The Effects of Engagement in High School and Expectations for College Engagement on College Engagement

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Purpose of the Study

The positive relationships of college engagement with student persistence, graduation, and satisfaction have been generally accepted by researchers and practitioners for the past thirty years.

Much emphasis has been placed on the college’s role in fostering college engagement.

Despite considerable college programming intended to increase college engagement, little progress has been seen in improving national retention or graduation trends or the levels of college engagement.

Are colleges responsible for fostering college engagement or are students themselves predisposed to a level of engagement before they reach college and are colleges simply selecting these students via their admissions processes?
Purpose of the Study

No prior study has adequately examined high school student engagement and their expectations for college engagement and their relationships with college engagement across a national sample.

This study proposes a comprehensive model of engagement and tests the model to contribute a more complete understanding of the student-level factors that contribute to college engagement to the body of extant research.
An Expansion of Astin’s I-E-O Model

Input
Environment
Output/Input
Environment
Output
High School
College
Research Questions

Q1 To what extent are student-level characteristics, including high school engagement and expectations for college engagement, related to students’ college engagement?

Q2 To what extent are institutional characteristics related to institutions’ college engagement means after controlling for student characteristics and high school engagement and expectations for college engagement?

Q3 To what extent do institutional characteristics influence the relationship between student-level characteristics, including high school engagement and expectations for college engagement, and college engagement?
Theoretical Model

Level 1

- High School Characteristics
- Academic Preparation
- Demographic Traits
- High School Engagement
- Expected College Engagement

Level 2

College Characteristics

College Engagement
HLM Models Employed

- **Model 1** was an “intercepts only” or “null” model developed to determine the amount of variance attributable to both the student and the college characteristics.

- **Model 2** was a single level HLM model to determine the amount of variance explained by the traditional student-level characteristics.

- **Model 3** was the same as Model 2 but also included high school engagement and expected college engagement characteristics to determine the amount of variance attributable to these characteristics.

- **Model 4** was a 2-level “intercepts as outcomes” HLM model to determine how much of the variance was attributable to the college characteristics.

- **Model 5** was the same as Model 4 which used standardized z-scores to assess relative effect sizes of student- and college-level characteristics.

- **Model 6** explored the variation in the student-level characteristics to determine whether there was a potential relationship between the student-level and college-level characteristics.

- **Model 7** was a “slopes as outcomes” model using those relationships determined as significant from Model 6.
Sample

- Data from the 2007, 2008 and 2009 administrations of the BCSSE and the 2008, 2009 and 2010 administrations of the NSSE.

- 47,605 students completed both the BCSSE at the beginning of their first year of college and the NSSE at the end of their first year.

- A random sample of 15,000 student records from 195 colleges was selected, and of these records, 8,621 from 179 colleges remained in the sample after eliminating missing data and institutions which were beyond the scope of this study.
HS Engagement & Expected College Engagement Variables

High School Academic Engagement
8 items, $\alpha = .732$

High School Co-Curricular Engagement
8 items, Count of Activities

Expected College Student-Faculty Engagement
6 items, $\alpha = .786$

Expected College Co-Curricular Activities
3 items, $\alpha = .780$
First-Year College Engagement Variables

Academic Challenge
11 items, $\alpha = .74, .73, .73$

Student Faculty Interaction
6 items, $\alpha = .72, .71, .71$

Supportive Campus Environment
6 items, $\alpha = .79, .79, .79$

Active and Collaborative Learning
7 items, $\alpha = .68, .66, .67$

Enriching Educational Experience
12 items, $\alpha = .62, .59, .60$
RESULTS
Research Question #1

To what extent are student-level characteristics, including high school engagement and expectations for college engagement, related to students’ college engagement?

- Student level characteristics explain at least 90% of the variance for all 5 NSSE Benchmarks.
- Traditionally included student-level characteristics explained little of the level-1 variance (less than 2%).
- Addition of high school engagement and expected college engagement explained 5 to 17 additional percentage points.
Research Question #2
To what extent are institutional characteristics related to institutions’ college engagement means after controlling for student characteristics and high school engagement and expectations for college engagement?

- While college-level characteristics explained relatively small amounts of the overall variance seen in the NSSE Benchmarks, the characteristics included in the study explained 43.3% to 60.8% of the level-2 variance.
- Of the college-level characteristics, being private was the only characteristic that exhibited a significant relationship across all benchmarks.
Research Question #3

To what extent do institutional characteristics influence the relationship between student-level characteristics, including high school engagement and expectations for college engagement, and college engagement?

- The study was unable to find any significant relationships between the college-level characteristics and the student-level characteristics.
Conclusions

- Student-level characteristics are responsible for the majority of first-year college engagement.
- High school engagement and expected college engagement have larger relationships with college engagement benchmarks than traditional bio-demographic or academic student-level variables or college-level characteristics.
- The relationships between the college-level characteristics and the student-level characteristics are limited in their effect on college engagement.
Implications for Research

• There is value in developing and refining instruments to assess engagement in high school and expected college engagement.

• Studies of engagement should span both high school and college environments using multilevel modeling.

• Studies of persistence and graduation should incorporate measures of high school engagement and expected college engagement.

• Research on high school outcomes should be expanded to include measures of high school engagement and expected college engagement.
Implications for Practice

• High schools should place greater emphasis on fostering an engaged experience for all students.

• High schools and colleges should partner to increase levels of expected college engagement.

• Colleges should incorporate levels of high school engagement and expected college engagement in their enrollment planning and student support programming.

• Policy makers should incorporate high school engagement and expected college engagement as desired outcomes of high school and as necessary prerequisites for college success.
Questions?

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