Do High Achieving Students Benefit from Honors College Participation? A Look at Student Engagement for First-Year Students and Seniors

Angie L. Miller, Ph.D.
Indiana University Bloomington

Amber D. Dumford, Ph.D.
University of South Florida
• Many models in gifted education that address origins, development, and functioning include an **environmental** component

• Important to look at role of “nurture”

• Also important to look at the effectiveness of these models across all ages
INTRODUCTION

Star Model (Tannenbaum, 2003)

Figure 1.2. The Five Factors That “Mesh” Into Excellence

Many variations in organization and implementation
  - Admissions criteria, starting status, curricular requirements, living options

Basic common components in majority of Honors Colleges/programs:
  - Special versions of gen. ed. courses, small class size, advanced courses (colloquia, seminars)

Many also feature:
  - Interdisciplinary courses; choice of major; final thesis, capstone, creative project; special residence halls or study rooms
National Survey of Student Engagement (NSSE)

• NSSE gives a snapshot of college student experiences in and outside of the classroom by surveying first-year and senior students

• NSSE items represent good practices related to desirable college outcomes

• Indirect, process measures of student learning and development
Higher-Order Learning
Reflective & Integrative Learning
Learning Strategies
Quantitative Reasoning
Collaborative Learning
Discussions with Diverse Others
Student-Faculty Interaction
Effective Teaching Practices
Quality of Interactions
Supportive Environment
This study extends research on the importance of specialized programming and curriculum for gifted individuals to those at the college level.

- Are students who participate in Honors Colleges/programs higher on a variety of aspects of engagement, even after controlling for other demographic and institutional characteristics?
National Survey of Student Engagement (NSSE)

In 2015, more than 300,000 first-year and senior respondents from 541 four-year colleges and universities

Reasons for participation vary:

– National and regional accreditation
– Departmental/program reviews
– Curricular reform (general education)
– Institutional improvement efforts (e.g., retention rates, high-impact practices, FYE programming)
Limited to:

- 15 four-year institutions
- First-year and senior students (n=8,530)
- Experimental item set with additional demographic items appended to core survey

<table>
<thead>
<tr>
<th></th>
<th>Valid %</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-generation</td>
<td>47%</td>
</tr>
<tr>
<td>Traditionally-aged</td>
<td>80%</td>
</tr>
<tr>
<td>Female</td>
<td>60%</td>
</tr>
<tr>
<td><strong>Race/ethnicity</strong></td>
<td></td>
</tr>
<tr>
<td>Asian, Asian American</td>
<td>7%</td>
</tr>
<tr>
<td>Black, African American</td>
<td>12%</td>
</tr>
<tr>
<td>Latino, Hispanic</td>
<td>13%</td>
</tr>
<tr>
<td>White</td>
<td>55%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th># of institutions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td>8</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;2,500</td>
<td>4</td>
</tr>
<tr>
<td>2,500-4,999</td>
<td>2</td>
</tr>
<tr>
<td>5,000-9,999</td>
<td>3</td>
</tr>
<tr>
<td>&gt;10,000</td>
<td>5</td>
</tr>
<tr>
<td><strong>Carnegie type</strong></td>
<td></td>
</tr>
<tr>
<td>Research/Doc</td>
<td>7</td>
</tr>
<tr>
<td>Master’s</td>
<td>5</td>
</tr>
<tr>
<td>Bac. colleges</td>
<td>3</td>
</tr>
</tbody>
</table>
Are you currently in an honors program or honors college at your institution?*

- No
- Yes
- Not applicable, to my knowledge my institution does not have an honors program or college**

*Those who responded “Yes” were recoded to create a dichotomous “Honors participant” flag (16% of respondents)

**Schools with high percentages of “not applicable” were researched to verify existence of Honors programs, and dropped if no evidence was found
METHODS

OLS regression models (20 total)

– Each of 10 Engagement Indicators as DV
– Separate models for FY and SR
– Controlling for student and institutional characteristics known to relate to student engagement
– All categorical variables were dummy-coded
– Honors College variable was entered as second step of model to examine unique variance
– Multicollinearity check: all VIF values below 3
OLS Independent Variables

Student demographics
- First-generation
- Age
- Gender
- Race/Ethnicity
- ACT/SAT score

College experiences
- Enrollment status
- Took all courses online
- Major field
- College grades
- Transfer student

Institutional context
- Control
- Institution size

*Honors College participation
## RESULTS: FIRST-YEAR MODELS

<table>
<thead>
<tr>
<th>DV Engagement Indicator</th>
<th>Adj. R²</th>
<th>ΔR²</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher-Order Learning</td>
<td>.037***</td>
<td>.001</td>
<td>.030</td>
</tr>
<tr>
<td>Reflective &amp; Integrative Learning</td>
<td>.037***</td>
<td>.005***</td>
<td>.074***</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>.050***</td>
<td>&lt;.001</td>
<td>.020</td>
</tr>
<tr>
<td>Learning Strategies</td>
<td>.066***</td>
<td>.003**</td>
<td>.057**</td>
</tr>
<tr>
<td>Collaborative Learning</td>
<td>.031***</td>
<td>.002**</td>
<td>.052**</td>
</tr>
<tr>
<td>Discussions with Diverse Others</td>
<td>.035***</td>
<td>.002*</td>
<td>.044*</td>
</tr>
<tr>
<td>Student-Faculty Interaction</td>
<td>.068***</td>
<td>.007***</td>
<td>.090***</td>
</tr>
<tr>
<td>Effective Teaching Practices</td>
<td>.032***</td>
<td>&lt;.001</td>
<td>.017</td>
</tr>
<tr>
<td>Quality of Interactions</td>
<td>.042***</td>
<td>.001</td>
<td>.026</td>
</tr>
<tr>
<td>Supportive Environment</td>
<td>.017***</td>
<td>&lt;.001</td>
<td>.006</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001
## RESULTS: SENIOR MODELS

<table>
<thead>
<tr>
<th>DV Engagement Indicator</th>
<th>Adj. R²</th>
<th>ΔR²</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher-Order Learning</td>
<td>.037***</td>
<td>&lt;.001</td>
<td>-.017</td>
</tr>
<tr>
<td>Reflective &amp; Integrative Learning</td>
<td>.092***</td>
<td>&lt;.001</td>
<td>.007</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>.106***</td>
<td>&lt;.001</td>
<td>.014</td>
</tr>
<tr>
<td>Learning Strategies</td>
<td>.046***</td>
<td>&lt;.001</td>
<td>-.007</td>
</tr>
<tr>
<td>Collaborative Learning</td>
<td>.097***</td>
<td>&lt;.001</td>
<td>-.009</td>
</tr>
<tr>
<td>Discussions with Diverse Others</td>
<td>.020***</td>
<td>&lt;.001</td>
<td>.020</td>
</tr>
<tr>
<td>Student-Faculty Interaction</td>
<td>.108***</td>
<td>.003**</td>
<td>.059**</td>
</tr>
<tr>
<td>Effective Teaching Practices</td>
<td>.047***</td>
<td>&lt;.001</td>
<td>-.020</td>
</tr>
<tr>
<td>Quality of Interactions</td>
<td>.036***</td>
<td>&lt;.001</td>
<td>.007</td>
</tr>
<tr>
<td>Supportive Environment</td>
<td>.039***</td>
<td>&lt;.001</td>
<td>-.002</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001
DISCUSSION

• Honors College participation was a positive predictor of several aspects of student engagement for first-year students:
  – Reflective and integrative learning
  – Use of learning strategies
  – Collaborative learning
  – Diverse discussions
  – Student-faculty interaction

• For seniors, however, Honors College participation only predicted student-faculty interaction
DISCUSSION

• Potential reasons for class-level differences in patterns of results:
  – More lower-division honors courses, seniors may be more focused on (non-honors) major requirements
  – Smaller class sizes for all seniors, not just those in Honors
  – Senior thesis/capstone requirement still means more student-faculty interaction
DISCUSSION

• So is Honors College participation “worth it” for students?
• Probably depends on goals
  – Acceleration vs. enrichment experiences
  – Importance of the “community” of high ability learners (college version of self-contained classroom)

• If applying to colleges, learn more about specific aspects of Honors participation (not just whether they have one)
• Might get similar experiences from smaller, selective private school
LIMITATIONS

• Honors College students are high achieving, which is not exactly the same as gifted
  – Research with K-12 populations may not always transfer
• Self-reported data
• Self-selection: for institutions and students
• Low explained variance and small effect sizes
• Correlational, not causal design
FUTURE RESEARCH

• High impact practice participation
• Institution-level variance?
• Other constructs of potential influence: achievement goal orientation and personality traits
• Faculty who teach honors courses – how do they encourage engagement?
• Link to outcomes: job attainment and career plans
• Other suggestions?
Questions & Comments?

Angie L. Miller
anglmill@indiana.edu

Amber D. Dumford
dumford@usf.edu