

TIMSS and NAEP 2007 Data Exhibits

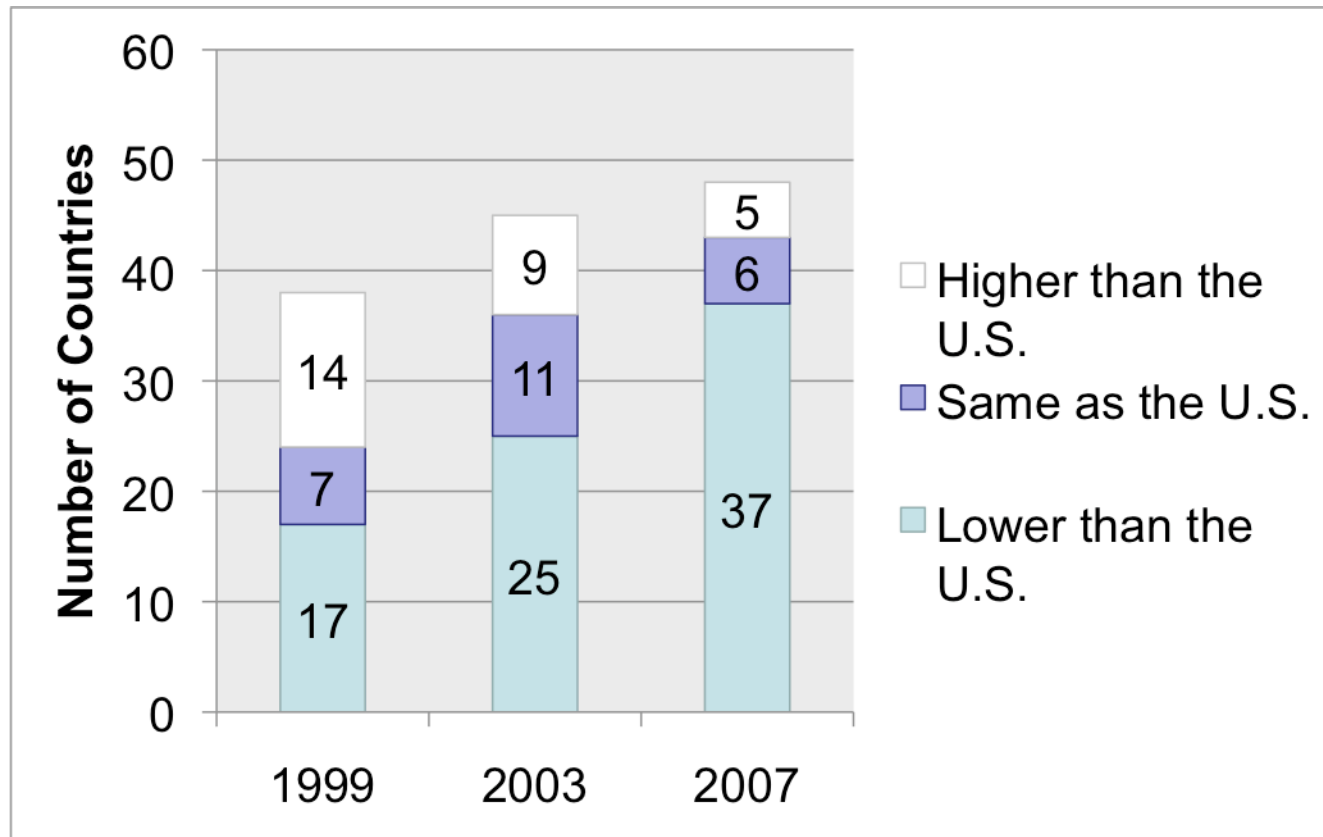
Summarizing Principal
Achievement Results

2009 Langenberg Lecture
Perspectives on Education and
USM STEM Symposium



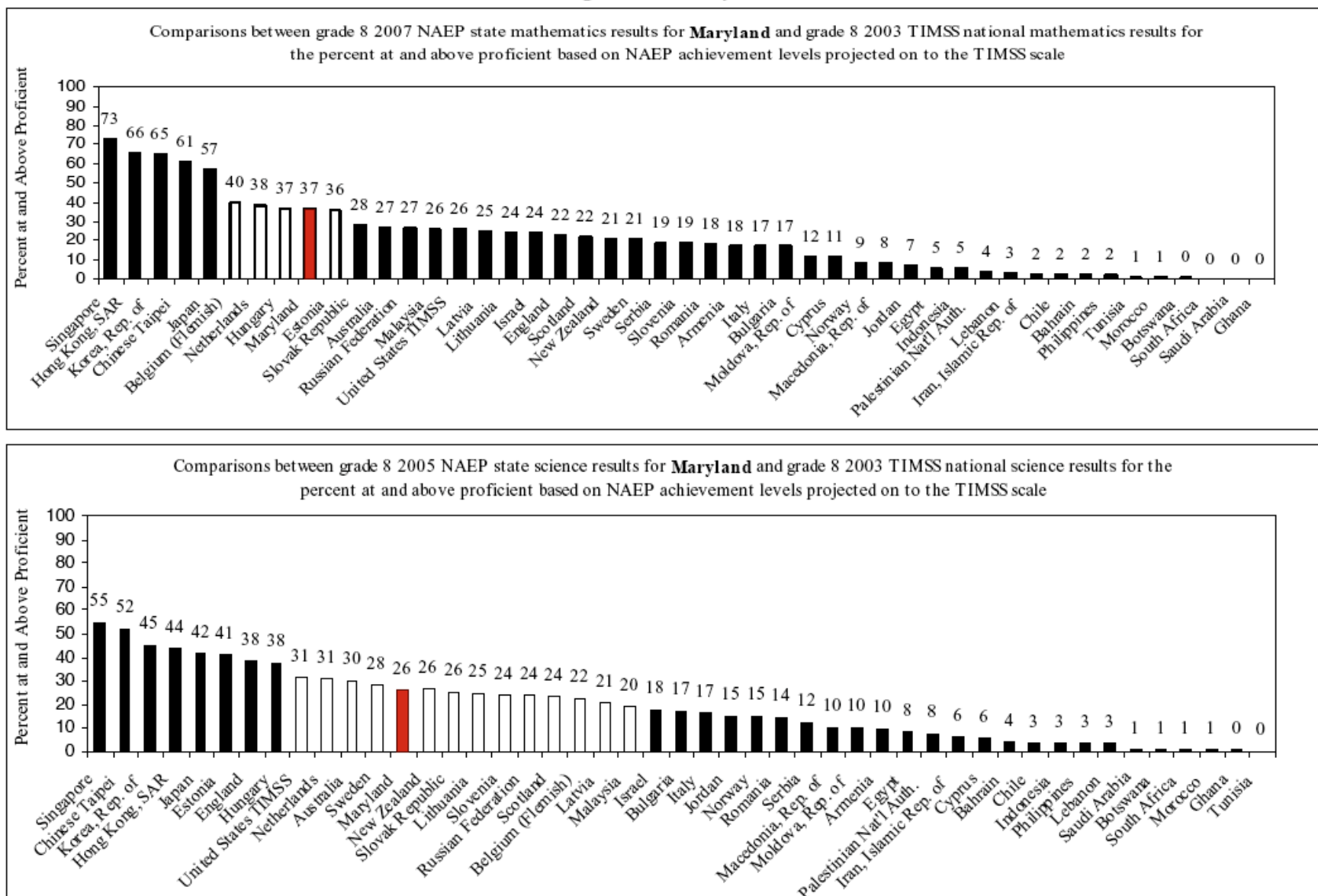
The Charles A. Dana Center
at the University of Texas at Austin

Other Countries' Average Scale Score Math Performance on 8th Grade TIMSS Compared with the U.S.



Source: Data taken from the Trends in International Mathematics and Science Study (TIMSS), accessed Dec. 16, 2008 at <http://nces.ed.gov/timss/index.asp>. Computations of categories by the Charles A. Dana Center.

Figure 22: Maryland



Source: Phillips, Gary W., *Chance Favors the Prepared Mind: Mathematics and Science Indicators For Comparing States and Nations*, AIR: Wash., DC, 2007.

Mathematics Achievement at the 4th Grade

Country Average Scale Score

Hong Kong SAR.....	607	Georgia	438
Singapore	599	Iran, Islamic Rep. of	402
Chinese Taipei	576	Algeria	378
Massachusetts, US	572	Colombia	355
Japan	568	Morocco	341
Minnesota, US	554	El Salvador	330
Kazakhstan	549	Tunisia	327
Russian Federation	544	Kuwait	316
England	541	Qatar	296
Latvia	537	Yemen	224
Netherlands	535		
Lithuania	530		
United States	529		
Germany	525		
Denmark	523		
Quebec, CAN	519		
Australia	516		
Ontario, CAN	512		
Hungary	510		
Italy	507		
Alberta, CAN	505		
Austria	505		
British Columbia, CAN ..	505		
Sweden	503		
Slovenia	502		
TIMSS Scale Average ..	500		
Armenia	500		
Slovak Republic	496		
Scotland	494		
New Zealand	492		
Czech Republic	486		
Norway	473		
Ukraine	469		
Dubai, UAE	444		

SOURCE: IEA's *Trends in International Mathematics and Science Study (TIMSS) 2007*, conducted by Boston College. Copyright © 2007 International Association for the Evaluation of Educational Achievement (IEA). All rights reserved.

Science Achievement at the 4th Grade

Country Average Scale Score

Singapore	587	Iran, Islamic Rep. of	436
Massachusetts, US	571	Georgia	418
Chinese Taipei	557	Colombia	400
Hong Kong SAR	554	El Salvador	390
Minnesota, US	551	Algeria	354
Japan	548	Kuwait	348
Russian Federation	546	Tunisia	318
Alberta, CAN	543	Morocco	297
Latvia	542	Qatar	294
England	542	Yemen	197
United States	539		
British Columbia, CAN	537		
Ontario, CAN	536		
Hungary	536		
Italy	535		
Kazakhstan.....	533		
Germany	528		
Australia	527		
Slovak Republic	526		
Austria	526		
Sweden	525		
Netherlands	523		
Slovenia	518		
Quebec, CAN	517		
Denmark	517		
Czech Republic	515		
Lithuania	514		
New Zealand	504		
Scotland	500		
TIMSS Scale Average	500		
Armenia	484		
Norway	477		
Ukraine	474		
Dubai, UAE	460		

SOURCE: IEA's *Trends in International Mathematics and Science Study (TIMSS) 2007*, conducted by Boston College. Copyright © 2007 International Association for the Evaluation of Educational Achievement (IEA). All rights reserved.

Mathematics Achievement at the 8th Grade

Country Average Scale Score

Chinese Taipei	598	Bosnia Herzegovina	456
Korea, Rep. of	597	Lebanon	449
Singapore	593	Thailand	441
Hong Kong SAR	572	Turkey	432
Japan	570	Jordan	427
Massachusetts, US	547	Tunisia	420
Minnesota, US	532	Georgia	410
Quebec, CAN	528	Iran, Islamic Rep. of	403
Hungary	517	Bahrain	398
Ontario, CAN	517	Indonesia	397
England	513	Syrian Arab Republic ..	395
Russian Federation	512	Egypt	391
British Columbia, CAN ..	509	Algeria	387
United States	508	Colombia	380
Lithuania	506	Oman	372
Czech Republic	504	Palestinian Nat'l Auth. .	367
Slovenia	501	Botswana	364
TIMSS Scale Average ..	500	Kuwait	354
Armenia	499	El Salvador	340
Basque Country, Spain ..	499	Saudi Arabia	329
Australia	496	Ghana	309
Sweden	491	Qatar	307
Malta	488	Morocco	381
Scotland	487		
Serbia	486		
Italy	480		
Malaysia	474		
Norway	469		
Cyprus	465		
Bulgaria	464		
Israel	463		
Ukraine	462		
Dubai, UAE	461		
Romania	461		

SOURCE: IEA's *Trends in International Mathematics and Science Study (TIMSS) 2007*, conducted by Boston College. Copyright © 2007 International Association for the Evaluation of Educational Achievement (IEA). All rights reserved.

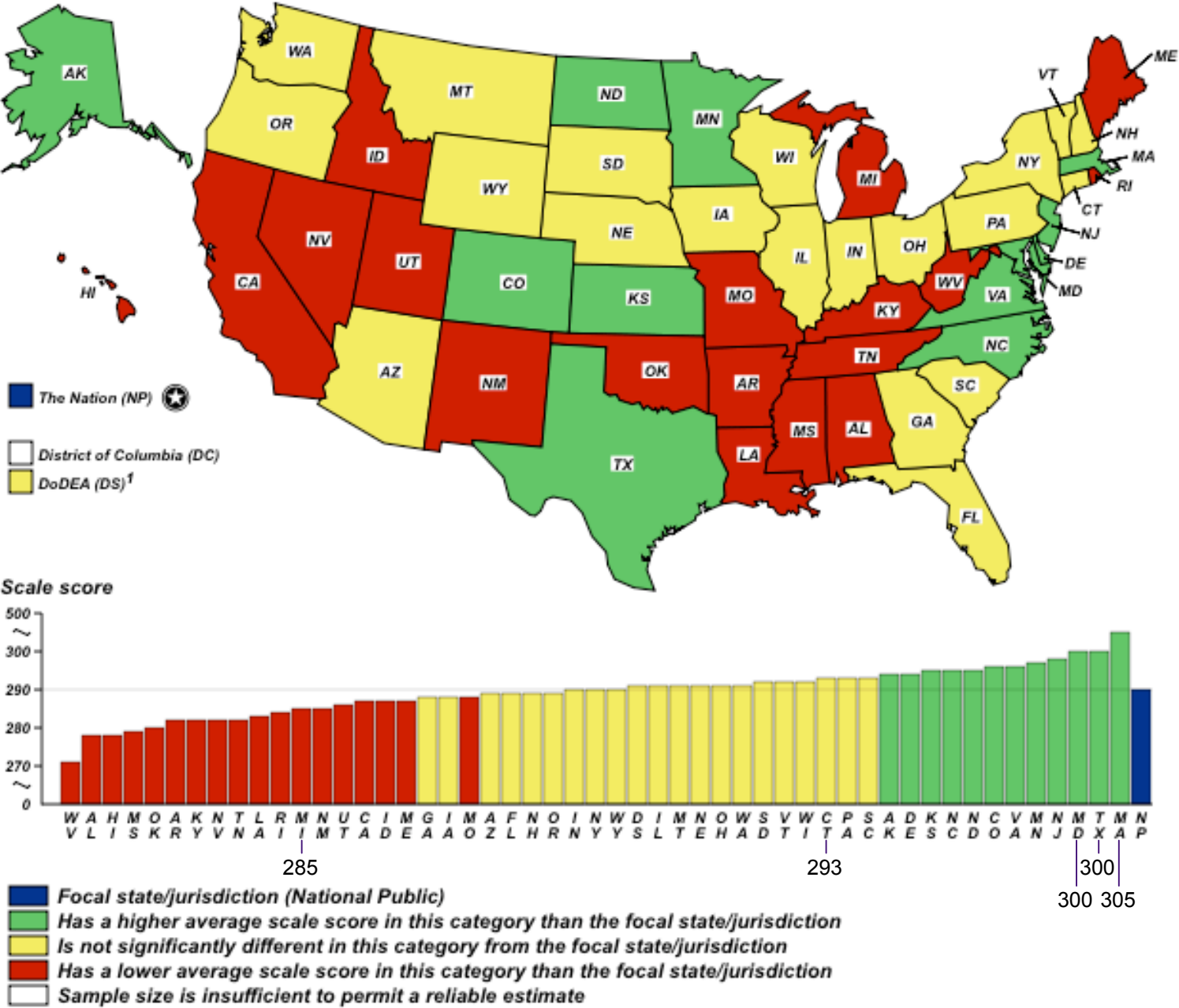
Science Achievement at the 8th Grade

Country Average Scale Score

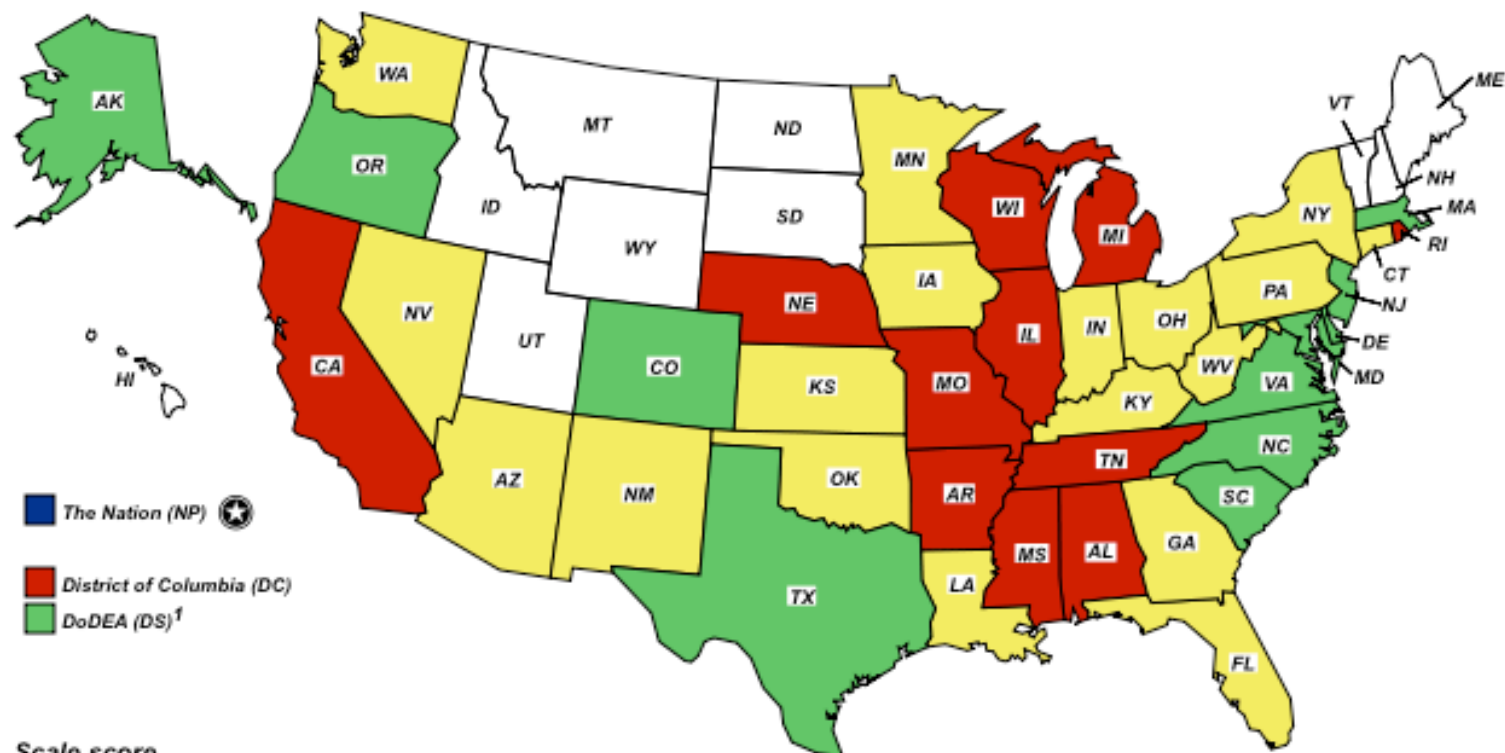
Singapore	567	Bosnia Herzegovina	466
Chinese Taipei	561	Romania	462
Massachusetts, US	556	Iran, Islamic Rep. of	459
Japan	554	Malta	457
Korea, Rep. of	553	Turkey	454
England	542	Syrian Arab Republic ...	452
Hungary	539	Cyprus	452
Czech Republic	539	Tunisia	445
Minnesota, US	539	Indonesia	427
Slovenia	538	Oman	423
Hong Kong SAR	530	Georgia	421
Russian Federation	530	Kuwait	418
British Columbia, CAN ..	526	Colombia	417
Ontario, CAN	526	Lebanon	414
United States	520	Egypt	408
Lithuania	519	Algeria	408
Australia	515	Palestinian Nat'l Auth. .	404
Sweden	511	Saudi Arabia	403
Quebec, CAN	507	El Salvador	387
TIMSS Scale Average ...	500	Botswana	355
Basque Country, Spain	498	Qatar	319
Scotland	496	Ghana	303
Italy	495	Morocco	402
Dubai, UAE	489		
Armenia	488		
Norway	487		
Ukraine	485		
Jordan	482		
Malaysia	471		
Thailand	471		
Serbia	470		
Bulgaria	470		
Israel	468		
Bahrain	467		

SOURCE: IEA's *Trends in International Mathematics and Science Study (TIMSS) 2007*, conducted by Boston College. Copyright © 2007 International Association for the Evaluation of Educational Achievement (IEA). All rights reserved.

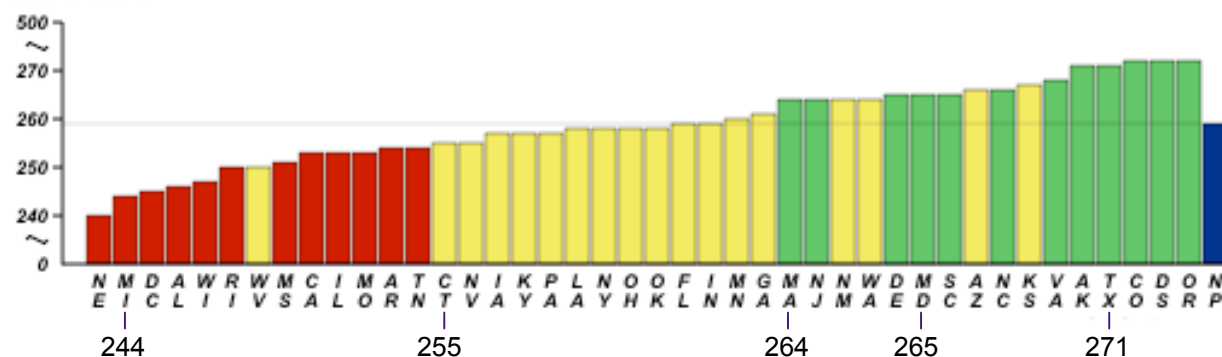
8th Grade White – 2007



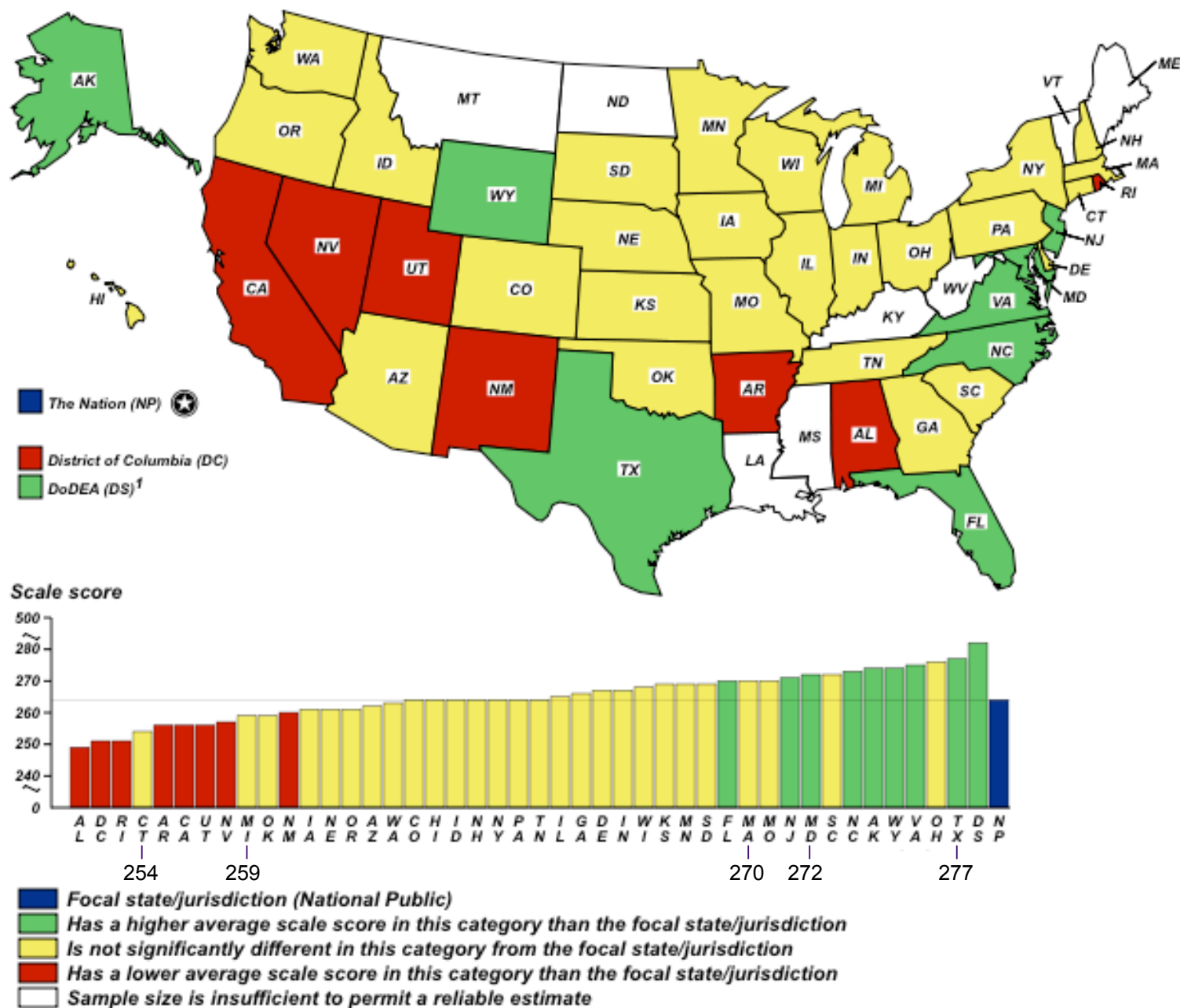
8th Grade Black – 2007



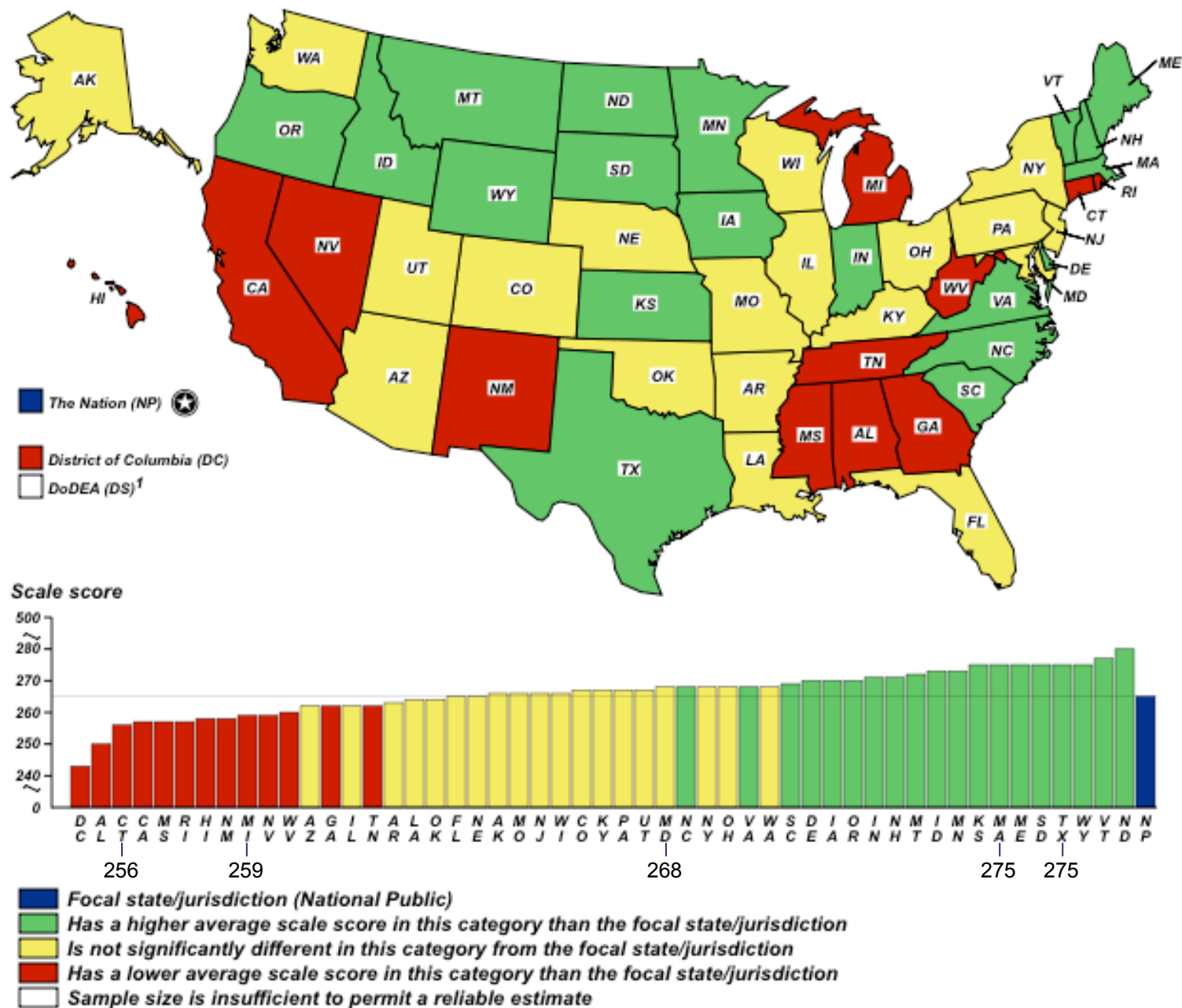
Scale score



8th Grade Hispanic – 2007



8th Grade Eligible for National School Lunch Program – 2007



2007 NAEP Trial Urban District Assessment Mathematics 4th Grade Average Scale Score

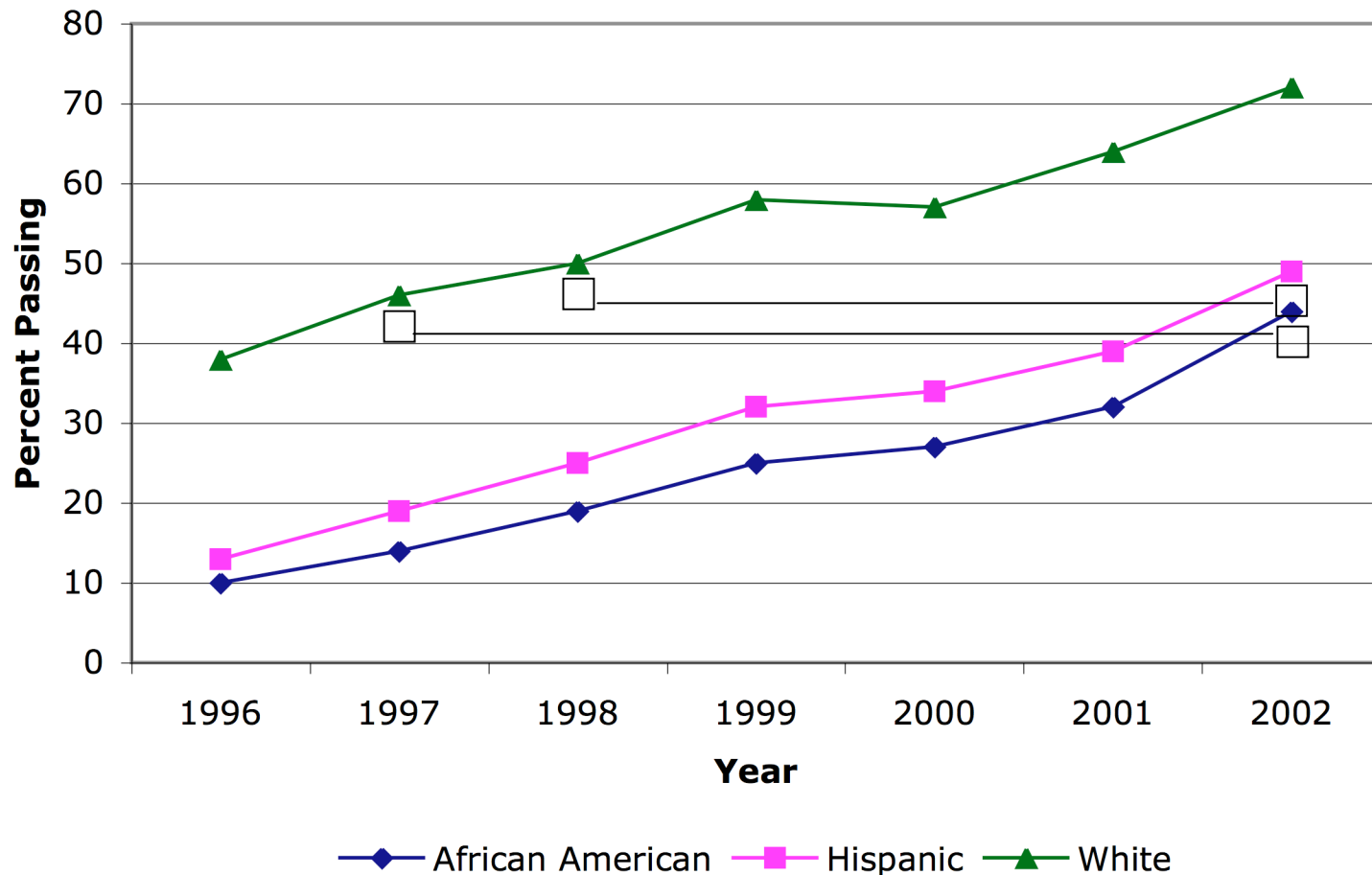
White		Black		Hispanic	
Atlanta	266	Charlotte	230	Houston	234
Austin	263	New York City	227	Charlotte	234
Houston	263	Boston	226	Austin	233
District of Columbia	262	Austin	226	Boston	230
Charlotte	261	Houston	225	New York City	230
San Diego	252	Nation	222	Nation	227
Boston	250	San Diego	222	San Diego	223
New York City	249	Atlanta	217	Atlanta	223
Nation	248	Los Angeles	216	District of Columbia	220
Los Angeles	247	Chicago	213	Chicago	219
Chicago	244	Cleveland	210	Los Angeles	217
Cleveland	233	District of Columbia	209	Cleveland	215

2005 NAEP Trial Urban District Assessment

Mathematics 8th Grade Average Scale Score

White		Black		Hispanic	
District of Columbia	317	Charlotte	264	Austin	267
Austin	305	Austin	262	Houston	265
Charlotte	304	Houston	257	Chicago	263
Boston	299	New York City	257	Charlotte	262
Houston	294	Boston	256	Boston	261
San Diego	292	Nation	254	Nation	261
Nation	288	San Diego	253	New York City	259
Large Central City	288	Large Central City	250	San Diego	258
New York City	286	Chicago	245	Large Central City	258
Chicago	281	Cleveland	244	District of Columbia	252
Los Angeles	280	Atlanta	242	Cleveland	251
Cleveland	265	District of Columbia	241	Los Angeles	245
Atlanta	‡	Los Angeles	239	Atlanta	‡

Statewide passing rates on the Texas Algebra I End-of-Course Exam for selected subpopulations: 1996–2002

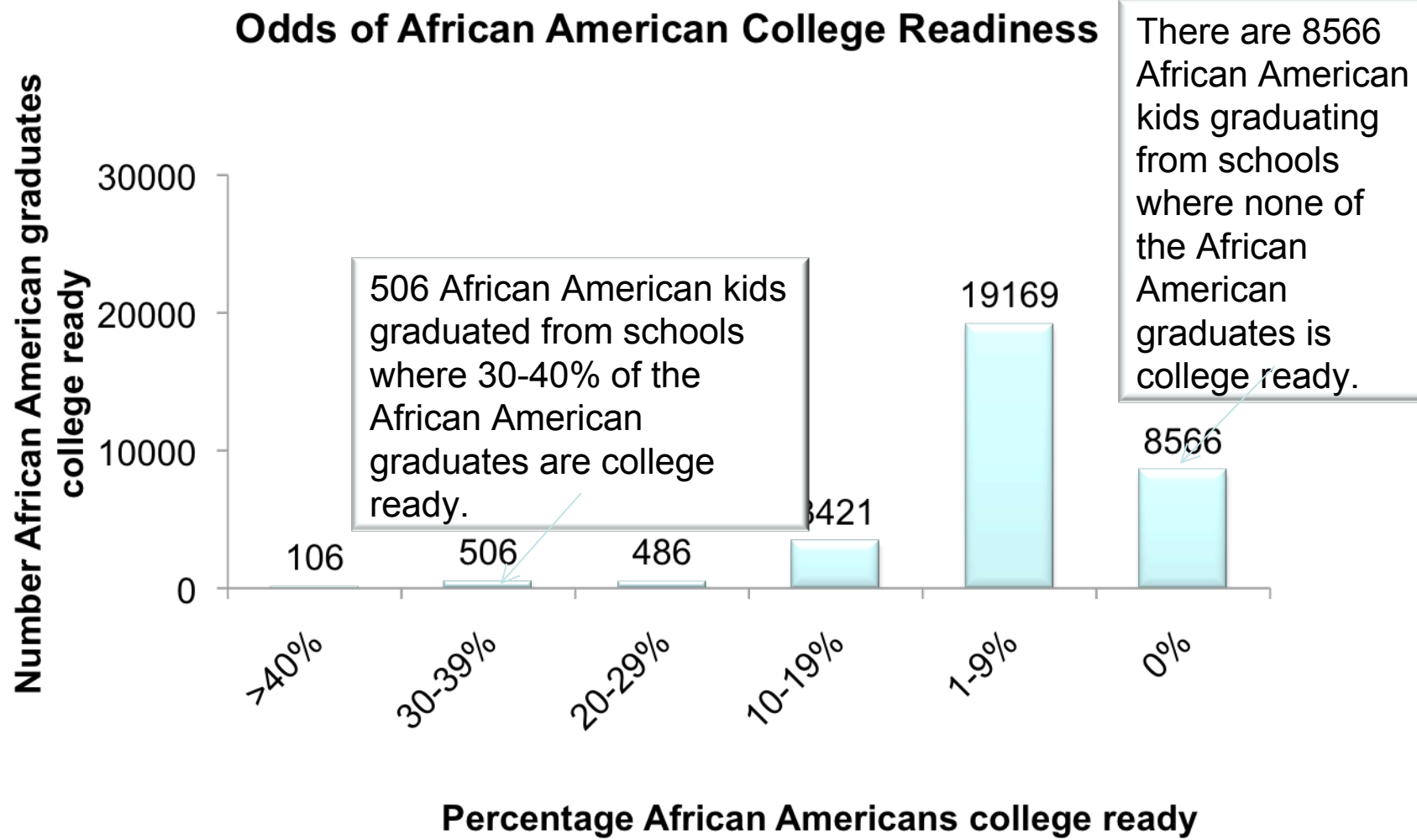


Source: Texas Education Agency,
www.tea.state.tx.us

Chart 7
Charles A. Dana Center
UT Austin

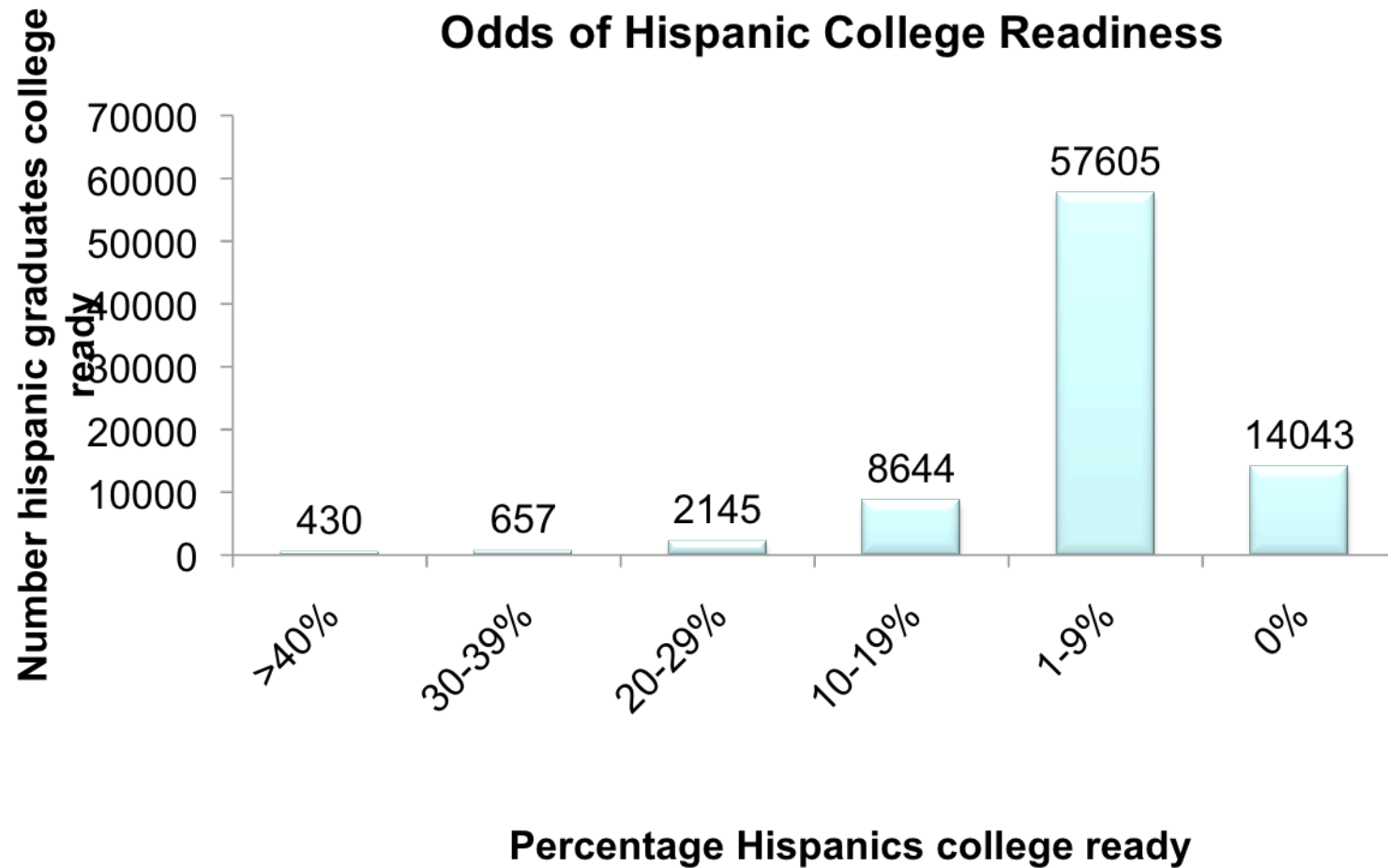


Opportunities for African Americans



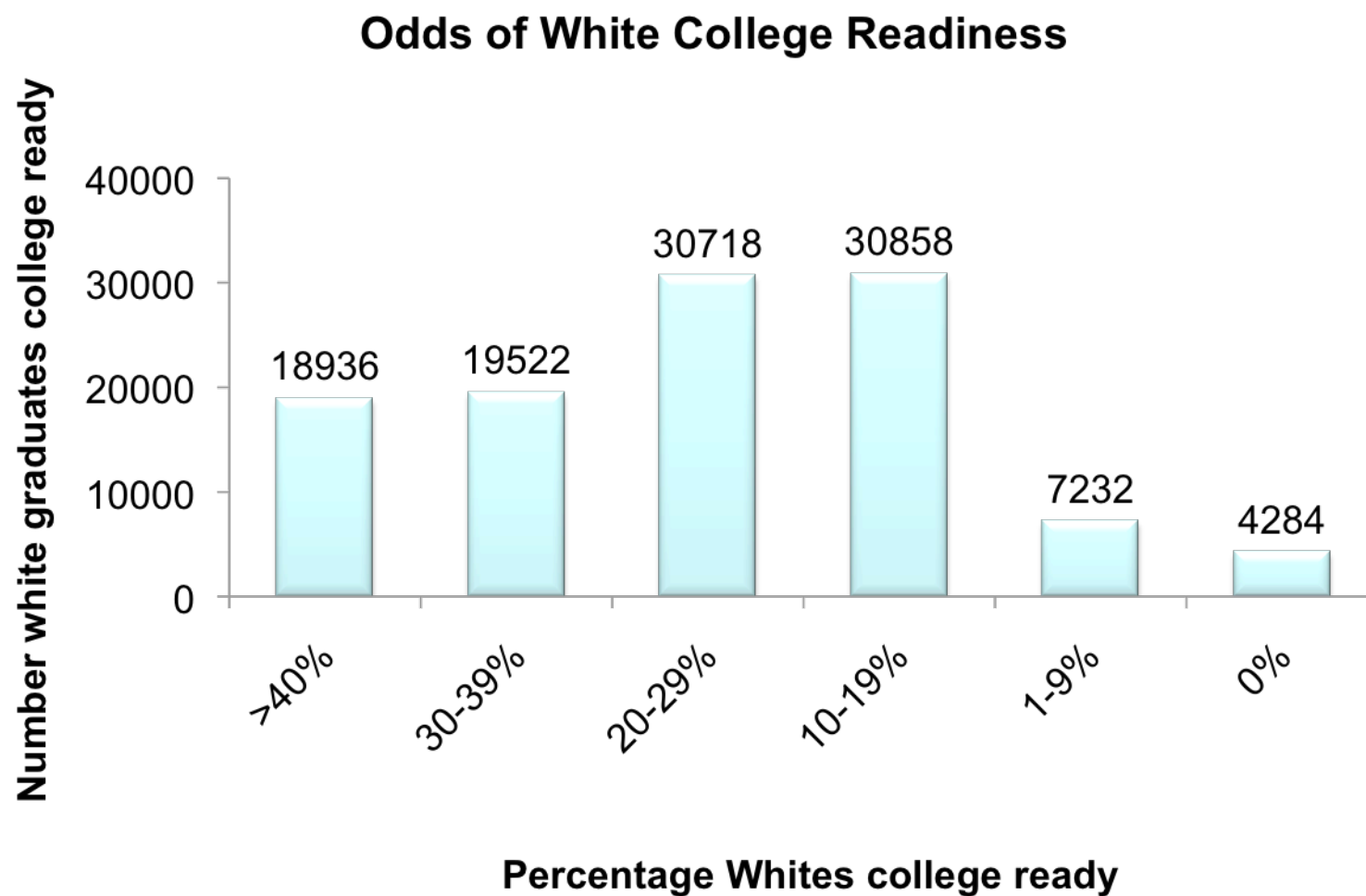


Opportunities for Hispanics





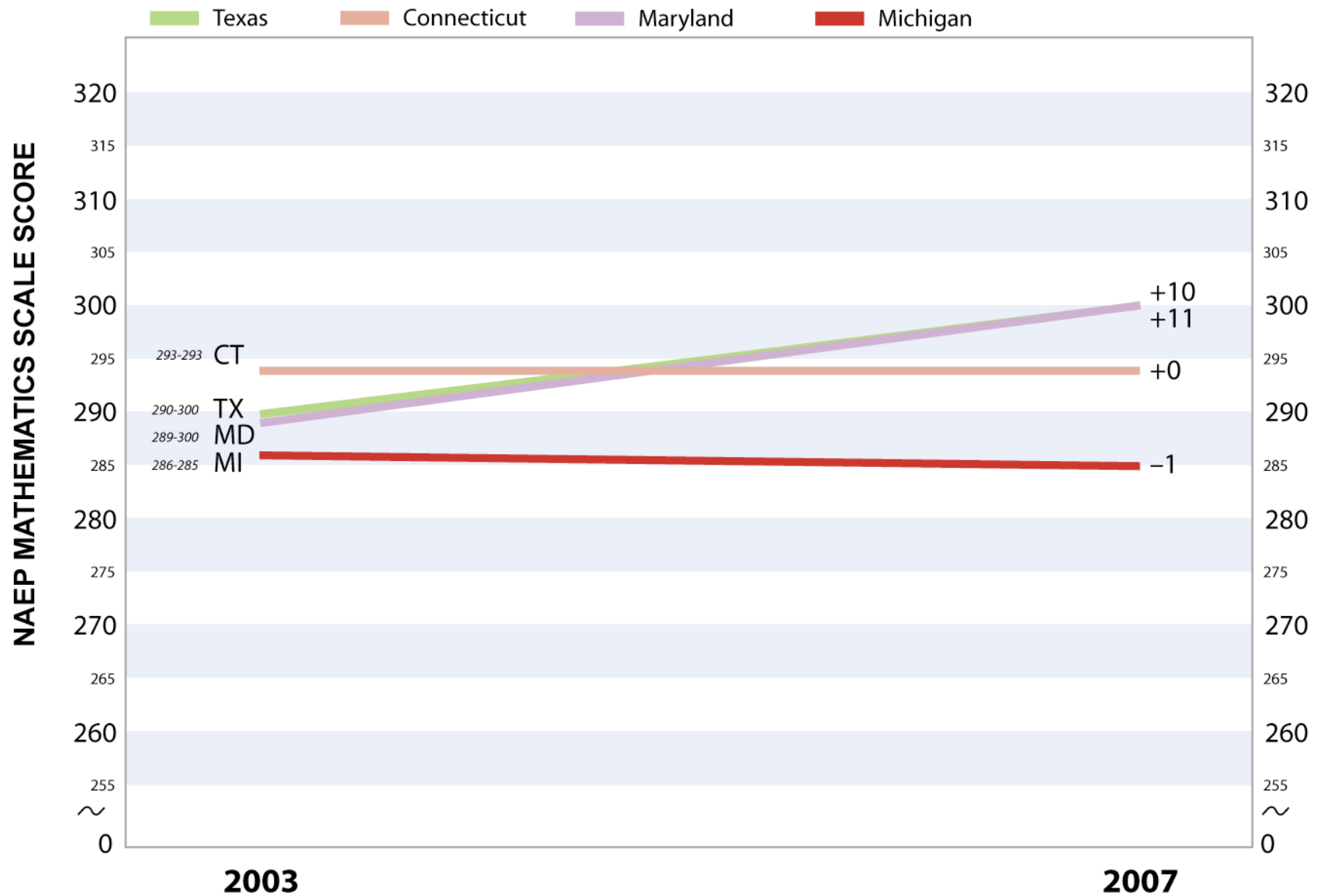
Opportunities for Whites



NAEP Gains in Mathematics – 8th Grade

White

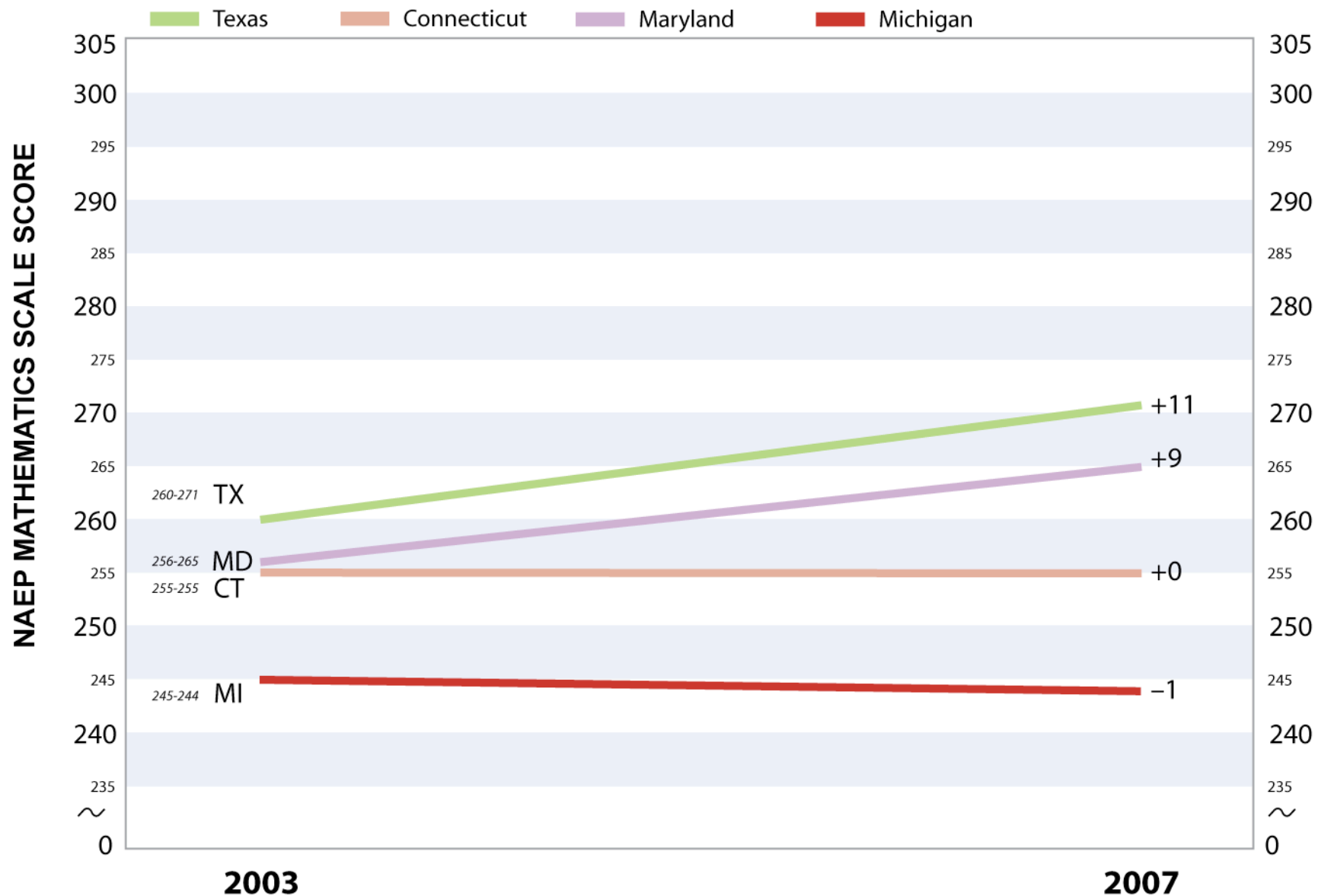
Reporting years 2003 and 2007



NAEP Gains in Mathematics – 8th Grade

Black

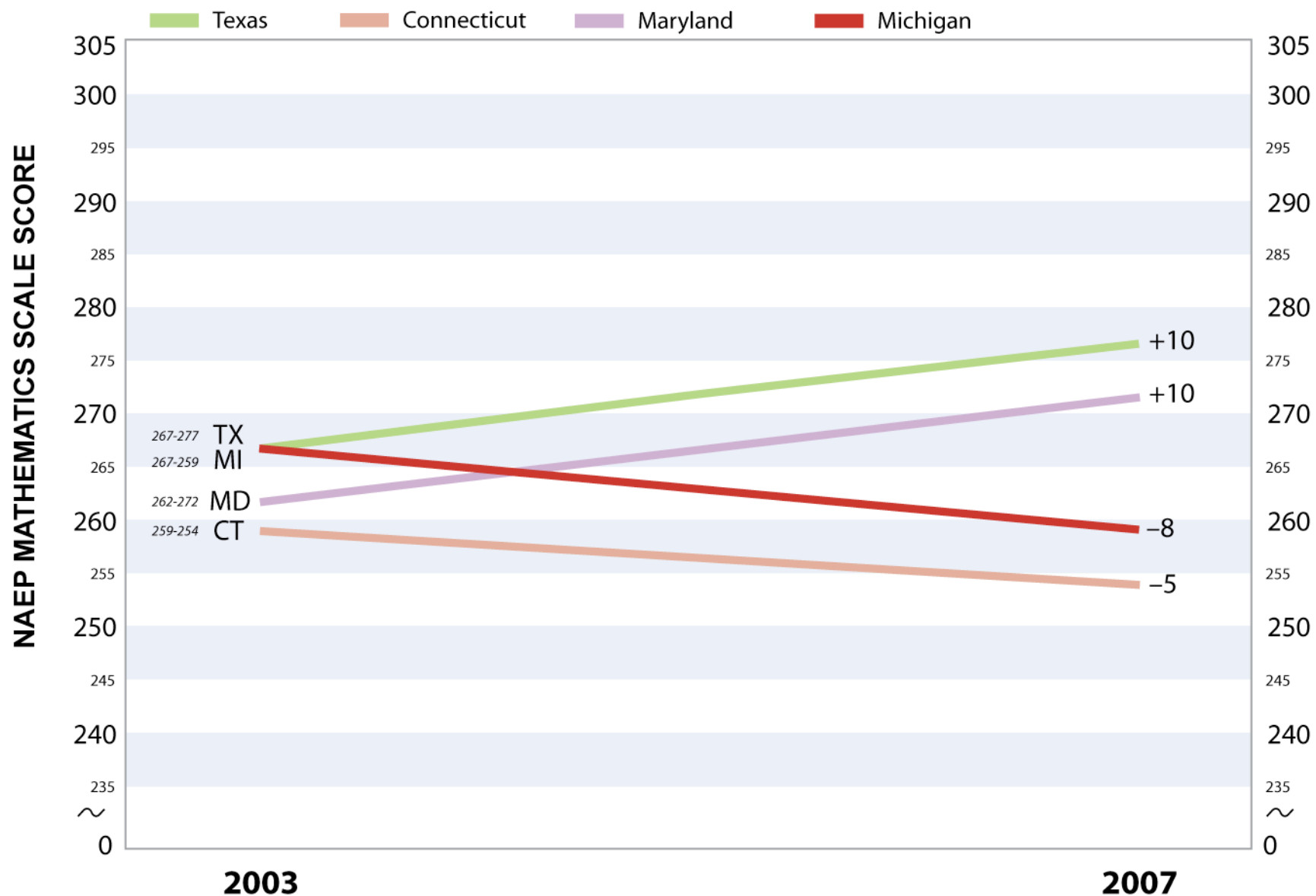
Reporting years 2003 and 2007



NAEP Gains in Mathematics – 8th Grade

Hispanic

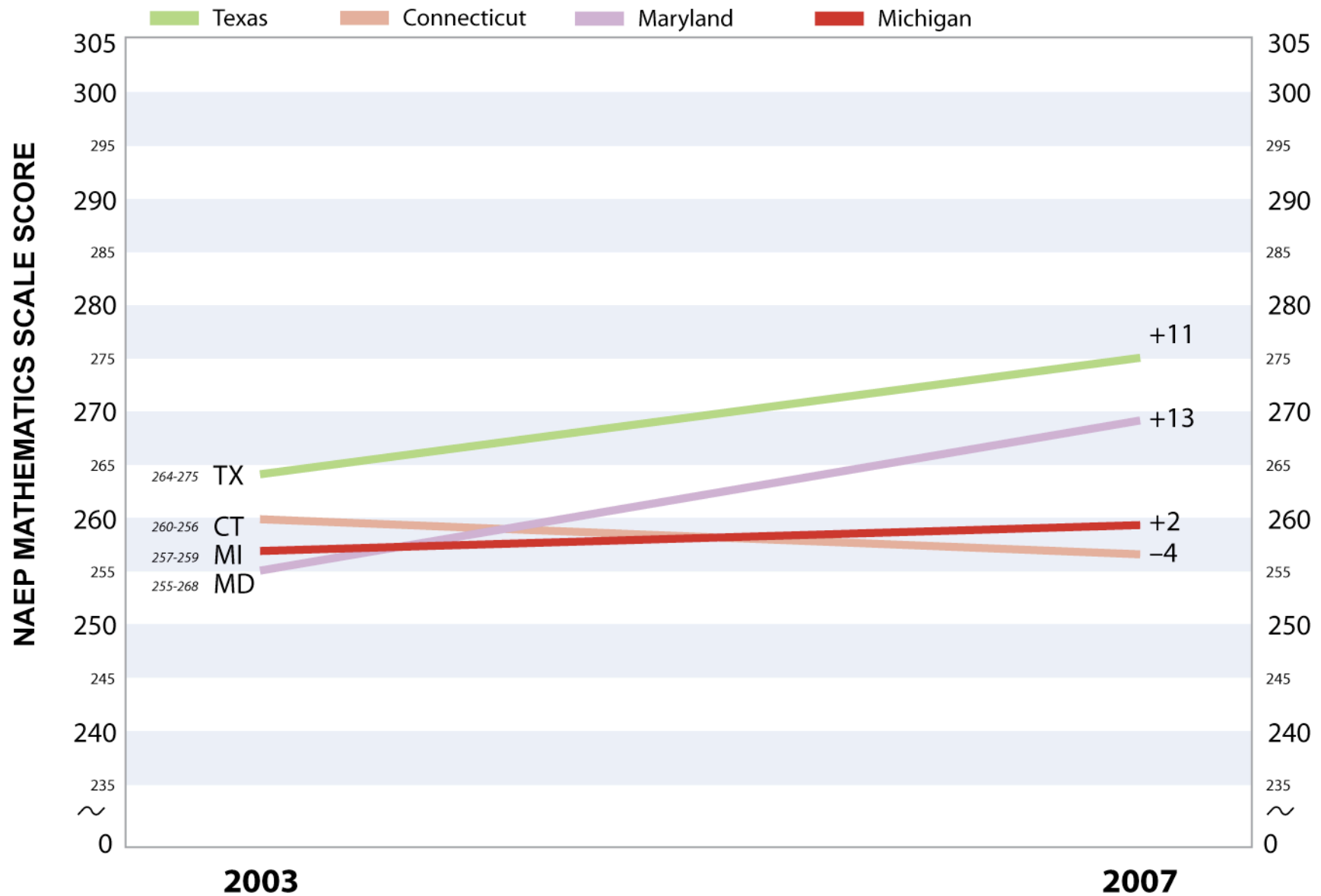
Reporting years 2003 and 2007



NAEP Gains in Mathematics – 8th Grade

Eligible for Free or Reduced Lunch

Reporting years 2003 and 2007



UTeach Retention

