USING DATA TO OPTIMIZE RESOURCES FOR COURSE PLACEMENT
OVERVIEW

• Background
• Challenge
• Process
• Evaluation
• Next steps
• Summary
Background: About Me
Background: About UMass Amherst

- Flagship of the UMass System
- Land-grant university; only public Carnegie highest research university in MA
- 32,000+ total enrollment
- 9 schools and colleges plus Graduate School and Commonwealth Honors College
- Over 50 departments, over 100 undergraduate majors
- Entering class of ~5,000 students annually
Challenge

~5000 incoming students

Most take writing placement test

Most place into ENGLWRIT 112
Challenge
Process

• Population: Entering classes from Fall 2015 -- Fall 2019 (n=24,759)

• Data:
  • Writing Placement Score
  • High School GPA
  • TOEFL score
  • SAT Reading Writing & Language ★
  • ACT English component ★
  • Literature SAT subject test
  • Optional Essays
  • HS English Grades

• Tool: Tableau
Process: SAT Reading, Writing, and Language – All Students

Placement test result
- Waiver Approved
- Take 112 unless Waiver
- Take 112
- Take 111
Process: SAT Reading, Writing, and Language – All Students

Placement test result
- Waiver Approved
- Take 112 unless Waiver
- Take 112
- Take 111
Process: SAT Reading, Writing, and Language – All Students

The image shows a bar chart depicting the placement test results for SAT Verbal scores. The chart is divided into categories: Domestic and International. The y-axis represents the percentage of the total count employed, ranging from 0% to 100%. The x-axis shows SAT Verbal scores ranging from 320 to 770.

Legend:
- Waiver Approved
- Take 112 unless Waiver
- Take 112
- Take 111
Process: SAT Reading, Writing, and Language – Domestic
Process: ACT English component – All Students

- Waiver Approved
- Take 112 unless Waiver
- Take 112
- Take 111
Process: ACT English component – All Students

![Placement test result chart]

- Waiver Approved
- Take 112 unless Waiver
- Take 112
- Take 111
Process: ACT English component – Domestic

Placement test result:
- Waiver Approved
- Take 112 unless Waiver
- Take 112
- Take 111
Process: Test Scores – Domestic
Process: Recommendation

International Students: Take placement test

Domestic Students: If student has SAT Reading, Writing, and Language Score of $\geq 620$ or ACT English Component Score of $\geq 25$ then place directly into ENGLWRIT 112. Otherwise, take placement test.
Evaluation

20,884 Total Test Takers (Fall 2015 – Fall 2019)

18,914 Domestic Test Takers
- 377 (2.0%) placed into ENGLWRIT 111
- 18,143 (95.9%) placed into ENGLWRIT 112
- 326 (1.7%) received waiver for writing series
- 68 (0.4%) others (not scored or still need retest)

1,970 International Test Takers

Placement Exam Result

10,619 tests not needed!
# Placement Exam Result

- **20,884 Total Test Takers** (Fall 2015 – Fall 2019)
- **18,914 Domestic Test Takers**
- **1,970 International Test Takers**

## Domestic Test Takers
- **377 (2.0%)** placed into ENGLWRIT 111
- **18,143 (95.9%)** placed into ENGLWRIT 112
- **326 (1.7%)** received waiver for writing series
- **68 (0.4%)** others (not scored or still need retest)

## International Test Takers
- **Evaluation**
- **Applied**
- **Recommended**

---

### Applied Recommended Criteria

- Eligible
- Not Eligible

---

**University of Massachusetts Amherst**
77 students who placed into ENGLWRIT111 (exam) but met new eligibility criteria to place directly into ENGLWRIT112

62 took ENGLWRIT 111
77 students who placed into ENGLWRIT111 (exam) but met new eligibility criteria to place directly into ENGLWRIT112

40 also took ENGLWRIT 112
77 students who placed into ENGLWRIT111 (exam) but met new eligibility criteria to place directly into ENGLWRIT112

40 also took ENGLWRIT 112

1 student took ENGLWRIT 112 despite placement into ENGLWRIT 111
Evaluation

77 students who placed into ENGLWRIT111 (exam) but met new eligibility criteria to place directly into ENGLWRIT112

22 took a Junior Year Writing course
Evaluation: Implementation
Next Steps: But then… COVID-19

• Test optional
• Changes in Pass/Fail policy for Fall 2020 and Spring 2021
• Updates to writing placement tool
Next Steps:

• Live test monitoring

• Score distribution

• Grade distributions
Next Steps:

- Term-term comparisons
- Grade and GPA evaluations
Next Steps: Math Placement

First Year Grades by Math Placement Score (Algebra)

This dashboard shows first-year, fall-entry students who have taken selected courses in fall or spring of their first year. Students who repeated the course are counted in the first term in which they took the course. School/College and primary plan are based on student’s status at the start of the course term. URM, race/ethnicity and gender is based on student’s status at the end of the course term.

<table>
<thead>
<tr>
<th>Select Course</th>
<th>MATH 127</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Term View</td>
<td></td>
</tr>
<tr>
<td>Terms Compared</td>
<td></td>
</tr>
<tr>
<td>School/College</td>
<td></td>
</tr>
<tr>
<td>(All)</td>
<td></td>
</tr>
<tr>
<td>Primary Plan</td>
<td>(All)</td>
</tr>
<tr>
<td>URM</td>
<td>(All)</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>(All)</td>
</tr>
<tr>
<td>Gender</td>
<td>(All)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>B+</td>
<td>2</td>
</tr>
<tr>
<td>B-</td>
<td>3</td>
</tr>
<tr>
<td>C+</td>
<td>4</td>
</tr>
<tr>
<td>C</td>
<td>5</td>
</tr>
<tr>
<td>D+</td>
<td>6</td>
</tr>
<tr>
<td>D</td>
<td>7</td>
</tr>
<tr>
<td>F</td>
<td>8</td>
</tr>
<tr>
<td>P</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Headcount View</th>
<th>Headcount</th>
</tr>
</thead>
</table>

- Fall: Grades distribution for different courses, terms, schools, colleges, primary plans, URMs, and genders.
- Spring: Similar data as in Fall for different courses, terms, schools, colleges, primary plans, URMs, and genders.
SUMMARY – BEST PRACTICES

• Frame question
• Use available data
• Keep it simple
• Know your audience
• Flexibility
• Build a foundation
QUESTIONS & ANSWERS

University of Massachusetts Amherst