IMPACT OF WORKING ON FIRST-YEAR ACADEMIC PERFORMANCE

Theresa Hitchcock – Project Associate
Jim Cole – BCSSE Project Manager
Tiffani Butler – Project Associate
Center for Postsecondary Research
Indiana University
Overview

- Working and academic performance
- Research questions
- Method
- Results
- Discussion
Why do students work?

- Tuition rose 51% from 1995-2005 at four year public institutions (Department of Education 2006)
- 1/3 of all parents of college students have saved for their student’s college education (AllianceBerstein, 2006)
- 73% of college students receive loans and/or grants (College Board, 2006)
- 80% of respondents in 2006 study worked to earn spending money (Dunes, 2006)
Working and Academic Performance

- In 2000, 57% of college students worked while in school (Orzag, et al., 2001)
- Working had little negative impact on college student academic performance (Nonis & Hudson, 2006)
- Students working 10-19 hours a week had the highest GPA (Dunnes, 2006)
- Female students have overall better GPA in college than male students (NSSE Annual Report, 2008)
- Research needed to examine genders differences in the relationship between working and academic performance
Research Questions

- What is the relationship between work and high school academic performance for males and females?
- What is the relationship between work and expected first year academic performance for males and females?
- What is the relationship between work and first year academic performance for males and females?
Method

- Beginning College Survey of Student Engagement (BCSSE)
  - Administered to incoming first year students about expectations and preparation for college
  - National survey
  - Locally administered
Method

National Survey of Student Engagement (NSSE)

- National Survey
- Surveys first year and senior students regarding their engagement in effective educational practices
Method

Student and Institutional Characteristics

Student characteristics
- n = 15,570
- 68% female
- 75% White; 8% Black/Afr. Am; 5% Asian; 5% Hispanic; 7% other
- 36% are first-generation students

Institutional characteristics
- 62% private
- 18% doctoral; 46% Master’s; 25% Baccalaureate; 11% other
- Mean undergraduate enrollment: 6,011
## Results

What is the relationship between work and high school academic performance for males and females?

<table>
<thead>
<tr>
<th></th>
<th>HS Work (hrs)</th>
<th>HS GPA</th>
<th>SAT/ACT</th>
<th>HS Acad Engage(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>9.9</td>
<td>3.6</td>
<td>1109</td>
<td>5.5</td>
</tr>
<tr>
<td>Male</td>
<td>9.3</td>
<td>3.4</td>
<td>1135</td>
<td>5.2</td>
</tr>
</tbody>
</table>

\(^1\) High Academic Engagement scores range from 0 (no engagement) to 10 (very high engagement)
Work and High School GPA

HS GPA (self-reported)

- Female
- Male

Hours worked during senior year of high school:
- 0 hrs
- 1 to 10
- 11 to 20
- 21 +
Work and SAT/ACT

- **Female**
- **Male**

SAT/ACT scores vs. Hours worked during senior year of high school:
- 0 hrs
- 1 to 10
- 11 to 20
- 21 +

<table>
<thead>
<tr>
<th>Hours worked</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 hrs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 to 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 +</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Work and HS Academic Engagement

High School Acad Engagement

Female

Male

0 hrs 1 to 10 11 to 20 21 +

Hours worked during senior year of high school
## Results

- **What is the relationship between work and expected first year academic performance for males and females?**

<table>
<thead>
<tr>
<th></th>
<th>Expected Work (hrs)</th>
<th>Expected GPA</th>
<th>Expected Academic Engagement</th>
<th>Academic Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>8.5</td>
<td>3.38</td>
<td>6.0</td>
<td>7.0</td>
</tr>
<tr>
<td>Male</td>
<td>8.2</td>
<td>3.41</td>
<td>5.9</td>
<td>7.1</td>
</tr>
</tbody>
</table>

1 Academic Preparation scores range from 0 (no engagement) to 10 (very high engagement)
Expected FY Work and Expected FY GPA

- Female
- Male

Expected FY Grades

0 hrs | 1 to 10 | 11 to 20 | 21 +

Expected hours worked during FY
Expected FY Work and Acad. Engagement

- Female
- Male

Expected hours worked during FY:
- 0 hrs
- 1 to 10
- 11 to 20
- 21 +
Results

What is the relationship between work and first year academic performance for males and females?

<table>
<thead>
<tr>
<th></th>
<th>FY Work (hrs)</th>
<th>First Year GPA</th>
<th>Gains in General Education(^1)</th>
<th>Overall Satisfaction(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>6.6</td>
<td>3.31</td>
<td>70.9</td>
<td>75.0</td>
</tr>
<tr>
<td>Male</td>
<td>6.3</td>
<td>3.23</td>
<td>67.5</td>
<td>73.5</td>
</tr>
</tbody>
</table>

\(^1\) Gains in General Education and Overall Satisfaction scores range from 0 (none) to 100 (very high)
FY Work and GPA

FY GPA (self-reported)

- Female
- Male

FY hours worked

0 hrs | 1 to 10 | 11 to 20 | 21 +
FY Work and Gains in General Education

- **Female**
- **Male**

**Gains in General Education**

**FY hours worked**

- 0 hrs
- 1 to 10
- 11 to 20
- 21 +
FY Work and Overall Satisfaction

Overall Satisfaction

FY hours worked

Female

Male
## Overall Summary

<table>
<thead>
<tr>
<th>High School</th>
<th>Expected FY</th>
<th>FY</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Overall hours worked is negatively related with HS GPA, SAT/ACT scores.</td>
<td>* There is no overall negative relationship between expected work hours and expected GPA, Expected engagement, or academic preparation.</td>
<td>* There is an overall slight negative relationship between hours worked and GPA.</td>
</tr>
<tr>
<td>* Hours worked did not negatively affect HS Academic Engagement.</td>
<td>* Students do not expect work to interfere with their performance.</td>
<td>* Students who worked more were less satisfied.</td>
</tr>
<tr>
<td></td>
<td>* Work has a positive relationship with exp engagement for both genders.</td>
<td>* The highest gains in all measure were with the students who worked 1-10 hrs.</td>
</tr>
<tr>
<td></td>
<td>* The more students work, the more they expect to be engaged.</td>
<td>* The lowest gains in general education were for students who reported no hours worked and those who worked 21+ hours.</td>
</tr>
</tbody>
</table>
## Summary by gender

<table>
<thead>
<tr>
<th></th>
<th>High School</th>
<th>Expected FY</th>
<th>FY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Female</strong></td>
<td>Across all work groups, females reported lower test scores. Females reported the highest HS Academic Engagement across all work groups</td>
<td>Females reported higher gains across all work groups. Females that don't work or work 1-10 hours are the most satisfied.</td>
<td></td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td>Males reported lower HS GPA across all work groups</td>
<td>Males reported higher levels of feeling academically prepared, especially males that expect to work more.</td>
<td>Males reported lower GPA except for those who worked 21+ hours</td>
</tr>
</tbody>
</table>
How can we use this information?

- Working does not seem to have a strong negative impact on academic performance
- Work with students to see connection between working and academic performance
- Help students make realistic expectations about their ability to balance class work and work for pay
- Provide financial responsibility and time management activities in first year seminar
- Campus examples
Thank you

Contact Information:

Theresa Hitchcock, NSSE Project Associate
Jim Cole, BCSSE Project Manager
Tiffani Butler, NSSE Project Associate
Center for Postsecondary Research

www.nsse.iub.edu
812-856-5824