Things I’d Like You to Know: Excellence Gaps, Policy, and the Lives of Exceptional Students

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A little background
What are the world’s 10 largest countries?

• China
• India
• U.S.A.
• Indonesia
• Brazil

• Pakistan
• Nigeria
• Bangladesh
• Russia
• Japan

Which country is growing the fastest?
Quick Quiz!

- What percent of Internet traffic crosses international borders?
  - About 15%
Quick Quiz!

- How many people worked as smartphone designers in 2007?
  - Practically none, and they were all locked in Steve Jobs’ basement.
Quick Quiz!

- What percentage of engineering majors work in engineering?
  - Roughly 50%, of which 30% report not being able to find an engineering job.
Quick Quiz!

- What percent of 85 year-olds live in nursing homes and similar facilities?
  - 11% as of 2014, down from 24% in 1990.
Quick Quiz!

• What percent of world GDP crosses borders in the form of goods, services, and finance?
  • 36% in 2012, down from 52% in 2007. Business moving to local supply chains.
    • McKinsey Global Institute
Quick Quiz!

- How many households are multigenerational?
  - 1940s-1950s: 30+ million
  - 1970s: ~25 million
  - 2012: 57 million
How to use and communicate information
• Increasing globalization
  • ... although not close to it yet
• Increasing levels and sophistication of technology
  • ... for good and evil
• Return to bipolar geopolitics
• Developing countries nearing end of that process
• More economic equality among countries, less within countries
• Immigration/migration patterns are changing
• Absolutely no idea about jobs of the future
The 21st Century ...

- ... is clearly proving to be a brave new world where skills and talents that previously helped us achieve success need to be rethought.

- Part of that is rethinking where those talents and skills come from.
A little data
Percent of Advanced Scores (625+) on TIMSS Math Assessments

Grade 4

- Chinese Taipei
- England
- Hong Kong
- Japan
- Korea, Rep. of
- Russian Federation
- United States

Grade 8

- Chinese Taipei
- England
- Hong Kong
- Japan
- Korea, Rep. of
- Russian Federation
- United States

Taiwan: 49%
S. Korea: 47%

U.S.
Percent of Students Scoring Advanced on NAEP Grade 8 Math
Percent of Students Scoring Advanced NAEP Grade 4 Reading

NAEP Percent Advanced
0–2%
3–5%
6–9%
10–12%
13+%
Percent of Students Scoring Advanced NAEP Grade 8 Reading

NAEP Percent Advanced
0–2%
3–5%
6–9%
10–12%
13+%
So when people say, “These kids will take care of themselves” ... ... well, they aren’t.
I. Excellence Gaps
Minimum competency doesn’t equal advanced achievement.
Internationally, this also appears to be the case.
Talent on the Sidelines
Results

http://cepa.uconn.edu/mindthegap
NAEP % Advanced Math Grade 4

Percent Scoring Advanced

- Black
- Hispanic
- White
- Asian

Year:
- 1996
- 2000
- 2003
- 2005
- 2007
- 2009
- 2011
- 2013

Values:
- 1996: 0%
- 2000: 2.9%
- 2003: 4.8%
- 2005: 10%
- 2007: 22%
- 2011: 3%
- 2013: 1%
But why not other subjects?

... because math and reading look better.
Grade 8 NAEP Science

2011 (most recent)

Rounds to zero

Percent Advanced

0 5 10 15 20 25

Full price  Reduced/free  White  Black  Hispanic
So when people say, “These kids will take care of themselves” ...

... well, they aren’t.
Big Implication

- We can predict with high accuracy that a talented student who is poor and/or Hispanic, Black, or Native American will not perform at advanced levels in K-12 education.

- Hence “persistent talent underclass.”
What If We ...

... shrunk the low-income excellence gap in math from 13% to 6% in Grade 4?

EACH YEAR we would have 80,000 more students exhibiting academic excellence.

EACH. YEAR. 80,000. MORE.
Two questions for policymakers:
- How will the proposed policy impact our highest achieving students?
- How will the proposed policy help more students achieve at the highest levels?

Publish advanced test scores and excellence gaps whenever results are released.
Recommendations

- Indicators for excellence and excellence gaps must be included in state accountability systems
  - 21st century skills need to be incorporated into these systems
  - These are the skills other countries envy

- Aggressively address low-hanging policy issues
  - Anti-acceleration policies, rigid kindergarten age cut-offs, NYC norming
From forthcoming book with Scott Peters:

- Shrinking Excellence Gaps
- Realistic opportunities
- Universal testing and local norms
- Ability grouping
- Improve K-12 accountability systems with adaptive testing
- Better educator prep and support
- Psychosocial interventions in college
II. State Policy Report

Funded by the Jack Kent Cooke Foundation
The Jack Kent Cooke Foundation Study

Purpose
To help state policymakers understand extent to which their policies encourage/discourage academic excellence.

- To help them understand that all of their policies DO encourage or discourage excellence.

- To put policymaker-friendly data in the hands of advocates.
The Jack Kent Cooke Foundation Study

What we did
• Worked with expert advisory board to identify comprehensive set of state-level indicators of academic excellence
  • Researchers, current and former SEA staff, advocates, policy specialists

• Identified three sets of indicators:
  • Inputs (policies)
  • Participation
  • Outcomes
Inputs / State Emphases

- Identification of advanced learners
- Allocation of resources to support advanced learners
- Policies to support advanced learners
- Tracking the progress of advanced learners

Student Participation

- Opportunity, in and out of classrooms, for advanced learning
- Equity of opportunity between economically vulnerable and other students
- Acceleration and early graduation rates

Student Outcomes

- Percent of students reaching advanced levels
- Excellence gaps in percentage of economically vulnerable and other students reaching advanced levels, accelerating, or graduating early
• Gathered data from existing sources
• Compared multiple data sets when possible
• Called handful of states to verify data
• Called SEAs to fill in missing data
• Two pieces of missing input data out of 459 data points
  • Missing data rate = AWESOMENESS!
The Jack Kent Cooke Foundation Study

What We Found
• No state is hitting it out of the park regarding inputs or outcomes.
• Some states do much more than others with policy, but most are in the middle.
• Several states do well with aggregated outcomes …
• … but no state does well with excellence gaps.
• Preliminary analyses suggests states with strong SEA leadership and good university resources have stronger policy environments for excellence.
A Few Highlights

**Does SEA Audit, Monitor, or Report on LEA Gifted and Talented Programs?**
- No, 23
- Yes, 28

**Does State Policy Permit Acceleration?**
- Not permitted, 1
- Permitted, 9
- No policy, 21
- LEA permitted, 19
Does State Require Gifted Coursework in Teacher/Administrator training?

- Yes, 4
- No, 46
- Unknown, 1
Outputs

**NAEP Grade 8 Math, Percent Scoring Advanced**

- 3-5%, 9
- 6-7%, 14
- 8-9%, 12
- 10% +, 16

**NAEP Grade 8 Math Excellence Gaps**

- 0-10%, 3
- 11-20%, 22
- 21-30%, 18
- 31-40%, 7
- 41-50%, 1
Kentucky

- **Strengths**
  - SEA monitoring and reporting
  - Mandate
  - Required teacher and administrator prep

- **Non-strengths**
  - Mediocre levels of overall excellence
  - Very large excellence gaps
Some observations
Different indicators may give different results.
Missing indicators may give different results.
We were easy graders.
Tried to emphasize this is about state policy, not failings of students, educators, etc.
Policymakers probably don’t realize these policies impact talent development.
This is a long-term project.
  • Putting data into forms that work for policymakers
  • New indicators
  • Surveying states directly
THANK YOU!

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