

National Assessment Governing Board

Meeting of May 18–19, 2018

Washington, DC

OFFICIAL SUMMARY OF GOVERNING BOARD ACTIONS

Complete Transcript Available

National Assessment Governing Board Members Present

Tonya Matthews, Acting Chair

Alberto Carvalho

Gregory Cizek

Tyler Cramer

Rebecca Gagnon

Shannon Garrison

James E. Geringer

Andrew Ho

Carol Jago

Terry Mazany

Dale Nowlin

Jeanette Nuñez

Alice Peisch

Beverly Perdue

Fielding Rolston

Linda Rosen

Cary Sneider

Ken Wagner

Chasidy White

Joseph Willhoft

Governing Board Members Absent

John Engler, Chairman

Dana Boyd

Frank Fernandes

Joseph O’Keefe, S.J.

Mark Schneider (ex-officio)

National Assessment Governing Board Staff

William (Bill) Bushaw, Executive Director
Lisa Stooksberry, Deputy Executive Director
Michelle Blair
Lily Clark
Stephaan Harris
Laura LoGerfo
Munira Mwalimu
Tessa Regis
Sharyn Rosenberg
Angela Scott
Anthony White

National Center for Education Statistics (NCES)

Peggy Carr
James Deaton
Eunice Greer
Grady Wilburn
James Lynn Woodworth

American Institutes for Research (AIR)

Victor Bandeiro de Mello (remote)
George Borhnstedt
Kim Gattis
Cadelle Hemphill
William Tad Johnston
Beth Ratway
Fran Stancavage
Derrick Yee

CRP, Inc.

Monica Duda
Kathy Smoot

Educational Testing Service (ETS)

Jonas Bertling
Jay Campbell
Gloria Dion
Amy Dresher
Robert Finnegan
John Mazzeo
Emilie Pooler
Luis Saldivia

Fulcrum IT

Saira Brenner
Anderson Davis
Scott Ferguson
Kevin Price

Hager Sharp

Joanne Lim
Debra Silimeo

Human Resources Research Organization (HumRRO)

Sunny Becker
Monica Gribben
Andrew McGuckin
Thanos Patelis

Optimal Solutions Group

Brian Cramer
Sarah Guile

Pearson

Kevin Baker
Pat Stearns

The Hatcher Group

Amy Battjer
Robert Johnston

Westat

Chris Averett
Greg Binzer
Lisa Rodriguez
Rick Rogers

Other Attendees/Speakers

Tammy Dunn, A+ Education Partnership
Kanetra Germany, Alabama State Department of Education (ALSDE)
Ray Hart, Council of the Great City Schools (CGCS)
Michael Jago, University of Oxford
Del Marsh, Senator, State of Alabama
John Merrill, Secretary of State of Alabama
Nick Moore, Education Policy Advisor, Office of Governor Kay Ivey
Thomas Rains, A+ Education Partnership

Sean Reardon, Stanford University (remote)
Jeana Ross, Secretary, Department of Early Childhood Education
Ashley Sellers, Brookwood High School
Michael Sibley, ALSDE
Todd Strange, Mayor, City of Montgomery
Zalman Usiskin, University of Chicago School Mathematics Project

Call to Order

The May 18, 2018, session of the National Assessment Governing Board meeting was called to order by Acting Chair Tonya Matthews at 8:35 a.m.

Opening Remarks

Acting Chair Tonya Matthews acknowledged recent awards and announcements of Board members. She invited the recently appointed Commissioner for the National Center for Education Statistics (NCES), James Lynn Woodworth, to introduce himself. Ms. Matthews acknowledged the new director of the Institute of Education Sciences, Mark Schneider, who was unable to attend the meeting. Ms. Matthews thanked Peggy Carr of NCES and her team for leading one of the most successful NAEP Day releases the previous month.

Acting Chair Matthews requested a motion for approval of the May 2018 agenda. Jim Geringer moved for approval. The motion was seconded by Rebecca Gagnon and passed unanimously.

Acting Chair Matthews requested a motion for approval of the March 2018 minutes. Linda Rosen moved the motion. Carol Jago seconded the motion which then passed unanimously.

Welcome to Alabama

Chasidy White welcomed Board members to Alabama. She introduced John Merrill, Alabama's Secretary of State, by reflecting upon the day in 2014 when she received an email from him while in her eighth-grade classroom, inviting her to apply to join the Governing Board.

Secretary Merrill welcomed Board members to Alabama, recognizing that they had the choice to go anywhere in the United States. He noted that the Board members probably held many conceptions about Alabama and its history and explained that Alabamians are committing themselves to surmounting the challenges their state faces. He explained that his wife, a former classroom teacher and elementary school principal, now works for the Alabama Department of Early Childhood Education. He pointed out that Alabama's pre-K program leads the nation. The state has observed the importance of an exceptional, established pre-K to prepare students for school and eventually the workforce. A strong start helps to ensure economic development. Secretary Merrill encouraged visitors to observe the revitalization of downtown Montgomery and experience the many historical sites, including the new National Memorial for Peace and

Justice and the Legacy Museum. He expressed hope that visitors will want to return to learn more “about our heritage, about our history, but more importantly about our future and how we can work with you to help you accomplish the goals that you have as an organization so we can move forward to make America all it can possibly be.”

Following Secretary Merrill’s remarks, Ms. White introduced Todd Strange, Mayor of the city of Montgomery. Mayor Strange pointed out that historically the Alabama Reading Initiative has been of high quality. Alabama’s performance in reading declined, but has recently been revitalized. This high quality now needs to be distributed more widely in the state. He highlighted some bright spots about education in Montgomery such as having: high schools ranked 1st, 5th, and 8th in the state, the top elementary school in the state, and high-quality magnet programs.

Mayor Strange explained that the Montgomery school system is run by an elected school board and the city government’s only authority is to provide funding. The mayor explained that he is in his third term as mayor and has decided not to run for a fourth term. As part of his work as mayor, he attempted a politically risky action to create a city school system, and when that failed, the city sought, and achieved state intervention. A new state superintendent, Eric Mackey, began his tenure a few days before the quarterly Board meeting commenced. Legal battles continue over charter schools. Mayor Strange lauded the importance of educational assessments to hold everyone equally accountable for children’s education, and thanked the Governing Board for its work.

Putting his “mayor hat on,” Mayor Strange pointed out several sightseeing opportunities and encouraged Board members to make the most of their time in Montgomery. He pointed out recent accomplishments of the city, that included the opening of the only internet exchange in the state of Alabama and the creation of an innovation district, MGM Works. Also, Montgomery is included among U.S. Innovation Cities™ in the 10th annual 2thinknow worldwide ratings.

First Class Pre-K: Preparing Alabama’s Children for School Success and Lifelong Learning

Acting Chair Matthews provided a brief introduction to the importance of early childhood education as laying the foundation for the future of our children. She highlighted Alabama’s voluntary First Class Pre-Kindergarten Program, named the highest quality state-funded pre-K program in America, for the twelfth year in a row, by the National Institute for Early Childhood Education Research.

Ms. White introduced the panel of speakers:

- Secretary Jeana Ross, Department of Early Childhood Education, oversees Alabama’s First Class Pre-K Program. Outcomes of the Program are very promising. Harvard University is producing a documentary about it. Ms. Ross was recently named a 2018

Alabama Woman of Impact. Under her leadership, pre-K attendance has increased 374 percent.

- Senator Del Marsh, President pro tempore of the Alabama Senate is the first in line for succession to the governorship of Alabama since the office of Lieutenant Governor is vacant. Ms. White described his education plan as comprehensive, connecting the pieces so that everyone works together.
- Nick Moore, Education Advisor to Alabama Governor Kay Ivey, works to ensure that Alabama students have a strong start and a strong finish.

Ms. Ross praised the energy of the people in Alabama's Department of Early Education and their commitment to expand the First Class Pre-K Program to serve more children while maintaining the highest quality possible. To do so, they use data to look at what students and teachers are accomplishing in the classroom. They collect measures across eight domains. Data show that students who attend the pre-K program are able to close the academic and readiness gaps that exist when the children enter the program.

Senator Marsh explained the rationale for and development of a comprehensive education plan for Alabama. There are different plans for students at different grade levels – pre-K, K-12, postsecondary, and higher education, but there is no transition from one level of learning to another. Senator Marsh has convened representatives of different education entities in Alabama to assemble a comprehensive pre-K through postsecondary education plan, complete with priorities and accountability, which will help the legislature budget for education needs. Senator Marsh hopes that the education group will have the power to advocate for policy or governance changes, as needed, by the 2019 legislative session of the Alabama Legislature.

Mr. Moore, who represented Governor Ivey, stated that the Governor considers education a top priority, and declares herself an education governor. Mr. Moore pointed out the state's use of data to drive decision-making in education policy, governance, and planning, involving a full cadre of leaders in education. He spoke of the Governor's first major initiative – Strong Start, Strong Finish – which includes integration of pre-K through third grade, building on the remarks made by Secretary Ross and Senator Marsh. With a goal of growing their own workforce, all students will need to be college or career-ready. To achieve such a goal, students must be able to read by third grade, so Alabama has built programs to support families and communities to help children get ready to learn before school begins. The First Class Pre-K Program is closing the achievement gap among subgroups and across socioeconomic lines.

The panel then fielded questions from Governing Board members. Secretary Ross elaborated on the First Class Pre-K Program. Parents are required to participate in the program with their children. Teachers, who must have a bachelor's degree in early childhood or child development, receive coaching and support. Auxiliary teachers may receive scholarships to continue their education to become a teacher. Through pay parity, pre-K teachers earn the same as those in K-12 classrooms. Alabama built their own program, drawing on early childhood programs in Georgia and North Carolina but wrote their own developmental standards. A recent addition to

the program is an early childhood education mental health coordinator to lead social-emotional behavior management.

Local programs are required to advertise and conduct outreach to promote the program to parents. Ms. Ross noted that there is high demand for the program; there were 13,000 children on the waitlist in 2017. Shannon Garrison expressed concern for the large waitlist. Senator Marsh explained that with data that show the positive effects of the program, the Governor requested and received additional funding to expand the program. Ms. Ross referred to a ten-year plan to expand the program to serve 70 percent of Alabama's four-year-olds in high-quality programs.

Tyler Cramer asked how recent NAEP results reflect Alabama's education initiatives. Mr. Marsh acknowledged that the early successes through the pre-K program and third grade reading initiative are not sustained by grade 8, as evidenced by Alabama's status at the 50th percentile in mathematics and 46th percentile in reading on NAEP. Mr. Marsh noted that Alabama's comprehensive plan is intended to improve communication between different education entities that have tended to work in silos. Ms. Ross added that Alabama has seen some gap closures on NAEP, particularly for certain student groups, and that there are research briefs on their website documenting the relationship between participation in the pre-K program and the likelihood of being proficient in reading and math.

Board member questions led to the speakers describing different Alabama initiatives to improve student performance and equity in education. Montgomery and Birmingham city schools initiated a summer program designed to close achievement gaps for children who are not reading on grade level. Middle school teachers' professional development has targeted equitable access to computer science and digital literacy. The Alabama School of Cyber-Technology and Engineering will be opened in Huntsville, Alabama to serve students in grades 7-12 across the state.

Bill Bushaw, Executive Director, asked what skills graduating seniors in Alabama have or lack as they transition to post-secondary paths. Mr. Moore referenced data from the Alabama Attainment Committee showing a need for 500,000 more postsecondary degrees and credentials by 2025 to meet employer demand. He indicated students need industry-recognized, portable credentials, suggesting a need for better alignment between secondary and post-secondary courses and opportunities, such as apprenticeships and internships. Mr. Moore stated that Alabama would like to have a college and career exploration tool to help students and parents understand employment prospects and education, as well as costs to prepare students for different career fields. Then, they could couple that information with a seamless pipeline of educational opportunities from pre-K through grade 12 and beyond.

Andrew Ho asked about the importance of measuring physical and social-emotional abilities. In Alabama, these domains are measured by teacher observation, which requires extensive training. Secretary Ross described the importance of recognizing issues early so they can overcome these

challenges. Teachers use games and other activities to create a sense of community to help students who have experienced stress and trauma to learn valuable social-emotional skills.

Several members asked how the state funds education. Mr. Marsh explained that Alabama has a budget for education that is separate from their general fund.

Recess for Break

The May 18, 2018 Governing Board meeting recessed at 10:17 a.m. for a break followed by committee meetings.

Meeting Reconvened

The May 18, 2018 Governing Board meeting reconvened at 1:25 p.m. for a working lunch.

How State Mathematics Curricula Relate to NAEP Mathematics (SV #5)

Shannon Garrison noted that at the March 2018 Board meeting, the Governing Board adopted a new Framework Development Policy that continues the Board's tradition of leading a deliberative and inclusive process for determining the content to be tested in NAEP. For each framework development or update project, the Board convenes a broad array of experts in the field to serve on panels that will share recommendations for the ADC to consider and eventually recommend to the full Board. As noted in the policy, for existing frameworks, this process starts with a framework review conducted by the ADC.

Ms. Garrison announced that the ADC began the NAEP Mathematics Framework review earlier today by hosting an expert panel discussion and a briefing on an analysis of how state mathematics curricula relate to the NAEP Mathematics Framework. The Governing Board commissioned this review of state standards to inform deliberations by the Board and the framework panels that may be convened for an update of the NAEP Mathematics Framework. Ms. Garrison noted that the NAEP Mathematics Framework is likely to be the first framework update to be conducted under the Board's new Framework Development Policy.

To present the findings of this review of mathematics standards, Ms. Garrison introduced William (Tad) Johnston and Beth Ratway from the American Institutes for Research (AIR). The review included mathematics standards implemented for the 2017-2018 school year in all 50 states, as well as the District of Columbia and the Department of Defense Education Activity schools.

Ms. Ratway reviewed the methodology of the study. A national group of content-specialists compared NAEP objectives with one or more state standards, looking for conceptual matches in the content represented in each objective and standard. Comparison ratings capture whether the

NAEP content is not covered, partially covered, or completely covered in state standards. Partial ratings capture whether matches reflect additional NAEP content relative to states.

Mr. Johnston summarized the findings, noting that there was significant overlap of mathematics content between NAEP objectives and states' standards, with more alignment in grade 8 than grade 4. Approximately 78 percent of the grade 4 NAEP mathematics objectives were matched with grade 4 state standards. In grade 8, 92 percent of the NAEP objectives were matched with corresponding state standards. For the large majority of NAEP objectives, the overlap is consistent across states. There is some variation in the level of overlap when looking at the five NAEP Mathematics Content Areas: Number Properties and Operations; Measurement; Geometry; Data Analysis, Statistics, and Probability; and Algebra.

Mr. Johnston also summarized the small percentage of NAEP objectives not found in state mathematics standards, and areas where parts of some NAEP objectives reflect additional mathematics content that is not found in state mathematics standards in the corresponding grades. The AIR project team reviewed mathematics content in mandated state subjects outside of mathematics to determine whether additional NAEP content may have been reflected in those state standards. However, little of the mathematics content missing from state mathematics standards was found in these state standards outside of mathematics.

Content specialists also used an extended rating to note areas in which states are covering all of the content in a NAEP framework objective as well as additional content. Mr. Johnston explained that this extra content mostly reflects differences in sequencing and specificity, or represents cross-cutting content or content that is difficult to test.

Board members voiced concerns with the use of the terms "opportunity to learn" and "alignment" as they were used in the study. The study does not address evidence related to classroom practices, which is the focus of the term opportunity to learn. Alignment conveys a two-way process, while this comparison study is a one-way comparison that addresses what percentage of NAEP objectives are reflected in state mathematics content. Conversely, the question of what percentage of state standards are reflected in NAEP was not addressed because NAEP is the focus of this analysis. In addition to careful terminology, Board members urged use of neutral language in the report because the intent of this analysis is to be descriptive rather than evaluative of states or NAEP.

In discussing the meaning of the study results, Jim Geringer reminded participants that NAEP frameworks are written explicitly for assessment purposes, while state standards are written primarily for instructional purposes. Joe Willhoft noted that diversity of state standards relative to NAEP frameworks is a long-standing aspect of NAEP assessments, while Andrew Ho observed that the breadth of NAEP content coverage supports states, as they focus on the teaching and learning of individual students.

Board members also discussed policy implications of the way the study results are reported, interpreted, and used. Linda Rosen asked the Board to consider how much overlap between NAEP and states is enough. Chasidy White suggested that NAEP should “stay above the fray.” As state standards, curriculum, and assessments come and go, Ms. White asserted that NAEP must remain ahead of these changes. Ms. Garrison explained that the current study is only one piece of information that the ADC will use to make recommendations about revisions to the NAEP Mathematics Framework.

Implementing the NAEP Assessment Schedule Priorities (SV #9)

Tonya Matthews launched a discussion of priorities to guide the NAEP Assessment Schedule. She reminded the Board of its Resolution passed at the previous meeting that established three guiding principles: utility, frequency, and efficiency. First, the results should be useful, which calls for additional state- and district-level results. Second, the minimum frequency for testing any given subject should be every four years in order to provide meaningful trend information. Third, the Board needs to find the most efficient ways to administer NAEP.

Bill Bushaw explained that Governing Board staff and NCES staff worked collaboratively to develop a set of four proxy scheduling options to spark discussion in three breakout groups:

- Option 1 was similar to the current schedule in terms of maintaining distinct assessments, state/TUDA (Trial Urban District Assessments) administration, and periodicity.
- Option 2 maintained assessments only in the four core subjects of Reading, Math, Writing, and Science but increased the administration samples to support state and TUDA results.
- Option 3 introduced consolidation of non-core subjects into fewer frameworks.
- Option 4 called for a more fundamental design shift in which content areas would be consolidated extensively, reducing ten assessments to four.

Mr. Bushaw suggested that each group determine whether they can eliminate any models from consideration, gravitate toward a model, or envision a different model. He described this as a first step toward consensus. Ms. Matthews then directed Board members to separate into three groups to discuss the options from 3:15 – 4:15 p.m., then to return to the plenary session at 4:30 p.m. to report out.

Recess for Break

The May 18, 2018 Governing Board meeting recessed at 2:53 p.m. for a break followed by small group discussions.

Implementing Assessment Schedule Priorities: Reflections (SV #9)

The May 18, 2018 Governing Board meeting reconvened at 4:31 p.m. to report out on the small group discussions.

Linda Rosen reported on the first break-out group discussion by offering the results of an initial vote of the options. Most of the group preferred Option 3 representing a blend of coordinated and consolidated assessments; a very strong minority of the group preferred Option 1, which is like the current schedule/status quo in terms of maintaining district assessments, state/TUDA administration, and periodicity. Some of the group felt that Option 4 went too far. As a result, group discussion ensued between Option 1 and 3. One question was whether more state-level results for the social studies assessments could be provided in Option 1. Peggy Carr, who was in the group, suggested that a “thin set” of state results might be possible. Group members asked about the cost for some state-level results for the social studies assessments and the potential impact of framework consolidation on trends. There was also some interest in exploring the possibility of replacing economics with financial literacy.

Fielding Rolston shared the discussion of the second break-out group by indicating that the group gravitated toward Option 3. They reasoned that state assessments provide much actionable data and that the Board should move in that direction. Mr. Rolston indicated that Options 1, 2, and 4 were eliminated from the group’s consideration; the group noted in particular that Option 4 went too far. The group spent a substantial amount of time talking about modifications to Option 3, including: (a) consolidating social studies to include subscales for civics, U.S. history, and geography; (b) the possibility of consolidating writing with social studies; (c) adding TUDA for social studies and technology and engineering literacy (TEL); (d) expanding the transcript studies to include grade 8 in TUDA; and (e) adding financial literacy. Mr. Rolston commented that the suggestions involving the expansion of TUDA should be discussed with the TUDA Task Force to make sure there is interest in additional assessments, given the voluntary nature of TUDA. A consensus was not reached on the consolidation of TEL and science. A final point of interest involved reconciling the options with financial resources.

Greg Cizek indicated that the third break-out group immediately rejected Option 1. The group spent time discussing the principles behind the assessment schedule that included (a) providing states and TUDAs with more information; (b) prioritizing the ability to maintain trends, particularly in reading and math; (c) avoiding putting so many things together in a way that makes it difficult or impossible to report with clarity on some smaller slice of a larger composite; (d) considering consolidation where it made sense (e.g., science and TEL or something with social studies); and (e) gathering more information about how teaching and learning happens to inform what assessment results would be most valuable and impactful. Mr. Cizek indicated that there was some polarization between Options 2 and 4 where there was passionate support for each option by various members of the group.

Board members provided individual comments and clarification and context of the group discussions. Ken Wagner commented that while the Board tends to think about what is feasible and affordable, they were instructed not to consider these. However, Mr. Wagner suggested looking at opportunity costs. He suggested spending time on what the Board considers important rather than on things the Board cannot influence. He would rather be parsimonious and get results to more people in a deeper way than take on other challenges. Similarly, Greg Cizek voiced his opinion that NAEP should be configured in a way that offers the most impact and use. Linda Rosen summarized her group's conversation on costs by suggesting that the Board develop a persuasive case to policymakers by providing them with more state and TUDA data.

Jeanette Nuñez indicated that consolidation of multiple assessments may affect trends. She suggested that Peggy Carr should be involved in the conversation. Cary Sneider indicated a need to discuss the implications of some schedule decisions. For example, in discussing the implications of consolidating science and TEL, the Board may agree to sacrifice depth and trend in this case knowing that they will maintain trends for others such as reading and mathematics. Mr. Sneider shared ADC's perception that similar content is being assessed in different subject areas. He suggested that NAGB convene a visioning committee to examine all the frameworks with the goal of identifying possible overlaps and opportunities for consolidation. This should be done soon, before visioning panels for specific frameworks begin their work, or opportunities for streamlining NAEP will be lost.

Joe Willhoft commented on the importance of the U.S. history and civics assessments and results. U.S. history and civics are fundamental to our nation's education system. Senator Alexander, an important stakeholder to NAEP, has always supported three separate assessments and asked for these results. This gives the Board leverage to argue for Option 1, but to ask for state results in the three social studies subjects separately.

Terry Mazany expressed concern that the conversations seemed to be occurring in the absence of a "North Star," which would provide a logic to drive the decisions to be made. For example, one of the fundamentals of our education system is to prepare citizens to participate in a democratic society, which would indicate that civics and U.S. history are important to address.

Peggy Carr indicated that NCES is conducting transcript studies now and piloting studies to inform the collection of eighth grade transcript data for a set of TUDAs that have agreed to participate. Additionally, NCES is going to collect transcript data for ten states at twelfth grade. Transcript collections will be done electronically, thus decreasing their cost substantially.

Chasidy White argued that it is important to maintain separate assessments for history, civics, and geography, and that this option should not be called "status quo," which carries a negative connotation.

Andrew Ho reminded Board members that providing more state and TUDA data will require not only support from those holding the purse strings but also from the people who would volunteer

to take the assessments. Mr. Ho noted that Option 3 provides an opportunity to conduct some research to determine the feasibility of configuring the social studies assessments in more innovative ways, and that the potential loss of trend data in these subjects would be much less problematic than losing the reading or math trend lines.

Acting Chair Tonya Matthews noted the importance of re-envisioning the purpose of the way that NAEP assesses what students should know. Ms. Matthews commented on the struggle to innovate, while consolidating or eliminating assessments. She summarized some themes from the group summaries and Board members comments: (a) state-level data are important, with strong support for engaging districts as much as possible; (b) there is support around consolidation but calls for understanding the real consequences, pros and cons, and implications; (c) we need to consider the budget; and (d) conversation around trend is important and is becoming increasingly sophisticated.

Following this summation, Ms. Matthews reviewed the evening's agenda and activities.

Recess

The May 18, 2018 Governing Board meeting recessed at 5:11 p.m.

Meeting Convened: OPEN SESSION

The Saturday session of the Board meeting began at 8:30 a.m. on May 19, 2018 with a moment of silence in recognition of the school tragedies that occurred during the week.

Reflections on the Outreach Dinner and Considerations for the Ad Hoc Committee on Measures of Post-Secondary Preparedness (SV #1 & 10)

Terry Mazany, Chair of the Ad Hoc Committee on Measures of Postsecondary Preparedness, provided an introduction to the session by referencing several books and their relationship to current cultural trends. In *Thank You For Being Late*, Thomas Friedman contends that society is changing faster than humans can cognitively and mentally adapt to the changes. Henry Timms, in *Examining the Nature of Power and How We Operate*, uses the metaphor of Tetris versus Minecraft to illustrate shifts in how humans interact with others and their environment. Mr. Mazany noted we are in the digital revolution, a period of volatility, change, disruption, and social pain. He questioned whether schools and educational systems will be able to change fast enough and asserted the need for NAEP to remain open to innovation, particularly in new ways of assessing new types of content.

Board members reflected on the outreach dinner held the previous evening, on Friday, May 17 which featured approximately 100 guests. Board members were impressed with the caliber of the guests and the diversity of the conversation; they thanked Chasidy White for organizing the event. In the outreach dinner conversations, attendees discussed the following question: "What

knowledge and skills will high school students in the future need to be ready for any post-secondary path?” Several Board members stated that soft skills, or “important skills” as Alabama’s new teacher of the year called them, dominated their small group discussions. Attendees recognized the difficulty in measuring soft skills, such as collaboration, creative problem solving, critical thinking, and communication.

Several Board members related their discussion with three local superintendents who focused on challenges they face with parents who do not recognize the expectations and opportunities available. They discussed the impact of the cycle of low expectations and how NAEP data might be used to inform initiatives and guide outreach to raise awareness of opportunities and increase expectations to prepare students for high skill jobs with more upward mobility.

Another approach could be to focus on student pathways and highlighting students’ strengths, interests, and passions as they align with workforce opportunities. Ken Wagner explained the need for teacher preparation to include career exploration and student pathways; teachers need pathways too. He suggested looking more closely at the NAEP teacher questionnaires and how these data might be used to explore teachers’ career pathways.

Outreach event guests cited mental health skills, such as adaptability, resilience, self-control, and human relationships and attachments, and character education, such as empathy, as important skills for today’s youth. They stated that any post-secondary path will require the ability to understand and apply reading and math skills and noted the importance of financial literacy. Basic job skills of today, such as being on time for work and not getting into arguments with employers, are also important.

Some guests commented on a cultural difference between U.S. and German students evident at a Mercedes plant near one of the community colleges represented at the dinner. German culture relies heavily upon directing students to apply knowledge. U.S. students, however, tend to be more comfortable with raw knowledge than application of knowledge.

In measuring post-secondary preparation, participants asked if enough attention is being paid to skills needed in fourth and eighth grade for college and career pathways. Dinner guests asked the Governing Board to look at emerging trends in post-secondary preparedness and disseminate their findings to the state so they can incorporate these trends in their educational planning process.

Fielding Rolston asked guests what value they see in NAEP. Respondents answered that they look at their standing relative to other states.

Preston Bolt, President of the Board of Directors of the Public Affairs Research Council of Alabama (PARCA), emphasized that students need to have the ability to learn. That requires motivation, self-awareness, and being a good listener, all meta cognitive skills so that they can

seek help when needed. They need to believe in their ability to learn, have high expectations of themselves, and self-efficacy

Mr. Mazany closed the session by providing a brief update on the current work of the ad hoc committee. He reviewed the ad hoc committee's charge, research questions to focus its work, and the timeline to develop recommendations. Finally, he shared the following list of potential recommendations that the ad hoc committee has begun discussing:

- Develop a new career preparedness framework and assessment;
- Restructure existing NAEP assessments with career preparedness indicators (e.g., problem solving in TEL);
- Develop contextual variables on preparedness and increase the focus on them in NAEP reporting;
- Conduct special studies of career preparedness systems (e.g., High School Transcript Study); and
- Broker data from non-NAEP sources to inform a broader Report Card.

He reported that while these potential activities will evolve further with more committee discussion, the sixth option to “do nothing” was rejected by the ad hoc committee during its Thursday, May 16 meeting. Mr. Mazany recommended further full Board discussion on the work of the ad hoc committee at the next Governing Board meeting.

Committee Reports

Acting Chair Matthews asked the committee leadership to report on their meeting outcomes. The committee reports were accepted unanimously by the Board and are appended to these minutes.

At 9:39 a.m., the Governing Board transitioned to a closed session.

Connecting NAEP to State and Local Data (SV #2): CLOSED SESSION

Andrew Ho introduced Victor Bandeira de Mello (AIR) and Sean Reardon (Stanford Education Data Archive, Stanford University), who joined the Board remotely via webinar, to discuss different ways that NAEP can be used to connect to state and local data. Mr. Ho noted that these presentations highlight important examples of NAEP's relevance at the state and district levels.

Mr. Bandeira de Mello began by explaining the purpose of the NAEP state mapping studies, to put state performance standards on a common metric to understand the extent to which they were similar or different from one another. His presentation focused on the extent to which state performance standards changed over the period from 2005 to 2015. Embargoed results were shared for NAEP Reading and Mathematics at grades 4 and 8. Mr. Bandeira de Mello also presented some information about whether variability in state performance standards was related to state performance on NAEP – that is, whether states that set higher cut scores on their own assessments also tended to score higher on NAEP.

Next, Mr. Reardon provided an overview of the Stanford Education Data Archive (SEDA), which was developed to enable comparisons of student performance across school districts all over the country despite the lack of a common assessment for all students. The researchers who developed SEDA use EDFacts data provided by NCES to estimate the distribution of test scores in each district relative to its own state. The district test score distributions are placed on the NAEP scale so that they correspond to the same position in the NAEP distribution as they correspond to the state distribution. This process enables comparisons of student performance in all districts across the country. Therefore, although NAEP itself cannot tell us how any two districts in the country score relative to one another, the combination of the state tests and NAEP state and TUDA data allow that linkage to be made.

Mr. Reardon highlighted a few examples of what can be done with the data produced from this initiative. A map of school districts in the United States visually displayed which districts are well above and below the national average performance. Mr. Reardon pointed out the large amount of variation within each state, in addition to some regional patterns. He also shared some district results by student demographic variables, such as socioeconomic status.

Mr. Cramer asked whether it would be helpful for NAEP to include a contextual question asking whether a student has attended school in the district for at least three or four years. Mr. Reardon responded that it would be helpful to know more about cohort change, but that perhaps this information could be obtained from existing records rather than having to ask students themselves.

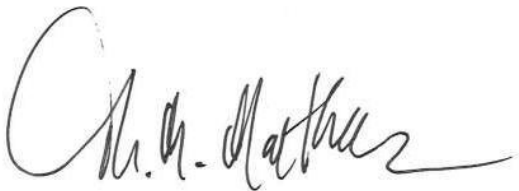
Peggy Carr suggested that the SEDA team consider using the large central city variable as an additional source of validation data. She also pointed out that sometimes states participate in international assessments at the state level, and those data might be useful as well.

Ms. Matthews thanked the presenters for providing ideas about how NAEP data can be used and how stakeholders can put NAEP information into practice.

Meeting Adjourned

The May 19, 2018 session of the meeting adjourned at 10:45 a.m.

I certify to the accuracy of the minutes.



Vice Chair Tonya Matthews

July 10, 2018

Date

National Assessment Governing Board

Executive Committee

Report of Thursday, May 17, 2018

Executive Committee Members: Tonya Matthews (Vice Chair), Rebecca Gagnon, Shannon Garrison, Andrew Ho, Terry Mazany, Fielding Rolston, Cary Sneider, Joseph Willhoft.

Executive Committee Members Absent: John Engler (Chair), Joseph O’Keefe.

Other Board Members: Carol Jago, Jeanette Nuñez, Linda Rosen, Chasidy White.

Governing Board Staff: Bill Bushaw (Executive Director), Lisa Stooksberry (Deputy Executive Director), Michelle Blair, Lily Clark, Stephaan Harris, Laura LoGerfo, Munira Mwalimu, Tessa Regis, Sharyn Rosenberg, Angela Scott, Tony White.

NCES Staff: James Woodworth (Commissioner), Jamie Deaton, Eunice Greer.

Other Attendees: AIR: George Bohrnstedt, Kim Gattis, Fran Stancavage, Darrick Yee. ETS: Jonas Bertling, Amy Drescher, Emelie Pooler. Fulcrum: Saira Brenner, Anderson Davis, Scott Ferguson, Kevin Price. Hager Sharp: Joanne Lin, Debra Silimeo. Hatcher Group: Amy Battier, Robert Johnson. Optimal Solutions Group: Brian Cramer, Sarah Guile. Pearson: Rowan Baker, Pat Stearns.

1. Welcome and Agenda Overview

Vice Chair Tonya Matthews called the meeting to order at 5:15 p.m. She welcomed the committee to Montgomery, AL, on behalf of Chair Engler who was not able to attend. She thanked Chasidy White for her efforts in hosting the meeting and organizing the school visits earlier in the day.

Ms. Matthews welcomed Dr. Woodworth, the newly appointed Commissioner of NCES, to the meeting. She commended Peggy Carr and the entire NCES team on the very successful report card release on April 10, 2018.

2. Executive Director’s Report

Bill Bushaw provided the Executive Committee with a summary of the release effort for the 2017 NAEP Reading and Mathematics Report Cards for grades 4 and 8. The release heralded one of the most significant changes for the NAEP program—its transition to being a digitally-based assessment (DBA). He thanked the many Board members who helped promote interest in the release by engaging in social media and participated in the event.

Ms. Bushaw provided an overview of the release day’s agenda which was held in person and livestreamed; both forums had hundreds of attendees. He noted that many partner groups engaged in the day’s event.

Mr. Bushaw explained the thoughtful embargoed release efforts that the Governing Board and NCES engaged in. He explained the criticality of these confidential conversations; the importance and thoughtful design of NAEP's transition to DBA was emphasized in these embargoed briefings and resulted in more accurate reporting and press releases on the day of the release.

3. Nomination Process for Board Vice Chair for the Term October 1, 2018 – September 30, 2019

Lisa Stooksberry provided an overview of the Board's process for selecting a Vice Chair. The Board's longstanding precedent is that the Chair recuses himself from the selection process and the Board elects its Vice Chair. This entails an outgoing Board member being identified in May to privately communicate with each Board member to identify the nominee. Then, in August, the full Board takes action to decide the Vice Chair to serve for the upcoming term. Ms. Stooksberry reported that outgoing Board member Chasidy White agreed to serve this role to identify the Vice Chair for the term of October 1, 2018 – September 30, 2019.

4. Executive Director Search

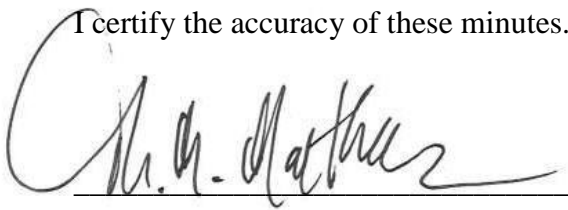
Terry Mazany, lead of the search committee to select a new Executive Director for the Governing Board, provided a review of the committee's timeline. He reported that of the 29 applications that met the job qualifications, 17 are being considered for an in-person interview. He thanked the panel of Board members who agreed to stay longer on Saturday to determine the finalists for in-person interviews which will be conducted on June 7, 2018 in Washington, DC. Mr. Bushaw is recused from the selection process at this stage. The importance of maintaining confidentiality of the candidates and the importance of this responsibility for the Board was stressed.

Shannon Garrison asked for and received confirmation that Lisa Stooksberry would not only be staffing the search committee but would also be participating in the interview process as a full member of the selection committee to represent the staff voice.

Vice Chair Matthews lauded the group's repurposed use of the online system for Board nominations to gather and review applications for the Executive Director search.

Vice Chair Matthews adjourned the Executive Committee meeting at 6:00 p.m.

I certify the accuracy of these minutes.



Tonya Matthews, Vice Chair

July 10, 2018

Date

National Assessment Governing Board
Ad Hoc Committee on Measures of Postsecondary Preparedness
Report of Thursday, May 17, 2018

Ad Hoc Committee Members: Terry Mazany (Chair), Alberto Carvalho, Carol Jago, Tonya Matthews, Dale Nowlin, Alice Peisch, Bev Perdue, Fielding Rolston, Linda Rosen, Ken Wagner, Chasidy White.

Ad Hoc Committee Member Absent: Jim Geringer.

Other Board Members: Tyler Cramer, Joe Willhoft.

Governing Board Staff: Bill Bushaw (Executive Director), Lisa Stooksberry (Deputy Executive Director), Michelle Blair, Lily Clark, Stephaan Harris, Laura LoGerfo, Sharyn Rosenberg.

NCES Staff: Lynn Woodworth (Commissioner), Jamie Deaton.

Other Attendees: A+ Education Partnership: Caroline Novak. Alabama State Board of Education: Ella Bell. AIR: George Bohrnstedt, Cadelle Hemphill, Fran Stancavage. ETS: Jonas Bertling, Gloria Dim, Amy Dresher, Emilie Pooler, Luis Saldivia. Fulcrum: Scott Ferguson. Hager Sharp: Joanne Lim, Debra Silimeo. HumRRO: Sunny Becker, Monica Gribben, Thanos Patelis. Optimal Solutions Group: Brian Cramer, Sarah Guile. Pearson: Rowan Baker, Pat Stearns. Other: Susan Cramer.

1. Welcome and Overview of Committee's Charge

The meeting of the Ad Hoc Committee on Measures of Postsecondary Preparedness was called to order at 3:00 p.m. Chair Mazany observed the connection with the committee's work and the Board's visit earlier in the day to rural schools in Pike County, Alabama where innovative postsecondary pathways are being forged for secondary school students.

He reviewed the charge to the Ad Hoc Committee, including the requirement to report recommendations to the Board by November 2018, and noted that the committee is on track with that timeline. Chair Mazany thanked the Governing Board's contractor, HumRRO, for their significant efforts in organizing the expert panels and summarizing existing research to answer the committee's three questions:

1. Work of the future (readiness for what?)
2. Requisite skills for future work (skills for what?)
3. Measures of preparedness (measures for what?)

Chair Mazany noted that the third question regarding measures was a focus the day's meeting. Executive Director Bill Bushaw referred the committee to a document included in their advance reading materials which reviewed the impact of the Board's 2013 and 2015 reporting academic

preparedness rates for grade 12. This was created in response to the request from Linda Rosen at the March 2018 committee meeting. Mr. Bushaw stated that the limited impact of the Board's academic preparedness reporting was likely due to the results being reported at the national-level only. He emphasized the value of reporting NAEP data at the state level for it to be more useful.

2. Reflections on the Higher Education Expert Panel Meeting

Chair Mazany reminded the committee of the key takeaways from its panel of industry experts which was convened in February, which emphasized the importance of skills such as collaboration and problem-solving, in addition to content knowledge. He then provided an overview of the higher education expert panel, held on April 19 in Chicago, Illinois. The Governing Board's contractor HumRRO arranged meeting with the following higher education experts:

- Dr. Sarah DeMark, Vice President of Academic Programs, Western Governors University;
- Dr. Pradeep Kotamraju, Bureau Chief, Career and Technical Education, Division of Community Colleges and Workforce Preparation, Iowa Department of Education;
- Mr. Michael Morsches, Dean of Learning Enrichment and College Readiness, Moraine Valley Community College;
- Dr. Yvette Mozie-Ross, Vice Provost for Enrollment Management and Planning, University of Maryland, Baltimore County; and
- Dr. Holly Zanville, Senior Advisor for Credentialing and Workforce Development, Lumina Foundation.

The following four key takeaways from the higher education expert panel meeting were suggested for the committee to discuss and refine:

- 1) *New norms for HS: graduating with post-secondary credits, certificates, and work-based learning experiences*
- 2) *Paradigm Shifts: Knowledge/skill flip: now skills are the base and knowledge is acquired as needed (vs. the opposite)*
 - a) *Nontraditional students today = traditional students of tomorrow*
 - b) *Empowering students to curate their learning experiences; grit is important*
- 3) *There is a need to more actively engage employers as partners & collaborators with higher education and students*
- 4) *Don't teach students to do what a robot can do better*

The committee challenged the wording #2 above. While members agreed that a paradigm shift occurs when students are agents of their own learning, the committee disagreed with the

language in #2 suggesting that knowledge and competence matter less than other essential skills.

Tonya Matthews stated that job training cannot replace mastering the basics; therefore it is motivating to master those skills to qualify for apprenticeship opportunities. Bev Purdue agreed and added that the importance of completing the basics first creates respect for the training and certificates.

Committee members discussed concerns of equity, noting for example, that the dual enrollment programs are most appealing to families to save money, not to be more ready for work.

3. Discussion of the Measures of Preparedness

Chair Mazany explained that while this committee meeting is intended to have focused discussion on measures, it is critical to also spend more time culling the list of skills that we want to identify measures for. He showed a slide with all of the subjects that NAEP assesses and asked, “What subjects of knowledge are the most critical for postsecondary preparedness?” He then showed a slide listing the following inter- and intra-personal skills which were suggested as important in the expert panel meetings, and invited feedback on the list:

- Creativity
- Communication
- Problem-solving
- Adaptability
- Perseverance
- Critical thinking
- Intellectual openness
- Conflict Resolution
- Inquiry
- Self-efficacy
- Leadership
- Social and Emotional

The committee members spent extensive time discussing the high value of social and emotional learning (SEL) as well as the controversy around measuring and reporting those skills. Chasidy White commented that not a single state listed SEL in their Every Student Succeeds Act (ESSA) accountability plans. Ken Wagner noted that many states include credentials in their accountability systems, which serve as proxies for SEL skills because the students who pursue those credentialing opportunities are demonstrating those skills. Carol Jago suggested the committee not include SEL on its final list of important skills, as they are captured by a variety of other skills on the list. Chair Mazany suggested the addition of “persuasiveness” to the list.

Linda Rosen posited that NAEP may have measures for more of these indicators than is initially apparent. She noted that the Technology and Engineering Literacy (TEL) NAEP assessment measures problem-solving and critical thinking, but the reporting of the 2014 TEL results did not focus on those constructs. Similarly the NAEP writing assessment could be reframed as measuring communication skills.

The committee then discussed the risks of NAEP’s reporting having greater emphasis on these “softer” skills. Dale Nowlin observed that some students who may not do well on academic

tests might score higher on these other important skills. Ms. Matthews asserted that the committee needs to identify a set of universal skills that all students need.

Mr. Wagner argued that NAEP does need to create a lot of new measures. He suggested that NAEP could report on postsecondary preparedness by revising current NAEP data measures and weighting them to make a single, culminating claim. This could include expanding the analyses of NAEP high school transcript data (e.g. by researching students' work outcomes based their pathways, including apprenticeships, internships, etc.) and revising the TEL assessment and contextual variables to align with the Board's theory on postsecondary preparedness. Committee members discussed the value of NAEP focusing its reporting on student learning opportunities, rather than the traditional standardized outcome data (such as AP and ACT scores).

4. Discussion of Next Steps

Chair Mazany presented the following list of six potential draft recommendations to get the committee's initial reactions. He summarized the six draft options:

1. *Develop a new career preparedness framework & assessment*
2. *Restructure existing NAEP assessment with career preparedness indicators*
3. *Develop contextual variables on preparedness and increase the focus on them in NAEP reporting*
4. *Conduct special studies of career preparedness systems*
5. *Broker data from non NAEP-sources to inform a broader report card*
6. *Do nothing*

The committee was emphatic that it was not acceptable to decide that no changes to NAEP are necessary (option 6). Ms. Jago emphasized that doing nothing would be abandoning the Board's mission—they must do something now that the need has been identified.

The committee engaged in discussion about the desire to have state level results for whatever report it may produce, affirmed that its recommendations should focus on reporting results for grade 12, and expressed its sense of urgency to have a solution implemented more quickly than the typical timeline for developing new NAEP instruments.

Numerous committee members expressed initial interest in pursuing the possibilities of revising existing NAEP assessments (option 2), enhancing the NAEP contextual variables (option 3), and brokering data from non-NAEP sources for a new report card (option 5); however, enthusiasm for option 5 was tempered by the potential complications of using non-NAEP data.

Committee members expressed concerns with creating a new assessment (option 1) and the limited impact of doing special studies (option 4).

Joe Willhoft suggested that developing a new framework might be a prerequisite for any of the options the committee might recommend. Several committee members expressed concerns with how long it would take to develop a framework. In contrast, Mr. Wagner noted the Governing Board could develop a framework on postsecondary preparedness within 1-2 years which would be a strong signal to the field about the direction that the NAEP program is moving.

Members discussed their openness to considering novel approaches to collecting data, noting that where students learn is evolving and the Board has an opportunity to consider new ways for NAEP to survey 12th grade students.

Committee members noted that the upcoming Futurist expert panel meeting to be held on June 21 in San Francisco, California might shift the group's thinking and preferences for their recommendations.

Before adjourning the meeting, Chair Mazany invited the committee to offer comments about its next steps.

Committee members noted the importance of NCES having a voice in the conversation, and Chair Mazany suggested that NCES present on how the committee's potential recommendations may or may not align with NCES's Future of NAEP efforts.

It was also observed that the committee's potential recommendations may have implications for the NAEP Assessment Schedule, which was on the Board's meeting agenda for the following day. The committee suggested monitoring the evolving conversations in both forums, at this and future Board meetings, to see if they are converging or diverging.

Chair Mazany adjourned the ad hoc committee meeting at 5:00 p.m.

I certify the accuracy of these minutes.


Terry Mazany, Chair

July 17, 2018

Date

National Assessment Governing Board
Assessment Development Committee
Report of May 18, 2018

Assessment Development Committee (ADC) Members: Shannon Garrison (Chair), Cary Sneider (Vice Chair), Terry Mazany, Dale Nowlin, and Chasidy White.

Governing Board Staff: Bill Bushaw, Lisa Stooksberry, Michelle Blair, and Lily Clark.

National Center for Education Statistics (NCES) Staff: James Lynn Woodworth (Commissioner) and Eunice Greer.

Other Attendees: AIR: Kim Gattis, Tad Johnston, Beth Ratway, Fran Stancavage. Alabama Department of Education: Kanetra Germany. ETS: Jay Campbell, Gloria Dion, Luis Saldiva. Optimal: Sarah Guile. Pearson: Kevin Baker. University of Chicago: Zalman Usiskin. HumRRO: Drew McGuckin, Monica Gribben. Westat: Rick Rogers.

Welcome and Introductions

ADC Chair Shannon Garrison called the meeting to order at 10:30 a.m. and welcomed attendees. She commented on the importance of the Board's March 2018 adoption of a revised Framework Development Policy for NAEP assessments.

While the policy includes new guidance for the updating and monitoring of frameworks, it also reaffirms that NAEP frameworks are to reflect what is valued by the public. To embody the inclusive and deliberative aspects of the framework update and development processes, Ms. Garrison noted the significance of engaging with a variety of perspectives. Such discussions enable the Governing Board to determine the most appropriate content and the revisions that may be needed to address the new frontiers in digital-based assessment and the discipline-specific shifts that have occurred.

Ms. Garrison noted that one example of discipline-specific shifts is in mathematics, where many states have changed their standards in recent years. In preparation for discussions on the NAEP Mathematics Framework, the Board commissioned an analysis to review how the current framework relates to state standards used across the country.

Chair Garrison summarized that the major focus of the current ADC agenda is to discuss the anticipated magnitude of revision for the NAEP Mathematics Framework update project.

Review of Mathematics Curricular Standards (SV #5)

To inform discussions about future NAEP assessment framework updates, the Governing Board conducted a competitive bidding process and awarded a contract in August 2017 to the American Institutes for Research (AIR) to collect and analyze mathematics content standards for grades K through 8 from all 50 states, the District of Columbia, and the Department of Defense Education Activity. This review develops a descriptive picture of how mathematics curricular content across states relates to what NAEP assesses in mathematics at grades 4 and 8.

Project Leader Beth Ratway briefed the ADC on the approach used to conduct the study. Using a combination of external experts and mathematics specialists within AIR, state mathematics content standards were compared with 2017 NAEP Mathematics Framework objectives. The AIR project team compiled individual ratings from the external experts, and then an in-person meeting was held to reach consensus and finalize a collective rating for each comparison. Each rating describes the conceptual match between NAEP and state mathematics objectives as not aligned, partial, complete, or extended.

Altogether, the analysis summarizes:

- state-by-state coverage of NAEP objectives by state mathematics standards;
- NAEP content not covered in state mathematics standards (Missing Content) and the extent to which it may be covered in the curricula of states' other mandated subjects; and
- state mathematics content standards not reflected in the NAEP framework (Extra Content), as a consolidated list of standards, and the extent to which these are covered across states.

Partial ratings capture whether matches reflect additional content in NAEP relative to states. This content covered in NAEP objectives but not covered in state standards was noted and labeled "Missing Content." As a follow-up to this rating process, AIR specialists searched for the Missing Content in each state's mandated subject-area standards outside of mathematics.

Extended ratings capture whether matches reflect complete coverage of the NAEP objective in the state math standards and additional content covered exclusively in the state math standards. This content included in state standards but not included in NAEP was noted and labeled "Extra Content."

Project Co-Leader Tad Johnston presented results from the analysis. Regarding the extent of coverage of the NAEP Mathematics Framework, a principal finding is that there is significant overlap of the mathematics content in NAEP objectives and state mathematics standards, which is strongest at grade 8. For the large majority of NAEP objectives, the level of overlap is the same across almost all states. There is some variation in terms of the five NAEP Mathematics content areas: Number Properties and Operations; Measurement; Geometry; Data Analysis, Statistics, and Probability; and Algebra.

Regarding the content in the NAEP framework but not in state mathematics standards (Missing Content), a small percentage of NAEP objectives are not covered in state mathematics standards. There is also additional mathematics content within some NAEP objectives that is not found in state mathematics standards at the corresponding grades. Some of the mathematics content found only in NAEP at grade 4 reflects differences in sequencing, with NAEP assessing content that states address in grades 5-8. The review also included states' standards in mandated subjects outside of mathematics. However, little of the NAEP mathematics content missing from state mathematics standards is found in these additional areas. The exceptions are measurement—especially temperature—and using coordinate representations at grade 4 and experimental design at grade 8.

Regarding the content in state mathematics standards but not explicitly in the NAEP framework (Extra Content), there is additional content commonly found in state mathematics standards that is not explicitly found in the corresponding grade of the NAEP Mathematics Framework. This additional mathematics content tends to result from: (1) differences in sequencing, (2) higher levels of specificity than NAEP, (3) inclusion of difficult-to-test content, or (4) inclusion of content crossing into non-mathematics subjects.

The ADC offered suggestions to improve how findings will be presented in the final report, and noted that the session with the full Board in the afternoon will be an opportunity for additional feedback. The Committee applauded the AIR team's work, recognizing it as an important resource for the ADC, the Board, and the Visioning and Development Panels that may be convened to develop framework update recommendations.

Panel Discussion: NAEP Assessment of Mathematics (SV #5)

The ADC hosted a panel discussion with leading voices in mathematics to launch in-depth discussion about the state of the field relative to the NAEP Mathematics Framework. As moderator for the session, Dale Nowlin welcomed and introduced each distinguished guest:

- ***Kevin Dykema***, Teacher at Mattawan Middle School in Michigan and National Council of Teachers of Mathematics Board Member;
- ***Gladis Kersaint***, Dean and Professor of the University of Connecticut, School of Education;
- ***Bill McCallum***, Professor at the University of Arizona, and President of Illustrative Mathematics;
- ***Diana Suddreth***, Director of Teaching and Learning at the Utah State Board of Education; and
- ***Zalman Usiskin***, Professor Emeritus at the University of Chicago and Director of the University of Chicago School Mathematics Project.

Mr. Usiskin joined the session in person, and the other panelists participated by video. For the ADC meeting materials, each panelist submitted a paper summarizing their perspectives about whether the NAEP Mathematics Framework needs to be changed and why.

As a member of the group that drafted the current NAEP Mathematics Framework, Mr. Usiskin, shared remarks about the policy context surrounding the last update of the Mathematics framework in the early 2000s. Then, Mr. Usiskin and the other panelists briefly summarized their thoughts on the NAEP Mathematics Framework and discussed perspectives shared by the other panelists in their papers. Mr. Nowlin then invited questions and comments from the ADC.

The Committee noted several key aspects of NAEP frameworks. Firstly, NAEP frameworks target what NAEP should assess, rather than what should be taught. Also, NCES Commissioner James Lynn Woodworth noted that NAEP is not intended to reflect or endorse any particular curriculum. During the question and answer session with the expert panelists, discussion centered on several questions raised by the ADC:

How should the Committee guide the assessment to include more context-based problems that are relevant to other subject areas? How should this be underscored in the framework update process?

NAEP must continue to tackle the challenges of presenting mathematics in context to support student engagement, which is increasingly important with testing as a larger part of students' lives. The panel noted that context-based problems are often more vulnerable to bias, a challenge that must be carefully navigated. For example, relying on schools as a context could address bias issues, but could also inadvertently reinforce the idea that mathematics is only relevant to school environments. The panel cited higher emphasis on quantitative literacy and increasing the modeling complexity that is assessed as content-driven opportunities to build richer problems relevant to other subject areas.

How should NAEP address the increasing importance of statistics and financial mathematics to citizens and careers?

The panel discussed rationales for NAEP's continued inclusion of statistics at 4th grade. Although the Common Core State Standards do not include this content at 4th grade, teachers may continue to teach these concepts in 4th grade to support learning in other subjects that use statistics, e.g., social studies and science. The panel commented that newer content, such as financial mathematics, may be worth exploring as a special study, rather than as a formal part of an updated framework.

Should NAEP assess at the 4th grade what students in most states are not taught until after 4th grade?

The panel voiced several different perspectives on how NAEP should address this content sequencing concern. There was a sense that assessing content that no state teaches would harm NAEP's credibility and present artificially lower student achievement results. However, NAEP has never been merely duplicative of states, and if NAEP were to move toward

mirroring states, the value of NAEP results would also be compromised. Despite longstanding assessment content differences, NAEP has been widely used by states as validity evidence relative to their state assessment results. Decreasing the level of alignment reduces the ability for states to use NAEP in this way. Panelists' comments converged on the idea that if any state is teaching a topic, including it in NAEP can be justified as a reflection of content across the states.

How do research advances in student learning trajectories, child development, and cognitive science provide insights on when mathematical topics should be taught?

NAEP is prohibited from reflecting a specific curriculum, and NAEP is not limited to assessing only what has been taught in classrooms. Panelists noted that a key guiding question for the framework update will be: with the knowledge and skills presented in the framework, will students be ready to compete in our world economy? Even with the desire to maintain NAEP trend reporting using a consistent measure over time, the framework must also account for the nation's anticipated needs. Several efforts are underway within the Institute of Education Sciences (IES) to develop longitudinal representations of how content is addressed and can be addressed in classrooms. The ADC anticipates that this work and other research on cognitive development will be important resources for the framework update process. Mr. Nowlin recognized that several of the panelists' papers for this session noted that the framework update process is also an opportunity to engage more directly with Universal Design.

How does the sequencing of mathematics content in the NAEP framework relate to the cognitive complexity classifications on NAEP?

The panel discussed that if an assessment presents a low complexity item on a topic that a student has not yet learned, complexity increases. In this case, the vision of the framework may not be realized as intended in terms of its complexity delineations.

How might NAEP report on learning progressions in addition to the current NAEP subscales?

One panel member noted that deeper understanding of how the mathematical content areas fit together could provide insights on potential NAEP reporting opportunities for learning progressions or trajectories. For example, several states have classified algebraic thinking in arithmetic as preparation for learning algebra, which might suggest that reporting on the algebraic thinking aspect of arithmetic could reflect information relevant to learning trajectories.

In their closing remarks, panelists acknowledged agreement with each other for the majority of points raised. They indicated that fundamental shifts in the framework are not likely to be needed. Several panelists reiterated that if no state covers a topic, NAEP should not include it. All panelists emphasized that the upcoming report from the Board-commissioned review of state mathematics standards is important to consider in the framework update process. At the same

time, however, the experts also recognized the importance of honoring the distinction between NAEP assessments and state assessments. Panelists commended the Board for leading this work.

Mr. Nowlin and the ADC thanked the panelists for their comments and looked forward to further discussions of their recommendations.

Debrief: Next Steps for ADC Framework Activities

The Committee appreciated the thorough mathematics standards analysis and the robust expert panel discussion. Reflecting on the panel discussion, the Committee agreed on the need to convene a Visioning Panel to develop detailed recommendations for updating the NAEP Mathematics Framework. Using information from the review of state mathematics standards, clear areas of nonalignment between NAEP and all states can be addressed.

The ADC affirmed that deliberation must focus on what NAEP should assess. The Committee discussed how research will be able to address key questions regarding what is most important for students to know and be able to do and what developmental and cognitive research suggests about the appropriate grade-level for introducing various topics, such as those under Data Analysis, Statistics, and Probability in the NAEP Mathematics Framework. The ADC wants the Visioning Panel convened for the framework update process to engage in an informed discussion about whether this content should continue to be tested in fourth grade. NAEP must maintain a balance between incorporating current standards and assessments in mathematics and leading the country. As always, strong rationales should support all content included in the framework update.

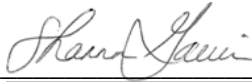
In addition to thoughtful engagement with the current research, the Committee would like the prospective Visioning Panel to provide recommendations specifically addressing the implications and opportunities of a digital platform, i.e., how do the affordances of digital based assessment unlock other insights into students' mathematical knowledge and skills?

The Committee agreed that NAEP plays a role in communicating which content is important, and this should guide the Board's content decisions. The Committee also agreed that based on the panel discussion, there was no rationale for a major revision of the NAEP Mathematics Framework. The Visioning Panel should focus on framework update recommendations that keep trend maintenance as a top priority.

In the coming weeks, the ADC will prepare a recommendation on the NAEP Mathematics Framework update for Board deliberation and action at the August 2018 Board meeting. The recommendation will address the anticipated scope of revision, particularly the Board's priorities and the magnitude of the update.

The session was adjourned at 1:06 p.m.

I certify the accuracy of these minutes.



Shannon Garrison, Chair

June 11, 2018

Date

National Assessment Governing Board

Committee on Standards, Design and Methodology

Report of May 18, 2018

COSDAM Members: Andrew Ho (Chair), Joe Willhoft (Vice Chair), Gregory Cizek, Jim Geringer, Alice Peisch, Bev Perdue, Linda Rosen, and Ken Wagner.

Governing Board Staff: Sharyn Rosenberg.

Other Attendees: American Institutes for Research: George Bohrnstedt and Darrick Yee. Council of the Great City Schools: Ray Hart. Educational Testing Service: Amy Dresher and John Mazzeo. Hager Sharp: Joanne Lim. HumRRO: Sunny Becker and Thanos Patelis. Optimal Solutions Group: Brian Cramer. Westat: Greg Binzer and Lisa Rodriguez.

Welcome and Review of Agenda

Chair Andrew Ho called the meeting to order at 10:33 a.m. and noted that all COSDAM members were present. Mr. Ho stated that a major goal for 2018 is to revise and approve the Board's policy on setting achievement levels for NAEP. The primary reasons for the policy revision are to address some of the issues raised in the 2016 evaluation of NAEP achievement levels and to ensure that the policy reflects current best practices in the field of standard setting.

Discussion of Revised Draft Policy on Achievement Levels Setting (SV #5)

Mr. Ho asked each committee member to identify at least one feature of the revised draft policy that they liked and at least one feature that they would change. There was general agreement that the document overall was a major improvement over the existing policy in terms of: organization, clarity, relevance to current best practice, and usefulness. Members generally thought that the revision was responsive to the March 2018 COSDAM discussion and would be comprehensible to a non-technical audience.

Members engaged in a rich discussion about how the draft policy could be further clarified and improved. The document could be more explicit that all panel members must have relevant background and/or experience in the content area. The order in which the policy definitions are described could be clarified and included in the introductory section. It will be important to indicate that the policy definitions are a central principle and do not derive from the process described in the policy. In addition, the term "guidelines" could be replaced with a stronger word such as "expectations" and the term "appropriate" could be replaced with "useful" or "actionable."

There were several other minor edits that were suggested and noted, and Mr. Ho asked committee members to send any additional feedback in “track changes” to Assistant Director for Psychometrics Sharyn Rosenberg and himself. A revised draft of the policy will incorporate the committee feedback, to be discussed by teleconference sometime next month. The goal is to arrive at a COSDAM consensus version to be presented to the full Board for discussion in August 2018, with action tentatively planned for the November 2018 Board meeting.

Joint Session with the Reporting and Dissemination Committee

COSDAM Members: Andrew Ho (Chair), Joe Willhoft (Vice Chair), Gregory Cizek, Jim Geringer, Alice Peisch, Bev Perdue, Linda Rosen, and Ken Wagner.

Reporting and Dissemination Committee Members: Rebecca Gagnon (Chair), Alberto Carvalho, Tyler Cramer, Tonya Matthews, Jeanette Nuñez, and Fielding Rolston.

Governing Board Staff: Stephaan Harris, Laura LoGerfo, Sharyn Rosenberg, and Lisa Stooksberry.

NCES Staff: Commissioner James Lynn Woodworth, Associate Commissioner Peggy Carr, Jamie Deaton, and Grady Wilburn.

Other Attendees: American Institutes for Research: George Bohrnstedt, Cadelle Hemphill, and Darrick Yee. Council of the Great City Schools: Ray Hart. Educational Testing Service: Jonas Bertling, Amy Drescher, Robert Finnegan, and John Mazzeo. Fulcrum: Kevin Price. Hager Sharp: Joanne Lim and Debra Silimeo. Hatcher Group: Robert Johnson. HumRRO: Sunny Becker and Thanos Patelis. Optimal Solutions Group: Brian Cramer. Pearson: Pat Stearns. Westat: Chris Averett, Greg Binzer and Lisa Rodriguez.

Communication and Interpretation of NAEP Achievement Levels (SV #3)

Reporting and Dissemination Committee Chair Rebecca Gagnon began by noting that the session was an opportunity for both committees to discuss how the reporting and dissemination of NAEP achievement levels could be improved and to provide feedback on the proposed revision to the policy on setting achievement levels (with a focus on Principle 3, validation and reporting). The revised policy commits to providing an interpretative guide to explain how to use the achievement level results.

COSDAM Chair Andrew Ho gave a short presentation highlighting five ways of explaining NAEP Proficient: 1) the policy definition; 2) content achievement level descriptions; 3) item maps; 4) linkages to external measures; and 5) mapping to state standards.

The committees then transitioned to a discussion of a recent report and letter by the National Superintendent’s Roundtable, which examines how NAEP uses the term “Proficient.” Board

members acknowledged that the Governing Board needs to improve communication of the NAEP achievement levels but there was general agreement that the Board should not consider lowering standards nor finding a new word to replace the term “Proficient.” One idea raised was that any references to “Proficient” might be replaced with “NAEP Proficient” to make a clearer statement about the NAEP brand and to help distinguish it from other uses of “Proficient.” Another suggestion was that NAEP’s branding could be clarified with a general statement such as, “NAEP Proficient is an independent, rigorous, national standard for inspiring and documenting student achievement.”

Some Board members noted that it is less typical to receive feedback from proponents who are using NAEP achievement levels in meaningful ways, such as by embedding items in their own standard settings to use NAEP as a benchmark. It is important to include the voices of people who do value NAEP and to allow them to speak in support of the NAEP achievement levels.

Mr. Ho ended by noting that he looks forward to continued work with the Reporting and Dissemination Committee about how to best explain the NAEP achievement levels and how to approach the development of an interpretative guide.

Ms. Gagnon adjourned the meeting at 1:00 pm.

I certify the accuracy of these minutes.



Andrew Ho, Chair

June 7, 2018

Date

National Assessment Governing Board

Reporting and Dissemination Committee

Report of May 18, 2018

Reporting and Dissemination Committee Members: Rebecca Gagnon (Chair), Alberto Carvalho, Tyler Cramer, Tonya Matthews, Jeanette Nuñez, Fielding Rolston

Governing Board Staff: Bill Bushaw, Stephaan Harris, Laura LoGerfo

NCES Staff: Commissioner James Lynn Woodworth, Jamie Deaton, Grady Wilburn

Other Attendees: American Institutes for Research: Cadelle Hemphill; Educational Testing Service: Jonas Bertling, Robert Finnegan; Fulcrum: Kevin Price; Hager Sharp: Debra Silimeo; The Hatcher Group: Amy Battjer, Robert Johnston; Pearson: Pat Stearns; Westat: Chris Averett

Welcome

Ms. Gagnon called the Reporting and Dissemination Committee meeting to order at 10:35 am. Neither Vice Chair Father Joseph O’Keefe nor Governor John Engler was present.

Review of NAEP Day

The Reporting and Dissemination Committee meeting began with a review of the release event on April 10 that presented the results of the 2017 National Assessments of Educational Progress in Reading and Mathematics. The Governing Board’s communications contractors, Robert Johnston and Amy Battjer from The Hatcher Group, shared the impact, success, and lessons learned from this first-ever NAEP Day. The impact was broad and sustained. NAEP and NAEP Day trended on social media throughout NAEP Day, and reports inspired by NAEP Day kept NAEP in the news after April 10, such as the Atlantic article on how to improve reading achievement.

Markers of NAEP Day’s success can be discerned from both big data and personal anecdote. NAEP Day drew the largest ever online and in-person audiences for a report card release. Social media impressions reached into the millions. Fielding Rolston, a Reporting and Dissemination Committee member who watched online, described NAEP Day as energizing and captivating. Tyler Cramer, a new Reporting and Dissemination Committee member who joined the team in person for NAEP Day, recounted a very positive experience. Alberto and Tonya elicited special

commendation for their invaluable contributions to NAEP Day's success. In addition, promotional materials which featured

Lessons learned from this NAEP Day for the next NAEP Day in just 18 months focus on extending this year's successes. Two districts which participate in the Trial Urban District Assessment program (TUDA) held watch parties for the TUDA panel, thus increasing the number of participating districts is a top priority for the 2019 release event. Additionally, the Governing Board should engage with an expanded set of partners to ensure that the audience includes not only ardent NAEP fans but also those unfamiliar with NAEP. Promotional materials which featured Board members urging teachers, principals, or whoever their representative stakeholders are elicited strong positive responses on the Governing Board's social media accounts and should be developed and used for the 2019 release.

For this release, embargoed briefings held prior to April 10—with education writers, with governors' staffs, on the Hill, with the Council of Chief State School Officers and the Council of the Great City Schools—drew great interest and enabled NAEP Day to focus on the results, not other questions or issues. This advance preparation work should occur even earlier before the 2019 release to incorporate stakeholder feedback. Committee member Alberto Carvalho argued for highlighting average scores, instead of only emphasizing average score improvement between assessments.

Days after NAEP Day, Vice Chair Tonya Matthews initiated conversations with lawmakers, philanthropists, and organizations in Michigan about how to understand and use the NAEP results. The Reporting and Dissemination Committee should encourage and facilitate similar connections between Board members and their stakeholders.

Core Contextual Variable Review

The committee then turned to the core contextual variables under review for the 2019 operational and 2021 pilot NAEP assessments. Jamie Deaton of the National Center for Education Statistics led R&D members through the review site. R&D members observed the relatively large number of questions focused on charter schools and suggested a presentation at the August meeting on the NAEP charter school data.

Long-Term Trend

Reporting and Dissemination Committee Chair Gagnon introduced the topic of rebranding Long-Term Trend to clarify its role in the NAEP pantheon and to distinguish Long-Term Trend from main NAEP. Time expired, preventing a full discussion, but the issue will be re-introduced in August.

Joint Session with the Committee on Standards, Design and Methodology (COSDAM)

COSDAM Members: Andrew Ho (Chair), Joe Willhoft (Vice Chair), Gregory Cizek, Jim Geringer, Alice Peisch, Bev Perdue, Linda Rosen, and Ken Wagner

Reporting and Dissemination Committee Members: Rebecca Gagnon (Chair), Alberto Carvalho, Tyler Cramer, Tonya Matthews, Jeanette Nuñez, Fielding Rolston

Governing Board Staff: Stephaan Harris, Laura LoGerfo, Sharyn Rosenberg, Lisa Stooksberry

NCES Staff: Commissioner James Lynn Woodworth, Associate Commissioner Peggy Carr, Jamie Deaton, Grady Wilburn

Other Attendees: American Institutes for Research: George Bohrnstedt, Cadelle Hemphill, Darrick Yee; Council of the Great City Schools: Ray Hart; Educational Testing Service: Jonas Bertling, Amy Drescher, Robert Finnegan, John Mazzeo; Fulcrum: Kevin Price; Hager Sharp: Joanne Lim, Debra Silimeo; The Hatcher Group: Robert Johnston; HumRRO: Sunny Becker, Thanos Patelis; Optimal Solutions Group: Brian Cramer; Pearson: Pat Stearns; Westat: Chris Averett, Greg Binzer, Lisa Rodriguez

Communication and Interpretation of NAEP Achievement Levels (SV #3)

Reporting and Dissemination Committee Chair Rebecca Gagnon began by noting that the joint session was an opportunity for both committees to discuss how the reporting of NAEP achievement levels could be improved and to provide feedback on the proposed revision to the policy on setting achievement levels (with a focus on Principle 3, validation and reporting). The revised policy commits to creating and presenting an interpretative guide that explains how users can understand achievement level results.

COSDAM Chair Andrew Ho gave a short presentation highlighting five ways of explaining the meaning of NAEP *Proficient*: 1) the policy definition; 2) content achievement level descriptions; 3) item maps; 4) linkages to external measures; and 5) mapping to state standards.

The committees then discussed a recent report and letter from the National Superintendent's Roundtable, which examines how NAEP uses the term "Proficient." Board members from both committees acknowledged that the Governing Board should improve communication of the NAEP achievement levels but should not consider lowering the achievement level standards or inventing a new word to replace *Proficient*. General consensus emerged around the needs to explain the achievement levels clearly and to use terms that are meaningful to all stakeholders.

One suggestion to communicate achievement levels more effectively was replacing "*Proficient*" with "*NAEP Proficient*." The addition of NAEP as a modifier may elucidate the NAEP brand


more clearly and help distinguish NAEP’s definition from other uses of “Proficient.” Another suggestion included adding a general explanatory statement to accompany the results, e.g., “NAEP *Proficient* is an independent, rigorous, national standard for inspiring and documenting student achievement.”

Some Board members noted that the Board rarely receives feedback from proponents who are using NAEP achievement levels in meaningful ways, such as by embedding items in their own standard settings to use NAEP as a benchmark. It is important to include the voices of people who do value NAEP and to allow them to speak in support of the NAEP achievement levels.

Mr. Ho ended by noting that he looks forward to continued work with the Reporting and Dissemination Committee about how to best explain the NAEP achievement levels and how to approach the development of an interpretative guide.

Ms. Gagnon adjourned the meeting at 1:00 pm.

I certify the accuracy of these minutes.



Rebecca Gagnon, Chair

July 6, 2018
Date

National Assessment Governing Board

Nominations Committee (Closed Session)

Report of May 19, 2018

Nominations Committee Members: Fielding Rolston (Chair), Jim Geringer, Andrew Ho, Tonya Matthews, Terry Mazany, Joseph O’Keefe, S.J., Cary Sneider.

Board Staff: Bill Bushaw, Munira Mwalimu, Tessa Regis, Lisa Stooksberry.

In accordance with the provisions of exemptions 2 and 6 of Section 552b (c) of Title 5 U.S.C., the National Assessment Governing Board’s Nominations Committee met in closed session on May 19, 2018 from 7:30 a.m. to 8:15 a.m.

Nominations Committee chair, Fielding Rolston, called the meeting to order at 7:30 a.m. He welcomed committee members, reviewed the agenda, and charged Andrew Ho with leading the discussion on the agenda topic related to Governing Board By-laws and National Assessment of Educational Progress (NAEP) legislation.

Mr. Bushaw and Ms. Stooksberry updated the committee on their meeting with Secretary DeVos, held on Friday, April 20, 2018. They reported that the Secretary was provided the slate of finalists for the following open positions on the Governing Board:

1. Secondary School Principal
2. Fourth Grade Teacher
3. Eighth Grade Teacher
4. General Public
5. Chief State School Officer

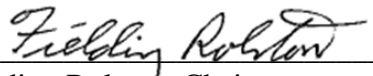
The Committee discussed the vacancies for the 2019 nominations cycle, noting that there are eight open positions. Three current members are ineligible for reappointment – Dale Nowlin, Fielding Rolston and Cary Sneider, 12th grade teacher, state school board member, and curriculum specialist, respectively. Five current members – Alberto Cahlvvaro, Carol Jago, Ken Wagner, and Joe Willhoft are eligible for reappointment. Following discussion, it was agreed that Chair Rolston will send emails to the five members to confirm the members’ interest in being reappointed. The Chair encouraged committee members to reach out to a diverse range of stakeholders, including former Board members and professional organizations, to solicit nominations and, ultimately, to expand representation on the Board.

Members reviewed and discussed the Governing Board’s By-laws and NAEP legislation. Members noted the By-laws were last amended in 2010; there was a need for consistency and some cleanup to clarify the nominations process. Members agreed that the Secretary has the final decision on the selection of the final candidates for open positions.

Mr. Ho suggested compilation of a procedures manual that lays out the nominations process and clarifies various steps in the nominations cycle. Following discussion, members suggested elevating practices into the by-laws through the procedures manual, which would also be used for communicating with the Secretary's office. The Procedures Manual will also serve as an historical document and can be amended if needed. Staff was charged with the preparation of the Procedures Manual with a draft due to the Committee in advance of the August 2018 Board meeting. The agenda for the August meeting will include discussion of this topic.

Mr. Rolston thanked the committee members for their efforts and commended staff for facilitating the committee's work.

I certify the accuracy of these minutes.



Fielding Rolston, Chair

June 12, 2018
Date