

## ***Assessing Developmental Algebra to Inform Future Teaching***

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### ***Abstract***

This article summarizes course assessment by Hostos Community College, a component of The City University of New York, in Elementary Algebra, the gateway course necessary to credit-bearing college level work and therefore to retention and graduation. The assessment covers results since CUNY's 2012 institution of University-wide algebra exit standards. The analysis addresses student performance for spring 2014 and 2015, the two semesters for which complete data are available. In addition, in order to detect slippage on pre-midterm topics, the assessment compares student exit test performance with corresponding Departmental Midterm results, showing end-of-semester improvement significant to at least  $\alpha = 0.01$ . Minimal improvement in factoring and solving quadratic equations suggests the need for increased post-Midterm review. Overall weakness appears in solving and graphing inequalities; simplifying exponential expressions; and coordinate plane issues; again requiring increased instructional attention. Interventions include introduction of (a) supplemental instruction for developmental mathematics courses; (b) free online homework access codes; and (c) a repeaters' course allowing both mid- and end-of-semester exit test attempts. University-wide data through spring 2014 show Hostos' comparative exit test improvement from the lowest to the median of the University's six community colleges.

**KEY WORDS:** assessment; community college; developmental algebra; exit test; supplemental instruction; intervention



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