

I have a short written statement concerning the debate on mathematics curriculum and my focus will be on the Core-Plus curriculum (Contemporary Mathematics in Context). My comments, however, can be applied to many other nontraditional mathematics curricula being adopted by many public schools across the state.

In the summer of 2005, some parents, whose children were enrolled in a local school district, asked me to review the Core-Plus curriculum. I did so and I was surprised by my findings. What shocked me most was how little algebra there was in the materials I reviewed. I was equally surprised and disappointed by the lack of skill-building exercises in the curriculum. I quickly concluded that this material did not adequately prepare students for college-level mathematics and physics courses. Although I came to this conclusion on my own, based upon my college teaching experience, I later learned that many prominent mathematics professors from all over the United States had already reached the same conclusion. In fact, seven years ago, more than 200 mathematicians and scientists (including several Nobel laureates, Fields medalists and department chairs from leading universities) signed an Open Letter warning the public and the US Secretary of Education of the Core Plus Curriculum and other similar mathematics curriculum.

Proponents of Core-plus mathematics and other controversial curriculum have often stated that parents and mathematicians lack published research to back up their claims. That is not surprising since most of new curriculum has only been widely used for a few short years. But Mathematicians and scientists are starting to get the word out. In the December 2006 issue of the *American Mathematical Monthly*, there is a published article describing the struggles of students attending Michigan State University who had Core Plus Mathematics in high school. Quoting part of the conclusion, the article states *“Except for some top students, graduates of Core-Plus mathematics are struggling in college mathematics at Michigan State University. The evidence shows that they were less well prepared than either graduates in the Control group (who came from a broad mix of curricula) or graduates of their own high schools before the implementation of Core-Plus mathematics”*.

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One of the key deficiencies in Core-Plus curriculum is the de-emphasis on algebra skills. Unfortunately, algebra is the backbone of everything we do in freshman calculus courses on up in college. Proponents of Core-plus mathematics will sometimes say that only a small percentage of people need to know algebra. I think that is like saying only a small percentage of us need to know history or art, so we should not teach it. The fact is that algebra is an incredible achievement and it is the language of science. Our society has advanced in no small part due to algebra.

My recommendation is that mathematics professors, not just teachers and mathematics education professors need to be involved in curriculum decision processes. In the 1960’s “the new math” curriculum failed because it was written by mathematicians without the proper involvement of educators and now today, we have the opposite problem. The “new math” of the 1990’s was written with little input from college and university mathematics professors. Unless we set a new course soon, I fear that we will have even less students prepared for college-level mathematics which will translate into fewer competent engineers and scientists in our society.

Thank you for your attention,

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