

## Opening Statement

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**Ranking Member**  
**Subcommittee on Research and Science Education**  
**House Committee on Science, Space, and Technology**

Committee Hearing:  
*Oversight of the Networking and Information Technology Research and Development Program and  
Priorities for the Future*  
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Thank you Chairman Brooks. [As the chairman noted] It has been more than two years since this committee developed and passed bipartisan legislation to reauthorize and update the NITRD program. I was a cosponsor of Chairman Gordon's bill in 2009, and while the Senate never acted on it, I hope that this hearing is the first step towards action this Congress.

Networking and Information Technology are developing quickly, and in the last two years not only has the NIT landscape changed, but a committee of experts, PCAST, has delivered a new set of recommendations and priorities to Congress. The previous PCAST report was very helpful in developing our last bill, so I am looking forward to hearing from the witnesses about what's changed in the last two years and how that bill could be updated and improved.

The NITRD program evolved from a federal program established under the High Performance Computing Act of 1991. That Act provided the funding that led to the development of Mosaic in 1993, the World Wide Web browser that made the Internet user-friendly and led to its explosion in the 1990s. I am proud to note that Mosaic was created by a team of programmers at the federally funded National Center for Supercomputing Applications at the University of Illinois. Netscape founder Marc Andreessen, who was a leader of the Illinois team before launching his company, was quoted as saying, "If it had been left to private industry, it wouldn't have happened, at least, not until years later."

It was an unfortunately worded reference to the High Performance Computing Act of 1991 by its author and champion, Al Gore, which turned into the punch line that Al Gore invented the internet. But it is without question that that Act set the stage for a coordinated federal R&D and investment strategy that has underpinned U.S. leadership in networking and information technology over the past two decades. But today we find ourselves in a different world, in which U.S. leadership in NIT can no longer be taken for granted, and we need to think carefully about how we set priorities under difficult budget conditions. PCAST recommended three areas for priority investments: NIT for health, NIT for energy and transportation, and cybersecurity. This third area, cybersecurity, has been one of my highest priorities this Congress and I joined Mr. McCaul in introducing the Cybersecurity Enhancement Act earlier this year. I look forward to hearing from witnesses about priorities and future directions of NITRD's cybersecurity component.

Finally, I want to say a few words about NIT education and workforce issues. In 2009, SRI International produced a report on the NIT workforce at the request of the NITRD program office. In that report, the analysts at SRI found that the NIT landscape is more complicated than just the "more jobs than skilled workers" mantra we sometimes hear. The supply and demand curve really depends on the sector within NIT, and the level of education and skills that we are talking about.

I have watched with growing concern as some of our leading IT companies have outsourced increasing numbers of jobs, following the disturbing pattern that has decimated manufacturing in this country. Over

the past decade, for instance, IBM's domestic workforce has steadily shrunk while its overseas workforce has grown. As of last year it was down to one quarter of the total, and for the first time ever the company stopped providing breakouts of the number of employees it has in the U.S.

While the company's "Project Match" program has offered to help workers laid off from domestic sites obtain travel and visa assistance for jobs in countries like India, China, and Brazil, and even though IBM has withdrawn its patent application for a "*Method And System For Strategic Global Resource Sourcing*," I worry that we could be training students for jobs that end up being outsourced. At the same time, I know that we have a real need for cybersecurity professionals who can help protect our most sensitive networks and informaticians who can discover new ways to deal with the exponentially growing amount of data we produce.

So I want to hear from the witnesses today about how we can be confident we are training students for jobs that will be available here in the U.S., and how we can focus education and training resources within NITRD on those job skills. Thank you again for taking the time to appear before us today to help educate us about the NITRD program, and I look forward to your testimony.