

Math Education Forum

The implications of common core for college and graduate education

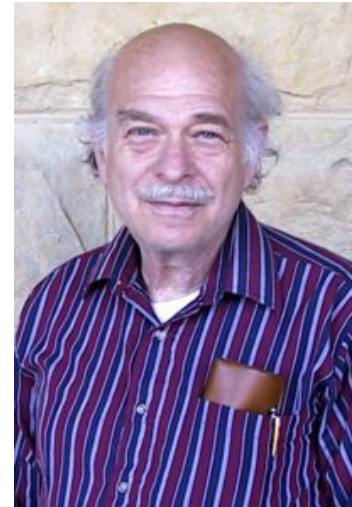
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4:30pm on March 5, 2015 in EA 160

A key part of the federal government's requirement for any state to apply for Race to the Top (RttT) money in 2010 was that the state agree to "implement policies that exempt from remedial courses and place into credit-bearing college courses students who meet the consortium-adopted achievement standard. . . for those assessments," and to basically agree to adopt the Common Core Standards (CC).

Given the very low level of the mathematics required in CC, this has profound consequences not only for the first year mathematics offerings of a public university such as Ohio State, but for the entire undergraduate curriculum. Indeed, according to the main writers for the CC mathematics standards, their definition of college readiness is "a student who has passed Algebra II." But their description of *Algebra II* is a weak one, with critical topics missing and, overall, significantly below the level that was expected previously.

On the other hand, CC was advertised by its supporters and the current administration as more rigorous than any states then current standards, and as the way we will strengthen our Science, Technology, Engineering, and Mathematics (STEM) pipeline. We will show that these claims are simply not true, and were never the real intent of CC. Then we discuss the long term consequences of the almost universal adoption of CC by the states.



*R. J. Milgram is emeritus professor of mathematics at Stanford University. He has served on the board of directors for the National Institute for Education Sciences, the NASA Advisory Council, and the Achieve Mathematics Advisory Panel. He was the sole expert in mathematics itself among the original members of the Common Core Validation Committee. From 2002 to 2005, Professor Milgram headed a project funded by the U.S. Department of Education that identified and described the key mathematics that K-8 teachers need to know. He also helped to direct a project partially funded by the Thomas B. Fordham Foundation that evaluated state mathematics assessments. He was one of the four main authors of the 1997–2010 California Mathematics Standards, as well as one of the two main authors of the California Mathematics Framework. He was also one of the main advisors for the mathematics standards previous to Common Core in Florida, Georgia, Massachusetts, Michigan, Minnesota, New Mexico, and Texas. Among many other honors, he held the Gauss Professorship at the University of Goettingen, the Regents Professorship at the University of New Mexico, and Distinguished Visiting Professorships at the Chinese Academy of Sciences in Beijing and at the University of Lille. R. J. Milgram has published over 100 research papers in mathematics and four books, as well as serving as an editor of many others. He currently works on questions in robotics and protein folding. He received his undergraduate and masters degrees in mathematics from the University of Chicago, and a Ph.D. in mathematics from the University of Minnesota.