Scaling Corequisite

Spanning the Divide

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Remediation

Too many students start college in remediation.

61% in 2-year institution

28% in 4-year, non-flagship institution
African Americans, Hispanics and Pell Students are Over Represented

### 2-year Students

- **Received Pell Grant:**
  - White, non-Hispanic: 53%
  - Hispanic: 63%
  - Black, non-Hispanic: 70%
  - African Americans, Hispanics and Pell Students: 69%

### 4-year Non-Flagship Students

- **Received Pell Grant:**
  - White, non-Hispanic: 23%
  - Hispanic: 35%
  - Black, non-Hispanic: 44%
  - African Americans, Hispanics and Pell Students: 37%
Most are in Math – Far Too Many Require Both Math and English

2-year Students

White, non-Hispanic 20% 24%
Hispanic 54% 37%
Black, non-Hispanic 59% 50%
Received Pell Grant 32% 40%

Legend:
- Both
- Math
- English
For too many students, a remedial class is their first and their last college experience.
The System Does Not Work, Particularly for African Americans

Gateway Course Completion in 2 years
2-year college remedial students

- White, non-Hispanic: 23%
- Hispanic: 20%
- Black, non-Hispanic: 11%
- Received Pell Grant: 19%
Remediation

Student attrition is at the heart of the matter...
Remediation: The effect of attrition.

Students assigned 3 or more semesters of math remediation.

- Completed 1st semester of remediation.
  - Enrolled and completed
  - Did not complete
  - Did not enroll or stopped enrolling
  - LOST

- Completed 2nd semester of remediation.
  - Enrolled and completed
  - Did not complete
  - Did not enroll or stopped enrolling
  - LOST

- Completed 3rd semester of remediation.
  - Enrolled and completed
  - Did not complete
  - Did not enroll or stopped enrolling
  - LOST

- Passed gateway course.
  - Enrolled and completed
  - Did not complete
  - Did not enroll or stopped enrolling
  - LOST

KNOW THIS The remediation system is broken. More students quit than fail.

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SUCCESS AT SCALE

Academic Support as a Corequisite

Math Pathways Aligned to Programs of Study

Purpose, Not Placement
Corequisite Support
The Corequisite Strategy

More **time on task** and help for students when they need it (just in time)
One Semester Redesigned Gateway

Gateway

Mandatory Tutoring
- Paired, proctored labs

Extra Time
- 45 minutes after class
- Additional class periods

Sequenced
- 5-week prep + 10 weeks of gateway content
#CoreqWorks
Traditional Remediation Results
2 Years

- **Colorado**
  - English: 31%
  - Math: 20%

- **Georgia**
  - English: 16%
  - Math: 29%

- **Indiana (3-Years)**
  - English: 37%
  - Math: 29%

- **Tennessee**
  - English: 31%
  - Math: 12%

- **West Virginia**
  - English: 37%
  - Math: 14%
Do Corequisite Students Continue to Succeed?
One Year later…

Retention %

- 47%
- 69% (45% increase)

College Credit Hours Earned

- 19 (12% increase)
- 21

Tennessee Board of Regents, 2015
What about the lowest level students?
Completion of Gateway Math by ACT Sub-score
Community College Pre-requisite Model vs. Co-requisite Model

Results of TBR Co-requisite Full Implementation

Pre-requisite Model AY 2012-13
Full Implementation - Fall 2015
Completion of Gateway English by ACT Sub-score
Community College Pre-requisite Model vs. Co-requisite Model

Results of TBR Co-requisite Full Implementation

Pre-requisite Model AY 2012-13
Full Implementation - Fall 2015
What about those who fail corequisites?
Disaggregation by Student Group

- **Pass Both, 3,474**
- **Fail Both, 2,144**
- **Fail Credit, 724**
- **Fail LS, 202**

### Earned Hour %
- 100%
- 80%
- 60%
- 40%
- 20%
- 0%

### ACT Math Score
- 14
- 15
- 16
- 17
- 18
- None

- **Fail Both**
- **Fail LS**
- **Fail Credit**
- **Pass Both**

Tennessee Board of Regents, 2016
Students who Failed Both Courses

- Full Time, 1,879
- Part Time, 340

Earned Hours

- Hours Earned by Full Time Students
  - 0hrs
  - 1-3hrs
  - 4-6hrs
  - 7-9hrs
  - 10-12hrs

Tennessee Board of Regents, 2016
Are Corequisites Quality Learning Experiences
Corequisite Students are Engaged Learners

... students who took a corequisite course were more engaged learners, which means they're more likely to be successful in college.

Evelyn Waiwaiwole, Center for Community College Engagement
Inside Higher Ed, 2/23/2016
Corequisite Students are Engaged Learners

Corequisite Math

- Support for Learners
  - Did Not Participate: 52
  - Participated: 58
- Student-Faculty Interaction
  - Did Not Participate: 51
  - Participated: 56
- Academic Challenge
  - Did Not Participate: 51
  - Participated: 54
- Student Effort
  - Did Not Participate: 53
  - Participated: 58
- Active and Collaborative Learning
  - Did Not Participate: 48
  - Participated: 54

Expectations meet Reality: The Underprepared Student and Community Colleges, Center for Community College Engagement, Feb. 2016
SUCCESS AT SCALE

Academic Support as a Corequisite

Math Pathways Aligned to Programs of Study

Purpose, Not Placement
Math Pathways
College Algebra’s Only Purpose: Preparation for Calculus
Math Is Aligned with Meta-Majors

**Health Sciences**
- Social Sciences
- Liberal Arts
- Education
- Business

**Quantitative Reasoning/Statistics**

**STEM**
- College Algebra/Precalculus

**Degrees**
- Degree
- 4-Year Transfer
- Certificate
- License
What is the “right” math course?

Students Who Take College Algebra

- Ever Take Calculus 1: 10%
- Take Business Calculus: 30%
- Do Not Take Any Form of Calculus: 60%

Virtually no students who pass college algebra ever start Calculus III, which is a key course for STEM majors.

Math Pathways + Corequisite = Gateway Math Success
Quantitative Reasoning
8,524 students
28% Corequisite

Technical Math
984 students
17% Remedial

College Algebra
2,042 students
42% Remedial

8% Placed in Stand Alone Remediation
One Semester Scaled Results

22% Traditional Remediation National Avg for Gateway Course Success

- Colorado: 64%
- Georgia: 63% (71%)
- Indiana: 55% (64%)
- Tennessee: 64% (64%)
- West Virginia: 62% (68%)
What About College Algebra?
## One Semester Scale Results – College Algebra
Coastal Georgia

<table>
<thead>
<tr>
<th>Subject</th>
<th>Int. Algebra/Gateway Sequence (2 years)</th>
<th>Corequisite Results (One Semester)</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Algebra</td>
<td>36%</td>
<td>56%</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td></td>
<td>67%</td>
</tr>
</tbody>
</table>
Subsequent Math Success – College Algebra Corequisites
University of Nevada-Reno

<table>
<thead>
<tr>
<th>Subject</th>
<th>College-Level Placement</th>
<th>Corequisite College Algebra/Int. Algebra</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Calculus</td>
<td>74%</td>
<td>88%</td>
</tr>
<tr>
<td>Pre-Calculus</td>
<td>83%</td>
<td>84%</td>
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</tbody>
</table>
SUCCESS AT SCALE

Academic Support as a Corequisite

Math Pathways Aligned to Programs of Study

Purpose, Not Placement
Purpose, Not Placement
50% of Students Placed In Remediation Could Pass a Gateway Course
End Use of Traditional Placement

Percent of Students

Remediation

70%

Gateway

30%

Student Placement Data
With Corequisite, Most in College-Level

Student Placement Data

- Bridge Program: 10%
- Gateway Course with Corequisite Support: 60%
- Gateway: 30%
It is time to end placement as we know it.
Guiding Objective

Students complete gateway courses and enter programs of study in their first academic year.
Determining Student Purpose

- Identify Career and Academic Goals
- Holistic College Readiness Inventory – Academic AND College Success Skills
- Determine a Broad Area of Study or Meta-Major
- Enroll in the Right Gateway Courses
- Corequisite for All!
- College Success Interventions for Those Who Need It.
A Model Pathway

Advise and Assess

Choose Meta-major
- Social Sciences
  - Coreq
  - Stats
  - Coreq
  - Major

Pre-Major Advising
- STEM
  - Coreq
  - College Algebra
  - Coreq
  - Major

Gateway Math in 1st year
- Humanities
  - Coreq
  - QR
  - Coreq
  - Major

Choose Major
“The corequisite model is transformational in moving thousands of students and their families towards a better life, and for us wanting to make a lasting difference, it is my legacy.”

Rob Jeffs
Faculty, Ivy Tech Community College
Scaling Corequisite

*Spanning the Divide*

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