

# “Youth Ready for Science: What Can Be Done?”

Youth Civic Leaders Summit – March 2-4, 2012  
 Youth-Led Issues Forum – “Science” Track

Science education and where we rank in the world is a major problem in our country and a concern for our government. Research shows that students will need more science to be ready for the job market, and need to see the relevance of science to their lives at an early age. Not being able to compete in the global world in science and technology is a problem for our communities, state, and country. Why has this happened? What can be done to remedy this problem? What ideas and opinions do youth have on this issue? How do they see it affecting their schools and communities? Below are three different views people have on how this issue can be solved:

Approach (Choice) #1	Approach (Choice) #2	Approach (Choice) #3
<p><b>Introduce youth to the importance of science at school and in the community.</b></p>	<p><b>Partner with businesses to expand science and technology education.</b></p>	<p><b>Address the root causes of why students are not keeping pace in science.</b></p>
<p><b>What can be done?</b></p>		
<ul style="list-style-type: none"> <li>• Provide parents with information and strategies for introducing the concept of science at an early age</li> <li>• Make learning science and technology fun</li> <li>• Encourage high school students to take advanced high school courses</li> <li>• Provide resources to help teachers get advanced science degrees</li> <li>• Provide incentives for science and technology teachers to teach in rural school districts</li> <li>• Ensure that youth and adults are aware and/or have access to science and technology museums and related field experiences</li> <li>• Create awareness campaigns to make sure youth are aware of significance of science and technology in a global society</li> </ul>	<ul style="list-style-type: none"> <li>• Work with businesses to provide both paid and non-paid internships in science and technology fields in high school and college</li> <li>• Encourage businesses to sponsor science and technology competitions for middle and high school students</li> <li>• Provide scholarship opportunities for high school students to pursue degrees in science and technology related fields</li> <li>• Underwrite scholarships for teachers to pursue undergrad and graduate degrees in science and technology</li> </ul>	<ul style="list-style-type: none"> <li>• Work with school officials, parents and community leaders to change attitudes about science and technology</li> <li>• Work with policy makers to change graduation requirements regarding science credit hours</li> <li>• Help citizens understand what is science and what is public policy that can be informed by science</li> <li>• Encourage schools to begin science and technology education beginning with pre-school</li> </ul>

**Trade-offs (the “give and take”)**

<ul style="list-style-type: none"> <li>• Parents might see this more as the role of the school than the role of the parent</li> <li>• There is only so much time in the school day; emphasizing science and technology will cause other subjects such as social studies or communication arts to suffer</li> <li>• If incentives are given to teachers to teach in rural areas, it might create shortage of qualified teachers in urban/suburban areas or in other disciplines like English or math</li> <li>• Will incentives be enough for qualified teachers to stay in rural/underserved schools?</li> <li>• Will schools and communities have resources necessary to test and measure student performance in science and technology?</li> </ul>	<ul style="list-style-type: none"> <li>• If businesses provide internships in science and technology, they may not provide internships in other business related fields</li> <li>• Business involvement in science and technology may mean a loss of sponsorships in other fields</li> <li>• More interest by business in science and technology might mean more foreign students will come to the U.S. to study</li> </ul>	<ul style="list-style-type: none"> <li>• Making the fields of science and technology more attractive and less threatening might create a surplus of students majoring in these subjects</li> <li>• With more understanding of science comes more expectations of what the public can do with this knowledge</li> <li>• Starting science and technology education during pre-school years will take away quality time from basic skills such as reading and writing</li> <li>• More emphasis and resources on areas where the jobs are (science and technology) might help lower unemployment</li> </ul>
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**What the “critics” say**

<ul style="list-style-type: none"> <li>• Parents do not have the knowledge or skills necessary to motivate students to learn science</li> <li>• School systems that provide computers and high quality science teachers &amp; labs may neglect music and the arts</li> <li>• Putting resources into science and technology won’t ensure that students will perform better on tests</li> <li>• Putting resources into S&amp;T in rural schools might take resources away from urban schools</li> </ul>	<ul style="list-style-type: none"> <li>• Businesses providing science and technology scholarships for high school students might be doing so for their own motives and not to really help the students</li> <li>• With more students majoring in science and technology, will the U.S. and world be able to generate enough jobs for all the graduates entering these fields?</li> </ul>	<ul style="list-style-type: none"> <li>• Addressing low performance of all U.S. students is a big and costly task; we should focus only on those who show ability and interest</li> <li>• There is no guarantee that more money and emphasis on science will cause student scores to go up</li> <li>• Competing on a global scale in science is a big deal; the U.S. is not prepared because the emphasis is on business and making money</li> <li>• We should worry less about test scores and focus more on helping young people see connections between science skills and jobs available</li> </ul>
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### **Let's discuss!**

- What do we like about this choice?
- What do we dislike about this choice? What would it take if we were to choose this route?
- Are there people or groups who would support or oppose this choice?
- Are there any other choices we did not discuss?

### **Time to reflect!**

- What did you learn about the effects of this issue on your community?
- Has your thinking about this issue changed as a result of today's discussion?
- How can we use what we have learned today?
- What can you do to make a difference?

### **Wrapping it up...**

- What aspects of this issue seemed the most difficult to you?
- What were some common concerns the group shared?
- Were there any trade-offs that most people would accept? Would not accept?
- Did the group identify any shared directions for actions to take?