

# U.S. K-12 Education



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# GE Foundation: U.S. Education

What is the value of a U.S.  
education?



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# Growing Need for Higher Levels of Education

## Projections of Education Shortages and Surpluses in 2012

Shortage

Surplus

**Bachelor's Degree**

**Associates Degree**

**Some College**



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Source: Analysis by Anthony Carnevale, 2006 of Current Population Survey (1992-2004) and Census Population Projection Estimates

# GE Foundation: US Education

What are the challenges in  
U.S. education?



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# PISA 2006: U.S. Ranked 21<sup>st</sup> out of 30 OECD Countries in Science



Source: Organization for Economic Cooperation and Development (OECD), PISA 2006 Results, data available at <http://www.oecd.org>

# PISA 2006: U.S. Ranked 25<sup>th</sup> out of 30 OECD Countries in Mathematics



Problems are not limited to our high-poverty and high-minority schools . .

▪

# One-Third of American Students Nationally Are at a “Below Basic” Level in Math

2005 NAEP Grade 8 Math, All  
Students



Our 15-year-olds have a worse average scale score in mathematics than most of their international peers.

Closest Competitor?

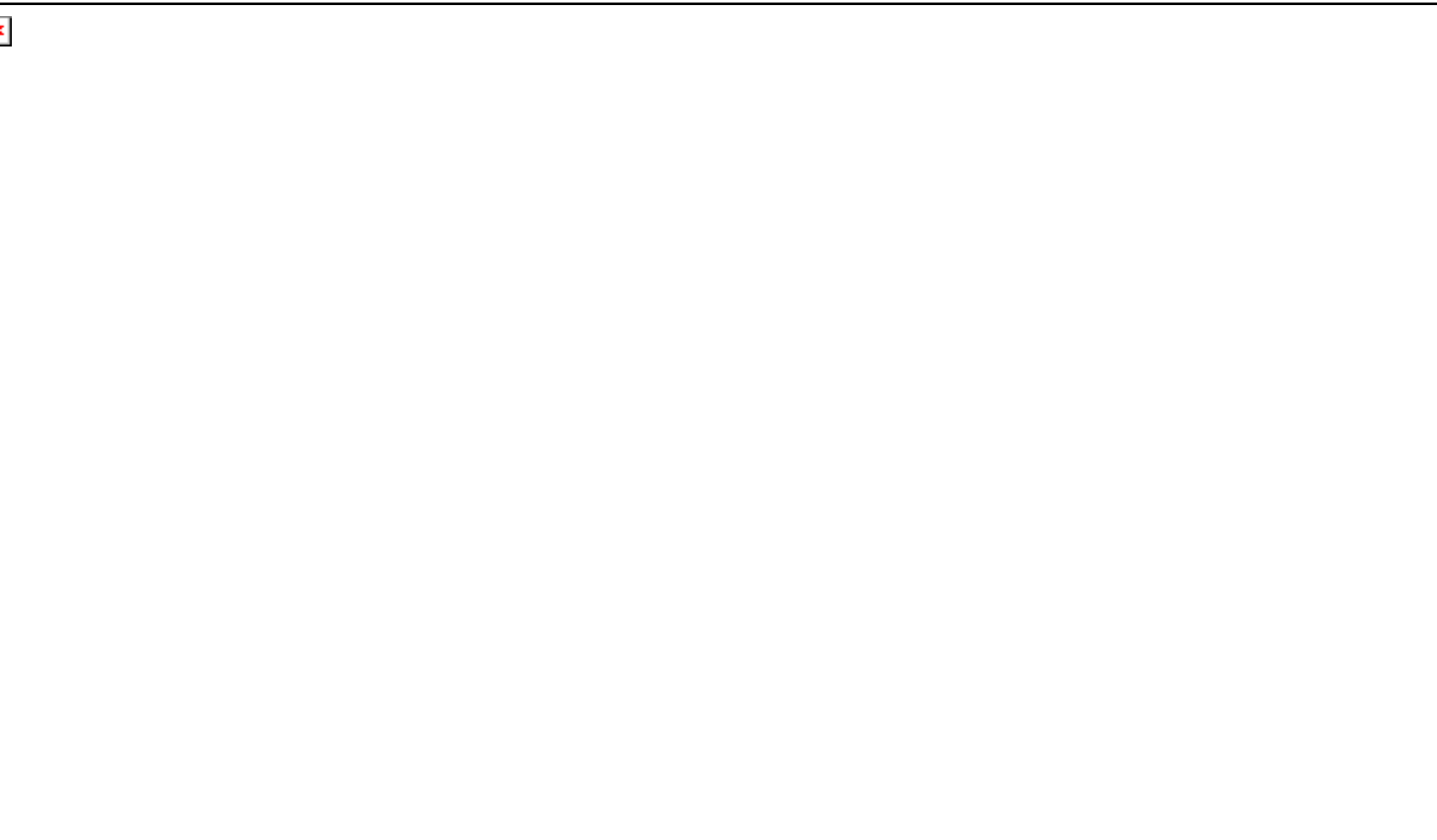
Latvia

And those numbers  
represent the students who  
remain in high school.

What do US high school  
graduation rates look like  
today?

# Students Graduate From High School At Different Rates

\* 4-Year Graduation Rates



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Who decides the standards  
for math and science?



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# 21 States' Mathematics Standards



# Top Achieving Countries' Mathematics Curriculum



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If a teacher is weak is it due  
to lack of skill or content  
knowledge?



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# U.S. Mathematics Teacher Preparation

Reporting Mathematics Majors or Minors-  
Sampling of 60 Districts across Michigan and Ohio

<input checked="" type="checkbox"/> Teachers of Grade N	Math Major Reported	Math Minor Reported	No Math Specialization Reported
1	.6	2.4	97.0
2	.6	1.8	97.5
3	.4	1.9	97.7
4	.5	4.4	95.1
5	1.2	8.6	90.2
6	1.0	8.4	90.6
7	15.8	21.8	62.4
8	18.1	18.5	63.4
9	35.7	26.8	37.5
10	51.2	23.3	25.5
11	36.7	36.7	36.6
12	52.9	27.3	19.8
	Aggregated across grades		
1-3	.5	2.1	97.4
4-5	0.8	6.3	92.8
6-8	10.0	14.6	75.4
9-12	49.7	27.5	22.8

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Think about your experience with your own children or children you know and what do you think is their attitude toward their own test scores?



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Developing Futures in Education™ is a \$125 million investment aimed at increasing college-going rates and achieving systemic change across five to six U.S. school districts.

# Grant Elements

- **Constituency Engagement**
  - Internal (teachers, union, Board of Ed, administration)
  - External (business, community, parents)
- **Capacity building**
  - GE Toolkit (lean, CAP, W/O)
  - Expert education consultants
- **Common Curriculum**
  - High quality Math & Science
  - Common for all schools in district
- **Professional Development**
  - Training in content and delivery
  - Sustainable learning communities
- **GE Engagement**
  - Senior GE Executive leadership
  - Pro bono functional capacity building
- **Evaluation**
  - Outcome and process measures
  - Direct observation, tests, surveys

# Broader Impact

## Standards

*What should kids know?*



## Curriculum

*What information do we give them?*



## Assessment

*How do we test?*



## Professional Development

*How do we prepare the teachers?*

“A mile wide and an inch deep” is failing our children... even those who pass.

*What can education foundations do to help...*

- Drive change locally
- Create a national agenda locally
- Enable/create incentives for your best teachers to teach in your most challenging schools
- Deepen your focus....create new ideas
- Provide opportunities for community involvement

# Thank you



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