

TESTIMONY OF
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OFFICE OF THE UNDER SECRETARY OF DEFENSE
(ACQUISITION, TECHNOLOGY & LOGISTICS)
BEFORE THE
HOUSE SUBCOMMITTEE ON TERRORISM,
UNCONVENTIONAL THREATS AND CAPABILITIES

September 29, 2010

HOLD UNTIL RELEASED BY THE COMMITTEE

Good afternoon Chairwoman Sanchez, Ranking Member Miller and Members of the Subcommittee on Terrorism, Unconventional Threats and Capabilities.

Thank you for the opportunity to testify on the Department of Defense (DoD) Small Business Innovation Research (SBIR) Program. I welcome this opportunity to provide a perspective on how the program is implemented and managed within the Department. The program is used as a tool for the Department to seed innovation in our industrial base, and, in so doing, develop leading-edge technologies with the potential to meet warfighter needs today and in the future. Now, more than ever, we need to leverage our nation's small businesses responsiveness, efficiency, and capacity to innovate.

One of our central obligations as public officials is to ensure that we are using taxpayer dollars as productively and efficiently as possible for their intended purpose. In that vein, today I will provide an overview of the SBIR program and its impact, and also highlight some actions the Department has undertaken to improve the program. We at the Department are always ready to work with the congressional oversight committees, and other participating federal agencies, including the Small Business Administration (SBA) to ensure the SBIR program is as effective as possible.

SBIR at DoD

The DoD SBIR Program comprises twelve Military Department, Defense Agency, and other Defense Activity programs, with oversight provided by the DoD Office of Small Business Programs. These participating elements, hereafter referred to as "Components," in order of largest to smallest budget in Fiscal Year 2009 (FY09), are the:

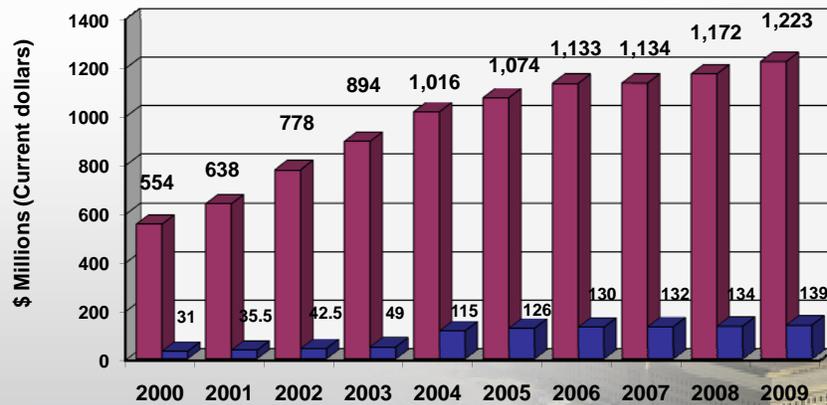
Navy, Air Force, Army, Missile Defense Agency (MDA), Office of the Secretary of Defense (OSD), Defense Advanced Research Projects Agency (DARPA), Joint Science and Technology Office for Chemical and Biological Defense (CBD), US Special Operations Command (SOCOM), Defense Threat Reduction Agency (DTRA), Defense Logistics Agency (DLA), Defense Microelectronics Activity (DMEA), and National Geospatial-Intelligence Agency (NGA).

The Department's minimum SBIR budget is determined by a statutory 2.5 percent assessment of the extramural research, development, test and evaluation (RDT&E) budget. In addition, the related Small Business Technology Transfer (STTR) program is funded by a statutory 0.3 percent assessment against the same base. Each Component's portion of the overall program is managed to be responsive to specific mission and corresponding technology research and development needs while also being consistent with overarching Department science and technology guidance. In terms of budget, the Department's Program represents over 50 percent of the total federal SBIR budget, which exceeds two billion dollars.

As shown in the chart below, the DoD SBIR Program has experienced substantial growth in recent years, more than doubling in size from FY00 to FY06 to over one billion dollars, and it continued to grow through FY09 to over \$1.2 billion. This expansion is driven directly by growth in the underlying RDT&E budget, as the SBIR percentage has remained constant over this period of time. The number of SBIR solicitations has also increased from two to three per year, spaced almost evenly throughout the year.



SBIR & STTR Budgets



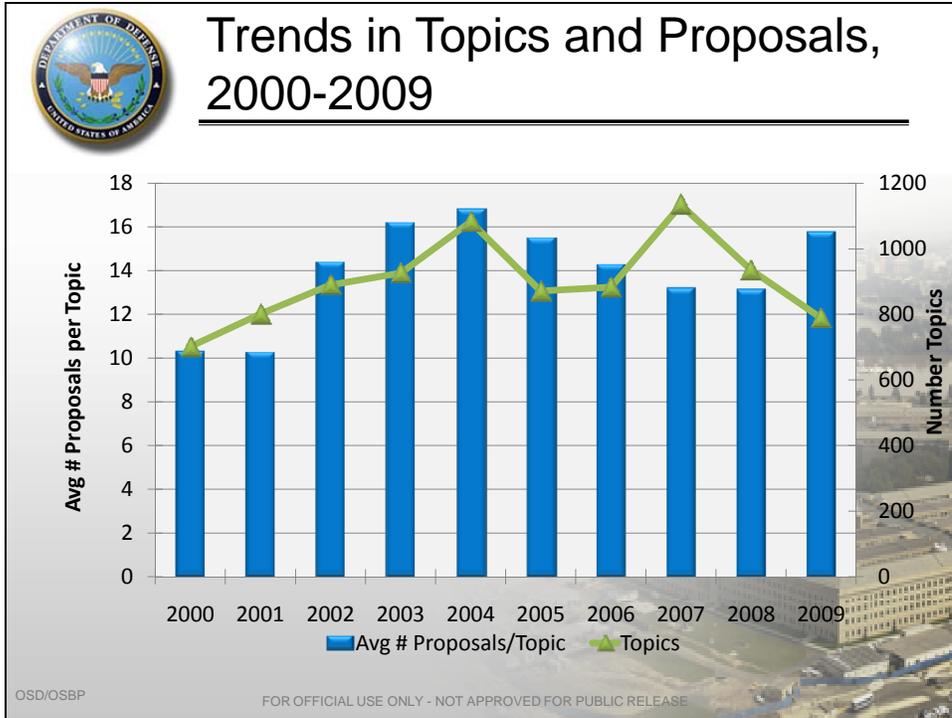
Increasing RDT&E appropriations have driven strong, sustained SBIR budget growth.

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Likewise, the number of proposals received and contracts awarded have increased proportionally with budget growth. The number of topics, statements of research and development needs, solicited annually has not grown as much. This reflects a trend towards a greater number of Phase I and II contract awards¹ per topic; effectively increasing the relative degree of investment focus. To illustrate, in FY00, 701 topics attracted 7,201 Phase I proposals; while for FY09, 789 topics drew 12,434 proposals. As shown below, for several years, topics received about 14 proposals each, on average. After a brief dip in FY07 and FY08, we saw a substantial surge in FY09. This increased interest in the program is not surprising as SBIR remains a stable source of innovation capital and opportunity during this time of economic downturn.

¹ Phase I contracts fund effort to assess the technical feasibility of a proposal while Phase II efforts fund technology development and demonstration and typically result in a prototype. Phase I guidelines are currently \$150,000 and six months duration and Phase II guidelines are currently \$1,000,000 and two years duration.



The SBIR program funds a great deal of research and development in a given year.

The charts below summarize program activity by DoD component for FY09. In total,

12,434 Phase I and 1,581 Phase II proposals were received and evaluated, and 2,017

Phase I and 972 Phase II contracts were awarded. These contracts were awarded to 1,285

different firms. Additionally, 553 FY07 Phase II contracts continuing into FY09 received

funding and 73 Phase II “Enhancements” were done to co-fund additional development

with sources of non-SBIR federal funding or other non-federal funds.



Annual Report Summary: FY 2009 SBIR Program Activity

DoD Component	SBIR Budget	# Topics	# Ph I proposals	# Ph I awards	# Ph II proposals	# Ph II awards
Navy	\$332,871,000	224	3,555	414	351	208
Air Force	\$331,831,000	184	2,359	598	505	245
Army	\$265,653,000	204	3,449	334	339	226
MDA	\$111,418,000	40	584	150	97	86
OSD	\$74,522,000	61	932	161	111	56
DARPA	\$70,426,000	45	947	288	132	72
CBD	\$13,220,000	10	192	31	14	9
SOCOM	\$10,206,000	5	95	14	9	5
DTRA	\$8,076,000	12	198	12	10	7
DLA	\$3,229,750	1	63	9	8	5
DMEA	\$907,000	3	60	6	3	1
NGA*	\$499,049	0	0	0	2	2
All DoD	\$1,222,858,799	789	12,434	2,017	1,581	922

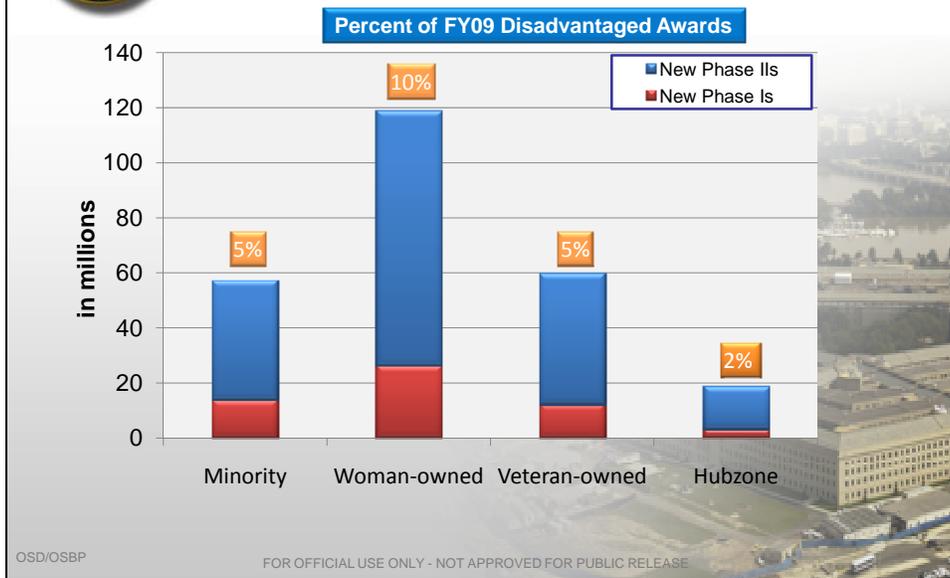
*NGA is a voluntary participant
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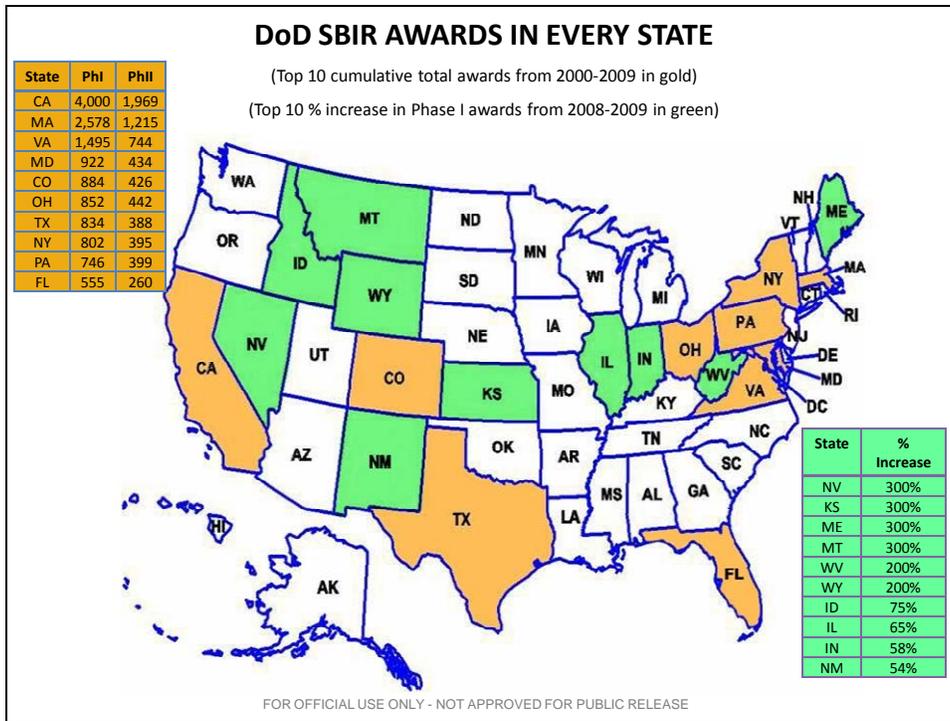
All SBIR Phase I awards are based on the soundness, technical merit, and innovation of the proposed approach. No preference is given to small business concerns owned or controlled by socially or economically disadvantaged individuals, Woman-owned small business concerns, Veteran-Owned small business concerns (VOSB), and Small Business Administration (SBA)-certified small business concerns located in Historically Underutilized Business Zones (HUBZone). However, awards to these firms account for about 22% of all Phase I awards in FY09, as shown below. WOSB and VOSB firms, in particular, are capturing an increasing percentage of SBIR contract awards. Within the VOSB category, there has been dramatic growth in the percentage of total awards going to Service-Disabled Veteran-Owned small business concerns.



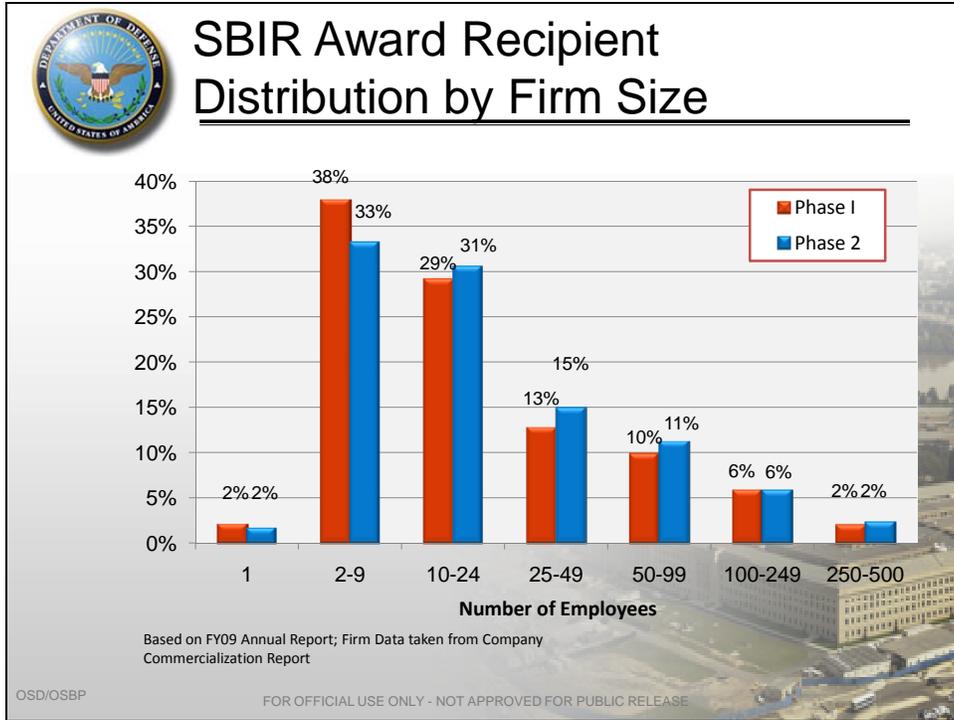
Annual Report Summary: FY09 SBIR Data



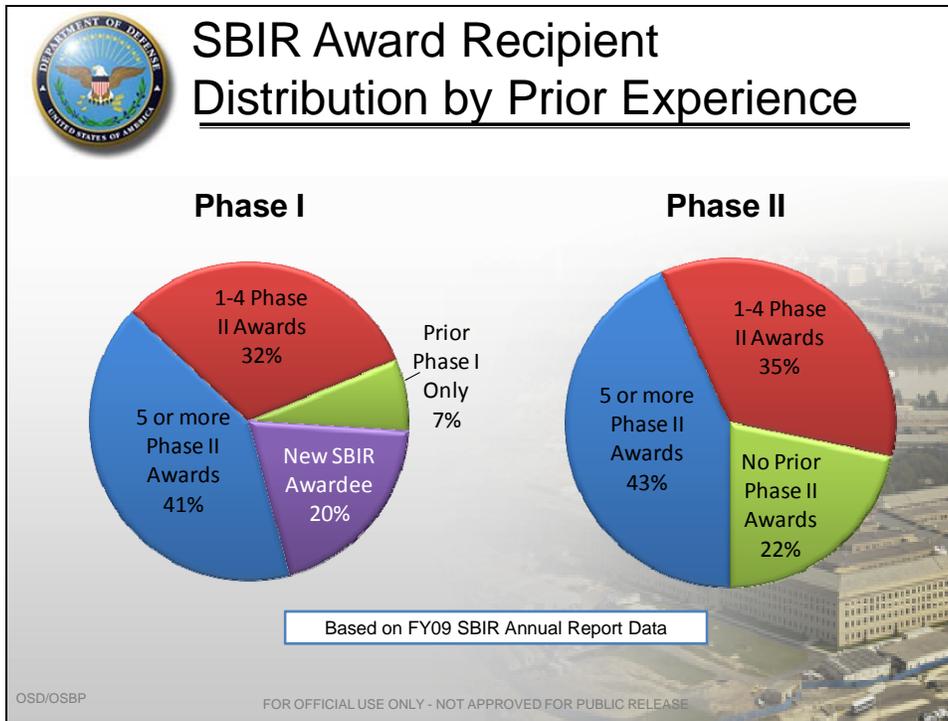
While program participation occurs throughout the United States and awards are made to firms from every state, participation from a few states stands out, as shown below. The states with firms receiving the most awards from 2000 through 2009, in descending order, are: California, Massachusetts, Virginia, Maryland, Colorado, Ohio, Texas, New York, Pennsylvania, and Florida. States that have experienced the greatest percentage increase in the number of awards over this period, starting with the greatest percentage increase are: Nevada, Kansas, Maine, Montana, West Virginia, Wyoming, Idaho, Illinois, Indiana and New Mexico.



Looking at the size of firms among the DoD SBIR award base, historically, a high percentage are very small. The chart below shows the distribution of firms receiving Phase I and Phase II contracts in FY09 by number of employees. Sixty-nine percent of Phase I award winners had fewer than 25 employees at the time of contract award. Similarly, 65% of Phase II award recipients had fewer than 25 employees at the time of award. The distribution suggests that firm size is not a strong determining factor with respect to reaching Phase II.



The next chart shows the prior experience level with the DoD SBIR Program of FY09 award recipients. 20% of Phase I award winners had never received a DoD Phase I award, while an additional 7% had never received a Phase II award. Among Phase II award recipients, 22% of Phase II award recipients had never before been awarded an SBIR Phase II contract by the Department, while an additional 35% had received four or fewer Phase II awards. These statistics show that the SBIR program is attracting a significant number of new or relatively new program participants.



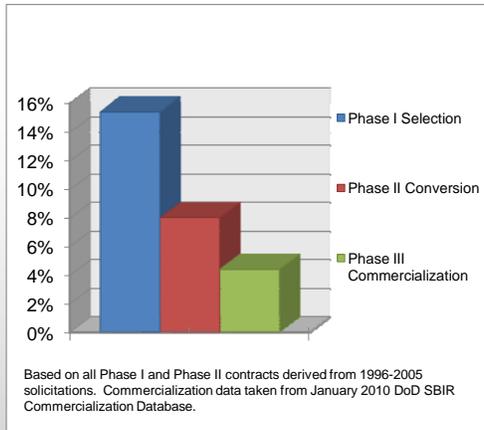
The SBIR Program is quite competitive. The chart below shows that the Phase I proposal selection and funding rate for a ten-year window of program activity is about 16%, or approximately one in six. While this can be a daunting figure for candidate firms, the percentage that “convert” to Phase II is much higher, almost 50%. Since 2000, the Department has collected data on “Phase III” activity to gauge commercialization² of Phase II technology efforts. 55% of Phase II contracts deriving from solicitations conducted between 1996 and 2005 report receiving non-SBIR revenue or investment which derives from, extends or concludes the Phase II work.

² The Small Business Administration (SBA) SBIR Program Directive, September 24, 2002, section 3(f) defines commercialization as: “The process of developing marketable products or services and producing and delivering products or services for sale (whether by the originating party or by others) to the Government or commercial markets.” Phase III is defined in section 4(c) as “...work that derives from, extends or logically concludes effort(s) performed under prior SBIR funding agreements, but is funded by sources other than the SBIR Program.”



DoD SBIR/STTR Historical Conversion Rates

- 16% of DoD SBIR/STTR proposals are awarded.
- Then 50% of Phase I awards receive a Phase II.
- And 55% of Phase II awards commercialize.

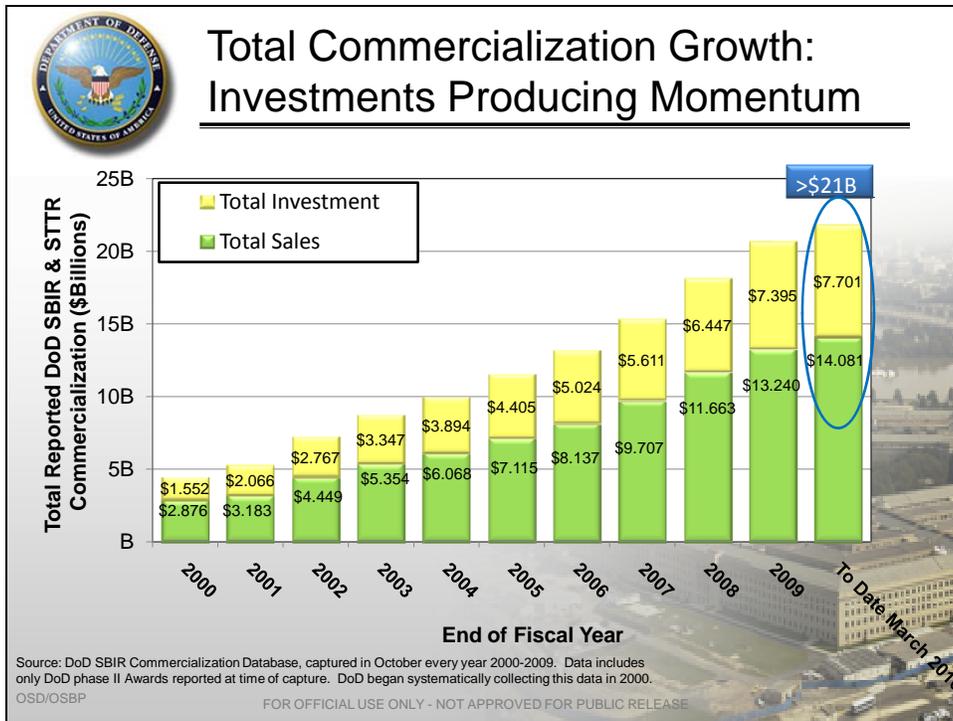


DoD SBIR/STTR is a highly competitive process, but award recipients have a good chance of commercialization.

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The Department has many efforts underway to promote more SBIR commercialization in the defense and broader marketplaces. As the next chart illustrates, the DoD SBIR Program has over \$21 billion in cumulative commercialization reported by over 7,500 projects since the inception of the Program. As a rough comparative indicator the direct SBIR investment over the 2000-2009 period was \$9.6 billion.



The Military Departments are implementing Commercialization Pilot Programs (CPP), under authority granted by section 9(y) of the Small Business Act, as amended by section 252 of the National Defense Authorization Act for Fiscal Year 2006, to accelerate the transition of certain SBIR-funded technologies to Phase III and into the acquisition process, where the successful transition is expected to meet high priority requirements. The Army, Navy and Air Force are taking different approaches to this challenge and efforts to date show great promise with initial commercialization rates exceeding those of the broader SBIR Program. The Department plans to transmit our comprehensive annual report to Congress on FY09 CPP activity soon.

The Department just held its fifth *Beyond SBIR Phase II Conference and Technology Showcase* from 13-17 September 2010 to bring together key technology and acquisition personnel from government and industry to enable the commercialization of

SBIR-funded research and development into products. Recent Phase II award recipients from across the country were invited to showcase their technologies at this conference, which featured pre-scheduled "technology matchmaking" meetings between these firms and representatives of prime contractors, government technology and acquisition activities, the investment community and manufacturing firms. This annual conference event is open to all federal agencies and their recent contract or grant recipients.

With regard to policy, we have taken several steps to improve SBIR program utilization as a source of innovation within the Department. A policy memorandum was issued clarifying SBIR Phase II responsibilities to reinforce the imperative of SBIR data rights protection and highlight SBIR as a source of innovation to address Department needs. Additionally, the DoD regulation governing the acquisition system was modified to require that program managers include SBIR in program technology planning and give favorable consideration to successful SBIR technologies. We plan to roll out a new Continuous Learning Module at the Defense Acquisition University and incorporate the module into the training curricula for personnel in systems planning, research, development and engineering, acquisition, and contracting.

Conclusion

In summary, again I thank you for the opportunity to testify on the DoD SBIR Program, its value, and impact. I hope my testimony has provided you with an understanding of how the program is implemented at the Department of Defense. I would be happy to answer any questions you may have.