Too “fresh” or too smart?
Freshmen taking on upper-division courses

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Freshmen Taking UD Courses

• unprepared or whiz kids?
• pass or fail those courses?
• same grades as UD students or not?
• likely to stay in school and graduate or not?

• Analysis, Findings and Tools
• Comments or Questions
Example of **Grades Distribution** by Student Level in UD Psychology Class

<table>
<thead>
<tr>
<th></th>
<th>Freshman</th>
<th>Sophomore</th>
<th>Junior</th>
<th>Senior</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count of Students</td>
<td>4</td>
<td>8</td>
<td>14</td>
<td>11</td>
<td>37</td>
</tr>
<tr>
<td>Avg. HS GPA</td>
<td>3.18</td>
<td>3.02</td>
<td>3.37</td>
<td>3.16</td>
<td>3.19</td>
</tr>
</tbody>
</table>
Does taking of UD courses by freshmen affect their success?
Sample

• First-Time Full-Time Freshman Cohorts, Fall 2002 – 2007

• **10 to 12%** took UD courses during the first year (about 275 students on average cohort)
Demographics of UD Course Takers vs. Non-Takers

**Gender**
- Took UD Course
  - Female: 60%
  - Male: 40%
- Other Students
  - Female: 40%
  - Male: 20%

**First Generation Students**
- Took UD Course
  - CGS: 40%
  - FGS: 60%
- Other Students
  - CGS: 60%
  - FGS: 40%

**Pell Grant Eligible**
- Took UD Course
  - No: 40%
  - Yes: 60%
- Other Students
  - No: 60%
  - Yes: 40%

**Ethnicity**
- Took UD Course
  - White: 30%
  - Hispanic: 20%
  - Asian: 10%
  - Unknown: 0%
  - African American: 0%
  - American Indian: 0%
- Other Students
  - White: 30%
  - Hispanic: 20%
  - Asian: 10%
  - Unknown: 0%
  - African American: 0%
  - American Indian: 0%
Preparation of UD Course Takers vs. Non-Takers

- **Average High School GPA**
  - Took UD Course
  - Other Students

- **Average SAT Score**
  - Took UD Course
  - Other Students

- **English Remediation Required**
  - Other Students
  - Took UD Course

- **Math Remediation Required**
  - Other Students
  - Took UD Course
Performance of UD Course Takers vs. Non-Takers

**First-Term GPA**

- Graph showing GPA trends from Fall 2002 to Fall 2007 for students who took UD courses compared to other students.

**First-Year Retention**

- Graph showing retention rates from Fall 2002 to Fall 2007 for students who took UD courses compared to other students.

**Four-Year Graduation**

- Graph showing graduation rates from Fall 2002 to Fall 2006 for students who took UD courses compared to other students.

**Six-Year Graduation**

- Graph showing graduation rates from Fall 2002 to Fall 2004 for students who took UD courses compared to other students.
Data Mining Model

Determine effect of taking UD courses by freshmen on first-term GPA, retention and graduation, controlling for the preparation variables (HSGPA, Remediation).

Fall 2002 – 2004 FTFTF Cohorts (N = 6920)
taking a UD course was a **significant factor in 4 year graduation**, particularly for FTFTFT with a HS GPA in the 3.36 to 3.96 range
Freshmen with **HSGPA less than 3.06** who took UD course were less likely to retain
80% of Freshmen **Passed** UD Courses

<table>
<thead>
<tr>
<th></th>
<th>Fall 2002</th>
<th>Fall 2003</th>
<th>Fall 2004</th>
<th>Fall 2005</th>
<th>Fall 2006</th>
<th>Fall 2007</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Passed UD Course</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headcount</td>
<td>215</td>
<td>238</td>
<td>217</td>
<td>180</td>
<td>229</td>
<td>239</td>
<td>1,318</td>
</tr>
<tr>
<td>% of Total</td>
<td>79%</td>
<td>79%</td>
<td>84%</td>
<td>79%</td>
<td>81%</td>
<td>78%</td>
<td>80%</td>
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<tr>
<td>Avg. HS GPA</td>
<td>3.43</td>
<td>3.34</td>
<td>3.47</td>
<td>3.40</td>
<td>3.44</td>
<td>3.40</td>
<td>3.41</td>
</tr>
<tr>
<td>1yr Retention</td>
<td>89.8%</td>
<td>89.9%</td>
<td>93.1%</td>
<td>92.8%</td>
<td>92.1%</td>
<td>88.3%</td>
<td>90.9%</td>
</tr>
<tr>
<td>4yr Graduation</td>
<td>25.1%</td>
<td>25.2%</td>
<td>33.2%</td>
<td></td>
<td></td>
<td></td>
<td>27.8%</td>
</tr>
<tr>
<td><strong>Failed UD Course</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headcount</td>
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<td>63</td>
<td>42</td>
<td>49</td>
<td>55</td>
<td>69</td>
<td>334</td>
</tr>
<tr>
<td>% of Total</td>
<td>21%</td>
<td>21%</td>
<td>16%</td>
<td>21%</td>
<td>19%</td>
<td>22%</td>
<td>20%</td>
</tr>
<tr>
<td>Avg. HS GPA</td>
<td>3.02</td>
<td>3.10</td>
<td>3.10</td>
<td>3.06</td>
<td>3.15</td>
<td>3.15</td>
<td>3.10</td>
</tr>
<tr>
<td>1yr Retention</td>
<td>48.2%</td>
<td>52.4%</td>
<td>54.8%</td>
<td>53.1%</td>
<td>40.0%</td>
<td>46.4%</td>
<td>48.8%</td>
</tr>
<tr>
<td>4yr Graduation</td>
<td>5.4%</td>
<td>3.2%</td>
<td>9.5%</td>
<td></td>
<td></td>
<td></td>
<td>5.6%</td>
</tr>
</tbody>
</table>
Freshmen earned lower grades in UD courses compared to upper-division students.
Conclusion

Freshmen who take Upper-Division courses:

• if pass, are likely to complete their degree in four years
• if fail, tend to be less prepared, retain and graduate at lower rates
• earn lower grades compared to UD students
Faculty Comments

... really interesting and not surprising

... importance of advising services

... offer courses in a sequenced manner to increase knowledge building

... surprised to find nothing prevented LD students from taking my UD GE course

... going backwards into a LD class, after having taken UD, just seems really weird and sounds boring, especially for the really smart students.
Questions / Comments?

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