

*The*  
**Negro Educational Review**

---

Volume 67

2016

Nos. 1-4

---

<b>Defining the Situation: Uncertainty in the Education of Black Americans .....</b>	<b>2</b>
<i>LaDelle Olion Editor-in-Chief.....</i>	
<b>Internalized Stereotypes and Academic Self-Handicapping among Black American Male High School Students .....</b>	<b>5</b>
<i>Kenneth M. Tyler, Falynn A. Thompson, Donna E. Gay, Jennifer Burris, Sycarah Fisher.....</i>	
<b>Hidden Diversity of Teacher–Student Interaction in Historically Black Colleges and Universities.....</b>	<b>33</b>
<i>Fang-Yi (Flora) Wei, Katherine Grace Hendrix.....</i>	
<b>Investigating the Experiences of Two High-Achieving Black Male HBCU Graduates: An Exploratory Study .....</b>	<b>54</b>
<i>Ramon B. Goings .....</i>	
<b>Applying a Cultural Prism to the Study of Play Behavior of Black Children .</b>	<b>77</b>
<i>Janice E. Hale, Erika L. Bocknek .....</i>	
<b>Gender, Race, and Career Advancement: When do we have Enough Cultural Capital? .....</b>	<b>106</b>
<i>Consuella Lewis .....</i>	
<b>Variables that Contribute to Retention and Graduation of Black American Females at an Historically Black University .....</b>	<b>133</b>
<i>Errick Farmer, Adriel A. Hilton, Franz H. Reneau .....</i>	
<b>Audism and Racism: The Hidden Curriculum Impacting Black d/Deaf College Students in the Classroom.....</b>	<b>149</b>
<i>Lissa D. Stapleton .....</i>	
<b>Contributors.....</b>	<b>169</b>
<b>News.....</b>	<b>173</b>
<b>Events .....</b>	<b>173</b>
<b>Contributors Index .....</b>	<b>201</b>

**Variables that Contribute to Retention and Graduation of Black American Females at an Historically Black University**

**Errick Farmer<sup>1</sup>**  
Florida A&M University

**Adriel A. Hilton**  
Webster University

**Franz H. Reneau**  
Florida A&M University

**Abstract**

*Black American females college participation rates have increased but an increase in graduation rates have yet to materialize, suggesting that barriers to degree completion among Black American females persist. The purpose of this study was to determine whether select pre-college and college level variables have a relationship with retention and graduation of Black American females attending an Historically Black University. Data from this study was collected from a public HBCU located in the southern region of the United States. A total of 785 Black American females participants were in this study. Descriptive and multivariate techniques were employed in addressing each of the research questions guiding this inquiry. Results show that family income, hours attempted in year one in college, and hours earned in year one in college were predictors of retention. In addition, the results demonstrate that high school GPA, college GPA year one, and college GPA year four were predictors of graduation for this cohort of Black female students.*

*Keywords:* retention, graduation, Black American Females, Historically Black Colleges and Universities

Education has been and continues to play a central role in the lives of African Americans. The nation's Historically Black Colleges and Universities (HBCUs) add a rich texture to the fabric of higher education in the United States (Pelletier, 2008). Their legacy is one of access and opportunity. HBCUs play a predominant role in providing the intellectual and social development for African Americans at the collegiate level. This role appears to be as important now as it has been throughout the past century and a half (Nettles, Wagener, Millett, & Killenbeck, 1999). Today, many HBCUs face similar challenges as other post-secondary institutions. With the higher education accountability movement and the demand

---

<sup>1</sup> Address correspondence concerning this article to Errick Farmer, Professional Leadership Department, School of Business and Industry, 500 Gamble Street, Room 404, Florida A&M University, Tallahassee, FL 32307. Email: Errick.Farmer@famu.edu

### *Variables that Contribute to Retention*

by state governing bodies for better educational outcomes, colleges and universities face new challenges pertaining to retention and graduation rates. These challenges have pushed higher education institutions to focus their attention on proven programmatic strategies to address retention and graduation rates. Demaris and Kritsonis (2006) has urged post-secondary institutions to continue to address retention and graduation rates, especially with respect to minority students.

Although African American female college participation rates have increased (Bennett & Lutz, 2009), corresponding increases in graduation rates have yet to materialize, suggesting that barriers to degree completion among African American females persist (Harper, Patton, & Wooden, 2009). Based on data collected from the U.S. Census Bureau in 2009, one in five women older than 25 years (20.7%) hold undergraduate degrees, compared with one in two Asian American women (49.2%) and one in three White American women (31.9%) in the same age range. The increase in college enrollment and lack of comparable outcomes in college completion rates for Black American females suggest that much empirical work is needed to broaden understanding of this phenomenon. While Black American females are enrolling in colleges and universities in large numbers than in past decades, their attendant access to education, success, and accomplishments are still subjects for critique and debate (Banks, 2009). These trends suggest a need for more attention on the unique needs of Black American females and the variables associated with their college retention and graduation.

This study was guided by the following research questions: (a) What relationship exists between select pre-college and college level variables and retention of Black American females? (b) What relationship exists between select pre-college and college level variables and graduation of Black American females? and (c) What pre-college and college level variables together best predict graduation for Black American females? Data for this study were collected from a public HBCU located in the southern region of the United States. The population of interest consisted of Black American females who were entering freshman at the selected HBCU in the fall semester of the 2006-2007 academic year. These females self-identified themselves as African/Black American.

### **Definition**

African American and Black American females refer to women of African descent who live and were socialized in America. This group also includes women who are multi-racial and identify as Black or African American.

### **Significance of Study**

Much remains to be understood regarding relative variables that influence retention and graduation for Black American females, especially at HBCUs. The college success of Black American females, although multifaceted, remains underexplored. Research examined students of color as a group at the aggregate level (i.e., students of color as encompassing men, women, and multiple racial/ethnic subgroups) (Winkle-Wagner, 2009). In addition,

most research that focuses on African American students is limited to their academic failure (Rovai, Gallien, & Wighting, 2005). Literature on African American men portrays this subgroup from a deficit model. Shaun Harper's (2012) anti-deficit model attests that in the year 2002, Black males comprised of 4.3% of all students enrolled in the academy. This percentage is consistent with the compositional makeup of Black males in American colleges in 1976. However, African American women are attending college at higher rates. In the last thirty years, African American women have doubled their enrollment rates within the academy, yet their completion rate is not coming to fruition as that of their White and Asian counterparts (Winkle-Wagner, 2015). Inherent impediments to women of color continue to persist, thereby leaving only one out of five women of color over the age of 25 with undergraduate degrees (Winkle-Wagner, 2015).

Important information is missing relative to how Black American females' experiences in higher education may be different due to the vast majority of the studies specific to Black American college students grouping both genders together. This lack of focus on the experiences of Black American females could hinder the efficacy of institutional policies geared toward maximizing academic performance, reducing attrition, and enhancing college experiences for these students (Banks, 2009; Winkle-Wagner, 2009).

A plethora of student retention and graduation research focuses on Black American males and a paucity of scholarly attention is paid to Black American females. Therefore, much work is needed to illumine understanding of the factors that contribute to retention and graduation. Retention and graduation directly addresses the interest and concerns of higher education policy makers, HBCUs, and administrators. Such metrics—are now standard accountability measures and performance indicators. This study will make an immediate contribution of new knowledge and add to the current literature on Black American females, and more specifically retention and graduation in higher education. This study plays an important role in shaping the agenda for change, creating more inclusion and serving as an opportunity to advance students of color, specifically African American females. Review of extant literature revealed a scarcity of studies discussing variables for Black American females, which adds to the significance of this study.

The presence of Black American females at colleges and universities in the United States has led to a barrage of contemporary scholarship related to their experiences as well as attempts to understand ways institutions might better serve this population (Banks, 2009). A common thread that runs throughout the literature is the idea that the historical and societal inequities related to race, class, and gender create conditions that require specific navigation strategies for African American females are quite distinct from other groups (Banks, 2009). Inequities in the educational preparation of women of color during high school and the low retention rates in higher educational institutions are often viewed as individual flaws or deficiencies rather than the consequences of an inequitable educational system. African American females are subjected to racism, classism, and sexism, and they deserve the right to fill membership in their colleges and universities, which is still constantly being questioned (Roebuck & Murty, 1993).

### *Variables that Contribute to Retention*

Schwartz and Washington (1999) suggest that African American females in particular face many hurdles to their success in college. Some of the hurdles they face are low levels of parental support, limited resources to pay for college, low self-esteem, and low social expectations for going to college and completing a college degree. For African American females enrolled in HBCUs, Schwartz and Washington (1999) concluded that issues of social adjustment, personal emotional adjustment, and the identification of a strong support person along with demonstrated academic success in high school, as measured by grades and rank in class, are critical for first year African American females.

Watt (2006) examined racial identity attitudes, womanist identify attitudes, and self-esteem of 111 African American college females attending two HBCUs. One of the major findings from the study is that African American females use a variety of coping mechanisms to survive the experiences they perceive as oppressive and that when women use negative coping strategies, their self-esteem is affected. The study also found that women who were actively engaged in rejecting male supremacist ideals scored lower on self-esteem measures. These findings support the idea that African American college females may be facing difficult challenges negotiating the college experience as a member of two devalued groups and that this negatively impacts their self-perception.

It is well known that Black American females are facing gender-related and family stress on college campuses and must juggle this with the pressure to perform well academically (Kennedy, 2010). Banks' (2009) interviews with nineteen African American females from three universities and one community college led her to conclude that the majority of participants perceived they were unprepared for collegiate academics. The participants talked about having to work harder to make up for their unpreparedness in addition to any unfair grading they received as the result of being Black. Many related their negative experiences in the classroom to their race, class, and gender. Some participants talked about being hesitant to speak up in class for fear of being stereotyped as an "angry Black" or receiving lower grades.

A study by Schwartz and Washington (1999) examined the academic success and retention of 213 first year female African American college students at a historically Black private, liberal arts college in the Southeast. To examine their preparation and readiness for college during their first week on campus, participants completed the Non-Cognitive Questionnaire and the Student Adaptation to College Questionnaire. Responses were then compared against actual academic performance and retention during the first year of college. Two variables were significantly correlated with persistence: social adjustment and attachment to college. Social adjustment was the more significant of the two.

A recent study, Gerhenfeld, Ward, & Zhan (2016) tracked the academic achievement and degree status of more than 1,900 University of Illinois freshmen across a six-year period, beginning when the students first enrolled at the University in 2005 or 2006. The sample was selected to focus on students who were low-income, attended under-resourced high schools, were historically underrepresented based on race or geography, and who could have

completed an undergraduate program within six years. While ACT scores were nearly identical for those in this study, it was found that freshman who persisted to graduation had significantly higher first year GPAs compared to those who did not graduate.

The review of literature suggests that Black American female college students face unique struggles as they attempt to navigate the higher education arena. The continued presence of racism, sexism, and classism contributes to these students experiencing social isolation and cultural incongruity, as well as an unwelcoming academic environment.

### **Conceptual Framework**

Tinto's (1994) theory has emerged as the most influential theoretical perspective among the theories and conceptual frameworks developed in the last four decades to explain the college student departure process. Tinto pre-entry attributes play a role in shaping students' goals and commitments, institutional experiences, and potential for success. In his theory, Tinto posited that the levels of academic and social integration, developed through the interactions between students and institutions on norms and culture, influence departure or retention decisions.

Tinto contends that institutional relationships between the college or university and the student are critical to retention. Further, he contends that a variety of concerns and issues coalesce to influence the decision to stay in college beyond the first year. According to Karp, Hughes, and O'Gara (2008), Tinto points out that student integration into an institution can occur along two dimensions, the academic and the social. Academic integration occurs when students become attached to the intellectual life of the college, while social integration occurs when students create relationships and connections outside of the classroom. These two concepts, though analytically distinct, interact with and enhance one another. And, while students must be integrated into the institution along both dimensions to increase their likelihood of persistence, they need not be equally integrated along the two. Likewise, Tinto (1994) notes that there are both formal and informal systems within institutions that can encourage integration and persistence.

Tinto model posits that students enter college with family and individual attributes as well as precollege schooling. They enter with certain commitments, both to finishing college and to staying at their college. For this particular study, Tinto's model is used to isolate the pre-entry attributes which include family background, skills and abilities and prior schooling, along with the institutional experiences of academic performance.

Terenzini & Reason (2005) encourages higher education researchers to look more broadly at the multiple forces affecting college student outcomes. The framework incorporates four items, the wide array of influences on student outcomes indicated in the research literature: student pre-college characteristics and experiences, the organizational context, the student peer environment, and finally, the individual student experience. At its broadest level, the framework hypothesizes that students come to college with a variety of personal,

### *Variables that Contribute to Retention*

academic, and social background characteristics and experiences that both prepare and influence them, to varying degrees, to engage with the formal and informal learning opportunities. These pre-college characteristics help shape students' subsequent college experiences through their interactions with institutional and peer environments, and serve as major socialization agents (e.g., peers and faculty members). Thus, this study examined the following research questions:

1. What relationship exists between select pre-college and college level variables and retention of African American females?
2. What relationship exists between select pre-college and college level variables and graduation of African American females?
3. What pre-college and college level variables together best predict graduation for African American females?

### **Method**

This study employed a quantitative approach in examining the research questions. Specifically, descriptive and multivariate techniques were used to address the research questions that guided this inquiry. The study used secondary data collected at an HBCU in the southern region of the United States, from a cohort of Black American females who enrolled at the university as first time in college degree seeking students in Fall 2005. Pre-college and college level data for the sample of students were compiled to explore their relationship to retention and graduation within six years.

### **Sample and Data Source**

Data for this research came from an HBCU located in the southern region of the United States. This study relied on secondary data compiled on the cohort of Black American females who enrolled at this university as first time in college degree seeking students in Fall 2005. There was a total of 785 Black American females who comprised the 2005 cohort. The data were provided from the University's Office of Institutional Research. The selected university has a historical mission of providing educational opportunities to minority groups who otherwise would not have an opportunity to gain entrée to the post-secondary experience. It is a public doctoral research university with approximately 10,000 students.

### **Dependent Variables**

This research focused on two dependent (criterion) variables: retention and graduation. Retention is specified as the freshman cohort members enrolled during the fall semester 2005 who were also enrolled at the institution during the fall semester of 2006. A student who studied full-time in the fall semester and remained at the University the next fall semester is considered to have been retained. Conversely, a student who studied full-time in the fall semester and was not enrolled in the University in the subsequent fall semester is considered not to have been retained.

### *Variables that Contribute to Retention*

The 6-year graduation rate is utilized because it is the measure employed by the United States Department of Education. The 6-year graduation rate is the percent of an entering cohort of first time in college (FTIC) students who persisted to graduation within six consecutive years. The cohort of African American females who entered college in the fall semester of the 2005–2006 academic year comprised the sample in this research. The FTIC African American females were in the graduated group, if they completed the requirements for a bachelor's degree by the end of spring semester 2010–2011. The graduation rate was computed as the proportion of the 2005–2006 FTIC African American females who had graduated at the end of spring semester 2010–2011.

### **Precollege and College Independent Variables**

The independent (predictor) pre-college variables employed in this study were: age, high school grade point average (GPA), *Scholastic Aptitude Test* (SAT), American College Test (ACT) score, Advanced Placement (AP), and International Baccalaureate (IB) credits. The independent college variables were remedial courses taken in mathematics, reading, and English (Developmental Mathematics I and II, Developmental Reading I and II and Writing I and II); hours attempted in year one of college; hours earned in year one of college; cumulative GPA year one of college; cumulative GPA year 4 of college; family income; and student dependency status as determined by the Free Application for Student Financial Aid (FAFSA).

### **Results**

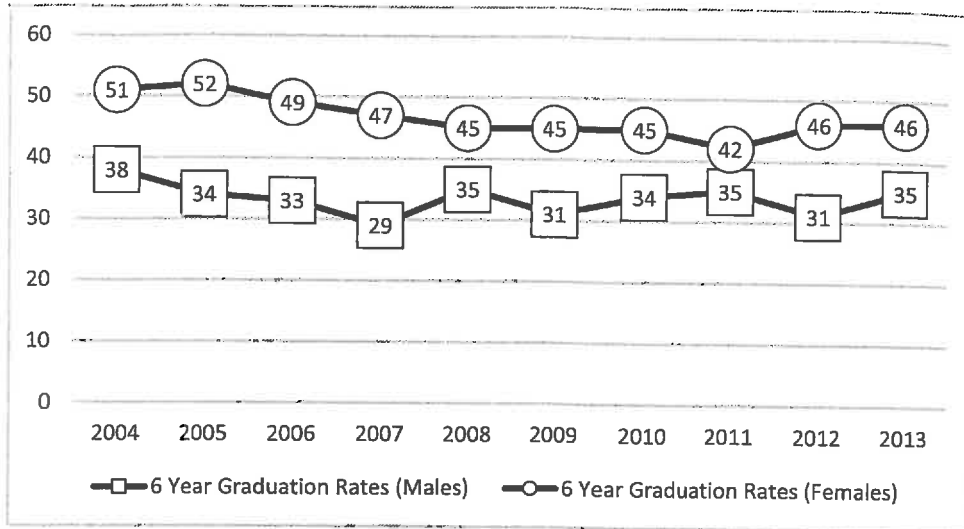
Over the last ten years (i.e., 2004–2013), six-year graduation rates for first time in college students ranged from 39%–46%. Between 2011 and 2013, this key performance indicator ranged from 40%–41%, showing significantly less variability. Consistent with the literature on college attainment for females, six-year graduation rates for females at the university was significantly higher than that of males between 2004 and 2013. Refer to Figure 1 for a longitudinal summary of six-year graduation rates for males and females at Errick University.

Descriptive and multivariate techniques were employed in addressing each of the research questions guiding this inquiry. First, descriptive statistics were computed for all variables included in the analysis. A total of 785 Black American females comprised the 2005 cohort. The mean age of females entering the university was 18. Seventy percent (N=553) of the entering cohort of Black American females were from the state in which the university is located. The mean family income of the 2005 cohort of African American females was \$41,577.05.

The mean ACT and SAT scores for the entering cohort of Black American females was 19.15(SD=2.97) and 921.57 (SD=135.72), respectively. The mean high school GPA was 3.21 (SD=.52). The high school GPA entrance requirement is 2.5. Less than 15% of the



**Figure 1**  
Comparative Summary of Six Year Graduation Rates for Males and Females



students required remediation in English and reading; however, 28% (N=219) required remediation in math. The majority of the students took a full course load (i.e., approximately 15 credit hours per semester).

The mean cumulative GPA at the end of year one was 2.37 (SD=.92), with an 81% first year retention rate. The first year retention rate for Black American females at the university was significantly higher than that of similar institutions. By year four, the mean cumulative GPA had increased from 2.37 (SD=.92) to 2.82 (SD=.51). Forty two percent (N=333) of the 2005 cohort graduated within six years. Refer to Table 1 for a summary of these results.

Given that retention and graduation within six years were the outcome variables of interest in this study, the researchers filtered the data file in an effort to compute descriptive statistics for all associated variables delimited to Black American females who were retained in their first year and graduated within six years. Tables 2 and 3 provide descriptive summaries for African American females who were retained after their first year and those who graduated within six years.

### Results of Correlation Analysis

To address research questions (a) (i.e., What relationship exists between select pre-college and college level variables and retention of African American females?) and (b) (i.e., What relationship exists between select pre-college and college level variables and graduation

*Variables that Contribute to Retention*

Table 1

*Summary Descriptive Results for 2005 Cohort of Black American Females*

	n	M	SD
Age	785	17.90	1.20
<i>Pre College Variables</i>			
ACT Score	563	19.15	2.97
SAT Score	553	921.57	135.72
<i>Pre College Credits Earned</i>			
Advance Placement (AP) Credits	0	0	.00
International Baccalaureate (IB) Credits	0	0	.00
High School GPA	779	3.21	.52
Family Income	680	\$41,577.05	41420.85
<i>Remediation</i>			
Developmental English	785	12.60	
Developmental Math	785	27.90	
Developmental Reading	785	14.60	
Hours Attempted in Year 1 of College	785	29.11	6.43
Hours Earned in Year 1 of College	785	22.57	9.26
Cumulative GPA Year 1 of College	779	2.37	.92
First Year Retention Rate	785	81.40	
Cumulative GPA Year 4 of College	471	2.82	.54
6 Year Graduation	785	42.4	

of African American females?), Pearson product moment correlation was employed to explore the relationship between the outcome variables (i.e., retention and graduation) and the independent variables (i.e., pre-college and college level)

The results of the correlation analyses revealed several significant relationships between select pre-college and college level independent variables and first year retention for African American females. Family income, enrollment in developmental math, hours attempted in year one, hours earned in year one, and cumulative GPA in year one were all significantly related to first year retention. Significant correlations among items ranged from  $r(785)=-.075, p=.036$  to  $r(785)=.517, p<.00$ . Refer to Table 4 for a comprehensive summary of the correlation results.

Similarly, significant relationships were found between select pre-college and college level independent variables and graduation within six years. ACT score, SAT score, high school GPA, family income, hours attempted in year one, hours earned in year one, cumulative GPA year one, cumulative GPA year four, and dependency status were all significantly related to graduation within six years. Positive correlations among items ranged from  $r(680)=.017, p=.001$  to  $r(471)=.317, p<.001$ . Refer to Table 4 for a summary of the correlation results.

*Variables that Contribute to Retention*

Table 2

*Descriptive Summary of Black American Females who were Retained after First Year.*

	n	M	SD
Age	639	17.90	
<i>Pre College Variables</i>			
ACT Score	461	19.20	
SAT Score	457	923.81	
<i>Pre College Credits Earned</i>			
Advance Placement (AP) Credits	0	0	.00
International Baccalaureate (IB) Credits	0	0	.00
High School GPA	634	3.23	.53
Family Income	562	\$43,869.82	43,122.19
<i>Remediation</i>			
Developmental English	639	12% (n=78)	
Developmental Math	639	26% (n=168)	
Developmental Reading	639	14%(n=92)	
Hours Attempted in Year 1 of College	639	30.49	5.20
Hours Earned in Year 1 of College	639	24.85	7.58
Cumulative GPA Year 1 of College	639	2.53	.79
Cumulative GPA Year 4 of College	458	2.83	.54
6 Year Graduation	639	51%	

*Variables that Contribute to Retention*

Table 3

*Descriptive Summary of Black American Females who Graduated within Six Years*

	n	M	SD
Age	333	17.81	.47
<i>Pre College Variables</i>			
ACT Score	255	19.75	3.1
SAT Score	235	947.62	137.14
Pre College Credits Earned			
Advance Placement (AP) Credits	0	0	.00
International Baccalaureate (IB) Credits	0	0	.00
High School GPA	331	3.38	.51
Family Income	293	\$47,711.48	47,000.78
Remediation			
Developmental English	333	11%(n=38)	
Developmental Math	333	25%(n=82)	
Developmental Reading	333	13%(n=42)	
Hours Attempted in Year 1 of College	333	31.07	4.62
Hours Earned in Year 1 of College	333	27.70	6.22
Cumulative GPA Year 1 of College	333	2.91	.60
First Year Retention Rate	333	98%	
Cumulative GPA Year 4 of College	332	3.02	.42

**Results of Logistic Regression**

To address research question (c) (i.e. What pre-college and college level variables together best predict graduation for African American females?), logistic regression was conducted to assess whether the predictor variables (i.e. age, ACT score, SAT score, high school GPA, family income, first generation, developmental English, developmental math, developmental reading, hours attempted in year 1 of college, hours earned in year one of college, cumulative GPA at the end of year one in college, cumulative GPA after year four of college, and dependency status) significantly predicted whether Black American females would graduate within six years of initial enrollment. When all predictor variables are considered together, they significantly predict whether or not FTIC Black American females would graduate within six years,  $\chi^2 = 110.94$ ,  $df = 14$ ,  $N = 189$ ,  $p < .001$ . Table 5 presents the odds ratios, which suggest that the odds of graduating within six years are increasingly greater for Black American females when high school GPA, GPA year one in college and GPA year four in college increase. The results also suggest that for those students who took developmental English and math, they were likely to graduate within six years. This should be interpreted with caution as less than 13% of the Black American female cohort were required to take developmental English and less than 28% were required to take developmental math. Results of the logistic regression analysis revealed that approximately 44% of the variance in whether Black American females graduate within six years can be

*Variables that Contribute to Retention*

predicted from the linear combination of college and pre-college independent variables. Refer to Table 5 for a summary of the logistic regression results. Also, limitations within the research process are present.

Table 4

*Results of Pearson Product Moment Correlations for Predictor Variables Correlated to Retention and Graduation for Black American Females*

Variables	Retained After First Year in College				Graduated within Six Years			
	<i>r</i>	<i>r</i> <sup>2</sup>	<i>p</i>	<i>n</i>	<i>r</i>	<i>r</i> <sup>2</sup>	<i>p</i>	<i>n</i>
Age	-.017	.000	.640	785	-.064	.004	.074	785
ACT Score	.007	.000	.867	563	.166	.028	<.001	563
SAT Score	.039	.002	.355	553	.170	.029	<.001	553
High School GPA	.013	.000	.724	779	.218	.048	<.001	779
Family Income	.121	.015	.002	680	.129	.017	.001	680
First Generation	.042	.002	.240	785	.013	.000	.707	785
Developmental English	-.026	.001	.475	785	-.031	.000	.385	785
Developmental Math	-.075	.006	.036	785	-.063	.004	.079	785
Developmental Reading	-.015	.000	.676	785	-.049	.002	.166	785
Hours attempted in year 1 of college	.451	.203	<.001	785	.262	.069	<.001	785
Hours earned in year 1 of college	.517	.267	<.001	785	.472	.223	<.001	785
Cumulative GPA year 1 of college	.371	.138	<.001	779	.512	.262	<.001	779
Cumulative GPA year 4 of college				471	.563	.317	<.001	471
Dependent Status	.030	.001	.433	680	.081	.007	.036	680

*Effect size r = .1 small, .3 medium, .5 large Field (2009)*

Table 5

*Logistic Regression Predicting Black American Females who will graduate within Six Year*

Variables	<i>B</i>	<i>SE</i>	Odds ratio	<i>P</i>
Age	.15	.44	1.17	.73
ACT Score	.16	.55	1.18	.77
SAT Score	.33	.31	1.39	.29
High School GPA	-1.08	.51	.34	.03
Family Income	.00	.00	1.0	.07
First Generation	-2.01	2.18	.13	.36
Developmental English	2.50	.94	12.07	.01
Developmental Math	1.35	.66	3.86	.04
Developmental Reading	-1.52	.90	.22	.10
Hours attempted in year 1 college	.04	.08	1.04	.60
Hours earned in year 1 of college	-.03	.07	.97	.70
Cumulative GPA year 1 of college	1.36	.54	3.90	.01
Cumulative GPA year 4 of college	3.83	.87	45.90	>.001
Dependent Status	-20.91	202070.17	.00	1.0

### Conclusion

There are several conclusions which can be drawn from this study with regards to Black American females and the variables examined in reference to the outcomes of retention and graduation for this select group. Historically, SAT and ACT scores were used as a predictor of success on all levels. For this study, it was not a major predictor of both dependent variables. This research shows that hours attempted in year one in college, hours earned in year one, along with cumulative GPA in year one in college were better predictors of retention and graduation for this cohort of Black American females. While SAT and ACT are significant factors, first semester GPA plays a more significant role.

Traditionally students at this university who enrolled in developmental courses, e. g., developmental math, are usually not retained. This research shows that when hours attempted in year one and cumulative GPA in year one are combined with developmental math, they are significantly related to year one retention. In addition, the results suggest that for those students who took developmental English and Math, they were likely to graduate within six years. This should be interpreted with caution as less than 13% of the Black American females in this cohort were required to take developmental English and less than 28% were required to take developmental Math. Lastly, the results of the regression analysis revealed that approximately 44% of the variance in whether Black American females graduate within six years can be predicted from the linear combination of college and pre-college independent variables. These results are consistent with those found by Gerhenfeld, Ward, and Zhan (2016) in the study of 1,900 students across a six year period.

### **Limitations of Study**

The first limitation of the study is related to the sample selected for analysis. Subjects were not randomly selected, which limits the generalizability of the results beyond the selected institution. A second limitation of the study lies in the variables selected and explored. This study relied on a select number of variables from one HBCU and is not inclusive of all variables that may support the retention and graduation of Black American females from HBCUs. These results must be interpreted with caution as they are delimited to the cohort of Black American females who attend the selected institution as First-Time-In-College students in 2005. While not unusual in the social sciences and particularly in education, the small effect sizes associated with the relationship between the independent and dependent variables must be taken into consideration in applying findings of this study. For these reasons, the study's findings should not be generalized to all HBCUs, but rather support dialogue and further investigation at other Minority Serving Institutions (MSIs).

### **Implications for Practice and Policy**

This study has major implications for practice and both public and institutional policy. Literature shows that African American females are graduating at a pace higher than their African American male counterparts, but not at the level of other females. However, this research provides results with which practitioners as well as public and institutional policy makers should concern themselves with. Practitioners and educational policy makers should focus on hours attempted in one's first year and cumulative GPA, as they are key indicators for retention and graduation.

Second, this study's results show that the first semester of college is important, and greater attention should be directed to students to ensure high GPAs are obtained during this pivotal time. Perhaps advisors could assist in making sure students select appropriate classes, which will allow them to attain higher GPAs. This could be done through class or transcript management techniques. In addition, recommendations for further research within this area of interests are robust but some additional research that may strengthen this work are below.

### **Recommendations for Future Research**

While student retention and graduation are extensively studied in higher education, there are recommendations for future research in this arena. Student retention and graduation rates are monitored by state and federal agencies; this is justification for additional research. Relative to Black American females at HBCUs, there is not much research in this arena, as most studies focus on Black American females at Predominately White Institutions (PWI). The following are recommendations for future research:

1. A qualitative study could be conducted with focus groups to find commonalities among student commitments. Tinto's Model of Institutional Departure could be employed as a framework for this research. Much is to be gained from researching Black American females at HBCUs in regards to goals and commitment, institutional

### *Variables that Contribute to Retention*

- experiences, relationships with faculty and peers, student mentoring, family influences, religious beliefs and student involvement.
2. A future study might include other important environmental factors such as student employment.
  3. Replicating this study at other HBCUs, including four year institution might yield important results.

### **References**

- Banks, C. A. (2009). *Black women undergraduates, cultural capital, and college success*. New York, NY: Peter Lang.
- Bennett, P. R., & Lutz, A. (2009). How African American is the net Black advantage? Differences in college attendance among immigrant blacks, native blacks, and whites. *Sociology of Education*, 82(1), 70-100.
- Demaris, M.C., & Kritsonis, W.A. (2006). A philosophical approach to minority persistence on a historically Black college and university campus. *National Journal for Publishing and Mentoring Doctoral Student Research*, 3(1), 1-6.
- Field, A. (2009). *Discovering statistics using SPSS (Introducing Statistical Methods)(3<sup>rd</sup> ed.)* Thousand Oaks, CA: Sage Publications.
- Gerhenfeld, S., Ward, D., & Zhan, M. (2016, February 2). First-semester GPA a better predictor of college success than ACT score. Retrieved February 4, 2016, from eurekaalert.org: <https://news.illinois.edu/blog/view/6367/320538>
- Harper, S. R. (2012). *Black male student success in higher education: A report from the national Black male college achievement study*. Philadelphia: University of Pennsylvania, Center for the Study of Race and Equity in Education.
- Harper, S. R., Patton, L. D., & Wooden, O. S. (2009). Access and equity for African American students in higher education. A critical race historical analysis of policy efforts. *Journal of Higher Education*, 80, 389-414.
- Karp, M. M., Hughes, K. L., & O'Gara, L. (2008). *An Exploration of Tinto's Integration Framework for Community Colleges* (Working paper No. 12).
- Kennedy, S. M. (2010). *Making the transition: African American female sophomores at a midwestern research-extensive university* (Unpublished master's thesis).
- Nettles, M.T, Wagener, U., Millett, C.M., & Killenbeck, A.M. (1999). Student retention and progression: A special challenge for private historically Black colleges and universities. *New Direction for Higher Education*, 108, 51-67.



*Variables that Contribute to Retention*

- Pelletier, S. (2008). *Challenges, opportunities and traditions: A snapshot look at today's HBCUs*. Retrieved March 5, 2015, from [http://www.aascu.org/uploadedFiles/AASCU/Content/Root/MediaAndPublications/PublicPurposeMagazines/Issue/08\\_07hbcu.pdf](http://www.aascu.org/uploadedFiles/AASCU/Content/Root/MediaAndPublications/PublicPurposeMagazines/Issue/08_07hbcu.pdf)
- Roebuck, J.B., & Murty, K.S. (1993). *Historically Black colleges and universities: Their place in American higher education*. Westport, CT: Praeger.
- Rovai, A.P., Gallien Jr., L.B., & Wighting, M. J. (2005). Cultural and interpersonal factors affecting African American academic performance in higher education: A review and synthesis of the research literature. *Journal of Negro Education, 74*(4) 359-370.
- Schwartz, R. A., & Washington, C. M. (1999). Predicting academic success and retention for African-American women in college. *Journal of College Student Retention: Research, Theory, and Practice, 1*(2), 177-191.
- Terenzini, P. T., & Reason, R. D. (2005). Parsing the first year of college: Rethinking the effects of college on students. *Annual Conference of the Association for the Study of Higher Education*. Philadelphia: Association for the Study of Higher Education.
- Tinto, V. (1994). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago: University of Chicago Press.
- U.S. Census Bureau. (2009). Current population survey, March 2008 supplement. *U.S. Census Bureau*.
- Watt, S. K. (2006). Racial identity attitudes, womanist identity attitudes, and self-esteem in African American college women attending historically Black single sex and coeducational institutions. *Journal of College Student Development, 47*(3), 319-334.
- Winkle-Wagner, R. (2015). Having their lives narrowed down? The state of Black women's college success. *Review of Educational Research, 85*(2), 171-204.
- Winkle-Wagner, R. (2009). *The unchosen me: Race, gender, and identity among Black women in college*. Baltimore, MD: John Hopkins University Press.