

**Computer Education 21 MD Summit
UMBC - May 10, 2013**

**What IT Jobs Have to do
With K-12 Education:
*Everything***

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Topics

- **Opportunities**
- **Vulnerabilities**
- **Students Today**
- **Our Efforts**
- **What You Can Do**

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Opportunities

- **Jobs available across sectors**
- **Significant competition for talent**
- **Maryland is hub for cybersecurity activity**
- **46,000 Computer & Math jobs by 2020 (MD DLLR website)**
- **19,000 cybersecurity jobs are now available**



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Vulnerabilities

- **In many sectors, including finance/banking; transportation; utilities**
- **Military/Governmental**
- **Private industry business information**



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Students Today

- **We are not producing enough students with degrees in STEM fields.**
- **In 2005, approximately 6.1% of college graduates earned degrees in STEM areas; in 2011, this decreased to 4%**
- **This compares with almost 47% in China, 38% in South Korea, and 28% in Germany**



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Our Efforts

- **Centers of Academic Excellence**
- **Internships, work study programs, and scholarships**
- **Encouraging technical programs in post-secondary schools.**



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What You Can Do

- **Encourage high school student to study hard**
- **Encourage those in STEM programs to stick with it!**
- **Focus on Middle School Math**
- **Provide incentives for students to enroll in Computer Science when in a Maryland High School**



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