



The Student Element in Engagement

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Overview

- Background
- Research Questions
- Methods
- Findings
- Implications



The Challenge

How can we improve student engagement in both the academic and co-curricular realms?

Why is this important, especially now?




Background

- Student Involvement
 - Astin
 - Pace
 - Tinto
- Impact of Previous Behavior
 - Bandura
 - Camara
 - Astin & Oseguera



CIRP Freshmen Survey

- Asks first-time freshman about their background and plans. Creates a “snapshot” of the class cohort.
- Baseline data (inputs) for institutions
 - Academic performance and ability
 - Past behaviors during the senior year of high school
 - Future behaviors, expectations, plans
 - Values and goals
 - demographic/background questions



National Survey of Student Engagement (NSSE)

- Asks first year and senior students to evaluate the degree to which they are “engaged” in their college experience.
- student engagement = institutional quality?
 - It’s a popular idea:
 - Government (State & Federal)
 - Accreditation agencies
 - Publications (*U.S. News & World Report, USA Today*)
 - Associations (NASULGC, AASCU)



Research Questions

To what degree do changes in the behavioral and attitudinal characteristics of high school seniors affect freshman engagement?



Research Questions

1. What are the associations between student profile and engagement?
2. How much of engagement can be predicted by student traits?
3. How much of this is stable between institutions?

Two Research Institutions

Fall 2006 data



UGA

- 25,000 undergraduates
- 5059 FTF
- 62% female
- 85% GA resident
- 80% Caucasian
- 14% STEM majors



GT

- 12,300 undergraduates
- 2594 FTF
- 30% female
- 61% GA resident
- 69% Caucasian
- 82% STEM majors



Data Sources

- Institutional demographic data
- 2006 CIRP Freshmen Survey
- 2007 NSSE



Independent Variables

- CIRP factor scales
 - The full set of CIRP responses from both schools were used to generate factors (n=2,930)
 - Select factors were then used in the model
- Demographic variables
 - gender, ethnicity, SAT scores
- Control variables
 - Institution, STEM major



Dependent Variables

- NSSE benchmarks
 - Level of Academic Challenge (LAC)
 - Active and Collaborative Learning (ACL)
 - Student Faculty Interaction (SFI)
 - Enriching Educational Experiences (EEE)
 - Supportive Campus Environment (SCE)



Factor Analysis

- Principal factor extraction run on CIRP question groupings
 - activities in past year, hours per week in past year, self-ratings, future plans/ expectations, goals, political views
- Factors from Activities in past year and future plans/expectations were used in the model
(Handout: Table 3)
- Scales derived from items in factors



Regression Model

- OLS Stepwise Regression
 - Variables with significant contributions included in models
 - Institution as fixed control
 - $n=382$



Regression Results

- OLS regression on the NSSE benchmarks
(Handout: Table 4)
- Noted results:
 - Past: Engagement
 - Past: News Hound
 - Past: Disaffected
 - Institution & Demographics



Results – Past Engagement

- Students who were engaged in high school tend to be engaged in college
- Past Engagement predicted four Benchmarks
 - LAC, ACL, SFI, EEE
 - Coefficients: +5.26 to +7.52



Results – News Hound

- Students who read newspapers or news online are generally more engaged
- News Hound predicted all five Benchmarks
 - Strongest: LAC, SCE, SFI
 - Coefficients: +2.56 to +6.13



Results - Disaffected

- Those 'Disaffected' in *high school* less likely to perceive a supportive environment; less active learning activity, lower academic challenge
- Disaffected students predicted three Benchmarks
 - LAC, ACL, SCE
 - Coefficients -3.51 to -8.06



Results – Institution & Ethnicity

- Institution
 - Significant differences, contributions on LAC, ACL, EEE
- Ethnicity: Black/Hispanic
 - Higher SFI, SCE



Conclusions

- Engaged students in high school are most likely to be engaged in college
- Engagement is a function of student inputs interacting with the campus environment, and both areas should be studied
- Past behavior and attitudes are a good predictor of future engagement



Future Research

- Add additional cohorts to increase power
- Look at broader range of institutions, institution traits
- Examine CIRP effects on college seniors' engagement
- Continue to understand the role of student inputs when planning for activities and initiatives
- Can results be used to inform admissions?

QUESTIONS ??

Copies of our paper and presentation may be found at:

**www.assessment.gatech.edu or
www.oir.uga.edu**

