

## Math Faculty Exchange Notes – November 19, 2009

Erik Sweet, a representative of the Office of Curriculum, Instruction and Instructional Technology at the New York State Education Department, joined the group by conference call and spoke about the trend toward national and state standards in high school mathematics. He talked about the Common Core State Standards Initiative ([www.corestandards.org](http://www.corestandards.org)) and noted that the New York State Board of Regents can voluntarily adopt some or all of these standards. The overall trend, he said, is toward fewer, clearer and higher national standards for K-12. If there are national standards, will this lead to common assessments, asked one participant?

Attendees discussed whether there is an alignment problem between high school and college level math curricula that may be preventing “middle of the road” students from achieving success in college placement math exams and in college-level math courses. (It was noted that the remediation problem appears to be even more severe in English/writing courses; the percentage of students placing into remedial math courses at SUNY Orange is significantly less than the percentage placing into remedial writing – 27 percent in math versus 70 percent for writing in Fall 2009.) One problem mentioned was the fact that New York State requires three rather than four years of high school math. Thus, some students have forgotten many key concepts and skills by the time they are admitted to college. Also, some high school courses that “count” towards the three years of math do not offer adequate preparation for college level courses.

Another issue in terms of alignment of math curricula is the differences between New York State high schools and some – but not all – colleges in terms of policies on calculator use. A high school teacher noted that because the New York State high school curriculum requires the mastery of calculators and thus they are allowed in high school math classes, students are caught short when they are faced with college math courses that may disallow calculators. In fact, students often place into remedial math not because of a lack of higher math skills but because of a lack of arithmetic skills; they are in the habit of using calculators. Of the college math departments represented at the meeting, one college department disallowed calculator use, one allowed it, and one left this decision up to individual professors within the department. A college professor opined that students who don't use calculators have a deeper, more thorough understanding of the concepts they are learning and the math problems they are faced with. But, wondered one participant, is there any hard data on the subject of calculator use and success in college-level math that would support this thesis.