

OPENING STATEMENT  
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**of the Subcommittee on Research and Technology**

House Committee on Science, Space, and Technology  
Subcommittee on Research and Technology  
*“Mentoring, Training, and Apprenticeships for STEM Education and Careers”*  
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Thank you, Chairwoman Comstock, for holding this hearing and all of the witnesses for being here this morning. The National Science Board recently released its biennial Science and Engineering Indicators report. My biggest takeaway from the report is that we are falling behind. China has learned from our economic success, which we have achieved in large part through our investments in science and innovation. China and others are aggressively investing in research and development and in their own STEM workforces. Meanwhile, we are tapping the brakes.

This is not the time to be complacent about our standing as a global economic leader. Other countries are nipping at our heels and we must take meaningful action before it is too late. While creating financial incentives and lowering costs for businesses may help provide a boost, fiscal policy alone will not keep our economy strong. To ensure our long-term economic health, we must continue to actively invest federal dollars in the long-term foundation on which our economy is built: Research & Development and human capital.

In today’s increasingly technological and data-driven economy, a strong STEM workforce is critical for growth and global competitiveness. When workers are equipped with the technical skills that industry needs, companies are able to innovate, increase production, expand, and create new jobs. This virtuous cycle is interrupted when employers cannot find workers with the skills they need. This is where we find ourselves today.

The so-called “STEM skills gap” is not new. While we can debate the precise cause and scope of the gap, its effects are undeniable. The demand for STEM skills is growing and rapidly evolving, as employers continually update their business models to stay ahead of the competition. And our education system has generally been slow to respond and adapt to the changing economy. As a result, businesses have struggled to find qualified workers. The skills gap is worse in some industry sectors than others, but in many cases, it is dragging down productivity.

There are good examples of innovative approaches to career-focused STEM education around the country, such as the NSF-funded Advanced Technological Education program at Moraine Valley Community College in my district, run by one of today’s witnesses, Dr. Sands. I’m also encouraged by companies such as Accenture, Aon, and IBM that are piloting an old model of workforce development - the apprenticeship - in new fields like cybersecurity and customer service. But we will need far more innovative programs like these to meet growing demand.

The issue of STEM workforce development is a particularly important one for me. Chicago is unique among major U.S. cities in the degree to which its economy is strong in both service and

manufacturing jobs. These sectors are increasingly driven by technology, automation, and data analytics, so the demand for STEM skills is high. I look forward to hearing from our witnesses today their thoughts on mentoring, apprenticeships, and other innovative strategies for workforce development, and whether they should be more widely adopted in new industry sectors and geographic regions.

As Ranking Member of the Research and Technology Subcommittee, I am particularly interested in hearing ideas on the role federal science agencies can play in increasing coordination between industry and educational institutions. We need to close the STEM skills gap in the near term, but I think it is just as important to create an agile STEM workforce that can respond to changing needs over the long term. Our future depends on it.

Thank you. I yield back the balance of my time.