

Conference Board of the Mathematical Sciences
One Hundred and Twenty-ninth Meeting of the Council
Friday, May 5, 2023
Held at the AMS DC Office, 700 Pennsylvania Ave, SE
Washington, DC

- 8:30–9:00 Coffee and Tea will be available
- 9:00–9:15 **Introductions and Overview of Meeting** – Joan Ferrini-Mundy (Zoom)
- 9:15–10:00 **Business Meeting of the Council**
1. Secretary’s Report – Joleigh Honey
Approval of Minutes of the Meeting of December 2, 2022 (Appendix A)
 2. Treasurer’s Report – Ted Coe
 - a. FY 2023 Half-Year Financial Report (Appendices B&C, pp. 9-10)
 - b. Approval of FY2024 budget (Appendix B, p. 9)
 2. Director’s Report – Charles Steinhorn (Appendix D)
 3. Nominating committee report and vote on Chair-Elect and EC member-at-large
 4. Announcements
An Update on Math Messaging – Dave Kung, Dana Center
- 10:00–10:30 Break
- 10:30–10:50 Update on Teacher Recruitment/Retention Data Working Group – Trena Wilkerson (Zoom)
- 10:50–11:10 Update on CBMS Survey Working Group – David Bressoud (Zoom)
- 11:15–11:45 Update on CBMS Modernizing Students’ Mathematical Experiences Working Group – Ted Coe
- 11:45–12:45 Lunch
- 12:45–1:30 May 2022 Forum Messaging Update and Report – Andy Burness, President, and Gideon Hertz, Associate Vice President and Deputy Director of Training Programs, *Burness*
- 1:30–2:30 Briefing on Gates Foundation National Research on Parents’ and Teachers’ Mathematics Education Attitudes
Chapin Springer – Deputy Director, US Program Communications, *Bill & Melinda Gates Foundation*
Melissa Luce – Senior Program Officer, K-12 Education, *Bill & Melinda Gates Foundation*
Angela Kuefler – Partner, Research, *Global Strategy Group*
Annie Norbitz – Vice President, Research, *Global Strategy Group*
- 2:30–3:00 Break
- 3:00–5:00 How can CBMS engage more effectively in strengthening and diversifying the STEM Workforce issues? – Shelly Jones
Panelists: Stephanie Blochinger, *Business Higher Education Forum*; Valery Maya, *PwC*; Nyema Mitchell, *Jobs for the Future*
- 5:00–6:00 Reception

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Appendix A

Minutes of the 128th Meeting of the Council of the Conference Board of the Mathematical Sciences Held at the ASA Headquarters, 732 North Washington St., Alexandria, VA Friday, December 2, 2022

The following were present for all or part of the meeting.

Executive Committee: Joan Ferrini-Mundy, Chair; C. David Levermore, Past Chair; Joleigh Honey, Secretary; Ted Coe, Treasurer; Shelly Jones, Member-at-Large; Jennifer Quinn, Member-at-Large.

Council Members: Laura Watkins, AMATYC; Megan Burton, AMTE; Michael C. Laskowski, ASL; Lisa Ashe, ASSM; Kathryn Leonard, AWM; Shelly Jones, BBA; Sol Garfunkel, COMAP; Jessica Utts, IMS; Jennifer Quinn, MAA; Cindy Lawrence, MoMath; Paul Gray, NCSM; Susanne Brenner, SIAM; Roy Goldman, SOA; Sylvia Celedón-Pattichis, TODOS.

Additional society representatives: Catherine Roberts, AMS; Shari Stockero, AMTE; Ron Wasserstein, ASA; Darla Kremer, AWM; Claude Stuart, BBA; Michael Pearson, MAA; Deirdre L. Smeltzer, MAA; Aris Winger, NAM; Katey Arrington, NCSM; Kim Gill, NCSM; Ken Krehbiel, NCTM; Richard Moore, SIAM; José A. Marroquin, SOA; Erin Sylves, TODOS; Melissa Hall, WME.

Invited Guests: David Bressoud (via Zoom), CBMS Survey; Eric Friedlander (via Zoom), USNCM; Howard Gobstein, APLU; Tim Hendrix, Meredith College; Abbe Herzig, TPSE; Dave Kung, Dana Center; David Manderscheid, NSF; Michelle Schwalbe, NAS; Padhu Seshaiyer, USNC/MI; Ebony Walton, NCES; Afi Wiggins, Dana Center; Grady Wilburn, NCES; Trena Wilkerson (via Zoom), CBMS Working Group on Teacher Recruitment and Retention.

Staff: Charles Steinhorn, Director; Dayle Rebelein, Administrative Assistant

Reports from the presenters will be available at <https://www.cbmsweb.org/council-meeting-materials/>

I. Business Meeting

Chair Joan Ferrini-Mundy welcomed those who were present and outlined the agenda.

1. Secretary's Report. Joleigh Honey

Approval of Minutes. The minutes of the December 2022 CBMS Council meeting were approved unanimously.

2. **Treasurer's Report.** Ted Coe

- a. **FY 2022 Operating Budget Income/Expense Report.** The report was presented for informational purposes.
- b. The Unrestricted Net Assets History was presented for informational purposes.
- c. **FY 2023 Dues Assessments.** The proposed FY2023 dues were presented and approved as presented.

2. **Director's Report.** Charlie Steinhorn submitted a written report distributed with the agenda materials and answered questions based on the report.

3. **Announcements.**

Padhu Seshaiyer, the *United States National Commission on Mathematics Instruction* (USNC/MI) Chair, gave an update on the work of the USNC/MI. He mentioned the USNC/MI Webinar Series, "*Moving Forward in the Midst of a Pandemic: International Lessons for Math Teachers*," as well as other efforts to learn about best mathematics instruction practices internationally (these can be found on the USNC/MI website). Seshaiyer also referenced the USNC/MI letter to Secretary of Education Cardona concerning the crisis in recruiting and retaining mathematics teachers that prompted the formation of the CBMS working group, chaired by Trena Wilkerson, to document these concerns with national data (see item IV, below).

TODOS Vice President Sylvia Celedón-Pattichis announced the TODOS 2023 Conference to take place in Albuquerque, NM, June 21-23, 2023; more information is available on the TODOS website.

II. **Presentation on the results of the most recent National Assessment of Educational Progress.**

Ebony Walton and Grady Wilburn from the *Assessments Division: Reporting and Dissemination Branch* of the *National Center for Education Statistics (NCES)*, gave a powerful, detailed report on the mathematics results of the most recent National Assessment of Educational Progress. The results showed the largest declines since 1990. The slides are available, and will be posted with these minutes.

III. **NSF Division of Mathematical Sciences (DMS) Presentation**

David Manderscheid, DMS Division Director gave an overview of DMS programs and initiatives, highlighting projects involving Data Science and AI. The National Science Board's publication, *Vision 2030*, emphasizes the urgent need for greater participation of women and other underrepresented groups in the U.S. science and engineering enterprise, the "Missing Millions". As part of the effort to address this, Manderscheid highlighted the *LEAPS* and *ASCEND* programs, and mentioned forthcoming new partnerships with NSF's Directorate for STEM Education (EDU).

IV. Update on the CBMS Teacher Recruitment/Retention Data Working Group

Trena Wilkerson (via Zoom), the working group Chair, reported that the group has now been formed and is beginning its work. The members of the group, in addition to Wilkerson, includes: Lisa Ashe, Peter Eley, John Ewing, Sol Friedberg, Linda Fulmore, Shelly Jones, Tyler Kloefkorn, Gary Martin, Ricardo Moena, Moisés Rivera, Rachelle Rogers, Kyle Whipple, and Charlie Steinhorn (*ex officio*).

V. Update on the CBMS Survey Working Group

David Bressoud (via Zoom), the working group Chair, reported that the group was formed in the early fall and has begun its work. It has focused on how to improve survey response rates, and on what form future surveys should be presented (it will likely be electronic, but will not be a hardcopy volume). Additionally, the group has identified a few data research firms in addition to Westat (currently used) to interview for the 2025 survey. The members of the group, in addition to Bressoud, are: Tom Barr, Rikki Blair, Sarah Bryant, Michael Ferrara, Tara Holm, Ellen Kirkman, Steven MacEachern, Dennis Pearl, James Sellers, Monica Stephens, April Ström, and Charlie Steinhorn (*ex officio*).

VI. Update on ICM 2026

Eric Friedlander, Chair of the US National Committee for Mathematics (USNC/Math), provided an update on the successful US bid to host the 2026 International Congress of Mathematicians. The Congress will take place in Philadelphia, July 22-29, 2026. The primary funder is the Simons Foundation, which will emphasize early career mathematicians from developing economies. Friedlander added that 2026 will be the Year of Mathematics in the US. There will be opportunities for CBMS member societies to contribute, and Friedlander suggested that he be contacted for this purpose.

VII. Association of Mathematics Teacher Educators *Get the Facts Out* Presentation

Jean Lee (via Zoom), Chair of the AMTE GFO Task Force, and Tim Hendrix gave a presentation on the on the NSF-funded *Get the Facts Out (GFO)* project, which focuses on changing the conversation around STEM teacher recruitment. GFO is a partnership of the Colorado School of Mines and the American Physical Society, the American Chemical Society, the American Association of Physics Teachers, and AMTE. The AMTE GFO Task Force has focused primarily on making mathematics teacher educators aware of the resources that GFO provides---which give students accurate information about the teaching profession and help faculty to use research-based strategies in recruiting future math teachers---but would like to expand their focus to more post-secondary mathematics faculty since it is they who often engage students in conversations about career options in mathematics. The Task Force saw this presentation to CBMS as a way to invite member societies to host a GFO session at a conference or a webinar so the work of GFO can have a broader reach.

VIII. CBMS Forum follow-up: Messaging

Dave Kung, Director of Policy at the Dana Center, and Charlie Steinhorn gave an update on the messaging efforts that were discussed at the May 2022 CBMS forum. The Burness firm is preparing a messaging document to be shared with the 19 state teams that took part in the forum, and will serve as the basis for individual consultations with the teams. The Gates Foundation has undertaken a major national research effort being carried out by the Global Strategies Group (GSG) on parent and teacher attitudes on mathematics education. Presentations on this work from both Burness and Gates/GSG will be made at the May 2023 CBMS Council meeting.

IX. Follow-up on the CBMS EDI Statement

Tim Hendrix, Abbe Herzig, and Dave Kung, who together drafted the CBMS EDI statement, led a session focusing on commitments to action and accountability in the statement. Towards this end, a CBMS task force will be formed, to be chaired by Hendrix. The charge to the task force was discussed. In particular, the task force would be tasked with drafting a document regarding EDI policies and practices for CBMS, and presenting to the CBMS Council reports from member organizations of how they are making progress, sharing both successes and challenges.

X. Discussion on Modernized Mathematics Experiences for Secondary Students

Ted Coe led this session, building on a session on the same topic at the May 2022 Council Meeting. The ultimate goal is a statement on student experiences that reflects the consensus of the CBMS member organizations. At the May 2022 meeting, participants engaged in an exercise to generate markers of high-quality mathematical experiences in the categories of content, EDI, pedagogy, and technology. The activity at this meeting revisited those results to refine the potential areas of consensus and bring to the surface potential disagreements. Subsequent to this meeting, CBMS member organizations would be invited to nominate members of a working group, chaired by Coe, to draft the statement for consideration by the Council.

The meeting adjourned at 5:00pm to the reception, with wines once again generously provided by Uri Treisman.

Appendix B

FY 2022 Actual and FY 2023 Budget Shown for Comparison

	Income			
	FY 2022	FY 2023	FY 2023	FY 2024
	Actual	Budget	First half actual	Suggested budget
Dues	\$62,157	\$65,000	\$47,625	\$65,000
Interest	\$5	\$100	\$0	
Royalties	\$1,051	\$1,000	0	
NSF Regional Research Conferences				
Salaries	\$21,315	\$30,000	\$9,091	\$30,000
Indirect Costs	\$2131	\$8,000	\$909	\$4,500
Total Income	\$86,659	\$104,100	\$57,625	\$99,500
	Expense			
	FY 2022	FY 2023	FY 2023	FY 2024
	Actual	Budget	First half actual	Suggested budget
Compensation				
Director	\$42,333	\$35,000	\$17,500	\$35,000
Administrative Coordinator	\$12,625	\$20,000	\$11,625	\$20,000
Postage and Shipping	\$1,132	\$500	0	\$500
Supplies	\$599	\$3,000	\$124	\$3,000
Internet	\$1,030	\$600		0
QuickBooks license	\$478	\$850	\$1,089	\$1,100
Website	\$0	\$500	\$428	\$500
Council Meetings				
Travel	\$10,510	\$10,000	\$4,946	\$10,000
Food and Other Meeting Expenses	\$10,912	\$10,000	\$3,874	\$10,000
Staff Travel	\$182	\$12,000	\$1,441	\$10,000
Accounting Fees	\$2,825	\$3,500	\$8	\$3,500
Auditing Fees	\$0	\$2,500 ^a	0	\$3,000
Insurance	\$1,916	\$750	0	\$2,000
Unbudgeted Expenses				
Bank Service Charges	\$58		\$4	0
Charitable contributions	0		0	0
Total Expense	\$84,600	\$99,200	\$41,038	\$98,600
Operating Surplus or (Deficit)	\$2,059	\$4,900	\$16,587	\$900

Notes

a - These are only paid every third year. This was in anticipation of auditing fees of approximately \$9000 in FY 2023.

Appendix C

Unrestricted Net Assets as of March 31, 2023

cash on hand – Bank of America	\$143,920	b
accounts receivable		
dues	\$550	
other		
accounts payable	\$0	
 Net	 \$144,470	

Investments

Vanguard Balance Sept 30, 2020	\$172,424
Vanguard Balance Mar 31, 2021	\$180,666
Vanguard Balance Sept 30, 2021	\$182,400
Vanguard Balance Mar 31, 2022	\$181,876
Vanguard Balance Sept 30, 2022	\$172,460
Vanguard Balance Mar 31, 2023	\$179,323
 Total Unrestricted Net Assets	 \$323,793

Notes

b Cash on hand also includes \$12,328.01 that can be used for 2022 Forum expenses

Appendix D

Directors' Report — Charles Steinhorn

It has now been a little over a year since I assumed the position of CBMS Director in February 2022. The transition from David Bressoud to me took place on the fly, making for a few whirlwind months that included a few comedic moments while navigating one bureaucratic labyrinth or another. David's patience, humor, and wisdom were of enormous help throughout, and, as I remarked in my December report, my service as the Secretary-Treasurer made me well aware of much of the business of CBMS, even if not the full timeline and rhythm of the Director's work.

The transition process was completed by the end 2022. Thus over the last 6 months I have been able to direct my energy to sustaining and helping to launch several CBMS initiatives. Below, I discuss my work since the December meeting and look ahead to the next several months. Before turning to these topics, I want to be sure to express what a deep pleasure it continues to be to meet and collaborate with the many exceptional people with whom I have had the privilege of working in my position.

The past six months

Two NSF-CBMS Research Conferences were funded by NSF this fall and are scheduled for this summer. These are:

- Foundations of Causal Graphical Models and Structure Discovery, May 15-19 at Texas A&M University
- Deep Learning and Numerical PDEs, June 19-23 at Morgan State University.

One of the conferences originally scheduled to take place in 2021 that tentatively had been postponed until 2023, *Nonstandard Finite Difference Methods: Advances in Theory and Applications*, has now been cancelled due to the continued inability of the principal speaker to travel and the organizers not having success finding a suitable replacement. The number of conferences this summer is significantly lower than the historical average of 6-7, which I suspect is at least in part a consequence of the lingering effects of the pandemic. On a more positive note, three of the eight conferences from last summer and this summer are at minority-serving institutions.

One of the responsibilities of the CBMS Director in the oversight of the Regional Research Conference Series is to review the conference materials produced by the principal lecturers. I had the pleasure of doing this for the first time last summer, and was singularly impressed by the quality of these materials. Those that the lecturers turn into monographs should make for valuable contributions to their respective fields.

In view of the impact of the pandemic on the conference series, I requested a no cost extension through July 2024 on the NSF grant to CBMS that provides funding for administering the

conference series and for stipends to principal lecturers. A renewal proposal for this purpose will need to be submitted to NSF sometime in the fall.

In planning for the May 1-3, 2022 CBMS Pathways Forum, the importance of providing the state teams with support and training in messaging and communications became clear. To this end, CBMS engaged the firm Burness. At the forum, the Burness team for this work, firm President Andy Burness and Associate Vice President and Deputy Director of Training Gideon Hertz, gave a plenary presentation, offered two breakout sessions, and provided extended time for informal consultation with the 19 state teams present.

Forum budgetary savings have permitted CBMS to continue working with Burness to provide additional support and training to the state teams. The Burness team, working with Dave Kung and me, has developed a messaging document for the state teams. The draft document was circulated for comment to a small group of stakeholders and the final version was shared with the state teams in late March. During April, Andy and Gideon have been holding sessions with the state teams, and plan to report on their work at the Council meeting (see the Council meeting agenda).

Last summer Chapin Springer of the Bill and Melinda Gates Foundation, who was a plenary speaker at the CBMS Forum, invited me (and Dave Kung of the Dana Center and Pam Burdman of Just Equations) to assist on its national research work on attitudes on mathematics education. This included providing input for an online journaling project with parents and teachers, the development of the guides for focus groups with parents and teachers in different states, and the development of a large-scale survey based on the journaling study and focus groups. I also was invited to observe the focus groups, which took place in October, and found these very instructive as we at CBMS continue our pathways work with the state teams. Chapin, his colleague Melissa Luce, and the research team from Global Strategies Group will share the results of this effort at the Council meeting (see the Council meeting agenda).

The strategy of bringing together small groups remotely with well-defined tasks in the period between the twice-annual Council meetings can enable CBMS to move nimbly on important issues, and tap more deeply into its potential as a impactful umbrella organization. Four such working groups, based on priorities identified at recent CBMS meetings, now have been formed. I support each group and serve as a member *ex officio* (except the one that I am chairing).

David Bressoud is chairing a working group on the CBMS Survey that has been operating since the fall. David (via Zoom) gave a first report on the group's activities at the December Council meeting, and the group's membership is listed in the minutes of that meeting. The group has continued to make substantial progress looking ahead to the 2025 Survey. David will give a update (via Zoom) at this meeting.

In response to the USNC/MI request to CBMS to develop national data on the crisis in recruiting and retaining mathematics teachers, Trena Wilkerson is chairing a working group on this issue. The group began its work late last fall and Trena gave a first report (via Zoom) at the December meeting. The group's members are listed in the December meeting minutes. It was clear from the beginning that the group would need to hire one or more graduate students to assist in collecting

and collating the data. I am happy to report that early this year I secured a \$25,000 grant from the Gates Foundation for this purpose. Trena (via Zoom) will provide an update on the group's progress at this meeting.

Ted Coe is chairing a working group that grew out of the final session of the December meeting, with the aim of finding where there may be consensus within the CBMS Council about what marks a twenty-first century mathematics experience for secondary students. In addition to Ted, the membership working group includes: Katey Arrington, Kevin Dykema, Eleanor (Lea) Jenkins, Brendan Kelly, Yvonne Lai, Donna LaLonde, Mary Mooney, Shari Stockero, Erin Sylves, and Laura Watkins. The group began its work early this year, and Ted will give a first report at this meeting.

I am chairing/facilitating a working group on the role of the mathematical and statistical sciences in Data Science. The group has now been formed and is just now beginning its work. The members of the group, in addition to me, are: Katey Arrington, Gunnar Carlsson, Michael Dorff, Kevin Dykema, Roy Goldman, Mark Green, Joleigh Honey, Ernest Holmes, Donna LaLonde, Ray Levy, Jamie Perrett, Josh Recio, and Padhu Seshaiyer. I have put a few questions to the group in a GoogleDoc to help sharpen our initial focus, and hope to schedule our first online meeting(s) if not before the Council meeting then soon after.

Looking Ahead: the next six to twelve months

In my December report I wrote that I expected that CBMS would shortly begin the process of undergoing its regular triennial audit for the fiscal years 2020, 2021, and 2022. A regular audit is essential to CBMS continuing to act as a fiscal agent eligible to be awarded NSF grants. We have engaged the same accounting firm we have used in the past for this purpose. The firm has extensive nonprofit experience and knows CBMS well. Since the December report, I have heard from the firm's president that the audit has had to be postponed while the firm awaits approval to conduct an audit in New York State, a process that was begun in the fall. My expectation now is that the audit will take place sometime in the next 2-3 months, once the NYS approval is granted and tax season is in the firm's rear view mirror. I expect the audit to go smoothly.

Over the next several months, I expect to be fully involved in efforts of the several CBMS working groups mentioned above, most of which should have substantially completed their work by the December 2023 CBMS Council meeting. By this time, David Bressoud's group on the CBMS survey will have engaged and begun working with the data research firm for the 2025 survey. By late summer or early fall, we also will have to submit the proposal to NSF for the 2025 survey, on which CBMS will be the grantee, taking over from AMS. The group led by Trena Wilkerson charged with obtaining national data documenting the crisis in recruiting and retaining mathematics teachers has set a 10-12 month target for completing its work, putting a completion date in the first quarter of 2024. The working group on drafting a CBMS Council consensus statement on the mathematical sciences experience that secondary students should experience, led by Ted Coe, expects to produce a draft document for discussion at the December 2023 Council meeting. I also expect that the group I am chairing on the role of the mathematical and statistical sciences in Data Science will have made significant progress by the December meeting.

During the session at the December meeting focusing on the commitments to action and accountability in the CBMS EDI statement, it was decided to form a task force, chaired by Tim Hendrix, charged with drafting a document regarding EDI policies and practices for CBMS, and presenting to the CBMS Council reports from member organizations on how they are making progress and what challenges they face. The task force was to have been formed and begun functioning early this year. This effort has been delayed due to an unforeseen health issue that the task force Chair's has been facing; it is hoped that work can begin by either later this month or in June.

Additionally, we intend to use the Workforce session that Shelly Jones will be leading on this topic at the May 2023 Council meeting as a springboard for further CBMS activity in this space. The form that any activities emerging from this session will take will be determined in the Council discussion during that session.

As CBMS Chair Ferrini-Mundy announced at the December meeting, members of the Executive Committee and I plan to meet with the leadership of the CBMS member societies later this spring and summer. A small group of volunteers (solicited via email after the December Council meeting) has offered to assist in shaping and focusing these conversations.

Conversations with the leadership of our member societies were held during the winter/spring of 2021, the first time this was undertaken during my years as Secretary-Treasurer. Those meetings informed the CBMS EDI, Data Science, and Workforce efforts. I would like to see us continue to do this on a (semi-) regular basis. While I know most of the current presidents and executive directors, these meetings can provide the CBMS leadership with a better understanding of the concerns and priorities of the member societies, that in turn can serve as a planning mechanism for topics to include in Council meeting agendas and, ultimately, the activities and projects in which CBMS chooses to engage.

CBMS will need to submit a renewal proposal to NSF for our role in administering the Regional Research Conferences series sometime in 2023. In preparing the proposal for the current award, David Bressoud consulted widely in an effort to update and reshape the format of this longstanding conference series. Periodic assessment of long running programs is essential to their continued vitality. I plan to reach out to various constituencies with a stake in this program to appraise how well the changes have worked and seek suggestions that could be incorporated into the renewal proposal and eventually into the functioning of the conferences, particularly with respect to EDI.

Looking further ahead, there are a few other efforts and initiatives on which I want to start to move during the next year.

With in-person meetings resuming, I plan to begin to attend meetings of more CBMS member societies, in addition to those I have regularly attended throughout my career, to deepen my understanding of those societies' work and become more broadly acquainted with their leadership and membership.

CBMS, during the years I have been involved, has maintained a strong relationship with NSF, in particular the Division of Mathematical Sciences and the Directorate of STEM Education (formerly, Education and Human Resources). CBMS also has maintained regular contact with several boards at the National Academies. I would like to see us develop stronger relationships with other Federal agencies that have (potential) relevance to the mathematical sciences, and it will be a priority of mine to undertake the needed legwork. Toward this end, I recently had an excellent Zoom conversation with the NOAA Chief Scientist, Dr. Sarah Kapnick. We hope that it will be possible for Dr. Kapnick to make a presentation at the December 2023 Council meeting.

In several informal conversations during the last few months of 2022, I have heard from people that it is time to think about updating *The Mathematics Education of Teachers II* (MET) volume, published in 2012. Given the increasing importance of statistics and data science, and the CBMS Pathways work over the last decade, it seemed natural to consider linking such an effort with an update of the ASA's *The Statistical Education of Teachers* (SET) volume, published in 2017. **Very** preliminary conversations have taken place concerning this possibility. One outcome could be the simultaneous release of revisions to MET and SET, written by separate groups working in tandem, possibly with a liaison serving on both groups to facilitate communication. The two updated volumes could include a combined executive summary as well as a common chapter related to data science education.

Lastly, in 2021 several virtual conversations were held involving the CBMS leadership, chairs and directors of some of the National Academies boards, and others, about the possibility of establishing a new board on mathematical sciences education at the National Academies. This ultimately is a complex undertaking, still in its very early stages---there have not been any recent conversations---that likely will require proceeding in several steps over time. Those of us with a long enough memory will recall the now-defunct Mathematical Sciences Education Board that ceased functioning in 2008, after 23 years in operation, leaving a hole that a new board could fill to address critical issues in this domain.