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**Holly G. Anthony\*** ([hanthony@tnitech.edu](mailto:hanthony@tnitech.edu)), Box 5042, Cookeville, TN 38505. *Using NAEP Items to Assess and Develop Preservice Teachers' Mathematical Content Knowledge.*

Both multiple-choice and extended-response NAEP items can be used to assess students' mathematical content knowledge, and to guide instruction. In a study of 56 preservice elementary teachers, twenty-four multiple-choice, and twelve extended-response NAEP items were administered to students at the completion of their second mathematics content course at the university. Course content included geometry, probability, and basic statistics. Content-related NAEP items from grades 4, 8, and 12 were selected and used as part of the final exam for the course. Discussion will focus on (1) accessing and using multiple-choice NAEP items in instruction and assessment with preservice elementary teachers, and (2) discerning preservice teachers' mathematical content knowledge to inform further instruction. Items and analyses of students' responses will be shared. (Received September 10, 2007)