

Assessing Quantitative Literacy at



Dr. Lane A. Glenn
Vice President of Academic Affairs



Success is what counts.

- 7,500 students
- Campuses in Haverhill and Lawrence
- Title V College
- Nearly 30% Hispanic



- Strong Program Review
- Strong Program Learning Outcomes Assessment
- No Institutional Level Assessment
- No Quantitative Literacy

ACHIEVING
THE DREAM™
COMMUNITY
COLLEGES
COUNT

Success is what counts.

Achieving the Dream is a multiyear national initiative to help more community college students succeed. The initiative is particularly concerned about student groups that have traditionally faced the most significant barriers to success, including low-income students and students of color.



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Achieving the Dream Goals

- 1. Successfully complete developmental courses and progress to credit-bearing courses;**
- 2. Enroll in and successfully complete gatekeeper courses;**
- 3. Complete the courses they take, with a grade of C or higher;**
- 4. Re-enroll from one semester to the next, and**
- 5. Earn certificates and degrees.**



Success is what counts.

NECC Goals

- 1. College Composition:** Improve outcomes for all students in all cohorts in English Composition I. (In Fall 2007 only 51% of students across all cohorts successfully complete English Composition I.)
- 2. Males in Developmental Reading and Writing:** Improve outcomes for male students in Developmental Reading and Developmental Writing. (Developmental Reading: 49% of males successfully complete versus 66% of females; Developmental Writing: 48% of males successfully complete versus 59% of females.)



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NECC Goals

- 3. Under 25 in Developmental Reading and Writing:** Improve outcomes for students under 25 years old in Developmental Reading and Developmental Writing. (Developmental Reading: 46% of younger students successfully complete versus 69% of older students; Developmental Writing: 49% of younger students successfully complete versus 66% of older students.)
- 4. Hispanic Students in Writing Courses:** Improve outcomes for Hispanic students in Developmental Writing, and in the transition into and through English Composition I. (Developmental Writing: 48% successfully complete compared to 59% of majority students; Transition into and through College Composition: 55% successfully complete compared to 64% of majority students.)



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NECC Goals

5. Mathematics: Improve outcomes for all students in all cohorts in Developmental Mathematics and College Level Mathematics.

- Students struggle more with Developmental and College Level Mathematics than with any other single discipline.
- Course completion rate in Basic Algebra II, the second highest enrolled course at the college, is 54%.
- Of those students who successfully complete Developmental Mathematics and attempt College Algebra, only 44% complete the course with a C or higher.
- Even students who do not progress through developmental coursework only successfully complete College Algebra at a rate of 53%.



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Three Levels of Quantitative Literacy Assessment:

1. Effectiveness of Mathematics Placement Testing
2. Assessment of Course Learning Outcomes: College Algebra
3. Assessment of Quantitative Reasoning as a “Core Academic Skill” at the Institutional Level



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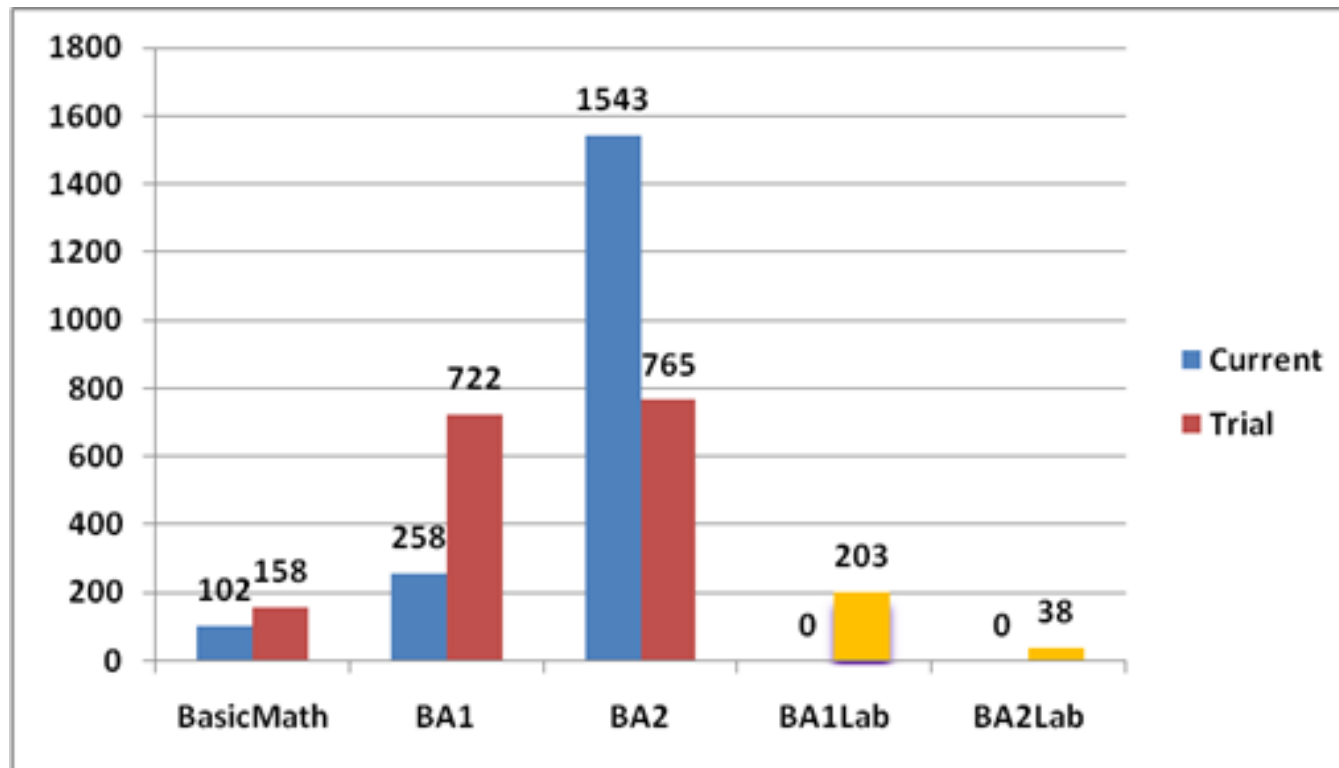


Effectiveness of Mathematics Placement Testing

- *Accuplacer*
- Accuracy of Cut Scores
- Basic Algebra “Plus Lab”
- Shifts in Enrollment



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Assessment of Course Learning Outcomes: *College Algebra*

- Challenge of multiple sections
- Common Learning Outcomes
- Common Final Exam



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Purpose Statement of College Algebra Project Faculty:

In developing these outcomes we considered the essential algebraic concepts and skills that all our students need. The outcomes reflect the current course description as well as the College Algebra Guidelines recommended by the Mathematical Association of America and the American Mathematical Association of Two-Year College's standards document, "Beyond Crossroads." The development of these outcomes is an important first step in assuring that all students of Northern Essex Community College possess the mathematical concepts needed in other college level courses as well as the quantitative reasoning skills needed to be successful in their future professions and daily lives as engaged citizens.



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Assessment of Quantitative Reasoning as a “Core Academic Skill” at the Institutional Level

- Out with “Degree Competencies”
- In with “Core Academic Skills”
- Communication, Global Awareness, Information Literacy, Science and Technology, ***Quantitative Reasoning***



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Quantitative Reasoning: Students will learn to interpret and manipulate quantitative information and apply mathematical concepts and skills to solve real-world problems



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