Determinants of Intent to Transfer Among Black Male Community College Students: A Multinomial, Multilevel Investigation of Student Engagement

J. LUKE WOOD

San Diego State University

ROBERT T. PALMER

State University of New York at Binghamton

Background/Context. *Transfer is a core function of community colleges; this is a critical point given that these institutions serve as the primary pathway into postsecondary education for Black men. However, too few Black men identify transfer as a primary goal and/or eventually transfer to a 4-year college or university.*

Purpose: *Using Nora and Rendón's (1990) research on transfer predisposition as a theoretical guide, this study investigated determinants of Black male community college students' predisposition to transfer from a community college to a 4-year university. This research sought to determine whether student-level and institutional-level measures of engagement were predictive of transfer intent. This research also examined whether engagement predictors at the student level had randomly varying slopes across colleges.*

Population: *This study employed a quantitative analysis of secondary data from the Community College Survey of Student Engagement (CCSSE). A total of 11,384 Black men nested within 259 community colleges were included in the analytic sample.*

Research Design: *Data were analyzed using multilevel, multinomial logistic regression. Students' predisposition to transfer was modeled in three categories, transfer as a primary goal, secondary goal, or not a goal. The first analysis examined predictors of students' intent to transfer using student-level variables while the second analysis added institutional-level variables. In the third analysis, the researchers' constructed random slopes and intercepts models to investigate whether the student-level engagement slopes on the outcome differed across the nested structure.*

Findings/Results: *Students with transfer as a primary goal (as opposed to not being a goal) were more likely to be younger, have earned more credits, non-first-generation, full-time enrollees, and to have taken developmental education courses. They were also more likely to spend*

Teachers College Record Volume 118, 080302, August 2016, 28 pages

0161-4681

more hours per week studying and involved in extracurricular activities. These students were also more engaged in active and collaborative learning and used student services on campus.

Conclusions/Recommendations: *This research has shown that that the factors influencing Black men's predisposition toward transfer largely mirror that of their White and Hispanic peers. Findings from this study demonstrated that social integration was a positive predictor of students' intent to transfer; the finding diverges from prior research on Black men in the community college, which have shown social integration to serve as a negative predictor of success outcomes.*

Since its inception in 1901, the vision of the community college has been to actualize broader postsecondary opportunities for society's historically underserved (Nevarez & Wood, 2010; Tillery & Deegan, 1985). In pursuit of this vision, community colleges serve a complex mission that includes: (a) open-access admissions, where nearly any adult can enroll in a community college to pursue their academic goals; (b) comprehensive educational programming, ranging from classical studies to vocational-technical offerings; and (c) serving the needs (e.g., economic, social, cultural) of their local communities through academic programming (Cohen & Brawer, 2009; Vaughan, 2006). In response, many underserved students enroll in community colleges as a venue for achieving their career aspirations. For instance, Black males overwhelmingly select community colleges as their primary pathway into postsecondary education. In fact, nearly 71% of Black men who enter public higher education begin their academic careers at community colleges (Beginning Postsecondary Students [BPS] Longitudinal Study, 2003/2009). Bush (2004) and Bush and Bush (2010) stated that the large percentage of Black males attending community colleges was a result of the belief that community colleges will aid their upward economic and social mobility.

One critical function of community colleges designed to enhance life opportunities for students is transfer. As traditionally conceptualized, students attend community colleges to complete their general education coursework. After completion of this coursework, they can apply to 4-year colleges and universities for advanced study, transfer as juniors, and complete a bachelor's degree (Kane & Rouse, 1999; Townsend & Wilson, 2006).[1] Students benefit from the transfer function in several ways. First, community colleges typically provide educational offerings at a lower tuition and fee rate than universities. Thus, students can save money by completing their general education coursework at a lower cost, prior to transfer. Second, community colleges often feature programming and services tailored to meet the needs of students who are less academically prepared. As such, students who may have delayed their enrollment before entering college or who were not adequately prepared in prior levels of schooling

can reap the benefit of enhanced support services. Third, community colleges often have transfer agreements with 4-year colleges and universities, which can provide students with additional opportunities for admittance into competitive 4-year institutions (Nevarez & Wood, 2010).

A large contingent of community college students (41.3%) enroll with the intent to transfer to a 4-year college or university. Among Black males (the population of focus for this manuscript), 43.2% indicate an intent to transfer upon enrollment in the community college (Nevarez & Wood, 2010). While the intended transfer rate for Black males in community college is somewhat above the national average, the actual transfer rate of Black male community college students is low (BPS, 2009). For example, only 7.7% of Black men will transfer to a 4-year college or university in three years. This is the lowest rate among their male and female peers (including Black women).[2] Moreover, this rate is substantially lower than that of their White at Asian counterparts at 19.8% and 14.7%, respectively (BPS, 2009).

Even more troublesome, there is limited research on the topic of transfer for Black male community college students. In fact, only one article (i.e., Harper, 2009) examines Black male community college students with a focus on transfer. Specifically, this article suggests that transferring to a 4-year college increases Black males' likelihood of being drafted into professional sports. Harper explicated the benefits of facilitating transfer rates for college athletes, this includes: increasing the overall transfer rate at the institution, enhanced reputation among minority communities, increased respect for coaches among academic professionals, increased likelihood of alumni contributions by former athletes (especially those who experience lucrative professional careers). Harper's article adds important context to challenges facing Black male athletes and the role that institutions can have in facilitating their transfer.

Given the paucity of literature on this topic, the purpose of this article was to fill this void by identify factors that are predictive of Black male community college students' intent to transfer to a 4-year institution. More specifically, this study employed a hierarchical, multilevel modeling approach to investigate the variables predictive of Black male community college students' predisposition to transfer. The following three research questions guided this study.

- Research question 1: Is there a significant relationship between student-level measures of engagement (with controls) on Black male community college students' intent to transfer?
- Research question 2: Is there a significant relationship between student-level and institutional-level measures of engagement (with controls) on Black male community college students' intent to transfer?

- Research question 3: Do engagement predictors at student level have randomly varying slopes across colleges? If so, is there a relationship between college context and the slope relationship?

Nora and Rendón's (1990) study served as a conceptual guide for this research on predisposition to transfer among Black men. Specifically, using data from students attending six community colleges in Texas, Arizona, and California, Nora and Rendón explored the applicability of Tinto's (1975, 1993) model of attrition on student's predisposition to transfer. In particular, Nora and Rendón were interested in the effect of academic (e.g., library use, interactions with faculty, attending campus lectures) and social integration (e.g., involvement in extracurricular activities, seeking out special campus events, reading the college newspaper) on students' predisposition to transfer. Their findings revealed that students with greater levels of academic and social integration were significantly more likely to have transfer goals than their peers. The researchers stated that "once the students successfully integrated socially and academically into their educational environment, their commitments to their institutions and educational goals positively affected predisposition to transfer" (p. 251).

While Nora and Rendón's research is noteworthy, a key limitation to their research was that the sample included only Hispanic (74%) and White (26%) students. Despite this drawback and being derived from a finite population of six colleges, Nora and Rendón's (1990) study served as a conceptual guide for this research on predisposition to transfer among Black men. To provide context for this current research, the subsequent section of this article will provide an overview of extant literature on transfer.

RELEVANT LITERATURE

TRANSFER RESEARCH

In general, research on transfer can be divided into three primary schools of inquiry. The first group focuses on post-transfer outcomes, in which scholars examine student experiences and institutional responses to students who transfer. These scholars are largely concerned with investigating transfer shock (Carlan & Byxbe, 2000; Laanan, 2004; Pennington, 2006; Rhine, Milligan, & Nelson, 2000), transfer adjustment (Laanan, 2004; Townsend & Wilson, 2006), predictors of transfer student persistence (Anglin, Davis, & Mooradian, 1995; Best & Gehring, 1993; Wang, 2009), credit acceptance and articulation issues (Eimers & Mullen, 1997), and stereotypes that 4 -year administrators and faculty have regarding transfer student quality (Berger & Malaney, 2003; Cejda, 1997; Hagedorn, Cypers,

& Lester, 2008). The second general area of research examines the interplay between institutions in sending (community colleges) and receiving (4-year institutions) transfer students. Largely, this research has argued that the success of transfer is a byproduct of strong partnerships, articulation, and commitment between both sending and receiving institutions (Jain, Herrera, Bernal, & Solórzano, 2011; Turner, 1990, 1992).

The third body of literature examines factors that predict students' intention to transfer. This body of literature is most relevant to this current manuscript. Most often, Tinto's (1975, 1993) model of student departure has served as an explicit or implicit framework for investigations of transfer (e.g., Dougherty & Kienzl, 2006; Nora & Rendón, 1990). A key component of Tinto's theory is the notion of integration, where students are more likely to be successful in college if they become integrated into the academic and social milieu of campus. Greater levels of integration are associated with greater student commitment to the institution and to their academic objectives. Some scholars have examined the effect of background factors and academic behaviors on student transfer. Indeed, Lee and Frank (1990) found that greater social class and high school performance measures (e.g., academic track, math courses taken, GPA) were predictors of transfer. Findings regarding the importance of social class have also been supported by other studies (Allen, Robbins, Casillas, & Oh, 2008; Dougherty & Kienzl, 2006).

Additional research has investigated the effect of background predictors on transfer. For example, Wood, Nevarez, and Hilton (2011) examined the effect of background characteristics on student transfer. Using data from the BPS Longitudinal Study of 2009, they explored background predictors in three areas, including demographic variables, family variables, and performance variables. Findings from their study illustrated that older students, minorities, students with disabilities, low-income students, and part-time attendees were significantly less likely to transfer. Wood et al.'s (2011) findings regarding age are affirmed in prior research, indicating that younger students have a greater likelihood of transfer (Dougherty & Kienzl, 2006; Jepson, 2006). Taken together, these studies demonstrate why community colleges may face challenges in transferring Black men, who are often typified by these characteristics (e.g., older, part-time, low-income) (Wood, 2012).

In terms of college-level variables, academic matters (e.g., GPA) are also determinants of transfer (Allen et al., 2008; Dougherty & Kienzl, 2006). Further, as noted by Lee and Frank (1990), the most important variables on transfer are college academic behaviors, particularly the number of courses taken in math and science. Wood et al. (2012) extended upon this work. Using data from BPS, they used a hierarchical logistic regression

approach to model a full range of transfer predictors including: background variables, academic and social integration variables, and environment variables. The results from their study yielded some compelling findings about integration. While academic integration variables (e.g., faculty informal meetings, talking with faculty outside of class, meeting with academic advisors) were significant in combination with background variables, they were not significant in subsequent models with other blocks or the full model. However, social integration factors were integral transfer predictors, with participation in school clubs, and participation in school sports being strong indicators of transfer. Somewhat in contrast, Hurtado, Carter, and Spuler (1996) noted that positive faculty-student interaction and other collegians were indeed integral predictors of transfer. Here too, these findings may demonstrate why community colleges may face challenges in transferring Black men. As noted by Flowers (2006), in comparison to their counterparts attending 4-year colleges, Black men in community colleges are substantially less likely to be academically and socially integrated into the campus setting.

While research has examined the effect of background, academic, and social factors on transfer, fewer studies have given attention to institutional characteristics. Wassmer, Moore, and Shulock (2004) used state-level data from the California community college system to determine whether institutions themselves had an effect on transfer. Using a 6-year transfer time frame, they found several positive predictors of transfer, such as institutions with higher percentages of students less than 25 years of age, higher percentages of Asian American students, number of students enrolled, and percentage of degrees in general studies. Regional predictors such as academic performance index and county population density were also predictive of transfer. Wassmer et al. also identified negative predictors of transfer, including percentage of female, African American, and Latino students. They concluded that institutional characteristics served to create organizational cultures and climates that were, in some cases, supportive of transfer while others were not.

In terms of environmental factors, students are also less likely to transfer due to financial challenges and the need to work (Nora & Rendón, 1990; Wood et al., 2012). For example, Crisp and Nora (2010) noted that the number of hours students worked per week had a negative effect on their likelihood of transfer. Other work-related factors are also of importance. For example, Lee and Frank (1990) found that age at which students were planning to begin full-time work, and job satisfaction (for working students) were all significant predictors of transfer. Another factor that seems to pull students away from their academic pursuits is having children. For instance, Wood et al. (2012) found that the odds of a student with

dependent children transferring were 42.9% lower than that of students without children. Bearing the aforementioned in mind, the next section discusses the methods employed in this research.

METHODS

Data from this study were derived from the Community College Survey of Student Engagement (hereafter referred to as CCSSE). CCSSE was established in 2001 to better understand educational practices and facilitate student learning and persistence in the community college. In particular, the survey was designed to examine faculty–student interactions, students' use of their time, and efficacious educational practices (McClenney, 2007). As indicative by the instrument's name, it has an explicit focus on engagement (the quality of students' effort and involvement) in postsecondary education (Kuh, 2009). CCSSE data employed in this research is from the three-year cohort (2009 to 2011) of the 699 participating institutions. These institutions are representative of students in 48 states and the District of Columbia. Respondents were randomly selected at the classroom level from credit courses. A total of 443,818 students participated in this study. Of the respondents 43% were male and 11% were Black or African American, non-Hispanic (CCSSE, 2012a, 2012b). A total of 11,384 cases from African American/Black males were employed in this study. These men were nested within 259 institutions. CCSSE data were used in this study as it represents the largest and most comprehensive data source in the nation on community college students and has strong psychometric properties as evidenced by relatively recent internal reliability and validity tests (Marti, 2008).

MEASURES

Nora and Rendón's (1990) research employed three indicators of predisposition to transfer, including: the number of 4-year colleges and universities a student plans to apply to for transfer, students' perceptions on the importance of transferring, and transfer seeking behaviors in discussing transfer opportunities with others and seeking out transfer resources (e.g., counseling, catalogs). The researchers believe that the categorical operationalization of transfer intent in this study has more utility for informing future practice. While intent to transfer is most certainly nuanced (as reflective of a continuum of interest), many institutions collect information on students' goals upon entry with more simplistic indicators of interest, such as the three categories of transfer intent employed in this research. The outcome variable in this study examined whether transferring to a 4-year college or university was a goal for entering students. Respondents had three answer options, not a goal (coded "1"), secondary goal (coded "2"), and primary

goal (coded "3"). It is important to note that the structure of CCSSE questionnaire allows for respondents to indicate goal determinations on transfer in a section that inquires about other goals (e.g., obtain a certificate, earn an associate's degree, update job skills, personal enjoyment). This delineation is important given that community college students often have multiple goals, thereby the questionnaire allows for students to make judgments about the importance of transfer in relationship to their other goals. The category of "not a goal" was employed as the reference group in this study. As such, using a multinomial logistic regression, this study was able to illustrate the differential effects of engagement on transfer as not a goal versus a secondary goal and transfer as not a goal versus a primary goal.

Four primary predictor variables were employed in this study. In a prior study on Black males in the community college, Wood and Harris (2013) investigated the underlying structure of CCSSE's engagement variables using an exploratory factor analysis. In that study, a maximum likelihood procedure identified six factors for rotation. After Varimax rotation, four interpretable factors were retained, including: active and collaborative learning, faculty–student interaction, exposure to diversity, and usage of student services. As expected, these constructs closely mirrored prior validation research on CCSSE constructs (see Marti, 2008; McClenney & Marti, 2006). A description of the four engagement constructs, questions associated with each measure, and reliability are reported:

- Active and collaborative learning (a = .71): represents students' active efforts and collaborative involvement in pursuit of greater achievement and learning. Students were asked to indicate their level of participation on the following four-point scale: "never" (coded 1), "sometimes" (coded 2), "often" (coded 3), and "very often" (coded 4). Responses to seven questions comprised this construct: "made a class presentation," "prepared multiple drafts of papers," "integrated ideas from various sources," "worked with group on project," "worked with classmates outside of class," "taught or tutored other students," and "participated in community projects."
- Faculty–student interaction (a = .72): represents student interactions with faculty members in and out of the classroom. These items were also collected from respondents on a four-point scale, ranging from "never" (coded 1) to "very often" (coded 4). This construct was derived from responses to six questions: "asked questions in class," "discussed grades or assignments with instructor," "talked about career plans with faculty," "discussed ideas from class with faculty," "worked harder than thought to meet instructor's standards," and "worked with instructors on non-course activities."

- Exposure to diversity (a = .73): represents students' level of diverse interactions and discussions with individuals different from them. Data was collected from responses on the same four-point scale employed above. This construct was composed of responses to three items: "discussed ideas from class with others outside of class (students, family members, co-workers, etc.)," "had serious conversations with students of a different race or ethnicity other than your own," and "had serious conversations with students who differ from you in terms of religious beliefs, political opinions, or personal values."
- Usage of student services (a=.73): represents the degree that students use campus academic and career services. Students were asked to report how often they used several campuses services. Data were collected from respondents on a three point scale, including "rarely/never" (coded 1), "sometimes" (coded 2), and "often" (coded 3). This construct was derived of responses to five questions: "academic advising/planning," "career counseling," "peer and other tutoring," "skills labs (e.g., writing, math)," and "computer lab."

Since the aforementioned variables were collected on different scales employing a different number of variables, all items in each construct were summed and standardized (centered). As a result, the engagement predictors were employed at both the student level and institutional level (in aggregate form).

Given that this study was most interested in delineating the effects of engagement on transfer intent, a number of controls were employed. This included nine variables at the student level and two variables at the institutional level. At Level 1 (student-level), this study controlled for: respondents' age, grade point average, developmental education, time spent studying, generation status, enrollment intensity, hours worked per week, and extracurricular involvement. The effect of these variables as predictors of intent to transfer and transfer were discussed in the overview of relevant literature. For example, the literature has shown that younger students (Dougherty & Kienzl, 2006; Jepsen, 2006; Wood et al., 2011) with higher grades (Crisp & Nora, 2010), in developmental education (Crisp & Nora, 2010), who are non-first-generation (Wood et al., 2012), attending college full-time (Crisp & Nora, 2010; Wood et al., 2011), working fewer hours (Crips & Nora, 2010), and engaged in extracurricular activities (Nora & Rendón, 1990; Wood et al., 2012) are more likely to have an intent to transfer or to transfer. In addition, at the student level, the analyses also controlled for total credits earned. The researchers controlled for total credits earned given that the proximity to a students' goal would likely have an effect on their disposition towards that goal.

Respondents' age reflected how old they were when they completed the questionnaire. This variable was collected using class intervals, which were recoded to "under 18" (coded 1), "18 to 24" (coded 2), "25 to 29" (coded 3) and so on to "65 and above" (coded 7). Total credits earned indicated how many credits the student completed and was collected using the following five-point scale: "none" (coded 0), "1–14 credits" (coded 1), "15–29 credits" (coded 2), "30–44 credits" (coded 3), "45–60 credits" (coded 4), and "61 credits or more" (coded 5). Grade point average was collected in class intervals on a scale ranging from "C- or lower" (coded 3), and "C" (coded 4) to "A" (coded 8). Students who did not have GPAs were excluded from the analysis. Hours worked per week referred to the number of hours students worked in a job where they received pay. This variable was collected on a class interval scale as follows: "did not work" (coded 0), "1 to 5 hours" (coded 1), "6 to 10 hours" (coded 2), "11 to 20 hours" (coded 3), "21 to 30 hours" (coded 4), and "more than 30 hours" (coded 5). Time spent study indicated the number of hours students spent preparing for class. Extracurricular activities referred to the number of hours students spent participating in college sponsored activities. Both of these variables employed the same scale used for hours worked per week.

Generation status was a dichotomous variable reflecting whether or not students were first-generation collegians. First generation students were coded 1 while non-first generation students were coded 2. Developmental education refers to whether students were enrolled in any developmental, remedial, or basic skills course (e.g., math, writing, reading). This variable was also dichotomous and was coded 1 for nondevelopmental and coded 2 for developmental. Enrollment intensity referred to whether students were enrolled as full-time students (12 credits or more) or less than full-time students (less than 12 credits) during the semester in which they responded to the questionnaire. Less than full-time students were coded 1 while full-time students were coded 2. The variables for generation status, developmental education, and enrollment intensity were treated as categorical in the models while the remaining student-level controls were standardized (with a mean of 0).

At the institutional level, this research also controlled for urbanicity and college size. Urbanicity was a categorical variable, indicating whether the respondent attended an urban (coded 1), suburban (coded 2), or rural institution (coded 3). Rural colleges were used as the reference group in all analyses. College size referred to whether the institution attended was small (less than 4,500 students), medium (4,500 to 7,999 students), large (8,000 to 14,999 students), or very large (15,000 students or more) in size. College size was coded on a scale from 1 (small) to 4 (very large). Very large colleges were employed as the reference group. All institutional-level

controls were treated as categorical in the models. The next section discusses the analytic technique employed in this research.

ANALYTIC TECHNIQUE

Exploratory data analysis was employed to examine the characteristics of the dataset. This included an evaluation of descriptive statistics (e.g., means, percentages, standard deviations). This study examined Black male students' intent to transfer using a multilevel, multinomial logistic regression. This analytic technique was employed for two primary reasons. First, the outcome variable was categorical, and the researchers were interested in understanding how the predictive nature of the variable may vary when transfer is a secondary goal or primary goal as opposed to not being a goal at all. Second, the data employed in this study represent respondents who are clustered within colleges. Given this, multilevel modeling provides more reliable estimates and standard errors when data are grouped within units than would a normal multinomial logistic regression approach (Porter & Swing, 2006). Multilevel modeling also has the added benefit of enabling researchers to explore individual-level variables (Level 1) and the group contexts (Level 2) where they transpire (Heck, Thomas, & Tabata, 2010). In this study, level 1 refers to the student level and level 2 refers to the institutional level. After completing exploratory data analysis and multiple imputation, the proportion of variance in the outcome variable as a product of college context was examined. To examine this variance, intraclass correlation (ICC) was explored with a no predictors (null) model (see Findings). The null model indicated that there was significant between-college variance to support a multilevel model.

The first advanced analysis created a multilevel multinomial model for Level 1 variables on intent to transfer. This model included the controls (hereafter referred to as defining variables) as well as the four engagement predictors. This model allowed for an understanding of the role of engagement in predicting transfer as a secondary and primary goal (in comparison to no goal of transfer) when mitigating the extraneous effect of the defining variables on the model. The second advanced analysis developed a multilevel model for Level 1 and Level 2 variables on intent to transfer. In this model, the level two controls and (hereafter referred to as college characteristics) and aggregate-level engagement predictors were added to the Level 1 defining variables and engagement predictors. In these models, Level 1 and Level 2 variables were treated as fixed effects, though the intercepts were treated as random. In the third analysis, the researchers' constructed random slopes and intercepts models. In doing so, the researchers were able to investigate whether the Level 1 engagement

slopes on the outcome differed across the nested structure (Hox, 2002). Subsequent models were employed cross-level interactions to examine the effect of college-level variables on slope variation. As such, this approach provided for a fuller picture of the role of college context on engagement slopes. All analyses employed robust estimation for tests of fixed effects and coefficients.

LIMITATIONS

This research had two primary limitations of note. First, as part of exploratory data analysis, missing value analysis was employed to determine the extent of missing information in the dataset. In general, most analyses of secondary data encounter challenges associated with missing data. As noted by Strayhorn (2009), analyses of datasets with missing data can result in inaccurate estimates and standard errors. As such, findings from datasets with large percentages of missingness have limited generalizability, and as a result, restricted utility for informing policy and practice. Generally, researchers employ listwise deletion when missingness is at 5% or less. Otherwise, imputation of missing values is needed. Through an analysis of missing values, this study determined that more than 5% of values were missing and that these values were not missing-at-random (Little's MCAR, $X^2 = 2123.18$, $p < .001$). Multiple imputation was used to input missing values for four variables: use of student services, developmental education, active and collaborative learning, and faculty–student interaction. As a result, all models were tested at .01.

Second, models that were employed to explain significant slope variation across the engagement predictors were limited by available institutional characteristics. Thus, cross-level interactions were limited to urbanicity and institutional size. There are many other institutional characteristics that are plausible explanations for randomly varying slopes, these include: faculty characteristics (e.g., faculty diversity, part-time to full-time faculty ratio, faculty to student ratio) and student characteristics (e.g., percent part-time enrollment, age distribution, racial diversity). The presence of these variables could have added explanatory strength to the advanced analyses. One key limitation of this study was the inability to explore the role of racial/ethnic and masculine identities on Black males predisposition to transfer. Thus, comparisons between this study's findings and other studies are limited to traditional background/defining and engagement predictors that do not account for the unique identities of these men. With these limitations in mind, the next section presents the findings from this research.

Table 1. Descriptive Information of Analytic Sample

	Variable Name	Percent	Mean	*SD*
Outcome	Transfer Goal		2.47	0.748
	Not a Goal	15.5%		
	Secondary Goal	21.7%		
	Primary Goal	62.7%		
Student Level: Defining Variables	Age		.000	1.161
	Credits Earned		.000	1.361
	First Generation Status		1.62	0.484
	First Generation	37.6%		
	Non First Generation	62.4%		
	Developmental Education		1.63	0.482
	Non-Developmental	36.8%		
	Developmental	63.2%		
	Enrollment Intensity		1.75	0.431
	Less than full-time	24.6%		
	Full-time	75.4%		
	Grade Point Average		.000	1.390
	Hours Worked Per Week		.000	1.591
	Time Studying		.000	0.800
	Extracurricular Involvement		.000	0.744
Student Level: Engagement	Active and Collaborative Learning		.000	3.753
	Faculty–Student Interaction		.000	3.466
	Exposure to Diversity		.000	2.465
	Usage of Student Services		.000	2.568
College Level: Engagement	Active and Collaborative Learning		.000	0.860
	Faculty–Student Interaction		.000	0.696
	Exposure to Diversity		.000	0.447
	Usage of Student Services		.000	0.460
College Level: Characteristics	Urbanicity			0.848
	Urban	40.7%		
	Suburban	27.3%		
	Rural	32.0%		
	Size		2.54	1.076
	Small	21.2%		
	Medium	28.3%		
	Large	26.3%		
	Very Large	24.2%		

Table 1 presents descriptive information from the sample. Of the respondents from whom this data were drawn, 15.5% did not have transfer as a goal. However, while 21.7% had transfer as a secondary goal, 62.7% had transfer as a primary goal. Thus, the majority of respondents were primarily focused on transferring to a 4-year college or university. The age breakdown of the respondents was as follows: 18 to 19 years old (25.2%), 20 to 21 years old (23.8%), 22 to 24 years old (14.2%), 25 to 29 years old (11.8%), and 30 years old or more (25%). This diversity is in line with the dispersion of age ranges in community colleges where there are high percentages of non-traditional aged (25 years or older) students. Moreover, 63.2% of the respondents had some form of developmental education, indicating that collegiate preparation concerns were commonplace among respondents.

RESULTS

The researchers began by estimating an unconditional (or null) model to determine the level of variability in the outcomes across colleges. The intercept for secondary goal indicated that for students in an average college, the odds of planning to transfer (as a secondary goal) as opposed to no goal to transfer is 60% more likely ($SE = .050$, $t = 9.356$, $p < .001$). The intercept for students in the average college, who planned to transfer as a primary goal, suggested that the odds of planning to transfer (as a primary goal) as opposed to having no goal of transferring are greater (by 383%) ($SE = .063$, $t = 24.993$, $p < .001$). The variance components for both intercepts indicated significant variance across colleges for transfer as a second goal ($z = 9.688$, $SE = .055$, $p < .001$) and as a primary goal ($z = 10.620$, $SE = .085$, $p < .001$). The intraclass correlation (ICC) representing the proportion of variance that exists between colleges was calculated. For plans to transfer as a secondary goal versus no goal to transfer, the ICC was .139. As such, approximately 14% of the variance in the outcome existed between colleges. For plans to transfer as a primary goal versus no goal to transfer, the ICC was .214. This indicated that 21% of the variance in the outcome existed between colleges.

The next model explored within-college predictors (Level 1) that could lend insight into students' plans to transfer. Results from this model indicated that the utility of variables in predicting students' plans to transfer differed across categories. In terms of student level defining variables, the results in Table 2 indicate that students planning to transfer (as a secondary goal) versus not transferring at all have greater odds of being younger (OR = .795, $p < .001$). Generation status was also predictive of the outcome, with non-first-generation students having greater odds, by 51.4% of

planning to transfer than their first-generation counterparts (OR = 1.514, $p = .001$). Greater involvement in extracurricular activities was also found to be associated with greater odds of planning to transfer (OR = 1.246, $p < .001$). Two of the student-level engagement scales indicated a significant effect on the outcome. While higher levels of active and collaborative learning resulted in greater odds of having transfer as a secondary goal (OR = 1.055, $p < .001$), faculty student interactions were negatively predictive of this goal (OR = .959, $p = .001$).

The comparisons between transfer as a primary goal and transfer not being a goal revealed many more significant predictors than the first comparison. Age was found to be negatively predictive of transfer odds (OR = .552, $p < .001$). In contrast, students who had greater odds of transfer had earned more credits (OR = 1.103, $p < .001$), spent more time studying (OR = 1.201, $p < .001$), and were more engaged in extracurricular activities (OR = 1.338, $p < .001$) than those who had no plans of transferring. Moreover, non-first-generation students had greater odds (by 24.6%) of planning to transfer, as did students in developmental education (by 25.0%), and those enrollment full time (by 46.6%). These variables were significant at $p < .001$. Two student-level engagement scales were also found to be significant predictors of the outcome. Students with greater levels of active and collaborative learning (OR = 1.064, $p < .001$) and usage of student services (OR = 1.039, $p < .01$) had greater odds of planning to transfer as a primary goal.

It should be noted that when Level 1 variables are employed in a multilevel model with a categorical outcome, the model is rescaled (see Heck et al., 2010). As a result, researchers should be cautious in making statements regarding changes in the variance components between models. That being said, it is still useful to determine whether the variance between colleges is significant. The variance components for secondary goals indicated significant group variation across colleges ($z = 9.273$, $SE = .055$, $p < .001$) as did the variance components for transfer as a primary goal ($z = 10.395$, $SE = .079$, $p < .001$).

In the next model, college-level predictors (including measures of engagement and college characteristics) were added to explain variation in students' plans to transfer. The Level 1 variables all remained in the model. The significant Level 1 predictors from the previous model are nearly identical to this model (see Table 3). In the current model, the focus was on the utility of the Level 2 predictors in understanding variation in transfer. No Level 2 predictors were significant in understanding differences in students who planned to transfer as a secondary goal (as opposed to having no goal of transfer). Moreover, only one Level 2 variable illustrated significant prediction of the outcome for students who planned to transfer as

Table 2. Multilevel Model for Level 1 Variables on Intent to Transfer

Variables	Not a Goal vs. Secondary Goal		Not a Goal vs. Primary Goal	
	OR	*SE*	OR	*SE*
Student Level: Defining Variables				
Age	0.795***	.028	0.552***	.029
Credits Earned	1.062	.025	1.103***	.025
Generation Status	1.514***	.070	1.246***	.066
Developmental Education	1.088	.065	1.250***	.062
Enrollment Intensity	1.134	.084	1.466***	.080
Grade Point Average	0.955	.024	1.016	.021
Hours Worked Per Week	1.034	.023	1.026	.021
Time Studying	1.134	.050	1.201***	.046
Extracurricular Involvement	1.246***	.067	1.338***	.060
Student Level: Engagement				
Active and Collaborative Learning	1.055***	.013	1.064***	.011
Faculty–Student Interaction	0.959***	.013	0.970	.012
Exposure to Diversity	1.004	.015	1.009	.014
Usage of Student Services	1.031	.013	1.039**	.012
Percent Correctly Predicted	66.0%			
Secondary Goal				
Variance Components	0.512***			
ICC	.1336			
Primary Goal				
Variance Components	0.823***			
ICC	.2000			

a primary goal. At the college level, students had greater odds of planning to transfer when attending colleges with higher scores for active and collaborative learning (OR = 1.463, $p < .001$). The variance components for secondary goals indicated significant variation across colleges ($z = 8.955$, $SE = .054$, $p < .001$). Similarly, the variance components for transfer as a primary goal differed ($z = 9.896$, $SE = .064$, $p < .001$).

Table 3. Multilevel Model for Level 1 and Level 2 Variables on Intent to Transfer

Variables	Not a Goal vs. Secondary Goal		Not a Goal vs. Primary Goal	
	OR	*SE*	OR	*SE*
Student Level: Defining Variables				
Age	0.795***	.028	0.551***	.029
Credits Earned	1.061	.025	1.102***	.025
Generation Status	1.515***	.070	1.246***	.066
Developmental Education	1.085	.065	1.247***	.062
Enrollment Intensity	1.146	.084	1.481***	.080
Grade Point Average	0.955	.024	1.016	.021
Hours Worked Per Week	1.033	.023	1.026	.021
Time Studying	1.131	.050	1.198***	.046
Extracurricular Involvement	1.251***	.067	1.343***	.060
Student Level: Engagement				
Active and Collaborative Learning	1.053***	.013	1.062***	.011
Faculty–Student Interaction	0.960**	.013	0.972	.012
Exposure to Diversity	1.003	.015	1.008	.014
Usage of Student Services	1.032	.013	1.040***	.012
College Level: Engagement				
Active and Collaborative Learning	1.207	.079	1.463***	.095
Faculty–Student Interaction	0.835	.096	0.772	.116
Exposure to Diversity	1.066	.120	1.152	.135
Usage of Student Services	0.902	.128	0.686	.149
College Level: Characteristics				
Urbanicity				
Urban	1.094	.127	1.204	.157
Suburban	1.043	.146	1.332	.166
Size				
Small	0.880	.190	0.609	.217
Medium	0.984	.161	0.820	.155
Large	0.964	.156	0.890	.148
Percent Correctly Predicted	66.0%			
Secondary Goal				
Variance Components	0.481***			
ICC	.1275			
Primary Goal				
Variance Components	0.634***			
ICC	.1615			

Next, a model was created to investigate whether random slopes existed across the colleges in the sample. Given that the focus of this research is on student engagement, this study sought to determine whether the relationship between the measures of engagement (e.g., active and collaborative learning, faculty-student interaction, exposure to diversity, usage of student services) and students' plans to transfer varied across colleges. Four random slope parameters for engagement were investigated to understand whether certain colleges produce varying more or less transfer intent for students with varying levels of engagement. As with prior models, the intercepts for transfer as a secondary goal ($z = 8.760$, $SE = .074$, $p < .001$) and transfer as a primary goal ($z = 9.668$, $SE = .087$, $p < .001$) differed significantly across colleges. Moreover, significant differences were detected across all slopes for secondary and primary goals (see Table 4). Due to the variance across colleges, the researchers developed a model to account for slope differences. In doing so, cross-level interactions were built between Level 1 measures of student engagement and the Level 2 engagement predictors and controls (e.g., urbanicity, size).

Table 4. Estimates of Covariance Parameters for Level 1 Engagement Measures

Parameter	Estimate	*SE*	*Z*-test
Secondary Goal			
Intercept	0.645	.074	8.760***
Active and Collaborative Learning	0.038	.005	8.176***
Faculty–Student Interaction	0.039	.005	7.963***
Exposure to Diversity	0.060	.008	7.837***
Usage of Student Services	0.025	.004	7.112***
Primary Goal			
Intercept	.0838	.087	9.668***
Active and Collaborative Learning	0.028	.003	8.060***
Faculty–Student Interaction	0.029	.004	7.968***
Exposure to Diversity	0.071	.008	8.588***
Usage of Student Services	0.021	.003	7.193***

Varying slopes were investigated in four separate models, one for each type of Level 1 engagement. In following with Heck et al. (2012), indication of positive effects on cross-level interactions were tested at $p < .100$. For clarity, p values are reported at exact levels. The first model examined random slopes for active and collaborative learning. For transfer as

a secondary goal, two cross-level interactions seemed to have a minimal effect on the slope. This included urbanicity (suburban) (OR = 1.066, *SE* = .047, *p* = .061) and institutional size (small) (OR = 1.115, *SE* = .047, *p* = .021). Specifically, this infers that the distributional effects of active and collaborative engagement slopes on transfer intent are stronger at suburban colleges (in comparison to rural colleges) and at small institutions (compared to very large institutions). The slope variation for active and collaborative engagement on secondary transfer intent remained significant ($z = 8.260$, *SE* = .003, $p < .001$). No significant cross-level interactions were identified for transfer as a primary goal.

The second model investigated randomly varying slopes for faculty–student interactions. The results for transfer as a secondary goal indicated a significant cross-level interaction for exposure to diversity at the college-level (OR = 0.925, *SE* = .035, *p* = .026) and usage of student services at the college-level (OR = 0.931, *SE* = .037, *p* = .051). As such, the distributional effects of faculty–student engagement slopes on secondary transfer intent are weaker at colleges with greater levels of exposure to diversity and usage of student services. In addition, slopes were stronger at colleges that are small (in comparison to very large colleges) (OR=1.093, *SE* = .046, *p* = .057). The slope variation for faculty-student engagement on secondary transfer intent remained significant ($z = 8.203$, *SE* = .003, $p < .001$). For transfer as a primary goal, only one cross-level interaction was significant. The effects of faculty–student engagement slopes on secondary transfer intent are stronger at suburban colleges in comparison to rural college (OR = 1.063, *SE* = .032, *p* = .054). The slope variance for transfer as a primary goal remained significant ($z = 8.290$, *SE* = .003, $p < .001$). The third model, which investigated slopes for exposure to diversity, illustrated even fewer significant cross-level interactions. Only one variable served to explain some of the variability in slope. For students who planned to transfer as a secondary goal, small colleges had greater slopes for exposure to diversity than very large colleges (OR = 1.136, *SE* = .064, *p* = .045). The slope variation for secondary goals remained significant ($z = 8.006$, *SE* = .006, $p < .001$).

The fourth (and final) model investigated varying slopes for student service engagement. For transfer as a secondary goal, three cross-level interactions illustrated significance. This included exposure to diversity (OR = 0.932, *SE* = .033, *p* = .032) at the college-level and student services (OR = 0.916, *SE* = .039, *p* = .026) at the college-level. These variables indicated that the distributional effects of student service usage slopes are weaker at colleges with greater levels of exposure to diversity and usage of student services. This is similar to the cross-level effects for the second model on faculty–student interactions. In addition, active and collaborative learning at the college-level was also significant (OR = 1.040, *SE* = .030, *p* =

.051). As such, slopes were greater at colleges with greater levels of active and collaborative learning. The variance components for student services remained significant ($z = 7.186$, $SE = .003$, $p < .001$). One cross-level interaction was significant for transfer as a primary goal. The results indicated that student service slopes were weaker at colleges with greater levels of faculty-student interaction (OR = 0.959, $SE = .021$, $p = .043$). As with all previous models, the variance components for transfer as a primary goal continued to be significant ($z = 7.569$, SE = .003, $p < .001$).

DISCUSSION

Using Nora and Rendon's (1990) article on transfer as a conceptual guide, this research investigated factors that were predictive of Black male students' intent to transfer from a community college to a 4-year university. Students who identified transfer as a secondary goal (as opposed to not being a goal) were more likely to be younger, non-first generation, and have greater levels of involvement in extracurricular activities. They were also more likely to engage in active and collaborative learning experiences but less likely to benefit from faculty–student interactions. Moreover, students with transfer as a primary goal (as opposed to not being a goal) were more likely to be younger, have earned more credits, non-first-generation, full-time enrollees, and to have taken developmental education courses. They were also more likely to spend more hours per week studying and involved in extracurricular activities. These students were also more engaged in active and collaborative learning and used student services on campus.

This research has shown that that the factors influencing Black men's predisposition toward transfer largely mirror that of their White and Hispanic peers (Nora & Rendón's, 1990). Given the unique sociocultural positioning of these men in society, more differences in models were anticipated. One critical commonality between Nora and Rendón's (1990) study and this present one is that students who were engaged in activities that facilitated academic and social integration were more inclined towards transfer. For example, Nora and Rendón reported that students with higher levels of institutional commitment, educational aspirations, academic and social integration, and who had parents with higher levels of education were more likely to have positive attitudes about transferring and to engage in transfer behavior. Similarly, results of this present study revealed that students who identified transferring as a primary goal were more committed to their educational goals, as indicated by the amount of time spent studying; and were more involved in extracurricular activities, which is an indication of social integration. These students were also more engaged in active and collaborative learning and used student services on campus, which is reflective of

academic integration. It is interesting to note that students with a secondary intent did not yield any benefit from faculty–student engagement. In fact, one model indicated increased levels of interaction as having a negative effect on transfer as a secondary goal. This finding directly departs from research conducted by Wood et al. (2012) and Hurtado et al. (1996). Possibly, their experiences with faculty served to orient them to other outcomes (e.g., certificate, associate's degree, and job skills).

To an extent, similar to the findings of research (e.g., Cohen, Brawer, & Bensimon, 1985; Hurtado et al.,1996; Nora & Rendón, 1990; Wood et al., 2012), the results of this present study support the premise of Tinto's theory of student departure in that students who are more academically and socially integrated are more likely to benefit from more positive student outcomes; in this case, predisposition to transfer. This finding holds particular salience because Wood (2012) used data from two national sources to illustrate that social integration (as indicated through sports involvement, participation in school clubs, attending fine arts activities) was a negative (albeit small) predictor of persistence for Black males in the community college. Moreover, findings from Bush and Bush (2010) have also suggested that social integration concentrated through same race–gender peer groups was reported by Black men as being negatively associated with achievement in college. However, these findings around persistence and achievement seem to diverge from this study's results regarding transfer.

With respect to the larger research on transfer predictors, prior research had shown that full-time students had significantly greater transfer outcomes than part-timers (Crisp & Nora, 2010; Wood et al., 2011). Similarly, this study also illustrated that full-time enrollment was a significant predictor for transfer intent as a primary goal. Moreover, in line with extant studies (e.g., Dougherty & Kienzl, 2006; Jepsen, 2006; Lee & Frank, 2006), all models for transfer as a secondary and primary goal identified being older and non-first generation as a negative predictor of transfer intent. Finally, participation in developmental education was a positive predictor of students' intention to transfer as a primary goal; this finding aligns with Crisp and Nora's (2010) research, which showed that developmental students had greater transfer outcomes than their non-developmental peers. This research has also identified with predisposition predictors that conflict with prior research on transfer predictors. For example, while Crisp and Nora's (2010) research identified college GPA as a positive predictor of transfer, GPA was not identified as a predictor of predisposition to transfer in any model generated in this study. Further, while hours worked per week was identified as a negative predictor of transfer by Crisp and Nora, this study did not identify this variable as having any positive or negative utility in prediction.

RECOMMENDATIONS

The results of this study make several points apparent. First and foremost, given that little research has focused on examining predictors of Black male transfer from community colleges, greater attention is needed. This study has provided a foundation for future studies, by modeling predisposition predictors. The large data source employed (CCSSE), while not allowing for pure generalizability, is extensive enough to allow this study's findings to serve as a research-based guide for additional research. Moreover, while this study has shed initial insight into predictors of predisposition to transfer, future research can extend both on this line of inquiry as well as identify predictors of actual transfer. Currently, such research is limited by available national datasets, thus, initial research in this area may be limited to institutional- and district-level data sources.

While the results of this research provides a better lens through which to understand the predisposition of transfer for Black male students in community colleges, there are some aspects that need greater clarification and more investigation. There were many noticeable differences between students who identified transfer as a primary goal as opposed to a secondary goal. For example, students who identified transfer as a primary goal were more invested in their studies, tended to use support services on campus, had earned more credits, were enrolled in college full time, and took developmental courses. Although students, regardless of intentions, were both academically and socially integrated, students with a secondary intent to transfer did not benefit from faculty–student interaction. Given these results, future research should "flesh out" these nuances by providing a greater understanding of differential predictors for transfer as a primary versus secondary goal.

Some of the results of this study indicated differential predictors for students with transfer as a secondary intent as opposed to a primary intent. As such, this research has highlighted nuances in transfer intent, illustrating that the importance placed on transfer as a goal has significant implications for what is predictive of this goal. For instance, students with a primary intent to transfer were found to be more committed to their educational goals whereas students with a secondary intent were found to yield less benefit from faculty–student engagement. These findings are perplexing and warrant greater exploration. In particular, while this study was able to identify predictors of transfer intent, explaining why certain variables as opposed to others are indeed relevant considerations is difficult to contextualize via the methodological approach employed. As such, further research could benefit from a qualitative approach that illuminates how and why certain factors shape transfer intent. Such research will

add needed clarity and insight into the findings derived from this study.

One important insight gained from this study is the importance of social integration (as exemplified by extracurricular involvement) and academic integration (vis a vis time spent studying and active and collaborative learning) in facilitating students' intent to transfer as a primary goal. Given this finding, community colleges should continue to implement ways that facilitate the process by which Black males become academically and socially integrated. Community colleges serve different populations of students than 4-year institutions. These students may encounter difficulty becoming academically and socially integrated (Tinto, 1993). For example, Tinto explained that students attending community college have a multiplicity of obligations outside of college (e.g., family, work), which may impede their efforts to become involved in the academic and social milieu of campus. As such, he suggested that one of the primary ways that students become integrated into a community college is through active and collaborative learning in the classroom context, which the students from this present study noted as being critical to their ability to be academically integrated. Community colleges can use the classroom as a salient context to promote students' ability to become both academically integrated. For example, using collaborative learning strategies (e.g., working in groups, collaborating on projects) will help students establish and nurture rapports with other students. Outside of the classroom, these relationships can be essential to students as they engage both academic and personal problems and clarify their goals around transfer. With respect to social integration, students should be encouraged to become involved in campus extracurricular activities. However, given the tenuous relationship between social integration and other academic outcomes such as persistence and achievement (see Bush & Bush, 2010; Wood, 2012), college professionals should be selective in which types of extracurricular involvement are encouraged. Possibly, those involvements should be focused on establishing social ties with other students who intend to transfer; however, the viability of this suggestion needs to be affirmed through further research.

One important benefit derived from using regression-based procedures, is that both positive and negative predictors of an outcome are identified. Heretofore, comments have been articulated around factors that positively predict transfer intent. However, identified predictors also shed light on student characteristics and subpopulations with lower odds of transfer intent. At a glance, this includes students who are older, first-generation, have not taken developmental education, and are enrolled part time. College professionals who know which Black males (and students in general) have lower odds of transfer intent may want to ensure

that a lack of intent is based upon rationally constructed academic and career goals; as opposed to structural barriers, limited resources, unwelcoming campus climates, and lack of information about transfer (see Ornelas & Solórzano, 2004). Indeed, transferring to a 4-year college or university presents an opportunity for greater earning potential and remains a core element of the community college's mission. Thus, information sessions on transfer should be made available and specifically target those with lower odds of transfer intent. These sessions can discuss the personal and societal benefits of transfer, procedures to transfer, and other information that can allow students to make more informed decisions regarding whether or not they plan to transfer. This will serve to aid students in goal clarification and may bolster the transfer pipeline among Black men.

CONCLUSION

Community colleges have served as a central gateway for the educational opportunities for many Black men. A large number of Black men rely on community colleges to enhance their skillsets to compete in the global economy or to transfer to a 4-year postsecondary institution for further career advancement. Indeed, while transferring maybe a central goal of Black male community college students, far too many do not. Interestingly, studies have investigated the predictors of transfer for Hispanic and White community college students; however, limited research has provided context on this issue for Black students in community colleges. To this end, this present study makes an important contribution to the literature and provides critical insights into the predictors of transfer predisposition for Black male community college students. Furthermore the recommendations of this study provide salient information that faculty, student affairs practitioners, and administrators can use to help increase the transfer process for Black male community college students.

NOTES

1. This manuscript focuses on transfer from community college to a 4-year institution (referred to as forward transfer). This is not the only type of transfer, as students can transfer from one community college to another (lateral transfer) or from a 4-year institution to a community college (reverse transfer) (Wassmer, Moore, & Shulock, 2004).

2. The transfer rate for Black women is 8.2%.

REFERENCES

Allen, J., Robbins, S. B., Casillas, A., & Oh, I. (2008). Third-year college retention and transfer: Effects of academic performance, motivation, and social connectedness. *Research in Higher Education, 49,* 647–664.

Anglin, L. W., Davis, J. W., & Mooradian, P. W. (1995). Do transfer students graduate? A comparative study of transfer students and native university students. *Community College Journal of Research and Practice, 28*(19), 321–330.

Berger, J. B., & Malaney, G. D. (2003). Assessing the transition of transfer students from community colleges to a university. *NASPA Journal, 40*(4), 1–23.

Best, G. A., & Gehring, D. (1993). The academic performance of community college transfer students at a major state university in Kentucky. *Community College Review, 21*(2), 32–41.

BPS. (2003/2009). *Black student enrollment by sector and control, gender 2003. Beginning Postsecondary Students Longitudinal Study - PowerStats.* Washington, DC: U.S. Department of Education, National Center for Education Statistics.

BPS. (2009). *Transferred to any 4-year or public 2-year institution as of 2009 by reason enrolled 2004: Transfer to a 4-year college, for first institution sector (level and control) 2003-04 (public 2-year) and gender (female) and race: Black or African American (yes)*: PowerStats Calculation. Washington, DC: National Center for Education Statistics.

Bush, E. C. (2004). *Dying on the vine: A look at African American student achievement in California community colleges* (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3115606)

Bush, E. C., & Bush, L. (2010). Calling out the elephant: An examination of African American male achievement in community colleges. *Journal of African American Males in Education, 1,* 40–62.

Carlan, P. E., & Byxbe, F. (2000). Community colleges under the microscope: An analysis of performance predictors for native and transfer students. *Community College Review, 28*(2), 27–42.

Cejda, B. D. (1997). An examination of transfer shock in academic disciplines. *Community College Journal of Research and Practice, 21,* 279–288.

CCSSE. (2012a). CCSSE 2011 college participant overview. In *CCSSE Overview.* Retrieved from http://www.ccsse.org/survey/reports/2011/overview.cfm

CCSSE. (2012b). Sampling. In *CCSSE sampling and administration.* Retrieved from http://www.ccsse.org/aboutsurvey/sampling.cfm

Cohen, A. M. & Brawer, F. B. (2009). *The American community college* (4th ed.). San Francisco, CA: Jossey-Bass.

Cohen, A. M., Brawer, F. B., & Bensimon, E. M. (1985). *Assessing student degree aspirations.* (ERIC Documentation Reproduction Services No. 261754) Retrieved from http://www.ericdigests.org/pre-922/degree.htm

Crisp, G., & Nora, A. (2010). Hispanic student success: Factors influencing the persistence and transfer decisions of Latino community college students enrolled in developmental education. *Research in Higher Education, 51*(2), 175–194

Dougherty, K. J., & Kienzl, G. S. (2006). It's not enough to get through the open door. *Teachers College Record, 108,* 452–487.

Eimers, M., & Mullen, R. (1997). Transfer students: Who are they and how successful are they at the University of Missouri? *College and University, 72,* 9–20.

Flowers, L. A. (2006). Effects of attending a 2-year institution on African American males' academic and social integration in the first year of college. *Teachers College Record, 108*(2), 267–286.

Hagedorn, L. S., Cypers, S., & Lester, J. (2008). Looking in the review mirror: Factors affecting transfer for urban community college students. *Community College Journal of Research and Practice, 32*, 643–664.

Harper, S. R. (2009). Race, interest convergence, and transfer outcomes for Black male student athletes. *New Directions for Community Colleges, 147*, 29–37.

Heck, R. H., Thomas, S. L., & Tabata, L. N. (2010). *Multilevel and longitudinal modeling with IBM SPSS*. New York, NY: Routledge.

Hox, J. (2002). *Multilevel analysis: Techniques and applications*. Mahwah, NJ: Lawrence Erlbaum.

Hurtado, S., Carter, D. F., & Spuler, A. (1996). Latino student transition to college: Assessing difficulties and factors in successful college adjustment. *Research in Higher Education, 37*, 135–157.

Jain, D., Herrera, A., Bernal, S., & Solórzano, D. (2011). Critical race theory and the transfer function: Introducing a transfer receptive culture. *Community College Journal of Research and Practice, 35*(3), 252–266.

Jepsen, C. (2006, April). *Basic skills in California's community colleges: Evidence from staff and self-referrals*. Paper presented at the American Educational Research Association (AERA) meeting, San Francisco, CA.

Kane, T. J., & Rouse, C. E. (1999). The community college: Educating students at the margin between college and work. *The Journal of Economic Perspectives, 13*(1), 63–84.

Kuh, G. D. (2009). The National Survey of Student Engagement: Conceptual and empirical foundations. *New Directions for Institutional Research, 141*, 5–20.

Laanan, F. S. (2004). Studying transfer students: Part I: Instrument design and implications. *Community College Journal of Research and Practice, 28*, 331-351.

Lee, V. E., & Frank, K. A. (1990). Students' characteristics that facilitate the transfer from two-year to four-year colleges. *Sociology of Education, 63*(3), 178–193.

Marti, N. C. (2008). Dimensions of student engagement in American community colleges: Using the community college student report in research and practice. *Community College Journal of Research and Practice, 33*, 1–24.

McClenney, K. M. (2007). Research update: The community college survey of student engagement. *Community College Review, 35*(2), 137–146.

McClenney, K. M., & Marti, C. N. (2006). *Exploring relationships between student engagement and student outcomes in community colleges: Report on validation research*. Austin, TX: The Community College Survey of Student Engagement, University of Texas at Austin.

Nevarez, C., & Wood, J. L. (2010). *Community college leadership and administration: Theory, practice, and change*. New York, NY: Peter Lang.

Nora, A., & Rendón, L. I. (1990). Determinants of predisposition to transfer among community college students: A structural model. *Research in Higher Education, 31*(3), 235–255.

Ornelas, A., & Solórzano, D. G. (2004). Transfer conditions of Latina/o community college students: A single institution case study. *Community College Journal of Research and Practice, 28*(3), 233–248.

Pennington, R. (2006). Rethinking grade transfer shock: Examining its importance in the community college transfer process. *Journal of Applied Research in the Community College, 14*(1), 19–33.

Porter, S. R., & Swing, R. L. 2006. Understanding how first-year seminars affect persistence. *Research in Higher Education, 47*(1), 89–109.

Rhine, T. J., Milligan, D. M., & Nelson, L. R. (2000). Alleviating transfer shock: Creating an environment for more successful transfer students. *Community College Journal of Research and Practice, 24*(6), 443–453.

Strayhorn, T. L. (2009). Accessing and analyzing national databases. In T. J. Kowalski & T. J. Lasley II (Eds.), *Handbook of data-based decision making in education* (pp. 105–122). New York: Routledge.

Tillery, D., & Deegan, W. L. (1985). *Renewing the American community college.* San Francisco: Jossey-Bass.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*, 89–125.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago: University of Chicago Press.

Townsend, B. K., & Wilson, K. B. (2006). "A hand hold for a little bit": Factors facilitating the success of community college transfer students to a large research university. *Journal of College Student Development, 47*(4), 439–456.

Turner, C. S. V. (1990). A California cast study: Organizational determinants of the transfer of Hispanic students from two- to four-year colleges in the bay area. *Metropolitan Education, 6*, 1–24.

Turner, C. S. V. (1992). It takes two to transfer: Relational networks and educational outcomes. *Community College Review, 19*(4), 27–33.

Vaughan, G. B. (2006). *The community college story* (3rd ed.). Washington, DC: American Association of Community Colleges.

Wang, X. (2009). Baccalaureate attainment and college persistence of community college transfer students at four-year institutions. *Research in Higher Education, 50*, 570–588.

Wassmer, R., Moore, C., & Shulock, N. (2004). Effect of racial/ethnic composition on transfer rates in community colleges: Implications for policy and practice. *Research in Higher Education, 45*(6), 651–672.

Wood, J. L. (2012). Black males in the community college: Using two national datasets to examine academic and social integration. *Journal of Black Masculinity, 2*(2), 56–88.

Wood, J. L., & Harris, F. (2013). *The effect of academic engagement on sense of belonging: An analysis of Black men in community colleges.* Presented at the Council for the Study of Community Colleges, San Francisco, CA.

Wood, J. L., Nevarez, C., & Hilton, A. A. (2011). Creating a culture of transfer in the community college. *Making Connections: Interdisciplinary Approaches to Cultural Diversity, 13*(1), 54–61.

J. LUKE WOOD is Associate Professor in the Department of Educational Leadership and Policy Studies, in the School of Education, at Howard University. His research examines factors that affect student success for men of color in the community college. Wood has authored/co-authored more than 80 publications, including *Teaching Men of Color in the Community College* (Montezuma) and *Black Men in Higher Education: A Guide to Ensuring Student Success* (Routledge).

ROBERT T. PALMER is Associate Professor of Student Affairs Administration at the State University of New York at Binghamton. His research examines issues of access, equity, retention, persistence, and the college experience of racial and ethnic minorities, particularly within the context of historically Black colleges and universities. Dr. Palmer has authored/co-authored more than 100 academic publications. His most recent books include *Hispanic Serving Institutions: Their Origin, and Present and Future Challenges* (Stylus) and *Black Male Collegians: Increasing Access, Retention, and Persistence in Higher Education* (Jossey-Bass).