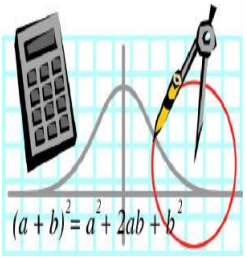
STEM News

Volume 1, Issue 1

September, 2011

Our Concern



Basic Algebra

Science Education for the South Cobb Community

The issues in Cobb Schools and throughout Georgia underlying the need for improved diversity in Science and Engineering education include;

The demand for science and technology literacy on the part of all citizens has never been higher.

Our society--as experienced in education through parents, the media, educators, faculty and others--tends to reinforce traditional assumptions about the capabilities, interests, and career options for women and under-represented minorities.

Achievement in science education must be maintained system wide within the dynamic of the new student population.

The communities of South Cobb have been plagued with historic underachievement in science and mathematics performance that cannot be explained by leaning on socio-economic, cultural, and ethnic reasoning.

What is lacking has been quality science education that is both challenging and comprehensive while requires students, parents, educators, and other stakeholders to support student natural inquisitiveness of natural phenomena in a disciplined setting.

The Dilemma—Our American Competitiveness

Among the most anxiety-inducing questions among government, business, and education leaders is how to maintain American competitiveness in the global economy.

In reports like 2007's *Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future* (published by the National Academies),

we are warned that our way of life is threatened because we are in danger of falling further behind in science, technology, engineering, and math (STEM), the disciplines that have powered American prosperity for decades. Science, engineering, and technology hold the key to future challenges.

The solution to our competitiveness problem is to activate the hidden workforce of young men and women who have traditionally been underrepresented in STEM careers—African Americans, American Indians, and Latinos.

DEBLAR & ASSOCIATES, INC.

Post Office Box 723214
Atlanta, Georgia 31139
www.deblarassoc.com

Phone: 770.319-8189
Fax: 770.485-2995
E-mail: info@deblarassoc.com

About DEBLAR & Associates, Inc.

Our principals have a combined record of 58 years of comprehensive growth oriented achievement in post-secondary academic program design, administration, and evaluation. Our field of specialization is to develop strategies to increase the number of underrepresented students majoring in science and engineering programs. The signposts of our record in education include:

- Development and operation of secondary & college level engineering and science programs for underrepresented ethnic groups.
- Evaluation of statewide, regional, and national mathematics, engineering and science education programs for National Science Foundation, US Department of Energy, NASA and numerous universities and school systems.
- Facilitation of local industry/school system collaborations designed to provide teacher training, expanded corporate support, diversity, and academic achievement.
- Directed Massachusetts Math/science initiative for secondary schools

TABLE 1. Federal scientists and engineers, by sex and race/ethnicity: 2000–09

(Percent)

Year	All federal scientists and engineers (number)	Sex		Race/ethnicity					
		Female	Male	White	Asian/Pacific Islander	Black	Hispanic	American Indian/ Alaska Native	Unknown
2000	187,396	21.2	78.8	82.0	7.7	5.8	3.7	0.9	0.1
2001	193,448	22.0	78.0	81.5	7.8	5.9	3.7	0.9	0.1
2002	206,182	22.9	77.1	80.8	8.1	6.2	3.9	0.9	0.1
2003[a]	206,620	23.9	76.1	80.5	8.3	6.1	3.9	0.9	0.2
2004[a]	209,994	24.5	75.5	80.2	8.4	6.3	4.0	0.9	0.1
2005[a]	209,747	24.9	75.1	79.8	8.6	6.4	4.2	0.9	0.1
2006	215,929	25.7	74.3	79.3	8.8	6.8	4.1	0.9	0.1
2007	219,383	26.2	73.8	78.7	8.8	7.2	4.3	0.9	0.1
2008	223,189	26.8	73.2	78.2	9.1	7.5	4.3	0.9	0.1
2009	235,110	27.2	72.8	77.7	9.1	7.8	4.4	0.9	0.1

[a] Data for 2003 to 2005 were obtained from two sources—the Defense Manpower Data Center for Department of Defense agencies and from the Central Personnel Data File (CPDF) of the Office of Personnel Management—and may not be strictly comparable to data for other years. Total includes unknown sex not shown separately.

NOTE: Percentages may not add to 100% due to rounding.

SOURCE: National Science Foundation/Division of Science Resources Statistics, tabulations from data provided by the Office of Personnel Management.

"*Our national economic prosperity and security require that we remain a world leader in science and technology. Precollege STEM education is the foundation of that leadership and must be one of our highest priorities as a Nation.*"

National Science Board, 2009