-stated criteria. Letters were emailed to students to invite them to participate in the study and interested students were scheduled for interviews. Prior to conducting each interview, each participant was informed of the purposes, expectations, and risks of the study. Written and verbal consent in accordance with Institutional Review Board requirements was also obtained. All interviews were completed between the summer and fall of 2015.

Data Collection

Four data sources were collected and analyzed for this study. First, demographic questions such as academic major, country of birth, and self-identified race and ethnicity were developed to better frame participants’ scholastic and personal backgrounds. Table 1 below provides an abbreviated list of questionnaire prompts to which each interviewee responded. Second, using an interview protocol that was developed for the study, participants were asked questions that included topics related to peer supports. All individual interviews were audio recorded, and the average duration of each interview was one hour and sixteen minutes. The average number of transcript pages generated by each interview was 38, and the total number of transcript pages generated across all interviews was 192. Table 2 provides a selection of the interview questions related to peer engagement that were asked of all interviewees.

Table 1.
Selected Demographic Questionnaire Prompts used in Research Study

Question Number	Prompt
A	Are you or will you be the first in your family to graduate with a Bachelor of Science degree in engineering?
B	Please list the country in which you were born.
C	If you were born outside of the United States, please indicate your age when you moved to the U.S.
D	How do you identify in terms of your race?
E	How do you identify in terms of your ethnicity?

Table 2.
Selected Questions Asked During Individual Interviews

Question Number	Prompt
A	What support systems did you have in place prior to your transfer from your previous institution to the Tech College (e.g., peer mentors, college advisors, etc.)?
B	What role, if any, have your friends played in your college experiences thus far?
C	Do you identify or have you identified with any particular groups or communities on campus? Do you identify with any particular groups or communities off campus? If so, please explain whether those groups are the same or, if they are different, how they differ?
D	Is there a particular group or community with which you have spent the most time (e.g., studying, socializing, etc.) as a student? If so, which group/community has that been? If not, what different groups and communities have you engaged with at different times?
E	How has your engagement with the different groups and communities that we have discussed impacted your educational trajectory in engineering?

One of the two research questions that was posed in the broader study was as follows: What are some of the within-group differences among Black students who transfer from community colleges to competitive engineering schools? Guided by this question, a second set of interviews was arranged, which were conducted in a group setting. Frey and Fontana (1991) note that that group interviews assist with investigative studies of information that has already been gathered. They also assert that group interviews can act as a validity check for information obtained during individual interviews.

The two group interviews queried Black African and Black American males, respectively, for their responses to additional questions that emerged after individual interviews with each of them. These two group interviews served as a third and fourth data source in the overall study. The interview with Black American students generated a total of 40 transcript pages and lasted for one and a half hours. The interview with Black African students generated 32 transcript pages and lasted for one hour and eight minutes.

Analysis

After reviewing the responses to each set of interviews, a systematic and inductive coding method was employed to analyze rich quotes from the participants that corresponded to the research question (Saldaña, 2011). For the purposes of this work, a code called Peer and Social Influences was used to classify interviewees’ statements related to peer engagement. After inductively coding the data, a set of categories was developed to further classify interview data

that was coded broadly as Peer and Social Influences. Through this procedure, several distinct categories associated with peer engagement were identified. Four of these categories, along with a sample quote associated with each category, are listed in Table 3 below. These categories were most relevant to the original research question because they helped reveal differences between Black African and Black American peer groups.

Looking at the quotes in each of the four categories and their salience to the research question, two themes around peer supports were developed. The first, Black African Peer Support Groups, evolved largely from the category labeled “Peer support and social networks – More African/immigrant interactions than other interactions.” The “Limited non-engineering social interactions” category also became part of the development of this theme, after it was noted that Black Africans tended to talk mostly about peer groups in engineering/STEM courses (rather than peer groups associated with extra-curricular activities). The second theme, Black American Peer Support Groups, developed from a review of statements made by Black Americans across two other categories. Black Americans collectively proffered two statements about studying both with other Black Americans and Black Africans. As a result, the “Peer support and social networks – more interactions with Blacks in general than with other students” category was valuable for describing these experiences. In addition, Black Americans in the study made several statements about working with peers of all races and ethnicities. For this reason, quotes from the “Peer support and social networks – Networking with peers regardless of race/ethnicity” category were included in this theme.

Table 3.
Qualitative Data Analysis

Category	Sample Quote	Theme
Peer support and social networks - More African/immigrant interactions than other interactions	“I have some friends that are doing civil engineering and also we have our projects that after we graduate we go back home [to Niger, West Africa] and have a project all together.” <i>Oussou, Non-Native Student</i>	Black African Peer Support Groups
Limited non-engineering social interactions	“For me, I wanted something different. I wanted to do something different. I was like because I basically grew up in the same environment as most of them, so maybe it was like we have same similarities. I was like let me just try something different...I never attended events. I was like let me just shift.” <i>Titan, Non-Native Student</i>	Black African Peer Support Groups
Peer support and social networks - More interactions with Blacks in general than with other students	“I don’t know why, but there was this large thing where...the...African American community...they had this big thing where they really loved joining...the clubs; like...joining the student senate or like the...[student] Ambassadors and things like that. They were really motivated. And so I kind of consorted with them pretty much the whole time....which was great because I made a lot of	Black American Peer Support Groups

	friends in that group.” <i>Ben, Native Student</i>	
Peer support and social networks - Networking with peers regardless of race/ethnicity	“It’s a...melting pot of people. I find that like, in engineering, especially, the people who understand it are so happy to explain it, 'cause they're so excited that they understand it.” <i>Goku, Native Student</i>	Black American Peer Support Groups

Rigor and Validity of Study

Tracy (2010) posits that there are eight *big tent* criteria for evaluating the merits of qualitative research. According to Tracy, a research topic is *worthy* if it makes a significant contribution to the discipline and is something that is “evocative” to major stakeholders (p. 840). As indicated in the introduction, URM STEM engagement and community college support are important issues both at the federal level as well as across various educational institutions. Tracy also defines *rigor* as the analytical processes and efforts required to substantiate a study’s claims. For this study, the ways in which selected data were chosen as well as how data developed into codes, categories, and themes has been thoroughly documented. The study incorporated the use of *sincerity* through the use of analytic memos, which helped document and develop a sensitivity to researcher bias. To establish *credibility*, after each individual and group transcription was created, it was sent it to individual or group participants for their review. Additionally, data was organized into codes and categories, and meetings with peers were facilitated in order to discuss aloud and probe for patterns in the data. These steps allowed data to be triangulated, which helps establish what Lincoln and Guba (1985) refer to as *truth value*. Other criteria for rigorous qualitative research were also considered, including *applicability* (Lincoln & Guba, 1985) and *resonance* (Tracy, 2010).

Results

Demographic data on the five high-achieving male participants in the study are listed as Table 4 below. Three of the them – Ben, Carter, and Goku (pseudonyms)– are native students. The other two participants – Oussou and Titan (pseudonyms) – are non-native. This table illustrates differences in how respondents both self-identified in terms of race/ethnicity, as well as distinctions in participants’ personal/academic backgrounds. The approach to unpacking within-group differences in peer associations was foregrounded by this depiction of the interviewees. In the following subsections, respondents’ peer group networks are explored, followed by a section on the culture of support of high-achieving Black males at EC.

Table 4.
Summary of Participants

Name ⁵	Major	Gender	Race (self-identified)	Ethnicity (self-identified)	Year of Birth	Birth Order	Country of Birth	Mother's Highest Level of Education	Father's Highest Level of Education	Year of move to U.S.	Native or Non-Native	Generational Status
Ben	Chemical Engineering	Male	Mixed Race	Black/White	1994	Eldest of four siblings	U.S.	High School/GED	High School/GED	N/A	Native	Second
Carter	Materials Science and Engineering	Male	Multiracial	Black, plus more	1987	Second of three siblings	U.S.	Doctorate	Master's	N/A	Native	Third or higher ⁶
Goku	Mechanical Engineering	Male	African American/Black	I have been told that I have African, Native American, and Caucasian ancestry	1992	Second of two siblings	U.S.	GED	Unknown	N/A	Native	Third or higher
Oussou	Civil Engineering	Male	Black	Zarma ⁷	1994	Second of two siblings	Niger	Bachelor's	Master's	2011	Non-Native	First
Titan	Electrical Engineering	Male	Black/African American	African	1987	Eldest of five siblings	U.S. ⁸	High School	None	2009 ⁴	Non-Native	First ⁹

⁵ The names that appear in this column are pseudonyms selected by the participants.

⁶ A generational status of “third or higher” refers to a person whose parents were both born in the U.S. (U.S. Census, 2013c)

⁷ Zarma refers to a tribe indigenous to Niger, as well as a small number of adjacent West African countries, including Burkina Faso and Nigeria (Zarma, 2016).

⁸ Titan was born in the United States of America but moved to The Gambia, West Africa when he was three years old. He returned to the U.S. in 2009.

⁹ Although Titan was born in the U.S., based on the definition of non-native, he is considered first-generation since he was raised in The Gambia.

Black American Peer Support Groups

Interviewees who were raised in the U.S. tended to view some social networks in college as heterogeneous spaces for discussion where anyone – regardless of race or ethnicity – might be present. Goku put it this way: “[College]...is a...melting pot of people. I find that . . . in engineering, especially, the people who understand it are so happy to explain it, because they’re so excited that they understand it.” Ben remarked similarly, adding, “everybody goes through the same struggle.” He implied that engineering is so arduous that students – despite factors that might separate them – unite when they have to solve difficult challenges in class. Carter felt that since engineering at EC was “new to everybody” and “everybody [was] having a hard time,” most students decided to just “focus on it.” Rather than aligning himself with a racial/ethnic affinity group, Carter, too, had a “melting pot” of friends. He commented:

Two of the . . . longest-lasting contacts or friends that I’ve had from EC have been very diverse. One is a son of German immigrants, and the other is a daughter of Nigerian immigrants, so it – it was very much a multicultural experience. And the study groups that we formed were based on necessity, and those students who felt that, ‘Wow, I really don't understand this.’

Native students in this study were willing to develop relationships with diverse colleagues across campus. They demonstrated openness to engaging with students from multiple cultures. Carter, Goku, and Ben all seemed to believe that collaboration with students – regardless of their cultural differences – would lead to success.

Ben also inferred that there was more of a cross-cultural exchange taking place and even a cultural appreciation for the diversity that African-born students brought to EC. This type of interaction was less common among other student populations. Ben explained, “It would likely not be like Caucasian Americans hanging out with African Americans or Hispanic Americans.” Ben’s comment implied that Black Americans may have been intentional about their choices of friends and study groups at EC. He indicated that Black native students chose to interact more with Black Africans than other racial/ethnic groups. This was noteworthy considering the fact that Black Africans, as noted below, did not express the same sentiments regarding Black Americans.

Ben added that he engaged with several Black African students in leadership positions at EC:

I don’t know why, but there was this large thing where . . . the . . . African American community...they had this big thing where they really loved joining . . . the clubs; like joining the student senate or like the . . . [student] Ambassadors and things like that. They were really motivated. And so I kind of consorted with them pretty much the whole time . . . which was great because I made a lot of friends in that group.

This was particularly noteworthy in that Ben was the only participant – among both the native and non-native interviewees – who spoke about working with other student leaders on campus.

Goku also said that he “hung out” with more of the African students. He suggested that the reason that he interacted with more Africans than Black Americans was mainly the result of the demographics of his courses:

In Eastern College, it did seem kind of like I [hung] out with more of the African students. Because it was really more African students. I didn't really see a lot of African American students. So I feel like they congregated around me, sort of. Like I didn't go out in search of friends, but it kind of just organically happened that way.

Carter, Goku, and Ben had a heterogeneous group of peers at EC. However, Ben provided one example at the school in which he associated more with native Blacks than any other racial or ethnic group. He stated:

I don't know why, but there was this large thing where . . . the . . . African American community . . . they had this big thing where they really loved joining . . . the clubs; like joining the student senate or like the . . . [student] Ambassadors and things like that. They were really motivated. And so I kind of consorted with them pretty much the whole time . . . which was great because I made a lot of friends in that group.

Although it was not clear that engaging in these extra-curricular organizations assisted Ben with transferring, he seemed to derive satisfaction from having “friends” in these groups. This is particularly noteworthy in that he was the only participant – among both the native and non-native interviewees – who spoke about working with other student leaders on campus.

Black American males in the study appeared motivated to seek out classmates with whom to study. Rather than withdraw from undergraduates whose backgrounds may have been different than theirs, each respondent wholly engaged with other members of the EC community. In fact, each participant spoke at least once of engaging with students who were either first or second generation Americans. This is particularly noteworthy, considering that two of the three participants (Goku and Carter) did not mention having any family members who had emigrated to the U.S. Differences in race, ethnicity, or nationality that the participants may have had with other EC students did not seem to preclude them from developing effective peer networks. Instead, they seemed to form collegial, and in at least one case, long-lasting, relationships with diverse students.

Black African Peer Support Groups

Oussou and Titan found it beneficial to develop camaraderie almost exclusively with other Black African students. Although they were not as connected to other racial or ethnic groups of students, these peer groups seemed to be advantageous as they prepared to transfer. Oussou said that he saw “more Africans than African Americans in [his] engineering class[es].” He could only recall being around Black American students as the exception rather than the rule, noting that he “only had one African American friend.”

Like the native students, Titan assumed that everyone – regardless of race or ethnicity – around him had a shared goal of being successful in their classes. In his words, he “did step out and [had] some friends that [were] African Americans and also Caucasians . . . It . . . helped because we [were] all in the same category. We [were] all doing engineering and we [knew] how

hard engineering is.” However, Titan’s “stepping out” was less common than it initially appeared to be, especially in light of some of his other statements. He, too, acknowledged that he “was more associated with Africans in general.” Titan conceded that “there were a lot of African Americans [at EC] but . . . [he] didn’t involve myself [as much] with Black Americans that were born and raised here.” His tone did not suggest disdain for or intentional avoidance of Black Americans, but he nonetheless tended to associate more with Black Africans.

While he mentioned having a connection to Africans “in general,” Titan also appeared to be drawn to some Black African undergraduates more than others. In Titan’s words, “most of my friends are French-speaking.” This suggested that he may have engaged in peer networks of Black Africans from other Francophone countries.

Inasmuch as non-native students evidenced that they interacted with other Black African students, they also revealed that they did not engage as much with African students outside of their coursework. Both Titan and Oussou indicated that they did not join the African Students Association (ASA) on EC’s campus. ASA is an extracurricular group at EC targeting Black students with an interest in connecting with the African continent. When Titan described his reason for not participating in ASA, he said:

For me, I wanted something different. I wanted to do something different. I was like because I basically grew up in the same environment as most of [the other ASA students] so maybe it was like we have same similarities. I was like ‘Let me just try something different’ . . . I never attended events. I was like, ‘Let me just shift.’

Titan’s reason for not participating in ASA appeared to be that he already felt connected to many African students. For this reason, becoming a member of ASA would not, in his opinion, offer him anything “different.”

Similarly, Oussou appeared to be less inclined to join ASA because he did not believe that the group would add any value to his educational aspirations. In his words:

I wasn’t involved [in ASA] because I thought it was just a waste of time . . . like when I came . . . it was like I was first year so I was like, ‘Why do I have to waste my time with this?’ They just come and they chat. I don’t have time for that.

Whereas Titan felt that the group would not provide any new or “different” experiences, Oussou simply perceived that ASA was a “waste of time.”

Like Titan, Oussou was drawn to a sub-group of Black Africans who, like him, emigrated from Francophone countries. He noted that “I just hang out with those that speak French.” Given that Niger is a largely Francophone country, it is conceivable that he “hung out” more with African students whose native tongue was French while at EC.

Non-native students recalled having peer groups at EC that were largely comprised of African students. In most cases, they associated more often with these students than with Blacks who were raised in the U.S. Whereas native students seemed happy to find any student who was working through challenging STEM courses, non-native students appeared to find substantial support among other Black Africans. The tendency to coalesce around other African-born students did not appear to be intentional, but it seemed to happen rather organically as the participants progressed at EC. Part of the draw to certain non-native students may not have only been a common upbringing in an African country, but also the shared language of French.

Community College Support Structures

Although respondents did not discuss the merits of attending EC as it related to their choice of peer groups, EC is a compelling site for this study. According to Dr. A. Roberts (pseudonym), a faculty member at EC, many first-generation immigrants choose to attend EC because others from their home country previously attended the school (A. Roberts, personal communication, June 16, 2015). Dr. Roberts also claims that many Black first-generation students at EC foster positive relationships with native Black American students and help native students to feel a sense of racial and cultural pride (A. Roberts, personal communication, June 16, 2015). In an informational interview, Dr. Roberts recounted a story involving two West African students from a Francophone country who served as peer mentors for a Black American male undergraduate at EC; years later, this same male earned a Ph.D. (A. Roberts, personal communication, June 16, 2015). This suggested that a cross-cultural exchange might be taking place at EC between Black African and Black American peer networks, leading to long-term academic benefits beyond students' undergraduate careers.

Faculty also indicated an awareness of diverse groups of students who enroll at EC; they were able to describe them often by nationality, not just race and gender. Dr. Roberts, for instance, noted the high number of Ethiopian Americans who attended (A. Roberts, personal communication, June 16, 2015). Mr. E. Thomas (pseudonym), an EC STEM advisor, was able to point to data that distinguishes the number of Black engineering students who are American citizens from those who are non-citizens (E. Thomas, personal communication, May 15, 2014). Because EC developed a cultural awareness of Black male undergraduates' ethnic and national origins, men in the study may have felt a personal connection to faculty and staff there. This connection may have potentially empowered different peer groups of Black men during their tenure at EC.

Furthermore, EC faculty seem to encourage students to be successful in science and math-based majors beyond the community college. For instance, Titan explained that “[his] physics teacher . . . was really amazing. [He] took extra classes with him and then we did have conversations about what to pursue after graduating.” Goku added that “homework help centers” at EC, which were staffed both by faculty and by other undergraduates, were “very good” for him. In his words:

[At homework help centers] you can go in and complete [your work, have someone mentor you on doing certain work, certain course work...initially I didn't go for a four-year school. Because one, I didn't feel like – I was kind of, I didn't think I was good enough. I didn't know why they would take me. So at EC, I wanted to . . . be proud of myself or something, so when I applied to a four-year school, I would be like, they should accept me. So I felt like the help centers were a big part in keeping my confidence.

For Goku, interactions with peers and professors at EC were valuable in helping him build his self-confidence.

Faculty and students described EC as a school that encourages the formation of diverse peer groups. The school acknowledges within-group distinctions among Black students, and may create an environment in which peers appreciate each other's cultural and ethnic differences.

Perhaps because of this, engineering students like Goku, Carter, and Ben felt comfortable studying with a cross section of students at EC.

Analysis

Regardless of the country or culture in which they were raised, interviewees' abilities to form interdependent connections with classmates offers a positive portrayal of Black engineering undergraduate males in community college. This work moves away from the scholarly tradition of portraying Blacks who underperform relative to their Asian counterparts, such as the findings presented in Treisman's (1992) work on high-achieving Chinese students. Instead, the results demonstrate that Black males, too, can progress in rigorous STEM courses by developing peer networks. In the following two subsections, I explore the ways in which research findings both converged with and diverged from extant literature. I interrogate scholarship both on within-group differences in peer networks, as well as scholarship on community college enrollment and transfer. These two bodies of literature help inform the ways in which I make meaning of the data that I collected for the study.

Within-Group Differences in Black Peer Networks

While all students in the study participated in peer groups, the demographic composition of these groups varied. Native students tended to see engineering at EC as a "melting pot," where anyone was welcome. Non-natives, instead, engaged more with peers who also had migrated to the U.S. In this section, I examine literature on these different socialization patterns, offering suggestions that might explain why these differences may have existed.

Native and non-native students together reflected a tension that the literature highlights. While some scholars describe the benefits to URM students who work with diverse peer groups (regardless of race/ethnicity), other researchers suggest that it is more advantageous for URMs to work with other students of color (Fries-Britt et al., 2010). This study may offer insight as to why this tension exists. Because native students were the minority Black population in engineering at EC, it may have been to their advantage to view the campus as a "melting pot" and be willing to engage with different peers. A more restrictive approach to working with their colleagues may have effectively limited the number of students with whom they could partner. Non-native students comprised a larger percentage of the engineering/STEM population at EC, and therefore may not have felt the need to consider the possibility of working with a diverse group of classmates.

Despite non-native students' tendency to study with other Black immigrants, they did not seem to be intentional about their choices of peer networks. That is, they did not appear to purposefully choose to not work with Black American students. Their peer network at EC seemed to evolve naturally rather than out of a pre-arranged plan for social grouping. The decision of non-native students to develop relationships with other non-native students seems to mirror earlier findings by Fries-Britt et al. (2014). In their study, some Black African and West Indian students engaged almost exclusively with other Black immigrants because of their shared experiences as newly arrived undergraduates in the U.S. However, Fries-Britt et al. also found instances in which non-native Black physics students sometimes preferred to work with native students. One sub-Saharan African participant in their study was actually critical of other international students who developed exclusively African or West Indian peer networks.

EC once again represents an interesting case study because of the large international student population at the school. This parallels Fries-Britt et al.'s (2014) study, which found that “many [non-native] students indicated that there were high numbers of foreign-born students in their STEM departments, making it easier to find and connect with peers” (p. 466). In this study, because Black non-natives were the Black majority population in engineering, this may have provided them some ease in their academic transition to the U.S. In addition, EC is located near one of the ten most populous American cities in regard to the number of African immigrants. In similar research sites, such as campuses in the New York or Philadelphia area, non-native Black students may also feel less pressure to engage with a diverse group of peers (Reed & Andrzejewski, 2010).

A small number of studies imply that efforts to foster positive peer relationships between native and non-native Blacks have been challenging. Fries-Britt et al. (2014) explain that some non-native students in their study experienced difficulty when attempting to integrate into American social settings. Awokoya (2012) similarly noted that Black American students are sometimes less accepting of Black immigrants. With these research efforts as a backdrop to this study, Carter, Goku, and Ben provide a counter-story to these prior works; they seemed more willing to interact and form positive relationships with non-native students at EC. Ben, for instance, felt that the various African cultures that he encountered at the school were “kind of cool.”

Finally, because Black African students are the majority-Black population at EC, they took advantage of situations that other scholars have problematized. For example, Oussou and Titan both implied that they appreciated having classmates who were native French speakers. This offers a different perspective than that of Hagedorn, Cabrera, and Prather (2010), who note that English language challenges can preclude community college students from being able to transfer. In a sense, the advantage that Oussou and Titan had of associating with other French-speakers at EC may have counteracted the potential negative implications of being less proficient in English.

Black American students' peer networks looked and – to some degree – functioned in different ways than the non-native students' networks. Ben, Goku, and Carter looked to peer networks at EC as a means to help them through their coursework. As Ben put it, “everybody goes through the same struggle.” Non-native students, however, found students with whom they shared a common history (and in some cases, a common language) as immigrants. Although these groupings seemed to evolve naturally, this preceding analysis may help to explain how and why different groups of Black community college students develop peer networks.

Community College Support Structures

Findings suggest that EC has created a *structure for success*, which some community colleges promote through mentoring and other student support services (Palmer et al., 2013). However, this work is distinct in that it explores how one community college may create this “structure” by recognizing within-group diversity. In other words, while other work has explored support offered through *programs*, this study explicates support in the form of *cultural awareness*. Indeed, while scholarship on cultural and intercultural awareness in education research has grown recently, most researchers have focused on applying these frameworks to K-12 teacher preparation (Baker, 2011; Turner, 2007). Seldom has scholarship explored how *cultural awareness* may be applied by staff in two-year colleges. As such, the ability of faculty

and staff like Dr. Roberts and Mr. Thomas to recognize within-group differences in the Black student population offers a new paradigm by which scholars can apply *cultural awareness*. This type of sensitivity to heterogeneous Black populations may enable the cultivation of groups of talented and ethnically diverse Black males to transfer into highly competitive engineering schools.

Faculty and staff at EC provide a narrative that runs counter to “cooling out” practices in community colleges, in which schools historically encouraged some enrollees to consider vocational programs instead of four-year colleges and universities (Clark, 1960). Brint and Karabel (1989) argued that community colleges helped reproduce social class stratification, and Brint (2003) later said that “the circumstances of community college have, in several respects, changed for the worse” (p. 16). Unlike these findings, EC champions itself as a “transfer institution” for *all* students (A. Roberts, personal communication, June 16, 2015). Therefore, ambitious Black male students are able to engage with other successful peers in a school culture that embraces them as future transfer students. In sum, this study offers a counter-narrative to the depiction of American two-year schools as largely inhibitors of progress.

Peer Groups and Racial, Ethnic, and Cultural Self-Identity

Interviewees’ choices of peer group associations seemed to mirror their own self-described racial, ethnic, and cultural identities. Black students raised in the U.S. adopted a perspective of themselves that included other racial and ethnic groups outside of the African diaspora. As indicated in Table 1, two of the native students – Ben and Carter – said that they were “mixed race” and “multiracial,” respectively. When responding to the question of ethnicity, Ben, Carter, and Goku said that they were ethnically “Black/White,” “Black, plus more,” and a combination of “African, Native American, and Caucasian,” respectively. Carter, who is “Multiracial,” added that he “sort of embraced the fact that [he is] more than just what [his] parents’ heritage is.”

Rather than refer to themselves as *Black* students, non-native students seemed keenly aware of their *African* heritage. For example, Titan spoke about the significance of cultural identity. Regarding students like himself, who immigrated from sub-Saharan Africa, he said the following:

The entire upbringing that we have is different from the upbringing that some people have... For example, the upbringing of a single parent will be different from an upbringing of someone with two parents and the upbringing of someone who grew up in Africa will be different from someone who grew up in the United States.

Black African undergraduates also generally perceived their identities through a single lens. As an example, Oussou, and Titan viewed their ethnicities as “Zarma,” and “African,” respectively. Both non-native students gave a single, African-contextualized, response. By comparison, the American students in the study seemed to hold a broader view that embraced multiple cultures.

Native students’ statements revealed that they held multifaceted views of their own racial and/or ethnic identities. These comments coincide with Renn’s (2008) multiple identity framework on biracial and multiracial students, which posits that Black students may adopt different identities depending on the context in which they find themselves. Each of the native students seemed to accept society’s definition of them as Black students. However, they were

unwilling to accept this definition exclusively. Non-native students spoke more about their identities as children raised in an African context, and rarely mentioned the subject of race.

Reed and Andrzejewski (2010) acknowledge “tensions” as “African immigrants struggle to be recognized as not just ‘African American’ or ‘Black’” (p. 1). Mwangi (2014) similarly asserts that non-native Blacks may view race as less crucial than their national or cultural identities. However, Fries-Britt et al. (2014) posit that over time Black students from other countries may eventually adapt to a U.S. – racialized context. This suggests that among Black Africans in this study, their identities may evolve in the years that follow their time at EC if they remain in the U.S.

This analysis affirms assertions in the literature, which include the idea that non-native Blacks may tend to retain their national identities after moving to the U.S. (Habecker, 2012). Native Black with multi-racial or multi-ethnic backgrounds as Renn (2008) argues, may emphasize the salience of being a Black American differently, depending on the environment. This study also suggests that interviewees’ perceptions of themselves may have controlled for the degree to which they were willing to interact with students who had been raised in different environments.

Recommendations for Research

While the findings of this work illuminate within-group differences in Black student peer networks, they move away from scholarship that uses a zero sum approach for conceptualizing Black collegians. Previous studies laud one set of Black STEM students while painting a more woeful image of another set of Black undergraduates (Burrell et al., 2015; Williamson, 2010). By contrast, this work intentionally employs a success-oriented approach for conceptualizing *all* Black students in the study, rather than just a subset of them. These findings suggest that it is possible to simultaneously frame Black African men and Black American men in positive, albeit distinct, manners.

To date, most research on high-achieving Black males has focused on four-year institutions or high schools (Harper, 2008; Bonner, Jennings, Marbley, & Brown, 2008; Fries-Britt et al., 2010; Strayhorn, 2009). While these works provide an important foundation for research on successful men of color, they do not account for academic pathways that may involve the community college. By focusing almost exclusively on the four-year or high school experience, these prior works give short shrift to the narratives of talented Black males who first enroll in two-year colleges. Considering the fact that more Black students begin their post-secondary careers in two-year schools rather than four-year schools after high school, the ability to articulate their experiences in community college has significant research implications.

Although this study primarily explored peer engagement from Black male undergraduates’ perspectives, findings suggest that more work is needed to understand the role of administrators at schools like EC. Unlike data from prior studies that illuminate *barriers* that community colleges offer to transfer, such as the “cooling out” process, results from this project highlight *pathways* that may lead to transfer. By offering a thorough depiction of what community colleges are doing to support Black males in engineering and other disciplines, scholars have an opportunity to reframe research on two-year schools and their impact on URM populations. A more balanced perspective in research that depicts both the opportunities and challenges that community colleges provide high achieving men of color seems warranted.

This research also suggests new lines of inquiry for future studies involving URM males in STEM disciplines. Questions around student engagement should assess the degree to which men are involved in on-campus activities within and outside of their classes. Weerts, Cabrera, and Mejías (2014) articulated four types of student engagement categories that scholars can appropriate to the participants in this study. Among these categories, they mention Apolitical Engagers, who are interested in finding ways to give back to society but avoid involvement in groups that have a social justice component. Ben may fit this typology, considering the non-political peer groups with which he was affiliated. Weerts et al. also discuss Non-Engagers, who tend not to join any types of formal student organizations. Other interviewees' comments, such as Oussou and Titan's refusal to join ASA, suggest that they were Non-Engagers at EC. However, because each participant was able to transfer to Tech, future studies may investigate how Non-Engagers in engineering majors succeed despite a lack of on-campus involvement. It is possible that the study groups that respondents formed created informal networks that replaced the need for involvement in structured, preexisting associations. Despite not being recognized organizations, data reveal that these networks were effective and helped facilitate transfer.

Recommendations for Policy and Practice

In schools like EC, student support policies and programs should acknowledge the increasingly diverse student body of prospective Black male engineering transfer students. At the same time, receiving institutions like Tech College should also be aware of this new within-group diversity. This type of diversity may have implications for other student populations, including other Black males in other majors who transfer to four-year institutions. Advisors and faculty should be not only be aware of the increasing numbers of talented Black men who are moving from two- to four-year schools, but they should also consider how their cultural histories impact their peer networks.

One set of resources for helping colleges and universities recognize the within-group diversity of Black male engineering transfers may be MEPs. At present, MEP support is already available to universities interested in increasing diversity (Anderson-Rowland, 2011). However, MEPs may need to use specialized approaches for engaging different groups of Black males to ensure that all students – regardless of their country of origin or preferred language – are involved in peer networks. Furthermore, MEP leaders should recognize that support programs designed for students who enrolled as transfer students may need to have very different components than programs targeting students who enrolled as freshmen. Indeed, MEP and other administrators may wish to consult with sending institutions to ensure that they fully appreciate the skills that Black male transfers offer, as well as the unique requirements that they may need in order to continue to be successful.

Findings from this study have vast implications for burgeoning Black African populations throughout the country. Because of the growing Black African numbers in cities like Houston and Chicago, results from this work can provide the foundation for new peer mentoring programs that consider both race *and* country of origin (Reed & Andrzejewski, 2010). Advising staff and MEP administrators should also embrace the full African diaspora of Black engineers, and hire staff to reflect this within-group diversity. By demonstrating openness to new cultures, administrators can act as role models for diverse and effective peer groups.

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