The American Mathematical Society’s role in education policy and practice is evolving while remaining faithful to the AMS mission to “advance mathematical research and create connections.” Here are the connections I see:

- Mathematical research benefits when the profession casts the widest possible net for talent. The AMS should play a leadership role in thinking about how to encourage and engage students from communities traditionally overlooked by, underserved by, and underrepresented in mathematics.

- Among the connections that the AMS seeks to create are those with government leaders, funding agencies, and sister societies. Such connections enable the AMS to participate in developing policies on the teaching and learning of mathematics that support an equitable, well-functioning democracy and economy.

The Committee on Education is one of six policy committees of the AMS. Established in August 1990, it created a tradition of discussion on educational matters within the AMS, and between our community and other interested national and governmental organizations. That tradition has helped us rethink our pedagogical approaches to teaching math.

This spring, for the first time, the Committee on Education brought action items to the AMS Council. The first action item established the AMS Lecture on Education. Given annually at the JMM starting in 2022, it will address student learning, educational equity, and inclusive practices within the mathematics and STEM communities. The second action item elevated the Award for Impact on the Teaching and Learning of Mathematics from a Committee on Education Award to an AMS Award. That award, established in 2013 by a generous gift from Kenneth I. and Mary Lou Gross, will be presented at the JMM alongside the other AMS awards starting in 2022. Both items announce publicly that mathematics education policy and practice are amongst the priorities of the AMS.

The Committee on Education has reorganized its events to sharpen their focus and widen their reach. The annual October conference in Washington, DC, was scaled back, and the Committee on Education’s JMM panel was repurposed to follow up on whatever topic was introduced at the October conference. The fall conference acts as an opportunity for mathematicians to interact with those outside of mathematics, including legislative representatives and leaders from sister disciplines. That discussion is continued at the JMM with a focus on disseminating ideas within the mathematical community. The combined events provide the AMS membership with an opportunity to learn how to work towards establishing effective and equitable educational policies at their own institutions.

The 2019–2020 Committee on Education’s events focused on "Mathematics Departments and the Explosive Growth of Computational and Quantitative Offerings in Higher Education." The October conference focused on computational programs which ranged from those entirely within mathematics departments to those done in collaboration with, or in opposition to, mathematics departments. External presenters included representatives from NIST and the NSF Division of Graduate Education who challenged the way we view graduate education in mathematics. In particular, they pointed to a 2018 National Academies Report1 that recommended significant changes to graduate STEM education to better prepare graduates for collaborative work in academic research as well as for careers in industry and teaching. The government representatives pointed out that unlike other STEM disciplines, mathematical societies had not sought funds and guidance to implement those recommendations. In January 2020 at the

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1. https://www.nap.edu/read/25038/chapter/1
JMM, we followed up on that theme with a panel discussion on data science programs. Importantly, the panel consisted of three faculty members, one each from an R1 university, a Master’s granting university, and a liberal arts college; and we had one female and one Latinx among the panelists.

The work of the Committee on Education is now assisted by the AMS’s first Director of Education, Dr. Abbe Herzig. The directorship is an AMS staff position with responsibility for the newly created Department of Education within the AMS Division of Government Relations. Dr. Herzig oversees the AMS education portfolio with a particular focus on graduate education in the mathematical sciences. She has a passion for educational equity, which makes working with her both productive and inspiring. I encourage the mathematical community to reach out to her with ideas and questions.

The coordinated efforts of the AMS Committee on Education, its Department of Education, and the AMS Policy Committee on Equity, Diversity, and Inclusion (created January 2020) are refining the AMS role in education and providing organizational structures to achieve coherent goals consistent with our mission. But there is more to be done. In particular, the AMS could do more to foster mathematical talent trained outside of elite high schools and R1 institutions. Disproportionately, the young mathematicians educated outside these pathways are the colleagues most likely to change the complexion, gender, and job descriptions of our profession. My hope is that the AMS will work with sister societies to facilitate meaningful educational and research connections between R1 universities, and R2 and R3 universities, Master’s granting universities, liberal arts colleges, and community colleges. In this way, our AMS can play its part in ensuring equitable access to the opportunities afforded by a deep and relevant mathematics education.

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