

# Imagine a course based on solving undergrad research problems from business, industry, and government

- students having URE
- integrating URE into the curriculum
- connecting URE with industry
- Involving 1<sup>st</sup> and 2<sup>nd</sup> year ugrads
- interdisciplinary
- teamwork skills
- communication skills





## **That course is PIC Math**

PIC Math prepares math and STEM students for industrial careers by engaging them in research problems from industry

### **Components:**

- summer 3-day faculty training workshop
- spring semester course for students
  - research paper and presentation
- student recognition conference

# PICMath

## Sample companies providing research problems and consultants

- Field Museum of Chicago
- Coca Cola Company
- Habitat for Humanity
- Colorado Dept of Transportation
- Neptune and Company, Inc.
- Heart Artery and Vein Center of Fresno
- Los Alamos National
- City of Kansas City
- AIG Insurance
- National Security Technologies
- Greensboro NC Police Dept
- Applied Geographics
- US Water Utility Group
- Sandia Labs
- Massachusetts General Hospital



## Participation data (2014 – 16)

- 107 faculty members
- 101 U.S. universities/colleges
  - in 32 states and D.C.
  - 14 PhD, 23 MS/MA, 63 BS/BA, 1 Associates degree
  - 10 HSIs and 6 HBCUs
- over 1400 undergraduate students
  - 40% female
  - 21% underrepresented ethnic groups
- 147 research papers co-authored by undergraduates
- over 150 conference presentations by undergraduates
- over 100 industrial partners have provided research problems and consultants

# PICMath

Program details are available at  
[www.maa.org/picmath](http://www.maa.org/picmath)

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