“Looking beyond the Headlines: Learning in and through PISA”

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Abstract
In this talk, I will provide an overview of PISA (the Programme for International Student Assessment), with particular focus on the mathematics component of the assessment, and I will argue that PISA is valuable to the U.S. mathematics education community for reasons that go well beyond its use as an indicator of the need to improve the mathematical proficiency of U.S. students. I will focus on several features of PISA that make it a potentially useful resource for mathematics teacher education: (a) PISA assesses mathematics learned at both the middle school and the secondary school levels, (b) PISA’s assessment tasks treat commonly taught content in novel ways, (c) PISA focuses on quantitative literacy rather than mastery of isolated topics, and (d) PISA tasks are cognitively complex. Drawing on the work of my NSF-supported project—UPDATE: Using PISA to Develop Activities for Teacher Education—I will give examples of using PISA tasks with mathematics teachers to illustrate how they can provide powerful opportunities for teacher learning.

Biographical Note
Edward A. Silver is the William A. Brownell Collegiate Professor of Education and Professor of Mathematics at the University of Michigan in Ann Arbor. His scholarly interests include the study of mathematical thinking, especially mathematical problem solving and problem posing; the design and analysis of intellectually engaging and equitable mathematics instruction for students; innovative methods of assessing and reporting mathematics achievement; and effective models for enhancing the knowledge of teachers of mathematics. He has published numerous articles, chapters, and books on these topics. He served as editor of the Journal for Research in Mathematics Education from 2000-2004, and as co-editor of The Elementary School Journal from 2008-2010. He was the 2004 recipient of the Award for Outstanding Contributions of Educational Research to Practice from the American Educational Research Association, the 2007 recipient of the Iris Carl Memorial Leadership and Equity Award from TODOS, and the 2009 recipient of the Lifetime Achievement Award from the National Council of Teachers of Mathematics.