

To: Palo Alto Unified School District Members of the Board of Education  
Dr. Kevin Skelly

From: Radu Toma, Palo Alto High School Mathematics Instructional Supervisor  
Members of the Palo Alto High School Mathematics Department

RE: Graduation Requirements in Mathematics

Date: 04/20/11

Esteemed Board Members and Dr. Skelly,

The purpose of this letter is to respectfully present the reasons for which we, the members of the Paly Math Department, do not support raising graduation requirements in math to match the college a-g requirement. We believe a plan requiring every student to pass Algebra II in order to graduate without a waiver, while well-intended, will either stop a significant number of students from graduating or, alternatively, force us to drastically lower standards in our courses as too many other schools have done. Both scenarios would have unintended devastating consequences for many hardworking students, their families, our schools' and our district's reputation.

As teachers and mathematicians, we all work unabatedly with our students supporting and encouraging them to continually deepen and authenticate their mathematical understanding in high school. We know taking advanced math/science classes is the best predictor for success in college. Nothing would make us happier than being able to produce only graduates that have Calculus on their transcripts! However, brain theory supports the reality that confounding student situations interfere with their ability to focus and succeed as they move through advanced mathematics curriculum in high school.

We live in an affluent community. Most of our students are fortunate to come from families where education matters and parents have the means and will to support and guide their children in tandem with us, their teachers. Not all of them. We are dealing with the same wide range of mathematical preparation, emotional and motivational levels, academic and social backgrounds most other schools face. Although 92% of our juniors and 85% of our seniors are presently enrolled in a math class, some of them are repeating courses. 85 students will graduate this year from Paly without having completed Algebra II. A change in graduation requirements could probably motivate some of these students, who have the emotional ability and academic support to do so, to work harder and meet the a-g challenge. We are concerned about the others who, for reasons that are often objective (poor math background, lack of support at home, low retention rate, lack of maturity, etc) can't pass our Algebra II regular lane course. Many of these are VTP students or under-represented minorities. Others are serious, committed Special Ed students who work very hard throughout high school in order to pass Algebra 1.1, Algebra 1.2 and (some of them) Geometry. In the present system, they graduate proud of their accomplishments, to go on to community colleges or jobs for which PAUSD prepares them better than most districts. Condemning these kids to graduate with a waiver, or not graduate at all, is, we feel, unfair and inequitable. Of 37 SpEd seniors, only 2 will graduate this year having completed Algebra 2. Is it fair to ask 95% of SP Ed students

to graduate through the back door with a waiver? We are concerned we'll create a two-tier system in which special needs, struggling, or less motivated students from affluent Palo Alto families will meet graduation requirements by taking Geometry or Alg2 in expensive but shallow "pay for your units" institutions, while other less fortunate students lacking the means will not.

The alternative, diluting the standards in our regular lane to basic benchmarks which might allow every student to pass Algebra II would end up hurting the district's reputation and, implicitly, all of our students. Our high schools are recognized and respected by colleges across the state and the nation *because* of our high standards and the ability of our students to *apply* their high school mathematics in subsequent courses successfully. Colleges know *our* graduates are proficient in the courses they show on their transcripts, unlike 45% of CSU/UC students who must take remedial math despite having transcripts that make them college eligible.

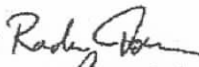
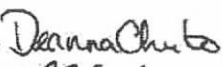
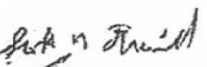
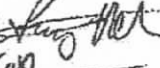
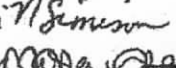
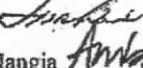
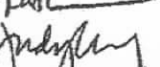
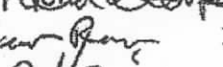
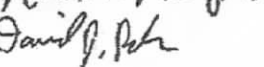
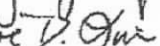
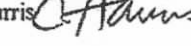


This past week, Paly and Gunn competed again in the Santa Clara Valley Math Field Day, placing 2<sup>nd</sup> and 3<sup>rd</sup> in competition with the best schools in the area: Lynbrook & Monta Vista from Fremont USD, Los Gatos and Saratoga High from LGS USD, Piedmont High from Piedmont Unified, Mountain View and Los Altos from MVLA Union, Menlo Atherton, Woodside and Carmel from Sequoia Union. None of these schools have more than a 2 year graduation requirement in math!

San Jose Unified *does* require Algebra II for graduation. Their graduation rate, however, is 86% and their schools are nowhere close to ours, so we can hardly use them as a model. San Mateo Unified, whose schools are still no competition to ours, requires 3 years of math, but *not* Algebra II. They offer a couple of Integrated Math courses between Algebra and Geometry which count toward graduation.

Raising in a similar manner the PAUSD graduation requirement to 3 years of math *without* requiring Algebra 2 would be a significant step for our district, one we believe *could* be accomplished without sacrificing our lower skilled students *or* our exemplary standards. It would challenge students who until now were graduating with Algebra 1.1 and 1.2 only, to work hard and add Geometry to their repertoire. It would also motivate slackers able enough to pass Algebra 1 in 9<sup>th</sup> grade to complete Algebra II by their senior year and become UC/CSU eligible. Parents of struggling but hard-working students would not see their kids barred from graduation with a regular diploma or not at all, and our teachers, schools and district would still set an example for our competitor schools.

We hope our plea will convince you again that we are 100% committed to the success of our students, our school and the district.

Respectfully,

Radu Toma		Deanna Chute		Scott Friedland	
Suzanne Antink		Natalie Simison		Lisa Kim	
Kathy Bowers		Misha Stempel		Pambika Nangia	
Judy Choy		Maria Rao		David Baker	
Arne Lim		Charlotte Harris	