

Barbara McAllister (Intel Foundation): Why it pays (literally!) for children to listen to their parents about STEM

This blog post is by [Barbara McAllister](#), Director of Global Strategic Initiatives at the [Intel Foundation](#), and originally appeared on the [CSR@Intel Blog](#).

With a goal of reaching 10,000 parents in the next several months, Intel's STEMPact effort informs parents why and how STEM shapes our lives and our economies so that they, in turn, might encourage their children to pursue a STEM education.

How can parents influence underrepresented racial minorities to pursue or complete a STEM education?

The facts are that while more students from all racial backgrounds are entering college with an interest in STEM, the vast majority of these students either complete degrees outside of STEM or drop out of the higher education system altogether (1). Of the students entering college interested in STEM, just over 28% for White or Asian Americans students complete a STEM degree, and just 16%, 14%, and 13% do so for Latino, Native American, and Black students, respectively (2).

That's a challenge that a group of us with the Arizona Network of Intel African Americans (NIA), one of Intel's 25 chartered employee groups, recently began tackling.

In typical Intel fashion, we broke out the sticky notes and plastered ideas on the white board. We then applied our business skills, engaged in some healthy debates, and did the analysis that led us to a conclusion: In order to increase the number of underrepresented minority students in STEM, parents must be on board, actively engaging in and versed in the possibilities of STEM careers.

We called our effort STEMPact, and determined to share why and how STEM shapes our lives and our economies to parents and student influencer groups.

Our initial step was to host 50 parents, educators and students in an open forum in Chandler, Arizona. Those who attended agreed that parents play a key role in influencing their children to pursue a STEM education. In fact, those in attendance with STEM degrees shared they had pursued the degree largely because a parent, mentor, or teacher had influenced their decision.

One of the parents, Melvin Polite, remembered how his son had always been curious about how things worked—as evidenced by his son disassembling one of his lamps. He explained

one way he had encouraged his son to pursue his technical interests: “I let him explore because as an educator I understood that's how one learns.”

That type of exploration helped lead another student in attendance, Cameron Smith, to pursue a technical degree: “If someone told me STEM involved race cars and fuel utilization,

I would have gotten on board years ago. Now I know it's STEM and that's the reason I'm choosing to pursue an engineering degree.”

STEMpact will take the message to 10,000 parents and kids to inform them just how influential they can be in the lives of their students. We will do this through fellow employee groups at major Intel sites and train 100 STEM leaders to communicate this to schools, organizations, churches and other key community groups.

Some of the key elements of that message are:

- Parents are the most influential person(s) helping their children decide which career to pursue according to a STEM Perceptions study (3). For guys, parents were twice as likely as teachers or counselors, and four times as likely as friends to influence them. For girls, parents were three times as likely as teachers and counselors, and 16 times as likely as friends to influence them. Another reason parents are so influential is that, according to a recent MTV study, a majority of kids (58%) view their parents like a best friend (4).
- STEM jobs are more recession-proof (5) and yield higher paying salaries than non-STEM careers (6). The pay gap in STEM between women and minorities versus Caucasian men is smaller in STEM than in any other occupation (7).
- By providing parents with information about the opportunities STEM holds, we hope to inspire them to encourage their budding scientists, mathematicians, engineers and technologists.
- One parent at the open forum summed it up best, “when you know better, you will do better.” Her impression on the need for STEM jobs was changed within the 60 minute presentation.

(1) Higher Education Research Institute (2010)

(2) The Higher Education Research Institute at the University of California, Los Angeles (2010)

(3) STEM Perceptions: Student & Parent Study By Harris Interactive; commissioned by Microsoft (2011)

(4) MTV Millennials Study commissioned by Intel (2012)

(5) David Langdon, George McKittrick, David Beede, Beethia Khan, and Mark Doms, “STEM: Good Jobs Now and for the Future,” U.S. Department of Commerce, Economics and Statistics Administration, July 2011, , accessed October 2011.

(6) Jason Kobler, “Demand, Pay for STEM Skills Skyrocket,” US News and World Report, October 20, 2011, <http://www.usnews.com/news/blogs/stem-education/2011/10/20/stem-competency-a-foundational-skill-jobs-expert-says>, accessed October 2011.

(7) Anthony P. Carnevale, Nicole Smith, and Michelle Melton, “STEM,” Georgetown University Center on Education and the Workforce, October 2011, <http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/stem-execsum.pdf>, accessed October 2011.