

OPENING STATEMENT

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of the Subcommittee on Research & Technology**

House Committee on Science, Space, and Technology

*“Head Health Challenge: Preventing Head Trauma from Football Field to Shop Floor to  
Battlefield”*

December 13, 2017

Thank you Chairwoman Comstock for holding this hearing and thank you to the witnesses for being here. Prizes and other types of challenges have proven to be valuable tools to advance research and technological innovation to help solve some of today’s biggest social and economic problems, including head injuries. Under the Obama Administration, the federal government’s use of prizes and challenges increased exponentially and we’ve heard that the current administration is likewise interested in maximizing the use of such competitions. It is important for this Committee to periodically examine federal agencies’ use of prize authority, so I am pleased we are having this hearing this morning.

Since World War II, the U.S. has become a leader in advancing science and innovation thanks in large part to the long-term commitment of the federal government to research and development. Today, grants, contracts, and cooperative agreements form the cornerstone of the government’s support for R&D. While these traditional research financing mechanisms continue to be critical, they also require a big up-front investment with no guarantee of success. For certain types of scientific and technological problems, prize competitions and challenges can stimulate major breakthroughs with little to no risk to the taxpayer.

Science prizes and challenges, whether cash prizes or non-monetary awards, incentivize creative approaches to bold but achievable goals. Early prize competitions dared inventors to do the unthinkable: to fly over the Atlantic Ocean; to determine longitude for accurate ship navigation; and to preserve food to feed an army on a battlefield. Achieving bold goals requires bold thinkers, and prize competitions and challenges often attract participants who do not typically seek government grants or contracts. The nation’s advancement in innovation depends on thought leaders with a diversity of ideas and experience.

I have long supported the use of prizes to promote the advancement of emerging technologies. I co-authored the H-Prize Act which became law in 2007 and has given the Department of Energy authority to conduct prize challenges for the development of hydrogen as a transportation fuel. I also introduced a bill to provide prize authority to the National Science Foundation and supported the 2010 COMPETES reauthorization provision that provided broad prize authority to all federal agencies. And I will soon be introducing a new bill called the Challenges and Prizes for Climate Act, which will establish new prize competitions, overseen by the Department of Energy, to work toward breakthroughs in clean energy technology development and implementation, and climate change adaptation and mitigation. I urge my colleagues to look at this bill and to consider cosponsoring.

100 federal agencies have offered 800 prizes since the launch of Challenge.gov in 2010. The NIST Head Health Challenge III is one such example, and I believe it may serve as a model for

public-private collaboration in the development and implementation of a prize competition. As the witnesses describe their experience in the Head Health Challenge, I hope they will leave us with their thoughts on how this challenge has changed the protective gear industry, why it was successful, and what, if anything, they might have improved in the design or implementation of the challenge. I also look forward to hearing what next steps are planned and underway to take advantage of the lessons learned and technological advances made during the three Head Health Challenges. Ensuring that the attention and excitement generated by a challenge is effectively channeled into action upon its conclusion is one of the hardest parts of running an effective challenge, and I look forward to hearing from our witnesses their best ideas for doing that.

I also look forward to Dr. Dehgan's testimony about his work launching USAID's Global Challenges for Development and his current work to facilitate public-private partnerships for prizes and challenges. I believe he will help us understand the types of problems that are best solved through open innovation, and some of the cutting edge new ways prizes and challenges are being used. I also look forward to hearing his thoughts on how federal prize competitions and challenges best fit into the government's broader R&D portfolio.

Thank you Madam Chair. I yield back.