

a public policy essay

# Educational Achievement in the Bahamas

Too few "A" & "B"s...  
Too many "E", "F", "G" & "U"s.

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The Bahamas  
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## TIMMS 2007: International Mathematics Test

(High Benchmark - 550)

Test Scores 500 - 550

1. Ireland
2. South Korea
3. Taiwan
4. Japan
5. Estonia
6. Singapore
7. Macao-China
8. Canada
9. Australia
10. Netherlands
11. Iceland
12. Lithuania
13. South Africa
14. Sweden
15. New Zealand
16. United Kingdom
17. Belgium
18. Luxembourg
19. Czech Republic
20. France

(Intermediate Benchmark - 475)

Test Scores 450 - 500

21. Lithuania
22. Hungary
23. Slovakia
24. Iceland
25. Germany
26. Denmark
27. Slovak Rep.
28. Malaysia
29. Latvia
30. Poland
31. Spain
32. Italy
33. Norway
34. Russian Fed.
35. Slovenia
36. Greece
37. Bulgaria
38. Romania
39. Portugal
40. Moldavia
41. Israel
42. Cyprus

Test Scores 400 - 450

41. Armenia
42. Serbia
43. Jordan
44. Turkey
45. Uruguay
46. Thailand
47. Macedonia
48. Colombia
49. Iran
50. Bahrain
51. Argentina
52. Palestine
53. Mexico
54. Egypt

(Low Benchmark - 400)\*

Test Scores 350 - 400

55. Chile
56. Lebanon
57. Indonesia
58. Indonesia
59. Brazil
60. Tunisia
61. Albania
62. Philippines
63. Saudi Arabia
64. Saudi Arabia
65. Saudi Arabia
66. Saudi Arabia

\* The Basic Literacy Demarcation Line

# Background

**A**t the beginning of every administration Governments state their major objectives; and these reflect the nation's most immediate pressing needs, the kind that come readily to the mind of the average citizen/voter.

And...every elected national leader starts his administration with a limited amount of public goodwill to make changes during his term in office. If he is to accomplish anything, he must prioritize and often initiate those high priority changes sooner than later.

Within this context those desirable programs that produce concrete results over a long-term often...no matter how meritorious...often get scant attention This occurs even when the need is clear and change is likely to produce real gains in the public welfare in the future. This near-sightedness is something that bedevils all elective governments.

This is especially true if such a program involves long-established institutions with set

ways of doing business. In these situations past strategic decisions, accepted social customs and present laws, regulations and contracts become thorny barriers to change. In these situations any program is likely to favor those proposals that is least threatening to the status quo, reflecting the needs of the institution rather than the longer-term interests of the nation at large. This Public Policy Study recognizes this reality.

The purpose of this study is to confront a reality and raise an issue that may make all Bahamians uncomfortable simply because it is considered to be an unsolicited criticism of Bahamian life.

Nevertheless, this Study addresses the present state of "Educational Achievement" in the Bahamas with the hope of raising awareness and producing a public consensus that will support change because substantive and constructive change is so needed.

## The Author

Ralph J Massey, the author, was born into modest circumstances in Cleveland Ohio in 1929; one of his grandfathers was an immigrant coal miner from eastern Slovakia, the other a railroad "brakeman". His father was a policeman who rose in the ranks to become the third-highest ranking officer in the force.

The author graduated from Case University *magna cum laude* with a bachelor's degree in economics and as a member of the Phi Beta Kappa Honors Society. He entered the University of Chicago as a Harry A Millis Fellow in Labor and Industrial Relations, earned a masters degree in Economics and left the University as a Research Associate in the Department of Economics. His course advisor was Milton Friedman, the Nobel Laureate.

His business career covered 37 years with four major companies. At Kimberly-Clark Corporation, for instance, he was Assistant Treasurer and at Chemical Bank he was the offshore banking manager of the Bank of New Providence.

He was a founding member of the Nassau Institute and more recently a contributor to the Coalition for Education Reform.

## Social Development Policy

**A**t the very beginning of his statement on Social Development, the Rt. Hon. Hubert A. Ingraham stated that the government would redouble its efforts to deal with crime. The reduction of crime is, after all, one of the leading national priorities.

Unfortunately, he expressed doubt as to whether there was a scientific basis for the belief that there is a link between poor educational achievement, unemployment and crime.” (See the Appendix)

Apparently he was not aware of recent highly reputable international research that concludes that education quality – measured by what people know – has a very powerful effect on the economic welfare of nations. In fact, its effect is significantly more “robust” than the positive effect of the Rule of Law.

Then the Prime Minister described his education policy objectives: Keep pace with population growth; Refocus on core subjects; Increase “in-school” academic support; and Expand “technical and career education”. However, the overriding interest was the student’s feelings of self-worth and “a life fulfilled, peaceful and satisfying.” The keys were a student’s “self-confidence” and “cultural awareness” that protect him against “violent, foreign cultural influences.”

These statements seem to address the institutional needs of the Department of Education, Youth, Sports & Culture and fail to address what can only be described as a crisis in “education’s basics”. In the following three pages the reader will get a realistic picture of education in the Bahamas and the need to change.

### Cognitive Skills

Human beings acquire skills through what appears to parents as an endless repetitive process of stimulation and response that, while fascinating, taxes their dedication and endurance.

“Cognitive Skills” are those that relate to the act of knowing. They are the skills used to acquire knowledge. It is believed that the period from birth to roughly the fifth grade is the most critical time in one’s life for the acquisition of such basic skills. They include attention, concentration, memory, symbolic and logical thinking and self-discipline.

These skills are largely created in those early years in connection with the mastery of language and numbers, the two great inventions that facilitated man’s survival in a very hostile world.

Development economists and educators concerned with income inequalities would like to measure cognitive skills directly. However, they can only measure the level of language and math skills that exist individually and collectively.

For instance, in developing international benchmarks for measuring student knowledge and proficiency, educators define the range of cognitive skills.

In the case of mathematics the five “content domains” are numbers, patterns and relationships, measurement, geometry and data. The four “cognitive domains” are knowing facts and procedures, using concepts, solving routine problems and reasoning. The overall skill level is measured through up to 200 test items.

This is the “nitty gritty” of measuring cognitive skills.

## Scientific Evidence

Today...in the increasingly competitive global economy, there is a much heightened interest in educational achievement because of the huge income and learning inequalities between developed and less developed countries and between identifiable groups within countries. The World Bank and the Organization for Economic Cooperation and Development, for instance, have recently published authoritative and significant reports on the subject.

One of these is “The Role of School Improvement in Economic Development” by Eric A. Hanushek and Ludger Woessmann (“H & W”) published in January 2007 by the National Bureau of Economic Research.

H & W examined the economic impact that can be expected with education reform. It covers 70 countries and uses the latest data and tools of quantitative analysis. Its findings are important for the Bahamas.

1. Improvement in education quality as measured in standardized tests is substantially more important for economic growth than education quantity, the number of grades completed.

2. “The positive effect of the quality of education on economic growth is very robust” even after considering freedom to trade and the rule of law. Simply stated, although the latter are positive, the quality of education has the greater impact.

3. The long-term analysis suggests that the returns to a successful education reform program versus the alternative of no change in education quality could be a real Gross Domestic Product 36 percent higher.

4. Education reform that produces actual gains in academic achievement is very difficult to achieve and has eluded educators around the world. In the case of the Bahamas, the average score earned on the Bahamas General Certificate of Secondary Education exam for all schools and subjects essentially has remained unchanged since 1993 when the present testing system was adopted.

One cannot stress too much the difficulties faced by education reformers. The OECD study says it right up front. “The quality of an education system cannot exceed the quality of its teachers” and “the only way to improve outcomes is to improve instruction.” The evidence strongly suggests that changes must be made in how teachers are recruited, trained and compensated. The implication is that the full implementation of a reform program will take 20 to 30 years depending on the aggressiveness with which the goals are pursued.

In the case of the Bahamas there is an array of factors working against reform. These include the laws governing the employment of teachers, the existing collective bargaining contract, the inertia of an established bureaucracy and the apparent social judgments that underpin social promotion, that destroy respect and discipline in the classroom and that make the separation of incorrigible students impossible.

**The economics of education suggests that keeping students in school when they fail to acquire skills is a waste of scarce national resources, a diversion that does not add to the individual and collective human capital of the nation.**

## Too few “As” ...too many “Us”

In 2006 4,526 students from 90 separate Bahamian schools wrote the BGCSE exam in mathematics that was graded at eight levels of achievement (A, B, C, D, E, F and U) rather than the five commonly used elsewhere. This data is shown in the graph to the right.

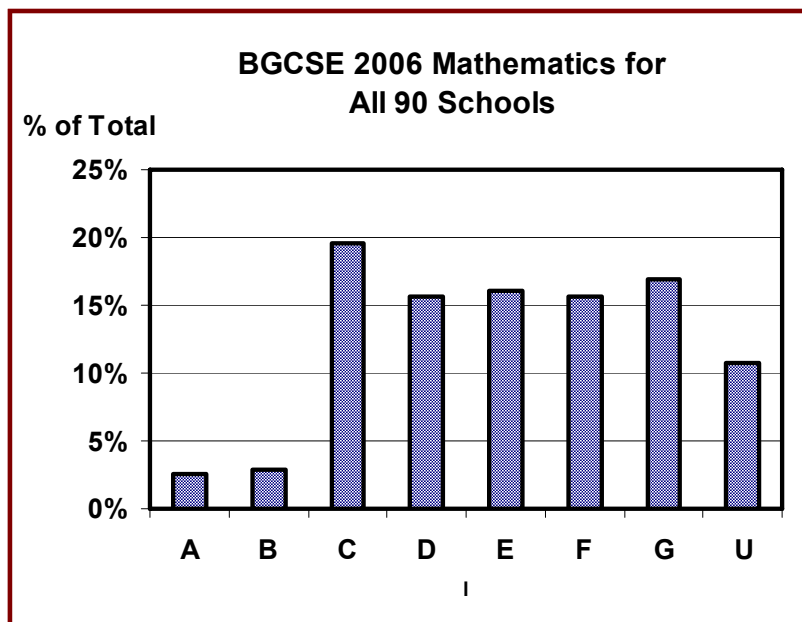
Of the total, 2.6% got an “A” while 10.7% got a “U”; 2.8% got a “B” while 17% got a G. The 10.7% and the 17%, the “Gs and Us”, just look scary - “What do they really mean?”

The BGCSE system sets performance benchmarks for four grade levels: “A”, “C”, “F” and “U” and the intermediate standards and scores are interpolated between these points.

As an example, an “A” student can manipulate algebraic equations – linear, simultaneous and quadratic; while a “U” student is not be able to add, subtract, multiply or divide even when using a calculator.

The graph shows that the star performers, those getting “As” or “Bs” are below 3%. The “Gs” plus the “Us” account for 27.7% of the total and are defined as “functionally illiterate”. Alarming is that 59% of total grades are to the right of the “D” grade (“Es” + “Fs” + “Gs” + “Us”). Placing this into perspective is difficult.

More threatening is the global reality seen in the international community’s report, Trends in International Mathematics and Science Study (“TIMSS”). On the surface TIMSS is very similar to the BGCSE system. It sets benchmark standards for Low, Intermediate,



High and Advanced performance. It would take an education test specialist to compare accurately the BGCSE and TIMSS benchmarks.

However, the TIMSS states that in “Low Performing Countries” zero to four percent of the students earn the high benchmark grade. In the 2006 BGCSE exam 2.56% of all students got an “A” indicating that by this measure the Bahamas would be below their Basic Literacy line.

It also states that in Low Performing Countries about half or fewer reach the Low Benchmark. Clearly the 27.7% of the exam writers who are functionally illiterate do not meet that test. Without the skills and insights of a testing expert, one cannot say just how to relate those Bahamian students who earned “Es” and “F” to the TIMSS scoring system.

The picture, however, becomes more transparent if one goes behind the BGCSE scores and sees what may be described as a “Cognitive Skills Shortage”.

## The Cognitive Skills Shortage

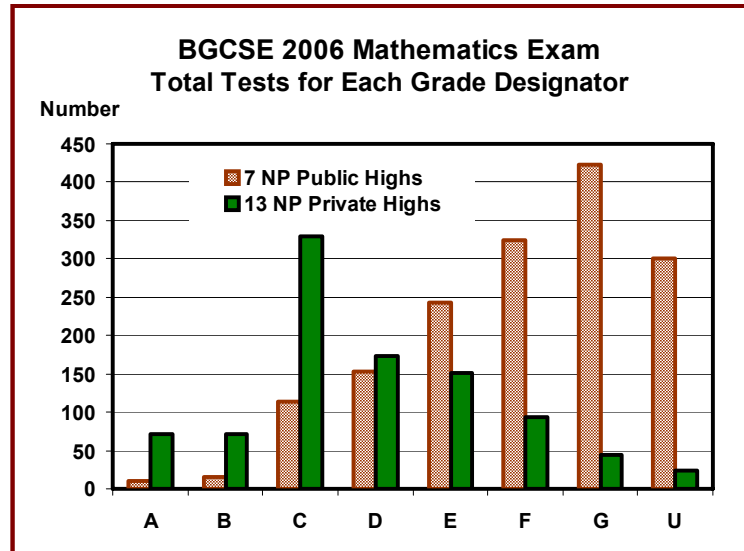
The graph shows the mathematics scores for the 7 public and 13 private high schools on New Providence; 1,581 students from the Public and 794 from the private high schools sat the test. The Public High scores are grouped to the right side of the scale and visibly centered on the “G” grade while the Private school scores are centered on a “C”.

It is clear that the Public School system is the principal locus of the Shortage. In the Public Schools 0.6% of the total students sitting the exam got an “A” and 45.7% got “Gs” plus “Us”. The conclusion is “Public schools do not meet the minimum of any Basic Numerical Literacy standard”.

This data measures, as close as is now possible, the cognitive skills of Bahamian students leaving high school - their capacity to learn, know facts, use concepts, solve problems and reason. The overall low level of educational achievement should be considered unacceptable by Bahamian society; and the nation must confront this reality in its long-term interest.

The question is “Does it have the collective will to do this?”

There is an urgency today that is especially daunting because of the environment within which The Bahamas exists. It is one of accelerating technological change; and one where the “protective barriers” once provided by distance, language and government are disappearing. Technological change increases in varying degrees the complexity and pace of virtually all jobs at all skill levels.



Furthermore...

- The educational malaise of the Bahamas, as evidenced by the poor test scores, has been experienced throughout the world including the United States.
- The economic emergence first of the Asian Tigers and then China and India have changed the global competitive landscape forcing changes in, among other things, the need to improve the output of educational systems around the world.
- Persistent meticulous research has produced two major multi-country studies that debunk education’s worst myths and identify what works and what does not. The building blocks for a more productive education enterprise are identified.

**A failure to confront the Cognitive Skills Shortage in the Bahamas condemns it to an excessive reliance on non-Bahamian manpower to meet its legitimate needs. This is likely to produce both slower growth and social and political conflict that can be avoided or minimized with sound policies and a national will to do so.**

The Tribune, Page 10, Thursday, January 17, 2008

## New Year's Report to the Nation

By Rt. Hon. Hubert A. Ingraham  
Prime Minister  
13 January 2008

### Social Development

As we commit to redoubling our effort to deal with the criminals in our society, we also commit ourselves to deal with issues in our social development that is thought by some to influence criminality.

And so, whether or not there is any scientific basis for the belief that there is a link between poor educational achievement, unemployment and crime, these are areas to which we will give increased attention.

For example, we cannot continue to ignore the chronic deficiency in our nation's education system which has not kept pace with the population growth in many of our communities.

The Ministry of Education Youth Sports and Culture will, this year, commence the implementation of planned School Improvement Programmes designed to bring renewed focus to core subjects throughout the school system from Kindergarten to 12<sup>th</sup> Grade, and to supplement regular tuition through the expansion of After School Clubs and supervised Study Halls.

The magnet programmes in technical and career education will be expanded. This is in direct response to the uniform complaint from the private sector that the majority of our high school graduates are not adequately prepared to assume entry level positions in their organizations.

This notwithstanding, our overriding interest is to assist young persons to achieve their full potential, enhance their feelings of self-worth and thereby motivate them to succeed in enjoying fulfilled, peaceful and satisfying lives.

**An important adjunct to our programme for education is our plan to promote and support a deeper cultural awareness and appreciation among all our people but very especially among our young people.**

We believe firmly that self-confident and culturally secure individuals are far less likely to succumb to the negative, and often violent, foreign cultural influences which abound in the media today. And so we will continue and increase investment in our cultural and sporting institutions and organizations.

Note: The **BOLD** highlight in the statement was also used in the published text.

## Suggested Reading

1. Eric A. Hanushek and Ludger Wossmann, “Education Quality and Economic Growth”, The World Bank, Washington, DC, 2007, pages 27.
2. Eric A. Hanushek and Ludger Wossmann, “The Role of School Improvement in Economic Development”, National Bureau of Economic Research, Working Paper 12832, <http://nber.org/papers/w12832> , January 2007, pages 79.
3. McKinsey&Company and the Organization for Economic Cooperation and Development, “How the world’s best-performing school systems come out on top”, September 2007, [http://www.mckinsey.com/client-service/social-sector/resources/pdf/Worlds\\_School\\_Systems\\_Final.pdf](http://www.mckinsey.com/client-service/social-sector/resources/pdf/Worlds_School_Systems_Final.pdf) , pages 23.
4. The Coalition for Education Reform, “Bahamian Youth: The Untapped Resource”, July 2005, <http://www.bahamasemployers.org/documents/untappedresource.pdf> , pages 22.
5. The Coalition for Education Reform, “Bahamian Youth: The Untapped Resource, Report No. 2”, September 2007, <http://www.bahamasemployers.org/documents/untappedresource0709.pdf> , pages 11.
6. Ellen Gamerman, “What Makes Finnish Kids So Smart? Finland’s teens score extraordinarily high on an international test. American educators are trying to figure out why.”, <http://online.wsj.com/public/article> .
7. Fraser Nelson, “Made in Sweden: the new Tory education”, The Spectator, UK, February 27, 2008, <http://www.spectator.co.uk/the-magazine/features/526631/made-in-sweden-the-new-tory-education-revolution.shtml>
8. Tom Garvin, *Preventing the Future: Why was Ireland so poor for so long?*, Gill & Macmillan, Ireland, 2004, pages 340.
9. Abigail & Stephen Thernstrom, *No Excuses: Closing the Racial Gap in Learning*, Simon & Shuster, New York, 2004, pages 334.
10. John U. Ogbu, *Black American Students in an Affluent Suburb: A Study of Academic Disengagement*, Lawrence Erlbaum Associates, New Jersey, USA and IEA, London, 2003, pages 320.