

**Student Engagement: Comparing College Prep Students with Non College Prep  
Students in a Historically Black College and University**

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## **Introduction**

Since the introduction of the National Survey of Student Engagement (NSSE) in 1999, Student engagement has gradually become a common language in the national dialogue and research literature regarding student college experiences and higher education quality (Pike, Kuh, & Gonyea, 2003; Pike, 2004; Ku & Hu, 2001; Kuh, 2001). The NSSE is based upon the premise that the more students engage in a educationally purposeful activities; the more learning actually takes place (National Survey of Student Engagement, 2002 Annual Report). Student Engagement reflects two critical dimensions: student dimension manifested by the amount of time and effort students put into their studies and other educationally purposeful activities, and institution dimension as to how the institution carries out practices and policies to engage students in educationally purposeful activities. A large body of research has used the National Survey of Student Engagement in conjunction with institutional data to reveal the linkage between student college attending experiences, institutional practices and policies at various levels and their impacts on student success.

Research has suggested strong connections between student engagement and various types of student outcomes (e.g, Ory & Braskamp, 1988; Pike, 2000; Delvin, 1996; Paul & Kelleher, 1995; Jones & Watt, 1999; Liddell & Davis, 1996; Harper, 2004;

Braxton, Milem, & Sullivan, 2000). In general it was found that active engagement has positive impacts on various student outcomes. Kuh, Schuh, Whitt, etc. (1991) concluded that “The research is unequivocal: students who are actively involved in both academic and out-of-class activities gain more from college than those who are not so involved”. Research supports the belief that student engagement, both inside and outside of the classroom positively correlated with several desired outcomes of the college experience, such as acquisition of academic skills, vocational outcomes, intellectual growth, and personal development.

Given the indisputable connections between student engagement, satisfaction, gains, and outcomes, it is important to systematically examine student engagement to determine what the good practices are and improve upon what is not working at any institution, especially Historically Black Colleges and Universities (HBCU). Over the last 25 years, the college experiences of African American students have received some attention in the higher education literature. Quite a few studies have been conducted to compare the college experiences and student outcomes of African American students attending Historically Black Colleges and Universities to the same race peers attending Predominantly White Institutions (PWI) (e.g., DeSousa & Kuh, 1996; Cokley, 1999; Flowers & Pascarella, 1999; Watson & Kuh, 1996; Fleming, 1984; Berger & Milem, 2000). These studies indicate that African American students on HBCU campuses are generally more engaged than their same race peers attending PWIs. African American students devote more effort to academic

activities, experience more significant gains in intellectual development, critical thinking, and cultural awareness, and enjoy greater personal and social benefits than African Americans at PWIs (DeSousa & Kuh, 1996). These comparative studies also suggest that HBCUs use culturally appealing venues to provide better learning environments for African American undergraduates.

The comparison of college experiences, engagement-related outcomes of African American students between HBCUs and PWIs have been widely studied, but only very limited number of empirical research has considered within-group differences at HBCUs. For example, Harper, Carini, Bridges, & Hayek (2004) compared the student engagement of male and female African American undergraduate at HBCUs. Much has yet to be done to study how students spend their time in their studies and other educationally purposeful activities, especially differences in student subgroups within HBCUs; and how HBCUs deploys their resources and carry out practices and policies to engage students in educationally purposeful activities.

Building on previous research, this study examines the overall experiences of students attending Florida A&M University, an HBCU, in general, and the difference in student engagement between College Prep students and Non College Prep Students in particular. Florida A&M University was the only one of the 11 state universities in the state of Florida that was granted the special privilege by the Florida Legislature to

offer college prep courses to some students who would have otherwise be required to attend a community college.

### **Research Methods**

This study uses regression analysis to examine the differences in student engagement between College Prep students and non College Prep students. The main data source is the survey results of National Survey of Student Engagement administered in Spring 2008 at Florida A&M University. Several institutional databases including Admissions Files, Student Data Course Files, and College Prep files, are also merged with NSSE data to get additional data for this study.

The dependent variables consist of 6 variables: five NSSE benchmark scores and the overall engagement score which is the sum of five benchmark scores. The five benchmarks include Level of Academic Challenge, Active and Collaborative Learning, Enriching Educational Experience, Student-Faculty Interaction, and Supportive Campus Environment.

The independent variables include: gender, race, age, class level, type of student at most recent admission, high school GPA, SAT score, college GPA, student type in terms of College Prep or not, housing, and course load. Gender, race, age, class level, type of student at most recent admission, student type in terms of College Prep or not, and housing are categorical variables, thus dummy variables are created for these

variables. The base lines that are compared against for these dummy variables are male for gender, African American for race since most students at this university are African Americans, freshman for class level, FTIC for student type, on-campus housing for housing, and non college prep for student type. Age, High School GPA, SAT score, College GPA, and course load are ratio variables.

## Results

Table 1 below summarizes the results of descriptive analysis of the student sample. As indicated in this table, 96 percent of the sample was African American and all other ethnicity groups filled the remaining 4 percent. 67 Percent were female and 33 percent were male students. 93 Percent of the students came in as First Time In College Students and the remaining 7 percent came in as other types such as transfers. 55 percent are seniors and the rest are freshmen. 28 percent of sampled students live on campus and 75 percent live off campus. The average age, High School GPA, SAT score, College GPA were 22.7, 3.17, 935, 2.78 respectively. Compared to regular admitted students, college prep students appear to have larger percent of African American (97% vs. 94%), female (73% vs. 62%), and first time in college students (96% vs. 89%). College prep students have lower average SAT score (839 vs. 1019), high school GPA (3.04 vs. 3.28) and college GPA (2.64 vs. 2.91).

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Table 1: Descriptive Analysis

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		Non College Prep	College Prep	All
Variables		Percent/Mean		
Race or ethnicity	African American/Black	94.35%	97.48%	95.81%
	American Indian/Alaska Native	0.74%	0.84%	0.79%
	Asian/Pacific Islander	1.47%	0.28%	0.92%
	Caucasian/White	1.23%	0.84%	1.05%
	Hispanic	1.97%	0.56%	1.31%
	Foreign	0.25%	0.00%	0.13%
	Unknown	0.30%	0.00%	0.18%
	Gender	Male	37.84%	26.61%
Female		62.16%	73.39%	67.41%
Student	FTIC	89.93%	96.36%	92.93%
Admission Type	Junior Transfer	2.21%	1.40%	1.83%
	Other College Transfer	3.69%	0.28%	2.09%
	Other	4.18%	1.96%	3.14%
Class Rank	Freshman/First-year student	45.21%	44.54%	44.90%
	Senior	54.30%	55.18%	54.71%
Housing	Dormitory or other campus housing	28.01%	28.01%	28.01%
	Residence (house, apartment, etc.) within WALKING DISTANCE	15.72%	11.48%	13.74%
	Residence (house, apartment, etc.) within DRIVING DISTANCE	56.02%	60.50%	58.12%
	Fraternity or sorority house	0.25%	0.00%	0.13%
Age		22.6	22.9	22.7
SAT		1019	839	935
High School GPA		3.28	3.04	3.17
College GPA		2.91	2.64	2.78
N		407	357	764

The regression analysis results for overall engagement and five benchmarks are shown in Tables 2-7 below. The results indicated that College Prep students do not differ significantly than Non College Prep students on the overall engagement

score and four of the five benchmark scores. However, College Prep students have significantly higher score on the Student-Faculty Interaction benchmark.

Table 2: Regression Analysis: Overall Engagement

Variable		B	Sig.
Gender	Female	-8.661	.459
Race	Asian	-66.658	.103
	White	-49.710*	.017
	Hispanic	-4.602	.909
	Unknown	-4.161	.953
Age	Year Old	.646	.489
High School GPA		.040	.185
SAT		-.032*	.025
College GPA		19.185	.072
Course Load		6.158***	.001
Housing	Off Campus Walking Distance	26.452	.415
	Off campus Driving Distance	25.547	.380
Student Admission Type	Other	6.942	.775
	Other Transfers	-16.847	.163
Student Level	Senior	20.986	.165
Student Type	College Prep	29.992	.285
*p <= .05	** p <= .01	*** p <= .001	



Table 3: Regression Analysis: Level of Academic Challenge

Variable		B	Sig.
Gender	Female	1.637	.450
Race	Asian	3.762	.624
	White	-7.205	.066
	Hispanic	-1.857	.807
	Unknown	-10.132	.443
Age	Year Old	.100	.571
High School GPA		-.001	.898
SAT		.002	.369
College GPA		3.428	.083
Course Load		.492	.154
Housing	Off Campus Walking Distance	8.724	.154
	Off campus Driving Distance	10.950*	.046
Student Admission Type	Other	3.356	.466
	Other Transfers	-1.666	.456
Student Level	Senior	-3.297	.244
Student Type	College Prep	.913	.861
*p <= .05	** p<= .01	*** p <= .001	

Table 4: Regression Analysis: Active and Collaborative Learning

Variable		B	Sig.
Gender	Female	-3.255	.274
Race	Asian	-14.862	.156
	White	-9.049	.090
	Hispanic	-3.444	.738
	Unknown	-5.333	.767
Age	Year Old	-.104	.665
High School GPA		.011	.151
SAT		-.002	.568
College GPA		6.300*	.021
Course Load		.975*	.038
	Off Campus Walking	10.513	.208
	Distance		
Housing	Off campus Driving	7.191	.334
	Distance		
Student Admission Type	Other	.834	.894
	Other Transfers	-7.171*	.019
Student Level	Senior	6.272	.104
Student Type	College Prep	5.740	.421
*p <= .05	** p<= .01	*** p <= .001	

Table 5: Regression Analysis: Enriching Educational Experiences

Variable		B	Sig.
Gender	Female	.930	.750
Race	Asian	-12.910	.211
	White	-7.235	.168
	Hispanic	-.727	.943
	Unknown	-9.443	.594
Age	Year Old	.156	.508
High School GPA		.011	.139
SAT		-.007*	.046
College GPA		4.210	.112
Course Load		1.371**	.003
Housing	Off Campus Walking Distance	1.007	.902
	Off campus Driving Distance	3.454	.638
Student Admission Type	Other	1.114	.856
	Other Transfers	-.872	.771
Student Level	Senior	8.474*	.027
Student Type	College Prep	5.007	.475

\*p <= .05      \*\* p<= .01      \*\*\* p <= .001

Table 6: Regression Analysis: Student-Faculty Interaction

Variable		B	Sig.
Gender	Female	-5.466	.111
Race	Asian	-26.125*	.032
	White	-17.753	.004
	Hispanic	-6.494	.586
	Unknown	27.168	.193
Age	Year Old	.237	.392
High School GPA		.011	.213
SAT		-.012**	.005
College GPA		5.844	.062
Course Load		1.879***	.001
	Off Campus Walking	4.604	.631
	Distance		
Housing	Off campus Driving	5.032	.559
	Distance		
Student Admission Type	Other	-5.141	.477
	Other Transfers	-2.658	.453
Student Level	Senior	4.633	.300
Student Type	College Prep	18.705*	.024
*p <= .05	** p<= .01	*** p <= .001	

Variable		B	Sig.
Gender	Female	-4.429	.223
Race	Asian	-13.927	.280
	White	-8.365	.202
	Hispanic	8.682	.495
	Unknown	-.190	.993
Age	Year Old	.220	.456
High School GPA		.012	.198
SAT		-.014**	.002
College GPA		.107	.974
Course Load		1.140*	.049
	Off Campus Walking	-3.516	.731
	Distance		
Housing	Off campus Driving	-3.796	.678
	Distance		
Student Admission Type	Other	7.061	.360
	Other Transfers	-6.257	.095
Student Level	Senior	2.949	.533
Student Type	College Prep	2.393	.784

\*p <= .05      \*\* p<= .01      \*\*\* p <= .001

### Conclusions and Implications

The results indicated that College Prep students do not differ significantly than Non College Prep students on the overall engagement score and four of the five benchmark scores. However, College Prep students have significantly higher score on the Student-Faculty Interaction benchmark.

On the overall engagement score, only race, SAT score, and course load have significant effects. Interesting enough, in this historically black university, students of all other races have lower engagement scores comparing to African American students, but the difference is significant only for white students. Students with higher SAT scores are less engaged than those with lower SAT scores. Students taking more credit hours are more engaged than those taking fewer hours. College prep students do have higher overall engagement scores compared to regular students, but the difference is not significant.

On the benchmark of Level of Academic Challenge, none of the factors makes a difference except where students live. Students living on campus are more engaged than those living off campus within driving distance. Again, college prep students do have higher engagement scores on this benchmark compared to regular students, but the difference is not significant.

On the benchmark of Active and Collaborative Learning, only college GPA, course load, and student type at most recent admission have significant effects. Students with higher college GPA and those taking more credit hours are more engaged than others. Other undergraduate transfers are found less engaged than FTICs. Again, college prep students do have higher engagement scores on this benchmark compared to regular students, but the difference is not significant.

On the benchmark of Enriching Educational Experience, only SAT, course load, and student class level make a difference. Students with lower SAT score and

those taking more credit hours tend to more engaged than other students. Seniors are more engaged than freshmen. Again, college prep students do have higher engagement scores on this benchmark compared to regular students, but the difference is not significant.

On the benchmark of Student-Faculty Interaction, race, SAT, course load, and college prep or non college prep make significant differences. Students of other races are found less engaged than African Americans, especially for white and Asian, the difference is significant. Students with lower SAT scores and those taking more hours are more engaged than others. College Prep students are more engaged than non college prep students.

On the benchmark of Supportive Campus Environment, only SAT and course load make differences. Same pattern is once again shown that Students with lower SAT scores and those taking more hours are more engaged than others. College prep students do have higher engagement scores on this benchmark compared to regular students, but the difference is not significant.

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