Conference Board of the Mathematical Sciences One Hundred and Twenty-eighth Meeting of the Council Friday, December 2, 2022

Held at the ASA Headquarters, 732 North Washington St., Alexandria, VA

8:30-9:00	Coffee and Tea will be available
9:00-9:15	Introductions and Overview of Meeting – Joan Ferrini-Mundy
9:15–10:00 1. 2. 3. 4.	Business Meeting of the Council Secretary's Report – Joleigh Honey a. Approval of Minutes of the Meeting of May 6, 2022 (appendix A) Treasurer's Report – Ted Coe a. FY 2022 Operating Budget Income/Expense Report (appendix B) b. Unrestricted Net Assets History (appendix C) c. FY 2023 Dues Assessments (appendix D) Director's Report – Charles Steinhorn (appendix E) Announcements USNC/MI update TODOS 2023 Conference
10:00-10:15	Break
10:15–11:00	NAEP Results Presentation – Ebony Walton and Grady Wilburn (<i>National Center for Education Statistics</i>)
11:00-11:45	NSF DMS Presentation - David Manderscheid (Division Director, DMS)
11:45–12:00	Update on Teacher Recruitment/Retention Data Working Group – Trena Wilkerson (Zoom)
12:00-1:00	Lunch
1:00-1:15	Update on CBMS Survey Working Group - David Bressoud (Zoom)
1:15-1:30	Update on ICM2026 in Philadelphia – Eric Friedlander (USNC/Math) (Zoom)
1:30–1:55	AMTE Get the Facts Out Presentation – Tim Hendrix, Jean Lee (AMTE) (Zoom)
1:55–2:15	CBMS Forum follow-up: Messaging – Dave Kung and Charles Steinhorn
2:15–2:45	Break
2:45–3:45	Follow-up on CBMS EDI Statement – Tim Hendrix, Abbe Herzig, Dave Kung
4:00-5:00	Discussion on Modernized Mathematics Experiences for Secondary Students – Ted Coe
5:00-6:00	Reception

Anne Dudley	AMATYC	adudley@amatyc.org
Laura Watkins	AMATYC	laura.watkins@amatyc.org
Ruth Charney	AMS	president@ams.org
Catherine Roberts	AMS	croberts@ams.org, exd-staff@ams.org
Shari Stockero	AMTE	stockero@mtu.edu
Megan Burton	AMTE	meb0042@auburn.edu
Jean Lee	AMTE	jslee@uindy.edu
Ron Wasserstein	ASA	ron@amstat.org
 Katherine Ensor	ASA	ensor@rice.edu
Donna Lalonde	ASA	donnal@amstat.org
Michael C. Laskowski	ASL	laskow@umd.edu
Lisa Ashe	ASSM	lisa.ashe@dpi.nc.gov
Paula Moeller	ASSM	pmoeller01@gmail.com
Kathryn Leonard	AWM	kathryn@awm-math.org
Darla Kramer	AWM	darla@awm-math.org
Beatrice Luchin	BBA	abluchin@bbamath.org
Claude Stuart	BBA	stuaent@gmail.com
Ted Coe	CBMS Treas. and NWEA	ted.coe@gmail.com
Joan Ferrini-Mundy	CBMS Chair	joan.ferrinimundy@maine.edu
Joleigh Honey	CBMS Secretary	Joleigh.Honey@schools.utah.gov
Shelly Jones	CBMS EC and BBA	jonessem@mail.ccsu.edu
C. David Levermore	CBMS Past Chair	lvrmr@math.umd.edu
Jennifer Quinn	CBMS EC and MAA	jjquinn@uw.edu
Dayle Rebelein	CBMS Admin Asst	darebelein@vassar.edu
 Charlie Steinhorn	CBMS Director	steinhorn@vassar.edu
 Mike Steele	NSF	msteele@nsf.gov
 Sol Garfunkel	COMAP	s.garfunkel@comap.com
 Uri Treisman	Dana Center	uri@austin.utexas.edu
 Dave Kung	Dana Center	dtkung@smcm.edu
 Afi Wiggins	Dana Center	afi.wiggins@austin.utexas.edu
 Elyse Gustafson	IMS	erg@imstat.org
Peter Bühlmann	IMS	buhlmann@stat.math.ethz.ch
 Jessica Utts	IMS	jutts@uci.edu
 Michael Pearson	MAA	mpearson@maa.org
Deirdre L Smeltzer	MAA	dlsmeltzer@maa.org
 C. I. I.	N. M. d.	executivedirector@momath.org,
 Cindy Lawrence	MoMath	ea@momath.org
 Tim Nissen	MoMath	nissen@momath.org
 Omayra Ortega	NAM	president@nam-math.org
 Aris Winger	NAM	Executive-director@nam-math.org
Heidi Schweingruber	NAS	HSchweingruber@nas.edu

Tammy Kolda Ana Ferreras NAS AFerreras@nas.edu Padhu Seshaiyer NAS Padhu Seshaiyer Padhu Seshaiyer NAS Padhu Seshaiyer Padhu Seshaiyer Bady.Wilburn@ded.gov Ratherine Arrington NCES Grady.Wilburn@ded.gov Ratherine Arrington NCSM Parrington@uteach.utexas.edu Padhu Grady.Wilburn@ded.gov Ratherine Arrington NCSM Parrington@uteach.utexas.edu Padhu Grady.Wilburn@ded.gov Ratherine Arrington NCSM Parrington@uteach.utexas.edu Padhu Warkhelle.gov Rim Gill NCSM Ryshaidededership.org Revin Dykema NCTM Ryshaidededership.org Ryshaidededership.org NCTM Ryshaidededership.org Ryshaidededership.org Rysha	Michelle Schwalbe	NAS	MSchwalbe@nas.edu
Padhu Seshaiyer Pric Friedlander NAS (Zoom) Pric Friedlander NAS (Zoom) Pric Friedlander NAS (Zoom) Pric Friedlander NAS (Zoom) Robiny Walton NCES Rordy Wilburn NCES Rordy Wilburn@ed.gov Ratherine Arrington NCSM Prington@uteach.utexas.edu Paul Gray NCSM Prington@uteach.utexas.edu Roch Rerbiel NCSM Roch Rerbiel NCTM Roch Rerbiel NCTM Roch Rerbiel@nctm.org Revin Dykema NCTM NCTM Roch Rerbiel@nctm.org NCTM (Zoom) Nord twilkerson@nctm.org Trena Wilkerson NCTM (Zoom) NSF Roch Roch Rerbiel NSF Roch Rerbiel NSF Roch Rerbiel NSF Roch Rerbiel@nctm.org Roch Roch Rerbiel@nctm.org Roch Roch Rerbiel@nctm.org Roch Roch Rerbiel@nctm.org Roch Roch Roch Roch Roch Roch Roch Roch	Tammy Kolda	NAS	mlg@math.ucla.edu
Eric Friedlander Ebony Walton NCES Ebony, Walton NCES Grady, Wilburn NCES Grady, Wilburn NCES Grady, Wilburn@ed, gov Katherine Arrington NCSM Paul Gray NCSM Paul Gray NCSM Paul Gray NCSM Paul Gray NCSM Regill@mathedleadership.org Ken Krehbiel NCTM Kerehbiel NCTM Kevin Dykema NCTM NCTM NCTM Revind Bykema@nettm.org Trena Wilkerson NCTM (Zoom) NSF Tie Luo NSF Hank Warchall NSF NSF Marchall@nsf.gov Mike Ferrara NSF Mike Ferrara NSF Micerara NSF Micerara NSF Micerara NSF Micerara(Micera) Suzanne Weekes SIAM Weekes@siam.org Greg Heidrich SOA John Robinson SOA Roy Goldman SOA John Robinson SolA Sylvia Celedon Pattichis TODOS Sylvia Celedon Pattichis TODOS Sylvia Celedon Pattichis TODOS Sylvia Celedon Pattiched David Beach CAS Mike Boa CAS Mike Boa CAS Mike Boa CAS Mboa@casact.org Mike Boa CAS Miceral Monde edit College Mike Boa CAS Mboa@casact.org Miceral Monde edit College Mike Boa CAS Mboa@casact.org	Ana Ferreras	NAS	AFerreras@nas.edu
Ebony Walton NCES Grady Wilburn NCES Grady Wilburn NCES Grady Wilburn@ed.gov Katherine Arrington NCSM Paul Gray NCSM Reylin@mathedleadership.org Ken Krehbiel NCTM Reylin Dykema NCTM Reylin David Manderscheid NSF Huwarchall NSF Hwarchall@msf.gov Hank Warchall NSF Sandra Richardson NSF Susanne Brenner SIAM SI	Padhu Seshaiyer	NAS	pseshaiy@gmu.edu
Grady Wilburn NCES Grady.Wilburn@ed.gov Katherine Arrington NCSM Paul Gray NCSM Regill@mathedleadership.org Ken Krehbiel NCTM Kerhbiel@nctm.org Kevin Dykema NCTM Revin Dykema NCTM Revin Dykema NCTM NSF Trena Wilkerson NCTM (Zoom) NSF Tie Luo NSF Tie Marchall NSF Tierrara@nsf.gov Mike Ferrara NSF Tierrara@nsf.gov Sandra Richardson NSF Suzanne Weekes SIAM Susanne Brenner SIAM Susanne Brenner SIAM Tierrara@nsf.gov SIAM Tierrara@nsf.gov Susanne Brenner SIAM Tierrara@nsf.gov Susanne Brenner SIAM Tierrara@nsf.gov Susanne Brenner SIAM Tierrara@nsf.gov Tierrara. ToDOS Tierrara@nsf.gov Tierrara@nsf.gov Tierrara@nsf.gov Tierrara@nsf.gov Tierrara. Tierrara. Tierrara. Tierrara. Tierrara. Tierrara. Tierrara. Tierrara. Tierrara. ToDOS Tierrara. Tierrar	Eric Friedlander	NAS (Zoom)	ericmf@usc.edu
Katherine Arrington NCSM arrington@uteach.utexas.edu Paul Gray NCSM pgray@mathedleadership.org Kim Gill NCSM kgill@mathedleadership.org Ken Krehbiel NCTM kkrehbiel@nctm.org Kevin Dykema NCTM kdykema@nctm.org Trena Wilkerson NCTM (Zoom) twilkerson@nctm.org David Manderscheid NSF dmanders@nsf.gov Tie Luo NSF tluo@nsf.gov Hank Warchall NSF hwarchal@nsf.gov James L. Moore NSF jamoore@nsf.gov Mike Ferrara NSF mferrara@nsf.gov Sandra Richardson NSF srichard@nsf.gov Suzanne Weekes SIAM weekes@siam.org Susanne Brenner SIAM brenner@math.lsu.edu Richard Moore SIAM moore@siam.org Greg Heidrich SOA gheidrich@soa.org John Robinson SOA jwrob03@gmail.com Roy Goldman SOA JMarroquin@soa.org Florence Glanfield TODOS fglanfield@gmail.com Sylvia Celedon Pattichis TODOS sylvia.celedon@austin.utexas.edu David Bressoud CBMS Survey (Zoom) bressoud@macalester.edu Abbe Herzig TPSE abbe.herzig@gmail.com Tim Hendrix Meredith College hendrixt@meredith.edu Mike Boa CAS mboa@casact.org	Ebony Walton	NCES	Ebony.Walton@ed.gov
Paul Gray NCSM Rim Gill NCSM Kgill@mathedleadership.org Ken Krehbiel NCTM Kkrehbiel@nctm.org Kevin Dykema NCTM Kkrehbiel@nctm.org NCTM Kdykema@nctm.org NCTM Kdykema@nctm.org Trena Wilkerson NCTM (Zoom) Twilkerson@nctm.org Trena Wilkerson NCTM (Zoom) Twilkerson@nctm.org Therena Wilkerson@nctm.org Therena Wilkerson NSF Therena Wilkerson@nctm.org Twilkerson@nctm.org Therena Wilkerson@nctm.org Therena Wilkerson@nctm.org Therena Wilkerson@nctm.org Therena Wilkerson Therena Wilkerso	Grady Wilburn	NCES	Grady.Wilburn@ed.gov
Kim Gill NCSM kgill@mathedleadership.org Ken Krehbiel NCTM kkrehbiel@nctm.org Kevin Dykema NCTM kdykema@nctm.org Trena Wilkerson NCTM (Zoom) twilkerson@nctm.org David Manderscheid NSF dmanders@nsf.gov Tie Luo NSF tluo@nsf.gov Hank Warchall NSF hwarchal@nsf.gov James L. Moore NSF jamoore@nsf.gov Mike Ferrara NSF mferrara@nsf.gov Sandra Richardson NSF srichard@nsf.gov Suzanne Weekes SIAM weekes@siam.org Susanne Brenner SIAM brenner@math.lsu.edu Richard Moore SIAM moore@siam.org Greg Heidrich SOA gheidrich@soa.org John Robinson SOA jwrob03@gmail.com Roy Goldman SOA JMarroquin@soa.org Florence Glanfield TODOS fglanfield@gmail.com Sylvia Celedon Pattichis TODOS sylvia.celedon@austin.utexas.ed Lorraine Howard WME Lorraine.howard@wilkes.edu David Bressoud CBMS Survey (Zoom) Mike Boa CAS mboa@casact.org	Katherine Arrington	NCSM	arrington@uteach.utexas.edu
Ken Krehbiel NCTM kkrehbiel@nctm.org Kevin Dykema NCTM kdykema@nctm.org Trena Wilkerson NCTM (Zoom) twilkerson@nctm.org David Manderscheid NSF dmanders@nsf.gov Tie Luo NSF thuo@nsf.gov Hank Warchall NSF hwarchal@nsf.gov James L. Moore NSF jamoore@nsf.gov Mike Ferrara NSF mferrara@nsf.gov Sandra Richardson NSF srichard@nsf.gov Suzanne Weekes SIAM weekes@siam.org Susanne Brenner SIAM brenner@math.lsu.edu Richard Moore SIAM moore@siam.org Greg Heidrich SOA gheidrich@soa.org John Robinson SOA jwrob03@gmail.com Roy Goldman SOA JMarroquin@soa.org Nora Ramirez TODOS exec@todos-math.org Florence Glanfield TODOS fglanfield@gmail.com Sylvia Celedon Pattichis TODOS sylvia.celedon@austin.utexas.ed Lorraine Howard WME Lorraine.howard@wilkes.edu David Bressoud CBMS Survey (Zoom) bressoud@macalester.edu Abbe Herzig TPSE abbe.herzig@gmail.com Tim Hendrix Meredith College hendrixt@meredith.edu Mike Boa CAS mboa@casact.org	Paul Gray	NCSM	pgray@mathedleadership.org
Kevin Dykema NCTM kdykema@nctm.org Trena Wilkerson NCTM (Zoom) twilkerson@nctm.org David Manderscheid NSF dmanders@nsf.gov Tie Luo NSF tluo@nsf.gov Hank Warchall NSF hwarchal@nsf.gov James L. Moore NSF jamoore@nsf.gov Mike Ferrara NSF mferrara@nsf.gov Sandra Richardson NSF srichard@nsf.gov Suzanne Weekes SIAM weekes@isam.org Susanne Brenner SIAM brenner@math.lsu.edu Richard Moore SIAM moore@siam.org Greg Heidrich SOA gheidrich@soa.org John Robinson SOA jwrob03@gmail.com Roy Goldman SOA roygo@earthlink.net José A. Marroquin SOA JMarroquin@soa.org Florence Glanfield TODOS glanfield@gmail.com Sylvia Celedon Pattichis TODOS sylvia.celedon@austin.utexas.ed Lorraine Howard WME Lorraine.howard@wilkes.edu David Bressoud CBMS Survey (Zoom)	Kim Gill	NCSM	kgill@mathedleadership.org
Trena Wilkerson NCTM (Zoom) twilkerson@nctm.org dmanders@nsf.gov Tie Luo NSF tluo@nsf.gov Hank Warchall NSF hwarchal@nsf.gov James L. Moore NSF Jamoore@nsf.gov Mike Ferrara NSF Sandra Richardson NSF Suzanne Weekes SIAM SIAM Weekes@siam.org Susanne Brenner SIAM Brenner@math.lsu.edu moore@siam.org Greg Heidrich SOA John Robinson SOA SOA John Robinson John Robinson SOA John Robinson SOA John Robinson John Robi	Ken Krehbiel	NCTM	kkrehbiel@nctm.org
David Manderscheid NSF dmanders@nsf.gov Tie Luo NSF tluo@nsf.gov Hank Warchall NSF hwarchal@nsf.gov James L. Moore NSF jamoore@nsf.gov Mike Ferrara NSF mferrara@nsf.gov Sandra Richardson NSF srichard@nsf.gov Suzanne Weekes SIAM weekes@siam.org Susanne Brenner SIAM brenner@math.lsu.edu Richard Moore SIAM moore@siam.org Greg Heidrich SOA gheidrich@soa.org John Robinson SOA jwrob03@gmail.com Roy Goldman SOA jwrob03@gmail.com Roy Goldman SOA JMarroquin@soa.org Nora Ramirez TODOS exec@todos-math.org Florence Glanfield TODOS fglanfield@gmail.com Sylvia Celedon Pattichis TODOS sylvia.celedon@austin.utexas.ed Lorraine Howard WME Lorraine.howard@wilkes.edu David Bressoud CBMS Survey (Zoom) bressoud@macalester.edu Abbe Herzig TPSE <t< td=""><td>Kevin Dykema</td><td>NCTM</td><td>kdykema@nctm.org</td></t<>	Kevin Dykema	NCTM	kdykema@nctm.org
Tie Luo NSF tluo@nsf.gov Hank Warchall NSF hwarchal@nsf.gov James L. Moore NSF Jamoore@nsf.gov Mike Ferrara NSF mferrara@nsf.gov Sandra Richardson NSF Srichard@nsf.gov Suzanne Weekes SIAM weekes@siam.org Susanne Brenner SIAM brenner@math.lsu.edu Richard Moore SIAM SOA John Robinson SOA Jivrob03@gmail.com Roy Goldman SOA JMarroquin@soa.org Florence Glanfield TODOS Sylvia Celedon Pattichis TODOS Sylvia.celedon@austin.utexas.ed Lorraine Howard WME Lorraine.howard@wilkes.edu David Bressoud CBMS Survey (Zoom) Mike Boa CAS mboa@casact.org hwarchal@nsf.gov hwarchal@nsf.gov havelagov hwarchal@nsf.gov hwarchaleater.edu hwarchal@nsf.gov hwar	Trena Wilkerson	NCTM (Zoom)	twilkerson@nctm.org
Hank Warchall NSF NSF Jamoore@nsf.gov Mike Ferrara NSF Mike Ferrara NSF Michardson NSF Sichard@nsf.gov Suzanne Weekes SIAM SIAM Weekes@siam.org Susanne Brenner SIAM Brenner@math.lsu.edu Mike Ferrara NSF Michard Moore SIAM Moore@siam.org SIAM Moore@siam.org Greg Heidrich SOA Jivrob03@gmail.com SOA Jivrob03@gmail.com SOA Jivrob03@gmail.com SOA Jivrob03@gmail.com SOA Jivropuin@soa.org Florence Glanfield TODOS Sylvia Celedon Pattichis TODOS Sylvia Celedon	David Manderscheid	NSF	dmanders@nsf.gov
James L. Moore NSF jamoore@nsf.gov Mike Ferrara NSF mferrara@nsf.gov Sandra Richardson NSF srichard@nsf.gov Suzanne Weekes SIAM weekes@siam.org Susanne Brenner SIAM brenner@math.lsu.edu Richard Moore SIAM moore@siam.org Greg Heidrich SOA gheidrich@soa.org John Robinson SOA jwrob03@gmail.com Roy Goldman SOA roygo@earthlink.net José A. Marroquin SOA JMarroquin@soa.org Nora Ramirez TODOS exec@todos-math.org Florence Glanfield TODOS fglanfield@gmail.com Sylvia Celedon Pattichis TODOS sylvia.celedon@austin.utexas.ed Lorraine Howard WME Lorraine.howard@wilkes.edu David Bressoud CBMS Survey (Zoom) bressoud@macalester.edu Abbe Herzig TPSE abbe.herzig@gmail.com Tim Hendrix Meredith College hendrixt@meredith.edu Mike Boa CAS mboa@casact.org	Tie Luo	NSF	tluo@nsf.gov
Mike Ferrara NSF Sandra Richardson NSF Srichard@nsf.gov Suzanne Weekes SIAM SIAM Brenner@math.lsu.edu Richard Moore SIAM SIAM SIAM Brenner@math.lsu.edu Mike Ferrara NSF Srichard@nsf.gov Weekes@siam.org SIAM Brenner@math.lsu.edu Michard Moore SIAM Brenner@math.lsu.edu Michard Moore SIAM SIAM Moore@siam.org gheidrich@soa.org Jwrob03@gmail.com roygo@earthlink.net SOA JMarroquin@soa.org Nora Ramirez TODOS Sylvia Celedon Pattichis TODOS Sylvia.celedon@austin.utexas.ed Lorraine Howard WME Lorraine.howard@wilkes.edu David Bressoud CBMS Survey (Zoom) Dressoud@macalester.edu Abbe Herzig TPSE Abbe.herzig@gmail.com Tim Hendrix Meredith College Mike Boa CAS Mboa@casact.org	Hank Warchall	NSF	hwarchal@nsf.gov
Sandra Richardson NSF Sichard@nsf.gov Suzanne Weekes SIAM brenner@math.lsu.edu Richard Moore SIAM SOA Greg Heidrich SOA SOA SOA SOA SOA SOA SOA SO	James L. Moore	NSF	jamoore@nsf.gov
Suzanne Weekes SIAM Brenner SIAM Brenner@math.lsu.edu Brichard Moore SIAM Brenner@math.lsu.edu Brenner	Mike Ferrara	NSF	mferrara@nsf.gov
Susanne Brenner SIAM brenner@math.lsu.edu Richard Moore SIAM moore@siam.org Greg Heidrich SOA gheidrich@soa.org John Robinson SOA jwrob03@gmail.com Roy Goldman SOA roygo@earthlink.net José A. Marroquin SOA JMarroquin@soa.org Nora Ramirez TODOS exec@todos-math.org Florence Glanfield TODOS fglanfield@gmail.com Sylvia Celedon Pattichis TODOS sylvia.celedon@austin.utexas.ed Lorraine Howard WME Lorraine.howard@wilkes.edu David Bressoud CBMS Survey (Zoom) Abbe Herzig TPSE abbe.herzig@gmail.com Tim Hendrix Meredith College hendrixt@meredith.edu Mike Boa CAS mboa@casact.org	Sandra Richardson	NSF	srichard@nsf.gov
Richard Moore SIAM moore@siam.org Greg Heidrich SOA gheidrich@soa.org John Robinson SOA jwrob03@gmail.com Roy Goldman SOA JMarroquin@soa.org Nora Ramirez TODOS Florence Glanfield TODOS Sylvia Celedon Pattichis TODOS Lorraine Howard David Bressoud Abbe Herzig TPSE Meredith College Mike Boa SOA JMarroquin@soa.org exec@todos-math.org fglanfield@gmail.com sylvia.celedon@austin.utexas.ed Lorraine.howard@wilkes.edu bressoud@macalester.edu hendrixt@meredith.edu Mike Boa CAS mboa@casact.org	Suzanne Weekes	SIAM	weekes@siam.org
Greg Heidrich SOA gheidrich@soa.org John Robinson SOA jwrob03@gmail.com roygo@earthlink.net José A. Marroquin SOA JMarroquin@soa.org Nora Ramirez TODOS Florence Glanfield TODOS Sylvia Celedon Pattichis TODOS Lorraine Howard WME Lorraine.howard@wilkes.edu David Bressoud CBMS Survey (Zoom) Abbe Herzig TPSE abbe.herzig@gmail.com Tim Hendrix Meredith College hendrixt@meredith.edu Mike Boa CAS mboa@casact.org	Susanne Brenner	SIAM	brenner@math.lsu.edu
John Robinson SOA SOA roygo@earthlink.net José A. Marroquin SOA JMarroquin@soa.org Nora Ramirez TODOS Florence Glanfield TODOS Sylvia Celedon Pattichis TODOS Sylvia Celedon@austin.utexas.ed Lorraine Howard WME Lorraine.howard@wilkes.edu David Bressoud CBMS Survey (Zoom) Abbe Herzig TPSE abbe.herzig@gmail.com Tim Hendrix Meredith College Mike Boa CAS mboa@casact.org	Richard Moore	SIAM	moore@siam.org
Roy Goldman SOA JMarroquin@soa.org Nora Ramirez TODOS Florence Glanfield TODOS Sylvia Celedon Pattichis Lorraine Howard David Bressoud Abbe Herzig TOSE Meredith College Mike Boa SOA JMarroquin@soa.org exec@todos-math.org fglanfield@gmail.com sylvia.celedon@austin.utexas.ed Lorraine.howard@wilkes.edu bressoud@macalester.edu abbe.herzig@gmail.com hendrixt@meredith.edu Mike Boa CAS mboa@casact.org	Greg Heidrich	SOA	gheidrich@soa.org
José A. Marroquin SOA JMarroquin@soa.org Nora Ramirez TODOS Florence Glanfield TODOS Sylvia Celedon Pattichis TODOS Lorraine Howard WME Lorraine.howard@wilkes.edu David Bressoud Abbe Herzig TPSE	John Robinson	SOA	jwrob03@gmail.com
Nora Ramirez TODOS exec@todos-math.org Florence Glanfield TODOS Sylvia Celedon Pattichis TODOS Sylvia.celedon@austin.utexas.ed Lorraine Howard WME Lorraine.howard@wilkes.edu David Bressoud CBMS Survey (Zoom) Bressoud@macalester.edu Abbe Herzig TPSE Bressoud Meredith College Hendrixt@meredith.edu Mike Boa CAS Bressoud CBMS Survey (Zoom) Bressoud@macalester.edu Abbe.herzig@gmail.com Bressoud@macalester.edu Bressoud Bressoud Bressoud CBMS Survey (Zoom) Bressoud@macalester.edu Bressoud	Roy Goldman	SOA	roygo@earthlink.net
Florence Glanfield TODOS fglanfield@gmail.com Sylvia Celedon Pattichis TODOS sylvia.celedon@austin.utexas.ed Lorraine Howard WME Lorraine.howard@wilkes.edu David Bressoud CBMS Survey (Zoom) bressoud@macalester.edu Abbe Herzig TPSE abbe.herzig@gmail.com Tim Hendrix Meredith College hendrixt@meredith.edu Mike Boa CAS mboa@casact.org	José A. Marroquin	SOA	JMarroquin@soa.org
Sylvia Celedon Pattichis TODOS sylvia.celedon@austin.utexas.ed Lorraine Howard WME Lorraine.howard@wilkes.edu David Bressoud CBMS Survey (Zoom) bressoud@macalester.edu Abbe Herzig TPSE abbe.herzig@gmail.com Tim Hendrix Meredith College hendrixt@meredith.edu Mike Boa CAS mboa@casact.org	Nora Ramirez	TODOS	exec@todos-math.org
Lorraine Howard WME Lorraine.howard@wilkes.edu David Bressoud CBMS Survey (Zoom) bressoud@macalester.edu Abbe Herzig TPSE abbe.herzig@gmail.com Tim Hendrix Meredith College hendrixt@meredith.edu Mike Boa CAS mboa@casact.org	Florence Glanfield	TODOS	fglanfield@gmail.com
David Bressoud CBMS Survey (Zoom) bressoud@macalester.edu Abbe Herzig TPSE abbe.herzig@gmail.com Tim Hendrix Meredith College hendrixt@meredith.edu Mike Boa CAS mboa@casact.org	Sylvia Celedon Pattichis	TODOS	sylvia.celedon@austin.utexas.edu
Abbe Herzig TPSE abbe.herzig@gmail.com Tim Hendrix Meredith College hendrixt@meredith.edu Mike Boa CAS mboa@casact.org	Lorraine Howard	WME	Lorraine.howard@wilkes.edu
Tim Hendrix Meredith College hendrixt@meredith.edu Mike Boa CAS mboa@casact.org	David Bressoud	CBMS Survey (Zoom)	bressoud@macalester.edu
Mike Boa CAS mboa@casact.org	Abbe Herzig	TPSE	abbe.herzig@gmail.com
	Tim Hendrix	Meredith College	hendrixt@meredith.edu
Howard Gobstein APLU hgobstein@aplu.org	Mike Boa	CAS	mboa@casact.org
	Howard Gobstein	APLU	hgobstein@aplu.org

Appendix A

Minutes of the 127th Meeting of the Council of the

Conference Board of the Mathematical Sciences Held at the AMS DC Office, 700 Pennsylvania Ave, SE Washington, DC Friday, May 6, 2022

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

Executive Committee: Shelly Jones, Member-at-Large; Michael Steele, Member-at-Large.

Council Members: Laura Watkins, AMATYC; Megan Burton, AMTE; Donna Lalonde, ASA; Joleigh Honey, ASSM; Kathryn Leonard, AWM; Shelly Jones, BBA; Jessica Utts, IMS; Jennifer Quinn, MAA; Cindy Lawrence, MoMath; Paul Gray, NCSM; Trena Wilkerson, NCTM; Susanne Brenner, SIAM; Roy Goldman, SOA; Linda Fulmore, TODOS.

Additional society representatives: Catherine Roberts, AMS; Shari Stockero, AMTE; Ron Wasserstein, ASA; Darla Kremer, AWM; Claude Stuart, BBA; Michael Pearson, MAA; Aris Winger, NAM; Kim Gill, NCSM; Mona Toncheff, NCSM; Ken Krehbiel, NCTM; Suzanne Weekes, SIAM.

Invited Guests: Kathie Bailey, NAS; Ted Coe, NWEA; Michael Dorff, TPSE; Tim Hendrix, Meredith College; Abbe Herzig; Ellen Kirkman, CBMS Survey; Tyler Kloefkorn, AMS; Dave Kung, Dana Center; Michelle Schwalbe, NAS; Uri Treisman, Dana Center; Paul Zorn, MAA.

Staff: Charles Steinhorn, Director and interim Secretary-Treasurer

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

I. Business Meeting

Michael Steele, acting for Chair David Levermore, welcomed those who were present and outlined the agenda.

- 1. Interim Secretary-Treasurer's Report. Charlie Steinhorn
 - a. **Approval of Minutes**. The minutes of the December 2021 CBMS Council meeting were approved unanimously.
 - b. **FY 2022 Half Year Financial Report.** The half year financial report was presented for informational purposes.
 - c. FY 2023 Budget. The FY 2023 budget was presented and approved unanimously.

- 2. Director's Report. Charlie Steinhorn submitted a written report distributed with the agenda materials. Supplementing what is in that report, Steinhorn briefly spoke about the successful CBMS Forum that took place May 1–3, 2022.
- **3. Report of the CBMS Nominating Committee.** The committee, chaired by Michael Steele with members John Staley and Suzanne Weekes, presented its nominees for the open CBMS positions:

Secretary: Joleigh Honey;

Treasurer: Ted Coe;

Member-at-Large of the Executive Committee: Jennifer Quinn.

The Council approved the nominations unanimously.

4. Announcements.

Sol Friedberg, the *United States National Commission on Mathematics Instruction* (USNC/MI) Chair, gave an update on the work of the USNC/MI. Its grant proposal submitted to the Spencer Foundation to advance racial equity in mathematics instruction, that he mentioned in his December update to the Council, was declined. He next shared with the Council and discussed a letter sent by the USNC/MI to US Secretary of Education Cardona concerning the crisis in recruiting and retaining mathematics teachers, exacerbated by the pandemic and the politicization of mathematics. He urged that CBMS form a working group to document these concerns, for which there is abundant anecdotal evidence, with national data.

II. Update on TPSE activities

Michael Dorff, Director of Strategy and Implementation at *Transforming Postsecondary Education in Mathematics* (TPSEMath) discussed three new initiatives: Creating Opportunities in Mathematics through Equity and INclusion (COME-IN), the TPSE Leadership Institute, and the June 2022 Preparation for Industrial Careers (PIC) Math Workshop on Interdisciplinary Data Science (co-sponsored by TPSE, MAA, and SIAM).

III. Discussion on What's Modern about Modern Mathematics

Dave Kung, Director of Policy at the *Charles Dana Center*, facilitated a discussion on, "What are the markers of a high quality mathematical sciences experience that fits today and tomorrow." The topics considered with respect to this question were: content; equity, diversity and inclusion; pedagogy; and, technology. The participants at the meeting were divided into four groups, according to the primary interests of their respective organizations—affinity societies, preK-12, higher education, statistics/applied mathematics-and each group was given time to brainstorm about each of the four topics. The session concluded with all participants brought back together for a summary discussion of each of the topics.

IV. College Admissions and Mathematics

Pam Burdman, Executive Director of *Just Equations*, gave presentation on the February 2022 report, *A New Calculus for College Admissions: How Policy, Practice, and Perceptions of High School Math Education Limit Equitable Access to College*, published by *Just Equations* in partnership with *National Association for College Admission Counseling* (NACAC). The report, via a national survey and interviews, examines four-year college and university admission policies on high school math course-taking, the often unwritten practices that determine how those policies operate, and the perceptions that influence evaluations of students' high school records.

V. Board of Mathematical Sciences and Analytics Illustrating Math Project

Michelle Schwalbe, the Director of the National Academies *Board on the Mathematical Sciences and Analytics* (BMSA), presented a preview of the *Illustrating Math* Project.

VI. Update on CBMS 2021 Survey and Discussion about the 2025 Survey

Ellen Kirkman, Director of the CBMS Surveys 2010, 2015, 2020-1, discussed the many challenges faced in carrying out the 2020-1 Survey. The pandemic certainly contributed to the difficulties her team has faced, in particular the poor response rate. Yet her presentation and the subsequent discussion raised several issues that should be considered for the 2025 Survey, on which planning needs to begin soon, such as: What information is valuable to collect and who uses it?; and, In what form should the Survey be made available to be most useful? The consensus at the meeting was that CBMS should form a working group to consider these issues.

VII. Discussion on how CBMS can engage more effectively in Workforce issues

Executive Committee member Shelly Jones facilitated a follow-up session to the December Council meeting session on this topic. During this session, each member organization worked on a slide outlining its STEM workforce development activities, attending specifically to EDI issues. Shelly will compile and summarize the results to prepare the groundwork for continued CBMS work on this important issue. (*November 2022 Director's note*: this will be the subject of an extended session at the May 2023 CBMS meeting.)

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

Appendix B

FY 2021 Actual and FY 2022 Budget Shown for Comparison

Income					
	FY 2021	FY 2022	FY 2022	FY 2023	
	Actual	Budget	Actual	Budget	
Dues	\$60,782	\$65,000	\$62,157	\$65,000	
Interest	\$15	\$100	\$5	\$100	
Royalties	\$95	\$1,000	\$1,051	\$1,000	
NSF Regional Research Conferences					
Salaries	\$15,356	\$30,000	\$21,315	\$30,000	
Indirect Costs	\$1,943	\$6,000	\$2131	\$8,000	
Other					
Total Income	\$78,191	\$102,100	\$86,659	\$104,100	
Expense					
	FY 2021	FY 2022	FY 2022	FY 2023	
	Actual	Budget	Actual	Budget	
Compensation					
Director	\$45,000	\$45,000	\$42,333	\$35,000	
Administrative Coordinator	\$12,866	\$16,500	\$12,625	\$20,000	
Postage and Shipping	\$32 *250	\$200 \$2,000	\$1,132	\$500	
Supplies	\$250	\$3,000 \$4,200	\$599	\$3,000	
Internet QuickBooks license	\$1,282 \$755	\$1,200 \$800	\$1,030 \$478	\$600 \$850	
Website	\$30	\$300	\$478 \$0	\$500 \$500	
Council Meetings	φου	φ300	φυ	φ300	
Travel	\$0	\$10,000	\$10,510	\$10,000	
Food and Other Meeting Expenses	\$0 \$0	\$10,000	\$10,912	\$10,000	
Staff Travel	\$455	\$7,000	\$182	\$12,000	
Accounting Fees	\$3,625	\$3,500	\$2,825	\$3,500	
Auditing Fees	\$0	\$2,500	\$0	\$2,500	а
Insurance	\$715	\$750	\$1,916	\$750	
Unbudgeted Expenses					
Bank Service Charges	\$15		\$58		
Charitable contributions			\$0		
Total Expense	\$65,025	\$100,750	\$84,600	\$99,200	
Operating Surplus or (Deficit)	\$13,167	\$1,350	\$2,059	\$4,900	

Notes

a - These are only paid every third year. This was in anticipation of auditing fees of approximately \$7500 in FY 2023.

Appendix C

Unrestricted Net Assets as of September 30, 2022

unrestricted cash on hand accounts receivable	\$98,857	а
dues	\$500	
accounts payable	\$0	
Net	\$99,357	
Investments		
Vanguard Balance Sept 30, 2019	\$146,272	
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	
Total Unrestricted Net Assets	\$271,817	

Notes

a Cash on hand also includes \$16,031.85 that can be used for 2022 Forum expenses

Appendix D

Dues assessments for FY 2023

	Dues	
	Rounded	Quarterly
AMATYC	\$1,100	\$275
AMS	\$8,700	\$2,175
AMTE	\$800	\$200
ASA	\$5,600	\$1,400
ASL	\$400	\$100
ASSM	\$400	\$100
AWM	\$800	\$200
BBA	\$400	\$100
COMAP	\$1,700	\$425
IMS	\$1,600	\$400
MAA	\$5,900	\$1,475
MoMath	\$1,500	\$375
NAM	\$400	\$100
NCSM	\$1,800	\$400
NCTM	\$11,000	\$2,750
SIAM	\$4,000	\$1,000
SOA	\$17,900	\$4,475
TODOS	\$600	\$150
WME	\$400	\$100
TOTAL	\$65,000	\$16,250

Appendix E

Directors' Report — Charles Steinhorn

Assuming the position of CBMS Director just in February this year made for a few whirlwind months leading up to the May 6th CBMS Council meeting that followed right on the heels of the May 1-3 CBMS Forum. Even without the forum, my predecessor, David Bressoud, warned me that the period from January until the May Council meeting is the busiest time for the CBMS Director. Fortunately, my long 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.

After taking a deep breath at the conclusion of the May meeting, work continued on the transition of the Director's office from David to me, and the bulk of this process, with its various twists and turns, is now complete. At the same time, I began directing my energy to sustaining and helping to initiate several CBMS initiatives. Below, I discuss my work since the May meeting and look ahead to the next several months. Before diving into these aspects of my report I want to remark again how fortunate I have been to meet and collaborate with many amazing people: the members of the CBMS Executive Committee, the presidents and executive directors of the CBMS member organizations, and many others who tirelessly work to advance the mathematical sciences and mathematics education at all levels.

The past six months

The central CBMS office includes the just Director and the Administrative Assistant, both of which are technically part-time positions. This limited how quickly the transition from David to me could take place, given the rush of CBMS activity from February to May. CBMS is indeed fortunate that Dayle Rebelein, with whom I have long worked on projects at Vassar, agreed to step in with me as the new CBMS Administrative Assistant. Dayle, who was not able to attend the May meeting but who you will meet in person at the December meeting, is exceptionally able and equally personable. The CBMS office at Vassar would not be as well-established as it now is were it not for Dayle's talents.

Seemingly routine "start-up" tasks took longer and were more involved than one might expect for a small 501(c) (3) entity. Even migrating the CBMS website hosting from Macalester College to an independent hosting company (with which I had worked previously) involved technical complications that slowed down the process, and which in turn has delayed making updates to the site (patience, please!). A couple of minor transition tasks still remain to be completed, but I fully expect these to be done during the next couple of months. I once again want to take this opportunity to express my deep gratitude to David for his devotion to CBMS as well as his grace, counsel, and humor during this period. I have made sure to let him know that I will count on his advice and wisdom well beyond the transition period.

I am happy to report that the NSF-CBMS Research Conferences program has begun to emerge from cancellations and postponements caused by the pandemic. This said, reverberations from this singular event continue to be felt. Of the six conferences planned for 2021, only one was

held that summer. Of the remaining five, three took place this summer, joined by three new awardees:

- Ramanujan's Partition Congruences, Mock Theta Functions, and Beyond (May 16-20)
- Analysis, Geometry, and Partial Differential Equations in a Lower-Dimensional World (May 23-27)
- Interface of Mathematical Biology and Linear Algebra (May 23-27)
- Parallel Time Integration (August 1-5)
- Topological Data Analysis and Persistence Theory (August 8-12)
- K-Theory of Operator Algebras (August 8-12)

One of the two remaining conferences originally scheduled to take place in 2021 has now been postponed until 2023: *Nonstandard Finite Difference Methods: Advances in Theory and Applications*. The remaining 2021 conference, *Bayesian Forecasting and Dynamic Models*, has been cancelled due to local issues with Covid protocols. In view of the impact of the pandemic on the conference series, we have 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.

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 have been singularly impressed by the quality of these materials. Those that the lecturers turn into monographs should make for valuable contributions to their respective fields.

One theme that emerged over the course of planning for the May 1-3 CBMS Pathways Forum is the need for the state teams to receive support and training in messaging and communications. A combination of forum budget savings and the allocation of up to \$10,000 of reserve funds by the CBMS Executive Committee has provided a total of \$20,000 to engage a strategic communications firm. Dave Kung of the Dana Center and I interviewed three firms for this purpose, and CBMS engaged the firm Burness (https://burness.com). The Burness team met several times with Dave and me prior to the forum in preparation for its work at the event, during which they gave a plenary presentation, offered two breakout sessions, and provided extended time for informal consultation with the 19 state teams present.

Dave and I have continued working with the Burness team in the months following the forum. The Burness people have drafted a messaging document for the state teams that is now being circulated for comment to a small group selected by Dave and me. Once this step has been completed and the draft has been refined based on the feedback received, the document should be ready to be shared with the state teams that participated in the forum. Burness plans to hold sessions with each of the state teams. We recognize that it would be valuable to provide longer term messaging support beyond the current contract with Burness; external funding for this purpose will be sought by Dave Kung and me, with assistance from Burness.

This summer Chapin Springer of the Gates Foundation, who was a plenary speaker at the CBMS Forum, kindly invited me to assist on its work on mathematics education. This has 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.

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. During the last few months I have spent a lot of time helping to put together three working groups based on priorities identified at recent CBMS meetings. David Bressoud agreed to chair a working group on the CBMS Survey, on which I serve *ex officio*. The group has been operating this fall, and David will give a report (via Zoom) at the December CBMS 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 has taken on the responsibility of chairing a working group on this issue. The group, in which I also participate *ex officio*, is just now beginning its work; Trena will give a report (via Zoom) at the December meeting also. I will chair/facilitate a third CBMS working group on the role of the mathematical and statistical sciences in Data Science. The group has now been formed and I plan to have it begin its work in December or early January.

Looking Ahead: the next six to twelve months

In December, CBMS will 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 knows CBMS, and I expect the audit to go smoothly.

Over the next several months, I expect to be heavily involved in efforts of the three CBMS working groups (see above) that have now been formed and are beginning to function. I also expect that the we will form a working group emerging from 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. Additionally, we intend to build on the Workforce session that Shelly Jones led at the May 2022 meeting. Shelly is working on collating and summarizing the results, and over the next few months we will plan a session on this topic for the May 2022 Council meeting. In this developing this session, we may wish to consult with an organization such as the Business-Higher Education Forum, a representative from which gave a plenary talk at the forum.

As CBMS Chair Ferrini-Mundy will announce at the December meeting, members of the Executive Committee and I plan to meet with the leadership of the CBMS member societies this coming spring and summer. This was done 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 also 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, and I will 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 other efforts and initiatives on which I want to start to move during the next year. With in-person meetings finally 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.

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 Education and Human Resources. CBMS also has had 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.

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, 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.