1. President – Community Foundation
   Key Quotes:
   - *The K-12 community programs have to set a higher goal than just high school graduation because today's job generally require at least a certificate or 2 year associates degree. Otherwise, we will just be creating unemployed high school graduates vs unemployed drop outs*

2. Senior Advisor to the Virginia Commonwealth for STEM Initiatives.
   Key Quotes:
   - *STEM is not just taking more science and/or math classes.*
     - *Science is about discovering the natural world using the Scientific Method.*
     - ***Engineering is about the human designed world and innovation (key to the new economy/jobs) is the child of engineering using the Engineering Design Process.***

3. **The National Science Foundation**
   - *80% of the jobs created in the next decade will require some form of STEM skills.*

4. **STEM Education: "For the Benefit of All"**
   Mel Schiavelli, President, Harrisburg University of Science and Technology
   September 25, 2008

   - *In the highly competitive global economy, the United States faces the daunting task of supplying our own nation with capable science and technology workers.*
     - *Collectively, India, China, South Korea, and Japan have more than doubled the number of students receiving bachelor's degrees in the natural sciences since 1975, and quadrupled the number earning engineering degrees.*
     - *Since the late 1980s, the European Union has produced more science and engineering Ph.D.s than the United States. These countries are hungry to succeed and increasingly capable of doing so.*
   - *To reduce the gap, and prepare more K-12 and college students--especially minorities and women--for STEM careers, we must widen the education funnel so more students enter these critical disciplines. This requires making science and technology accessible and relevant, and introducing new approaches to teaching.*
   - *Every generation has a seminal moment, an event of permanence that earns a prominent spot in history. For the United States, renewing our innovative spirit, revitalizing our standing in the global economy, and strengthening our participation in high-growth industries are top priorities right now. Only by encouraging students to combine strong*

science skills, problem-solving abilities, and creative thinking, will we be able to develop that workforce to achieve these goals.

- *NASA's motto is simple: "For the benefit of all". We should adopt a similar view of STEM education.*

5. **"Occupational employment projections to 2018;"**
   U.S. Bureau of Labor Statistics; November 2009

   - *The U.S. will have more than 1.2 million job openings in science, technology, engineering and math (STEM)-related occupations by 2018. These include scientists, doctors, software developers and engineers. Yet, there will be a significant shortage of qualified college graduates to fill these careers. For the U.S. to succeed and continue to play a leadership role in addressing tough global challenges, we must do a better job of engaging students in these subjects and encouraging them to pursue careers in STEM-related fields.*

6. **"STEM Perceptions: Student & Parent Survey;"**
   Harris Interactive online survey of 500 STEM college students and 854 parents of K-12 students; May 2011.
   - *4 in 5 STEM college students made the decision to study STEM in high school or earlier.*
   - *1 in 5 STEM college students decided to study STEM in middle school or earlier.*
   - *61% of male STEM college students say that games or toys sparked their interest in STEM; the top factor for men.*

7. **ACT's Condition of College & Career Readiness report**
   US News and World Report 9/19/11

   - *Less than half of high school graduates are ready for college-level math and less than a third are ready for college-level science in the United States*