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### Opportunity for the Next Generation of Innovators

A lot of attention is currently being paid to the United States education system. While the statistics are often discouraging for a proud nation, the increased exposure is encouraging for those of us concerned with science education. Perhaps at no point in our nation's history has our focus been so keenly placed on education, and the 2010s have the potential to focus expert thinking more intensely on how to develop the next generation of innovators than any time since the Sputnik era of the 1950s.

There are bright spots. I have the privilege each year to see the potential of American students, and that of our global neighbors, firsthand. At the three Society for Science & the Public (SSP) programs, the Intel Science Talent Search, the Intel International Science & Engineering Fair, and the Broadcom MASTERS™, I see young minds being brought to bear on important technological, medical and societal issues. For over eight decades, some of our nation's finest students leave SSP programs to go onto excel in a wide variety of careers, not only in scientific disciplines but because they also apply scientific thinking to their work as journalists, filmmakers, and in business, politics and academics.

We all have an important role to play in fostering learning opportunities for the generations to come, and that doesn't always happen inside the four walls of a classroom. In fact, 75 percent of science Nobel Prize winners have reported that their passion for science was first sparked in a non-school environment. A recent study by an NGO associated with the University of California, Berkeley, found that, "After-school programs have potential to increase student engagement, capacity, and continuity in STEM."

Bruce Alberts, the president of the United States National Academy of Sciences from 1993-2005, once said that "an education that aims to fill the heads of students with correct answers is a disaster for many reasons. For one, different cultures will have different answers, and our diverse societies will suffer greatly from intolerance. Instead, all students must learn how to learn, so that they can solve new problems and overcome the many challenges that they will encounter in their adult lives."

Participation in science fairs is a great example of how we can harness student curiosity at an early age. Research has shown that science competitions benefit students by helping them gain

self confidence; explore career opportunities; learn to take risks, and be rewarded for their ingenuity.

One important lesson that seems to be taking hold with this welcome increased attention is that this is a team effort -- from the Oval Office to the corporate board room to the classroom and everywhere in between. We all need to think about new partnerships that will bolster student curiosity and the implementation of the scientific approach to exploring what's possible. Let's encourage our children to ask "What is going on in the world? How is it being addressed and how can I do it better?"

It is critical to our collective future that we motivate and enable the next generation of innovators -- those who can, and will, change the world if we prepare them appropriately. With more, and more effective, partnerships, we can.