



**Survey Fielded:** September 2012  
**Commissioned by:** Raytheon Company  
**Research Conducted by:** Koski Research

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## **Raytheon Parent Survey about Math Learning and Future Success**

*Executive Summary – October 30, 2012*

The U.S. ranks 23<sup>rd</sup> among developed nations in the number of science and engineering graduates according to the Organisation for Economic Co-operation and Development (OECD). Other data suggest U.S. students are lagging behind their international peers when it comes to math performance, ranking 31<sup>st</sup> in the world (Programme for International Student Assessment, 2009). Meanwhile, American job growth in science, technology, engineering and math (STEM) fields is outpacing non-STEM-related job growth by 300 percent, according to the U.S. Department of Commerce, Economics and Statistics Administration. With these statistics in mind, [Raytheon Co.](#) commissioned a survey of 1,000 parents of children between ages of 6-15. Parents were asked a series of questions aimed at determining math-related study habits, attitudes and priorities amongst middle school students and their parents.

Among the more encouraging findings, a majority of surveyed parents acknowledged a link between math skills and future success. A majority of parent respondents also indicated their children are on track in their math studies and enjoying the subject matter. However, more than half of parents surveyed believe being good at math will help their children with future success, while only 5 percent believe being good at sports will do the same. Despite that, close to half of respondents prefer their children playing sports to other types of activities, including math and science, during free time.

The study also uncovered some interesting differences in attitudes between mothers and fathers. For example, fathers expressed greater levels of confidence in their ability to help with math homework, while mothers indicated a greater inclination to help, despite their less optimistic self-assessments when it comes to math aptitude. In fact, the study showed fathers are more likely to spend time helping their children, while mothers are more likely to reach out for help.

### **Methodology**

The Raytheon “Parent Survey about Math Learning and Future Success” was fielded by Koski Research, and responses were generated from a survey of 1,000 parents of children ages 6-15 using a national online sample. All parents were geographically represented and living in the U.S. The survey’s margin of error is 3 percent.

## **Key Survey Findings:**

### **Math Attitudes and Future Success**

- Being good at math (53 percent) eclipsed being outgoing (42 percent) and being good at sports (5 percent) as traits parents believed would help their children succeed in life.
- The survey found parents believe their children are on the right track: more than 8 in 10 parents (86 percent) said their children love school, and 7 in 10 (72 percent) said their children love math.
  - However, parent responses show there is a drop in math interest as children move from elementary to middle school (from 77 percent to | 67 percent).
- Forty-six percent of parents think their children's free time is best spent through sports activities, as compared to only 18 percent preferring academic and intellectual activities such as math- and science-related activities.
- Three out of four parents rank STEM-related (science, technology, engineering and math) industries at the top of the list for best career opportunities for their children in the future (computer science, biology/health care, engineering and accounting/finance ranked one through four, respectively).

### **Homework and Extra Help**

- Only 29 percent of parents believe spending more time helping their children with math homework is the most effective way to help with math learning.
- Fewer than one in five parents (19 percent) indicated that consulting teachers for guidance is the most effective way to help their children with math.
- Parents were almost twice as likely to prefer helping with their children's math homework to helping with their children's sports activities.

### **Math Confidence – Moms and Dads**

- Mothers were twice as likely to say that they can't help with math homework because they are not good at math (10 percent vs. 5 percent).
- Mothers were 72 percent more likely than fathers to say they could not help with their children's math homework because of a lack of mathematical ability.
- Fathers were 64 percent more likely than mothers to believe spending more time helping their children with homework is effective.
- Mothers were almost twice as likely as fathers to say they "hate math."
- The difference between mothers and fathers stating they hate math becomes even more pronounced when their children enter middle school – mothers of middle school students were almost 50 percent more likely to hate math than mothers of elementary school students, while the fathers' feelings remain relatively steady.

### **Hands-on Activities and Experiential Learning**

- Ninety-three percent of parents acknowledge there are computer programs available to their children that make math fun.
- Four out of five parents believe hands-on activities such as cooking, sewing and building projects can make math fun.

### **About MathMovesU**

Raytheon's [MathMovesU](#)<sup>®</sup> program is an initiative committed to increasing middle and elementary school students' interest in math and science education by engaging them in hands-on, interactive activities. The innovative programs of MathMovesU include the traveling interactive experience MathAlive!<sup>™</sup>; Raytheon's *Sum of all Thrills*<sup>™</sup> experience at INNOVENTIONS at *Epcot*<sup>®</sup>, which showcases math in action as students design and experience their own thrill ride using math fundamentals; the "In the Numbers" game, a partnership with the New England Patriots on display at The Hall at Patriot Place presented by Raytheon; the company's ongoing sponsorship of the MATHCOUNTS<sup>®</sup> National Competition; and the MathMovesU scholarship and grant program. Follow MathMovesU and other Raytheon community outreach programs on [Facebook](#) and on Twitter [@MathMovesU](#).

### **About Raytheon**

Raytheon Company, with 2011 sales of \$25 billion and 71,000 employees worldwide, is a technology and innovation leader specializing in defense, homeland security and other government markets throughout the world. With a history of innovation spanning 90 years, Raytheon provides state-of-the-art electronics, mission systems integration and other capabilities in the areas of sensing; effects; and command, control, communications and intelligence systems, as well as a broad range of mission support services. Raytheon is headquartered in Waltham, Mass. For more about Raytheon, visit us at [www.raytheon.com](http://www.raytheon.com) and follow us on Twitter [@Raytheon](#).