

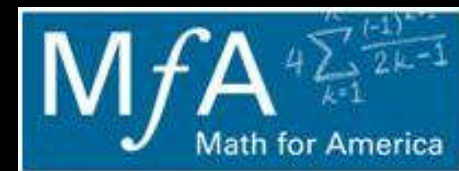


MATH for AMERICA

A program and some questions

John Ewing

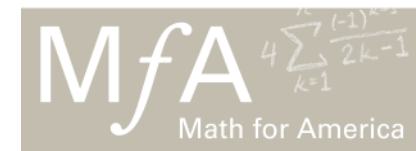
Math for America



- What is Math for America?
- What is the problem?
- What is the solution?
 - (And what's any of this have to do with
 - professional development?)

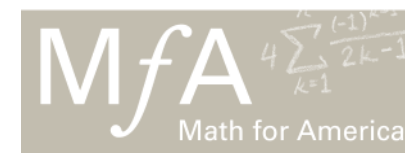
The MfA Program

- Three programs
 - New Teaching Fellows
 - Early Career (yrs 1-4)
 - Master Teachers (yrs 5+)
- Goal: Put “great” math and science teachers in secondary classrooms (inspiring teachers)



Common Features

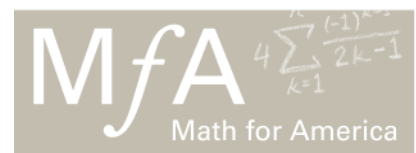
- 4 year teaching commitment
- Lots of (prof) support
 - Advisors, mentors, staff support ...
- ****Community building**
 - online and personal
- *Meaningful* stipends (20-25% of salary)
- **New Fellows: plus initial training year --
master's** (NYU, TC, Bard, USC, Claremont, UCSD, Berkeley, BU,
American, UofUtah, ...)




MfA Sites

- New York (>300 teachers)
- Los Angeles
- San Diego
- Washington, DC
- Boston
- Berkeley*
- Utah*
(~450)

*includes science





**What's the
problem?**



**WAITING FOR
“SUPERMAN”**



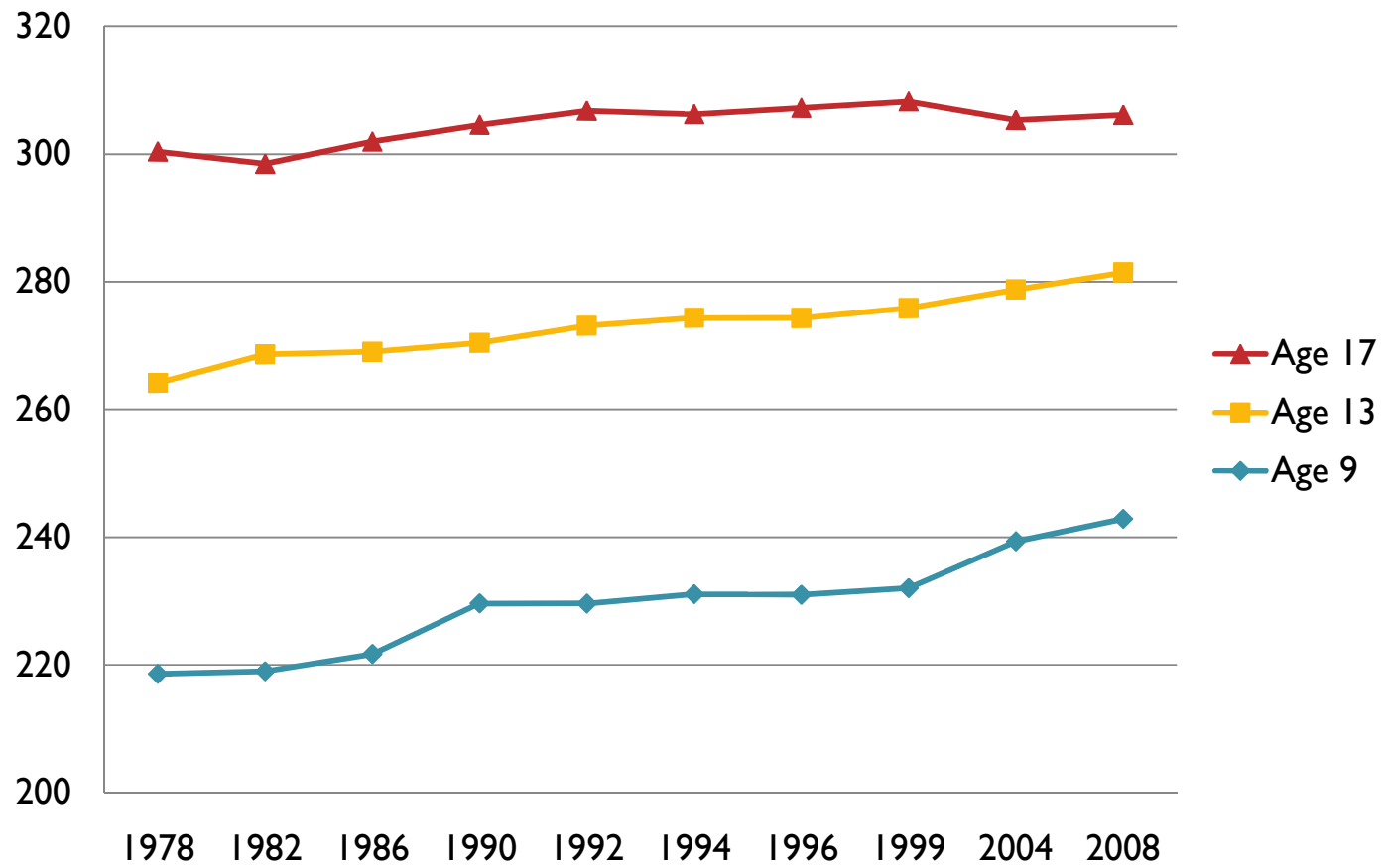
**High School Graduation Rates Plummet
Below 50 Percent in
Some U.S. Cities**

**“National
Leaders Speak
Up About
Education
Crisis”
May 26, 2010**

Los Angeles Times

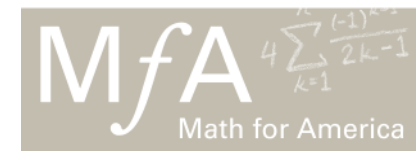
**Grading the
Teachers: Value-
Added Analysis**

AVERAGE NAEP SCORES, MATHEMATICS



Not in Crisis!

- Crisis = “a turning point”
- Long-term structural problem:
 - We need to improve to compete!
 - To solve fundamental, long-term problems...
- We need to make fundamental, long-term changes over decades...



Focus ...on people who can affect
students for decades and who
themselves will be improving
things for decades

Teachers





**What's the
solution?**

Approach #1:

Focus on

INCOMPETENT

Get rid of them!



Ewing



REMEMBER



Approach #2

Inspiring Teachers

Principles of MfA

- i. To teach mathematics, one should know mathematics (Polya)***
- ii. To teach mathematics, one should know how to teach (clinical experience)***

BALANCED





iii. Experience counts (→ retention is key!)

“to attract the best we have to keep the best”

- “When we ask, ‘How can we find and prepare more teachers,’ we are focusing on the symptom instead of the problem.”
- *NCTAF 2002 Report*

Everything we do is focused on retention:

Prestige,

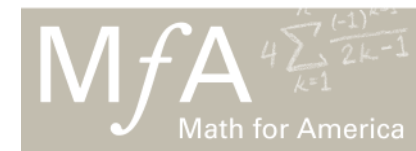
support,

working conditions



And professional development too!

- NOT REMEDIAL!
- Tailor appropriately
(new/intermediate/experienced)
- Four principles:
 - Sustained
 - Practice feedback and reflection
 - Value the teacher's expertise
 - Model on good teaching practice



Good News

- Already **are** many inspiring secondary teachers!
- Focus on them...
- Treat them like professionals
- VALUE them; HONOR them
- ... and more will come!



MfA

Math for America

$$4 \sum_{k=1}^{\infty} \frac{(-1)^{k-1}}{2k-1}$$
