

COLLEGE CHOICE DETERMINANTS OF AFRICAN-AMERICAN ENROLLMENT AT A PRIVATE COLLEGE

Barbara H. Cartledge, Assistant Professor/Assistant Dean
Department of Entrepreneurship, Management, and Marketing
Brock School of Business
Samford University
Birmingham, Alabama

Mary Sue Baldwin, Associate Professor/Associate Provost
Provost Office
Samford University
Birmingham, Alabama

J. Maurice Persall, Professor/Chair
Department of Education Graduate Studies
Orlean Bullard Beeson School of Education
Samford University
Birmingham, Alabama

Tom W. Woolley, Professor
Department of Economics, Finance, and Quantitative Analysis
Brock School of Business
Samford University
Birmingham, Alabama

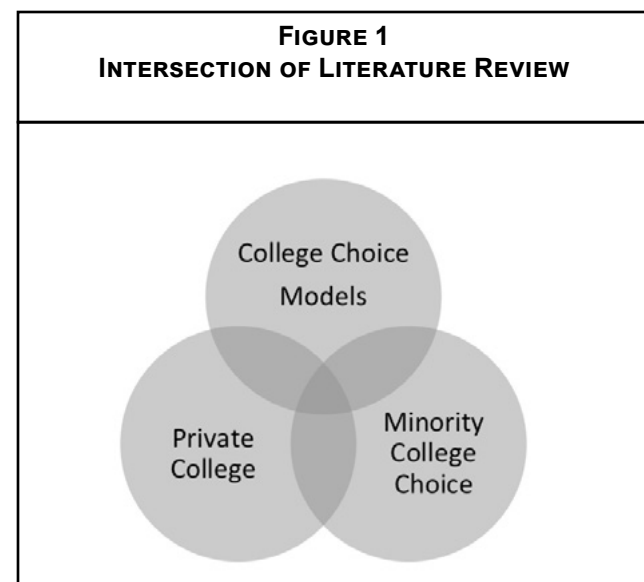
ABSTRACT

The purpose of this study was to determine the predictors of African-American enrollment at a private college. After a thorough literature review of college choice models, a set of quantitatively measured determinants were gleaned and identified for the statistical research and treatment. The set of predictors included high school grade point average, college entrance exam score(s), socio-economic status, and communications from admissions, financial aid, and student home proximity to college campus. The research examined the determinants influence on the outcome of enrollment. Three significant positive predictors for African-American enrollment at a private college were realized for the total sample. These included merit aid, socio-economic status, and GPA.

INTRODUCTION

Higher education institutions seek to attract and wield low-socioeconomic enrollment in an effort to create a diverse culture and serve societal welfare. Throughout the past half century, American postsecondary schools endeavored to achieve targeted minority goals through governmental affirmative action directives or those of their individual boards of trustees (Springer 2003). Higher education institutions seek to analyze and understand the variant attributes directing and determining high school seniors' college decisions (Roszkowski and Spreat 2010). The research has focused on sociological and economic lenses to understand the drivers of the students' selection and college choices (Adams 2009). Various paradigms and

filters provided frameworks to interpret and understand the students' behavior and actions against the backdrop of financial decisions and other assistance (Lillis and Tian 2008). Significant research has examined several college choice models and their applicability as related to the sociological and financial concerns and constraints (Dixon and Martin 1991). The inclusion of research examining the private sector of higher education institutions with the backdrop of college choice models and minority enrollment was relevant to the research intent of this dissertation. The findings of the literature directed a Venn diagram tri-intersection (Figure 1) of the determinants of college choice models with minority enrollment factors and private college enrollment attributes.



The review of literature identified the published college choice model theories and their frameworks. The Hossler and Gallagher college choice model, as the referred standard, included the three stages of predisposition, search and choice (1987). Through subsequent studies utilizing the variations of the Hossler and Gallagher model, the determinants of college choice were derived. The theories highlighted the college choice determinants of enrollment that included socio-economic status, student's ability and achievement, and parental and peer influence, along with organizational factors of high school involvement. The literature review overviewed the minority college choice attributes for enrollment. The minority determinants included parental education, financial aid information and award, the level of academic information dissemination, proximity to home, and influences of teachers and counselors. The literature review did not include an examination of first-generation minority enrollment but rather an inclusive overview. The final examination of literature review included the identification of college choice determinants for private colleges. The literature indicated the following variables: available financial aid, reputation of institution, small class size, faculty-student ratio, and cost of institution. The triangulation and intersection of the above determinants across the college choice models, minority enrollment, and private college choice were synthesized in the research. Table 1 is a summary of the identified factors found in the literature review that were the basis of the selection of predictors for the study. As evidenced through the above table, a primary model espoused by Hossler and Gallagher (1987) guided the dominant literature. Hossler and Gallagher's primary components of predisposition, search, and choice outlined the contexts cited published theories. The theories high-

lighted the college choice determinants of enrollment that included socio-economic status, student's ability and achievement, parental and peer influence along with organizational factors of high school involvement. The literature review overviewed the minority college choice attributes enrollment. The minority determinants included parental education, financial aid information and award, the level of academy information dissemination, proximity to home, habitus, cultural capital, social class, and influences of teachers and counselors. The above minority predictors were filtered through lenses of sociological and economic contexts in order to parallel the overall college choice models. The final examination of literature review included the identification of college choice determinants for private colleges. The literature indicated the following variables: available financial aid, reputation of institution, small class size, faculty-student ratio, and cost of institution. The triangulation and intersection of the above determinants across the college choice models, minority enrollment, and private college choice is synthesized in the research. The selected variables or predictors were those identified for quantitative treatment rather than qualitative research.

PURPOSE OF THE STUDY

The purpose of the study sought to understand the predictors for African-American enrollment utilizing the identified college choice determinants gleaned from a review of the literature. The study investigated the college choice models' determinants against an institutional recruitment database to discriminate variable differences across the African-American enrollment. Once the significant predictors of enrollment were analyzed and delineated, the study evaluated the current admission policies and procedures and recommended potential opportunities to modify or adjust future recruitment cycles and data-collection venues.

SIGNIFICANCE OF THE STUDY

The primary benefit of the study was to identify the predictors of African-American enrollment and communicate the results with a private, religious college admissions office. One of the constant recruitment goals for higher education institution admission offices included a growing, diverse campus population (Clark 2011). In that context, the results of the study's quantitative research could be utilized to evaluate the deployment of current admission policies used to recruit African-American students. The outcome of the research could potentially benefit other private educational institutions that seek to maximize their African-American enrollment. Further study at the

TABLE 1
SUMMARY OF FACTORS ACROSS LITERATURE REVIEW STUDIES

Factors	Studies										
	Hossler & Gallagher	Lillis & Tian	McDonough & Antonio	Wesley & Southerland	Pope & Fermin	O'Connor et al	Sevier	Spies	Dehne	Johnson et al	Rood
Achievement	√										
Parental level of education/ encouragement	√		√	√	√					√	√
Peer encouragement	√				√			√			
Residence	√	√	√	√		√		√		√	
High school counselor/ teacher	√		√	√	√			√			
SES	√										
Ethnicity	√										
College cost	√	√		√			√	√			√
Institution characteristics	√	√	√	√			√	√	√	√	√
Majors		√					√	√	√	√	
Financial aid	√			√			√	√			

institution and others would investigate the adjustment of policies and their subsequent impact on matriculating minority freshmen enrollment. A successful benefit from the research results would be the realization of the growth in African-American enrollment.

DESIGN

The design of the research was observational in identifying the variables that influence or predict African-American college enrollment at a private higher education institution. The research examined a set of college choice independent variables and their effect on the dependent variable of African-American enrollment. The funnel below was a visual representation of the research treatment and prediction of African-American college enrollment at a private college institution.

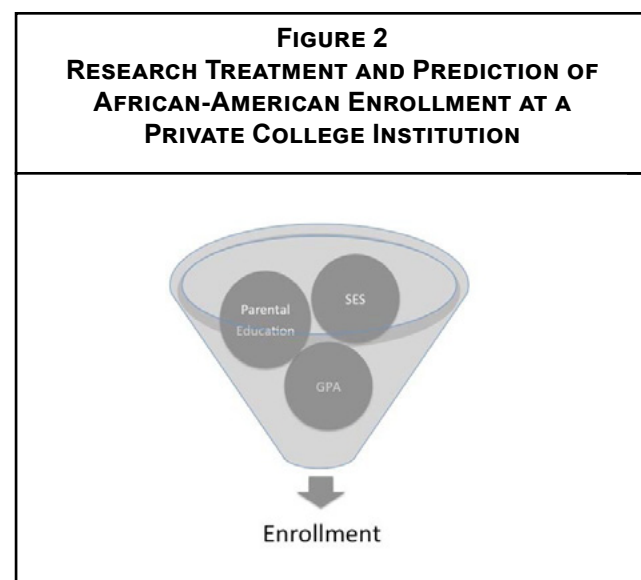
PARTICIPANTS

The participants (sample) for the study were drawn from a private college institution's recruitment database. The sample represented 40,000 prospect students for the entering fall 2009, 2010, and 2011 freshmen classes. From the total sample, the following population subsets were derived based on the enrollment status: 712 applied, 293

accepted, 110 enrolled, and only 41 identified athletes. The collected data utilized existing admission and recruitment policies and procedures for the previous three years. Thus, with the predominance of the literature review prior to 2009, the extracted data were consistent and reflective of the literature review timeline. The students were categorized as prospects, applicants, admit, and deposits within the construct of the database. The study examined the students from prospects through the recruitment cycle to deposited classification in testing the independent variables against the final dependent variable of enrollment. The sample was constrained by utilizing only one institution rather than representative sample of private colleges' admission data.

INSTRUMENT

The data for the research was collected and extracted from Recruitment PLUS™ database for the private college institution. Recruitment PLUS is provided through College Board for an annual fee. Recruitment PLUS enables "schools and thousands of administrators [to] easily coordinate recruitment, admissions, and enrollment activities. . . . Recruitment PLUS is [provided] from the College Board, the recognized leader in admissions software and services" (<http://recruitmentplus.collegeboard.org>). The



private institution utilized the Recruitment PLUS database for the pre-determined years of data.

PROCEDURE AND DATA ANALYSIS

The statistical procedure employed to analyze the research questions was a logistic regression analysis. The study involved several independent variables and their effect on the dichotomous dependent variable of enrollment. The dependent variable of African-American enrollment was dichotomous in nature in that the student enrolled or did not.

A set of variables was gleaned from the review of literature that examined the college choice models, minority college enrollment, and private college enrollment. The variables selected from the review of literature were identifiable from data sets for quantitative analysis rather than qualitative research. The below independent variables (predictors) are designated as the college choice determinants. The research examined the following independent variables and their relationship to the dependent variable (outcome) of African-American enrollment:

1. Socioeconomic status (SES)
2. Parental higher education level
3. College entrance exam scores
4. Financial aid
5. High school grade point average
6. Number of admission communications
7. Student's home proximity to campus

RESULTS

The results of the research identified significant college choice model predictors for African-American enrollment at a private university. The significant predictors included merit aid, specific SES neighborhood clusters, American College Testing (ACT), and grade point average (GPA). Several of the originally identified predictors were not included in the statistical models due their unavailability in Recruitment PLUS. These included level of parental education and number of admissions communications. The predictors that were included in the logistic regression models were the same as those recognized through the pivotal and subsequent research of Hossler and Gallagher (1987) college choice models. Hossler and Gallagher identified the three phases of college choice as predisposition, search, and choice (1987). In later research, Hossler, Braxton, and Coppersmith (1989), recognized SES, student ability (ACT and GPA), resident, and financial aid as determinants of college choice. The outcome of this study's research validated those predictors for the universe of an African-American population at a private college institution. Hossler, Braxton, and Coppersmith's (1989) three phases of college choice research was based on empirical studies and literature. In contrast, this study's research was a quantitative discrete study that validated the literature from Hossler, Braxton, and Coppersmith (1989), Hossler, Schmit, and Vesper (1999), Lillis and Tian (2008), and Kim, DesJardins, and McCall (2009). The latter two studies emphasized the need for financial aid based on the study participants expectations and responses during the final stage of college choice. The majority of the previous research was qualitative based on interviews including the Hossler, Schmidt, and Vesper (1999) longitudinal study. Thus, the individual results of this study discussed below were unique given the single demographic (African-American ethnicity within a private college institution) of the data set that had not been previously evaluated.

Merit aid (coefficient = 0.224, $p = .000$) was a significant predictor of African-American enrollment at a private college institution in the total data set of 11,400 records. This finding is supported by the research literature that did investigate African-American college choice determinants including Sevier (1993) and George (2011). The latter study was a qualitative study seeking to understand the financial cost issue. In contrast, this study quantitatively determined that aid is a positive predictor for African-American enrollment at a private college. Merit aid (financial aid) realized in the data set was constrained due lack of information regarding the final financial aid package consisting of university grants and discount tuition.

The aid denoted in the data set was limited but assumed to be an indicator of a more robust aid offer.

The next significant predictor of African-American enrollment at a private college was socioeconomic status (SES) based on the defined neighborhood cluster of "59" and "74". The College Board (2011) defines the neighborhood clusters in their annual cluster description guide. SES was recognized in the Hossler, Braxton, and Coppersmith (1989) college choice model theories and subsequent studies including Smith's (2009) qualitative study. The two neighborhood clusters represented low-income households with students who aspired to attend college as indicated by their interest in AP (Advanced Placement) and honors courses. The identification of these two statistically significant SES groups as predictors for African-American enrollment at the private college institution will be discussed in the recommendations section.

Subsequently, a high ACT (coefficient = -0.001, $p = .000$) was a negative predictor for the enrollment outcome. The negative determinant indicated that the higher the ACT score the less likely the student would enroll at the private college institution. The below recommendations will state that the private institution should not direct admission efforts to students with high ACTs. ACT and the below GPA were recognized collectively in the literature review as student achievement and cited as a determinant of college choice by Hossler, Braxton, and Coppersmith (1989). However, Hossler, Braxton, and Coppersmith's research was not constrained to the one demographic of an African-American sample at a private college institution. This study's findings narrowed the focus of previous college choice model research with the addition of a specific ethnicity within a prescribed domain.

In contrast with the high ACT predictor, the model output cited GPA (coefficient = 0.001, $p = .015$) as a positive predictor of enrollment. With this outcome, the institution should focus recruitment efforts on students with respectable GPAs along with the next significant determinant.

The significant determinant, not documented in the review of literature as a predictor of African-American enrollment, was athlete status. This variable was not a predictor or independent factor as a part of the research design. However, based on the attributes of the records in the sample population and the logistic regression modeling, the athlete status evolved as a predictor by default. The athlete or non-athlete status drove the construct of an additional investigation. As a result, in the total sample population athlete status was a marker for each record. The outcome of the logistic regression model (coefficient = -0.9237, $p = .000$) indicated that non-athlete status was a negative indicator for enrollment. With non-athlete sta-

tus being a significant predictor, admissions offices should consider a student's athlete status in the recruitment of African Americans. However, the predictor significance could be an anomaly due to the limited enrollment status of athletes. That is, athlete status was only indicated if a student enrolled rather than a recruitment status of prospect, applicant, and admit. Thus, the model was somewhat compromised with the limited data for records without athlete status. A previous study, Johnson, Jubenville, and Goss (2009) study examined athletes at 23 small private colleges and their college choice factors but they did not evaluate across a non-athlete or athlete status. As mentioned, the review of literature did not recognize athlete or non-athlete status as a predictor for African-American enrollment. This study's findings determined that athlete status was a significant predictor for African-American enrollment.

The study investigated the college choice predictors for a subset of the data that were the non-athlete African-American enrolled students. The model treatment of this subset of the population yielded significant determinants. The determinants were the same as those discovered in the first investigation with the exception of athlete status and one of the identified neighborhood clusters for the socioeconomic status predictors. Merit aid (coefficient = 0.230, $p = .000$), ACT (coefficient = -0.001, $p = .000$), and GPA (coefficient = 0.001, $p = .017$) reflected the same positive and negative direction as that for the first question's model. Thus, similar assumptions and subsequent practice application are realized. However, for the neighborhood clusters and associated SES predictor, only one cluster was positive, "74" (coefficient = 0.078, $p = .000$), and three were negative predictors. These included "61" (coefficient = -0.011, $p = .000$), "64" (coefficient = -0.010, $p = .001$), and "67" (coefficient = -0.010, $p = .000$). The three clusters represent diverse populations beyond the positive predictors found in "59" and "74" for research question one. The "61" neighborhood cluster is defined by affluent households with parents holding second degrees or higher with the students engaged in AP and honors coursework who aspire to attend selective colleges (College Board 2011). In contrast, the "64" neighborhood cluster is characterized by blue collar residents with students who do not have exposure to accelerated courses and do not aspire to selective colleges but rather large urban institutions (College Board 2011). The third cluster with a negative predictor was "67" that represents a mixed ethnicity and a modified proclivity toward college and limited access to AP and honors courses (College Board 2011). Based on the above descriptions, admissions practices should target neighborhood clusters of "74" and "59" with their similar demographics and be selective in recruiting from those clusters which are negatively indicated.

A predictor included in each of the research questions that did not prove a significant positive or negative factor was the student's residence in proximity to the private college institution. The review of literature recognized that the location of the selected institution relative to the student's home was a predictor of enrollment (Spies 2001 and Sevier 1993). However, including the predictor of student's home residence in the logistic regression model did not prove significant. The variable was assigned to each student record based on their residence in the state of the private institution or not. Thus, for the studied private college, the indicator of a student's residence was not significant.

In summary, the study evaluated the above predictors which were quantitatively gathered and assessed through the logistic regression models. In contrast, a majority of the research literature had examined African-American or minority determinants of college choice that were qualitative. McDonough and Antonio (1996), Pope and Fermin (2003), O'Connor, Hammack, and Scott (2009), Smith (2009), and Mattern, Woo, Hossler, and Wyatt (2010) contributed to this field through evaluation of qualitative attributes of college choice determinants for African Americans. These included social capital (O'Connor, Hammack, and Scott 2009), social class, church influence (Pope and Fermin 2003), parental influences (Smith 2009), habitus (McDonough and Antonio 1996), and institutional fit (Mattern, Woo, Hossler, and Wyatt 2010).

In contrast, this study focused on measurable quantitative predictors within a private college institution. Consequently, this research contributed to the body of knowledge for African-American enrollment at a private institution with the significant quantifiable predictors of athlete status classification, SES markers, merit aid, ACT, and GPA.

IMPLICATIONS FOR THEORY, POLICY, AND PRACTICE

From the review of literature, there was no discernible evidence of the construct of the study's research. The results of the study have implications for future college choice model theory in regards to the African-American ethnicity sector of a private institution.

The study does have implications for admissions recruitment practice for the private college institution. With the study's outcome of significant predictors for African-American enrollment, the following are recommendations for admissions practices.

1. Focus on the targeted neighborhood clusters of 59 and 74 (socioeconomic status) in the prospect phase. The two clusters were significant predic-

tors for enrollment. The clusters represented low-income households with aspiring, college-predisposed students. Subsequent to the prospect phase, admissions should develop measures to engage and effect an application through campus visits and meetings with current students and faculty. With the ultimate goal of enrollment for the targeted cluster of student prospects.

2. Identify athlete status early in the recruitment cycle and direct recruitment communications and efforts accordingly.
3. Determine and award financial or merit award for the targeted SES groups based on admission decisions. Provide merit award information promptly so the student can make an effective college choice decision.
4. In assessing student achievement, concentrate on African Americans with significant GPA rather than high ACT.

CONCLUSIONS

The results of the determinants of African-American enrollment at a private college were conclusive. The predictors of athlete status, merit aid, socio-economic status, GPA, and ACT for African Americans were statistically significant for the outcome of enrollment at a private college institution. Three of the predictors, merit aid, SES, and GPA, were positively significant. The other two predictors, non-athlete status and high ACT, were negative indicators. The outcomes of the study provide contributions to body of knowledge for the college choice model theories researched over the past two decades. The previous research found in the literature, did not contain the intersection of the study's construct that is depicted in this study. That is, the confluence of the enrollment predictors as defined by the college choice theories, minority recruitment, and private college recruitment were not discovered in the review of literature. The intersection of the three segments was realized through this study's research and documented outcomes. The following are broad-based conclusions incorporating the study's outcomes along with consistent themes throughout the review of literature:

1. Amended admission recruitment practices as discussed in previous section.
2. Provide focused and informative literature and communication with targeted (African

American) student throughout recruitment cycle (Dehne 2005) especially for the small, private institutions. Dehne reported, "most private colleges leave the *benefits* of these [attributes] characteristics for the students to infer" (Dehne 2005, p. 9). He concluded that small, private colleges need to vividly proclaim and explain their benefits for the inquiring high school college-seeking applicant. Thus, admissions offices need to overtly explain and communicate the benefits of education at a small, private institution. Adams (2009), also, reported that communications were critical in the three phases and most explicitly in the final phase after admission to ensure student commitment.

3. Utilize predictor factors for recruited athlete as identified in this study and other research (Johnson, Jubenville, and Goss 2009). The institutions incorporate the determinants including merit aid, targeted markets (neighborhood clusters of "59" and "74"), and GPA in focused recruitment efforts.

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