STATEMENT OF

THE HONORABLE VERNON J. EHLERS
MEMBER
U.S. HOUSE OF REPRESENTATIVES

Hearing on the Budget Resolution for FY 2010 before the Committee on Budget
Wednesday, March 13, 2009 at 10:50 a.m.
210 Cannon House Office Building

Thank you, Mr. Chairman, for the opportunity to testify as the Committee considers a fiscal year 2010 Budget Resolution.

As you begin the budget process, I strongly urge you to give high priority to scientific research and development and math and science education in the General Space, Science and Technology function (250) of the budget. I will focus my comments on two areas covered under this function: the National Science Foundation and the Department of Energy's science programs. I will also address the science and technology portion of the Commerce account within function (370).

I am pleased that the President's preliminary fiscal year 2010 budget request states his commitment to "… invest in the science, research, and technology that will lead to new medical breakthroughs, new discoveries, and entire new industries." The Budget provides substantial funding levels for the National Science Foundation (NSF) and similarly large increases are anticipated (although not yet detailed) for the Department of Energy's (DOE) Office of Science and the Department of Commerce's National Institute of Standards and Technology (NIST).

As we struggle in a current economic downturn, many people refer to the economic growth of the 1990's as a place we would like to return. We fail to realize that a large part of that growth came from the "dot-com" boom based around innovations in high-technology fields. Many of the discoveries turned into applications during that time were based on the fundamental research investments of the previous decades.

Starting in 2006, the Congress and Administration jointly committed themselves to "doubling the basic science research budget." Though the fiscal year requests have included the establishment of a doubling track for the DOE Office of Science, the NSF, and NIST's laboratories and research, Congress has been unable to set the final doubling numbers into law. **This year, I ask that the President's request for science be granted, starting with the preparation of the House budget allocations for Function 250 and Function 370.**

Background

On a bipartisan basis, Congress has recognized that innovation is critical to our national competitiveness and that scientific research and development is the key to

increased innovation, economic vitality and national security. I am very appreciative that this committee has been historically supportive of this goal.

Since the passage of the America COMPETES Act, Congress has struggled to fully fund the authorized funding levels for the COMPETES agencies. I recognize that the American Recovery and Reinvestment Act (H.R. 1) has helped patch some significant holes in these agencies, which for many years have had to deny many high-quality grant applications due to lack of funding. However, ultimately we must commit to steady and sustained growth in research budgets and work within the annual budget and appropriations process to maintain a consistent and predictably strong funding pathway for these agencies.

To elucidate the importance of science and technology funding, I would like to talk about our economic competitiveness, and articulate how the DOE Office of Science, NSF, and NIST are addressing this issue.

Department of Energy's Office of Science

"Existing energy approaches - even with improvements from advanced engineering and improved technology based on known concepts - will not be enough to secure our energy future. Instead, meeting the challenge will require new technology for producing, storing and using energy with performance levels far beyond what is now possible." [1]

Our country faces a number of challenges related to energy supply, development, and sustainability. The Department of Energy's Office of Science funds 40 percent of all federal basic research investments in the physical sciences as well as 14 percent of investments in mathematics and computing, environmental sciences, and engineering. Research in these areas has led to many new economic and medical advancements including, among others, new energy sources, the Internet, cell phones and laser surgery. To overcome our substantial energy challenges, the federal government must continue to support research in alternative energy sources, nanotechnology and supercomputing.

The Office of Science is not only important to the future of U.S. science, but also to our competitiveness and energy security. I respectfully request that the Committee provide the Office of Science with a budget that reflects the critical role that it plays in maintaining our economic and military pre-eminence.

National Science Foundation

"Although the United States is still the world leader in science, technology, and engineering, the findings of the National Science Board and of many other eminent bodies representing a wide range of perspectives, from think tanks, industry,

[1] New Science for a Secure and Sustainable Energy Future : A Report from the Basic Energy Sciences Advisory Committee, Department of Energy, December 2008.

academia, and government, indicate that urgent and sustained action is required to maintain our leadership. During these difficult economic times, when industry may be forced to cut back basic research investments for short-term survival, it is particularly critical for the federal government to ensure our innovative capacity through basic research and workforce training in science and engineering." [2]

The National Science Foundation (NSF) is the only federal agency dedicated solely to supporting basic scientific research and education. NSF funding accounts for one-fifth of all federal support for basic research and 40 percent of physical science research at academic institutions. Nearly 90 percent of these awards are made through a competitive, merit-review process that ensures that excellent and innovative research is being supported. Furthermore, NSF consistently receives the highest rating from OMB for the efficiency and excellence of its programs.

I am very appreciative that the fiscal year 2009 House and Senate-approved Budget Conference Report included language recognizing the goals of the America COMPETES Act and stating that "this resolution will keep us on the path toward doubling funding for the National Science Foundation, basic research in the physical sciences, and collaborative research partnerships, and toward achieving energy independence through the development of clean and sustainable alternative energy technologies."

The Administration's FY 2010 budget request for NSF of $7.0 billion is a 16 percent increase over FY 2008 appropriations. Before the funding provided through the American Recovery and Reinvestment Act, the NSF budget had been stagnant in recent years, despite the COMPETES Act setting the agency on a 7-year doubling path. Providing a budget that allows for the President's requested level of NSF funding is extremely necessary for FY 2010 and I ask you to enhance the function 250 allocation accordingly.

National Institute of Standards and Technology

"The mission of NIST is 'To promote U.S. innovation and industrial competitiveness by advancing measurement science (or metrology), standards, and technology in ways that enhance economic security and improve our quality of life.' As a government agency, it does so objectively, without favor or advantage to any preferred technology or enterprise. NIST has been described …as the 'crown jewel of the federal laboratories,' since it is recognized as the broadest and strongest national metrology institution in the world. Unfortunately, the essential role NIST plays in enabling the competitiveness of American industry has often been under-recognized." [3]

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[2] Testimony of Dr. Steven Beering, Chairman, National Science Board before the Research and Science Education Subcommittee, House Committee on Science and Technology, February 26, 2008

[3] Written Testimony of Dr. Stanley Williams, Hewlett-Packard Quantum Research Group on behalf of ASTRA, The Alliance for Science & Technology Research in America before the House Science & Technology Committee, Subcommittee on Technology and Innovation, February 15, 2007

The National Institute of Standards and Technology (NIST) is the nation's oldest federal laboratory, and the only laboratory with the explicitly-stated mission to promote U.S. innovation and industrial competitiveness. NIST provides high-quality, cutting-edge research in a number of scientific and technical fields, and it plays a critical role in keeping our nation competitive. Since 1997, NIST researchers have been awarded three Nobel Prizes, demonstrating the high-quality work this agency is supporting.

Perhaps no other group has been impacted as greatly by the current economic recession than the small and medium-sized manufacturers in our nation. The Hollings Manufacturing Extension Partnership (MEP) program helps small and medium-sized manufacturers stay competitive by helping them become more innovative, and the Technology Innovation Program (TIP) is NIST's only external research grant program, funding high-risk, high-return technology research and development focused on national priorities. Both of these programs run on an efficient cost-shared basis with industry. Without a doubt, these two programs provide invaluable assistance to the sectors of our economy that are currently fighting to stay competitive in the global economy.

The President's FY2010 budget includes $125 million for the Hollings Manufacturing Extension Partnership Program and $70 million for the Technology Innovation Program. Given the recent paltry funding these programs have received, this request may appear to be a healthy level of funding. However, given our current economic situation, I believe that the COMPETES authorized levels for FY 2010 of $133 million for MEP and $141 million for TIP would be more appropriate and ask that the committee work to improve the allocation for the science and technology portion of function 370 accordingly. Both the MEP and TIP have historically had strong, bipartisan Congressional support, and I respectfully ask that this support be reflected in the Budget Committee's recommendations.

Conclusion

Thank you in advance for your efforts to undertake this important job. While the preliminary budget does not spell out exact funding for many of these programs, I believe that you can send a strong signal about the importance of fundamental science and education to the Appropriations Committee by making function 250 and the science and technology portion of function 370 top priorities in the FY 2010 budget.

Thank you again for allowing me to testify.