

HBCU Students and Career Opportunities:

Self-Evaluation in the Job Market

Ahmed Gandema^{1*} and Ulysses J. Brown, III²

College of Business Administration, Savannah State University

3219 College Street, Savannah, GA 31404

Authors' Contributions

This work was carried out in collaboration between all authors. Author AG designed the study, collected the data, managed the literature searches and did the write-up. Author UJB performed the statistical analysis, wrote the protocol, and managed the analyses of the study.

ABSTRACT

This study examines college students and their self-evaluation of career opportunities in the job market. We also investigate the antecedents of academic achievement and employment perceptions. Using a structural equation modeling framework, we found that self-efficacy, social support, and hope influenced perception of employment opportunities. Hope and core self-evaluations predicted academic achievement in our model. No gender differences were found across the nomological network. The authors of the study also discuss the implications, limitations, and future research directions.

Key Words: Achievement, career opportunities, college students.

1. INTRODUCTION

The goal of every student who decides to pursue higher education is to acquire the necessary knowledge to succeed in the world. Success oftentimes equates to earning a higher level of academic performance than one's university peers. In the past decade, the economic and market failures have hindered the employment opportunities of students. For instance, the recession of 2008 adversely impacted the labor market thereby decreasing opportunities for

¹ *Tel.: +1 912-541-1648; Fax: 912-358-3903
E-mail address: agandema@student.savannahstate.edu

² Tel: 912-358-3402; Fax: 912-358-3903
E-mail address: brownu@savannahstate.edu

college students. According to the Bureau of Labor and Statistics (2012), the unemployment rate was over 8% for the past 43 months, but has seen a slight decrease by 0.3% point to 7.8% in September 2012. Although these unemployment numbers are subject to change depending on the economic recovery, many students are unable to find full time employment. Over the past decades the growth in new college graduates has outpaced the growth in college-level jobs, leading to an over-supply of college graduates for a limited number of quality jobs (Vedder, Denhart, Denhart, Matgournis, & Robe, 2010). The increasing number of college graduates paired with the associated economic slowdown has meant that merely getting a degree does not guarantee students a good paying job (McGrath, 2002). The daunting challenges facing college students in securing full time employment in a sluggish economy has forced them to ask whether earning a college degree really is worth it. However, the slow economic recovery and improvement in the labor market may mean that employment opportunities will increase for college students in the future.

The purpose of this study is to investigate the influence of general self-efficacy, academic motivation, perceived social support, state of hope, and core self-evaluations on the perception of employment opportunities and academic achievement using a sample of students at a Historically Black University (HBCU).

1.1 General Self-Efficacy

Bandura (1986) conceptualized self-efficacy as a person's belief concerning his or her ability to perform a given task or behavior. Betz and Hackett (1997) applied Bandura's self-efficacy theory to career behavior, and defined it as "career-related behaviors, educational and occupational choice, and performance and persistence in the implementation of those choices" (p. 383). A person's perceived self-efficacy influences how one may perceive his or her ability to obtain a professional position or job after graduating college. Further, Luthans (2002) extended self-efficacy to student behavior and found that "the more confident the individual, the more likely the choice will be made to pursue the task and welcome the challenge" (p. 700). That is,

individuals with high levels of self-efficacy will have an optimistic attitude in adverse situations.

Therefore, we hypothesize that:

H₁: Self-efficacy will influence both academic achievement and perception of employment opportunities.

1.2 Academic Motivation

People choose to pursue higher education for many reasons to include increasing their earnings by securing a high paying job or for the simple desire to learn. Research has found that motivation is related to various educational outcomes such as curiosity, persistence, learning, and performance (Deci & Ryan, 1985). Individuals who are highly motivated tend to perform better in school and have a positive attitude about their academic achievement.

Academic achievement and employment opportunities are interwoven as employers use students' overall grade point average (OGPA) and other determinants when screening job applicants. Albrecht, Carpenter, and Sivo (1994) argued that although employers value both high grades and high involvement in college activities, the value placed on grades is somewhat higher. Academic motivation not only determines how successful students will be in college but also shapes their professional lives. Thus, we propose the following hypothesize:

H₂: Academic motivation will influence both academic achievement and perception of employment opportunities.

1.3 Perceived Social Support

Social support refers to social assets, social resources, or social networks that people can use when they are in need of aid, advice, help, assistance, approval, comfort, protection, or backing (Vedder, Boekaerts, & Seegers, 2005). The larger the number of people individuals can count on for support, the lower their level of depression (Altmann & Gotlib, 1988). Extending perceived social support to college students, previous studies found that perceived social support is associated with academic achievement (Cutrona, Cole, Colangelo, Assouline, & Russell, 1994; Eccles 2007; Wentzel 1998). Rosenfeld, Richman, and Bowen (2000) found that

the level of support students receive from their peers, parents and teachers is a determinant of their performance in school; high support leads to better grades. We argue that perceived social support influences how optimistic we are about our abilities to find a job. In light of these findings, we will evaluate the following hypothesis:

H₃: Perceived social support will influence academic achievement and perception of employment opportunities.

1.4 State of Hope

Snyder, Irving, and Anderson (1991) conceptualized hope as “a positive motivational state that is based on a reciprocally derived sense of successful (a) agency (goal-directed determination) and (b) pathways (planning to meet goals)” (p. 287). Hope allows individuals to be optimistic about their expectancies for goal attainment. Consistent with previous studies, Conti (2000) suggested that the stronger the hope of college students, the more likely they will attain the goals they set for themselves. Accordingly, the level of hope may contribute to students’ success or failure in a given situation to include both academic performance and employment attainment. We therefore advance the following hypothesis:

H₄: Hope will influence academic achievement and perception of employment opportunities.

1.5 Core Self-Evaluations

The concept of core self-evaluations was introduced by Judge, Lock, and Durham (1997) to describe the fundamental beliefs people hold about themselves, other people, and the world. The concept includes four distinct traits; self-esteem, generalized self-efficacy, locus of control, and neuroticism. Each of these traits contribute to how individuals evaluate themselves with respect to their abilities, capabilities, level of confidence, emotional stability, and perceived degree of control of events in their lives. Judge, Erez, and Bono (1998) argued that the concept of core self-evaluations may influence an individual’s performance and life satisfaction through motivation. Erez and Judge (2001) suggested that students with positive core self-evaluation persisted longer and had a higher level of motivation to perform well. In addition, Wanberg,

Glomb, Song, & Sorenson (2005) found that individuals with high-CSE tend to be intensive job seekers during periods of unemployment. In this research we argue that positive core self-evaluations may also influence academic achievement and perception of employment opportunities. Consequently, we conjecture that:

H₅: Core self-evaluations will influence both academic achievement and perception of employment opportunities.

1.6 Academic Achievement and Perception of Employment Opportunities

Research studies have found that African-American women tend to have higher levels of achievement than men (Mickelson & Smith, 1989; Jones, 1985). As stated previously, academic achievement has become widely important to employment recruiters when screening job applicants. Employment recruiters firmly believe that undergraduate academic achievement or OGPA predicts job performance across many types of organizations, especially for job performance measured closer in time to the OGPA (Roth, Campion, & Jones, 1996). Males and females have to compete for the fewer jobs available in the job market and those with higher academic achievement will have a better chance to be interviewed by potential employers as compared to those with low academic achievement. Accordingly, we advance the following hypothesis:

H₆: Gender differences will exist across perception of employment opportunities and academic achievement.

2. METHODS

2.1 Sample and Procedures

The participants were 200 students at a comprehensive historically black university in the southern part of the United States. The respondents completed a survey instrument during regular class hours. The data collection took approximately 15 minutes. Informed consent was obtained prior to data collection. The subjects completed the following instruments: general self-efficacy, academic motivation, perceived social support, state of hope, core self-evaluation, and

perception of employment opportunities, and a background information form. The authors distributed and received 200 surveys for an overall response rate of 100 percent. As can be seen in Table 1, Males represented 54.8 percent of the sample. Also, the sample included 172 African Americans (86.9%), 16 Caucasians (8.1%), 3 Asians (1.5%), 2 Hispanic-Blacks (1%), 1 Hispanic-White (0.5%), 1 Native American (0.5), and 3 participants who reported their racial identity as Other (1.5%). Most of the participants (80.5%) were between 18 to 29 years of age. The majority of the participants were full-time students (97.5%). The participants who were included in this study are mostly undergraduate students: freshmen (32.2%), sophomores (24.6%), seniors (21.6%), juniors (20.6%), and graduates (1%). The College of Business represented 44% of the sample; the remaining 56% of our sample were students in the College of Liberal Arts/Social Sciences and the College of Science/Technology.

2.2 Measures

Perception of Employment Opportunities (see Appendix A). Since there were no existing scales that measure perception of employment opportunities, the authors developed an eight-item scale to assess a student's perception of employment opportunities. An example item is "I believe there will be a job for me when I graduate from college." The anchor ranged from strongly disagree (1) to strongly agree (5). The internal reliability (alpha) for the instrument was above the minimum threshold level of greater than or equal to 0.70, as the alpha was 0.85 (Hair, Anderson, Tatham, & Black, 1998; Nunnally, 1978).

Academic Achievement. We measured academic achievement using a five-item scale developed by Powers (2008). An example of item is "I typically get better than average grades in my classes." A seven-point likert scale was used to measure this construct, which ranged from strongly disagree (1) to strongly agree (7). The alpha was 0.88.

General Self-Efficacy. Chen, Gully, and Eden (2001) developed an eight-item instrument that assessed general self-efficacy. An example item is "I will be able to achieve most of the goals I

set for myself.” A five-point Likert scale was used to measure this construct with responses ranging from strongly disagree (1) to strongly agree (5). The alpha was 0.95.

Academic Motivation. We measured academic motivation using a scale that was developed by Vallerand et al. (1992). It is a 28-item measure with a 7-point likert response ranging from strongly disagree (1) to strongly agree (7). An example item is “Because with only a high school degree I would not find a high paying job later on.” The alpha was 0.93.

Perceived Social Support. To assess perceived social support, we used the 12-item instrument developed by Zimet (1988). An example item is “I can count on my friends when things go wrong.” A five-point Likert scale was used to measure this construct with responses ranging from strongly disagree (1) to strongly agree (5). The reliability estimate was 0.92.

State of Hope. Snyder et al. (1996) developed a six-item scale with anchors ranging from definitely false (1) to definitely true (8) to assess this construct. An example item is “There are lots of ways around any problem that I am facing now.” The reliability estimate was 0.89.

Core Self-Evaluations. We used the twelve items developed by Judge, Erez, Bono, and Thoresen (2003) to measure this construct. An example item is, “I do not feel in control of my success in my career.” The anchors ranged from strongly disagree (1) to strongly agree (5). The alpha was 0.84.

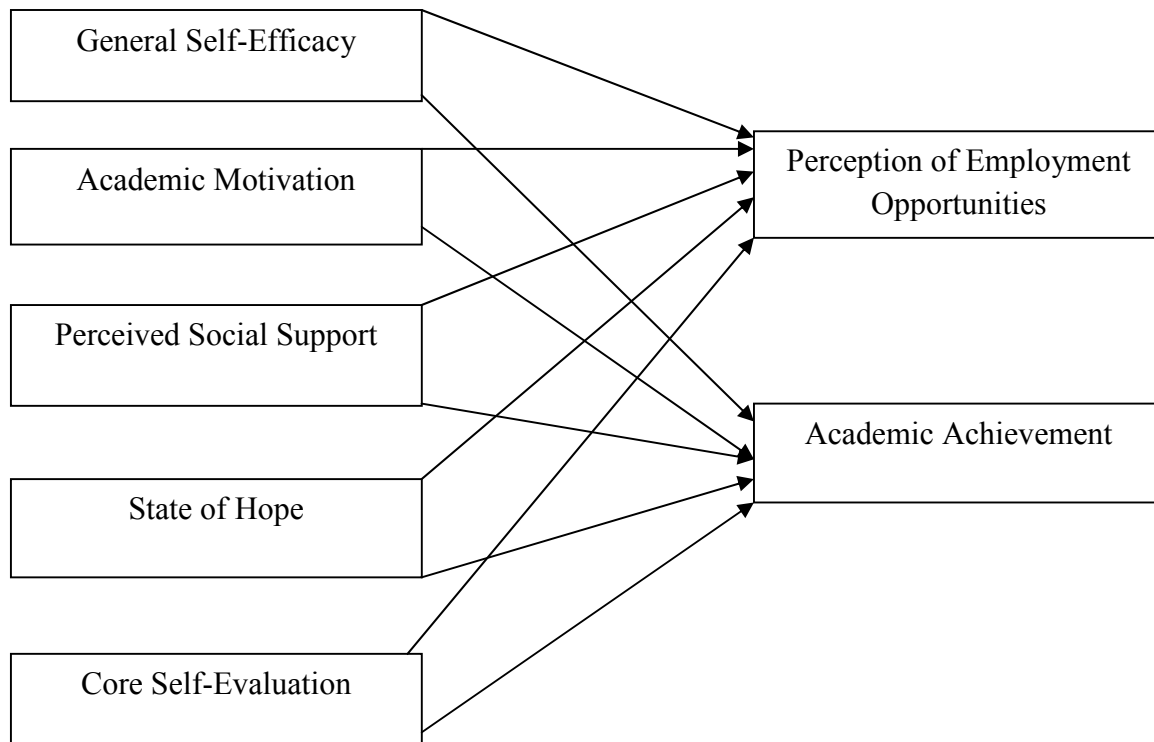
2.3 Analysis

We employed structural equation modeling (SEM) to test our hypotheses. The computer program LISREL (8.8) was used to develop and test all structural models. SEM is a sophisticated technique that establishes relationships between exogenous and endogenous variables simultaneously (Bollen, 1989; Hair et. al, 1998; Rakov & Marcoulides, 2000). It also accounts for measurement error by providing various indices on the fitness of the proposed covariance structural model and the data (Rakov & Marcoulides, 2000). SEM has been used in several fields such as psychology, econometrics, biology, sociology, education, marketing, organizational behavior, and genetics (Hair et al, 1998).

We also performed a one-way ANOVA test with academic achievement and perception of employment opportunities as the dependent variables and gender as the factor variable. The sample means, standard deviations, and scale intercorrelations were computed. Descriptive statistics, correlations and ANOVA testing were conducted using SPSS.

In view of our previous literature discussion, we advance that general self-efficacy, academic motivation, perceived social support, state of hope, and core self-evaluations are expected to influence perception of employment opportunities and academic achievement in our model (see Figure 1). In previously cited researches, these exogenous variables were found to influence both academic performance and perception of employment opportunities. Thus, we argue that these predictors will influence the exogenous variables in our model.

FIGURE 1: Hypothesized Model



2.4 Assessment of Model Fit

Several indices were used to assess the fit of the model: (1) chi-square, (2) root mean square error of approximation (RMSEA), (3) incremental fit index (IFI), (4) goodness of fit index

(GFI) and (5) comparative fit index (CFI). The most common goodness-of-fit index is the chi-square value. The rule of thumb is that if the p-value of the chi-square statistic is greater than 0.05 (i.e., the chi-square value is non-significant), then the proposed model is acceptable (Gerbing & Anderson, 1993; Hayduk, 1987). However, because the chi-square test is very sensitive to sample size, the RMSEA is often used as the principal goodness-of-fit index (Browne & Cudeck, 1993; Steiger & Lind, 1980; Steiger, 1989). When the value of RMSEA is less than 0.05, it indicates a well fitting model. RMSEA values up to 0.08 represents reasonable errors of approximation. Bollen (1989) and Bentler (1990) have demonstrated that IFI and CFI are much less dependent on sample size. The values of GFI, IFI, and CFI can vary between 0 and 1, while values closer to 1 indicate a well fitting model (Hair, et al, 1998; Joreskog & Sorbom, 1993).

The authors of this study used SEM to evaluate the significance and direction of the relationships between the independent and dependent variables. We used the recommended two-step procedure suggested by Anderson and Gerbing (1988). First, we tested the measurement model and evaluated the overall fit. The second step consisted of examining the structural paths across the model to determined statistically significant relations. The covariance matrix for the observed variables was used as input for all path analysis models (Bollen, 1989).

3. RESULTS

The means, standard deviations, zero-order correlations, and reliability estimates are reported in Table 1.

TABLE 1. Means, Standard Deviations (SD) and Zero-Order Correlations.

Variables	Mean	SD	1	2	3	4	5	6	7
1. PEO	33.15	5.65	(.85)						
2. AA	21.49	3.59	.199**	(.88)					
3. GSE	34.33	6.30	.309**	.186**	(.95)				
4. AM	154.40	24.99	.310**	.199**	.283**	(.93)			

224	5. PSS	49.40	9.84	.422**	.297**	.269**	.352**	(.92)
225	6. SOH	38.30	8.02	.443*	.456**	.362**	.490**	.519** (.89)
226	7. CSE	46.58	7.95	.328**	.164*	.156*	.358**	.413** .537** (.84)

227 n=200; Reliability estimates are on the diagonals in parentheses. *p≤ .05 **p≤ .01. PEO = Perceived
 228 Employment Opportunities; Academic Achievement = AA; General Self-Efficacy =GSE; Academic
 229 Motivation = AM; Perceived Social Support= PSS; State of Hope = SOH; Core Self-Evaluation = CSE.

230 3.1 Interpretation of Structural Equation Model

231 As shown in Table 2, the proposed model indicated an acceptable fit to the data [$\chi^2 =$
 232 0.04 (3), p = 0.99, GFI = 1.00, NFI = 1.00, CFI = 1.00, IFI = 1.01, RMSEA = 0.000]. That is, the
 233 chi-square was at its minimum value, the p-value was non-significant, and the GFI, NFI, CFI, IFI
 234 and RMSEA were within acceptable limits for good fitting models (Bollen, 1989; Steiger & Lind,
 235 1980).

TABLE 2: Fit Indices for SEM Model.

Model	χ^2 (df)	p-value	χ^2 /df	RMSEA	GFI	NNFI	NFI	CFI	IFI
Baseline	0.04(3)	0.99	0.013	0.000	1.00	1.04	1.00	1.00	1.01

Statistics are based on a sample of 200 respondents.
 Degrees of freedom are in parentheses after the chi-square value.
 RMSEA = Root mean square error approximation.
 GFI = Goodness-of-fit index
 TLI = Tucker Lewis index (Non-Normed Fit index)
 NFI = Normed Fit index
 CFI = Comparative Fit index
 IFI = Incremental Fit index
 df = Degrees of freedom

236 3.2 Results of Hypothesis Testing

237 Table 3 presents the structural coefficients for the model. Hypothesis One stated that
 238 general self-efficacy will influence both academic achievement and perception of employment
 239 opportunities; Partial support was established because the path from general self-efficacy to
 240 perception of employment opportunities was significant and in a positive direction; however, the
 241 path from general self-efficacy to academic achievement was not significant. Hypothesis Two,
 242 which posited that academic motivation would influence the perception of employment

opportunities and academic achievement, did not have significant paths; and thus no support was established. Partial support was established for Hypothesis Three as the path from perceived social support to perception of employment opportunities was significant in a positive direction; however, the path from perceived social support to academic achievement was not significant. For Hypothesis Four, state of hope was a positive and significant predictor for both perception of employment opportunities and academic achievement. Hypothesis Five was partially supported because the path from core self-evaluation to academic achievement was significant and in a negative direction; however, the path from core self-evaluation to perception of employment opportunities was not significant.

TABLE 3. Unstandardized Path Coefficients for the Baseline Model.

Parameter	Path Coefficient	T-value	R ²
Perception of Employment Opportunities			28%
General Self-Efficacy	0.13	2.20*	
Academic Motivation	0.02	1.29	
Perceived Social Support	0.13	2.98*	
State of Hope	0.14	2.34*	
Core Self-Evaluations	0.006	1.10	
Academic Achievement			23%
General Self-Efficacy	0.01	0.16	
Academic Motivation	0.00	-0.36	
Perceived Social Support	0.04	1.13	
State of Hope	0.19	5.50*	
Core Self-Evaluations	-0.06	-1.70**	

Statistics are based on a sample of 200 respondents.

These are the endogenous variables in the model; the exogenous are listed underneath.

*Significant at the 0.05 level; **Significant at the 0.10 level.

3.3 One-way ANOVA Test

A one-way ANOVA test was analyzed with Gender as the factor variable and perception of employment opportunities and academic achievement as the dependent variables. As indicated in Table 4, the omnibus F-tests for both dependent variables were not statistically significant—indicating no

gender differences. Thus, support was not established for Hypothesis Six because gender differences do not exist across perception of employment opportunities and academic achievement.

TABLE 4. Results of One-Way ANOVA Testing For Gender.

Factors	F-value	P-value
Perception of Employment Opportunities	0.751	0.387
Academic Achievement	0.006	0.937

*Significant at the 0.05 level.

4. CONCLUSION

The present study examined the antecedents of perception of employment opportunities and academic achievement. The authors employed structural equation modeling to evaluate the hypotheses and found that general self-efficacy, perceived social support, and state of hope predicted perception of employment opportunities. In addition, state of hope and core self-evaluations predicted academic achievement in our model. Using analysis of variance procedures we did not find any gender differences.

The findings of this study may help student affairs personnel better understand the factors that influence the perception of employment opportunities and academic achievement of college students. College administrators and professional advisors may consider designing programs that assist college students in improving their academic achievement and better prepare them for future jobs by holding regular workshops and mentoring programs aimed at increasing self-efficacy, social support, hope, and core self-evaluations. For instance, recent alumni who graduated from the school and are gainfully employed could be asked to come and share their work and academic experiences with current students in an effort to help them develop a practical understanding of the job market.

There are several limitations to our study that needed to be acknowledged. For instance, the use of self-report measures to collect our data may have led to the problem of method bias

and inflated the predicted relationships among the exogenous and endogenous variables. Also, our modest sample size ($n = 200$) prevented us from conducting comparisons across majors and colleges and may limit the generalizability of our findings. Despite these limitations, our findings contribute to the existing body of knowledge because identifying the factors that influence perception of employment opportunities and academic achievement may be useful to student affairs professionals, university placement center professionals, and faculty and staff of higher learning organizations. Another contribution of our research is that we used a large sample of African-Americans, which adds to the richness of the extant literature.

Future research is needed to determine whether perception of employment opportunities and academic achievement differs across colleges and majors. Antedoctal evidence suggests this is the case as business and nursing majors have been in demand despite the recession and sluggish economy as compared to other college majors. Another research avenue would be to conduct a subscale analysis of the Core Self-Evaluations scale to better understand this construct and its influence on our endogenous variables. Finally, investigating the influence of these constructs across historically black universities and predominantly white universities may be of some importance to both scholars and practitioners, especially those with an interest in careers and placement.

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Appendix A

Perception of Employment Opportunities Scale						
Please circle the one number for each statement that comes closest to reflecting your opinion about it.	Strongly Disagree				Strongly Agree	
1. I expect to obtain a job before I graduate from college	1	2	3	4	5	
2. For my college major, the employment opportunities look pretty good	1	2	3	4	5	
3. I believe there will be a job for me when I graduate from college.	1	2	3	4	5	
4. There will be job opportunities available for me upon graduation.	1	2	3	4	5	
5. I will be able to find a job by using the career service of my university.	1	2	3	4	5	
6. I have a family member who can help me to find a job.	1	2	3	4	5	
7. Students who participate in internships often are hired by the sponsoring company.	1	2	3	4	5	
8. If offered an interview, I believe that I can successfully perform.	1	2	3	4	5	