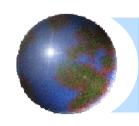


# **Economic Implications of Improved Schooling**

#### Eric A. Hanushek

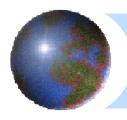
Hoover Institution Stanford University

Congressional Briefing
U.S. Capitol
January 2012

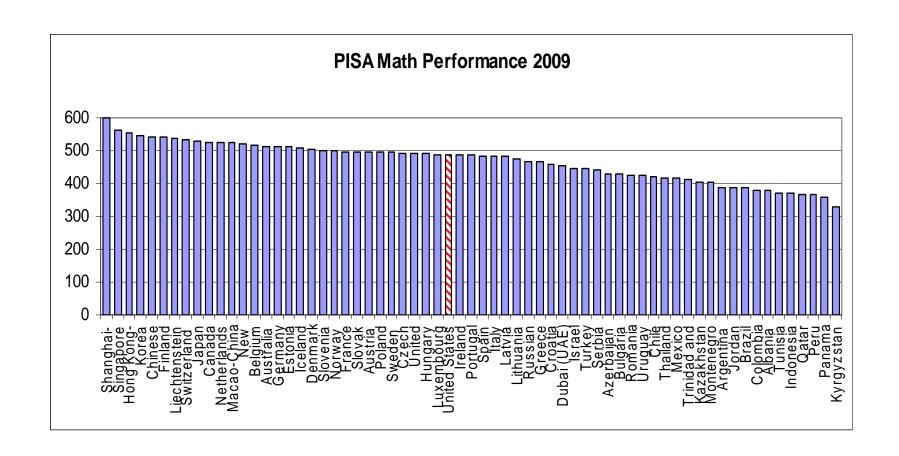


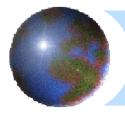
#### Conclusions

- U.S. scores on international assessments portend bleak future
  - Not a few bad states
  - Not a difficult to educate population
- Very different futures for United States
- Current recession costs dwarfed by schooling crisis
- Easy to ignore, hard to recover

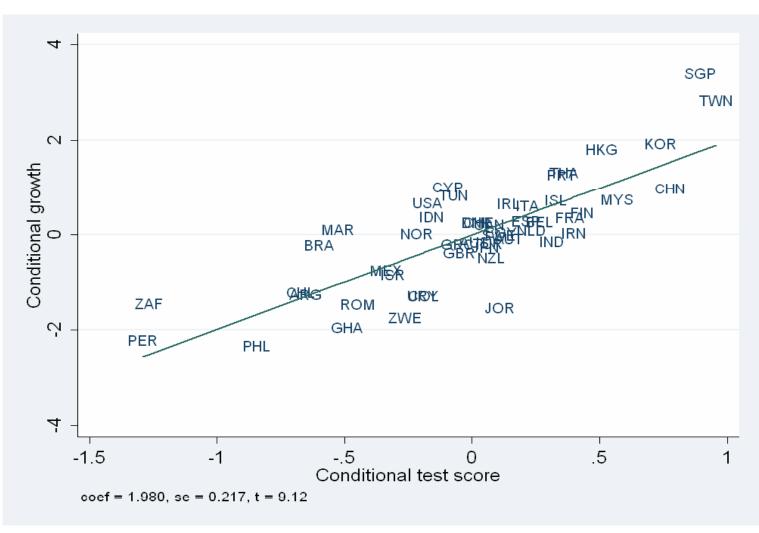


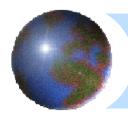
#### International Math Rankings - PISA 2009



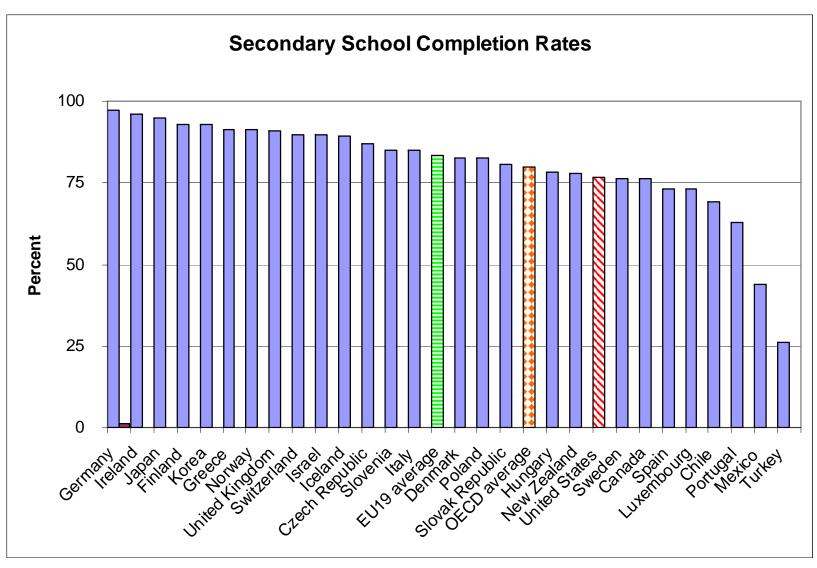


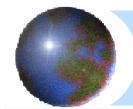
## Cognitive Skills and Economic Growth





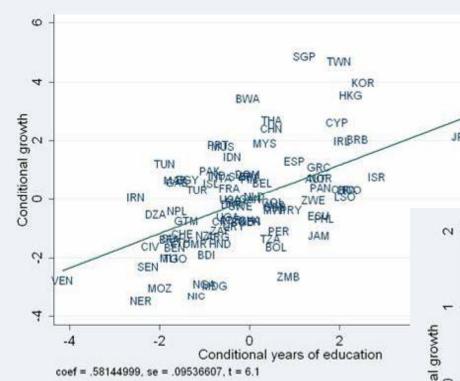
#### **Secondary School Completion**





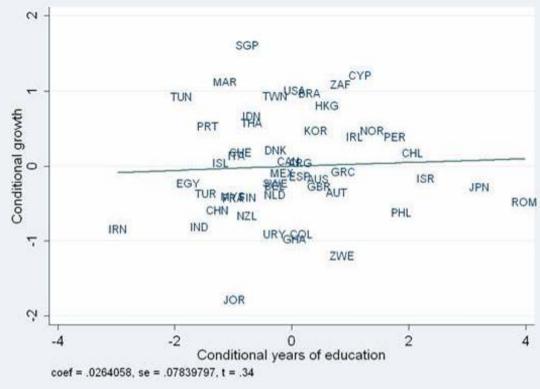
## Years of Schooling and Economic Growth

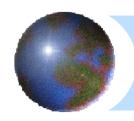
ROM



Without quality control

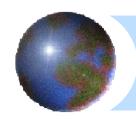
#### With quality control



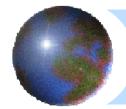


#### **Projections of Value of Improved Schooling**

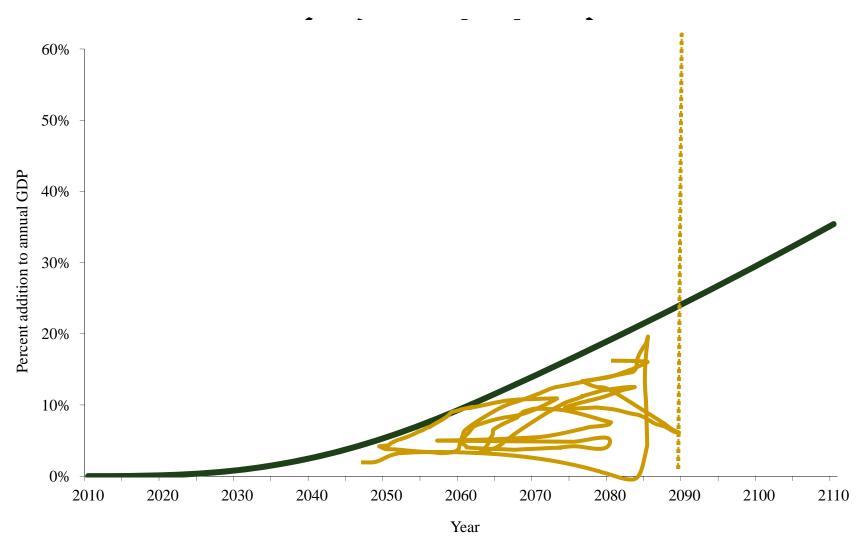
- Assume future looks like past
- Improve schools over 20 years
- Calculate added GDP based on history
- Discount future over lifetime of somebody born today

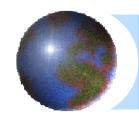


- Scenario 1
  - Achievement improves by 25 points (1/4 s.d.)

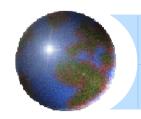


## Annual Gains from 25 PISA-Points Improvement

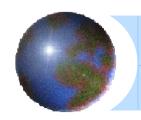




- Scenario 1
  - Achievement improves by 25 points (1/4 s.d.)
    - PV = 288% of current GDP
    - \$44 trillion for United States



- Scenario 1
  - Achievement improves by 25 points (1/4 s.d.)
- Scenario 2
  - U.S. achieves at level of Finland
    - PV = 737% of current GDP in United States
    - \$112 trillion for United States

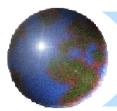


- Scenario 1
  - Achievement improves by 25 points (1/4 s.d.)
- Scenario 2
  - U.S. achieves at level of Finland
- Scenario 3
  - All students to 400 points (basic skills) [19% in U.S.]
    - PV = 567% of current GDP in United States
    - \$86 trillion for United States

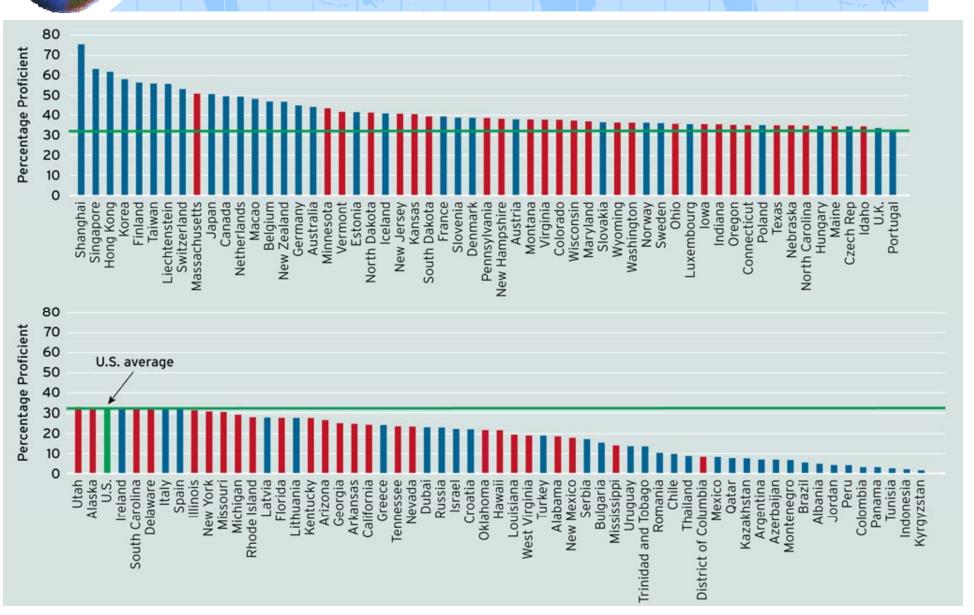


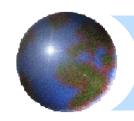
### Math League Tables -- 2009

- 32% proficient in U.S. (NAEP standard)
  - 32<sup>nd</sup> out of 65 countries



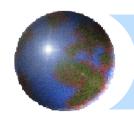
#### Proficient in Math - PISA 2009





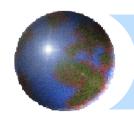
### Math League Tables -- 2009

- 32% proficient in U.S. (NAEP standard)
  - 32<sup>nd</sup> out of 65 countries
- Massachusetts significantly outperformed by 6
- Minnesota significantly outperformed by 11

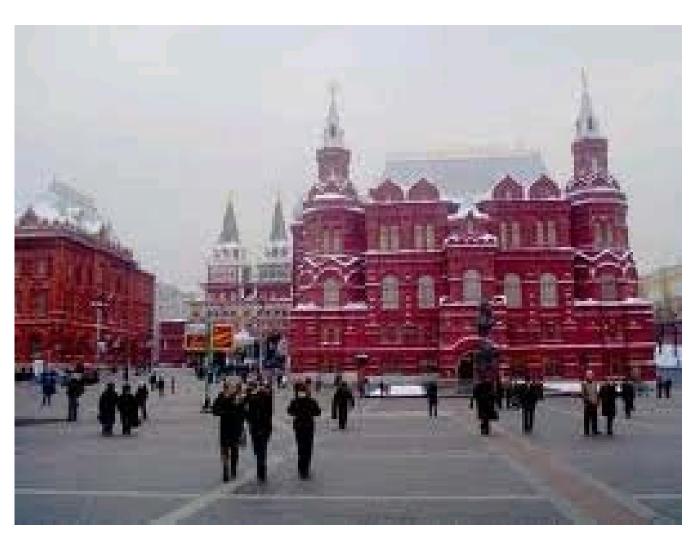


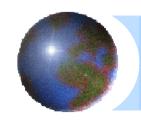
## California competes with . . .





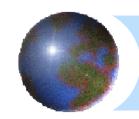
## California competes with . . .





#### Math League Tables -- 2009

- 32% proficient in U.S. (NAEP standard)
  - 32<sup>nd</sup> out of 65 countries
- Massachusetts significantly outperformed by 6
- Minnesota significantly outperformed by 11
- California significantly outperformed by 36

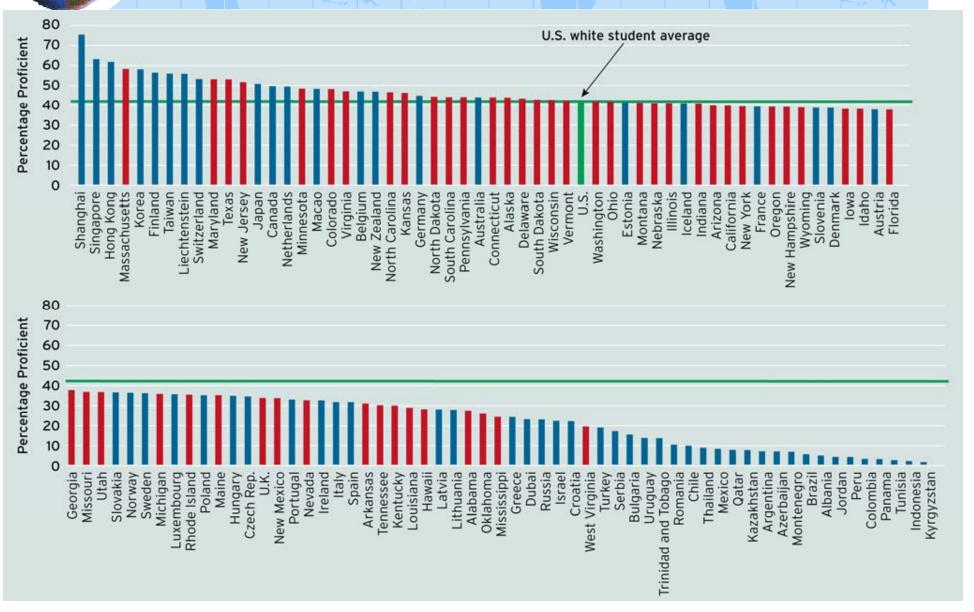


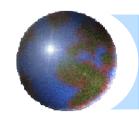
#### **Observations**

- Not U.S. having especially difficult to educate
- White students



### White Students in US vs All Internationally



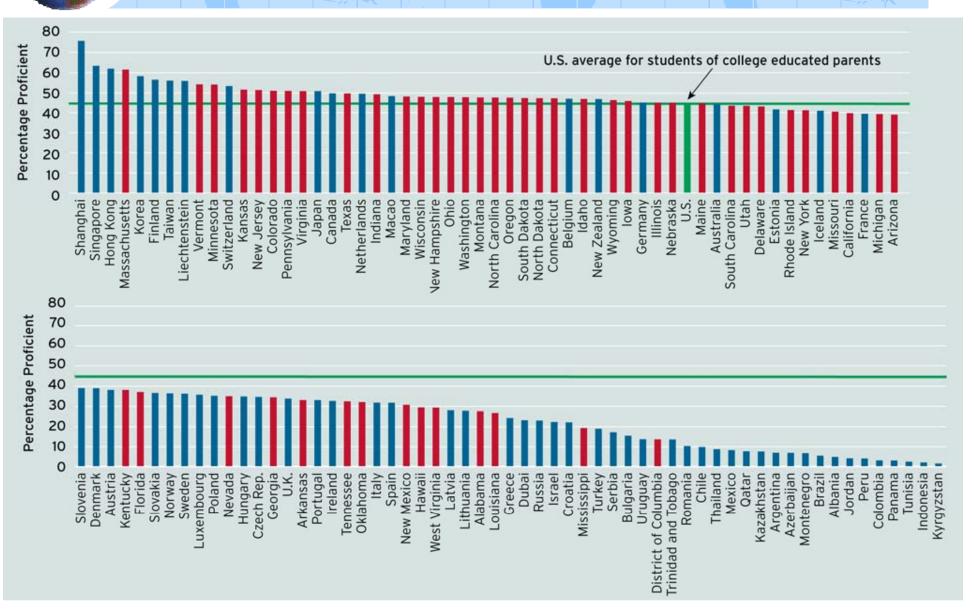


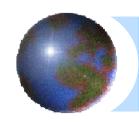
#### **Observations**

- Not U.S. having especially difficult to educate
- White students
  - 42% proficient; 17<sup>th</sup> in comparison to *all* in other countries
- College educated parents



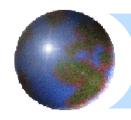
## Students in US with College Educated Parent vs All Internationally



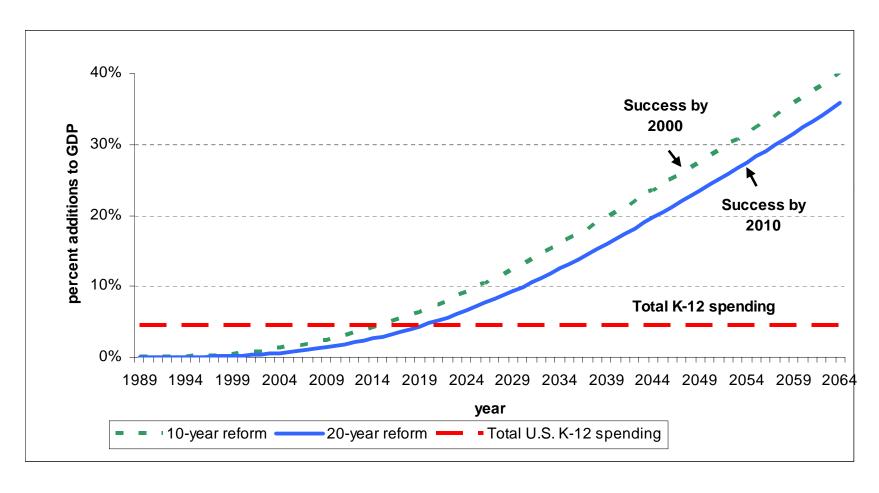


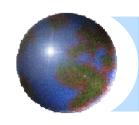
#### **Observations**

- Not U.S. having especially difficult to educate
- White students
  - 42% proficient; 17<sup>th</sup> in comparison to *all* in other countries
- College educated parents
  - 44% proficient; 16<sup>th</sup> in comparison to *all* in other countries



## "First in the World by 2000"





#### Conclusions

- U.S. scores on international assessments portend bleak future
  - Not a few bad states
  - Not a difficult to educate population
- Very different futures for United States
- Current recession costs dwarfed by schooling crisis
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