



The Mathematics of Opportunity:

Charting a Path to Equity



$$x=2y$$

$$x+y$$

$$\frac{x}{y} + 2$$

$$x=a+b$$

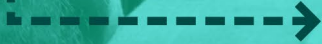
$$f=\frac{x}{y}$$



In today's data-rich, technology-enhanced world, math learning opportunities are central to the path to higher education and 21st century careers. Math classes must serve as stepping stones rather than stopping points on students' journeys. Ensuring that happens means, policies, practices, and perceptions must change to lower the systemic barriers that block some students' paths forward, especially by race and gender.

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SCHEDULE

	March 01	March 02	March 03
10:00 AM		The Calculus of College Admissions OR College Math Corequisites: Challenges and Opportunities	Centering Equity in Data Science Education OR Multiplier Effect: Dual Enrollment x Math
11:00 AM	Welcome from Just Equations and Keynote Address		
12:00 PM	Student Voices: Math-ing while Black	BREAK	BREAK
1:00 PM	BREAK	Exploring New K-12 Math Pathways OR Rewriting Destiny: Removing Barriers on the Calculus Pathway to STEM	Math Equity and the Power of Universities
2:00 PM	Math Education Through a Restorative Lens		

SESSIONS

→ TUESDAY, MARCH 01, 2022

11:00am-12:00pm

Welcome from Just Equations and Keynote Address

Just Equations Executive Director Pamela Burdman will open the fourth annual Mathematics of Opportunity conference and introduce Talithia Williams, who will give the keynote address, “Power in Numbers: Unveiling Hidden Figures.”

The movie “Hidden Figures” brought visibility to the lives of African American women who served as NASA “human computers” in the 1960s, women who dreamed the impossible in a field where their presence was lacking. Meeting the demands of a 21st century STEM workforce requires that we look beyond traditional talent pools to recruit and train individuals typically underrepresented in math. During this talk, Talithia will discuss her personal journey as a woman of color in mathematics and share ways in which we can excite public interest in the mathematical sciences, building upon the rich legacy of diverse mathematical scientists who have come before us.

Speakers

Talithia Williams

Statistician and Professor,
Harvey Mudd College

Pamela Burdman

Executive Director,
Just Equations

Co-sponsor



The Education Trust

SESSIONS

➔ TUESDAY, MARCH 01, 2022

12:00pm-12:30pm

Student Voices: Math-ing while Black

Listening to students is at the heart of educational transformation. Much research has been devoted to the trajectories of Black students in mathematics, to shed light on the causes of and solutions to racial inequities in math education. This session will focus on listening to students, two undergraduates will speak with a veteran math educator and activist about what has facilitated their math journeys from grade school through college STEM courses.

Speakers

Ephraim Collins

Undergraduate Student,
University of New Mexico

Woomy Michel

Undergraduate Student,
Clark Atlanta University

Moderator

José Luis Vilson

Executive Director and Co-Founder,
EduColor

Co-sponsors



Benjamin Banneker
Association



EduColor

SESSIONS

→ TUESDAY, MARCH 01, 2022

1:00pm-2:00pm

Math Education Through a Restorative Lens

Research increasingly shows that improving education outcomes for marginalized students requires approaches that nurture the “whole child.” The premise of this session is that those findings extend to mathematics. Though math is traditionally viewed as value-free, students’ personal and cultural lenses influence their development of math identities. How can school districts and college systems ensure student-centered, inquiry-driven, restorative approaches in math classrooms, particularly in the wake of the COVID-19 pandemic? And how can math learning be central to efforts to advance educational equity? This deep-dive session will explore these questions and more with leading thinkers in math education and education equity.

Speakers

Brian Bridges

Secretary of Higher Education,
State of New Jersey

Sonja Santelises

CEO,
Baltimore City Public Schools

Kyndall Brown

Executive Director,
California Mathematics Project

Moderator

José Muñoz

Director, Coalition of Community
Schools, Institute for Educational
Leadership

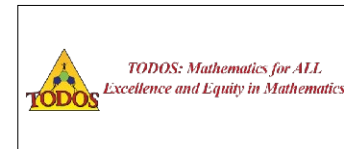
Co-sponsors



Institute for
Educational Leadership



National Association for
Family, School, and
Community Engagement



TODOS: Mathematics for All

SESSIONS

→ WEDNESDAY, MARCH 02, 2022

10:00am–11:30am

The Calculus of College Admissions

Today's data-rich environment has changed the way math is used in many fields, and the role of math in college admissions policies is beginning to change as well. As institutions expand their math requirements to include pathways such as Statistics, Data Science, and Mathematics Modeling, some admissions offices are also broadening the definition of advanced mathematics. Many other selective institutions continue to rely heavily on decades-old math expectations, treating calculus as a gold standard. Based on new research aimed at shedding light on the evolving role of math in admissions, this session will consider the challenges as well as opportunities in developing admissions policies that foster, rather than hinder, development of rigorous and relevant high school mathematics pathways that prepare students for postsecondary success.

Speakers

David Hawkins

Chief Education and Policy
Officer, *National Assoc. for College
Admission Counseling*

Blaire Moody Rideout

Director of Undergraduate
Admissions, *University of Michigan
Ross School of Business*

Monica Lin

Director, A-G and Transfer Policy
Analysis & Coordination,
University of California

Moderator

Veronica Anderson

President,
PenUltimate Group

Co-sponsors



Campaign for
College Opportunity



National Association
for College Admission
Counseling (NACAC)

SESSIONS

→ WEDNESDAY, MARCH 02, 2022

10:00am–11:30am

College Math Corequisites: Challenges and Opportunities

Colleges and universities around the country are implementing corequisites, strategies that allow students who traditionally would have been assigned to remedial math courses to instead take college-level courses with concurrent or just-in-time support. Research suggests that corequisite support leads to greater success in math sequences for historically excluded and underserved students. In this deep-dive session, state and institutional leaders from around the country reflect on the implementation strategies that have led to that success, sharing concrete lessons from their specific contexts. They will also highlight ways of tackling the ongoing challenges of implementing corequisites, including building buy-in and support among faculty, promoting student awareness of the benefits of corequisites, and ensuring equitable access and success across a range of math pathways aligned with student aspirations.

Speakers

Rachel Bates

Associate Vice Chancellor for
Educational Partnerships, *Oklahoma
State Regents for Higher Education*

Brandon Protas

Strategy Director,
Complete College America

Victoria Dominguez

Dean of Mathematics and
Business, *Citrus College*

German Vargas

AVP for Academic Student
Engagement, *College of
Coastal Georgia*

Moderator

Rogéair Purnell

President & CEO,
RDP Consulting

Co-sponsors



Complete College America



Strong Start to Finish

SESSIONS

→ WEDNESDAY, MARCH 02, 2022

12:30pm-2:00pm

Exploring New K-12 Math Pathways

Many have advocated for adoption of multiple high school mathematics pathways beyond the traditional path to calculus to better align with students' aspirations and address systemic barriers in math education. As new K-12 math pathways grow in popularity, this session explores the challenges and implications of these emerging pathways from a research and practice perspective. Learn about recent research on student outcomes and experiences in K-12 math pathways and explore the implications for equity and future research.

Speakers

Jennifer Aguilar

Principal, *Passaic Academy for Science and Engineering, Passaic Public Schools*

Julia Aguirre

Professor and Faculty Director of Teacher Credential Programs, *University of Washington-Tacoma, School of Education*

Erica Heinzman

Lecturer and Supervisor, *UC-San Diego, Education Studies*

Michal Kurlaender

Professor and Chair, *School of Education, University of California-Davis*

Moderator

Dia Bryant

Executive Director, *The Education Trust-New York*

Co-sponsors



Education Trust-New York



Policy Analysis for California Education (PACE)

SESSIONS

➔ WEDNESDAY, MARCH 02, 2022

12:30pm-2:00pm

Rewriting Destiny: Removing Barriers on the Calculus Pathway to STEM

As a weed-out course, college Calculus bears considerable responsibility for low persistence rates in STEM, especially among historically excluded students. Traditional modes of instruction and meritocratic narratives contribute to continuing racial and gender stratification in STEM. However, research points to numerous ways that math departments can transform calculus instruction to cultivate a more diverse generation of math and science professionals. Hear from researchers and practitioners from around the country as they share what they have learned about the factors that interfere with students' progress in calculus sequences. They will also surface opportunities for colleges to shift from measuring students' readiness to designing better calculus experiences, so that prior math preparation doesn't dictate students' destinies.

Speakers

Luis Leyva

Assistant Professor of Mathematics
Education, *Vanderbilt University*

Roberto Rubalcaba

Associate Math Professor,
San Diego City College

Vilma Mesa

Professor of Education and
Mathematics, *University of Michigan*

Charity Watson

Visiting Assistant Professor,
*Florida International University, STEM
Transformational Institute*

Moderator

Jess Ellis Hagman

Associate Professor of Mathematics,
Colorado State University

Co-sponsor



The Education Trust-West

SESSIONS

→ THURSDAY, MARCH 03, 2022

10:00am–11:30am

Centering Equity in Data Science Education

As data science education rapidly expands in K-12 and higher education, equity must be a fundamental consideration in access, instruction, design, and student outcomes. This session will explore key challenges and opportunities to advance equity in data science education from multiple perspectives. How are program leaders in data science education at the K-12 and secondary levels keeping equity at the forefront? How can the experiences of students in data science education inform our understanding of equity?

Speakers

Nathan Alexander
Assistant Professor,
Morehouse College

Monica Casillas
Associate Director of Professional
Development, IDS,
UCLA, Center X

Moderator

Rachel Levy
Executive Director, Data Science
Academy and Professor of Mathematics,
North Carolina State University

Rachel Levy
Executive Director, Data Science
Academy and Professor of
Mathematics, *North Carolina State
University*

William J. Murphy
Sophomore, Philosophy Major,
Morehouse College

Ji Y. Son
Professor of Psychology and
Author, *California State University,
Los Angeles; Course Kata*

Co-sponsor



Opportunity Institute

SESSIONS

→ THURSDAY, MARCH 03, 2022

10:00am–11:30am

Multiplier Effect: Dual Enrollment x Math

Taking college courses in high school, known as dual enrollment, has been shown to increase high school and college completion. Because students participating in dual enrollment tend to graduate earlier and at lower cost, such programs are on the rise in California and other states. Some studies show these strategies can be particularly effective for students who have historically been tracked into remedial math courses. How do we design for equity in math dual enrollment? How do we ensure we are not tracking students given limited offerings? Join K-12, community college, and research practitioners in exploring the complex issues surrounding dual enrollment in math and sharing promising practices and aspirations as college and high school partnerships expand their math offerings.

Speakers

Lynn Cevallos
Founder & CEO,
College Bridge

Laurencia Walker
Director of Student Affairs,
College Readiness,
Hartnell College

Tressa Overstreet
Executive Director of College and
Career Readiness, *Fresno Unified
School District*

Moderator

Naomi Castro
Senior Director,
Career Ladders Project

Co-sponsors



Career Ladders Project



Linked Learning Alliance

SESSIONS

→ THURSDAY, MARCH 03, 2022

12:30pm–1:30pm

Math Equity and the Power of Universities

Universities are uniquely positioned to influence math opportunity in numerous ways: through scholarship, through admissions policies, and through preparation of the educators who will teach the math students of the future. In this deep-dive session, math education leaders from five universities will consider ways that academia may have contributed to inequitable math outcomes in the past as well as how new university research, policies, and educational programs can help benefit students historically excluded from opportunities in mathematics and STEM.

Speakers

Kathryn Chval

Dean,
*University of Illinois-Chicago,
College of Education*

Christopher Edley, Jr.

Interim Dean, Graduate School
of Education, *University of
California-Berkeley*

Moderator

Elisha Smith Arrillaga

Managing Director,
*The Charles A. Dana Center,
University of Texas-Austin*

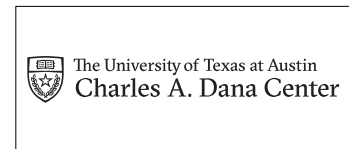
Eric Hsu

Chair and Professor of
Mathematics, *San Francisco State
University-Center for Science and
Mathematics Education*

Talitha Washington

Director, AUC Data Science
Initiative; Professor of
Mathematics, *Atlanta University
Center & Clark Atlanta University*

Co-sponsor



The Charles A. Dana Center,
University of Texas-Austin



SPEAKERS

Jennifer Aguilar



Principal, *Passaic Academy for Science and Engineering, Passaic Public Schools*

Dr. Jennifer Aguilar is the Principal of Passaic's Academy for Science and Engineering in Passaic, New Jersey. The Passaic Academy for Science and Engineering offers career and technical education pathways in aerospace engineering, data analytics, biomedical science, biotechnology, and computer Science. Dr. Aguilar has over 15 years experience leading successful educational programs at all K-12 grade levels throughout northern New Jersey. A change agent at heart, her areas of expertise lie around leveraging data analysis and discovering the best management practices to drive innovative instructional practices that lead to significant gains in student achievement and organizational culture.

Julia Aguirre

Professor and Faculty Director of Teacher Credential Programs, *University of Washington-Tacoma, School of Education*

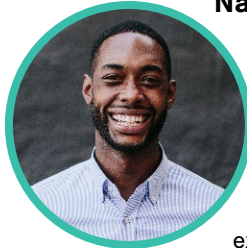


Dr. Aguirre's scholarship and professional development work focuses on mathematics teaching and learning, teacher education and culturally responsive mathematics instruction. Her work actively

investigates how children's mathematical thinking, community/cultural funds of knowledge, language and power inform the development of teaching knowledge, beliefs and practice. She is committed to preparing a new generation of elementary and secondary teachers with knowledge and skills to teach rich and rigorous mathematics and engage families and communities to support mathematics teaching and learning. Her goals are to mathematically empower youth, families/communities and teachers to strengthen K-12 mathematics education access, performance and advancement, especially for those historically underrepresented in STEM fields (Science, Technology, Engineering and Mathematics). She has a bachelor's degree in Psychology from University of California, Berkeley; Master's degree in Education from University of Chicago; and Ph.D. in Education from the University of California, Berkeley. She joined the UWT faculty in 2007.

Nathan N. Alexander

Assistant Professor, *Morehouse College*



Nathan Alexander, PhD, is an assistant professor of data science and interdisciplinary studies at Morehouse College in Atlanta, GA, and he teaches courses in mathematics and education. His work explores the development of critical and justice-oriented practices in quantitative literacy development. This work sits at the intersection of the humanities, social sciences,

mathematics, and the computational sciences, more broadly, with a specific focus on Black history and futurity. At Morehouse College, Dr. Alexander directs the Du Bois Data Lab – a historically-centered and critically-oriented experiential learning lab for students and community members.

Veronica Anderson

President, *PenUltimate Group*



Veronica Anderson is a communications and planning strategist with expertise in education, media and public policy. As the principal and founder of the consulting firm PenUltimate Group, she works with leadership teams at school districts and education nonprofits that aim for equitable access, robust engagement, and overall student success. During her career, she has been an education reporter and editor, and has served as a member of the steering committee for the University of Chicago Consortium on School Research. She has a bachelor's in economics and a master's in journalism from Northwestern University, and she was John S. Knight Fellow at Stanford University.

SPEAKERS

Elisha Smith Arrillaga

Managing Director, *The Charles A. Dana Center, University of Texas-Austin*



Elisha Smith Arrillaga, Ph.D., joined the Charles A. Dana Center at The University of Texas at Austin as managing director in May 2021. She previously served as the executive director of The Education Trust—West, a national research and advocacy nonprofit organization committed to educational justice for students of color, students from low-income communities, and English learners.

As a lifelong math lover, researcher by training, and advocate by blood, Elisha is fiercely committed to increasing opportunities in STEM for students of color. She has served on numerous committees, boards, and taskforces—among them University of California’s Provost Advisory Council on Educational Equity, CSU’s Steering Committee on Academic Preparation and Quantitative Reasoning, University of California’s Test Feasibility Study Steering Committee, and the Launch Years Consensus Panel.

Melodie Baker

National Policy Director, *Just Equations*



Melodie is a nationally recognized education leader and advocate. As a community leader, charter school founder, school administrator, and program

director, she has devoted her career to advancing education opportunities for disadvantaged students. Prior to joining Just Equations in 2020, she was Director of Education at United Way of Buffalo and Erie County. Her day-to-day responsibilities included building partnerships with diverse stakeholder groups, developing strategies to advance equitable education policies, implementing community school models in local districts, managing grants, and investing in educational programs. Baker has chaired various national, state and local coalitions, including Raising New York, The Coalition for Community Schools, and the Erie/Niagara Birth to 8 Coalition. She directs the research and evaluation effort for the Rockefeller Institute of Government’s First 1000 Days on Medicaid Initiative, headed by the New York State Department of Health, and was recently tapped to serve on Governor Andrew Cuomo’s Reimagining Education Advisory Council to devise strategies for re-opening schools amid the COVID-19 pandemic. Melodie earned a Bachelor’s degree in Public Relations from Buffalo State College, a Master’s degree in Executive Leadership and Change from Daemen College, and an Advanced Graduate Certificate in Applied Statistical Analysis from SUNY-Buffalo.

Rachel Bates

Associate Vice Chancellor for Educational Partnerships, *Oklahoma State Regents for Higher Education*



Dr. Rachel Bates received her Ph.D. at the University of Oklahoma after completing her undergraduate studies at Wichita State University. Her research interests lie in the fields of mathematics pedagogy in higher education, quantitative reasoning and teaching mathematics for social justice. Specifically, she is interested in student-centered pedagogies, and alternative higher education mathematics curricula. She began her academic career as a mathematics faculty member before subsequently serving as a mathematics department chair and Dean. She now serves as the Associate Vice Chancellor for Educational Partnerships at Oklahoma State Regents for Higher Education, where she has been a member of Academic Affairs since 2018. Dr. Bates regularly attends and presents at regional and national conferences. She is involved in multiple national mathematic associations.

Brian Bridges

Secretary of Higher Education, *State of New Jersey*



Brian Bridges, Ph.D., currently serves as Secretary of Higher Education for the state of New Jersey where he is responsible for policy development and coordination of higher education activities for the state, including supporting institutions

SPEAKERS

amid the ongoing COVID-19 pandemic. He also coordinates initiatives to improve college affordability in New Jersey through the State Plan for Higher Education and enhances postsecondary opportunities while promoting equity and access for all through programs such as the state's Community College Opportunity Grant (CCOG). Dr. Bridges previously served as Vice President of Research and Member Engagement at the United Negro College Fund (UNCF) in Washington, DC. He also led the UNCF Career Pathways Initiative, a project to improve job placement outcomes at Historically Black Colleges and Universities (HBCUs) and Predominantly Black Institutions (PBIs). Prior to joining UNCF, Dr. Bridges served in various leadership roles both on- and off-campus. He is a former Assistant Professor of Higher Education Administration at George Washington University. Dr. Bridges earned his Doctorate in Higher Education Administration from Indiana University–Bloomington, a Master of Public Administration degree from the University of North Carolina–Charlotte, and a Bachelor's of Arts in English Language and Literature from Francis Marion University.



Kyndall Brown

Executive Director, *California Mathematics Project*

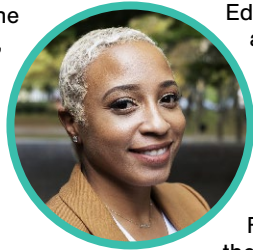
Kyndall Brown holds a bachelor's degree in mathematics, master's degrees in computer-based education and mathematics

education, and a Ph.D in Education and has over 35 years of experience in math education. He has been a professional development provider for schools and districts in Los Angeles County for over 25 years and previously served as a secondary mathematics teacher for 13 years. Kyndall is currently the executive director of the California Mathematics Project. In addition to presenting at local, state, and national conferences on mathematics education, Kyndall also writes articles for mathematics education publications. His research focuses on the impact of culture and identity on the ways that African-American males learn mathematics. He is the co-author of the book *Choosing To See: A Framework For Equity In The Math Classroom*.

Dia Bryant

Executive Director, *The Education Trust-New York*

Dia Bryant is the Executive Director at The Education Trust–New York. She works alongside civil rights, business, and advocacy organizations to advance educational equity in the state of New York. Dr. Bryant previously worked as the Special Assistant to the First Deputy Chancellor in the New York City Department of Education working on equity-focused instructional support to schools and strategy. She earned her doctorate at Harvard Graduate School of Education where she studied the history of Black education in America and



school district leadership. While at Harvard, Dia worked as a teaching fellow in courses that focused on the intersections of leadership and race. While working as a fellow in the Data Wise project and Reimagining Integration: Diverse and Equitable Schools (RIDES), Dia also facilitated professional learning for some of the country's largest school systems with the Public Education Leadership Project (PELP) at Harvard Business School. Before graduate school, Dr. Bryant founded and led Vista Academy in Brooklyn, NY. Dia's passion for equity in education came about when she discovered that math had answers when life did not - as a young child in Detroit, Michigan. She holds a BA in Economics from Kalamazoo College, a Masters in Math Education from Brooklyn College and a doctorate in Education Leadership from Harvard University.

Pamela Burdman

Executive Director, *Just Equations*

A policy analyst and strategist on equitable college access, readiness, and success, Pamela Burdman is the founder and Executive Director of Just Equations, a policy institute focused on reconceptualizing the role of mathematics in education equity. She began her career as a reporter for the San Francisco Chronicle and first focused on math equity issues as a program officer at the William and Flora Hewlett Foundation, working with the early developers of new college statistics pathways. She is the



SPEAKERS

author of numerous reports and articles on math opportunities that have influenced policy changes in K–12 and postsecondary math education in California and beyond. She earned a bachelor’s degree in philosophy and East Asian studies from Princeton University and a master’s in business administration and master’s in Asian studies from UC Berkeley.

Monica Casillas

Associate Director of Professional Development, IDS, UCLA, Center X



Monica Casillas has been a mathematics educator with the Los Angeles Unified School District for over 20 years. She is Nationally Board Certified and holds a Masters in Math Education. The majority of Monica’s career has been in the classroom, but she has also served as an instructional math coach. Monica has been involved with the Introduction to Data Science course since its inception. She was one of the IDS pilot teachers and subsequently became an IDS facilitator. Monica currently serves as the Associate Director of Professional Development for the IDS Project through UCLA Center X.



Naomi Castro

Senior Director, Career Ladders Project



Dr. Naomi Castro is a Senior Director at Career Ladders Project, a non-profit engaged in equity-minded community college redesign. Naomi provides leadership on CLP initiatives focusing on transitions to college, including dual enrollment, development of pathways and integrated student supports. She holds a BA in History, a post-baccalaureate teaching credential, and a master’s degree in Teaching and Teacher Education, all from the University of Arizona (U of A). Her doctoral degree is in Education, Leadership, Administration and Policy from Pepperdine University’s Graduate School for Education and Psychology. Her dissertation focused on learning communities for Career and Technical Education students. Naomi also serves as an adjunct professor of Education at Compton College. You can find her podcast at www.castropod.com

Lynn Cevallos

Founder & CEO, College Bridge

Dr. Lynn Cevallos had an unorthodox journey in education. Despite early participation in gifted programs, she dropped out of school at 15. Her experiences drove her to pursue work in public education to prevent future students from dropping out. Lynn earned her bachelor’s in Mathematics and Secondary Education from Boston College and began

her career as a teacher. Her work evolved into leadership roles in government, higher education, K-12, nonprofits, and corporations. Desiring deeper knowledge of the root causes contributing to achievement gaps, she pursued her doctoral studies at UCLA. Her dissertation provided the foundation for College Bridge, a non-profit focused on closing equity gaps through strategic K-16 alignment. This work led to her use of dual enrollment as a catalyst for student success.

Kathryn Chval

Dean, University of Illinois-Chicago, College of Education



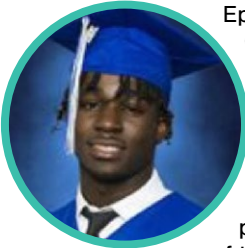
Kathryn Chval is the Dean of the College of Education and Professor of Mathematics Education at the University of Illinois, Chicago. Her research focuses on effective preparation models and support structures for mathematics teachers, effective mathematics teaching for multilingual learners, and curriculum standards and policies. Dr. Chval led an effort to establish a process for defining grand challenges in mathematics education to consider how collective interdisciplinary research efforts could come together to create solutions with significant and lasting impact. Her leadership, research, and service have been recognized with several awards, including the TODOS Iris M. Carl Equity and Leadership Award, Association of Mathematics Teacher Educators Early Career Award, INSIGHT Into Diversity Giving Back Award for Administrators,

SPEAKERS

and NSF Director's Award for Program Management Excellence.

Ephraim Collins

Undergraduate Student, *University of New Mexico*



Ephraim Collins is a freshman Computer and Data Science major at the University of New Mexico, where he received an academic scholarship. He is grateful to his mentors in the STEM field including computer science authors such as Juan Gilbert, a Clemson University professor and President of "Brothers of the Academy," an organization of African American male PhDs. Ephraim plans to pursue a PhD in Data Science and Computer Engineering and is looking forward to being referred to as "Dr. Eph." Ephraim draws inspiration from John Henry Thompson, a Black computer scientist and inventor. He loves math and applied data science, and practices coding during his free time. Ephraim is from Duncanville, Texas.

Victoria Dominguez

Dean of Mathematics and Business, *Citrus College*



Victoria Dominguez is currently Dean of Mathematics and Business and Interim Dean of Career Technical and Continuing Education at Citrus College in

Glendora, CA. She was also an 8-year math faculty member at Citrus College, teaching across the discipline from Arithmetic to Calculus. In 2017, a team of four faculty (including Victoria) modified the curriculum to eliminate four levels of remedial mathematics and instead offer corequisite remediation and multiple measures assessment. Victoria was the first Community of Practice lead for Introductory Statistics and worked with the Citrus College math faculty to develop and implement innovative changes to classroom pedagogy. Six math pathways are open-access for all students, with their program of study determining which pathway the student should take. Allowing students the opportunity to complete their transfer-level math class and move on to their major course work in their quest for graduation and transfer has been transformative for Citrus College students.

Christopher Edley, Jr.

Interim Dean, Graduate School of Education, *University of California-Berkeley*



Christopher Edley, Jr. has spent 40 years influencing public policy and teaching law. On July 1, 2021, Edley began his term as Interim Dean of the Berkeley Graduate School of Education. At Berkeley since 2004, Edley has continued as the Honorable William H. Orrick, Jr. Distinguished Professor and Dean Emeritus (2004-13) at the Law

School. Before Berkeley, he was a professor at Harvard Law School for 23 years, where he co-founded the Harvard Civil Rights Project. Edley co-chaired the congressionally chartered U.S. Department of Education's national Equity and Excellence Commission (2011-13). He served in White House policy and budget positions under presidents Jimmy Carter and Bill Clinton. In 2008, he was a board member for the Obama Presidential Transition, with general responsibility for White House priorities in health care, education, and immigration. He is co-founder (2015) and president emeritus of The Opportunity Institute, which focuses primarily on education equity issues. Edley is a graduate of Swarthmore College (mathematics); Harvard Kennedy School (public policy); and Harvard Law School.

Jess Ellis Hagman

Associate Professor of Mathematics, *Colorado State University*

Jess Ellis Hagman is an Associate Professor in the Department of Mathematics at Colorado State University in Fort Collins. She completed her PhD in Mathematics Education from the joint program between San Diego State University and the University of California, San Diego. Her area of research is undergraduate mathematics education. Her work is focused on dramatically increasing the number and diversity of people who succeed in undergraduate mathematics -



SPEAKERS

especially introductory mathematics courses that often function as a roadblock for STEM intending students. Her current research includes studying characteristics of successful precalculus and calculus programs, defining success by investigating ways departments create diverse, equitable, and inclusive introductory mathematics programs.

David Hawkins

Chief Education and Policy Officer, *National Assoc. for College Admission Counseling*

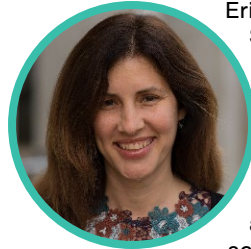


David Hawkins is the Chief Education and Policy Officer for the National Association for College Admission Counseling (NACAC), a non-profit membership association that represents more than 25,000 high school counselors and college admission officers throughout the U.S. and around the world. Over his 21 years with the association, Mr. Hawkins has advanced the NACAC mission of making the transition from high school to postsecondary education equitable, transparent, and fair. From 1995-1998, Mr. Hawkins conducted research for the Democratic Congressional Campaign Committee (DCCC) in Washington, DC. From 1998-2000, he served under President Bill Clinton and Secretary Andrew Cuomo as a Congressional Affairs Specialist at the U.S. Department of Housing and Urban Development. Mr.

Hawkins holds a BA and MA in Government from the College of William & Mary in Virginia.

Erica Heinzman

Lecturer and Supervisor, *UC-San Diego, Education Studies*



Erica Heinzman is a Lecturer and Supervisor at the University of California, San Diego. She teaches in the secondary credential and a master of education program and supervises the mathematics credential candidates in their placements. Her research and advocacy interests focus on high school mathematics pathways and non-traditional high school mathematics courses such as Data Science and Discrete Mathematics. Prior to joining the faculty at UC San Diego, she was a former high school mathematics and AVID (Advancement Via Individual Determination) teacher and served in a variety of leadership roles at the school site.

Francesca Henderson

Math Educator in Residence, *Just Equations*



Francesca is a career educator with a diverse range of experiences and a passion for social justice and equity. She has served as a researcher, high school math teacher, vice principal, curriculum

designer, and education consultant. Her current research focuses on the transition from high school to college, and the role of mathematics in supporting or hindering the college-going process. Francesca received a Bachelor's in Mathematics from San Diego State University and a Master's in Education from High Tech High Graduate School of Education, where she also serves as an instructor, teaching Graduate students how to develop positive school cultures and design equitable discipline practices. She is currently working toward her Ph.D. in Mathematics Education at the University of Maryland. She joined Just Equations in 2020.

Eric Hsu

Chair and Professor of Mathematics, *San Francisco State University-Center for Science and Mathematics Education*



Eric Hsu is Professor and Chair of Mathematics at San Francisco State University, and Director of the Center for Science and Mathematics Education. He has led numerous STEM education projects including: two NSF grants to broaden participation in computer science; co-PI on the Western Regional Noyce Alliance, teacher PD for the Western U.S.; co-PI on two NSF Noyce grants; campus PI on three regional partnerships with community colleges. Additionally, he has led four California Math Science Partnerships (twice with SF Unified and twice with San Rafael City Schools) and

SPEAKERS

received an NSF CAREER Award in 2003 for his work on college math teaching. He was co-PI on Revitalizing Algebra, an NSF Math Science Partnership with local school districts to improve the teaching of algebra; and was co-leader of PRIME and PRIME2 with SF Unified focusing on 4th and 5th grade math, TCAAP with San Rafael City Schools focusing on lesson study for grades 5-8, and ITEAMS with San Rafael City Schools working with 3rd-8th grade STEM teachers. He was a case study team leader for a large-scale national study of calculus teaching with the Mathematical Association of America. He received a Bachelors in Mathematics at Harvard, a Ph.D. in Mathematics from U.C. Berkeley studying operator algebras with Dan Voiculescu, and was a postdoctoral scholar at U.T. Austin with Uri Treisman.

Michal Kurlaender

Professor and Chair, School of Education, University of California-Davis



Michal Kurlaender is Professor of Education Policy and Chair at the School of Education, University of California–Davis. Her research focuses on the causes and consequences of educational inequality across a diverse set of educational pathways. Kurlaender serves as a faculty director of Policy Analysis for California Education (PACE), and is Lead Researcher for Wheelhouse: The Center for

Community College Leadership and Research. She received her doctorate in education from Harvard University in 2005. Her work has been published in various academic and policy outlets.

Rachel Levy

Executive Director, Data Science Academy and Professor of Mathematics, North Carolina State University



Dr. Rachel Levy advocates for mathematical modeling and data science education from kindergarten to industry. Her work centers broadening participation, community engagement, diversity, equity, and inclusion as actionable core values. She is currently the inaugural Executive

Director of the NC State University Data Science Academy and Professor of Mathematics. She served as Vice President for Education for SIAM and as the Deputy Executive Director of the MAA as well as Professor of Mathematics and Associate Dean at Harvey Mudd College. She co-founded the BIG Math Network and Math Modeling Hub and was a lead writer of the Guidelines for Assessment and Instruction in Mathematical Modeling Education. Levy's press communication includes work with American Scientist, NPR, Australian Broadcast Company, Ed Week, and Slate. She is a recipient of the MAA Alder Teaching Award, the NCTM award linking research and practice, the AMS Congressional Fellowship and is a SIAM Fellow.

Luis Leyva

Assistant Professor of Mathematics Education, Vanderbilt University



Dr. Leyva is a 2020 Postdoctoral Fellow with the National Academy of Education and Spencer Foundation. He was recently distinguished with the 2021 Faculty/Staff Award for Equity, Diversity & Inclusion in Vanderbilt University-Peabody College. Leyva's contributions to the field of mathematics education have been recognized as a 2019 honoree in Lathisms (an online showcase of Latinx mathematics education researchers, American Mathematical Society & Mathematical Association of America), the recipient of the 2018 Early Career Publication Award from the Research in Mathematics Education special interest group of the American Educational Research Association, and awardee of the 2015 Dissertation Fellowship from the National Academy of Education and Spencer Foundation. Dr. Leyva is the director of the PRISM (Power, Resistance & Identity in STEM Education) Research Lab at Peabody College. The lab's research serves to hold an "intersectional prism" up to historically marginalized students' narratives of experience to illuminate and disrupt multidimensional forms of oppression in undergraduate STEM education.

SPEAKERS

Monica Lin

Director, A-G and Transfer Policy Analysis & Coordination, *University of California*



Monica H. Lin, PhD, Director, A-G and Transfer Policy Analysis & Coordination, University of California, Office of the President. In her role at UC Office of the President, Monica oversees curriculum alignment and articulation programs grounded in collaborative system- and statewide policymaking to support students' academic preparation for UC. Most recently, she has focused on advancing the policy movement behind broadening college-prep course offerings and access, especially in high school mathematics and science. As co-chair of the California Mathematics Education Collaborative (CMEC), she has facilitated a growing network of leaders and providers of professional training in PK-16 mathematics, PK-12 schools/districts, higher education institutions, state and regional agencies, and professional organizations. Monica brings over 20 years of experience in student affairs and education research to her current work in shaping policy, programs, and practices that will advance the University's priorities for college-prep education. She earned her PhD in education from UCLA.

Vilma Mesa

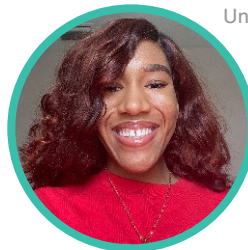
Professor of Education and Mathematics, *University of Michigan*



Vilma Mesa is professor of education and mathematics at the University of Michigan. She is also and Faculty Associate at the Center for the Study of Higher and Postsecondary Education. She investigates mathematics instruction and resource use in post-secondary settings, with an emphasis on community colleges. She has conducted several analyses of textbooks and evaluation projects on the impact of innovative mathematics teaching practices for students in science, technology, engineering, and mathematics. Other interests include analysis of textbooks and their use in university math classrooms by students and teachers (in particular digital, interactive, open source and open access textbooks) and development of instruments to assess quality of instruction and mathematical knowledge for teaching in post-secondary mathematics.

Woomy Michel

Undergraduate Student, *Clark Atlanta University*

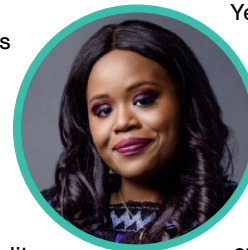


Woomy Michel is a graduating Mathematics major, Computer Science minor at Clark Atlanta University. Throughout her undergraduate experience she has had the opportunity to conduct research through the AUC Data Science Initiative

and HBCU-UP Program. Woomy is deeply passionate about removing bias embedded in our technologies and integrating a culturally responsible system into our society. She is highly interested in conducting further research in machine learning and data science; and wants to learn more about how data and mathematics can be used to minimize algorithmic bias and discriminatory machine learning.

Yeshimabeit Milner

Founder & Executive Director, *Data for Black Lives*



Yeshimabeit Milner is the Founder & Executive Director of Data for Black Lives. She has worked since she was 17 behind the scenes as a movement builder, technologist and data scientist on a number of campaigns. She started Data for Black Lives because for too long she straddled the worlds of data and organizing and was determined to break down the silos to harness the power of data to make change in the lives of Black people. In two years, Data for Black Lives has raised over \$3 million, hosted two sold out conferences at the MIT Media Lab and has changed the conversation around big data & technology across the US and globally. As the founder of Data for Black Lives, her work has received much acclaim. Yeshimabeit is an Echoing Green Black Male Achievement Fellow, an Ashoka Fellow and joins the founders of Black Lives Matter and Occupy Wall Street in the distinguished inaugural class

SPEAKERS

of Roddenberry Foundation Fellows. In 2020, Yeshimabeit was honored as a Forbes 30 under 30 social entrepreneur.

José Muñoz

Director, Coalition of Community Schools, *Institute for Educational Leadership*



José Muñoz serves as the Director of the Coalition for Community Schools at the Institute for Educational Leadership (IEL). Muñoz united the country calling for 25,000 Community Schools as a strategy to transform public schools as centers of their community where everyone belongs, works together, and thrives. Community Schools now have bipartisan support leveraging the strategy to unite schools, families, and communities around better outcomes for young people. José brings over 25 years' experience of system building at the intersections of out of school time, juvenile justice reform, education, and employment for the well-being and prosperity of youth and families.

William J. Murphy

Sophomore, Philosophy Major, *Morehouse College*



William Murphy is a sophomore philosophy major from Nashville, Tennessee. He currently attends Morehouse

College, where he is working to fulfill his ambition of going to law school. Developing strong relationships has been central to Murphy's progression in both his professional and personal life, as he seeks to add value to the lives of those around him. As a result, Murphy has dedicated himself to activism and community outreach. Murphy is a contributor to several organizations, including, but not limited to the Tennessee Alliance for Black Lawyers, the Morehouse College National Alumni Association, the United Negro College Fund, and Scholars of Finance. He is also engaged with undergraduate research at his institution.

Tressa Overstreet

Executive Director of College and Career Readiness, *Fresno Unified School District*



Tressa Overstreet has served the Fresno community as an educator for over 25 years. In 2005, Tressa was introduced to dual enrollment and began her collaborative work with Fresno City College. She helped open Design Science Middle College High School, with the primary focus of serving first generation college students and those most underrepresented in postsecondary education. One hundred percent of Design Science students are admitted to four-year universities, many with a STEM focus. Efforts to ensure access to transfer level math courses led her to developed strategies, protocols and systems of support to ensure student success.

Tressa strives to create and foster many K-16 collaborative partnerships in order to best serve the students of the Central Valley.

Brandon Protas

Strategy Director, *Complete College America*



Brandon Protas serves as a Strategy Director with Complete College America (CCA). He leads the Momentum pillar of strategies which includes Credit for Competency, Multiple Measures, Corequisite Support, Dual Enrollment, and 15 to Finish / Stay on Track. He also supports CCA Alliance members in the West. Brandon is passionate about education as a public good to improve society and to transform individual lives. He utilizes an equity lens to center students of color, students from low-income backgrounds, and first-generation students. Brandon previously worked at the Community College of Denver directing a concurrent enrollment program. He also worked for more than a decade in the K-12 system in Tucson, Arizona in a variety of capacities including social work, community building, and college readiness programming.

SPEAKERS

Rogéair Purnell

President & CEO, *RDP Consulting*



Rogéair is a researcher, evaluator, facilitator, and former grantmaker. She has designed, led, and consulted on numerous high-profile studies and projects focused on advancing opportunity, promoting success, and catalyzing change. She is leveraged for her ability to navigate diverse communities, boards, businesses, and industries, including K-16 education and philanthropic foundations. And her intellectual commitment to unbiased analyses strengthens partnerships and equips organizations with sound insights for establishing and achieving significant milestones. Prior to founding RDP Consulting, she worked for non- and for-profit organizations where she effectively managed difficult conversations and built consensus.

Blaire Moody Rideout

Director of Undergraduate Admissions, *University of Michigan Ross School of Business*

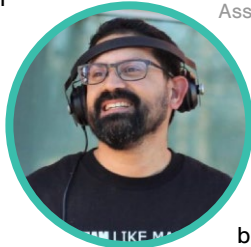


Dr. Moody Rideout has a deep knowledge of holistic admissions and enrollment management as the Undergraduate Admissions Director for the Ross School

of Business. In 2016, she led the faculty and staff team that created and launched the Ross Admissions Portfolio, which was featured as an innovative best practice by the Learning Policy Institute (LPI). Dr. Moody Rideout has shared her expertise in holistic admissions review as a national speaker on the value of performance assessments in college admissions and currently serves as a member of the advisory panel for LPI's Reimagining College Access initiative. She has also served as a member of the National Advisory Board for DECA Inc., providing expertise on undergraduate business education.

Roberto Rubalcaba

Associate Math Professor, *San Diego City College*



Dr. Roberto Rubalcaba is an Associate Math Professor at San Diego City College. He was born in Lemon Grove, on the same street where Lemon Grove Elementary planned a separate school for all of its Latino students. He stopped going to Morse High in the 10th grade because of gang violence, pursued a GED at Centre City Adult School, then majored in Mathematics at City College with only a 9th grade Math education. He graduated and transferred to SDSU earning a BA in Mathematics and attended graduate school at Auburn University earning a Masters and Ph.D. in Discrete Mathematics. He gets students at San Diego City College excited about math through hip hop, art, sushi, and dance.

Sonja B. Santelises

CEO, *Baltimore City Public Schools*



Throughout her career, Dr. Sonja Brookins Santelises has dedicated herself to the achievement of excellence in urban education. She is now in her second term as Chief Executive Officer of Baltimore City Public Schools (City Schools), to which she was first appointed on July 1, 2016. Dr. Santelises had previously served as Chief Academic Officer for City Schools from 2010-2013. Prior to returning to Baltimore, she served for three years as vice president for K-12 policy and practice at The Education Trust, a national nonprofit organization focused on closing the achievement gap experienced disproportionately by students of color from low-income families. Dr. Santelises is a Phi Beta Kappa graduate of Brown University. She holds a Master of Arts degree in education administration from Columbia University and a Doctor of Education in administration, planning and social policy from Harvard University. She has lived in Baltimore with her husband and three daughters since 2010.

Ji Y. Son

Professor of Psychology and Author, *California State University, Los Angeles; Course Kata*



Ji Y. Son is Professor of Psychology at California State University at Los Angeles and

SPEAKERS

director of the Learning Lab at Cal State LA. She is a co-author of the interactive textbook “Introduction to Statistics: A Modeling Approach” published using CourseKata.org used by over 50 institutions of higher education and high schools. Her PhD in Cognitive Science and Psychology is from Indiana University, Bloomington. She is interested in how basic cognitive and perceptual processes foster rich and transferable learning. Her work examines methods of applying psychological insights at scale to issues like mathematics remediation and student success. Through directing wise interventions at Cal State LA, she has helped develop and validate materials to help students achieve higher and persist longer. The central idea behind Ji’s work is that learning changes the way we see the world.

German Vargas

AVP for Academic Student Engagement, College of Coastal Georgia



Dr. German Vargas serves as the Assistant Vice President for Academic Student Engagement at the College of Coastal Georgia. For the past 17 years, Dr. Vargas has instructed Math courses ranging from developmental to upper division at CCGA. In 2011, he was a key participant in the Complete College America grant initiative that funded 4 institutions in the University System of Georgia (USG) to enhance the success rates in

developmental programs. In January 2013, Dr. Vargas was appointed by the USG to serve as a member of the statewide Task Force on the Role of Mathematics in College Completion. He was subsequently appointed by the USG as chair of the Ad Hoc Steering Committee, the group that guided the transformation of Mathematics education throughout the system. Dr. Vargas was the 2014-2015 Chair of the Academic Advisory Committee on Mathematical Subjects (ACMS) and has led several initiatives including the transformation at scale to adopt open educational resources in Mathematics courses, as part of the Affordable Learning Georgia efforts. Dr. Vargas serves as one of the “Bridge Builders” of Complete College America and seeks to highlight the role of faculty in the development of system-wide changes. He is also a member of the CCA Fellows.

José Luis Vilson

Executive Director and Co-Founder, EduColor

José Luis Vilson is a veteran educator, writer, speaker, and activist in New York City, NY. He is the author of *This Is Not A Test: A New Narrative on Race, Class, and Education*. He has spoken about education, math, and race for a number of organizations and publications, including the New York Times, The Guardian, TED, El Diario / La Prensa and The Atlantic. He’s a National Board Certified teacher, a Math for America Master Teacher, and the executive director of



EduColor, an organization dedicated to race and social justice issues in education. He is currently a doctoral student studying sociology and education at Teachers College, Columbia University. He is now on the board of directors for the National Board of Professional Teaching Standards and PowerMyLearning.

Laurencia Walker

Director of Student Affairs, College Readiness, Hartnell College



Laurencia Walker has experience in education including the K-12 sector, the California State University system, the University of California system, and the California Community College system where she currently serves as the Director of College Readiness at Hartnell College—supporting and supervising early college credit options and high school partnerships. In addition to working in student affairs at Hartnell and CSUMB, Laurencia worked for five years as a research associate at the University of California, Riverside where she conducted research on pathways to college for historically underserved students and co-authored publications on faculty of color experiences in community colleges and institutional culture. She holds degrees in political science—public law; equity and social justice; and is currently a PhD candidate in Higher Education Administration & Policy.

SPEAKERS

Talitha Washington



Director, AUC Data Science Initiative; Professor of Mathematics, *Atlanta University Center & Clark Atlanta University*

Dr. Talitha Washington is the Director of the Atlanta University Center Data Science Initiative and a Professor of Mathematics at Clark Atlanta University. As Director, she oversees and provides strategic direction of data science across Clark Atlanta University, Morehouse College, Morehouse School of Medicine, and Spelman College to increase the number of African Americans with expertise in data science. Most recently, Dr. Washington was a Program Director at the National Science Foundation (NSF) in the Convergence Accelerator and was instrumental in building and establishing NSF's first HSI Program. She is the recipient of the 2019 BEYA STEM Innovator Award, the 2019 Outstanding Faculty Award from Howard University, and the 2020 NSF Director's Award for Superior Accomplishment. She is a Fellow of the American Mathematical Society and the Association for Women in Mathematics.

Charity Watson



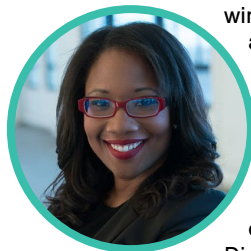
Visiting Assistant Professor, *Florida International University, STEM Transformational Institute*

Charity Watson is a discipline-based education researcher in mathematics and visiting assistant professor in the STEM Transformation Institute at Florida

International University. She has taught an array of courses at the undergraduate and graduate level, including calculus, statistics, mathematics for elementary teachers, and research methods in science and engineering education. Her research is focused on university-level students and their learning and success in introductory-level mathematics courses and how their experiences in these courses impact their persistence in STEM fields. She is specifically interested in the experiences of underrepresented minorities in mathematics courses and factors that may impact their participation in mathematics.

Talithia Williams

Statistician and Professor, *Harvey Mudd College*



Statistician Talithia Williams is an award-winning Harvey Mudd College professor, a co-host of the PBS NOVA series "NOVA Wonders" and a speaker whose popular TED Talk, "Own Your Body's Data", extols the value of statistics in quantifying personal health information. In 2015, she won the Mathematical Association of America's Henry L. Alder Award for Distinguished Teaching by a Beginning College or University Mathematics Faculty Member. Williams produced "Learning Statistics: Concepts and Applications in R," a series of lectures in which she provides tools to evaluate statistical data and determine if it's used appropriately. She is the author of "Power in Numbers: The Rebel Women of Mathematics", a book highlighting the influence of women

in the mathematical sciences. Williams is a proud graduate of Spelman College (B.A., mathematics), Howard University (M.S., mathematics) and Rice University (M.A., Ph.D., statistics). Her research focus involves developing statistical models that emphasize the spatial and temporal structure of data and applies them to problems in the environment. She's worked at NASA, the Jet Propulsion Laboratory and the National Security Agency and has served as a research partner to the World Health Organization. Through her research and work in the community at large, she is helping change the collective mindset regarding STEM in general and math in particular, rebranding the field of mathematics as anything but dry, technical or male-dominated but, instead, a logical, productive career path that is crucial to the future of the country.

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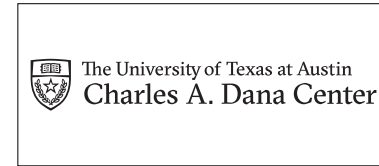
Benjamin Banneker Association



Campaign for College Opportunity



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The Education Trust-West



EduColor



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National Association for College Admission Counseling (NACAC)



National Association for Family, School, and Community Engagement



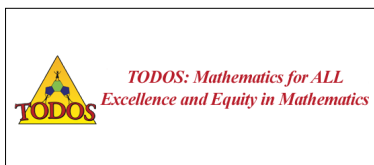
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Strong Start to Finish



TODOS: Mathematics for All

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ABOUT JUST EQUATIONS

Just Equations advances evidence-based strategies to ensure math policies that give all students the quantitative foundation they need to succeed in college and beyond.

To learn more, visit justequations.org

