

WRITTEN TESTIMONY OF A. JOSEPH SHEPARD ASSOCIATE ADMINISTRATOR FOR OFFICE OF INVESTMENT & INNOVATION U. S. SMALL BUSINESS ADMINISTRATION

THE SMALL BUSINESS INNOVATION RESEARCH (SBIR) & SMALL BUSINESS TECHNOLOGY TRANSFER (STTR) PROGRAMS

BEFORE THE SUBCOMMITTEE ON CONTRACTING AND THE WORKFORCE OF THE COMMITTEE ON SMALL BUSINESS & THE SUBCOMITTEE ON RESEARCH AND TECHNOLOGY OF THE COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

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Chairman Knight, Chairwoman Comstock, Ranking Member Murphy, Ranking Member Lipinski and distinguished members of the committees, thank you for inviting me here today to discuss the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs.

On March 22, 2017, SBA Administrator Linda McMahon announced my appointment as the SBA's Associate Administrator for the Office of Investment and Innovation. I am honored to have the opportunity to be at the SBA, and now make it my mission to ensure that we continuously improve our processes and look for innovative ways to deliver a quality product to all of our stakeholders.

Like SBA Administrator McMahon, I am firmly committed to improving the effectiveness, efficiency, and accountability of the SBIR/STTR programs. Since taking over the Office of Investment and Innovation I have dedicated myself to developing a deeper understanding for where America's Seed Fund is working and where we can make necessary improvements.

I am pleased to report a number of accomplishments that are already completed or underway here at the SBA. We are modernizing the program's systems, expanding outreach efforts, promoting inclusive innovation, and strengthening relationships outside as well as within the programs. With that, I'd like to describe to you today a few of the major accomplishments we made over the last couple of years but I must start by thanking the committees for your work in reauthorizing the programs in December 2011 and for extending the programs in 2016. We know these programs have a powerful and positive impact on our economy. Studies from the Air Force and Navy have shown that a relatively small investment made through the SBIR program results in new economic activity and the creation of many high-paying jobs each year – a worthy return on investment.

SBIR is a President Reagan-era program introduced to ensure that our nation's high-tech small businesses receive a portion of the federal R&D allocation. As far back as 1982 Congress understood the importance of providing early stage development funding to the entrepreneur. We have all seen the great success of whole new industries being formed by individuals with an idea and

a passion. Examples include the cell phone technology of Qualcomm to the advances in robotics and automation of iRobot to lifesaving medicines from Biogen/IDEC and MedImmune, and there are thousands of other successful firms across the country because of this catalytic program.

Illumina, a global leader in DNA sequencing and 2016 SBIR Hall of Fame recipient, received SBIR funding as a startup in 1999, which allowed them to develop higher-risk research positioned further from the market. These SBIR-funded projects resulted in core technology, enabling entirely new fields in life sciences, ultimately leading to the ability to sequence an entire human genome for \$1000, enabling precision medicine and many new possibilities for human health. The company has grown to over 5000 employees, has a market cap over \$26 billion and generated \$2.2 billion of revenue in 2016.

SBIR funding is a transformational fuel that commercializes university research, generates new industries, creates an incredible number of new high paying jobs and ensures America is technologically competitive in the global marketplace. As the newly appointed Associate Administrator, I believe it's more critical than ever to support this program as it provides much needed seed funding to high tech small businesses across the United States, including areas beyond the major VC hubs of San Francisco, Boston, and New York.

Thanks to this committee, many of our outreach, engagement, digital presence, and oversight activities were enabled because of the 3% administrative funding pilot program included in the 2011 Reauthorization. This important pilot program expires in September 2017 and we urge these committees to strongly consider extending this program which has been a critical tool in allowing the agencies to carry out the many legislative improvements made to the program in 2011, such as efforts to strengthen and diversify the pipeline of innovation entering the SBIR/STTR programs. SBA has coordinated a successful outreach campaign to bring SBIR agency program managers out of Washington, DC and into our local communities through the SBIR Road Tour, Regional Summits, and National Conferences.

Over the last two years we have visited 27 states and by the end of this year it will be 52 stops in 35 states, including all states traditionally underserved in

federal R&D funding in the continental US. As I testify today, we are launching our 2017 Road Tours and there is a bus full of SBIR program managers in the Mountain West, visiting Idaho, Utah, Nevada, and Arizona. These efforts and those of participating agencies have collectively engaged 10,000 innovators across the US.

Universities have been a major partner in our outreach efforts. In fact, more than half of our outreach efforts have been in partnership with and at universities. The SBIR and STTR programs are an ideal tool for universities to commercialize their basic science discoveries and help to transition that public investment in those discoveries to the marketplace. Studies from the National Academies have shown that depending on the agency, 35-70% of SBIR projects and 95% of STTR projects had a university connection, and for NIH and NSF more than 80% of the SBIR firms had at least one academic founder. Over 350 different research institutions have been involved in SBIR projects. SBIR seed funding provides critical capital to allow academic discoveries to become products that improve people's lives.

SBA has also coordinated with NASA efforts to ensure that historically black colleges and universities (HBCUs) and other minority-serving institutions (MSIs) are aware of the opportunity to access the SBIR and STTR programs to translate technology from lab to market.

A particular priority for Administrator McMahon, and for many members of these respective committees, is to ensure women innovators are competing for SBIR and STTR awards. SBA continues to lead and support SBIR agency efforts to increase outreach and support to women entrepreneurs. This past October we held a Women SBIR Networking and Awareness Day at MIT which brought together 200 innovators, thought-leaders, and SBIR agencies.

Beyond outreach, SBA is working to ensure more agencies can learn from and adopt a program like the Department Of Energy's (DOE) Phase 0 Proposal Assistance Program, which provides targeted assistance for company formation and proposal writing to underrepresented communities, including small businesses owned by women, minorities, or located in states that have historically lower DOE funding. DOE was able to establish this program

using funding provided by the Administrative Funding Pilot and would not be able to fund this successful effort if the pilot expires.

SBA has modernized the SBIR.gov business intelligence platform and worked collaboratively with the 11 participating agencies to improve data collection needed for reporting purposes and for responding to GAO recommendations. Timely and accurate submission of reports is a key goal for our team. We will continue to work to ensure program accountability and serve as good stewards of our taxpayer dollars.

The SBA see's great value in all four of the pilot programs executed in the 2011 Reauthorization to include, Administrative Funding, Direct to Phase II, NIH Phase 0 Program, and the Civilian Agencies Commercialization Pilot Program. SBA recommends that all of these pilots be extended or made permanent.

The bottom line is that small businesses play a key role in developing our next generation of innovative products and ensuring a strong and growing economy. SBA plays a critical role in ensuring the 11 agencies set aside the proper funding, make their systems open to new firms, encourage women, minorities and those from underrepresented states to participate. Congress has handed the oversight authority of these programs to SBA and I look forward to working with you to improve our ability to provide the data and reports you need to ensure the program is being properly executed.