



# YALE NATIONAL INITIATIVE

*to strengthen teaching in public schools®*

Curriculum Units by Fellows of the National Initiative  
2008 Volume V: Estimation

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## Preface

In April 2008 the Yale National Initiative to strengthen teaching in public schools accepted seventy-one public school teachers from fifteen school districts in eleven communities in ten states to participate in seven national seminars held at Yale. The Initiative is a long-term endeavor to establish exemplary Teachers Institutes in underserved school districts in states throughout the country. Following the approach developed in New Haven and demonstrated in Houston, Pittsburgh, and other cities, it builds upon the success of a four-year National Demonstration Project. Teachers Institutes are educational partnerships between universities and school districts designed to strengthen teaching and learning in a community's public schools. Evaluations have shown that the Institute approach promotes precisely those dimensions of teacher quality that improve student achievement.

About two-thirds of the teachers, designated Yale National Fellows, were from seven communities that are planning or exploring the establishment of a new Teachers Institute: Atlanta and DeKalb County, GA; Charlotte, NC; Chicago, IL; New Castle County, DE; Richmond, VA; San Francisco, CA; and Santa Fe, NM. Other National Fellows were from Teachers Institutes that are members of the National Initiative League located in Houston, Philadelphia, Pittsburgh, and New Haven. The Fellows attended an Organizational Session of the seminars held in New Haven on May 2-3. The seminars reconvened during a ten-day Intensive Session from July 7-18.

The seminars, which concluded in mid-August when the Fellows submitted their completed curriculum units, included "Race and Gender in Shakespeare," led by Paul H. Fry, William Lampson Professor of English; "Bridges: The Art and Science for Community Connections," led by Martin D. Gehner, Professor Emeritus of Architectural Engineering; "American Voices: Listening to Fiction, Poetry, and Prose," led by Langdon L. Hammer, Professor of English and of American Studies; "Estimation," led by Roger E. Howe, William R. Kenan Jr. Professor of Mathematics; "Nutrition, Metabolism, and Diabetes," led by W. Mark Saltzman, Professor of Biomedical Engineering and of Chemical Engineering and Physiology; "The Theory and Practice of Democracy," led by Ian Shapiro, Sterling Professor of Political Science; and "Urban Environmental Quality and Human Health," led by John P. Wargo, Professor of Environmental Risk Analysis and Policy.

The twin purposes of the national seminars were to provide public school teachers a first-hand acquaintance with the Institute approach to high-quality professional development, and to cultivate their leadership either in a League Teachers Institute or in the development of a new Teachers Institute. Each participating teacher wrote a curriculum unit to teach students what he or she had learned and to share with other teachers locally and, over the Internet, internationally. The units contain four elements: objectives, teaching strategies, sample lessons and classroom activities, and lists of resources for teachers and students. The curriculum units National Fellows wrote are their own; they are presented in seven volumes, one for each seminar.

The Yale-New Haven Teachers Institute is a permanently endowed unit of Yale University, which undertook the National Initiative in 2004. The material presented here does not necessarily reflect the views of the funding agencies.

James R. Vivian

New Haven

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