

National Assessment Governing Board

Committee on Standards, Design and Methodology

November 19, 2010

COSDAM Attendees: Lou Fabrizio (Chair), Tonya Miles (Vice Chair), James Popham, Andrew Porter, Leticia Van de Putte, and Jennifer Ranji representing Governor Markell.

Governing Board Staff: Cornelia Orr, Executive Director, Susan Loomis, Ray Fields, and Michelle Blair.

Other Attendees: NCES: Stuart Kerachsky (Acting Commissioner of the National Center for Education Statistics), Janis Brown, Samantha Burg, Patricia Etienne, Steve Gorman, Andrew Kolstad, Drew Malizio, and William Tirre. AIR: George Bohrnstedt. CRP, Inc.: Kathy Smoot. Education Week: Catherine Gewertz. ETS: Steve Lazer, John Mazzeo, and Andreas Oranje. Hager Sharp: Melissa Spade. HumRRO: Laress Wise. Measured Progress: Luz Bay. MetaMetrics: Heather Koons. NAEP-ESSI: Enis Dogan. Office of Texas Senator Van de Putte: Ida Garcia. Pearson: Connie Smith. Westat: Marcie Hickman, Bob Patchen, Keith Rust, and Dianne Walsh.

Lou Fabrizio, Chair of the Committee on Standards, Design and Methodology (COSDAM), called the meeting to order at 10:05 a.m. and welcomed members and guests. Mr. Fabrizio introduced the members of COSDAM, identifying the members who have just been appointed to the Committee. Each member was asked to provide a brief introduction to include tenure on the Board, occupations, and interests related to COSDAM.

Mr. Fabrizio noted that Steven Paine was unable to attend due to his participation in the annual meeting of the Council of Chief State School Officers. Mr. Fabrizio also noted that Blair Taylor, President and CEO of the Los Angeles Urban League, is a new member of COSDAM who was unable to attend the meeting.

Leticia Van de Putte noted that Ida Garcia, a member of her Texas State Senate staff, is attending the meeting with her. Mr. Fabrizio welcomed Ms. Garcia to the Committee meeting.

1. Writing Achievement Levels Setting Award and Key Dates for Contract Activities

Mr. Fabrizio asked Susan Loomis to provide information to the Committee regarding the NAEP writing achievement levels contract that was recently awarded to Measured Progress. Ms. Loomis stated that the contract for the new writing NAEP was awarded to Measured Progress at the end of September 2010 to implement achievement levels setting procedures for grades 8 and 12 to be assessed in 2011 and grade 4 to be assessed in 2013. The writing assessment is the first fully computerized NAEP to be administered, and the Governing Board requested that the standard setting process be computerized to the extent feasible and effective. Measured Progress proposed to fully computerize the achievement levels-setting process. The Body of Work (BOW)

method, developed by Measured Progress and used in many state assessment programs, will be used for the writing NAEP achievement levels-setting (ALS) process. Ms. Loomis brought the Committee's attention to the members of the Technical Committee on Standard Setting (TACSS) and to the schedule of key activities and dates when COSDAM will see results from the achievement levels-setting process.

Luz Bay, Assistant Vice-President of Client Services at Measured Progress, Inc., then provided a brief overview of Measured Progress's work in assessment development and standard setting, and she provided more details regarding the computerization of the standard setting process planned for the NAEP writing process. There will be a field trial study, a pilot study, and the operational study. She noted that the field trial is primarily to test logistic considerations related to the need for each panelist to use both a NAEP assessment laptop and another computer (netbooks, are planned) for implementation of the achievement levels process.

Andrew Porter suggested that a writing assessment expert should be included on the TACSS. Ms. Loomis stated that a content expert had not been specified for membership on the TACSS because there are other options for accessing content expertise and advice for the project. Mr. Fabrizio noted that members of the TACSS have experience in writing assessments and in setting standards for writing assessments. Mr. Porter reiterated his recommendation that a person with expertise in writing assessments be included in the technical advisory group. Staff will evaluate the potential for implementing this suggestion.

James Popham recommended careful attention be given to the provision of impact data to assure that it has an impact on the judgments of panelists. Ms. Bay stated that they have planned to provide the impact data through an interactive procedure and the TACSS will be asked to recommend when and how often to provide the impact data to panelists.

Ms. Bay clarified that the achievement levels-setting process is to be computerized, but panelists will be convened in person for implementation of the procedures. Mr. Porter noted that he would be interested in having an achievement levels-setting process implemented with panelists convened electronically and participating remotely. He predicted that this would be a cost-effective approach that would promote participation of panelists by not requiring travel to a meeting site for several days of standard setting. Convening standard setting meetings via electronic communications may be an option for future ALS contracts.

2. Report on Participation and Engagement Data for 2009 Grade 12 Reading and Mathematics NAEP

Mr. Fabrizio next asked Andrew Kolstad, Senior Technical Advisor at NCES, to present information to COSDAM regarding participation and engagement of students in the grade 12 NAEP for reading and mathematics. Ms. Loomis noted that Mr. Kolstad's presentation would include a few slides in addition to the embargoed materials that had been shared with COSDAM prior to the meeting. Because the grade 12 Nation's Report Card was released on November 18, 2010, the materials are no longer embargoed.

Mr. Kolstad provided extensive information regarding both the participation and “engagement” of students in the grade 12 NAEP, and the data provided confirmation that participation and engagement were sufficient for the Governing Board to confidently move forward with plans for reporting preparedness based on these data. The data demonstrated that participation by schools and students were both as high or higher than in 2007 and that the only decrease was in state participation which resulted primarily from the refusal by the state of Washington to allow schools to participate in the grade 12 national NAEP. The effective participation rate, based on state, school and student participation rates, was 69%. In response to a question from Mr. Fabrizio, Mr. Kolstad stated that the sample of respondents is representative and assures reliable results. He also noted that there were no findings of significant bias that would cause concern. Further, the indicators of “engagement” collected by NAEP show that the level of student engagement is as high or higher than in the past. Students report about the same effort for NAEP as for other assessments, and they answered slightly larger percentages of items than in the past. Thus, the student assessment data used for the 12th grade preparedness research appear representative, reliable, and sound.

3. 12th Grade Preparedness Research Update

Mr. Fabrizio asked Ray Fields of the Governing Board staff and Ms. Loomis to present the update on 12th grade preparedness research. Ms. Loomis provided a brief overview of the preparedness update and noted that while reports have been regularly provided to COSDAM, this update is special because it marks the first time that completed study results have been available.

Ms. Loomis reported that content alignment studies and final reports have been completed for NAEP in reading and in mathematics with WorkKeys, the SAT, and ACCUPLACER, and briefs for the study results, as well as earlier studies to compare the content of NAEP reading and mathematics with the ACT, are provided in the briefing materials as attachments C1-C8. Mr. Porter complimented staff on the format of the briefings, but he noted that there were a few examples where the reports were not completely standardized.

Ms. Loomis noted that a design to examine the comparability of NAEP with other assessments was developed to help assure comparability of information generated by each study, and the design called for a two-way analysis to evaluate the content of each assessment relative to the other. In the most general terms, Ms. Loomis reported that the alignment studies generally indicated that the content of NAEP and that of the assessments included in the studies is comparable. NAEP generally assesses a broader domain of content than the other assessments, and the comparability of NAEP with SAT and ACT is somewhat greater than that for NAEP with ACCUPLACER and WorkKeys.

Jennifer Ranji, representative for Governor Markell, asked about the overall purpose of the content alignment studies. Mr. Fields stated that the studies seem to affirm that NAEP has appropriate content for measuring preparedness of 12th graders in mathematics and reading. Further, the alignment studies show what we can report to circumscribe the results of other studies.

Ms. Loomis reported that a contract was awarded in September 2010 for judgmental standard setting studies to set cut scores to represent academic preparedness for placement in college-level credit-bearing courses in mathematics and in reading and for entry in job training courses in up to five occupations. A pilot study will be conducted for each post secondary activity, and the total number of operational standard setting studies to be implemented is 12.

Using criteria recommended by the Technical Panel for 12th Grade NAEP Preparedness Research, a preliminary set of 20 occupations has been identified from which 5 occupations were selected by staff and recommended to COSDAM for discussion. The list included automotive master mechanic, computer support specialist, licensed practical nurse, plumber, and radiologic technologist. Ms. Van de Putte noted that 7 of the 20 occupations on the preliminary list were medically related, and she suggested that perhaps another occupation in a medical field should be added to the list of 5 to be used in the first cycle of preparedness research. She noted that pharmacy technician would be a good choice because now up to 50% of pharmacists are former pharmacy technicians. Thus, pharmacy technician would represent an entry point to a solid career. Staff will collect additional information to evaluate this recommendation.

Mr. Porter asked about the median income of these 5 occupations, but staff had no income data readily available. Mr. Porter suggested that staff make sure that the jobs selected reflect the national median income, and Mr. Popham supported that recommendation.

Mr. Popham cautioned that the standard setting studies for 12th grade preparedness may be quite different from the NAEP achievement levels-setting studies. This is a new area of standard setting for the Governing Board, and caution is advised.

Mr. Porter noted that the NAEP definition of preparedness is different from the definition used by Achieve and others that state that “ready for college is ready for the world of work.” He suggested that by focusing on eligibility for job training, the Governing Board is not requiring as high a level of preparedness as some other organizations. Ray Fields responded that the operational definition of preparedness was part of the policy adopted by the Governing Board in March 2009, and the Board policy does not assume that workplace preparedness and college preparedness are the same. Mr. Fields confirmed that the Board’s focus is on eligibility for job training courses in specific occupations and not for direct placement in a job. In contrast, Achieve has focused on “high trajectory” jobs that have higher academic requirements. The selection of occupations for the studies with 2009 NAEP data is expected to represent a range of academic preparedness requirements to report as performance on the NAEP scale. The Board has opted to rely on empirical data to determine the relationship between academic preparedness for job training and college coursework.

Mr. Fabrizio asked for an update on the potential for using data from the Armed Services Vocational Aptitude Battery (ASVAB), and Mr. Fields reported that progress is being made toward establishing a working relationship with the military. He noted that the military considers preparedness of young people to be a national security issue. The military contact seems excited and positive about the potential for working with the Governing Board in this area.

Mr. Fabrizio next asked about the benchmarking study with Texas colleges for which the participation rate was quite low—only about 21%. Ms. Van de Putte noted that budget problems in Texas are a serious problem. Cornelia Orr responded that the colleges that participated in the pilot study were very highly motivated and cooperative, but students just did not participate in the assessment. Further, Westat, the NAEP administration contractor, had made every effort to contact students and encourage participation. But, in the end, there was not sufficient participation. Overall, the interest by the colleges and the effort by the contract administrators represented a “best case” scenario. This was planned as a feasibility study, and the results suggested that a benchmarking study with entering college students is not feasible.

Mr. Fields noted that after the briefing had been prepared by Ms. Loomis, a meeting of NCES and Governing Board staff, along with representatives of the contractors involved, was held to consider next steps and alternatives for the benchmarking study. The group concluded that the cost of alternatives recommended was too great and the participation too low to consider additional efforts with this type of study at this time.

4. Grade 12 NAEP Motivation Research Studies: Overview of Current Research

Ms. Loomis provided a brief overview of the Committee’s involvement on motivation research. Addressing motivation of 12th graders has been an area of concern for the Governing Board and a focus of research efforts to address 12th grade NAEP. Numerous papers and studies have been commissioned over the past 7-8 years to help the Board identify strategies to increase the motivation of 12th graders when taking NAEP. COSDAM had concluded in 2005 that no feasible strategy had been identified, but the Committee would continue to monitor the issue. Two new studies with different approaches are underway, and they were reported to COSDAM at this meeting.

Mr. Fields reported that the Board staff have issued a contract for literature review of observational protocols and instruments to determine whether it would be feasible to implement such a study for 12th grade NAEP. Mr. Fields noted that the Institute for Education Sciences had sponsored an observational study for the Reading First program, and he was interested in addressing the feasibility of such a study for grade 12 NAEP. Mr. Porter mentioned several studies that should be included in the literature review.

Ms. Van de Putte asked for clarification of the terms “engagement” and “motivation.” Mr. Fields responded that “motivation” is identified as a psychological construct and “engagement” as a sociological construct. The terms have been used synonymously in NAEP research, but greater precision in use would suggest that “engagement” may be a more appropriate term to use in the NAEP context.

Enis Dogan of NAEP-ESSI presented information for a second study to examine 12th-graders’ engagement/motivation in NAEP mathematics using data from high-stakes assessments. No data were presented, but the study design was presented for discussion. Regression analysis techniques were used to study the relationship between NAEP scores and college admission test

scores. Student performance for NAEP was assumed to be unmotivated and low stakes and performance on the ACT or SAT college admissions test was considered to be motivated and high stakes. The difference between performance on NAEP predicted from SAT or ACT scores and actual performance on NAEP was considered to be a measure of motivation or the lack thereof.

5. Future Topics for COSDAM Discussion

Mr. Fabrizio provided the opportunity for COSDAM members to suggest future agenda topics for the Committee. Most of the recommendations seemed to focus on modifications and enhancements to the design of NAEP and the data produced.

- Tonya Miles expressed interest in COSDAM’s role to maximize the utility of NAEP data.
- Mr. Porter noted that a current focus of attention is on computer adaptive testing, gaming environments, and simulations; he suggested that COSDAM consider how these might be incorporated into the NAEP assessment program.
- Ms. Van de Putte noted that demographics and technology must both be grasped fully and incorporated in designing instruction and assessments. She recommended that COSDAM explore ways to use technology to connect people in ways to get better performance from students. Ms. Van de Putte mentioned a puzzle video game as an example of gaming that can expand learning effectively.
- Mr. Popham suggested that COSDAM explore ways to design NAEP to spur improvements in the performance of students—design NAEP to promote instruction and make instructional improvements a part of assessments.

In addition, Mr. Popham suggested that COSDAM could take on the task of moving the Board’s work with the “future of NAEP” forward and speed up the process of implementing some of the suggestions. He sensed more urgency in moving this effort forward and noted that because COSDAM members do not typically convene between the quarterly Board meetings, this would be a good project for COSDAM to take on.

The Committee adjourned at 12:30 p.m.

I certify the accuracy of this report.

Lou Fabrizio, Chair

Date