Spearheading the effort

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Holistic approach

TPSE Math seeks to provide a community framework for transforming post-secondary education in mathematics.

- WHO are our students? One size does not fit all.
- WHY do our students need mathematics?
- WHAT changes in the curriculum suit those needs?
- HOW can teaching methods improve outcomes?
Why now?
Why now?

We must preserve

- Dedication to our students
- Diversity in all forms in our community
- Encouragement of talented youth
- Intellectual honesty and rigor
- Sustenance of basic research in the mathematical sciences
Building community consensus

JMM Panel, January 2014

- Michele Cahill, Carnegie Corporation
- Jo Handelsman, Yale University
- Brit Kirwan, Chancellor, University of Md
- Joan Leitzel, former President, University of NH
- Congressman Jerry McNerney, guest commentator
Building community consensus

JMM Panel, January 2014

Key topics

- A more useful undergraduate experience
- How the economic issues facing higher education affect mathematics departments
- Improving students’ STEM success
Building community consensus

Meeting at UT Austin, June 2014

Break-out sessions

- Curriculum reform
- Removing barriers and opening pathways
- Teaching and the economic model of Math Depts
- Enriching the undergraduate experience
- Enhancing graduate training
Findings from Austin

- Broad consensus
- Diversify teaching methods
- Broaden the curriculum
- Mathematics must enable students with many pathways into Math / STEM
Findings from Austin

Transforming Post-Secondary Education in Mathematics

Report of a Meeting

University of Texas at Austin
June 20–22, 2014
Building community consensus

First regional meeting:
UMBC, November 2014

Panel discussions

- TPSE Math and related initiatives
- Broadening participation
- Challenges facing non-R1 institutions
Building community consensus

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Young adults from high-income families are 7 times more likely to earn bachelor’s degrees by age 24.
Open problems

- Scaling up / adapting successes
  One size does NOT fit all

- Conversations at individual institutions about how to adapt national ideals locally

- Fostering community change

Hic sunt dracones
Possible Roles for TPSE Math
Communicate, Coordinate, Promulgate, Evaluate

- Leverage support from government and foundations to foster reform
- Highlight successful innovation
- Forge networks of concerned leaders, especially department chairs
- Establish connections with societies, government, and foundations
Possible Roles for TPSE Math

Specific projects

- Templates for convenings: institutional, regional, state levels
- Clearinghouse for
  - New *curriculum materials*
  - Improved *evaluation schemes*
  - Data on *economic benefit* of mathematics to society
- Recognition of excellence
Let us work together...

Thank you

http://www.tpsemath.org/
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