Upshot Remediation Series
The next several issues of Upshot will focus on remediation courses and their outcomes at BMCC.

In fall 2014, BMCC welcomed over 7,000 new freshmen; over 5,000 of them (72%) failed the ACT Compass Math placement exam and were placed in remedial math. Based on their intended major, those who required algebra for their degree were placed either in Math 12—a 6-hour per week course covering both basic math and algebra—or to Math 51, a 4-hour per week course for students who passed the Compass Math 1 placement exam. In addition, some BMCC applicants with low scores on the placement exams were directed to CUNY Start, a one-semester pre-admission program of intensive remedial instruction.

Upshot follows these new students in Elementary Algebra and in CUNY Start math for one academic year.

Passing, Failing or Giving Up?
Elementary Algebra Outcomes and Retention Rates
Both Elementary Algebra courses had very low pass rates for the new freshmen in fall 2014: 40% for Math 12 and 52% for Math 51. New freshmen typically perform better than continuing students who more often need to repeat the course. In fact, Math 12 overall that semester had a 39% pass rate and Math 51 overall had a 36% pass rate. The new placement rules in fall 2014 meant that some of the continuing students in Math 51 may have had lower placement test scores in arithmetic than any in this study’s freshmen group.

Over 90% of new freshmen who passed either version of Elementary Algebra (Math 12 or 51) stayed at BMCC through the next semester and roughly 80% of them returned in fall 2015. Students who completed and failed the course also returned to the college in good numbers for the spring semester, and the majority returned the next fall. But among students who didn’t complete the course – particularly those who officially withdrew or dropped the course without attending, more than half disappeared from campus by spring and only about ¼ of these students were still here the following fall.

With these low pass rates, few of those new freshmen who took Math 12 or 51 attempted college math in the following spring or summer. Among those who failed, only a dozen students later passed the course and were then able to attempt a college math course before fall 2015. Of those Math 12 and 51 students who did enroll in college math, over 72% passed the college course. (See charts on page 2.)

The CUNY Elementary Algebra Final Exam (CEAFE)
Both Elementary Algebra courses require students to pass a common, computer-based final exam, as part of passing the course. More recent research from fall 2015, showed that about 1/3 of the students enrolled in Elementary Algebra did not take the CEAFE. Whether these students officially withdrew or unofficially dropped out or just didn’t make it to the final, none passed the course. The 2/3 of those enrolled who take the final are about evenly split between those who pass and those who fail the exam. What our results on persistence and retention tell us is that those who do not take the exam – who “give up” – are the least likely to stay in school.
BMCC Algebra initiatives

In recent years, several pilot programs and new course options have been developed to address the low success rates in Elementary Algebra:

- Quantway (Math 41) focuses on quantitative literacy for students in fields that don’t require calculus.
- Mainstreaming offers students a chance to take college-level statistics while providing supplemental workshops covering algebra topics.
- Pre-college programs CUNY Start and Summer Start provide intensive instructional support in elementary algebra in the semester or summer before students enroll in BMCC.
- Summer and winter immersion workshops allow students who have failed elementary algebra to work intensively over a short time before retaking the algebra exam.

CUNY Start

Students who are directed to the CUNY Start program are generally less prepared for math than the new freshmen who take Math 12 or 51. At the end of the program in fall 2014, 75% of the 250 CUNY Start students were considered successful and eligible to take a variety of college-level math courses. Just over 1/2 of them did so, but less than half of these students passed the college-level course. In contrast, over 70% of students who had passed Math 51 or Math 12 and then attempted college-level math in spring or summer succeeded in passing the course. Pass rates are highest for the Math 51 group and lowest for CUNY Start. This result correlates with their initial placement test results. However, because so many more of those initially enrolled in CUNY Start were then eligible to take college math, ultimately a larger portion of the CUNY Start group had passed college math before fall 15 than for either the Math 51 or Math 12 groups.

Depending on their major, some students must take Intermediate Algebra (Math 56) prior to taking the required Pre-Calculus course, Math 206. Math 56 is not considered college-level math, but students need to pass the course to proceed. By this measure, 30% of the CUNY Start students made good progress in math, as did 27% of the Math 51 students and just 20% of the Math 12 students.

FOR MORE INFORMATION
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