National Assessment Governing Board

Meeting of March 4-5, 2021 Virtual

OFFICIAL SUMMARY OF GOVERNING BOARD ACTIONS

Complete Transcript Available

National Assessment Governing Board Members Present

Haley Barbour, Chair Alice Peisch, Vice Chair Dana Boyd Alberto Carvalho Gregory Cizek Tyler Cramer Christine Cunningham Frank Edelblut Paul Gasparini Jim Geringer Eric Hanushek Patrick Kelly Suzanne Lane Tonya Matthews Reginald McGregor Mark Miller Julia Rafal-Baer Ron Reynolds Nardi Routten Martin West Mark White Grover Whitehurst Carey Wright Mark Schneider (ex-officio)

Governing Board Members Absent

Bev Perdue

National Assessment Governing Board Staff

Lesley Muldoon, Executive Director Lisa Stooksberry, Deputy Executive Director Michelle Blair Stephaan Harris Donnetta Kennedy Laura LoGerfo Munira Mwalimu Tessa Regis Sharyn Rosenberg Angela Scott Matt Stern Anthony White

National Center for Education Statistics (NCES)

Lynn Woodworth, Commissioner Peggy Carr, Associate Commissioner Gina Broxterman Samantha Burg Jing Chen Jamie Deaton Alison Deigan Enis Dogan Patricia Etienne Elvira Germino Hausken Eunice Greer Shawn Kline Daniel McGrath Nadia McLaughlin Taslima Rahman Emmanuel Sikali Holly Spurlock Sheila Thompson William Tirre Ebony Walton Bill Ward Grady Wilburn

American Institutes for Research (AIR)

Rebecca Bates George Bohrnstedt Markus Broer Jack Buckley Christina Davis Kim Gattis Courtney Gross Cadelle Hemphill Angelica Herrera Kimberly Imel Young Yee Kim Sami Kitmitto Gabrielle Merken Jasmine Park Amy Rathbun Terry Salinger

Chief State School Officers, CCSSO

Kirsten Carr Fen Chou Kathleen Lyons Scott Norton

CRP, Inc.

Shamai Carter Arnold Goldstein Subin Hona Anthony Velez Edward Wofford

Educational Testing Service (ETS)

Randy Bennett Jay Campbell Gloria Dion Patricia Donahue Amy Dresher Kadriye Ercikan Gary Feng Robert Finnegan Michael Friesenhahn Janel Gill Helena Jia Irwin Kirsch Cara Laitusis Daniel McCaffrey Rupal Patel Hilary Persky Emilie Pooler Shannon Richards Sarah Rodgers Lisa Ward Nancy Waters

Karen Wixson

Hager Sharp

James Elias David Hoff Joanne Lim

The Hatcher Group

Jenny Beard Sami Ghani Robert Johnston Zoey Lichtenheld David Loewenberg Alexandra Sanfuentes Devin Simpson Jenna Tomasello

Human Resources Research Organization (HumRRO)

Monica Gribben Hillary Michaels Anne Woods

Management Strategies

Harrison Moore

Optimal Solutions Group

Imer Arnautovic Brian Cramer Charlotte Notaras

Pearson

Scott Becker Cristina Everett Cindy Flockhart Emily Hilligoss Abigail Keller-Dombrock Lillian Moore Eric Moyer Noemi Nolter Paula Rios Pat Stearns Tammy Visco Cathy White Llana Williams

<u>Westat</u>

Chris Averett Greg Binzer Lauren Byrne Laura Egan Mike Fassbach Zully Hilton Lisa Rodriguez Rick Rogers Keith Rust

<u>WestEd</u>

Georgia Garcia Cynthia Greenleaf Mira-Lisa Katz Andrew Latham Mark Loveland Sonya Powers Matt Rudoff Megan Schneider Steve Schneider Sarah Warner

Other Attendees/Speakers

Rabab Abdulghani, Umm Al-Qura University Kim Ackermann, TX Education Agency Tammie Adams, U.S. Department of Education Deb Adkins, NWEA Sarah Aguirre, Northside Independent School District Melissa Ahlgrim, OK State Department of Education Abdullah Ahmed, King Saud University Maisaa Alahmadi, Education and Training Evaluation Commission (ETEC) Adbullah Alamri, Department of Education at Taif Annette Allen, U.S. Department of Education Eileen Allen, NY State Education Department Ahmed Alfakih, Albaha University Mohammed Alghamdi, ETEC Hind Alharbi, MOE Khaleel Alharbi, ETEC Hassan Alhaythami, Umm Al-Qura University Ahmed Almakrob, PSAU Karima Almazroui, Abu Dhabi Department of Education and Knowledge Hadeel Almubarak, Algimam International School Bigad Alotaibi, Dar Aluloom Khalid Alsobhi, Hope Collaborative Nasser Alresaini, DU Shakir Alshareef, Retired Educator, Ministry of Education Noura Alshehri, Ministry of Education Fahad Alzahrani, Ministry of Education Wendy Amelotte, Warwick Public Schools Aama Amin, KSU Connie Anderson, Grandmaloutunes Judith Anderson, U.S. Department of Education Marit Andrews, NM Public Education Department Kara Arundel, Industry Drive Diana Arya, University of California, Santa Barbara Lori Assaf, TX Education Agency Francesco Avvisati, Organisation for Economic Co-operation Development Melissa Babcock, OH Department of Education Ellen Bailey, Utah State Board of Education Vickie Baker, WV Department of Education John Ballen, Core Knowledge Glynis Barber, Coppin State University Toni-Ann Barone, Baldwin Union Free School District Jill Barshay, The Hechinger Report Shaun Bates, MO Department of Elementary and Secondary Education Angela Battaglia, UT State Board of Education Mark Bauerlein, First Things Melissa Beck, MS Department of Education Jenn Bell-Ellwanger, Data Quality Campaign Shelley Beard, OH Department of Education Renee Behring, Houghton Mifflin Harcourt Rebecca Bennett, MA Department of Elementary and Secondary Education Molly Berger, WA Office of Superintendent of Public Instruction Teresa Berndt, SD Department of Education Julie Bertram, Lexia Learning Reeda Betts, AL State Department of Education Linda Bevilacqua, Core Knowledge Foundation Ken Bigger, Chicago Literacy Alliance Krystal Bishop, Southern Adventist University Rolf Blank, STEM K-12 Research Pamela Bonds, Chicago Public Schools Catherine Boomer, OK State Department of Education Robin Boone, NY State Education Department

Rachel Bradshaw, TN Department of Education Latosha Branch, VA Department of Education Lori Bresnahan, Danbury Elementary, Newfound Regional School District Melissa Brown, Curriculum Associates Emily Bryans, NY State Education Department Nancy Brynelson, California State University Kymyona Burk, ExcelinEd Abby Burke, NE Department of Education Linda Burrows, AZ Department of Education Melody Bushley, VA Department of Education Sara Byrd, Sumter School District Ruth Caillouet, LA Department of Education Anne Cannon, Department of Defense Education Activity Heather Casey, Rider University Michael Casserly, Council of the Great City Schools (CGCS) Jill Castek, University of Arizona Gina Cervetti, University of Michigan Caroline Chigbo, Enugu State Universal Basic Education Board, Nigeria Ashlina Chin, Reading is Fundamental Roberta Ching, California State University Byeong-Young Cho, University of Pittsburgh Julie Clark, Utah State Board of Education David Coffey, NY State Education Department Michael Cohen, CenterPoint Education Julie Coiro, University of Rhode Island Amy Conley, Fortuna High School Elizabeth Conners, Dedham Country Day School Dea Conrad-Curry, Partner in Education Catherine Coons, NY State Education Department Bill Cordes, U.S. Department of Education April Crawford, Utah Health Rachel Crowley, Kaufman Independent School District Nicole Daniel, Frederick Smith Secondary School Barbara Davidson, StandardsWork Inc. Barbara Davis Elisabeth Davis, AL State Department of Education Elizabeth Davis, Odell Education Tom Deeter, IA Department of Education Danielle Dennis, University of Rhode Island Clara DeSorbo, NY State Education Department Colin Dingler, ACT Janice Dole, University of Utah Donna Dubey, NH Department of Education Nell Duke, University of Michigan Morgan Dunton, ME Department of Education Richard Duran, University of California, Santa Barbara

Samantha Durrance, Southern Regional Education Board Wendy Dury-Samson, NY State Education Department Kari Eakins, WY Department of Education Ginger Earl, Dallas Baptist University Katie Eckelmann, North East Independent School District Christopher Edley, Jr., Berkeley Law and Opportunity Institute Kristin Edwards, Pemberton Township Schools Veda Edwards, U.S. Department of Education Rachel Eggleston, University of Michigan Christine Elegante, Utah State Board of Education Jeremy Ellis, MO Department of Elementary and Secondary Education Amy Endo, Houghton Mifflin Harcourt Christina Erland, Core Knowledge Foundation Charmane Espejo Marianne Farnsworth, Utah State Board of Education Amr Fayed, Fursan Aljazira Private Schools Matthew Ferguson, SC Education Oversight Committee Chester Finn, Thomas B. Fordham Institute Jack Fletcher, University of Houston Meochia Ford, Sumter School District James Forester, U.S. Department of Education Elena Forzani, Boston University Brian Frain, Rockhurst University Laconduas Freeman, Flat Shoals Elementary Mimi Fuhrman, ACT Rebecca Gagnon Susanna Gall, University of the West Indies, Cave Hill Campus Laura Goadrich, AR Department of Education Joycelyn Gooding, University of the West Indies Jonathon Gonzales, MD State Department of Education Lori Govenettio, Iroquois Central School District Alisha Green, Chester County School District Lana Green, MD State Department of Education Peg Griffin Becky Goetzinger, National Center for Families Learning Jonathon Gonzales, MD State Department of Education John Guthrie, University of Maryland Joy Hakim, Stories For Thinkers Robin Hall, CGCS Shelley Hamel, WY Department of Education Whitney Hamilton, KY Department of Education Laura Hancock Patty Hansen, Sumter School District Stephanie Hansen, SD Department of Education Raymond Hart, CGCS Donna Hawkins, Johnston County Schools

Chris Hayes, Washoe County School District Lowry Hemphill, SERP Institute Tracy Herman, KY Department of Education Ken Hermens, Smarter Balanced Assessment Consortium Anita Hernandez, New Mexico State University Ann Herrmann, MD State Department of Education **Rachel Hesprich** Elizabeth Hess, OH Department of Education Maggie Hicks, AL State Department of Education Kathleen Hinchman, Syracuse University Eric Hirsch, Core Knowledge Foundation John Hirsh, Georgetown University Andrew Ho, Harvard University Latasha Holt, University of Louisiana at Lafayette Krista Hotelling, Utah State Board of Education Christy Hovanetz, Foundation for Excellence in Education George Hruby, University of Kentucky Gerunda Hughes, Howard University Mona Humaid, United Arab Emirates University Abdulsamad Humaidan, Southern Illinois University Carbondale Nikki Ingram, Kershaw County School District Carol Jago, University of California Los Angeles (UCLA) Debbie Jameson, MO Department of Elementary and Secondary Education Jaclyn Janaszak, Living with Letters Megan Jensen, Literacy Design Collaborative Rucker Johnson, University of California, Berkeley Cathy Jones, AL State Department of Education Cathy Jones-Stork, Palmetto State Literacy Association Kathleen Judy, LA Department of Education Abdulrahman Kamal, Ministry of Education Loretta Kane, Berkeley City College Suhayb Kattan, Western Michigan University Steven Katz, NY State Education Department Michael Kieffer, New York University Alissa Kilpatrick, LA Department of Education Emily Kimpton, Sumter School District Rainey Knight, SC Education Oversight Committee Jim Kohlmoos, EDGE Consulting Partners Nancy Kolodziej, Tennessee Technological University Andrew Kolstad, P20 Strategies LLC Beth LaDuca, OR Department of Education David Laird, TN Department of Education Emily Leute, VT Agency of Education Regina Lewis, ME Department of Education Tamara Lewis, MD State Department of Education David Liben, SAP

Sue Livingston, LaGuardia Community College - The City of University of New York Brian Lloyd, MI Department of Education Megan Lopez, Utah State Board of Education William Lorie, National Center for the Improvement of Educational Assessment Tina Love, U.S. Department of Education Shelley Loving-Ryder, VA Department of Education Phyllis Lynch, RI Department of Education Banks Lyons, TN Department of Education Kathleen Maher-Baker, MD State Department of Education Scott Marion, National Center for the Improvement of Educational Assessment Katina Marshall, College Board Bren Martin, United Nations Association of the United States of America Erin Maughan, National Association of School Nurses (NASN) Margaret McKeown, University of Pittsburgh Kristen McKinney, MO Department of Elementary and Secondary Education Ebony McKiver, NE Department of Education Charlene McKnight, Sumter School District Joann McRell, KS State Department of Education Heidi Mills, University of South Carolina Jennifer Moone, Reading is Fundamental Linda Moreno, VT Agency of Education Jessica Morton, AL State Department of Education Nichole Mosser, MI Department of Education Raina Moulian, AK Department of Education and Early Development Lelsie Mugan, NWEA Kristen Munger, State University of New York at Oswego Stephen Murphy, Cognia Ellen Muscato, Douglas County School District Juliana Musselman, TN Department of Education Suzanne Naiman, Sarasota County Schools Abdu Nashrey, Ministry of Education Deborah Neisuler, Curriculum Associates Yi-Chieh Newton, Florida Center for Reading Research Susanne Nobles, ReadWorks Jill Nogueras, VA Department of Education Eileen Oboler, Literary Consulting Services, LLC Colleen OBrien, RI Department of Education Philip Olsen, WI Department of Public Instruction Kathy Padgett, AL State Department of Education Susan Palmiter, MI Department of Education **Cindy Parker** Ashley Patterson, Penn State University Marissa Payzant, NE Department of Education P. David Pearson, University of California, Berkeley Sarah Pennington, Montana State University Marianne Perie, Measurement in Practice, LLC

Nancy Perkins, MD State Department of Education Jodi Pilgrim, University of Mary Hardin-Baylor Susan Pimentel, Student Achievement Partners Kelly Pizani, LA Department of Education Neerja Punjabi, Peel District School Board Lori Pusateri-Lane, WY Department of Education Erica Queen, Harford Community College Gwen Quinn, Lower Merion School District María Guadalupe Ramírez-Silva, Dallas Independent School District Carol Rasowsky, Learner's Journey Sara Ratner, University of Sydney Jennifer Ray, Round Rock Independent School District Melanie Reaves, Montana State University Billings Nicole Renner, Carnegie Learning Patrick Riccards, Driving Force Institute John Richard, OH Department of Education Susannah Richards, Eastern Connecticut State University Katherine Ringley, VA Department of Education Eddie Rivers, U.S. Department of Education Tina Roberts, OR Department of Education Spa Robinson Cecilia Roe, MD State Department of Education Alicia Ross, Blue Ridge High School Rebecca Rundlett, SC Department of Education John Sabatini, Global, Integrated, Scenario-based Assessments (GISA) Hailah Saleh, Ministry of Education Danielle Saucier, ME Department of Education Renee Savoie, CT State Department of Education Petra Schatz, HI Department of Education Angela Schroden, Stephanie Harvey Consulting Sarah Schwartz, Education Week Pamela Seastrand, Curriculum Associates Vincent Segalini, Odell Education Frank Serafini, Arizona State University Maria B. Serpa, Lesley University Lisa Scroggs, MO Department of Elementary and Secondary Education Llewellyn Shealy, SC Department of Education Amy Sheridan, DE Department of Education Courtney Shimek, West Virginia University Valerie Shinas, Lesley University, Graduate School of Education Bonnie Short, Alabama Reading Initiative Gina Sierzega, Lehigh University Debra Silimeo, Silimeo Group Adrienne Simmons, GA Department of Education Nancy Sinotte, Warwick Public Schools Paulson Skerrit, University of the West Indies

Michael Slattery, Huntington Ingalls Industries, Inc. Candace Slobodnik, Crossland High School, Prince George's County Public Schools Kelly Smith, ACT Patriann Smith, University of South Florida Adrienne Snow, Enfield Public Schools Peggy Sorensen, OH Department of Education Katherine Stahl, New York University Shauna Stephanchick, STEP Up Consulting David Steinerd, Johns Hopkins University Jason Stephenson, OK State Department of Education Mark Stephenson, KS State Department of Education Alice Marie Stevens, Hobbs Municipal Schools Pamela Stewart, DTRE Christy Talbot, American Educational Research Association Beth Tarasawa, NWEA Katherine Tarca, MA Department of Education Tara Tencza, Scotch Plains-Fanwood Public Schools Lesley Thomas, East New York Middle School of Excellence Elizabeth Tomev, WI Department of Public Instruction Carolyn Trombe, NY State Education Department Carolyn Turner, OH Department of Education Katie Uelk, UChicago Impact, Urban Education Institute, University of Chicago Anand Vaishnav, Education First Sheila Valencia, University of Washington Shannon Varley, Keystone Oaks School District Sheri Vasinda, OK State University Heather Villalobos Pavia, CO Department of Education Deb Wade, OK State Department of Education Stefanie Wager, OER Project Kate Walsh, National Council on Teacher Quality Sue Ward, ACT Naomi Watkins, Utah State Board of Education Natalie Wexler Whitney Whealdon, Learning Tapestry Katy Wiggs, South Carolina Virtual Charter School Liz Williams, Utah State Board of Education Arlette Willis, University of Illinois, Urbana Champaign Maja Wilson, WA Office of Superintendent of Public Instruction Crystal Wise, University of Illinois at Chicago Angela Woodard, U.S. Department of Education Roberta Woods, U.S. Department of Education Kristen Wynn, MS Department of Education Cindy Ziker, Ziker Research

Opening Remarks

Haley Barbour, Chair, called the session to order at 12:17 p.m. and welcomed attendees to the March 4, 2021, National Assessment Governing Board (Governing Board) meeting held by webinar.

Approval of March 2021 Agenda

Barbour requested a motion for approval of the March 2021 agenda. A motion to accept the agenda was made by Mark White and seconded by Alice Peisch. No discussion ensued and the motion passed unanimously.

Approval of November 2020 Board Meeting Minutes

Barbour requested a motion for approval of the minutes of the November 2020 Governing Board meeting. Carey Wright made a motion to approve the November 2020 minutes and Mark Miller seconded the motion. There was no discussion and the motion passed unanimously.

Action: 2019 NAEP Science Release Plan

Reporting and Dissemination Committee Chair Tonya Matthews presented a summary of the 2019 NAEP Science release plan. Tyler Cramer made a motion for the Board to approve the 2019 NAEP Science release plan. The motion was seconded. There was no discussion and all members approved.

Institute of Education Sciences Update

Mark Schneider, Institute of Education Sciences (IES) Director, spoke on two topics: (1) the School Survey Dashboard and (2) IES studies and how they relate to the Governing Board. First, a Presidential Executive Order requires IES to survey schools on the impact of COVID-19. The monthly School Survey Dashboard provides valuable data about online, in-person, and hybrid learning. Monthly reports will begin at the end of March and continue through June.

Beginning in August, IES will administer an expanded school survey on a monthly or bimonthly basis. This future school survey will include a broader range of questions about school conditions related to COVID-19 and recovery. Schneider appreciated using NAEP sample information to deploy the survey. The next school year will bring significant changes to schools, and Schneider hopes the survey will yield critical information on teaching, learning, and general school conditions across the nation.

Second, Schneider discussed three strands of a new study commissioned by IES and directed by the National Academies. The first strand reviews research topics that the National Center for Education Research and the National Center for Special Education Research fund. Each year, these agencies review more than 900 grant applications. The IES' proposal asked the National Academies to rethink the structure for research topics using a 10-year perspective.

The second strand of the National Academies' study focuses on staffing and budget issues for NCES. The proposal asked if NCES products are serving the nation and the taxpayers effectively. Schneider summarized the goal of this strand as answering the question, "what is the goal of the statistical collections that NCES does, and what's the best way of answering or getting those data?"

The third strand studies the technology of NAEP—is it optimal, and if not, how can NAEP administration improve? Schneider reported how NAEP is using automated scoring for reading and mathematics, which is a step forward from the past approach. However, Schneider challenged NCES to consider researching more cutting-edge assessment techniques, such as automated item generation. He acknowledged item generation might not be feasible at the current time but urged the Governing Board to be visionary since more efficient assessments could save time and money. NAEP's per student cost is estimated at more than three times the per student cost of the ACT and SAT even though NAEP does not generate individual student information. Schneider urged the National Academies to balance a review of existing technologies with costs.

Schneider's final comment called attention to the students performing below the NAEP Basic achievement level; he emphasized that the lowest-performing students are regressing, not progressing on NAEP. Many assessments focus on what these students cannot do, however, discussion must center on what these students know and can do. He suggested multi-stage or computer adaptive individual-level testing to uncover more information about the lowest-performing students. He cautioned this testing must be developed and deployed in a cost-effective manner.

Schneider answered several questions from Governing Board members about the School Survey Dashboard. School administrators or state analysts, rather than students, are responding to the survey which focuses on different types of learning delivery methods and which student subgroups are involved in each. Frank Edelblut asked how the data will be used, especially considering rapidly changing classroom environments. Schneider conceded that classroom dynamics are fluid but reassured the Governing Board that results would not be oversimplified. He reiterated data are collected monthly, which reflects the evolving situations in schools. Edelblut followed up with a question about the future of NAEP testing. Although NAEP does not report on each student, it provides a good benchmark and results are correlated with state summative results. Is there a way for NAEP to statistically meet the requirements of state summative tests in a coordinated effort between federal and state agencies? Schneider replied there are mapping methods that can be used to equate state test scores with NAEP, however, a more complete overhaul of the system would involve changing existing legislation. Additionally, there are differences between the purpose of NAEP and those of student-level state assessments.

Lynn Woodworth, NCES Commissioner, reminded Board members that legislation currently prohibits NAEP from being used to evaluate any school. Suzanne Lane asked if the survey is

collecting information on teacher professional development, absenteeism by method of instruction, and teacher strategies for engaging students. The survey only asks for absenteeism data. Schneider cautioned against adding too many questions since response rates for lengthy surveys are not high. Peisch worried about capturing information about extended absenteeism, essentially students who have dropped out, and Woodworth assured her enrollment data by race and subgroup would help capture this important information.

Executive Director's Update

Governing Board Executive Director Lesley Muldoon began by introducing Matt Stern, who recently joined the Governing Board staff. Stern serves as Assistant Director for Policy and Intergovernmental Affairs; his duties include monitoring federal legislation and budget recommendations, meeting with key partners and stakeholders of the Board, and reviewing policy issues for consideration by the Board. Prior to joining the staff, Stern was a K–12 policy advisor for the Senate's Health, Education, Labor, and Pensions (HELP) Committee and a former middle school teacher. Stern said he is looking forward to his new role.

Muldoon acknowledged the unprecedented challenges to learning that COVID presented including disruption of the NAEP assessments. However, Muldoon looked to opportunity, dubbing this year "the interstitial year," which allows time for the Governing Board to focus on broader strategic priorities.

With vaccination rates expanding and schools reopening, Muldoon expressed hope for a return to normalcy in education, with a goal to ensure a successful 2022 NAEP administration. The two NAEP-related surveys currently in the field should yield helpful information about student learning. Many are concerned with the persistent patterns of students falling behind in the last year, particularly students of color, low-income students, and students with disabilities. Researchers have indicated the disproportionate impact of COVID-19 on these populations, although no state or national assessment can corroborate these findings yet. Muldoon shared information highlighting how insights from NAEP can help inform educational recovery and improve student learning, especially for those students who are falling behind.

NCES has reported on plans to build several capabilities for the next generation of NAEP's digitally based assessments (DBAs). When COVID-19 closed schools in March 2020, there was pressure to remotely administer assessments. However, the security and logistics for contactless delivery methods require planning and research and consideration by the Governing Board of substantial policy implications.

Muldoon reported on activities related to Strategic Vision 2025. The Strategic Vision is an important organizing framework for Governing Board priorities, guiding the Board's work and facilitating attaining their goals to inform, engage, and innovate.

Muldoon concluded her update with a list of priorities for 2021, including: (a) review the current Science Framework, (b) release the 2019 Science assessment results for grades 4, 8, and 12, (c) monitor NAEP appropriations, (d) procure a new Technical Support contract to allow special research studies, and (e) redesign the website to better serve the public.

<u>Reflections on Recommendations from the National Academies' Committee on Developing</u> <u>Indicators of Educational Equity</u>

Matthews opened the session on developing indicators of educational equity. She introduced the first panelist, Rucker Johnson, the Chancellor's Professor of Public Policy in the Goldman School of Public Policy at the University of California, Berkeley. Johnson affirmed the importance of NAEP data and claimed that without NAEP, researchers cannot measure and track learning improvements and deficits related to school resources. Johnson provided extensive data on the big picture of inequity in education. Using Sean Reardon's Standardized Measure of Test Performance methodology, Johnson used NAEP as a benchmark to convert school and student test scores to grade-level equivalents at the national level, thus allowing comparisons of district per-pupil spending and achievement.

School district comparisons across the nation set the context for Johnson's examination of the impact of California's Local Control Funding Formula (LCFF), which included a significant investment of \$18 billion in public schools from 2013 to 2019. The LCFF money was distributed using a progressive funding formula with implications for educational equity and ways in which interventions can narrow gaps. He compared data on how much LCFF funding districts received and how they spent the funds by achievement test scores and high school graduation rates. Johnson provided grade- and subject-level graphs illustrating spending trajectories before and after the LCFF was implemented. Using difference-in-difference estimates and controlling for student achievement, Johnson showed increases in student performance for low-income, highfunding districts. A \$1,000 increase in per-pupil funding during a 3-year period from grade 6 to grade 8 was equivalent to significant math score improvements of .23 standard deviations in eighth grade, on par with a full year of learning. Results were similar across grades and subjects. Johnson described how investments in pre-kindergarten and transitional kindergarten translated to stronger outcomes in subsequent grades. Johnson's research highlights the importance of how districts spend funds to such student outcomes as high school graduation rates. He commented on the impact of the pandemic and distance learning, suggesting many of the gains will be reversed. He suggests California's inequity-oriented framework for resource allocation may be a model for national investments in education.

Gerunda Hughes, a member of the NAEP Validity Studies (NVS) Panel and Professor Emerita at Howard University, spoke about the role of NAEP as an indicator of educational (in)equity. Hughes suggested that not only does NAEP serve as an indicator of inequity but also NAEP can be infused with more equitable design, questions, and reporting. In *The Journal of Negro Education* in 1995 Edmund Gordon stated "[e]quity speaks to fairness and social justice and the acknowledgement of differences. It references the differential or (un)equal distribution of resources or inputs for the purpose of meeting a specific need to address a particular purpose or outcome." Hughes explained that equity speaks to fairness, social justice, and unequal resources. It refers to the unequal distribution of resources so that individuals receive what they need to achieve an outcome, compared to equality where everyone receives the same resources.

Hughes pointed out the legislation states NAEP should (a) provide fair and accurate measurement of student academic achievement, (b) report trends, (c) be administered to a representative student sample, and (d) collect and report data on groups including race/ethnicity, socioeconomic status (SES), gender, and disability in a valid and reliable manner. She asserts the law allows collection of other student grouping data not listed in the legislation. She suggests additional variables to address (a) societal, (b) socioeconomic, (c) cultural, (d) familial, (e) programmatic, (f) staffing, (g) instructional, (h) linguistic, and (i) assessment inequities of our educational system. She outlined an NVS Panel proposal to make NAEP a more equitable assessment.

Hughes defined equitable educational assessments as fair and accurate measures with valid interpretations and uses. Equitable assessments should be aligned and validated with their specified interpretations and intended uses of results. Hughes provided an example from R. L. Thorndike's *Applied Psychometrics* textbook to illustrate the importance of validity of inferences and use of assessment results.

Hughes highlighted where an equity lens can be applied to NAEP, namely in: (a) sampling, (b) assessment design and development, (c) administration, (d) accommodations, (e) data analysis and reporting, (f) reporting and interpretations, and (g) use of results. She concluded with the five "E's" of equitable educational assessment: empathy, engagement, equity, evaluation, and equality.

Christopher Edley, the Honorable William H. Orrick, Jr., Distinguished Professor of Law at the University of California, Berkeley Law School, chaired the National Academies' Committee on Developing Indicators of Educational Equity. The Committee recommended developing indicators of educational equity in seven domains. Edley focused his presentation on one domain--elementary and secondary school learning, and three recommendations for indicators: (1) engagement in schooling; (2) performance in coursework; and (3) performance on tests. Committee members identified constructs to measure these indicators, e.g., engagement in schooling can include attendance or absenteeism and academic engagement. Future work needs to define the constructs.

Edley explained that the next steps are to use scientific research to build on existing systems of data to measure and collect the indicators. In some cases, research and development are needed. For example, there is no consensus on how to measure effective teaching. The committee

suggested proxies for indicators such as years of teaching experience. Edley emphasized the unique opportunity the education community currently faces—building a system of equity indicators while equity is a trending topic in the public consciousness. Edley admitted that some tailoring for subgroups of special interest and relevance (e.g., Native American/Alaska Native) may be needed, but there should be a core set of indicators with comparability across jurisdictions.

Some states are interested in implementing the committee's recommendations. Edley hopes the Governing Board will adopt a resolution commending the committee's effort to help elevate the importance of the initiative and to raise funds to support next steps. He offered an ambitious suggestion of a possible statutory expansion of the Governing Board to include overseeing a national system of educational equity indicators or to serve as an institutional home of the indicators.

Matthews facilitated Board member questions for the panelists. Jim Geringer asked Johnson about the most effective use of local funding. Few studies have the statistical power to answer this question. School resources matter and how money is spent matters. Educators need to think beyond <u>what</u> is working to <u>how</u> it is working and align interventions to school settings. Additional data such as out-of-school activities are needed.

Woodworth clarified several issues raised by panelists. The legal requirement for NAEP sampling does not preclude oversampling. NCES is field testing a new SES indicator with selected states. NCES staff is permitted to conduct secondary analyses, however, they are constrained by funding and staffing limitations.

Gregory Cizek emphasized that Johnson's presentation was too important for the limited time available. Edelblut questioned the dependencies of some of the equity indicators, e.g., absenteeism and success in class. If students do not attend class, they are less likely to succeed in school. Is there any weighting of the indicators? Edley stated weighting is a policy or political concern and not something the committee addressed.

Recess

The March 4, 2021, Governing Board meeting recessed at 3:05 p.m. and reconvened at 3:16 p.m.

Reading Comprehension in Large-Scale Assessment: A Symposium

Patrick Kelly moderated a panel of experts at the symposium for reading comprehension in large-scale assessment. Board members heard viewpoints of scholars as well as leaders of state, national, and international assessment programs. After general remarks on the role of background knowledge in reading comprehension, speakers focused on student background knowledge and its role in testing environments.

Dan Willingham, University of Virginia, began by acknowledging "expertise" studies, where students are given two passages of equivalent difficulty, with one passage on a randomly assigned topic and another passage for which the student has expressed interest in the topic. These studies consistently show students are much better at comprehending text on topics where they are highly familiar with the topic at hand. Another family of studies administers a background knowledge assessment and then examines the correlation between background knowledge scores and reading test scores. Willingham reported that the findings from this second set of studies support the idea that people with broad background knowledge consistently perform better on reading comprehension tests.

Willingham then described how psycholinguists think about comprehension on three levels, with knowledge a common factor across all. The first level is focused on making meaning within a sentence. Willingham discussed the difficulty of understanding a sentence and how, when words are rearranged in a sentence, the meaning changes because the syntax changes. Willingham argued that even when syntax is correctly applied many sentences are still ambiguous. Therefore, to understand the meaning of an ambiguous sentence, a student must depend on supplemental background knowledge, something many people take for granted since background knowledge is implicitly applied and resolves the confusion. The second level of comprehension is making meaning across multiple sentences. Willingham presented a series of sentences where the reader would need to infer some detail to understand the full sequence of events and make connections between the different actions to fully understand the meaning of the passage. Willingham stressed that all readers are constantly replacing omitted information with information from memory and noted that these replacements are central to the process of reading comprehension. For instance, he noted that providing just-in-time information, such as pop-up notes, would be problematic because it would replicate some of these inferencing skills that are deeply engrained in reading comprehension, i.e., doing it for students rather than having students do it themselves. Willingham concluded by stating that background knowledge is central to what reading is about and that attempting to mitigate background knowledge in assessments was not advisable.

Kelly thanked Willingham. For more context on how background knowledge has emerged as a centerpiece for the NAEP Reading Framework update, Kelly described the timeline of the framework update, beginning with an initial review in 2018 through present day revisions.

Gina Cervetti, University of Michigan, presented on behalf of the Framework Development Panel for the ongoing NAEP Reading Framework Update. She expanded on Kelly's timeline by describing in greater detail how background knowledge is currently addressed in the NAEP Reading Framework and assessment. She stated there are many kinds of knowledge that play important roles in reading comprehension and test scores may not reflect comprehension ability, but instead differences in knowledge regarding different topics. For example, some students may obtain knowledge through exposure to curriculum standards or experiences and will be better equipped to answer assessment items on selected topics. Cervetti reported that the current NAEP Reading Assessment includes two strategies to address variations in background knowledge, text selection and support features, which includes pop-up notes and introductions to passages. She illustrated the support features with respect to two passages. Next, Cervetti compared how knowledge is addressed in the current NAEP Reading Framework and proposed framework update. While text selections remain similar, a shift in the proposed framework refers to the two support features (pop-up notes and introductions) as knowledgebased universal design elements (UDEs), bringing NAEP design in line with contemporary research on assessments. Under the framework update, Cervetti explained that introductions may be somewhat more elaborate and may also include brief videos, images, or audio recordings to provide topical information on topics that are likely to be unfamiliar. After demonstrating a passage example that included images, pop-up notes, and audio, Cervetti stated that these knowledge-based UDEs increase the validity of interpretations from the assessment and improve the ecological validity of the assessment by reflecting how people use supplemental resources to read texts on unfamiliar topics.

Ina Mullis, Executive Director of the Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS) International Study Center, spoke on minimizing the impact of background knowledge in the context of international assessments. She related PIRLS to NAEP, indicating they measure some similar domains and sample student populations rather than individuals, but PIRLS tests in different countries instead of states. Mullis added PIRLS is a fourth grade only assessment given every 5 years and measures linguistic skills and comprehension strategies. While recognizing that background knowledge is part of reading comprehension, PIRLS works to reduce the need for and impact of prior knowledge. The PIRLS framework includes two purposes for reading and four purposes for comprehension. The assessment includes 18 reading passages and five online informational texts, known as ePIRLS, that simulate internet reading. The passages and texts represent a wide range of content and settings, with background knowledge spread randomly throughout the assessment using a counterbalanced design across passages, tasks, and students. Passages reflect authentic reading experiences, and texts that depend on culture-specific knowledge are usually excluded. She clarified texts may introduce new information or knowledge, but it must be presented in a manner that can be easily understood by test takers unfamiliar with the topic, eliminating the need for pop-up text windows, for example. Additionally, to avoid creating advantages or disadvantages, items are passage dependent. That is, students do not need outside information to understand and answer items; they only need to read the text. Mullis noted that the advantage provided by background knowledge is regarded as bias. To reduce bias, a committee ensures texts and items avoid topics that favor specific ethnicities, geographical location, cultures, and gender. Given that half of the assessment's items are constructed response, PIRLS scoring guides are developed to meet important aspects of the assessment and define the responses as evidence of reading comprehension from the text. Mullis concluded by noting that there is no scoring advantage for students who display extra background knowledge in their responses.

Andreas Schleicher, Director for Education and Skills, and Special Advisor on Education Policy to the Secretary-General at the Organisation for Economic Co-operation and Development (OECD), described how the Programme for International Student Assessment (PISA) addresses background knowledge. He indicated PISA has adopted a contemporary definition of literacy that extends beyond understanding text. For example, PISA places a lot of emphasis on students' ability to navigate ambiguity, assess the quality and credibility of information, and corroborate information. Background knowledge plays an important role in performing these tasks. However, other factors also contribute to performance, including motivation for the reading task, cognitive ability, as well as engagement and familiarity with the topic. Text factors are also important in assessing literacy, such as complexity of the text and what information students are asked to process. Schleicher indicated background knowledge affects each of the factors, but not always in a beneficial way. For example, students may draw from experiences in ways that are misleading relative to an assessment task. In any case, Schleicher noted that if students are able to answer test questions on the basis of background knowledge alone, then this would raise a fairness issue. PISA is administered in more than 100 countries and educational systems, providing a laboratory of cultural context to compare and contrast how the same item functions across different students in different settings. Like PIRLS, PISA uses the diversity of social and cultural context among countries to minimize bias and reduce the impact of prior knowledge, screening items for appropriateness for all students. Unlike PIRLS, PISA's authentic reading passages include cultural information as a way to have more authentic reading tasks. For example, introductory information would provide all the information a student needs to respond to items. No additional background knowledge is required. If a student has background knowledge of a concept, it would not provide an advantage because reading the passage is still required to answer the items. Pop-up notes and animations also appear in PISA, and tasks are purpose-driven.

Schleicher indicated that the impact of background knowledge is one of the most difficult things to measure and shared some methods PISA uses to address the issue. Concerns about group level comparisons are addressed with a model in which performance comparisons within a country are based on every item, but linking to international scales is based only on the items for which there is no item-by-country statistical interaction. Furthermore, as an additional check, each country chooses a set of items that best represents country-specific knowledge, and their data are then rescaled using only those preferred items. When countries are compared based on these rescaled scores, results show no significant influence on the rankings of countries. Finally, PISA collects student contextual information on reading strategies. The assessments also collect metacognition data on reading, asking students about self-efficacy on different reading tasks and motivation, which are correlated with performance. PISA examines these relationships in different groups.

Kelly facilitated a short question and answer session with the international assessment panelists. Edelblut asked Mullis about the absence of UDEs in reading passages. Mullis clarified although passages are text rich and diverse, they are written in a manner that a student does not need background information. If a student can read the passage, it contains all the knowledge needed to answer the corresponding items. She added passages go through multiple stages of review. Cizek asked how much should background knowledge be controlled for in an assessment. He said if he encountered a word he did not know when he was reading, he would look it up; he supported this practice as a reading skill to be learned, but not pushed on students in an assessment. He asked what concerns speakers had about attempting to control for background knowledge in NAEP assessments, as proposed in the NAEP Reading Framework update. Mullis agreed that spoon-feeding information to students while they are reading is not authentic reading and believes this strategy could be distracting, leading to adverse effects on reader comprehension. Schleicher argued for the need to control background information in a way that one can measure its impact differentially based on content knowledge, reading strategies, social background, and other factors. Geringer stated that he struggles with differentiating between assimilation and comprehension, though he believes background knowledge is important for reading comprehension. He drew parallels to other subjects like mathematics and physics and general problem solving where prior knowledge drives performance. Schleicher agreed it is a challenge to control for all background knowledge in an assessment. He asserted that the focus of standardized assessment is to exclude assessment tasks that clearly favor (or disfavor) certain groups, e.g., in a specific geographic area or cultural context. From the perspective of PISA, there is no problem if the assessment task is likely to be unfamiliar to all students.

Martin West invited Willingham to comment on the presentations from Mullis and Schleicher, citing fundamental differences in background knowledge definitions. What Willingham characterizes as essential, Mullis views as bias, and West wants to learn more about the differences. Willingham clarified that key differences include his belief that background knowledge does not need to be solved in terms of fairness because background knowledge is an integral part of reading comprehension; it is problematic to attempt to separate background knowledge from comprehension. Willingham posited that background knowledge should be part of the construct of any reading comprehension assessment.

Following the international assessment discussion, Kelly invited additional guest speakers to provide presentations on the role of background knowledge on several U.S. large-scale assessments. He noted that these assessments produce scores for individual students, while NAEP does not.

Jenna Chiasson, Louisiana Department of Education, discussed the state's innovative assessment pilot. The state uses an instructional review process, making it easier for school systems to adopt high quality instructional materials. Accordingly, Chiasson reported that seventy-five percent of Louisiana school systems are using the same English language arts curriculum which integrates social studies content, and this widespread adoption provides a unique opportunity to connect curriculum and assessments. The innovative pilot program uses several brief assessments rather than an end-of-year exam and includes a reading and writing assessment that is sequenced with knowledge-rich curriculum that measures student ability to understand and build knowledge from reading and then express that knowledge and understanding in writing. She indicated initial feedback and data have been positive, citing higher levels of engagement and time spent on reading and writing assessment tasks. Data also show historically disadvantaged students perform better on the pilot assessments than on Louisiana's traditional assessments. Chiasson noted that school districts preserve local control by selecting which books are used in instruction and which assessment students take. Chiasson compared the traditional assessment-the Louisiana Educational Assessment Program or LEAP—with the innovative pilot assessment. On LEAP, students engage in cold reads, a random selection of texts which are purposely unrelated to anything students have studied. Conversely, the pilot uses warm and hot reads, wherein warm reads involve passages that are topically related to what students have studied but have not

encountered in school and hot reads relate to actual passages and familiar texts students have encountered in school. Unlike the yearly essay on the traditional exam, the pilot provides the opportunity for students to write essays on a more frequent basis. Chiasson shared a prompt from the end-of-year pilot test, which consisted of an essay question that required students to use and extend the knowledge they gained from their English classes to synthesize texts from multiple sources and integrate their thoughts into a cohesive writing piece.

Rachel Kachchaf, Smarter Balanced Assessment Consortium, presented information on their approach to reading and background knowledge, beginning with a short overview of the Smarter Balanced assessment design before delving into their process for selecting passages. Kachchaf noted that the Smarter Balanced assessment development process leverages educator expertise and judgment to both select the passages and write assessment items. She explained that this educator involvement provides representation across a variety of backgrounds, certifications, experiences, and geographic locations. Passage selections are drawn from existing texts that are identified by educators and aligned to standards. Each passage is reviewed to adhere to bias and sensitivity guidelines as well as language complexity guidelines. From there, the passage undergoes an iterative review process by teams of educators in a holistic evaluation that includes quantitative and qualitative measures. Test items are then developed for each passage in a process that is also iterative. As with passages, items are reviewed multiple times for content, bias and sensitivity, and fairness, and the overall the process aligns with evidence-centered design. She offered an example of items that discussed playing at the beach or in snow—even though not all students encounter these experiences, they learn about them in school and can apply contextual knowledge to answer the items. Footnotes, introductory information through context-setting statements, and embedded glossaries provide additional support in the assessment on as-needed basis. In response to a clarification question, Kachchaf clarified that Smarter Balanced assessment items do not relate to the context-setting introductory statements.

John Sabatini, University of Memphis, presented on behalf of the Global, Integrated, Scenariobased Assessments (GISA). Unlike other assessments, GISA was formed using a federal grant and was part of an initiative by the Institute for Education Sciences (IES), which used teams to develop instruction and assessment. Sabatini led the K-12 assessment project. Based on a literature review, it was determined that some reading comprehension assessment constructs need to evolve to meet the demands of the 21st century. Sabatini reported that GISA work is compatible with NAEP and PISA and incorporates similar scenario-based items. He shared examples of how scenario-based tasks address background knowledge and are important for higher order comprehension. GISA uses natural language processing (NLP) techniques to identify topical knowledge and vocabulary related to the passage and task that students experience in the assessment. Sabatini described two of these techniques. In one, students decide if a word belongs to a topic or not and receives immediate feedback in the assessment. Although this tests current knowledge, it also activates prior knowledge that students bring to the assessment. Another technique embeds items from released NAEP assessment items in science and history in the beginning of the GISA reading test. These NAEP items are related to the passage students would experience in the GISA assessment. Sabatini summarized that both of

these techniques allowed the GISA reading comprehension assessment to measure topical knowledge before students engage with passages and test questions.

Referring to the presentations from the international and U.S. assessment leaders, Kelly asked Cervetti to summarize potential implications for the future of the NAEP Reading Assessment. Cervetti highlighted the abundant research and understanding about the importance of knowledge in reading comprehension, including knowledge of text and text genres, knowledge about how syntax works to create meaning, knowledge of the world, and knowledge about specific topics. Researchers have carefully documented the consistent and robust impact of topic knowledge on a reader's ability to respond to questions that require bridging inferences, forming connections within texts, making global inferences like understanding concepts or themes, and even recalling information from the text. Topic knowledge most likely impacts all processes described in the comprehension targets for the NAEP Reading Assessment.

Given that topic knowledge varies widely from one reader to another, Cervetti asserted that this presents several challenges for all reading comprehension assessments. First, because the passages that students encounter will always intersect with specific topics, the assessment scores may reflect students' knowledge of the topic at hand more than they reflect their comprehension ability. Second, topic knowledge is sometimes systematically distributed by group characteristics, such as the state, region, community, or culture in which students reside. To illustrate examples of this systematic difference, Cervetti discussed two states with different sequencing and pacing in their science curriculum, where one state addresses the science of light and sound waves in grade 3 and another state addresses that topic in grade 5 or higher. For an informational passage about light and sound waves on a grade 4 reading assessment, this topical familiarity could then contribute to students scoring higher in the state where students already encountered that topic through their state's science curriculum. Cervetti summarized that in this and other cases, the assessment challenge is that differences in reading comprehension performance detected across groups may be more related to topic knowledge than reading comprehension ability. All of the assessment programs leaders who presented recognize these assessment challenges and therefore attempt to mitigate the impact of topic knowledge to produce better estimates of the types of reasoning that students can do with text, and these types of student reasoning are similar to the comprehension targets that are the focus of the NAEP Reading Assessment. Cervetti highlighted that situating students in authentic reading was also a principle applied in several of the assessment programs described.

Cervetti provided a summary of strategies noted by the different assessment leaders to mitigate the impact of topic knowledge, especially where this knowledge might provide advantages to certain groups. For passage selection, assessment strategies included: choosing familiar texts because of shared curriculum; choosing unfamiliar authentic texts and providing supporting information in the assessment; avoiding texts that rely on culturally specific information or technical knowledge; grouping and sequencing thematically related texts allowing students to build knowledge as they read in the assessment; and ensuring that texts are engaging. For item development, strategies included: developing items that are text-dependent rather than knowledge-dependent; reviewing items for bias; and avoiding constructed response items based on background knowledge. For other assessment features, several assessment programs use text introductions that include both topic information and purposes for reading, as well as pop-up definitions or footnotes. For reporting features, one program, GISA, considered knowledge in the scoring and interpretation by measuring readers' knowledge and using this understanding to support more expansive interpretations of assessment results.

Cervetti indicated that only some of these assessment strategies could be applied to NAEP because NAEP is prohibited from making an explicit curriculum connection, such as is done in Louisiana, for instance. Cervetti added all features proposed in the NAEP Reading Framework Update are also part of the current NAEP assessment. The framework update, however, includes a more robust approach to addressing differences in students' topical knowledge, given that it influences student performance and is not addressed in the comprehension targets or achievement level descriptions in the current NAEP framework. The assessment strategies proposed in the updated NAEP Reading Framework address the issue of topic knowledge in different but complementary ways to the international and U.S. assessments presented here. For instance, the updated framework: (a) increases the likelihood that students will have encountered at least some texts included in the assessment, (b) supports readers' engagement by focusing readers' attention on the most important information, and (c) provides introductions that address pivotal gaps in topic knowledge on an as needed basis, e.g., many passages and assessment blocks will not require these introductions. Cervetti acknowledged that there is no Universal Design element that can eradicate the influence of topic knowledge on comprehension entirely, but mitigation attempts are important for more fair and valid assessments.

Julia Rafal-Baer thanked Cervetti for the clarity of her remarks and, recognizing Chiasson, praised Louisiana's leadership in assessment and instruction. Rafal-Baer stated that assessments often drive instruction. Because of this, she is concerned that the NAEP Reading Assessment might send a signal that it is not important for students to build their knowledge about different topics. Rafal-Baer then noted questions about the impacts of Universal Design elements on students' testing experiences and asserted that more information was needed before she could comfortably support recommendations being proposed for the updated NAEP Reading Assessment.

Eric Hanushek noted the fundamental disagreement between how Willingham and Cervetti characterize the background knowledge issue for assessment, asking what is the legitimate adjustment to make to the NAEP Reading Assessment given the disagreement. Hanushek wants NAEP to do a better job of predicting future performance in careers and college and worries that adjustments might be made that make NAEP less predictive of these important outcomes.

Schleicher agreed the issue is not to eliminate the influence of background knowledge, but rather to eliminate bias at the group level. He added that the exemplars presented by Sabatini for GISA demonstrate that it is possible for assessments to statistically model the effects of topical knowledge and topical familiarity. Sabatini agreed with Schleicher that the assessment goal is less about reducing or eliminating the differences, but more about making sure we understand the source of the test score differences. Kachchaf added that it is important to ensure that experts who know students well, such as educators, are making the determinations about which topics students may not be familiar with. Smarter Balanced relies on educators to indicate when additional contextual information is needed.

Lane asked whether Universal Design features, such as pop-ups, videos, or introductions, are themselves sources of construct irrelevance that may impede performance or decrease students' motivation by mandating them to do more to navigate the assessment. Cervetti described a NAEP special study conducted with 3,000 students which examined some of the features being discussed. Results of the study indicated students earned higher scores on passages with the features. Lane then asked if the study kept track of students who used the UDEs, which ones were used, and the relationship between use and performance. Kelly commented that process data could be a useful resource for answering these sorts of questions.

Paul Gasparini wondered if the preferred item analysis done for PISA results could inform NAEP Reading Framework discussions. Schleicher responded that these item analyses showed it was possible to achieve an equally unfair set of tasks across different cultural, linguistic, and national contexts. The objective is not to eliminate those influences but rather to account for them and make them visible. Schleicher also agreed with using process data to provide information about how students respond to items.

Dana Boyd referred to Hughes' presentation in the prior session on equity. Hughes specifically cited the importance of empathy, engagement, equity, evaluation, and equality for educational assessments, and how these concepts connect with the types of inferences that are drawn from assessment results. She asked how the Governing Board might work to prevent the mischaracterizing sorts of inferences that often implicate students of color, while also increasing equity and equality for our nation's students. Cervetti remarked that equity was of central importance in the development of update recommendations for the NAEP Reading Framework and assessment. Chiasson noted that equity is one of the drivers for Louisiana's innovative assessment pilot, and she is encouraged by pilot data which show higher levels of engagement from the students who are not reading on grade level and are encountering unfamiliar topics at the same time. Being familiar with the topics of passages seems to make students feel more empowered and engaged to perform at their best in the assessment pilot program.

West asked why the routinely performed differential item functioning (DIF) analyses are not sufficient for addressing the concerns Cervetti raised about group differences. He also asked if topic knowledge is not explicitly mentioned in the NAEP framework, then should the framework definition of reading be revised to include mastery of a diverse array of content knowledge. Cervetti said that assessments can be designed for equity so that DIF analyses are less likely to identify problems. Willingham responded he believes the current NAEP framework is not realistic about what reading is. Given that the test seems to prioritize broad yet shallow knowledge, he asserted that the framework should acknowledge this priority.

Cizek thanked Sabatini for clarifying what seems to be the defining issue, which is: does the Governing Board want to control for background knowledge in reporting a reading score or do we want to help explain reading performance because of background knowledge?

Reginald McGregor, referring to his work in industry, has found that the author of a report determined whether the report could be understood, and sometimes the likelihood of a document being understood was based on how things were being translated across international teams. In all cases, however, McGregor noted that it is important for workers to be able to review various reading materials and make sense of them. Based on McGregor's comment, Sabatini noted that maybe communication should be a stronger emphasis for future NAEP Reading Assessments.

Kelly thanked everyone for their presentations, comments, and discussions and for taking a deep dive into the issues surrounding background information in large-scale assessments. He also thanked the wider audience that attended this public session.

The meeting adjourned at 5:34 p.m. for the day.

Nominations for Board Terms Beginning October 1, 2021 (CLOSED)

Under the provisions of exemptions 2 and 6 of § 552b (c) of Title 5 U.S.C., the National Assessment Governing Board convened in closed session on Friday, March 5, 2021 from 12:00 to 12:30 p.m. to receive a briefing from Jim Geringer, Chair of the Nominations Committee, for Board terms that begin October 1, 2021.

Geringer noted that for the 2021 cycle, there are six vacancies in the following categories:

- Elementary School Principal
- General Public Representative
- Governor (Democrat)
- Governor (Republican)
- Local School Board Member
- Testing and Measurement Expert

For terms beginning on October 1, 2021, there are incumbents in the following three categories: Elementary School Principal, General Public Representative, and Governor (Democrat). There are no incumbents for the other three categories. For the category of Local School Board Member, these candidates were approved by the Board in March 2020.

Geringer reviewed the 2021 nominations process and timeline, which began during summer 2020. The final slate of candidates will be submitted to the Secretary of Education in April/May 2021, once commitment letters are received from the finalists.

Geringer reviewed the slate of finalists for terms that will begin on October 1, 2021. He presented information about the nominations received by number of applicants, gender, race/ethnicity, and geographical representation. The final slate of candidates was described, along with a listing of proposed finalists, for the categories of Elementary School Principal,

General Public Representative, Local School Board Member, and Testing and Measurement Expert. Geringer noted that nominations for the two Governor positions are made by the National Governors Association.

Board members engaged in discussion on the recommendations for the final slates of candidates for submission to the Secretary of Education.

NAEP Budget and Assessment Schedule (CLOSED)

Under the provisions of exemption 9(B) of § 552b of Title 5 U.S.C., on March 5, 2021, the Governing Board met in closed session from 12:35 p.m. to 1:50 p.m. to receive a briefing on the NAEP budget and assessment schedule from Peggy Carr, Associate Commissioner, NCES.

Carr provided updated projections on the current budget through 2024, noting potential implications for the NAEP Assessment Schedule for Board consideration. In addition, with the transition to the next generation eNAEP delivery platform, Carr outlined the need for special studies to investigate how changes to the content and/or administration of NAEP may affect trend and validity.

In May, the Board will receive two updates, one on the eNAEP transition and the other on the budget. The Board will use this information to identify next steps in upholding its policy priorities of utility, frequency, and efficiency.

Following a break, the meeting resumed in open session at 1:55 p.m.

Action: Updated NAEP Assessment Schedule

Barbour reminded Board members that after the November 2020 Governing Board meeting, the Board submitted letters to Congress that supported postponing the 2021 administration to 2022.

Congress then passed the Consolidated Appropriations Act of 2021, which included a waiver for 2021 NAEP administration. Through this waiver, Congress acknowledged the operational limitations of conducting NAEP in 2021 during COVID-19, allowing the Governing Board and NCES to postpone the legislatively mandated 2021 administration of NAEP Mathematics and Reading in grades 4 and 8.

To reflect these waiver provisions, the Board took action to update the NAEP Assessment Schedule. Alberto Carvalho made a motion that the Board approve the updated NAEP Assessment Schedule. Matthews seconded the motion. There was no discussion and the motion was unanimously approved. The approved NAEP Assessment Schedule is appended to these minutes.

Action: Nominations for Board Terms Beginning on October 1, 2021

Geringer made a motion that the Board approve the slate of Governing Board nominees for terms beginning on October 1, 2021 as presented earlier in closed session. Mark White seconded the motion. A brief discussion included confirmation that the Department's Office of General

Counsel vets potential appointees for conflicts of interest. With two members abstaining, the motion was approved unanimously.

State and TUDA Task Force Updates

Barbour welcomed partners from the Council of Chief State School Officers (CCSSO) and the Council of the Great City Schools (CGCS) to provide State and Trial Urban District Assessment (TUDA) task force updates. Barbour described the task force collaborations as extremely valuable to improve current NAEP processes and shape the future of NAEP. He introduced Shelly Loving-Ryder, Chair of the State Policy Task Force.

Loving-Ryder updated the Board members on the accomplishments and plans of the State Policy Task Force, a collaboration between the Governing Board and the CCSSO. The task force comprises individuals serving in a variety of roles from a diverse group of states. Typically, the task force discusses myriad topics, however, discussions during the past year focused on COVID-19 impacts. The task force provided the Governing Board with insights from the field about instructional modalities in schools and the impact on NAEP administration. They discussed communication strategies related to rescheduling NAEP from 2021 to 2022, particularly to emphasize that the delay was for logistical and operational reasons and does not reflect the importance of NAEP. Loving-Ryder thanked the Board and NCES for their thoughtful deliberations on the impact of COVID-19 and the decision to delay NAEP.

Loving-Ryder indicated the task force was briefed on the NAEP Reading Framework. She commented on the influence NAEP has on state standards and assessments. The task force looks forward to hearing more about the framework, especially how background knowledge is addressed.

The task force appreciated the Board's original strategic vision for its simplicity of focus. They are pleased with the addition of a third pillar, *engage*, to supplement *innovate* and *inform* in the 2025 Strategic Vision, because it is difficult to inform or innovate if there is no engagement. In closing, Loving-Ryder noted the task force received briefings on the report card releases. She introduced Scott Norton, Deputy for Programs at CCSSO.

Norton presented an update on the landscape of state assessments. In March 2020, the U.S. Department of Education waived state assessment requirements. In a letter to state education agencies on 2021 testing, the U.S. Department of Education emphasized the importance of assessment for understanding the impact of COVID-19 on student learning and as such, will not issue blanket assessment waivers for 2021. However, the Department offered some flexibility in state assessment requirements, such as waiving the 95 percent participation requirement and allowing shortened tests, remote administration, and extended administration windows. The U.S. Department of Education suggested students should not enter schools only to take a state assessment. Based on a recent CCSSO survey, most states plan to administer state assessments to as many students as possible in 2021; however, challenges persist. Several states have applied, or are expected to apply, for a waiver.

CCSSO staff and members are discussing the future of state assessment. Changes may be on the horizon, in part because of inconsistency in quality and in different types of assessment (e.g., classroom, district, state). These assessments typically do not belong to a single integrated system and some components may not align well to standards.

Norton offered some ideas for how states might meet these challenges. First, CCSSO is advocating for balanced assessment systems. In *Knowing What Students Know*, published in 2001, the National Research Council defined a balanced assessment system as "when the various types of assessments in the system are coherently linked through a clear specification of learning targets, they comprehensively provide multiple sources of evidence to support educational decision making, and they continuously document student progress over time." Norton acknowledged state and district partnerships are needed to create balanced systems, because most assessment occurs at the district, school, and classroom levels rather than the state level. CCSSO suggests a balanced assessment system should include (a) classroom-level formative assessments, (b) district-level interim or benchmark assessments, and (c) state-level summative or end-of-year assessments. Norton suggested "right sizing" expectations about summative assessments which currently tend to overshadow other assessments.

Muldoon facilitated questions from Board members for the State Policy Task Force representatives. Gasparini asked Norton about using assessments such as the New York State Regents Exams to inform instruction. Norton acknowledged that summative assessments are not as helpful for informing instruction as they are for end-of-year evaluation purposes and accountability. Geringer asked Norton to clarify his comment about coordinating state and district assessments. Norton meant that states and districts need to share information about assessments in a coordinated way.

Cizek asked about possible inequities when in-person administration is required for some assessments (e.g., WIDA Consortium). Norton reported that approximately 30 states planned to have remote students come to school to take assessments in-person but will likely reconsider their options given the recent guidance from the U.S. Department of Education. Lane asked about the potential uses and misuses of assessment data collected from remote unproctored testing conditions. According to a survey conducted about two months ago, five states were considering remote assessment administration. The number of states considering remote administration has dropped since then. For one, the District of Columbia has since applied for a waiver. Norton reported there may be one state considering remote proctoring as a way of monitoring testing. However, most states are not ready to offer remote testing. Lane added that testing under remote conditions, with or without a proctor, could lead to equity issues.

Michael Casserly began the TUDA Task Force update by noting he will step down as the Executive Director of CGCS at the end of June 2021, after serving for more than 44 years. He stated that it has been his honor to work alongside the Governing Board and averred that he is most proud of initiating the TUDA program. Casserly thanked everyone and turned the

presentation to Ray Hart who updated the Board members on the accomplishments and plans of the TUDA Policy Task Force.

The task force of 10 district leaders provides district perspectives and feedback to the Governing Board. Hart stated the TUDA is invaluable for CGCS members as it allows them to gauge their performance against their peers. Policy-focused discussions during the past year considered (a) the value of participating in NAEP, (b) the NAEP assessment schedule and participation during COVID-19 school disruptions, (c) the Reading Framework update, (d) adding contextual questions, and (e) communicating NAEP to the public.

In conversations about NAEP 2021, district leaders shared concerns about not having a representative sample and inherent bias in assessing only students attending school in person. CGCS provided feedback to the Governing Board on the NAEP administration schedule.

The CGCS supported proposed revisions to the NAEP Reading Framework, particularly inclusion of socio-cultural understanding of learning and development, incorporating science and social studies texts, and increasing the use of digital modalities. These changes will create a more fair and relevant assessment. Hart described the framework revisions as a sea change and useful for others to follow. Also, CGCS members appreciated new naming conventions such as comprehension targets replacing cognitive targets. Members support many of the proposed ideas for scaffolding for accessibility.

The Council discussed adding questions to student and teacher surveys to collect information about learning experiences and level of parental support to students during the pandemic. Hart suggested a partnership with the Council, Governing Board, and NCES communication teams to develop joint communication campaigns before and after the NAEP 2022 releases. The task force recommends extended communications to provide context for understanding NAEP results, especially the influence of school disruptions on student achievement.

On behalf of Barbour, Peisch acknowledged the tremendous contributions of Mike Casserly to NAEP and the Governing Board. Members echoed her thoughts and extended their thanks to Casserly and for the work of the Council. Muldoon applauded the work of Casserly and the Council in the progress that TUDA districts have made since the program started. Carvalho added his thanks for Casserly's advocacy and remarked on Casserly's friendship to public education which has "elevated the national landscape of opportunity for kids and educators." Carr and Woodworth thanked Casserly on behalf of NCES for being a partner of NAEP since its beginning. Carr described NAEP as a three-legged stool, with one of the legs being the CGCS. Woodworth added thanks for the tremendous support from Casserly and Hart in collecting and disseminating district data.

Muldoon facilitated questions from Governing Board members. Cramer asked if districts find contextual questions useful when comparing results with other districts. Hart responded they have not discussed specific questions, but they would like to add pandemic-related questions for

NAEP 2022. Cramer followed up by asking whether questions about student continuity would be useful for districts. Casserly commented they think this is an important topic. In addition, the Council is working on a study using NAEP contextual data from urban school districts. They want to understand whether results simply reflect demographics.

Hanushek asked if there are plans to expand the number of participating districts. Casserly noted that additional cities are interested in joining the TUDA, if and when there are funds available to support expanding the program.

Muldoon asked the panelists what they anticipate schools will look like for the 2021–2022 school year and how NAEP results might be used. Norton responded he thinks more students will return to in-person learning. The goal is for learning to be back on track, regular state assessment administration, and "normal" NAEP administration. Casserly reported that 51 of 77 districts are at least partly open. School leaders are eager to expand opening their buildings to more students this spring with only a handful remaining closed for in-person instruction for the remainder of this school year. He expects most districts to be open at the beginning of the next school year; however, not everyone will be back in person. Districts are likely to offer virtual and hybrid learning, and some parents and students will choose these modes. It is important to recognize these choices to prevent introducing bias into the NAEP sample.

Gasparini directed his earlier question about tying NAEP results to instructional practice to the TUDA Policy Task Force. There is only an indirect link because NAEP does not have school or classroom results. Casserly suggested NAEP results are useful for informing curriculum standards and instructional strategies and identifying subgroups needing additional support. Carvalho added the TUDA reports are very helpful by providing comparisons of participating districts. Leaders share information with each other to learn what others are doing when they show improvement and good performance. Hart suggested using the NAEP questions tool to understand differences between strong responses and how students in a specific school are likely to respond. This information can be used to inform curriculum and professional development.

The March 5, 2021, Governing Board meeting recessed at 3:05 p.m. and reconvened at 3:30 p.m.

NAEP Reading Framework Policy Discussion

The Assessment Development Committee (ADC) invited three scholars and leaders from the NAEP Reading Framework Visioning and Development Panels to lead a discussion about the latest draft of the NAEP Reading Framework. Dana Boyd, ADC Chair, thanked everyone for the work done thus far and provided the Governing Board with a progress report and summary of recent events in updating the framework. In July 2020, the draft framework was posted for public comment, and the Governing Board received feedback from a wide range of stakeholders. The framework contractor and Development Panel reviewed the public comments and shared a revision plan for incorporating the feedback. At the November 2020 Governing Board meeting, the panel received additional feedback from Board members regarding proposed revisions. Based

on this feedback from public comment and the Governing Board, the Panel submitted an updated draft of the framework to the Governing Board. The purpose of the current presentation is to give Board members an opportunity to provide final guidance before the May 2021 Governing Board meeting. Boyd reminded members the current framework was developed for paper-based assessments in 2004; as such, the Panel undertook an ambitious task of determining and assembling recommendations for updating the framework. The ADC's oversight of NAEP framework processes ensures a comprehensive, inclusive, and deliberate process that reflects research and standards in the field.

Boyd thanked the members of the Visioning and Development Panels, who are tasked with upholding the highest standards when developing the framework and incorporating the revisions. Boyd informed the Governing Board they would hear a high-level summary of the latest NAEP Reading Framework update, followed by a policy discussion on areas requiring additional deliberation and debate. Addressing concerns raised at the last meeting, Boyd stated that NCES has indicated that maintaining trend should be possible with careful planning and a gradual item development strategy. She introduced ADC and Panel members to present and address questions and comments.

P. David Pearson, Chair of the Reading Framework Visioning and Developing Panels, presented on behalf of the panels and WestEd. Pearson noted how advances in reading research, changes to state standards, and an increasingly digital world necessitated updates to the NAEP Reading Framework. Advances in research include differences in the knowledge and abilities needed to read and comprehend different types of text in various disciplines. Pearson highlighted the similarities and differences between the current framework and the proposed framework update. The updates reflect feedback obtained from the public and Governing Board members. Reading is defined as a complex process shaped by student, social, and cultural influences. Pearson reported that minor revisions to the current framework's definition add more context to the process of comprehension. He noted that the updated definition is more specific about the knowledge and tools the reader brings to the table and also about the sub-processes that constitute comprehension. Pearson said that a new comprehension target, Use and Apply, was introduced to the NAEP Reading Framework to reflect what assessments require students to do (i.e., comprehend the material and apply it to the task). This additional target is warranted by new research and state standards as well as prevalent practices in state and international assessments.

Visioning Panel member (and former Governing Board member) Susan Pimentel provided an update on the importance of using disciplinary context as a reporting feature. For the updated framework, new disaggregated scales for reading in science and social studies were added. These additions reflect the shift to disciplinary context. The latest research shows differences in the knowledge and skills required to read text in different disciplines; state standards also reflect this research. The added discipline areas supported by public comments were already part of the broad definitions for reading in literature, science, and social studies. These broad definitions also overlap with the current NAEP Reading Assessment item pool. The Panel believes the new subscales will deepen insights for NAEP reporting, moving beyond the generic reporting on informational text and will enable educators to draw more precise inferences about student achievement. Pimentel provided the new disciplinary text definitions and shared related examples.

Pimentel next spoke on updates to purpose-driven assessments. In the revised framework, before starting to read a passage, students will see a purpose for reading the passage and what they will be asked to do. The panel proposes three levels of purpose: (a) broad purpose, either to read and develop understanding, or to read to solve a problem, (b) block specific purpose, to guide reading in the entire 30-minute block, and (c) task specific purpose, offered for each text students encounter. The purposes provide context, increase student engagement, and allow students to demonstrate comprehension. Pimentel noted that purposes also add ecological validity by more closely mirroring the type of reading that students do outside the assessment context.

Visioning and Development Panel member Gina Cervetti stated that the purpose of the NAEP Reading Assessment is to provide a valid measure of reading comprehension across a diverse range of test takers. To help accomplish this purpose, the NAEP Reading Framework update employs the principles of Universal Design for Assessment. In response to public comment and Board feedback, Cervetti reported that the Panel re-conceptualized assessment scaffolds to align with Universal Design for Assessment. Accordingly, in the framework update, a Universal Design Element (UDE) is defined as a design element that helps students access, organize, and express ideas in order to accomplish complex tasks. Similar to how these features appear in the current NAEP Reading Assessment, all students will have access to all UDEs. Cervetti summarized that UDEs allow NAEP to administer more rigorous and more complex comprehension tasks in short blocks, and UDEs do not provide answers to comprehension questions. Cervetti listed the three types of UDEs in the NAEP Reading Framework update: (a) motivational, (b) task-based, and (c) knowledge-based. Motivational UDEs are embedded into reading activities to encourage and support reader interest and engagement, especially when the reader encounters more complex or challenging reading passages. Task-based UDEs include directions for progressing through the assessment or a graphic organizer to record information. Knowledge-based UDEs supply a minimal amount of information about specific non-assessed concepts, topics, or vocabulary. Cervetti stated that these UDEs ensure NAEP Reading Assessment scores reflect differences in comprehension ability rather than differences in topic knowledge - topic knowledge is directly addressed in other NAEP assessments, such as in science, civics, and U.S. history.

Cervetti focused the next part of her presentation on providing the Governing Board more information regarding knowledge-based UDEs, and how they would appear in a NAEP Reading Assessment. Two kinds of knowledge-based UDEs are part of the current assessment and the Framework Development Panel is recommending that these features continue: (a) pop-up notes that provide brief explanations of words and phrases; and (b) passage introductions that provide information about the topic of the text, where that information is critical for comprehension and may not be known by all readers. In the framework update, some of these features would be more elaborated, such as using video, audio, or photos, in passage introductions. To provide more context, Cervetti used the example of a passage involving the mention of a talent show. For the assessment, UDEs would enable students to listen to violin music before answering questions on the topic or see a pop-up definition of a potentially unfamiliar term such as "talent show." Cervetti also noted a released NAEP Reading Assessment block that used a pop-up definition for a term in a literary passage from a Turkish folktale.

Cervetti described key parameters for the development of the knowledge-based UDEs. She noted that they are not designed to equate students' topic knowledge, which is impossible. Most importantly, these UDEs may provide information that enables readers to reason with the text as intended, but they are not designed to address everyday information. There are differences between knowledge inherent in reading comprehension and that which is not. Knowledge inherent in reading includes text structures like cause-and-effect, story structure, or language structure. NAEP measures the ability to use these types of knowledge, which ultimately leads to comprehension that can be measured by the targets.

Pearson reflected on the March 4 symposium and its focus on the topic knowledge issue. He noted that the public comment draft of the NAEP Reading Framework included potential ways to measure students' topic knowledge, as done in the GISA assessment. In response to public comment and prior to Board feedback, those potential measures were removed and hence do not appear in the latest draft of the framework update. However, given the Board's comments in the symposium, Pearson suggested that NAEP should pursue a special study to carefully examine the influence of background knowledge on NAEP Reading Assessment performance. Finally, he reminded the Governing Board that many of the features being discussed for the framework update are part of the operational NAEP Reading Assessment and have been for many years. This holds true to the Board's charge to the Visioning and Development Panels to provide update recommendations that are evolutionary in nature.

Miller opened the floor for discussion related to the updates. After the Board expressed support for the disciplinary contexts recommended in the framework update, Suzanne Lane asked for evidence UDEs work for those who need it and do not increase performance for those who do not. Pearson noted that the purpose of UDEs is to provide support for all students, and Eunice Greer, NCES, referred to a study Cervetti spoke about during the March 4 symposium. Using scenario-based tasks with UDEs, the study created discrete versions of the tasks without design elements. Results showed the effect of scenario-based task format positively affected student performance across all achievement levels. Lane followed up to ask if some students were helped more than others, but Greer replied the study was too small to provide that level of information. However, she agreed it is important to know and perhaps another study is needed to examine impact of individual Universal Design features.

Hanushek asked about trend, and how the Board can be sure that trend will be maintained. After listening to the symposium presentations, he concluded if background knowledge is important

then there are only two avenues to be pursued—reduce it as much as possible or revisit it after the assessment to explain differences. He asked: will the Governing Board be able to maintain and assess trend if the framework changes the measurement as opposed to trying to use background information to explain differences in trends and levels? Greer referenced the document NCES provided to the Governing Board that describes the process of rolling out new content and evaluating it in comparison with past content and items. Data suggest if the assessment is moving forward with enough of the same passage blocks, this increases the likelihood that trend will be maintained. She added it is an empirical question of whether trend can be maintained, and this will need to be carefully evaluated based on the incremental approach described in the NCES document. Greer reminded Hanushek the assessment is not adding new content areas because there are already passages in the current NAEP Reading Assessment that relate to science and social studies; the framework update specifies that, instead of aggregating these assessment blocks under one informational subscale, these assessment blocks will now be disaggregated with one subscore to address reading in science and another subscore to address reading in social studies. In terms of the UDEs, 13 of the 15 are not new and will not affect trend; their influence is already well documented. Additionally, the assessment already has UDEs that address background knowledge. Greer stated that NCES will carefully evaluate the new UDE features.

Cervetti clarified that adding UDEs motivate and engage students, and without these features there is a risk that lower performing students or those without relevant background knowledge will be less engaged and not able to fully participate in the assessment. She said it is important to address these issues in the design phase because they cannot necessarily be identified in assessment results. Pimentel added that the issue being discussed is not about helping lower performing students do better. She said the point is to make the test fair. She gave an example of a student who does not know about a topic but is a good reader. UDEs put students on a fair footing, while not providing the answer.

Nardi Routten asserted that knowledge-based UDEs are not about "spoon-feeding students." She gave an example of the term cricket, which has at least three different meanings: an insect, a phone, and a sport. If the reading passage is about the sport, a short video would be important to ensuring that the inaccurate conception of the term does not contaminate measurement from the reading test items that are addressing the comprehension targets of the NAEP Reading Assessment.

Cizek referred to Lane's previous inquiry. He emphasized that it is not encouraging if a design element is helpful across all achievement levels. He used Braille as an example. He argued that if Braille were added to all assessments and all students showed improvement, that would show a testing problem, since it should only help the visually impaired. He thinks this is a serious issue that should not be relegated to a special study.

Cizek asked two questions: (a) did the Framework Development Panel rely on Universal Design for instruction or Universal Design for assessment? (b) did the Panel provide any guidance on
how to determine when to gloss terms in a passage and the extent to which this should be done? Pearson responded that the perfect amount of information to add is unknown, but the amount recommended is cursory and provides only fundamental awareness of a topic for a student without prior knowledge. NCES uses various panels of experts, including educators, to oversee text selection, item design, and block design and make professional judgments regarding which blocks deserve and need UDEs and at what level of detail or specificity. He added that some passages currently have a short introductory text, but given the availability of digital media the framework update proposes that NCES evaluate if different types of multimedia would be useful.

Cizek clarified that he sought to understand if students who lack prior content knowledge are helped by the supports and students who had prior knowledge were not. He added that he would be in favor of a study on this topic. Peggy Carr reported that NCES has conducted many studies on accommodations and universal design features. She noted that these studies are very expensive and need to be developed in a very scientific way to discern true evidence. Further, Carr stated that very few of these accommodations and features have had the level of study now being requested by the Board. However, Carr added that after routine analyses prompt removal of problematic items from the operational NAEP assessment, the matrix design of NAEP means that any noise in the measurement of student performance will be randomly distributed across all student groups.

Although not part of the framework, Kelly suggested a need to measure the background knowledge students bring to the assessment to determine the impact on reading comprehension. He noted that the limited use of UDEs in an assessment adds context and supports authenticity of the assessment. He added that process data could also be a resource for looking at the impact of background knowledge.

Peisch initially thought that UDEs would help students who otherwise would not do well on the assessments and this might mask their true ability. However, it seems that in the discussion today, the framework update recommendation is for UDEs to support all students because whether a student is high achieving or low achieving, there are topics that not everyone knows or is familiar with. Pimentel confirmed that Peisch was correct in her interpretation of the update recommendation.

Edelblut stated that it was important to ensure that the assessment itself is not contributing to the different disparities illuminated by NAEP results. He asked Cizek to comment on this interpretation of the recommendations for UDEs. Cizek responded that there seems to be no conclusive evidence to indicate that knowledge-based UDEs are, in fact, assisting the students who need them.

Ron Reynolds said the framework update recommendations appear to be based upon a hypothesis that some portion of the variability and ability in reading can be attributed to a feature missing from the assessment instrument. He asked whether anyone could provide an estimated magnitude of this problem, i.e., if the proposed UDEs are in place, how much of a gain does

NAEP expect to observe in those unfairly measured by the current assessment? Carr answered it was difficult to determine; a study would need to be run to randomly assign students and to identify statistically significant differences.

Matthews reminded Governing Board members to keep in mind that equity is not an accommodation. She posited that these framework recommendations challenge NAEP and the Governing Board to be less complicit in the institutionalized disadvantages embedded into educational systems and assessments. She expressed that bravery is required to deinstitutionalize these disadvantages, and that she was proud of the Board for engaging in this thoughtful work.

Russ Whitehurst posited that equity is largely a characteristic of environments and opportunities, not a characteristic of an assessment. He commented on the length and accessibility of the framework draft and noted that it was written in academic language. He asserted that equity was never explicitly defined in the draft, though it is mentioned. He reasoned that equity in the framework draft was being conceptualized as an effort to support fairness by giving every student who takes NAEP the opportunity to generate a score that is not affected by their differential access to a national culture that young people should be socialized into in order to qualify for various jobs and to be successful in other settings. Whitehurst expressed concern that providing supports in an assessment context will be detrimental in the long term, because in the business world, standards must be met without support. He argued that all students should have equal opportunities in educational experiences, to the extent possible. He worried that some of the framework recommendations will make the assessment less rigorous, which would ultimately hurt those it was designed to help.

McGregor commented that, as a Board member, he receives various NAEP reports and materials referencing psychometric concepts. He added that, although he might not know much about psychometrics, he is an engineer, and if there was a technical report on jet propulsion, he could comprehend that report while a psychometrician could not. He said that while both the psychometrician and the engineer are smart, they are smart on different subjects. He reasoned that these are the types of topic knowledge disparities that are natural occurrences across students as well. McGregor asserted that UDEs do not provide an advantage; instead, they allow for stronger universal access to the assessment.

Hanushek asked for information about the range of studies that are anticipated to deal with the issues from this framework update. Pearson summarized the research and development conducted by NCES as part of typical item development procedures and noted that special studies will be listed in the Assessment and Item Specifications document, which is a companion to the framework update that has not yet been drafted.

In closing, Boyd outlined next steps for the reading framework. The panel will use feedback gathered from today's meeting to make final revisions in April 2021.

Concluding Remarks and Next Steps

Peisch thanked the panelists and Board members for a productive meeting with challenging topics requiring decisions. The May quarterly Board meeting is expected to be conducted virtually; times for that meeting will be provided soon. During the next meeting, the Board plans to (a) take action on the Reading Framework, (b) receive a full briefing on the 2019 NAEP Science results, and (c) continue work related to the Strategic Vision.

Meeting Adjourned

Board Vice Chair Peisch requested a motion to adjourn. Gasparini made a motion to adjourn; West seconded the motion. The motion was approved unanimously, and the meeting adjourned at 5:28 p.m.

I certify to the accuracy of the minutes.

April 27, 2021 Date

National Assessment Governing Board

Executive Committee Meeting

Report of March 3, 2021

CLOSED SESSION

Executive Committee Members: Haley Barbour (Chair), Alice Peisch (Vice Chair), Dana Boyd, Gregory Cizek, Jim Geringer, Mark Miller, Martin West, Carey Wright.

Executive Committee Members Absent: Bev Perdue, Tonya Matthews

National Assessment Governing Board Members: Tyler Cramer, Christine Cunningham, Paul Gasparini, Reginald McGregor, Ron Reynolds, Mark Schneider (ex-officio).

National Assessment Governing Board Staff: Michelle Blair, Stephaan Harris, Donnetta Kennedy, Laura LoGerfo, Lesley Muldoon, Munira Mwalimu, Tessa Regis, Sharyn Rosenberg, Angela Scott, Matthew Stern, Lisa Stooksberry, Anthony White.

National Center for Education Statistics Staff: Peggy Carr, Pat Etienne, Dan McGrath, Holly Spurlock, James Lynn Woodworth, Alison Deigan, Bill Ward, Brian Cramer, Ebony Walton, Enis Dogan, Eunice Greer, Gina Broxterman, Grady Wilburn, Jing Chen, Nadia McLaughlin, Samantha Burg, Shawn Kline, Taslima Rahman, William Tirre, James Deaton,.

U.S. Department of Education Staff: Judith Anderson, James Forester.

The Executive Committee met in closed session from 11:00 a.m. to 12:30 p.m. to discuss the NAEP technology platform, the budget, and assessment schedule.

The closed session was called to order by Chair Haley Barbour at 11:00 a.m.

These discussions were conducted in closed session because the disclosure of cost data would significantly impede implementation of contract awards. Therefore, this discussion is protected by exemption 9(B) of section 552b(C) of Title 5 U.S.C.

Barbour reminded members of the confidential nature of the discussions before turning to Peggy Carr, Associate Commissioner, National Center for Education Statistics (NCES). Carr led a presentation on the Next Generation of NAEP: Planning for the Future. Carr communicated that NCES is thinking about the future of NAEP, a transition to an upgraded Next Generation NAEP administration platform, potential implications for the assessment schedule, and how to reduce costs for the program. NCES has three priorities in mind for updates to NAEP administration:

(1) online; (2) device-agnostic; and (3) contactless administration. Carr also provided a briefing on the budget.

Lesley Muldoon, Executive Director, then facilitated a discussion on potential implications for the NAEP Assessment Schedule in the short- and long-term. Muldoon also reminded the committee of the need to update the NAEP Assessment Schedule to comply with congressional action taken in December 2020.

The session concluded at 12:25 p.m.

OPEN SESSION

Executive Committee Members: Haley Barbour (Chair), Alice Peisch (Vice Chair), Dana Boyd, Gregory Cizek, Jim Geringer, Mark Miller, Martin West.

Executive Committee Members Absent: Tonya Matthews, Bev Perdue, Carey Wright.

National Assessment Governing Board Members: Tyler Cramer, Paul Gasparini, Reginald McGregor, Ron Reynolds.

National Assessment Governing Board Staff: Michelle Blair, Stephaan Harris, Laura LoGerfo, Lesley Muldoon, Munira Mwalimu, Sharyn Rosenberg, Angela Scott, Matthew Stern, Lisa Stooksberry, Anthony White.

National Center for Education Statistics Staff: James Lynn Woodworth, Peggy, Carr, Gina Broxterman, Jing Chen, Brian Cramer, Enis Dogan, James Deaton, Pat Etienne, Eunice Greer, Dan McGrath, Nadia McLaughlin, Holly Spurlock.

Contractors: American Institutes for Research (AIR): Jack Buckley, Kim Gattis, Young Yee Kim, Sami Kitmitto. Education First: Anand Vaishnav. Educational Testing Service (ETS): Jay Campbell, Gloria Dion, Amy Dresher, Emilie Pooler, Nancy Waters, Karen Wixson. CRP: Arnold Goldstein, Subin Hona, Edward Wofford, Anthony Velez. Hager Sharp: David Hoff, Joanne Lim, Debra Silimeo. The Hatcher Group: Devin Simpson, Jenny Beard, Alexandra Sanfuentes. Westat: Chris Averett, Lauren Byrne, Lisa Rodriguez.

U.S. Department of Education Staff: Judith Anderson, James Forester.

Others: Chester Finn.

Following the closed session, the Executive Committee reconvened in open session from 12:30 to 1:00 p.m. to discuss the status and next steps for (1) updating the Assessment Schedule and (2) carrying out Strategic Vision 2025.

Chair Haley Barbour opened with remarks about the actions taken at the November 2020 Board meeting to recommend to Congress that administration of NAEP be postponed from 2021 to 2022. Barbour called for a motion to recommend action by the full Board to update the NAEP Assessment Schedule. The motion was made by Jim Geringer and seconded by Vice Chair Alice

Peisch. There was no further discussion. The Executive Committee made a unanimous recommendation that was adopted for consideration by the full Board.

Barbour introduced Lesley Muldoon, Executive Director, and Lisa Stooksberry, Deputy Executive Director, to provide an update on Strategic Vision 2025. Muldoon shared the progress of draft work plans and proposed accomplishments for the next year. Muldoon presented a timeline of staff efforts to date, indicating that staff will provide committee-level progress reports at each quarterly meeting and an annual report every November. Muldoon then turned to Stooksberry to lead the presentation on accomplishments and priorities led by standing committees.

Stooksberry stated that COSDAM is responsible for two priorities: linking studies and achievement levels. Stooksberry signaled there are three accomplishments that COSDAM is working towards for linking studies and a working group for achievement levels. Stooksberry asked Greg Cizek to talk more about COSDAM priorities for the year.

Cizek reported that during the COSDAM meeting there was discussion about linking studies and the need to focus on linking studies that have policy-relevant goals. Cizek stated that a main outcome for this effort is to establish a formal mechanism for collaborating with the Reporting and Dissemination Committee (R&D). Cizek noted that COSDAM members Eric Hanushek and Julia Rafael-Baer stepped forward to lead this effort. Cizek said the goal is to better understand external data sets that can be mined to identify policy relevant sources to use to make recommendations. Cizek also provided an overview of the achievement levels work plan and advocated for collaboration with R&D to create an "interpretive guide" to communicate with influential people and the public about best practices, as well as appropriate and inappropriate uses of NAEP data and achievement level reporting. Cizek asked that the Governing Board staff think about how the Board can push that forward as a cross-committee effort.

Next, Stooksberry stated that the Assessment Development Committee (ADC) has been working on three proposed accomplishments and turned to Dana Boyd, Chair, and Mark Miller, Vice Chair, for an update. Boyd noted that the proposed accomplishments include initiating adjustments to the framework development process, creating a plan for updating remaining frameworks, and completing the science framework review. Boyd indicated that Greg Cizek and Cary Wright will be joining the ADC meeting to further cross-committee collaboration.

Stooksberry then asked Marty West, Vice Chair of R&D, to speak about the Committee's priorities. West mentioned that in its recent meeting R&D discussed the release plan for science assessment results later this year. Following on the heels of a Committee session focused on how socioeconomic status and income could be linked to NAEP data, the Committee noted the importance of having a similar panel discussion at a future Board meeting. West noted the importance of providing such data to researchers, and the Committee is thinking about not only how to make existing data useful but how to expand it moving forward to put increase NAEP's relevance and utility among stakeholders.

Stooksberry then described the Executive Committee-led priority related to the Assessment Schedule. The first accomplishment for 2021 is alignment of the assessment schedule to the

congressional waiver, the second is creating plan for additional state and TUDA assessments in the future (as currently reflected in the Board's approved assessment schedule), and the third is establishing policy priorities to inform next generation eNAEP transition. Stooksberry mentioned there will be a plenary session in May on the next generation eNAEP transition.

Stooksberry concluded by thanking Angela Scott for leading the Strategic Vision among Board staff and recognizing all staff for their contributions to this effort. Stooksberry asked if Board members had any comments, questions, or responses.

Marty West asked about the possibility of expanding state level reporting to other subject areas (other than the required reading and mathematics assessments) and mentioned it would be useful to know how much of an appetite there is for participation from the states.

Mark Miller thanked staff – especially Angela Scott – for moving forward with Strategic Vision. Chair Barbour also thanked Lesley Muldoon, Lisa Stooksberry, and staff.

Chair Barbour called for a motion to adjourn. Gregory Cizek made the motion. Vice Chair Peisch seconded the motion.

The meeting adjourned at 12:58 p.m.

I certify the accuracy of these minutes.

alur antons

Haley Barbour, Chair

<u>April 15, 2021</u> Date



National Assessment of Educational Progress Schedule of Assessments

Approved March 5, 2021

The National Assessment of Educational Progress (NAEP) Authorization Act established the National Assessment Governing Board to set policy for NAEP, including determining the schedule of assessments. (P.L. 107-279)

Year	Subject	National Levels	State Grades	TUDA Grades
		Assessed	Assessed	Assessed
2020	Long-term Trend*	9-year-olds		
		13-year-olds		
2021				
2022	Reading	4, 8	4,8	4, 8
	Mathematics	4, 8	4, 8	4, 8
	Civics	8		
	U.S. History	8		
	Long-term Trend*	17-year-olds		
2023				
2024	Reading	4, 8, 12	4,8	4, 8
	Mathematics	4, 8, 12	4, 8	4, 8
	Science	8		
	Technology and Engineering Literacy	8		
	Transcript Studies			
2025	Long-term Trend	~		
2026	READING	4, 8	4, 8	4, 8
	MATHEMATICS	4, 8	4, 8	4, 8
	Civics	8		
	U.S. History	8		
2027				
2028	Reading	4, 8, 12	4, 8, 12	4,8
	Mathematics	4, 8, 12	4, 8, 12	4, 8
	SCIENCE	4, 8	4, 8	4, 8
	Technology and Engineering Literacy	8	8	
	Transcript Studies			
2029	Long-term Trend	~		
2030	Reading	4, 8	4, 8	4, 8
	Mathematics	4, 8	4, 8	4, 8
	CIVICS	4, 8, 12	8	
	U.S. HISTORY	4, 8, 12		
	WRITING	4, 8, 12	4, 8, 12	4, 8

NOTES:

* Long-term Trend (LTT) assessment not administered by computer until 2024. All other assessments will be digitally based.

~ LTT assessments sample students at ages 9, 13, and 17 and are conducted in reading and mathematics.

BOLD ALL CAPS subjects indicate the assessment year in which a new or updated framework is implemented, if needed.

National Assessment Governing Board

Committee on Standards, Design and Methodology Report of March 2, 2021

COSDAM Members: Gregory Cizek (Chair), Carey Wright (Vice Chair), Jim Geringer, Eric Hanushek, Suzanne Lane, Alice Peisch, Julia Rafal-Baer, and Russ Whitehurst.

Other Governing Board Members: Dana Boyd and Mark Miller.

Governing Board Staff: Executive Director Lesley Muldoon, Deputy Executive Director Lisa Stooksberry, Stephaan Harris, Laura LoGerfo, Munira Mwalimu, Sharyn Rosenberg, Angela Scott, and Matt Stern.

NCES Staff: Commissioner James (Lynn) Woodworth, Associate Commissioner Peggy Carr, Gina Broxterman, Jing Chen, Brian Cramer, Enis Dogan, Pat Etienne, Eunice Greer, Daniel McGrath, Nadia McLaughlin, Holly Spurlock, Bill Tirre, and Grady Wilburn.

Other Attendees: American Institutes for Research: George Bohrnstedt, Markus Broer, Kim Gattis, Cadelle Hemphill, Sakiko Ikima, Young Yee Kim, and Sami Kitmitto. CRP: Shamai Carter, Arnold Goldstein, and Anthony Velez. Education First: Anand Vaishnav. Educational Testing Service: Jay Campbell, Gloria Dion, Amy Dresher, Gary Feng, Helena Jia, Hilary Persky, and Karen Wixson. Hager Sharp: David Hoff and Joanne Lim. The Hatcher Group: Devin Simpson. Pearson: Jennifer Galindo, Eric Moyer, and Cathy White. Westat: Lauren Bryne and Keith Rust. WestEd: Sonya Powers. Other: Chester Finn.

Welcome and Overview of Agenda

Chair Gregory Cizek called the meeting to order at 2:02 p.m. ET and asked all COSDAM members to briefly introduce themselves. He noted that ADC Chair Dana Boyd and Vice Chair Mark Miller would be joining the meeting for the brief discussion on reviewing framework processes.

Review and Revision of Mathematics and Reading Achievement Level Descriptions

Cizek began with a brief explanation of achievement level descriptions (ALDs). At the most general level, NAEP has three achievement level policy definitions: *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. The achievement level descriptions translate these general policy definitions into specific expectations for a given subject and grade assessed by NAEP

that are more informative about what students at each achievement level should know and be able to do. He explained that the ALDs provide important validity evidence for the NAEP achievement levels, and that the upcoming study to be conducted by Pearson will show us whether students within a given achievement level can actually do the things that the ALDs claim they should be able to do.

Sharyn Rosenberg provided a brief update on the current status of the study, which was also summarized in the advance materials. When this work was conceptualized, the panel meetings were intended to be conducted in person; however, the COVID-19 pandemic made it impossible to do so during the first half of 2021. A proposal to conduct the meetings remotely was discussed by COSDAM during the December 2020 meeting; concerns were expressed related to data security and panelist engagement. Shortly after this discussion, the NAEP program received a Congressional waiver to move the next administration of the mathematics and reading assessments from 2021 to 2022, which meant that there was an additional year before results from this study would be needed for NAEP reporting. This development, along with the approval and plans for distributing the first vaccines for COVID-19, led to a decision by staff and COSDAM leadership to extend the project schedule for this work to allow for the possibility of in-person panel meetings in late 2021 and early 2022. A contract modification is in progress; the status of this work, including an updated Design Document, will be discussed at the May COSDAM meeting.

Rick Hanushek asked whether there should be an achievement level for below NAEP Basic; Cizek responded that the current Board policy does not treat this category as an official achievement level but that this issue is related to the next topic on the agenda.

Below the NAEP Basic Achievement Level

Cizek noted that it is important to better understand what students below NAEP Basic know and can do, but that having an official achievement level is not necessarily the only or best way to do this. He explained that the range of performance in this category spans from zero to just below NAEP Basic.

Rosenberg stated that at the direction of COSDAM leadership, Board staff commissioned a paper to describe how state and international assessments handle the lowest category of achievement. This paper will be completed in approximately one month and can serve as a resource for future Committee discussion on this topic. As a subcontract to the Human Resources Research Organization (HumRRO), the paper is being prepared by Karla Egan of Edmetric. The paper will look at how many state assessments have a Below Basic achievement level, what the nature of that achievement level description is, how it compares to descriptions of the other levels, and potential pros and cons of a Below Basic achievement level for NAEP.

Suzanne Lane noted that many states have very coarse descriptions for Below Basic (or whatever the lowest category is called) that are mostly in terms of limitations but that New York does an exceptionally good job of describing what students in the lowest category can do. Cizek closed by noting that the consideration of a Below Basic achievement level has serious design implications for NAEP, including making sure that there are sufficient items towards the bottom of the scale that can be used to measure and describe what the lowest performing students know and can do. Decisions about the number of achievement levels cannot be made in isolation from operational considerations related to test development, design, and administration. Peggy Carr agreed with Cizek and noted that in most cases, NAEP has very few items at the bottom of the scale. Julia Rafal-Baer expressed concern with not having enough items in this range at this point in time given the prediction of lower student performance in the wake of the COVID-19 pandemic; the need for more items and better information about student performance at the lower end of the scale is greater than ever before.

Proposed Strategic Vision Activities

Cizek explained that the brief discussion on this topic is a preview of two other agenda items, those related to NAEP linking studies and the Achievement Levels Work Plan. He noted that Rosenberg prepared a short presentation to orient Committee members to those topics.

Rosenberg noted that COSDAM members brainstormed potential Strategic Vision activities during the December meeting. Since that time, staff have been developing potential work plans to implement each of the eight priorities. The next step is for each committee to discuss proposed year one goals for the Strategic Vision priorities that they are leading, recognizing that much of the work will occur in cross-committee groups. Cizek will be sharing key takeaways from this discussion with the Executive Committee at their meeting the following day.

There was no additional Committee discussion on Strategic Vision activities at this time.

Framework Development Processes

Cizek transitioned to the topic of framework development and noted that he and Carey Wright had some initial discussions with Dana Boyd and Mark Miller regarding cross-committee work on potential enhancements to the Board policy on framework development. He stated that this work is intended to be distinct from the update of the NAEP Reading Framework. Cizek noted that framework development is clearly in the purview of the Assessment Development Committee but that collaboration seems desirable as COSDAM members also have interest and expertise in this area. Two papers have been commissioned to serve as a resource for future discussions on this topic: former Governing Board Executive Director Cornelia Orr is synthesizing historical information on NAEP framework development and the Center for Assessment (under subcontract to HumRRO) is describing how NAEP framework development processes relate to other assessments and best practices.

Cizek welcomed Boyd and Miller and invited them to address the Committee. Boyd expressed appreciation for the opportunity to collaborate with COSDAM to inform future framework development processes. Miller reiterated a commitment to continuous improvement following the revision to the Board's framework development policy in 2018.

There was no additional Committee discussion on framework development processes.

Next Steps for NAEP Linking Studies

Cizek began by noting that linking studies have been a part of Board conversations on the Strategic Vision. He explained that this topic is not one of his own most important priorities but that he recognizes the value in informing the public and providing context for what NAEP results mean as they relate to other important indicators of student achievement.

Cizek noted that the advance materials contain information about several existing studies, but that not all studies necessarily have findings that are policy-relevant. Therefore, he sees a need to identify policy-relevant findings from existing studies and to determine how to best synthesize, leverage, and communicate those findings. Following those steps, the Board could identify policy-relevant goals that could be addressed through additional studies and create a plan for prioritizing studies to accomplish those goals. He cited the need to work closely with the Reporting and Dissemination Committee (R&D) and NCES. Cizek asked the Committee for feedback on the proposed next steps.

Jim Geringer stated that his definition of policy-relevant is to use NAEP to inform education leaders and policymakers about what the field of education is doing right and where there is room for improvement. But he acknowledged that relevance to policy could be defined in a variety of other ways. He added that consistency in the results between NAEP and other assessments can provide affirmation that NAEP is measuring something relevant, even if the purposes of the assessments differ somewhat. Cizek responded that he does not view linking studies as providing validity evidence for NAEP given the variety of purposes among the various assessments but that linking studies can provide relevant and useful information about how NAEP fits into a constellation of other assessments.

Hanushek noted that he conceives of there being two types of linking studies: 1) validation studies that compare NAEP to other assessments, and 2) the relevance of NAEP to important real-world outcomes and indicators, e.g., college attendance and employment. Cizek noted that given Hanushek's depth of understanding and interest in this topic, he may wish to be part of a subset of COSDAM members that can begin discussions with R&D members to help move this work forward.

Rafal-Baer agreed with Hanushek's framing of two linking purposes and stated that the prediction of employment outcomes is particularly important. She is concerned about recent trends of learning loss and of decreased enrollment in community college. Rafal-Baer suggested that the Board may want to consider proposing changes to the NAEP legislation to allow NAEP to link to some data sources that are currently prohibited.

Russ Whitehurst underscored the importance of predictive outcomes and proposed that such information should be used as an external anchor to inform framework development by focusing on the content that is most predictive of future outcomes. Several COSDAM members countered that there is important NAEP content that may not be predictive but should still be assessed, and that predictive validity is not the most important criterion for NAEP framework development given the intended standards-referenced interpretations and intended uses of NAEP scores.

Carey Wright and Alice Peisch both discussed the use of NAEP to inform policy decisions in their states, as NAEP has been the driver of a lot of reform work in both Mississippi and Massachusetts.

Cizek closed the discussion by inviting Hanushek and Rafal-Baer to be the two COSDAM members who might work with identified R&D members and Board staff to identify policy-relevant findings from existing linking studies and discuss how this work can be highlighted in ways that are actionable to policymakers. He thanked them for agreeing to do so. He suggested that COSDAM receive a brief update on the status of this work at the next meeting, based on initial conversations of those involved in the effort.

Status of the Achievement Levels Work Plan

Cizek explained that he led the development of the Achievement Levels Work Plan that the Board adopted last year. The plan describes the activities that the Board plans to undertake to respond to the recommendations in the evaluation of NAEP achievement levels conducted by the National Academies of Sciences, Engineering, and Medicine. The ultimate goal for this work is to lead to the removal of the trial status of the achievement levels.

Cizek described the purpose of this session as providing a status update on the implementation of the planned activities. He briefly reviewed the status of each activity, which was also explained in the advance materials. He noted that the COVID-19 pandemic precluded some of the activities from happening on the timeline originally envisioned. Proposed next steps are: 1) Monitor progress and provide input on the studies to review and revise ALDs; 2) Determine how the communication of existing studies and prioritization of new studies can provide context for how the NAEP achievement levels relate to other external indicators; and 3) Set up a contract to accomplish remaining activities that have not been started.

Geringer raised the question of the intended uses of NAEP. Cizek responded that COSDAM has had several discussions with the R&D Committee about the intended meaning of NAEP and intended uses of NAEP. Last year the Board adopted a statement to articulate the intended meaning of NAEP, but additional work is needed to further flesh out and then communicate appropriate and inappropriate interpretations and uses of NAEP. Rosenberg noted that a forthcoming contract is intended to support the remaining activities.

Wrap Up

In closing, Cizek noted that he and Wright will attend the brief ADC discussion on framework development processes. He acknowledged that there are many follow up activities based on the meeting discussion, and that an additional item that COSDAM may need to discuss throughout this year with NCES is related to potential technical challenges for the 2022 NAEP

administrations. Committee members briefly discussed the interpretation of the 2022 results in light of the COVID-19 pandemic and the importance of the contextual questionnaires.

Cizek adjourned the meeting at 3:52 pm ET.

I certify the accuracy of these minutes.

Augon lyic

Gregory Cizek, Chair

<u>April 16, 2021</u> Date

Reporting and Dissemination Committee Meeting

March 1, 2021

10:00 am - 12:15 pm

Closed Session

Under the provisions of exemption 9(B) of § 552b of Title 5 U.S.C., on March 1, 2021, the Governing Board met in closed session from 10:00 am to 10:45 am to receive a briefing on *embargoed results of the 2019 National Assessment of Educational Progress in Science*

10:00 am – 10:45 am Attendance for closed session

Reporting and Dissemination Committee Members: Chair Tonya Matthews, Vice Chair Marty West, Alberto Carvalho, Tyler Cramer, Paul Gasparini, Ron Reynolds, Mark White

Reporting and Dissemination Committee Members Absent: Governor Bev Perdue

Governing Board Members: Dana Boyd, Christine Cunningham, Eric Hanushek, Patrick Kelly, Reginald McGregor, Mark Miller, Alice Peisch, Carey Wright

Governing Board Staff: Laura LoGerfo, Michelle Blair, Stephaan Harris, Donnetta Kennedy, Lesley Muldoon, Munira Mwalimu, Sharyn Rosenberg, Angela Scott, Matt Stern, Lisa Stooksberry, Anthony White

National Center for Education Statistics Staff: Peggy Carr, Brian Cramer, Pat Etienne, Jasmine Fletcher, Daniel McGrath, Holly Spurlock, Ebony Walton, Grady Wilburn

Contractors: <u>AIR</u>: Kim Gattis, Young Yee Kim, Sami Kitmitto; <u>CRP</u>: Shamai Carter, Anthony Velez; <u>ETS</u>: Marc Berger, Jay Campbell, Amy Dresher, Robert Finnegan, Cassandra Malcom, Lisa Ward; <u>Hager Sharp</u>: James Elias, David Hoff, Joanne Lim; <u>The Hatcher Group</u>: Jenna Tomasello; <u>Optimal Solutions Group</u>: Imer Arnautovic, Charlotte Notaras; <u>Pearson</u>: Scott Becker; <u>Silimeo Group</u>: Debra Silimeo; <u>Westat</u>: Chris Averett

Chair Tonya Matthews called the Reporting and Dissemination Committee meeting to order at 10:00 am on Monday, March 1, 2021. The meeting's first session offered a preliminary preview of the 2019 results from the National Assessment of Educational Progress (NAEP) Science assessment. Because these results will not be released until mid- to late May 2021, this session was closed to the public. Only Governing Board members, Board staff, staff from the National Center for Education Statistics (NCES) and their contractors attended. The Reporting and Dissemination (R&D) Committee extended an invitation to all Board members to join the meeting and learn the results; several accepted this invitation to participate. Grady Wilburn presented and explained the results, after which he fielded questions from the committee members. The closed session ended on time at 10:45 am in accordance with the Federal Register notice.

10:45 am - 12:15 pm Attendance for open sessions

Reporting and Dissemination Committee Members: Chair Tonya Matthews, Vice Chair Marty West, Alberto Carvalho, Tyler Cramer, Paul Gasparini, Ron Reynolds, Mark White

Reporting and Dissemination Committee Members Absent: Governor Bev Perdue

Governing Board Members: Dana Boyd, Eric Hanushek, Alice Peisch

Governing Board Staff: Laura LoGerfo, Michelle Blair, Stephaan Harris, Donnetta Kennedy, Lesley Muldoon, Munira Mwalimu, Sharyn Rosenberg, Angela Scott, Matt Stern, Lisa Stooksberry

National Center for Education Statistics Staff: Peggy Carr, Jing Chen, James Deaton, Pat Etienne, Daniel McGrath, Nadia McLaughlin, Holly Spurlock, Ebony Walton, William Ward

Contractors: <u>AIR</u>: George Bohrnstedt, Markus Broer, Kim Gattis, Cadelle Hemphill, Young Yee Kim, Sami Kitmitto; <u>CRP</u>: Shamai Carter, Arnold Goldstein, Anthony Velez, Edward Wofford; <u>ETS</u>: Jonas Bertling, Jay Campbell, Gloria Dion, Amy Dresher, Robert Finnegan, Paul Jewsbury, Hilary Persky, Courtney Sibley, Yan Wang, Lisa Ward, Ryan Whorton, Karen Wixson; <u>Hager Sharp</u>: James Elias, David Hoff, Joanne Lim; <u>The Hatcher Group</u>: Robert Johnston, Devin Simpson; <u>Optimal Solutions Group</u>: Imer Arnautovic; <u>Silimeo Group</u>: Debra Silimeo; <u>Westat</u>: Chris Averett, Lauren Byrne, Jason Nicholas

Other: Rolf Blank; Wayne State University: Latitia Watkins

Draft Release Plan for the 2019 NAEP Science Results

The R&D Committee reconvened in open session at 10:50 am to review the proposed plan for releasing the 2019 NAEP Science results. Laura LoGerfo, the Governing Board's assistant director for reporting and analysis, explained the plan to the committee members. Dan McGrath, director of reporting for NAEP at NCES, requested two changes to the draft plan. First, McGrath sought less specificity for which data NCES Commissioner Lynn Woodworth would present at the release event. The draft plan recommended that Commissioner Woodworth share results from the Trends in International Mathematics and Science Study, which was released in December 2020. However, NCES staff requested that the data Commissioner Woodworth will present not be named until a later date.

Second, McGrath requested that any video produced by the Governing Board to explain the content of the three subscales on the NAEP Science assessment be shown separately from the presentation of the results. This reflects NCES' desire to distinguish sharply between the Governing Board's work and that of NCES. The committee agreed to amend the plans to accommodate these requests.

Tyler Cramer praised the exceptional organization of the last two virtual release events and noted that videos explaining each subscale could be posted and disseminated via social media easily. Matthews inquired if there were any differences in uptakes between videos posted to social media and video clips from releases. The Hatcher team responded that they would investigate that query.

Marty West observed that the "short and sweet" approach taken for the October release of the Grade 12 NAEP results in Reading and in Mathematics succeeded and suggested that this same strategy be applied to the Science release event. The Board could invite science-focused stakeholders to pre-record questions for Board members who would answer them during the event. Christine Cunningham, a science curriculum expert on the Governing Board, could participate along with another current or former Board member expert in science content.

The committee agreed that messaging should focus on the importance of science education, given the pandemic and efforts to develop and distribute vaccines. The NAEP Science assessment occurred before COVID-19 impacted the nation and the world, yet the relevance of an assessment measuring knowledge and skills in life sciences, earth sciences, and physical sciences (e.g., chemistry) remains resoundingly consequential.

Alberto Carvalho commended the summary graphs Grady Wilburn shared in the closed session and recommended the release plan focus on addressing two critical questions: (1) What is the audience learning; (2) Is there some causality the audience will or should infer? Thus, the event should guide participants and stakeholders in interpreting the results easily yet correctly. To facilitate the interpretation of complicated, nuanced results, the staff should excise chunks of the release event for dissemination more broadly after the event itself.

LoGerfo acknowledged that the plan would reflect the amendments suggested by the committee. Tyler Cramer made a motion to approve the release plan and present it to the full Governing Board for approval on Thursday, March 4th; Marty West seconded the motion, and the motion passed unanimously.

Understanding Socioeconomic Status and NAEP

Vice Chair Marty West convened several panelists to discuss the measurement and interpretation of socioeconomic status in NAEP. West introduced the topic by noting that the committee has long bemoaned NAEP's reliance on the increasingly convoluted indicator of student eligibility for free and reduced-price lunch to capture socioeconomic status (SES). Similarly, the idiosyncratic items about socioeconomic status on the student contextual questionnaire seem weak in comparison to those in other data collections. The Reporting and Dissemination Committee is not alone in their dissatisfaction as members of the Committee on Standards, Design and Methodology as well as the Assessment Development Committee also find these items lacking.

This session intended first to present approaches for improving the measure of SES underway by the NAEP team and second to offer alternative measurement methods. To the first intention, William Ward of NCES and Markus Broer of the American Institutes for Research (a NAEP contractor) shared insights into research and development work within NAEP. To the second intention, Thomas Kane of the Harvard Graduate School of Education and Rick Hanushek of Stanford University's Hoover Institution (and Governing Board member) lent the committee members insights from their research.

Ward explained the fundamental assumptions which underlie NAEP's construct of SES. A measure of SES for the NAEP program must be useful, relevant to educational outcomes, and work in similar ways across grades 4, 8, and 12. The measure should comprise existing variables, so that any new iteration of SES can be applied to previous data to chart critical trends. To conduct such trend analyses, NAEP needs to measure the same construct over time so that changes in scores reflect changes in what students know and can do and not changes in the variable or construct. This criterion imposes a strict limitation, but panelists did offer some tentative solutions to this constraint.

Ward reminded the committee how NAEP currently captures SES, which is through eligibility for the National School Lunch Program (NSLP). This strategy suffers from variable reliability across grades, large within-category differences, and changes in eligibility across time, among

other issues. Ideally, SES comprises three sources of information: (1) parental educational attainment; (2) parental occupational status; and (3) family income. The expert committee which advises NAEP on collecting contextual data recommended measuring school-level SES and neighborhood-level SES, then combining those with student-level SES to build an expanded measure of SES.

However, challenges emerge. Specific items from the contextual questionnaire are vulnerable to change over time, such as outdated references to brand-name technology like Nooks or to items that are so prevalent they no longer distinguish SES categories. Other challenges reside in missing or erroneous data, which derive from a wide range of reasons, from states opting out of the student questionnaire to students' lack of knowledge on particular items, e.g., about a quarter of fourth-graders do not know their parents' education.

Markus Broer then described his investigations into a new and improved measure of SES with extant NAEP data so as to analyze trends from 2003. His measure includes:

- number of books at home;
- students' eligibility for NSLP;
- percent of students eligible for NSLP at school the student attends; and
- parents' highest level of education.

Broer finds that NSLP retains its value, validity, and power to explain variance in assessment performance, despite the aforementioned issues with the variable. At grade 4, the fourth component of the index--parents' highest level of education--is excluded, due to inaccurate reporting or missing data. When analyzed, Broer's index explains more variance in NAEP scores than NSLP alone and than measures of SES employed by large-scale assessment programs like the <u>Trends in International Mathematics and Science Study</u> (TIMSS). This index also shows expected correlations with other measures and explains achievement at the national level, at the state level, at the TUDA level.

To present an alternative approach, Professor Tom Kane shared his results from modeling the relationship between income and achievement in the NAEP data. Kane noted disagreements in the field about how achievement gaps by SES have changed over time, with Sean Reardon at Stanford revealing a significant widening in the achievement gap and Rick Hanushek and others seeing a flattening or narrowing of the gap. Kane challenged the foundation of those disagreements by arguing that SES does not serve as a good proxy measure for income and advocated for using income alone.

Kane enumerated weaknesses in different methods to capture income through NAEP, such as imputing income from students' race, maternal education, state, and urbanicity. Other attempts include matching school locations to neighborhood mean income from Census data. But this method is vulnerable to inaccuracy from increasing prevalence of school choice, and the vast

majority of variance in parental income lies within schools, not between schools. Kane's third alternative approach -- of adding a parent questionnaire for a subsample of students and schools - would require changes to several laws.

The strongest, most valid alternative approach to measuring income on NAEP, posited Kane, is by linking NAEP data to Census data. Kane reassured the committee that this approach would safeguard student privacy. Specifically, students would enter their addresses into the secure system provided by NAEP. The device would match the students' address to a neighborhood, for which the mean income would be drawn from Census data. The students' address would be deleted from the device or platform after the match is made and only the neighborhood mean income level would be retained and assigned to students' records.

Following Kane's conclusion, Rick Hanushek presented his thoughts on measuring income and SES. Hanushek and his colleagues have combined outcomes and SES measures from several sources, including Long-Term Trend NAEP, Main NAEP, TIMSS, and the Programme for International Student Assessment (PISA) to find that achievement gaps by SES have declined over the last fifty years.

Hanushek averred that there is no standard or accepted measure of SES. As such, measuring SES gaps over time presents even greater difficulties than maintaining trend in NAEP. Given that, and the challenges explained by Bill Ward, factoring parental education together with items in the home represents the best strategy to capturing SES. Hanushek admitted the sources of uncertainty in NAEP, such as accuracy in students' replies, the burden on students, and shifted meanings of constructs over time.

To illustrate his points, Hanushek showed how the construct "items in your home" quickly becomes outdated. In 1990, the NAEP questionnaire asked students if they have encyclopedias in their homes and whether their families regularly receive deliveries of newspapers and magazines. Even a NAEP respondent in 2003 would find a question about encyclopedias amusing at best and confusing at worst. He then walked the committee members through graphs showing the relationship between SES and achievement across different datasets.

These illuminating presentations provoked thoughtful questions from the committee members. West invited members to send LoGerfo any additional questions that the panelists could answer via email and/or follow-up conversations. He then summarized the conversation succinctly. Approaches taken by Broer and Hanushek share conceptual similarities--based on information taken from the NAEP student contextual questionnaire--but differ in methodological approach, i.e., constructing an additive index or an index through principal components analysis or using NAEP alone or in combination with other data. Kane's approach differed from those completely and shifted focus away from SES to income and away from continuing historical precedent to innovating a different approach for the future. West then posed the first query to Ward, questioning why NCES assumes that the SES measure must behave the same across grade levels and rely only on existing questions. Does this lead to an assumption that questions about SES, such as household items, must be understood by both twelfth-graders and fourth-graders? Currently, researchers struggle to use NAEP data and express dissatisfaction with the SES measure. How much should what NAEP does now and in the future be constrained by retaining connections to the past?

Ward objected to West's premise and suggested that NCES should become more innovative in how questions are phrased so that all students can answer questionnaire items accurately. For example, NAEP is currently exploring how to ask fourth-graders about their family structures, which is often complicated and tricky to capture in a survey. Ward claimed it is incumbent upon NAEP to gather accurate information from students more effectively. However, West pointed out an intrinsic contradiction in Ward's reply; developing new questions nullifies the claim that variables now must be compatible with variables in the past.

West asked Kane if he ever compared the percentage of variance in achievement explained by income only with that explained by SES. Kane has not yet conducted this comparison but predicted that income would capture considerably more variance than SES. Kane also clarified that he can impute income using school locations through Census data dating back to 1990, which would allow trend calculations. Only the student-level neighborhood income measure would be new.

Kane concluded his response by beseeching the Board to help sort out the muddled picture of SES and achievement. Non-researchers could grasp achievement patterns more easily if NAEP used an index. But, given the variety of SES indices, there is no consensus on the "right" index. Indeed, the "right" SES measure likely differs with the question being asked. Some research shows the gaps widening; others show the gaps narrowing. All of this research shows wide variation in results with SES, so using only income could clarify the issue.

Time expired, and Matthews concluded the session with an enthusiastic thanks to West and to the panelists. She warned that this conversation was intended to foment more robust and longer conversations in the future. With that cliffhanger, Matthews adjourned the meeting at 12:16 pm.

As promised, R&D Committee members did post questions in the chat and through subsequent emails. Paul Gasparini wondered if NAEP release events highlight differences by SES and how policymakers use this information. Tyler Cramer sought explication on the interoperability of NAEP data with external data. Matthews highlighted three points for the committee to pursue further:

- 1. Within-school SES differences
- 2. Maternal outcomes as indicators
- 3. Acknowledging student understanding (or lack thereof) to academic descriptions of socio-economic status

Ron Reynolds sent Rick Hanushek a question: *Could you please unpack the comparison you drew between operationalizing SES and maintaining NAEP trend (...only more difficult)? I suspect it involves tradeoffs between validity and reliability...*

Hanushek replied: With the SES trends in scores, we want to look at gaps between students at different points in the underlying SES distribution, e.g., students in the bottom SES quartile versus students in the top SES quartile. But family SES is estimated from survey background questions that change over time. Thus, there is a recurring question of whether we are measuring SES in the same way over time -- and thus whether any NAEP score differences reflect how we are measuring SES or how well kids at different points in the SES distribution are performing.

Ron Reynolds corresponded with Tom Kane about what sources of income his measure includes. Kane responded: The Census and Current Population Survey questionnaires ask about a series of sources of income individually for each person above the age of 15 in the family/household: wages, self-employment, interest/dividends, Social Security, Supplemental Security Income, public assistance, retirement/pensions, VA payments, unemployment insurance, child support, alimony. Then, "total income" is just the arithmetic total of the individual items respondents reported for all members of the family/household. It does <u>not</u> include non-money income—such as SNAP (Food Stamps), Medicaid or housing subsidies. It also does not include Earned Income Tax Credits.

The previous research (which...finds that gaps are widening) compiles studies using different types of income measures, including questions where a parent or student is simply asked "What is the total family income?" and respondents are given categories from which to choose.

R&D Committee leadership expressed thanks to the panelists for their time during and after the meeting to clarify their positions and address questions.

I certify the accuracy of these minutes.

Mr. M. Matthez

Tonya Matthews, Chair

<u>April 15, 2021</u> Date



RELEASE PLAN FOR THE NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS (NAEP)

The Nation's Report Card: 2019 Science

The national results of the 2019 National Assessment of Educational Progress (NAEP) Science assessment for grades 4, 8, and 12 will be released to the public in May 2021. Typically, results from these assessments are released a year after administration, however, the shift to digital-based assessment required additional quality control processes and statistical checks. The release will be held virtually to comply with public health norms in response to the COVID-19 crisis. The event will be webcast live for a national audience and last approximately 70-75 minutes.

OVERVIEW

The event will begin with a welcome, followed by an introduction by Board member Christine Cunningham, a professor of education and engineering, who works to make engineering and science more relevant and accessible, especially for populations underrepresented and underserved in engineering and science.

A video produced by the Governing Board will introduce the three Science assessment subscales by showing how students engage in the study of life sciences in both extraordinary and ordinary ways. These ways will connect to elements seen in the NAEP Science assessment framework. For example, when schools closed in March 2020, parents found videos online to instruct their children on proper hand-washing techniques to combat COVID-19, to lead their children through science experiments with baking soda, and to make slime. Students participated in backyard bio blitzes while others invented innovative ways to address the Flint water crisis or discovered a novel small molecule that could lead to a cure for COVID-19.

Then focus will shift to data presentations by both the Commissioner and Associate Commissioner of the National Center for Education Statistics (NCES). The Commissioner will share recent highlights of science data from NCES. After which, the Associate Commissioner will release and present the 2019 NAEP Science results for the nation's fourth-, eighth-, and twelfth-grade students, providing an overview of the national data and illuminating national trends. Associate Commissioner Carr will share highlights of results from subscales of the 2019 NAEP Science assessment and provide summary slides, after which a question-and-answer session will proceed. As with the release for the 2019 NAEP Reading and Mathematics results, grade 12, Governing Board staff will collaborate with NCES staff to select, direct, and ask the questions.

Once the data portion of the event concludes, we will replicate the approach taken for the release of the Grade 12 NAEP data, with pre-recorded questions from stakeholders and answers provided in real time by Governing Board members and/or alumni.

DATE AND LOCATION

The release event will occur in mid- to late May via virtual platform. The Chair of the Reporting and Dissemination Committee will set the release date, in accordance with Governing Board policy, in collaboration with the National Center for Education Statistics, and following Committee acceptance of the final report card.

ACTIVITIES BEFORE THE RELEASE

In the weeks before the release event, the Governing Board will launch a social media campaign to build interest in the release, with special focus on stakeholders involved in science, tagging influencers in this field and former Board members prominent in science education. The Board's <u>website</u> will dedicate a webpage to release events.

Shortly before the release, NCES will host a call for members of the media, during which NCES will present highlights and answer questions. NCES will oversee an embargoed website with results available to stakeholders approved for access by NCES, including Congressional staff and media. The goal of these activities is to provide a comprehensive overview of the findings, to deepen understanding of the results, and to help ensure accurate reporting to the public.

REPORT RELEASE

The Commissioner of the National Center for Education Statistics will release the report card on the <u>NAEP website</u>—at 12:01am the day of the release event. The Governing Board press release, the full and abridged versions of the 2019 NAEP Science Assessment Frameworks, and related materials will be posted on the Board's web site. The site will feature links to social networking sites and multimedia material related to the event.

CENTRAL MESSAGES

Activities before and after the release, as well as the release itself, will promote several messages. First, data from NAEP illuminate critical gaps in students' knowledge and skills within the three science domains assessed by NAEP. By focusing on what content is challenging in these domains and for which students, actions to bolster student knowledge and skills may be more directed and effective. Second, science knowledge and skills do not dwell only among the elite echelons of academia and famous science fairs; everyone can and should participate in the study and practice of science. Science education allows students to understand the world in which they live and learn to apply scientific principles to their lives. Third, international assessments and other NCES data offer helpful information and context to interpret the NAEP results.

ACTIVITIES AFTER THE RELEASE

The Governing Board's communications contractor will work with Board staff to coordinate additional post-release communications efforts to target communities and audiences. The subscale videos will be publicized on social media. The goal of these activities is to extend the life of the results and provide value and relevance to stakeholders.

National Assessment Governing Board

Nominations Committee (Closed Session)

Report of February 22, 2021

Nominations Committee Members: Governor Jim Geringer (Chair), Tyler Cramer, Paul Gasparini, Tonya Matthews, Reginald McGregor, Mark Miller, Alice Peisch.

Board Member Absent: Dana Boyd.

Board Staff: Donnetta Kennedy, Munira Mwalimu, Tessa Regis, Lisa Stooksberry.

Under the provisions of exemptions 2 and 6 of § 552b (c) of Title 5 U.S.C., the National Assessment Governing Board's Nominations Committee met in closed session virtually on Monday, February 22, 2021 from 5:30 p.m. to 6:30 p.m. to review, discuss, and take action on finalists for Board terms beginning October 1, 2021.

Governor Geringer welcomed members and provided a preview of the agenda. He described the timeline that began in summer 2020 with the call for nominations, noting that there are four vacancies. Three categories are part of the 2021 cycle:

- Elementary School Principal
- General Public Representative
- Testing and Measurement Expert

A fourth category, Local School Board Member, was not filled in 2020. The finalists in this category will be presented to The Honorable Miguel Cardona, Secretary of Education, for 2021 appointment along with finalists in the other three categories.

Governor Geringer summarized activities undertaken for the 2021 nominations process. He described the number of nominations received and provided an overview of candidate demographics. Tonya Matthews credited staff member Stephaan Harris for outreach conducted during the 2021 campaign that yielded an increase in diverse applicants. Governor Geringer reminded Committee members that all applicants' ratings were discussed during a conference call on January 27, 2021.

Committee members briefly discussed finalists by category and made suggestions for the closed plenary session to be held Friday, March 5, 2021. Geringer described next steps once the Board takes action on the final slate of candidates to be presented to the Secretary.

Governor Geringer asked for a motion to approve the Nomination Committee's recommendations on the final slate of candidates for the 2021 Board vacancies, to be submitted to the Board for discussion and action. The motion was made by Tyler Cramer, seconded by Mark Miller, and approved unanimously.

The meeting adjourned at 6:30 p.m.

I certify the accuracy of these minutes.

Jim Geringer Jim Geringer, Chair

April 15, 2021 Date