E A. Ha
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Harvard's Program on Education Policy and Governance & Education Next

Taubman Center for State and Local Government

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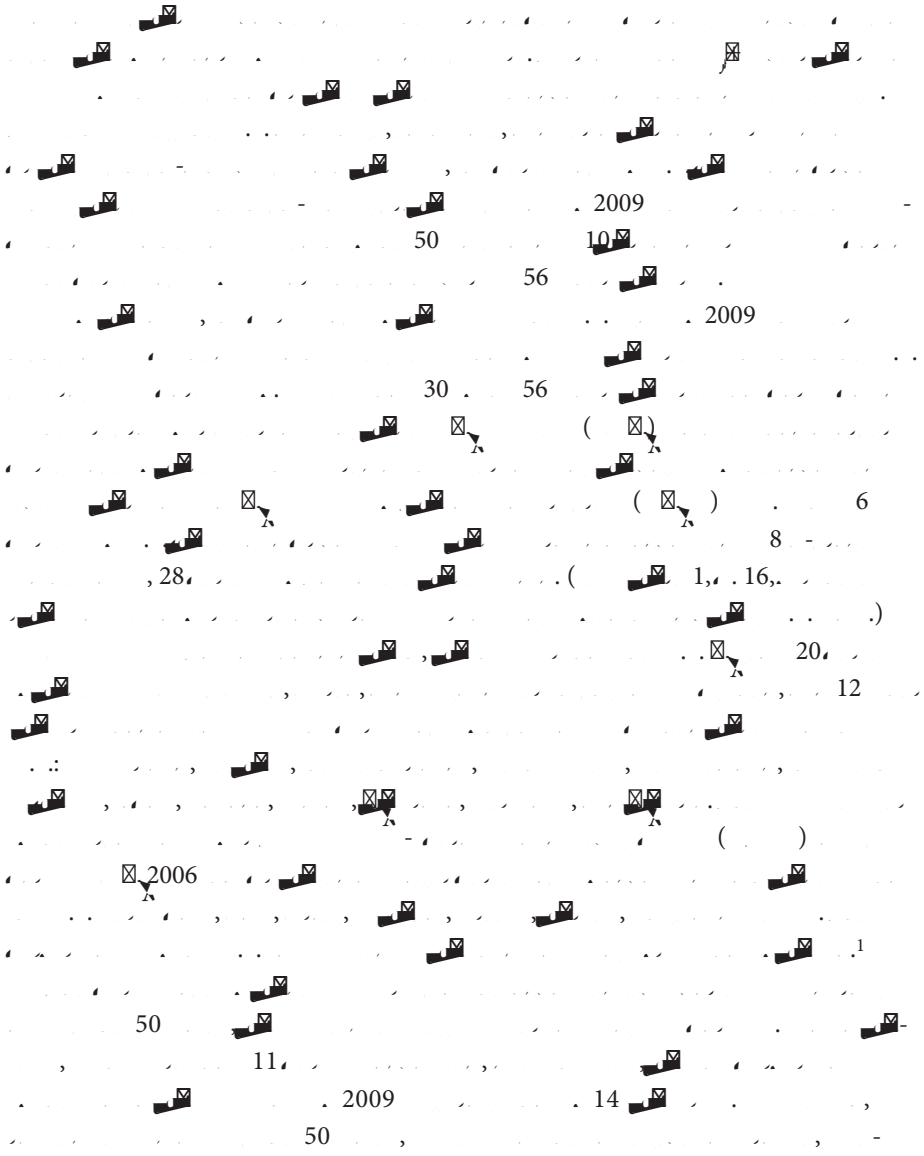
Figure 1

Executive Summary



8 2009

24 (7.7)

"Unless the schools of the U.S. find the tools to bring students up to the highest level of accomplishment, it places the nation at risk in the international economy of the 21st Century."

—Bill Gates

A Focus on Math

9. , 1, 2010 :// / / /
10. . 21 (2005).
11. (2009).
12. (1992); , , (1995).
13. (2007), . 302.
14. (2007), . 302.

[15]

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Data and Methodology

( ) ( ).[16] ,–

1970 . 4 8 ,

2001, 50

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2000, 2003, 2006 . 15- -

[17]

. 2009

( ),
. 26 .
. 2005, . 8 -

617.1

617.1

(.)

8

15, 9

2009 2005

2006.[21] 2009

8 9

.[22]

2005

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2009

10

2009 2005 2006

United States Advanced Math Performance in World Perspective

( ).

No less than 30 of the 56 other countries that participated in the PISA math test had a larger percentage of students who scored at the international equivalent of the advanced level.

21. 2005

2006,

21

22. 2007

(2007),

8

49

((2008)).

2007

( )

Overall Results

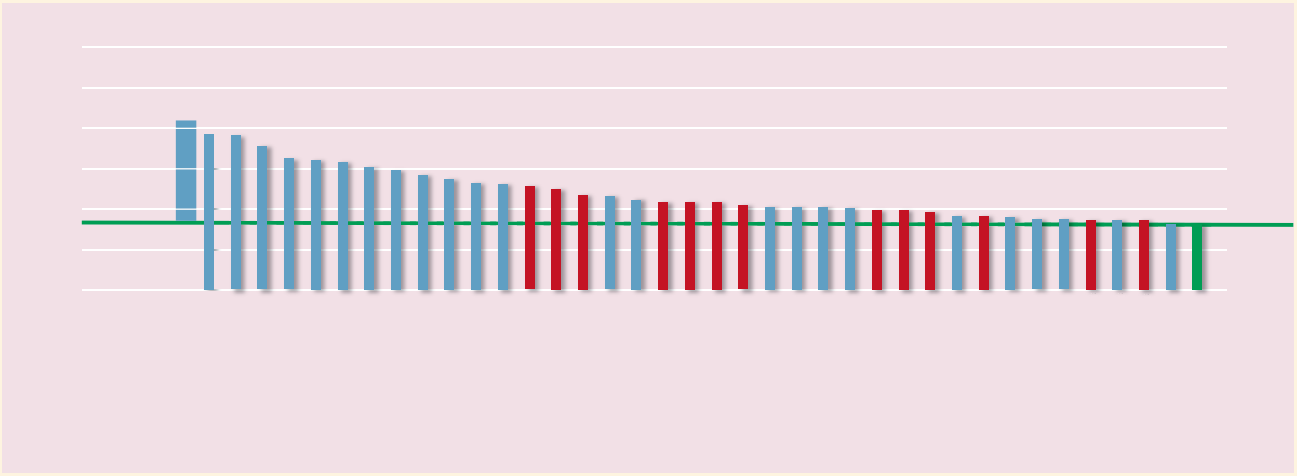
2009

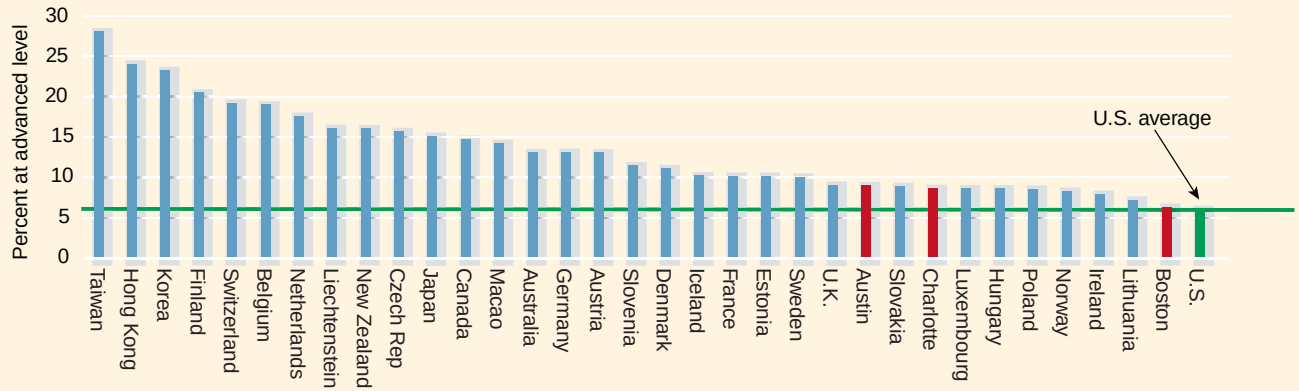
30 56

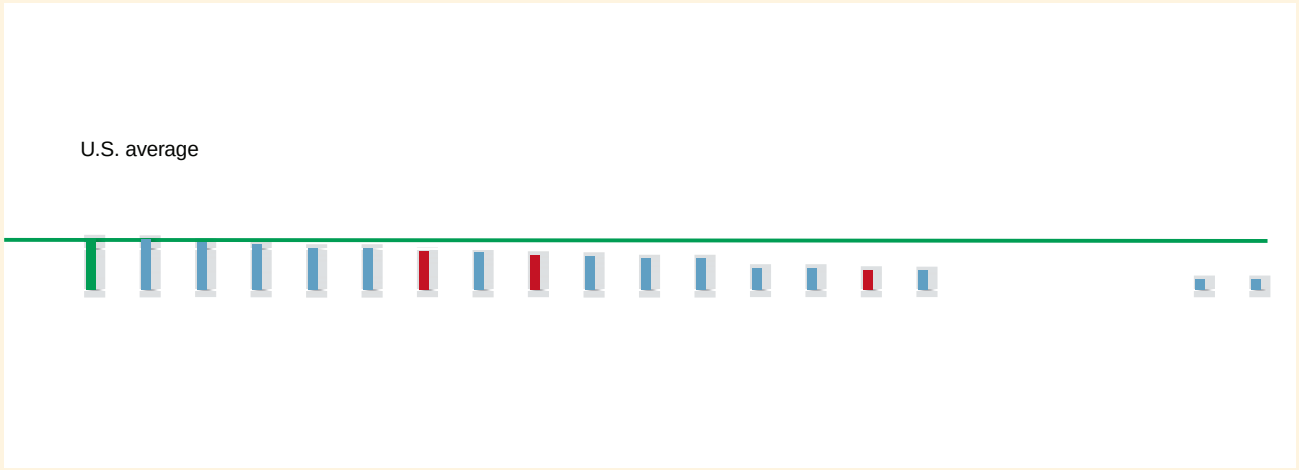
6

617.1 2006 , 28

(1, 16,




Percent at advanced level
30
25
20
15
10
5
0
U.S. average
Taiwan
Hong Kong
Korea
Finland
Switzerland
Belgium
Netherlands
Liechtenstein
New Zealand
Czech Rep
Japan
Canada
Macao
Australia
Germany
Austria
Slovenia
Denmark
Iceland
France
Estonia
Sweden
U.K.
Austin
Slovakia
Charlotte
Luxembourg
Hungary
Poland
Norway
Ireland
Lithuania
Boston
U.S.

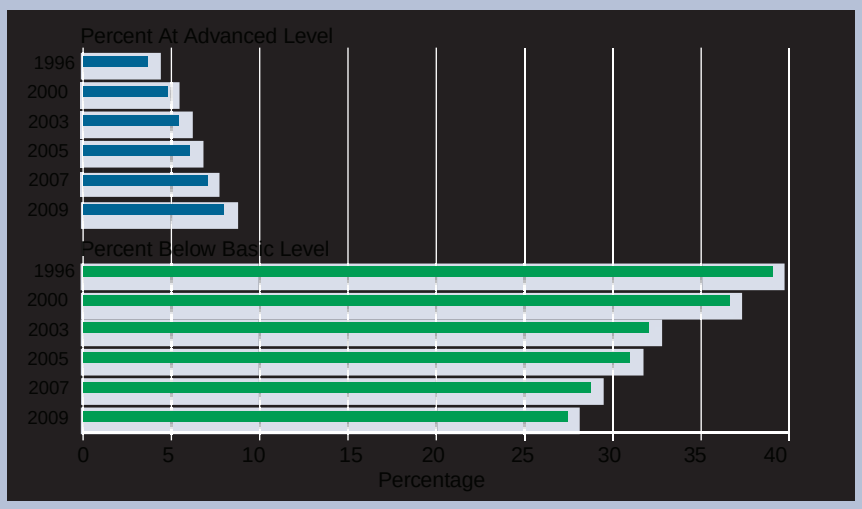

U.S. average

Did *No Child Left Behind* Shift the Focus Away from the Best and the Brightest?

2002. ( ),[25]

2002. 5, 3.7 1996 4.7 2000 7.9 2009. 2003, 5.4 7.9 2009.[26]

Percentage of 8th grade students at the advanced level and below basic level in mathematics on National Assessment of Educational Progress, 1996 to 2009. **(Figure 5)**



The incapacity of American schools to bring students up to the highest level of accomplishment in mathematics is much more deep-seated than anything induced by recent federal legislation

25. (2008).
26. ; (2010), . 109.

6.8 2000 2009, 34.2 27.4
(5, .21) 20 , 69
21 .
2002
10
8 1990 2003 ( )
1990 2003, 90
307 321, . 14 , . 1.0
2003 2009, 90 8
, . 1.3 .[27]

(2009),
, .
– , .[28]
, . .

27. (, 2008).
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2009.
28. (2009).
29. (2007, 2009).
(2010).

The Optimistic View from Prior Studies

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2003, , 2007. ’

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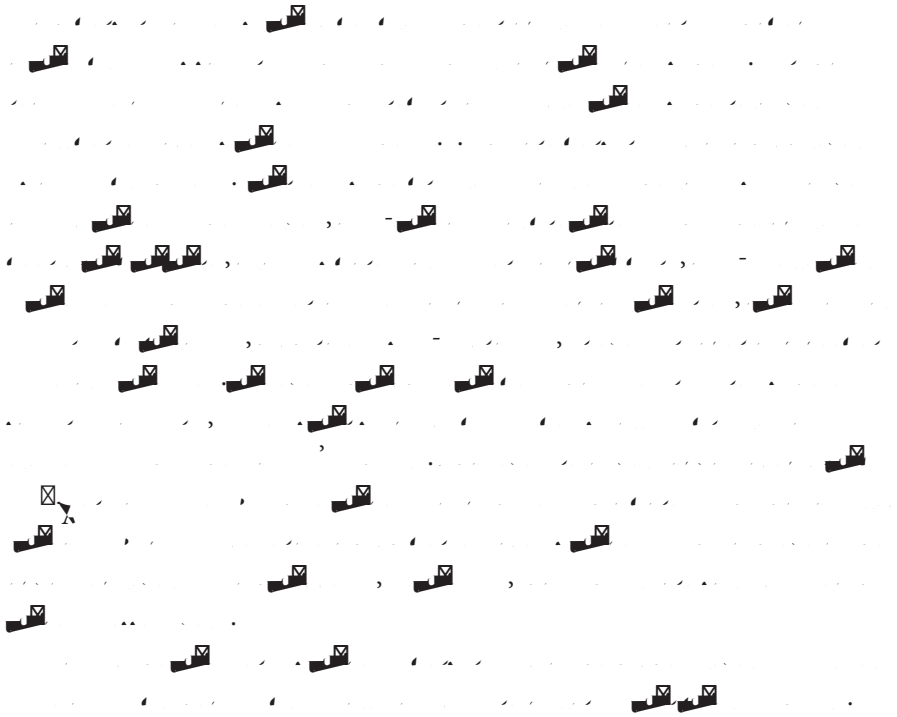
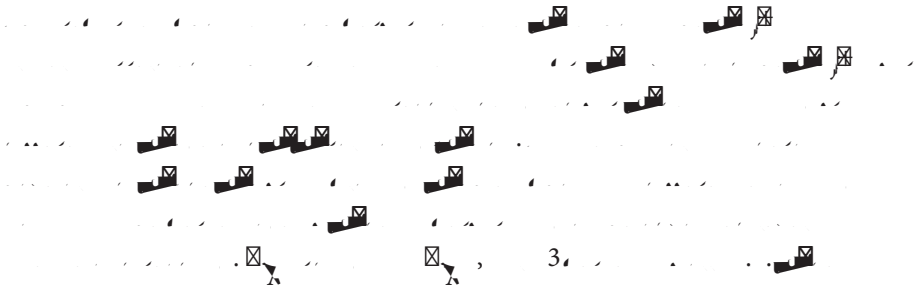
)10( )10( ) 70( )10 , , 200, 209 :

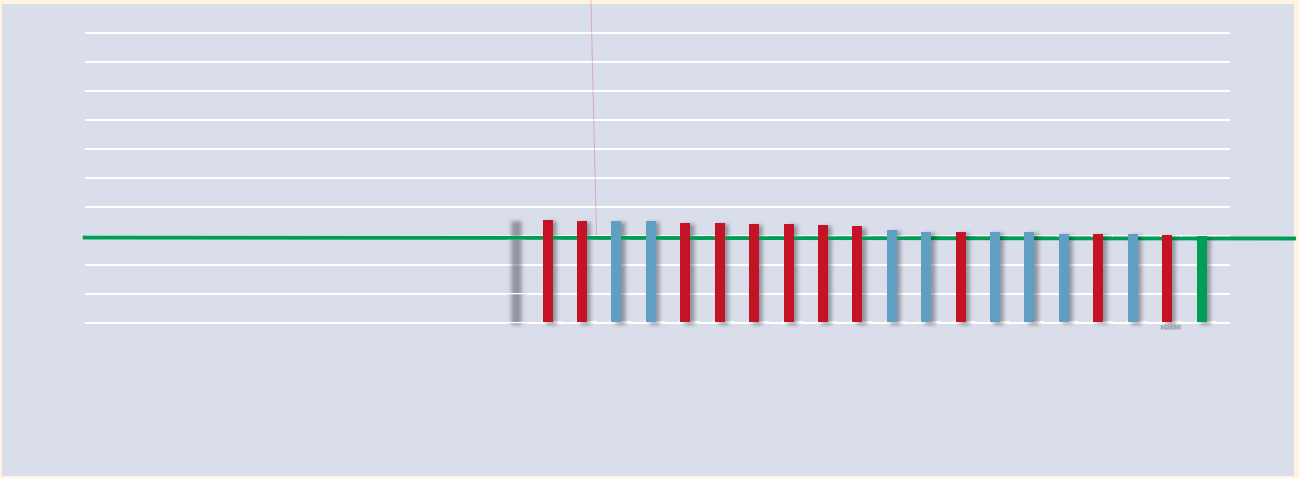
Discussion and Conclusions



APPENDIX A

U.S. Science and Reading Performance in Comparative Perspective





A • a	0.8%	(0.3)	0.1%	**(0.1)**	0.2% (0.1)
A a a	13.6	(0.9)	5.6	(0.5)	3.1 (0.4)
A a	13.0	(1.1)	3.0		

2005

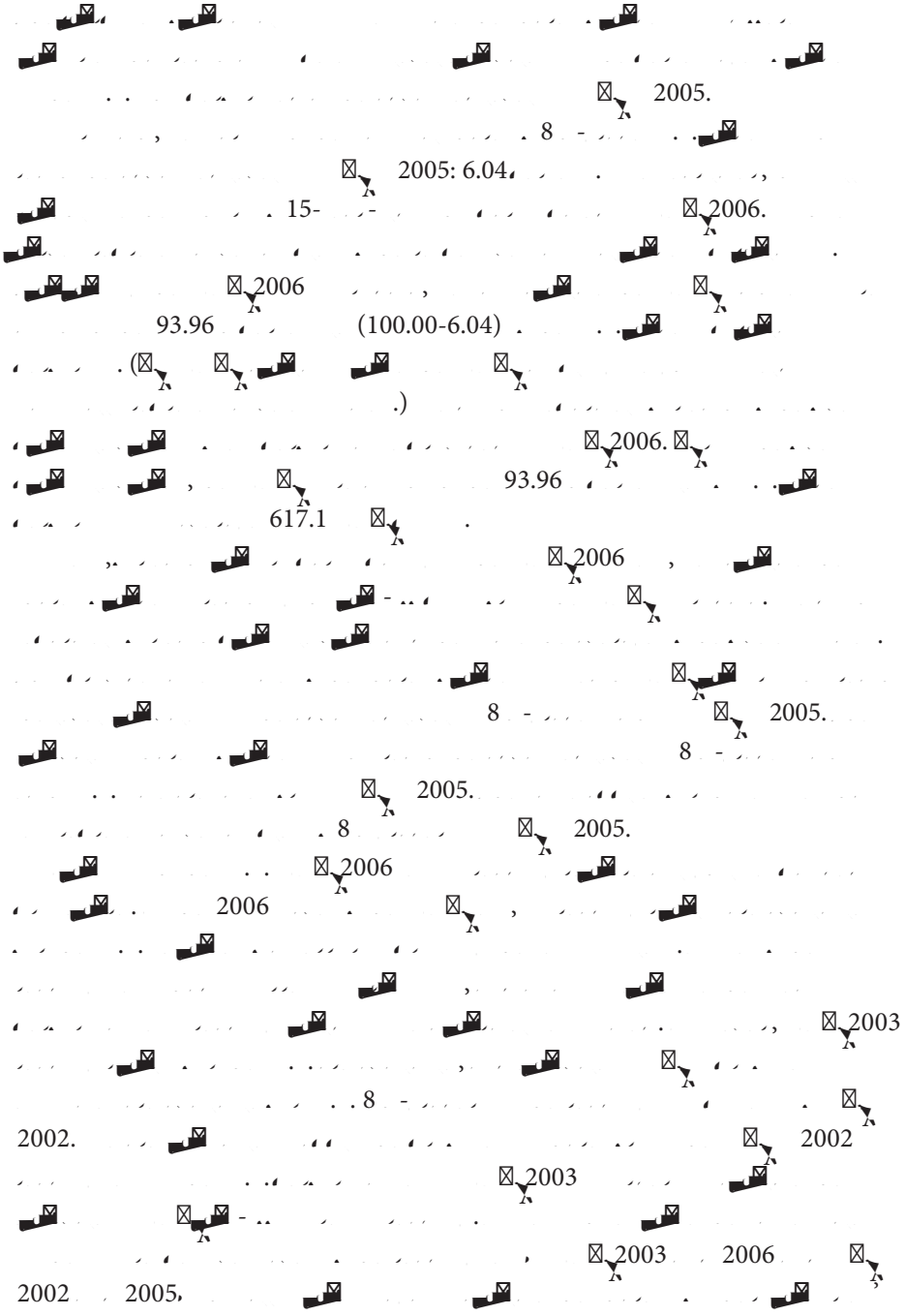
Percent advanced in...

State	All students	White students	Students of a parent with College Education	All students	All students
Alabama	2.3% (0.6)	3.6% (1.0)	4.6% (1.4)	1.4% (0.4)	1.8% (0.6)
Aa a	5.8				

All numbers are in percentage points. Standard errors in parentheses.

APPENDIX B

Methodology for Comparing U.S. States to International Performance



Taiwan	549		
Finland	548	›	›
Korea	547		
Hong Kong	547		
Netherlands	531		›
Switzerland	530	›	›
Canada	527	›	›
Macao	525	›	›
Liechtenstein	525	›	›
Japan	523		
New Zealand	522		›
Australia	520		
Belgium	520		›
Estonia	515		

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Biographical Sketches

Eric A. Hanushek