

Charles Bolden, NASA Administrator

**Blastoff: Encouraging Young People to Enter and Stay in the
STEM Fields**

Hosted by Congresswoman Donna F. Edwards

Capitol Hill

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Thank you, Congresswoman Edwards for inviting me to be here today and for your leadership on the issue of STEM education both as a member of the House Science, Space and Technology Committee and as someone who has a long-time interest in what we do at NASA. Your support for our Agency in the House of Representatives is greatly appreciated.

I don't know how many of you know it, but before she became a lawyer and entered politics, the Congresswoman once worked at Goddard Space Flight Center on the Spacelab program as a Lockheed Corporation contractor.

It was there that she got bitten by the space bug and began to develop her passion for STEM and its potential to strengthen communities, transform lives, and boost our economy. I am sure at the time she never thought she'd one day be representing a Congressional District that includes Goddard and many of its employees.

I am also pleased to see so many representatives from different parts of the community here: teachers, universities, parents, Members of Congress, community leaders, business people, and students. I think we all agree that the need for more qualified STEM professionals in America is everybody's problem and all of us must be part of the solution.

We all know about the jobs crisis that has been plaguing our nation since the start of the Great Recession in 2007.

But it is a little known fact that while 13 million Americans are unemployed, more than half-a-million manufacturing jobs are unfilled right now simply because companies can't find enough trained scientists, engineers and technicians to do the work.

All of this is occurring in a world where emerging economies are surging ahead and education has become the fault line between success and failure. Clearly this is an American crisis, but it is one we can solve.

President Obama has repeatedly stressed the importance of growing America's STEM workforce and has made it one of the highest priorities of his Council on Jobs and Competitiveness.

The President has set a goal of recruiting, retaining, and graduating 10,000 engineers each year to maintain America's competitive edge.

He has specifically charged the Jobs Council with increasing the number of young people who not only start, but also stay with STEM studies in our schools and universities. The Jobs Council has also been tasked with creating stronger alignments between institutions of higher learning and the businesses that need STEM graduates to fill jobs and bolster American competitiveness.

As a government agency that is in the innovation business, NASA could not do the things we do without a strong and growing STEM workforce. That is why STEM education is the foundation of NASA's learning initiatives. At NASA, our needs for workers across aerospace in the coming decades will be great. The space program is soaring to new heights with new destinations on the horizon and new workers needed to advance aviation and space technology. A growing number of small and medium-size private companies are also coming aboard as the commercial space industry picks up steam.

Just last week, we saw the first successful launch and berthing to the International Space Station by a private American company, SpaceX. Last Thursday, they completed a near-flawless mission when they made a successful reentry and splashdown in the Pacific Ocean off the coast of Southern California, becoming the first private company to ever accomplish these ambitious goals. We have entered a new era in commercial spaceflight. More U.S. companies are getting in the game and all of them will need STEM-educated workers.

That is why, in FY 2011 alone, NASA's K-12 education projects reached more than one million students through STEM initiatives. An additional 4,000 college students benefited from the Agency's higher education projects through internships and fellowship opportunities.

The good news is that everywhere I go I meet young people like you who are eager to enter the STEM fields. But desire is not enough. We have to make sure those students get the support they need in the classroom, in the community, in internships with government agencies and local businesses, in having access to the expertise and facilities available on the campuses of local colleges and universities.

We also need to address the under-representation of women and minorities in the STEM fields. Let me take this opportunity to commend Congresswoman Edwards for her support of the 2010 America Competes Reauthorization Act and the amendments she offered to ensure that STEM opportunities are available to all students and teachers regardless of race, ethnicity or economic background.

In closing, I want to speak directly to the young people in the audience. The work we do at NASA everyday is focused on revealing the unknown so that what we do and learn will benefit all humankind. NASA needs you to fulfill that vision.

We need engineers to help us design the new rockets and capsules that will take us farther into the solar system than we've ever been.

We need scientists and researchers to help us develop materials to withstand the stresses of deep space exploration, to sustain humans for long duration stays in space, to make air transportation quicker, safer, and more efficient, and to aid us in our quest to unravel the mysteries of the cosmos and learn more about our own planet.

As NASA takes its next great leap into deep space exploration, we are determined that American workers and American companies lead the way. That means you! NASA needs you! America needs you! You are the keys to growing our economy, strengthening our nation's competitive edge and winning the future.

It all begins with STEM. So my message to you is simple: get with it in the classroom! Stay with it no matter how tough it gets; and keep preparing yourselves to take your rightful place as the next great generation of American engineers, scientists, and innovators.

Thank you.