

**WASTE, FRAUD, AND ABUSE
IN THE SBIR PROGRAM**

HEARING

BEFORE THE

**COMMITTEE ON COMMERCE,
SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE**

ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

AUGUST 6, 2009

Printed for the use of the Committee on Commerce, Science, and Transportation



U.S. GOVERNMENT PRINTING OFFICE

52-753 PDF

WASHINGTON : 2010

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED ELEVENTH CONGRESS

FIRST SESSION

JOHN D. ROCKEFELLER IV, West Virginia, *Chairman*

DANIEL K. INOUE, Hawaii	KAY BAILEY HUTCHISON, Texas, <i>Ranking</i>
JOHN F. KERRY, Massachusetts	OLYMPIA J. SNOWE, Maine
BYRON L. DORGAN, North Dakota	JOHN ENSIGN, Nevada
BARBARA BOXER, California	JIM DEMINT, South Carolina
BILL NELSON, Florida	JOHN THUNE, South Dakota
MARIA CANTWELL, Washington	ROGER F. WICKER, Mississippi
FRANK R. LAUTENBERG, New Jersey	JOHNNY ISAKSON, Georgia
MARK PRYOR, Arkansas	DAVID VITTER, Louisiana
CLAIRE McCASKILL, Missouri	SAM BROWNBACK, Kansas
AMY KLOBUCHAR, Minnesota	MEL MARTINEZ, Florida
TOM UDALL, New Mexico	MIKE JOHANNIS, Nebraska
MARK WARNER, Virginia	
MARK BEGICH, Alaska	

ELLEN L. DONESKI, *Staff Director*

JAMES REID, *Deputy Staff Director*

BRUCE H. ANDREWS, *General Counsel*

CHRISTINE D. KURTH, *Republican Staff Director and General Counsel*

BRIAN M. HENDRICKS, *Republican Chief Counsel*

CONTENTS

	Page
Hearing held on August 6, 2009	1
Statement of Senator Rockefeller	1
Prepared statement	24
Statement of Senator McCaskill	25

WITNESSES

Alfred J. Longhi, Jr., Former Vice President, Lithium Power Technologies	1
Prepared statement	3
Thomas J. Howard, Acting Inspector General, NASA	5
Prepared statement	6
Allison C. Lerner, Inspector General, National Science Foundation	11
Prepared statement	13
Patricia A. Dalton, Managing Director, Natural Resources and Environment, U.S. Government Accountability Office	16
Prepared statement	18

APPENDIX

Report from Senate Commerce Committee Staff on “Cases of SBIR Waste, Fraud and Abuse”	39
Response to written questions submitted by Hon. Tom Udall to Thomas J. Howard and Allison C. Lerner	44

WASTE, FRAUD, AND ABUSE IN THE SBIR PROGRAM

THURSDAY, AUGUST 6, 2009

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Committee met, pursuant to notice, at 2:30 p.m. in room SR-253, Russell Senate Office Building, Hon. John D. Rockefeller IV, Chairman of the Committee, presiding.

OPENING STATEMENT OF HON. JOHN D. ROCKEFELLER IV, U.S. SENATOR FROM WEST VIRGINIA

The CHAIRMAN. This hearing will come to order. I should point out that we have a vote on our new nominee for Supreme Court at 3 p.m., which absolutely messes all of your schedules up, but we'll make it work.

What I'm going to do, and I'll suggest to the Ranking Member when she—when she comes, that we forego our opening statements, in which I try to set the scene, and go directly to you so that you don't feel left out in the cold while we're speaking and you're sitting, and then we leave, and then wondering if you'll ever see us again. You will. We'll go down and vote. We have to vote from our seats because it's a very formal-type vote.

And, so, I would start out with you, sir, Mr. Longhi.

STATEMENT OF ALFRED J. LONGHI, JR., FORMER VICE PRESIDENT, LITHIUM POWER TECHNOLOGIES

Mr. LONGHI. Thank you. Good afternoon, Chairman Rockefeller and distinguished Committee Members. It is both an honor and privilege to be able to make a statement today to the Senate Committee regarding the ease with which fraud can be conducted against the Small Business Innovation Research Program.

The CHAIRMAN. I have so many nice things to say about you, and I just hate waiting. But, I'll just have to.

Mr. LONGHI. Thank you. Thank you for your kind words.

My name is Alfred J. Longhi, Jr., and I'm the former Vice President of Lithium Power Technologies and a witness to SBIR fraud. Due to being a father, a husband, and a patriotic citizen, I had no choice but to lead by example and reveal this fraud, even though there may have been and still may be severe consequences for my family.

I began documenting fraud by my employer, brought it to the government, and at the government's request, worn an undercover wire to record conversations. These actions and others placed my

family at physical and financial risk, but were necessary to reinforce the teachings to our children by my wife and I, on love of country, and always striving to do the right thing.

In 2002, I filed a False Claims Act *qui tam* case in the Southern District of Texas, where working closely with the government, we obtained a summary judgment of a little bit over \$5 million against Lithium Power. This judgment was recently affirmed in entirety by the Fifth Circuit of Appeals.

To date, 8 years of my life have been dedicated to shining the light on SBIR fraud, with the Department of Justice and the Federal Court System as my ally.

I personally witnessed over 12 different types of technical research fraud against the United States Army, NASA, the United States Air Force, the Bureau of Missile Defense, the Office of the Secretary of Defense, and similar allegations involving the National Institute of Standards and Technologies and the Department of Energy.

Lithium Power Technologies, referred to as LPT, was founded by Dr. Mohammed Zafar Munshi in 1998, with the goal of developing and manufacturing the holy grail of lithium batteries. Dr. Munshi persuasively convinced a group of investors, myself included, that he had the technology to revolutionize the battery industry. As a true believer in Dr. Munshi's ability, I willingly invested an amount of money that, given my personal net worth, was a massive investment for my family, and myself, and even involved a mortgage on my home. Buoyed by Dr. Munshi's success with obtaining 6 different SBIR grants within the first 20 months of business, it totalling over \$2 million. I resigned from my long-term employer and moved from New York to Texas to join LPT to help grow the business.

During the next 30 months of my employment, Dr. Munshi quickly acquired additional SBIR contracts and three, related NASA and NIST contracts that totaled just shy of \$7.5 million. This grand total of 26 government research contracts—23 of these were SBIR grants—coupled with Dr. Munshi's smoke and mirrors research, became the recipe for turning LPT into an SBIR mill that methodically stole government funds. Just one morally bankrupt man that had quickly learned how to scam the system in just his first 24 months of business was responsible for this shocking fraud.

To certain types of individuals, the ease that research fraud can be conducted with SBIR funds becomes an addictive alternative to the hard work of commercializing actual research. Submitted with this testimony is Federal court documentation that shows how Dr. Munshi fraudulently induced SBIR reviewers to grant phase one and phase two proposals. I also allege many other types of SBIR fraud that the court was asked not to rule on because the fraudulent inducement judgment won by the government was sufficient to put Dr. Munshi and LPT out of business.

A few of these other areas of fraud were a duplication of phase one and phase two proposals, duplication in phase one and phase two contracts after funding within the performance reports, different guidelines used by the various SBIR agencies to fund the proposals.

Of particular note, is the attached deposition by former MDA SBIR director, Jeff Bond. He did not think it was relevant or material for funding that Lithium Power lied to the government in its SBIR proposals.

Another was subcontracting SBIR work out to another company without the government's knowledge. It would get the contract, and then hire another firm to do it, and then pass it on as its own cross-charging labor and materials used to complete commercial work to SBIR contracts.

This brings me to my purpose for testifying here today.

In the last eight years, I lost a lot of money and a lot of time in trying to highlight the weaknesses within the SBIR Funding System. I implore you to change SBIR Oversight Systems in ways to prevent these kinds of frauds from happening in the future. At the very least, outsourcing a company to mine data for research duplication within incoming phase one and phase two proposals. And within funded final reports of proposals. I truly believe in the concept of SBIR Program, to see it potentially groom new research to yield technology that will eventually be commercialized.

Technological advances in energy, medical, defense, and many other areas have been and always will be one of the fundamental strengths of our country. The answer is not to cut back on SBIR funding, but to create policies, oversight and management systems, and outsource technical fraud detection to ensure that funding is not fraudulently obtained or used. Implementing these corrective steps now will save our country hundreds of millions of dollars in the future.

So, in closing, thank you for your time. I would be happy to answer questions and work with the Committee to reduce the program's exposure to this type of technical research fraud.

[The prepared statement of Mr. Longhi follows:]

PREPARED STATEMENT OF ALFRED J. LONGHI, JR., FORMER VICE PRESIDENT,
LITHIUM POWER TECHNOLOGIES

Good afternoon Chairman Rockefeller and distinguished Committee Members. It is both an honor and a privilege to be able to present a statement today to the Senate Committee on Commerce, Science, and Transportation, regarding the ease with which fraud can be conducted against the \$2 billion a year Small Business Innovation Research Program.

My name is Alfred Longhi Jr, and I am the former Vice President of Lithium Power Technologies and a witness to SBIR Fraud. Due to being a father, husband, and patriotic citizen, I had no choice but to lead by example and reveal this fraud even though there may have been, and still be, severe consequences for my family. I began documenting fraud by my employer, reported it to the government and, at the government's request, wore an undercover wire to record conversations. These actions and others, placed my family at physical and financial risk, but were necessary to reinforce the teachings to our children by my wife and I on love of country and always striving to "do the right thing." In 2002, I filed a False Claims Act qui tam case in the Southern District of Texas, where working closely with the government, we obtained a summary judgment of over \$5 million, a judgment that was recently affirmed in its entirety by the Fifth Circuit Court of Appeals. To date, 8 years of my life have been dedicated to shining the light on SBIR fraud with the Department of Justice and Federal Court System as my ally.

I witnessed over a dozen different ways in which technical research fraud was used to acquire funds from the United States ARMY, NASA, United States Air Force, Ballistic Missile Defense Organization (Formerly the BMDO now the MDA), and the Office of the Secretary of Defense (OSD), along with allegations of the same involving NIST (National Institute of Standards and Technology) and the Department of Energy (DOE).

Lithium Power Technologies, referred to as LPT, was founded by Dr. Mohammed Zafar Munshi in 1998 with the goal of developing and manufacturing the “Holy Grail” of lithium batteries. Dr. Munshi persuasively convinced a group of investors, myself included, that he had the technology to revolutionize the battery industry. As a true believer in Dr. Munshi’s ability, I willingly invested an amount of money that, given my personal net worth, was a massive investment for myself and my family, even involving a mortgage on my home. Buoyed by Dr. Munshi’s success with obtaining six different SBIR grants, totaling over \$2 million dollars in just the first 20 months of business, I resigned from my long-term employer and moved from New York to Texas to join LPT to help grow the business.

During the next 30 months of my employment, Dr. Munshi quickly acquired additional SBIR contracts and three related NASA and NIST grants that totaled almost \$7.5 million dollars. This grand total of 26 Government Research Contracts (23 of them SBIR), coupled with Dr. Munshi’s “smoke and mirrors” research; became the recipe for turning LPT into a “SBIR Mill” that methodically stole Government funds. A single morally bankrupt man that had quickly learned how to “scam” the SBIR system in just his first 24 months of business conducted this shocking fraud! To certain types of individuals, the ease that research fraud can be conducted with SBIR Funds becomes addictive and an alternative to the hard work of commercializing actual research.

Submitted with this testimony is Federal Court documentation that shows how Dr. Mohammed Munshi fraudulently induced SBIR reviewers in a variety of ways to grant the Phase I and Phase II Awards. In addition, I also alleged many other types of SBIR fraud that the court was asked not to rule on because the fraudulent inducement judgment won by the Government was sufficient to put Dr. Munshi and LPT out of business. Specifically these other areas were:

- Duplication in Phase I and Phase II proposals *PRIOR* to funding.
- Duplication in Phase I and Phase II Contracts *AFTER* Funding within performance reports.
- Invoicing the Government for the same equipment and materials under different SBIR grants.
- Different Guidelines used to Grant awards by the various SBIR Agencies. Of particular note here is the attached deposition by the former MDA SBIR Director Jeff Bond who did not think it was relevant or material that Lithium Power lied to the government in its SBIR proposals!
- Lack of communication between different SBIR Agencies on similar research topics awarded to the same company.
- Time Sheet Fraud.
- Subcontracting SBIR work out to another company—without the Government’s knowledge.
- Cross charging labor and materials used to complete commercial work to government-funded SBIR contracts.
- Steering new SBIR research topics toward topics previously funded and granted by other SBIR agencies to facilitate research recycling.
- Lack of government oversight—government seldom tested or verified reported research performance claims.

So this brings me to my purpose for testifying here today. In the last 8 years, I lost a lot of money and lot of time in always trying to highlight the weaknesses within the SBIR funding system. I implore you to change SBIR oversight systems in ways to prevent these kinds of frauds from happening in the future. At the very least, outsource a company to “mine” data for research duplication within incoming Phase I & II proposals, along with the final technical reports for funded proposals.

I truly believe in the concept of the SBIR program to seed and potentially groom new research to yield technology that will eventually be commercialized. Technological advances in energy, medical, defense and many other areas have been and will continue to be one of the fundamental strengths of our country. The answer is not to cut back on SBIR funding, but to create policies, oversight management systems, and outsource technical fraud detection to insure that funding is not fraudulently obtained or used. Implementing these corrective steps now will save our country hundreds of millions dollars in the future.

Thank you for the chance to present this statement. I would be happy to answer questions and participate with the Committee staff to reduce the SBIR Program’s exposure to this type of technical research fraud.

The CHAIRMAN. Thank you, sir, very, very much.

And now, Mr. Thomas Howard, who is the Acting Inspector General of NASA.

And, might I just say, I don't see a lot of people up here on the dais. I think what's happened is that they know there's a 3 p.m. vote, which is, as I say, a very formal vote. Everybody in their seat on time, then you stand up to vote. You know, it's very—very formal. My guess is they just figured that we wouldn't proceed with the hearing, but one thing I'll guarantee you: they've all read your testimony. They have all read your testimony.

Mr. LONGHI. Thank you.

The CHAIRMAN. In fact, you didn't even have—you were sort of—you were just giving it.

Please, sir.

**STATEMENT OF THOMAS J. HOWARD,
ACTING INSPECTOR GENERAL, NASA**

Mr. HOWARD. Thank you, Mr. Chairman.

To those of us in the IG community, people like Mr. Longhi are critical to our ability to be able to do our work, and we appreciate what he's done.

Thanks for the opportunity to talk about our work on the SBIR Program. NASA's is one of the largest programs in the Federal Government, averaging about \$105 million annually over the last 5 years. It's popular and it's competitive. Last year, NASA awarded about 500 contracts. It had over 1,600 proposals, so, less than 1 in 3 of those who were interested in obtaining contracts did so.

Our office has been involved in audit and oversight activity of the SBIR Program since its inception. We've identified instances of fraud, waste, and abuse, and we've identified opportunities to improve the internal control structure.

Currently, we have five, ongoing investigations. We've closed eight investigations that have resulted in a conviction, a civil judgment, or some other corrective action. Both our ongoing and completed work has shown a pattern of program participants who have provided duplicate deliverables to multiple agencies, participants who have offered proposals to do separate work, but then provided identical deliverables to multiple Federal agencies, and we've had a variety of misrepresentations by program participants, particularly dealing with the role of the principal investigator, who was to conduct the research.

Some examples of fraudulent cases involve one where a U.S. District Court ordered a contractor to pay \$5 million in damages for making false representations.

Another investigation confirmed that a contractor submitted research that was recycled or used on previous contracts. The company's president was sentenced to one year home confinement, 5 years probation, and agreed to pay a \$1.4 million settlement.

In some of our ongoing cases, we have misrepresentations of eligibility.

In one case, a contractor allegedly purported to be an American-owned company, when it was not.

In another case, a company purported that it had the capability to do in-house research, when it did not.

And, in the last case, a company purported to be a small business, when it was not.

These examples of cases that we've been involved in only touch on the surface of our work.

As early as 1992, we reported on similar violations in the SBIR Program, and we made recommendations for NASA to take corrective action to ensure that it was in compliance with program requirements.

More recently, in 2004 and 2005, we alerted NASA that the program remained vulnerable to fraud, waste, and abuse. We made specific recommendations to tighten contractor certification requirements and to improve the Agency's oversight process.

NASA has been receptive to our recommendations and has, in fact, implemented corrective action. Yet, in the cases that we are conducting today, we still see the same violations that we saw as early as 1992.

We believe that strong controls are critical to improving the SBIR Program, so, we have initiated a comprehensive audit of NASA's management of the program. We will focus specifically on assessing the adequacy of the internal control structure for evaluating and selecting proposals, for making contract awards, and for conducting oversight. We also intend to assess the extent of fraud, waste, and abuse in the program using data mining techniques.

We expect that our work will lead to recommendations to improve the policies governing NASA's program and to improve its internal controls. We will also continue to work with the Department of Justice to hold accountable those who would do harm to NASA through fraud, waste, or abuse.

This concludes my remarks, and I'm available to answer any questions you have. Thank you.

[The prepared statement of Mr. Howard follows:]

PREPARED STATEMENT OF THOMAS J. HOWARD, ACTING INSPECTOR GENERAL, NASA

Chairman Rockefeller and Members of the Committee:

Thank you for the opportunity to discuss the Office of Inspector General's work addressing fraud, waste, and abuse in the Small Business Innovation Research (SBIR) Program of the National Aeronautics and Space Administration (NASA).

Over the last 5 years, with an average of more than \$105 million in annual awards, NASA's SBIR Program is one of the largest in the Federal Government, providing substantial support for small business participation in research and development activities. A recent assessment by the National Research Council of the National Academies concluded, "The NASA SBIR Program is making significant progress in achieving the congressional goals for the Program."

While SBIR plays an important role in NASA's research activities, our work has identified instances of fraud, waste, and abuse by Program participants that bring into question the effectiveness of the Program's internal controls. Specifically, of the SBIR 46 investigations we have closed since 2001, eight or 17 percent have resulted in criminal convictions, civil judgments, or administrative corrective action. Currently, we have five open investigations involving allegations of potential fraud, waste, or abuse in the SBIR Program.

Our investigative and audit work has shown that some SBIR contractors

- submitted duplicate proposals to different Federal agencies and received multiple awards for essentially the same work,
- submitted different proposals to multiple Federal agencies but provided duplicate deliverables based on the same research,
- failed to comply with subcontracting limitations, and

- identified principal investigators who were not primarily employed by the small business concern or who failed to perform a substantial portion of the research work contracted by NASA.

We identified many of these violations as early as 1992, and while NASA has taken corrective action to improve internal controls in the SBIR Program, we continue to identify the same violations in recent and ongoing investigations. Accordingly, we are initiating a comprehensive audit of NASA's management of the SBIR Program. We will focus specifically on assessing the adequacy and implementation of the Program's internal controls and the extent of fraud, waste, and abuse by Program participants.

We anticipate that our work will identify opportunities to improve SBIR policies and enhance the Program's internal control structure. We will also continue to work with the Department of Justice to hold accountable those SBIR Program participants who attempt to harm NASA through fraud, waste, and abuse.

Background of SBIR Program

In 1982, Congress established the SBIR Program to provide increased opportunities for small businesses to participate in research and development (R&D), to increase employment, and to improve U.S. competitiveness. The Program's specific objectives were to: (1) stimulate U.S. technological innovation, (2) use small businesses to meet Federal R&D needs, (3) increase private-sector commercialization of innovations derived from Federal R&D, and (4) foster participation by socially disadvantaged businesses.

NASA's SBIR Program receives overall policy direction from the Office of Innovative Partnerships Program. The SBIR Program Management Office at the Ames Research Center manages the Program using staff from NASA Mission Directorates and Centers. All NASA Centers actively participate in the SBIR Program to support the objective of infusing SBIR technology into Center programs and projects.

NASA allocates 2.5 percent of its annual extramural R&D budget for SBIR awards. NASA's annual solicitation for proposals includes R&D topics that NASA's Mission Directorates have identified as high priority needs for their programs and projects. For 2008, NASA received 1,662 proposals and selected 493 proposals for SBIR contracts.

NASA Office of Inspector General (OIG) Oversight of the SBIR Program

NASA OIG has been actively involved in investigative and audit work relating to NASA's SBIR Program, which resulted in criminal penalties, civil recoveries, and detailed program recommendations to improve NASA's internal controls over the Program. We currently have five open investigations involving allegations of potential fraud, waste, or abuse in the SBIR Program and are also initiating a comprehensive audit of the Program.

Since 2001, we have closed 46 investigations relating to the SBIR Program. Of those closed cases, 38 involved matters where the allegations were unsubstantiated or the facts we developed were declined for prosecution. The other eight closed investigations—17 percent—identified problems that resulted in criminal convictions, civil judgments, or administrative corrective action. The following closed cases generally illustrate the types of activity we found:

- NASA SBIR contractors improperly submitted the same or related proposals to multiple Federal agencies, resulting in multiple payments for that same proposal. In one case, the 5th Circuit Court of Appeals recently affirmed a U.S. District Court decision, under the False Claims Act, ordering Lithium Power Technologies, Inc., to pay approximately \$5 million in damages for making numerous false SBIR representations, including nondisclosure of related proposals to another agency, in the proposal phase of four Federal SBIR contracts. Lithium Power Technologies, Inc., has also been debarred from Government contracts until March 2018. In a separate case, Lasergenics, Inc., agreed to pay \$25,000 in a Federal civil settlement in response to allegations of submitting identical SBIR proposals to NASA and the National Science Foundation.
- NASA SBIR contractors provided duplicate deliverables to multiple agencies, resulting in the contractors receiving multiple payments for the same work product. For example, a NASA OIG investigation revealed that ML Energia, Inc., used the SBIR Program to defraud a number of Federal agencies by submitting false certifications in SBIR proposals, to include representations that the company would not duplicate its research. The investigation also confirmed that ML Energia submitted research that was "recycled" or performed under previous contracts. A U.S. District Court convicted the president of ML Energia of mail fraud and tax evasion, sentencing him to 12-months home confinement and 5

years probation. He was also ordered to pay a civil payment of \$1.4 million and a \$20,000 fine. In a separate case, we investigated allegations that Luna Innovations, Inc., submitted duplicate reports and proposals to various Federal agencies, including NASA. After negotiations with the Department of Justice, Luna agreed to a civil settlement in which it agreed to pay \$165,333 to resolve claims regarding SBIR without admission of liability.

- One NASA SBIR contractor misrepresented the role of its principal investigator. Under the SBIR Program, the principal investigator is the person designated by the applicant to provide the scientific and technical direction to a project supported by the funding agreement. Our investigation of Glimmerglass Science and Technology found multiple SBIR Program violations because its principal investigator was not primarily employed by the contractor and he also failed to perform a substantial portion of the research work.
- NASA SBIR contractors mischarged their SBIR contracts. For example, a NASA OIG investigation of Nanomaterials Research Corporation found that the company willfully diverted, concealed, and illegally used various SBIR funds from multiple Federal agencies. The corporation pled guilty in U.S. District Court to making false statements about their SBIR contract. The Court sentenced the corporation to pay a fine of \$10,000, probation for 36 months, and pay restitution of \$540,000. In a separate cost-mischarging case, ISX Corporation was alleged to have applied cost overruns on SBIR fixed-priced contracts to a NASA cost-plus contract. The ISX Corporation agreed to pay \$100,000 as an administrative settlement of its unallowable costs. Finally, a NASA OIG investigation found that Arnav Systems, Inc., did not provide accurate labor rates in its proposed labor costs for a SBIR contract award. Ultimately, Arnav agreed to pay \$93,970 to settle the matter, without admission of liability.

The five open investigations involve similar issues:

- In one investigation, a NASA SBIR contractor is alleged to have submitted duplicate SBIR proposals and deliverables to multiple agencies. Further, the contractor allegedly submitted false certifications that the company possessed the required research capability, performed the research effort, and achieved the results delivered to the Government.
- In three other investigations, NASA contractors allegedly violated their SBIR requirements by submitting false certifications as to their SBIR eligibility. In one case, a contractor may have falsely certified that it was an American-owned company when it was not. In another case, a contractor may have falsely certified that it was performing in-house research when it did not have that capability. In the third case, a contractor may have falsely certified that it met the SBIR requirements for a small business classification when it did not.
- In February 2009, NASA OIG and the Federal Bureau of Investigation executed Federal seizure warrants at a major university as well as at the home and offices of a NASA SBIR contractor, New Era Technology (NETECH). These warrants were based on probable cause that a university professor, who also was a principal NETECH officer, along with his family members, submitted multiple fraudulent SBIR proposals to NASA in order to receive the maximum SBIR funding for proposed research contracts. Further, the evidence indicates that NETECH may have submitted false invoices to NASA in order to conceal the improper use of SBIR funds, which allegedly included improper diversion of SBIR funds into the personal bank accounts of the professor and his family members. Documents in the public record indicate that those involved may have violated a variety of Federal statutes, to include theft of public money, mail or wire fraud, and money laundering.

These investigations illustrate only part of our longstanding work in this area. Our Office of Audits has also focused attention on the Program, which resulted in specific recommendations to improve NASA's oversight of the SBIR Program.

In a very early audit of the SBIR Program (HQ-91-009, September 8, 1992), we identified several weaknesses within the SBIR Program's policies and procedures. Specifically, we found that there was insufficient monitoring and tracking of SBIR awards; we also found that NASA and other agencies were providing duplicate funding for the same R&D efforts. Additionally, we found that principal investigators were not primarily employed by the small business concern, in violation of Program requirements, and that SBIR projects did not always meet SBA-established time frames.

In April 2004, our Offices of Audits and Investigations issued a "Management Alert—Concerns Relating to NASA SBIR Contracts." The report informed NASA

senior management of SBIR-related problems with multiple awards for the same work, duplicate deliverables under multiple contracts, and violations of SBIR Program limits on contract effort by subcontractors and principal investigators. The report attributed the problems to weak contractor certification requirements and ineffective contract oversight.

In response to the Conference Report (House Report 108–792) that accompanied the Fiscal Year (FY) 2005 Consolidated Appropriations Act, 2005, Public Law 108–44, we reported that our audit and investigative work uncovered a number of trouble areas in NASA’s acquisition and contracting processes. As detailed in our December 5, 2005, report, these areas of weakness included

- lack of a reliable financial management system to track contract spending,
- inadequate control over Government property held by contractors,
- single-bidder contracts with undefined and changing contract requirements,
- lack of transparency to subcontractors working on NASA programs,
- procurement process abuses by NASA employees and contractors, and
- significant cost overruns in some Agency programs.

In addition to identifying the above weaknesses, we reiterated that the vulnerabilities within the SBIR Program identified in our April 2004 report were unresolved leaving the Agency vulnerable to fraud, waste, and abuse. Both reports recommended that

- prior to making final payment to SBIR contractors, NASA should require contractors to complete and submit a recertification of compliance with Program requirements, and
- NASA’s Office of Procurement should issue periodic notices to the SBIR procurement and technical community to emphasize the importance of effective administration and technical oversight of the Agency’s SBIR contracts.

NASA concurred with our recommendations and revised the NASA Federal Acquisition Regulation Supplement in October 2006 to require that, prior to receiving final payment, SBIR contractors must recertify that work performed had not been proposed for funding to another Federal agency; no other Federal funding has been received for equivalent work; deliverables submitted have not been submitted as deliverables under another Federal award; subcontracting limitations had not been exceeded; and the primary employment of the principal investigator was with the contractor. The Agency also agreed to issue periodic notices to the NASA SBIR procurement and technical community to emphasize the importance of effective administration and technical oversight of the Agency’s SBIR contracts.

SBIR Program Issues Identified by Other Agencies

Past reports and testimony by the Government Accountability Office (GAO) and Department of Energy indicate similar issues with other agencies’ SBIR Programs. GAO reported in “Federal Research: Interim Report on the Small Business Innovation Research Program” (GAO/RCED95–59, March 8, 1995) that contractors received duplicate funding for similar SBIR research proposals. GAO attributed duplicate funding to false contractor certifications, lack of a consistent definition for “similar” research, and lack of interagency sharing of data on SBIR awards. GAO recommended that the Small Business Administration take corrective action to improve interagency coordination and to reduce the risk of funding duplicate research. GAO also provided congressional testimony on June 28, 2005,¹ “Federal Research: Observations on the SBIR Program” (GAO–05–86T), highlighting the challenge of assessing the performance of the SBIR Program.

Energy’s OIG reported in “Management Controls over Monitoring and Closeout of SBIR Phase II Grants” (OAS–M–08–09, July 2008) that agency officials gave insufficient attention to SBIR costs during post-award reviews. The report identified nearly \$800,000 in questionable or unsupported costs charged to SBIR awards that officials had not verified. Energy’s OIG attributed the problems to infrequent post-award desk reviews or audits of SBIR costs. The report recommended that agency officials randomly select SBIR Phase II awards for post-award audit.

Internal Controls and NASA OIG’s Current Audit of NASA’s SBIR Program

Over the last decade, we have been involved in a number of activities to assess the overall internal control systems NASA has in place to ensure effective oversight of its contractors. We believe there is much to be gained through these activities,

¹ GAO provided testimony to the Subcommittee on Environment, Technology, and Standards, Committee on Science, House of Representatives.

in terms of developing safeguards and improving policies. In particular, we have been involved in initiatives to implement Office of Management and Budget Circular A-123, "Management's Responsibility for Internal Control," and to address fraud against NASA.

For example, NASA established the Acquisition Integrity Program (AIP) in December 2006. The Program is a collaborative effort among NASA's Offices of General Counsel, Chief Financial Officer, Procurement, and the OIG. AIP provides a centralized and coordinated approach to address fraud and corruption throughout the acquisition process and to ensure the Agency integrity and public trust. The vision of AIP is to promote transparency, accountability, and integrity throughout the NASA acquisition process. The Program serves as a mechanism to identify irresponsible contractors for suspension, debarment, or pursuit of remediation. The Program also minimizes vulnerabilities through increased understanding of fraud, waste, and abuse in the contracting environment by implementing a comprehensive "fraud awareness" training program at all NASA Centers and at NASA Headquarters. The most recent training phase (Spring 2009), which included OIG personnel as presenters, targeted NASA's contracting officers and contracting officer's technical representatives.

While NASA is working to improve its internal control environment and fraud awareness, the OIG remains vigilant in our mandate to identify and prevent fraud, waste, and abuse. Notably, the issues we identified in our work as early as 1992, and more recently in 2004 to 2005, are essentially the same violations underpinning the five investigations we are conducting in 2009. Strong controls are essential to reducing the risk of improper activity within NASA's SBIR Program; therefore, we are initiating a comprehensive review of NASA's internal controls for the SBIR Program.

Specifically, we will determine whether management developed and implemented effective internal controls to evaluate and select proposals, award contracts, and perform post-award administration. Additionally, we will assess the extent of fraud, waste, and abuse in the Program. Our methodology will be to

1. gain a thorough understanding of the SBIR Program's organization, operation, and relevant system of internal control;
2. based on that understanding, and any needed additional review and analysis, make a preliminary assessment of the adequacy of the design of the system of internal control;
3. test the effectiveness of internal control using statistical sampling; and
4. use data mining to detect instances of potentially fraudulent, improper, or abusive transactions to illustrate the effects of breakdowns in internal control.

We anticipate that our work will identify opportunities to improve SBIR policies and enhance the Program's internal control structure. We will also continue to work with the Department of Justice to hold accountable those SBIR Program participants who attempt to harm NASA through fraud, waste, and abuse.

Thank you for the opportunity to participate in this important dialogue. I would be happy to answer any questions you may have.

The CHAIRMAN. Thank you very much, Mr. Howard.

I'm not going to take the chance. Well, Allison Lerner, you just have to forgive me for the moment. I will be back. It doesn't take very long to vote, but then they have to tally the vote and they have to give it, obviously, and, so, I just don't want to take the chance of letting you start and then having to walk out.

Ms. LERNER. Not a problem.

The CHAIRMAN. You're not offended?

Ms. LERNER. Not at all.

The CHAIRMAN. We'll come back.

Ms. LERNER. You have to have a thick skin in my line of work.

The CHAIRMAN. OK, all right. All right, well, we're temporarily in recess then.

Ms. LERNER. Thank you.

[Recess.]

The CHAIRMAN. Senator McCaskill, when—oh, we resume.

What we did, we started at 2:30, and it was my feeling that most people wouldn't feel that—but I didn't want to keep them waiting, so, I asked them to give their statements, two of them, and we're now going to start the third. And then I will give my opening statements, and then you may have some comments you want to make.

All right. Allison Lerner, are you still there?

Ms. LERNER. I'm still here.

The CHAIRMAN. Alert?

Ms. LERNER. Here.

The CHAIRMAN. You're the Inspector General of the National Science Foundation.

Ms. LERNER. Yes.

The CHAIRMAN. One of my favorite government agencies.

Ms. LERNER. I'm glad to hear that. One of mine, too.

**STATEMENT OF ALLISON C. LERNER, INSPECTOR GENERAL,
NATIONAL SCIENCE FOUNDATION**

Ms. LERNER. Mr. Chairman and Members of the Committee, I appreciate the opportunity to discuss my office's work related to the SBIR Program at NSF.

Since 1990, NSF has awarded more than 6,600 phase one and phase two SBIR awards, totaling more than \$1.1 billion. The vast majority of companies receiving these awards spend the funds properly and report results accurately to the agency. However, since the program began, my office has opened 64 investigations involving SBIR companies. Of those cases, 16 have resulted in criminal, civil, or administrative action, and 5 are still open.

While these numbers are not large, it's likely that they do not reflect the full extent of fraud due to underreporting and other issues that I'll discuss.

I want to emphasize that NSF's SBIR Program staff strongly supports my office's efforts to prevent, detect, and prosecute fraud. SBIR Program officers regularly inform us when they receive allegations of wrongdoing or become aware of information that indicates a possible problem, and these valuable leads have been the source of many of our successful investigations.

Mr. Chairman, as requested by the Committee, I'll summarize the primary types of fraud we have found in NSF's SBIR Program, and I'll discuss the processes that my offices and NSF have developed, which have enabled us to prevent and, when necessary, prosecute SBIR fraud. I'll conclude by noting some problems we've encountered in investigating this type of fraud.

The primary type of fraudulent activity we find involves duplicative funding in which companies obtain multiple SBIR awards from multiple SBIR agencies for the same or overlapping work. At NSF, companies must disclose multiple SBIR submissions and the agency's proposal preparation guidance makes it clear to potential recipients that receiving duplicate funding for the same or overlapping research is prohibited. We've investigated approximately 34 cases of alleged duplicative funding and substantiated the charge in 10 instances.

Examples include a case in which a recipient used SBIR funds to pay for renovations to his home and to overpay vendors so he could pocket the reimbursements. Ultimately, that individual pled

guilty to mail fraud and tax evasion, and paid \$1.4 million in restitution, civil damages, taxes, and penalties.

We've also investigated cases involving research misconduct in which data results for phase one awards were fabricated, falsified, or plagiarized in order to obtain phase two funding.

In one such case, a professor plagiarized a phase one report in order to receive a phase two award for a non-existent company. He pled guilty to false statements, and paid \$214,000 in restitution and fines.

As a result of our investigations, my office has identified two best practices that are valuable tools in preventing and prosecuting SBIR fraud—required certifications and disclosures and mandatory attendance at awardee briefings.

In 1994, as a result of problems we'd noted in our investigations at that point of SBIR recipients, we made a number of recommendations to NSF to strengthen SBIR disclosures and certifications. As a result of those recommendations, which NSF accepted, the agency now requires proposers and awardees to make enhanced disclosures and certifications throughout the lifecycle of each SBIR award. This process helps prevent fraud in the first place and enhances our ability to prosecute it when it does occur, and we would recommend it to all SBIR agencies.

NSF also requires companies that receive phase one awards to attend a workshop to help them comply with the NSF requirements, and, for over 10 years, this workshop has included a briefing by my office that makes it clear to awardees that violations of program requirements constitute wrongdoing that can result in significant criminal, civil, and administrative consequences.

In fact, when I spoke with a program officer at NSF before coming here, she indicated that when my staffer gives that briefing, you can hear a pin drop because people really do pay attention and listen to understand the ramifications of false certifications.

These briefings also facilitate prosecution, as they make it quite difficult for an awardee to plead ignorance of NSF's SBIR requirements and the consequences of violating them.

In addition to these best practices, we've identified two challenges to investing SBIR fraud—deficiencies in databases of SBIR awards and the lack of strong disclosures and certifications at some Federal agencies.

With regard to the first, NSF maintains comprehensive, internal databases from which program officers and my staff can easily obtain complete information about proposals submitted and awards made. Unfortunately, there's currently no efficient means for us to obtain such information from other SBIR agencies, and this lack of access to that information poses a programmatic and investigative challenge to determining whether you have instances of duplicative funding.

With regard to the second investigative challenge, not all SBIR agencies require the number and frequency of disclosures and certifications that NSF does, and their absence can impair those agencies' ability to prosecute fraud.

In closing, Mr. Chairman, with the support of NSF, my office has instituted processes that enhance our ability to prevent, detect, and prosecute SBIR fraud, and we will continue to work with the agen-

cy to prevent unscrupulous companies from defrauding this valuable program.

Thank you, and I'd be happy to answer any questions.
[The prepared statement of Ms. Lerner follows:]

PREPARED STATEMENT OF ALLISON C. LERNER, INSPECTOR GENERAL,
NATIONAL SCIENCE FOUNDATION

Mr. Chairman and Members of the Committee, I appreciate this opportunity to discuss my office's work related to the Small Business Innovation Research (SBIR) program at the National Science Foundation.

Background

The Small Business Innovation Development Act of 1982 created the Small Business Innovation Research (SBIR) program to stimulate technological innovation; use small businesses to meet Federal research and development needs; foster and encourage participation by minority and disadvantaged persons in technological innovation; and increase private sector commercialization innovations derived from Federal research and development. Under the SBIR program, the National Science Foundation (NSF) and ten other Federal agencies currently allocate 2.5 percent of their extramural R&D budgets for awards to small businesses.

Each SBIR agency uses the program to address the unique needs of its mission. At NSF, the primary objective of the SBIR program is to increase the incentive and opportunity for small firms to undertake cutting-edge, high-risk, high-quality scientific, engineering, or education research that would have a high potential economic payoff if the research is successful. The SBIR program is part of NSF's Engineering Directorate, and the ultimate goal of each project is a commercially viable product, process, device, or system. The program is funded by the government in two phases, followed by a privately-funded third phase. Phase I is a 6-month grant to assess an idea's feasibility, currently supported by NSF up to \$150,000. If the Phase I project is successful, the company can apply for a Phase II award, which runs for up to 2 years and is funded up to \$750,000.

Since 1990, NSF has awarded more than 6,600 Phase I and Phase II SBIR awards totaling more than \$1.1 billion. The vast majority of the companies receiving SBIR awards spend their SBIR funds properly to carry out the research they proposed to do, and they report accurately to the agency about the results they obtained under the SBIR award. However, since my office's inception, we have conducted a number of investigations of companies that have allegedly committed fraud involving their SBIR awards.

Specifically, since 1989 we have opened 64 cases involving SBIR companies. Of those 64 cases, 16 have resulted in significant criminal, civil, or administrative action to date, and 5 are currently under investigation. While these numbers are not large, it is likely that they do not reflect the full extent of fraud in the program due to under-reporting and other issues which I will discuss later in my statement.

It is important to note that NSF's SBIR program staff has strongly supported my office's efforts to prevent, detect, and prosecute fraud in the SBIR program. SBIR program officers regularly inform my office when they receive allegations of wrongdoing or become aware of information that indicates a possible problem within the program, and those valuable leads have been the source of many of our successful investigations.

As requested by the Committee, the following summarizes the types of fraudulent activity our office has found in NSF's SBIR program. I will also discuss processes that my office has developed and NSF has implemented that have enabled us to prevent and, if necessary, prosecute fraud in the SBIR program. Finally, I will conclude by noting some problems my office has encountered in investigating this type of fraud.

Types of Fraudulent Activity in the National Science Foundation's SBIR Program

The primary type of fraudulent activity we encounter in the SBIR program involves duplicative funding, which results in false statements, false claims, and criminal misuse of grant funds. We have also investigated cases in which research misconduct has resulted in fraud against the SBIR program. I will briefly describe our work in these areas.

Duplicative Funding

Duplicative funding, in which companies obtain payments from multiple SBIR agencies for the same work, is the most frequent violation we have found in NSF's SBIR program. This problem arises because, in order to maximize their opportunities for receiving SBIR funding for their proposals, companies may submit the same proposal to more than one of the eleven Federal agencies that have SBIR programs. At NSF, these multiple submissions must be disclosed, and it is a violation of program policy for companies to accept funding from multiple agencies for the same work. NSF's proposal preparation guidance makes it clear to potential recipients that receiving duplicate SBIR funding for the same or overlapping research is prohibited, and the NSF program announcement clearly states that:

NSF will not make awards that duplicate research funded or expected to be funded by other agencies. . . . If a proposer fails to disclose equivalent or overlapping proposals . . . , the proposer could be liable for administrative, civil or criminal sanctions.

Since its inception, my office has investigated approximately 34 cases of alleged duplicative funding. We have substantiated the charge in 10 cases. Examples of our work in this area include a case in which, in addition to receiving duplicate funding from NSF's and other agencies' SBIR programs, the recipient used the SBIR funds to pay for renovations to his home and to overpay vendors so he could pocket the reimbursements. Ultimately, he paid \$1.4 million in restitution, civil damages, taxes, and penalties, and pled guilty to mail fraud and tax evasion to resolve these charges.

A second such case involved two companies with the same owner that received duplicate SBIR awards from several agencies for the same work. The companies paid \$3.45 million in restitution and civil damages, and open SBIR awards to the companies totaling \$909,000 were terminated.

Finally, we also investigated a case in which the company received funding from NSF and other Federal agencies for duplicate research. The defendants were accused of knowingly and repeatedly applying for and receiving SBIR grants from agencies for research that had already been completed under grants awarded to other agencies. They were also accused of charging the government for the cost of engineering work that was not performed. As a result of our investigation, \$530,000 of the company's and the owner's bank accounts and assets, which had been frozen during the investigation, were paid to the Federal Government, and \$1.4 million in open SBIR awards were terminated.

Research Misconduct

We have also encountered situations where research misconduct under some of NSF's SBIR awards resulted in the program being defrauded. Research misconduct occurs when data or results are fabricated, falsified, or plagiarized. We have found some instances where companies fabricated, falsified, or plagiarized their Phase I final reports in order to obtain Phase II funding. Such misconduct in research amounts to fraud against the SBIR program because in order to obtain Phase II funding, the company's Phase I project must be successful.

In one such case we investigated, a university professor obtained an NSF Phase I award for a proposal he submitted in his wife's name on behalf of a non-existent company she allegedly owned. The professor converted all of the Phase I funds to his personal use, and then plagiarized the final Phase I report from a former student's thesis. On the basis of that report, the nonexistent company received a Phase II award. As a result of our investigation, the professor pled guilty to making false statements, and he and his wife paid \$214,000 in restitution and fines.

Best Practices

As a result of our investigations involving SBIR program fraud, my office has identified two best practices that are valuable tools in preventing and prosecuting such fraud. A summary of these practices—required disclosures and certifications and mandatory attendance at awardee briefings—follows.

Required Disclosures and Certifications

In 1994, as a result of problems we had noted in our investigations involving SBIR recipients, our office made several recommendations intended to improve administration of NSF's SBIR program. The majority of those recommendations focused on strengthening existing disclosures and certifications, and on adding such disclosures and associated certifications in areas that had previously had no such coverage. NSF accepted all of these recommendations, and the resulting disclosures and certifications have helped the agency deter fraud at the outset, by making clear

what the agency's expectations are. They have also helped us prosecute cases of fraud, as they make it clear to recipients that the provision of false information is a criminal offense.

Pursuant to our recommendations, NSF requires proposers seeking SBIR funding to disclose if the proposal has been submitted to another agency and to state that: (1) the company is a small business; (2) the company will perform at least two-thirds of the work under Phase I or at least half under Phase II ; and (3) the Principal Investigator will be primarily employed by the company during the term of the award. The authorized organizational representative is then required to sign the following certification (referred to as a "1001 certification"):

I understand that the willful provision of false information or concealing a material fact in this report or any other communication submitted to NSF is a criminal offense (U.S. Code, Title 18, Section 1001).

When an SBIR proposal is awarded, before the company can receive its first payment, NSF requires SBIR recipients to disclose whether:

1. the principal investigator and the small business firm have accepted funding for the same or overlapping work except as stated in the underlying proposal,
2. all proposals describing the same or overlapping work have been withdrawn from other agencies,
3. the primary employment of the principal investigator is with the firm at the time of the award and will continue during the conduct of the research, and
4. the grantee is a small business.

After making these disclosures, the authorized company officer is required to sign a 1001 certification.

Finally, SBIR awardees are required to submit reports to NSF about their projects' accomplishments to receive interim and final payments. Phase I awardees submit a final report when the project is over, and Phase II awardees submit interim reports every 6 months and a final report at the end. NSF requires SBIR recipients submitting such reports to disclose whether: (1) the Principal Investigator is primarily employed by the company; (2) the work under the project has not been submitted for funding to another Federal agency and has not been funded under any other Federal award; (3) the work for which payment is requested was performed in accordance with the award terms and conditions; (4) the statements in the report (excluding scientific hypotheses and scientific opinions) are true and complete; and (5) the text and graphics in the report are the original work of the company followed by a 1001 certification.

In all instances, the disclosures and certifications relate to requirements of NSF's SBIR program. If the company fails to make these disclosures or provide the required certifications, it will not receive an award or be paid. If the certifications are false, the company and its officers can more readily be prosecuted for providing material false information to the Federal Government because, as previously noted, the company has attested that it is aware that providing such false information is a violation of Federal law.

Mandatory Attendance at Awardee Briefings

NSF requires all companies that receive Phase I awards to attend an SBIR Phase I workshop, which includes presentations on a variety of topics to help awardees comply with NSF requirements and successfully commercialize the results of their research. All Phase I award recipients must attend these workshops, and NSF retains attendance records.

More than a decade ago, the NSF SBIR program invited my office to join in the workshop and give a presentation on the work we do. The briefing presented by my staff makes it clear to awardees that violations of SBIR program requirements constitute wrongdoing, and outlines the specific criminal, civil, and administrative consequences of such wrongdoing. Further, we describe specific cases involving SBIR recipients we have investigated and that have been prosecuted. U.S. Attorneys who have prosecuted cases of fraud against SBIR have cited these briefings as an asset in prosecutive decisions. These briefings and the documentation of awardees' attendance at them help ensure that no SBIR awardee can claim ignorance of NSF's SBIR requirements and/or the consequences of violating these requirements.

Programmatic and Investigative Challenges

In addition to identifying best practices to deter and prevent SBIR program violations, my office has also identified two challenges to investigating such violations. Following is a summary of these challenges-deficiencies in databases of SBIR awards and lack of strong certifications by some Federal agencies.

Deficiencies in Databases

NSF maintains comprehensive internal databases on its SBIR program from which NSF program officers and my office can easily obtain complete information about all SBIR proposals submitted to and awards issued by NSF. However, while we have full access to NSF SBIR proposal and award information, there is currently no convenient means for obtaining detailed information about SBIR proposals submitted to and awards received by companies from the other SBIR agencies. This lack of access presents a programmatic and investigative challenge to determining whether more than one Federal agency has paid for the same research.

Currently, two Internet databases list SBIR awards to companies—*USAspending.gov* and *SBA TECH-net*. However, neither of these databases is complete, and neither provides sufficient detail to enable NSF's SBIR program to determine whether another agency's program had already paid for the same project. These limitations also make it more difficult for us, and other OIGs, to investigate SBIR cases, because of the significant effort required to obtain SBIR proposals and reports from other agencies. Ensuring that all SBIR agencies and their OIGs have electronic access to other agencies' SBIR proposals and awards would facilitate efforts to prevent, detect, and prosecute fraud.

Insufficient Disclosures and Certifications

As previously noted, NSF requires SBIR proposers and awardees to certify to the accuracy of required disclosures and clearly informs those entities that providing false information via those disclosures is a crime. Not all SBIR funding agencies require the number and frequency of disclosures and certifications that NSF does, and their absence can impair the government's ability to prosecute fraud in those programs. In one case our office investigated, the final report submitted to NSF contained fifteen tables and figures, twelve of which had been submitted as accomplishments in twenty previous reports to seven other SBIR agencies. However, since none of the other agencies required certifications about overlapping or duplicative work, defense counsel was able to argue persuasively that only the NSF funding should be repaid.

Conclusion

The SBIR program at NSF is a valuable tool for providing funds to small, high-tech businesses conducting innovative research to advance NSF's mission and to possibly lead to commercialization of new technologies. NSF has supported our office's efforts to prevent and detect fraud in its SBIR program, and in conjunction with our office has instituted processes that enhance both its ability to prevent fraud and our office's ability to prosecute fraud when it occurs. My office will continue to work in partnership with NSF to prevent unscrupulous companies from fraudulently obtaining SBIR funds and to investigate allegations of duplicative funding, research misconduct, and other fraud against this important program. Additionally, we will continue to recommend practices to strengthen the integrity of the SBIR program.

This concludes my statement. I would be pleased to answer any questions you or other members may have.

The CHAIRMAN. Thank you very much, Ms. Lerner.
Ms. Dalton?

**STATEMENT OF PATRICIA A. DALTON, MANAGING DIRECTOR,
NATURAL RESOURCES AND ENVIRONMENT,
U.S. GOVERNMENT ACCOUNTABILITY OFFICE**

Ms. DALTON. Thank you, Mr. Chairman, Members of the Committee. I'm pleased to be here today to discuss the SBIR Program.

Over the life of the program, GAO has reviewed and reported on program implementation many times. We have generally found that the SBIR Program is achieving its goals, and agencies and companies have generally rated the program highly. However, we've also identified areas of serious weakness, and made recommendations that could strengthen the program.

Some of the issues that we have identified include the following: First, risk of duplicate funding for similar or identical research projects by more than one agency.

In 1995, we identified factors that could contribute to this risk, including potential fraudulent evasion by companies applying for awards, the lack of a consistent definition for key terms, such as similar research, and the lack of interagency sharing of information on awards. Inconsistent interpretations of how to calculate extramural research budgets was also an issue.

In 1998, we found that, while agency officials adhere to the SBIR Program and statutory funding requirements, they use different interpretations of how to calculate their extramural research budgets. As a result, some agencies were inappropriately including some expenses or excluding other expenses.

Geographic concentration of awards was also an issue we identified.

In 1999, we reported that companies in a small number of states had submitted the most proposals and won the majority of awards.

In 2006, when we looked at the geographic concentration of awards made by DoD and NIH, we found that the SBIR awards continued to be concentrated in a handful of states, and about a third of the awards were made to firms in California and Massachusetts.

Assessing the results of the SBIR Program was also an issue, particularly in assessing commercialization and the other SBIR goals.

In several reviews, we have reported that assessing the performance of the program continues to be a challenge because of insufficient information on commercialization and other outcomes of funded projects.

Another concern we have identified relates to how agencies determine and share information on a firm's eligibility for SBIR.

Since its inception, the program has relied primarily on self-certification by applicants to ensure that they meet the program's eligibility requirements.

In 2006, when we reviewed the processes used by SBA, DOD, and NIH, we found that this is still the case, and that the agency's eligibility determinations focused primarily on the firm's ownership, for profit status, and number of employees.

When agency officials were unable to ensure the accuracy of an applicant's information, they referred the matter to SBA. We found that after SBA makes the eligibility determination, it made information about ineligible firms available on its Web Site, but did not necessarily tie it to the SBIR Program.

In addition, we found that once agencies received SBA's decision, they may or may not have a process to share this information across their agencies.

Many of the concerns we've identified with the program can be resolved in part through the collection of better data and the establishment of an interagency database. Such efforts would allow SBA and participating agencies to share information more effectively and enhance the efforts to monitor and evaluate the program.

Recognizing the importance of such data collection efforts, in 2000, the Congress mandated that SBA collect data from all participating agencies and develop a government use database by 2001. However, when we looked at it in 2006, we reported that SBA was 5 years behind schedule in developing such a database,

and the information it was collecting was incomplete and consistent, thereby limiting the usefulness for program evaluations. But the database did not actually become operational until October of last year.

According to an SBA official, the database has 2 years of new data in it. According to this official, the database also only accepts correctly-formatted information, and, therefore, it should address our concerns about inconsistency of information.

However, we remain concerned about the completeness and accuracy of the historical data that are in the database. SBA told us in 2006 that they were not planning to correct the data that they had already received from agencies.

Also, in recently looking at the government use portion of this database, which became operational last October, we could only find award information, not proposal information. Further, it did not contain information on commercialization and all the results of the program.

In conclusion, Mr. Chairman, while the SBIR Program is generally recognized as successful, it has continued to suffer from long-standing evaluation and monitoring issues that are made more difficult because of insufficient, inaccurate, reliable, and comprehensive information about awards and applicants. While we are encouraged that SBA has developed a government use database, we remain concerned about the quality of the information in it.

Mr. Chairman, this concludes my prepared remarks. I'd be happy to answer any questions of you and the Members of the Committee. [The prepared statement of Ms. Dalton follows:]

PREPARED STATEMENT OF PATRICIA A. DALTON, MANAGING DIRECTOR, NATURAL RESOURCES AND ENVIRONMENT, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Mr. Chairman and Members of the Committee:

We are pleased to be here today to testify on our past work on the Small Business Innovation Research (SBIR) program. As you know, to be competitive in the global economy, the United States relies heavily on innovation through research and development (R&D). Recognizing the potential of small businesses to be a source of significant innovation, the Congress passed the Small Business Innovation Development Act of 1982.¹ The act established the SBIR program to stimulate technological innovation, use small businesses to meet Federal R&D needs, foster and encourage participation by minority and disadvantaged persons in technological innovation, and increase private sector commercialization of innovations derived from Federal R&D. The act provided for a three-phased program: phase I to determine the feasibility and scientific and technical merit of a proposed research idea; phase II to further develop the idea; and phase III to commercialize the resulting product or process with no further SBIR funding.

Federal agencies that have budgets of \$100 million for research conducted by others, called extramural research, are required to use 2.5 percent of these budgets to establish and operate an SBIR program. Currently, 11 Federal agencies participate in the SBIR program. Each agency manages its own program, including targeting research areas, reviewing proposed projects, and making research awards through grants, contracts, or cooperative agreements. The Small Business Administration (SBA) plays a central administrative role by, for example, issuing policy directives to the participating Federal agencies, collecting data from participating agencies on awards and recipients, and reporting program results annually to the Congress. In 2005 awards from three agencies—the Department of Defense (DOD), National Institutes of Health (NIH), and National Aeronautics and Space Agency (NASA)—accounted for the majority of SBIR funds. From its inception in Fiscal Year 1983 through Fiscal Year 2004, Federal agencies had awarded over \$17 billion for more than 82,000 projects.

¹Pub. L. No. 97-219 (1982).

Since it was established in 1982, the SBIR program has been reauthorized and modified by the Congress at various times. For example, the Small Business Research and Development Enhancement Act of 1992 directed SBA and participating agencies to, among other things, emphasize the goal of increasing commercialization of research results and to improve the government's dissemination of program-related data.² As a result, agencies were required to include commercialization potential as a criterion for selecting award recipients. During this same period, SBA began to develop a publicly available database, known as Tech-Net, that contained information on all awards made through the SBIR program. The Tech-Net database is intended to be, among other things, an electronic gateway of technology information and resources for researchers, scientists, and government officials about federally funded, leading edge technology research. The Small Business Innovation Research Program Reauthorization Act of 2000 formalized this database by requiring SBA to develop, maintain, and make available to the public a searchable, up-to-date, electronic database that contained SBIR award information.³ The 2000 reauthorization act also required SBA to develop and maintain another restricted government database that would contain additional information on commercialization not contained in the public Tech-Net database, thereby allowing better evaluations of the SBIR program on an ongoing basis.⁴ This database was to be established by mid-2001 and made available only to government agencies and certain other authorized users. SBA has established, through a policy directive, a series of data elements for all the agencies to submit for its public Tech-Net database.⁵ The SBIR program is currently being considered by the Congress for reauthorization, and both the House and Senate have recently passed bills to reauthorize the program.

In this context, you asked us to summarize the successes and challenges that our past work has identified about the SBIR program, summarize the concerns we have previously identified on SBA's efforts to establish an interagency database that includes information on SBIR applicants and awards, and describe the process that agencies use to determine the eligibility of SBIR applicants for the program. This statement is based largely on our prior reviews of the SBIR program and contacts with SBA officials. Our work on the prior reviews was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audits to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence we obtained for those reviews provided a reasonable basis for our findings and conclusions based on our audit objectives.

Summary

Over the life of the SBIR program, we have reviewed and reported on its implementation many times. For example, between July 1985 and June 1999, we found that that the SBIR program is achieving its goals to enhance the role of small businesses in Federal R&D, stimulate commercialization of research results, and support the participation of small businesses owned by women and/or disadvantaged persons.⁶ Participating agencies and companies that we surveyed during our reviews generally rated the program highly. We also identified areas of weakness and made recommendations that could strengthen the program further. Many of our recommendations for program improvements have been either fully or partially addressed by the Congress when it reauthorized the program or by the agencies themselves. For example, in 2005, we noted one issue that continued to remain somewhat unresolved after almost two decades of program implementation—how to assess SBIR program's performance—and we identified data and information gaps that make an assessment of the SBIR program a challenge. In 2006, we conducted two reviews of the SBIR program.⁷ The first review described how DOD, NIH, and SBA, verify the eligibility of SBIR applicants; and the second examined SBA's and eight participating agencies' efforts to collect data and establish a government-use data-

²Pub. L. No. 102-564 (1992).

³Pub. L. No. 106-554, App. I, Tit. I (2000).

⁴Throughout this statement we refer to this database as the government-use database.

⁵67 *Fed. Reg.* 60,072 (Sept. 24, 2002).

⁶GAO, *Federal Research: Observations on the Small Business Innovation Research Program*, GAO-05-861T (Washington, D.C.: June 28, 2005).

⁷GAO, *Small Business Innovation Research: Information on Awards Made by NIH and DoD in Fiscal Years 2001 through 2004*, GAO-06-565 (Washington, D.C.: April 14, 2006) and GAO, *Small Business Innovation Research: Agencies Need to Strengthen Efforts to Improve the Completeness, Consistency, and Accuracy of Awards Data*, GAO-07-38 (Washington, D.C.: October 19, 2006).

base that would facilitate monitoring and evaluation of the program. In summary, we found the following:

- SBA had not met the congressional mandate to develop and implement, by June 2001, a government-use database for monitoring and evaluating the SBIR program. SBA officials told us that they had been unable to meet the requirement to implement such a database by 2001 because of management changes that had occurred at the agency and because of budgetary constraints, but expected to have it operational by early in Fiscal Year 2007. However, this database did not become operational until October 2008, according to an SBA official.
- Although Federal agencies participating in the SBIR program annually submit a wide range of descriptive information to SBA about each award they make, they were not consistently providing the full range of required data elements. As a result, certain sections of the Tech-Net database needed for comprehensive program evaluation were incomplete. Agencies cited a variety of reasons for not providing all of the data elements, including frequent changes in SBA's data requirements and differences in the types of data agencies collect versus the types of data that SBA outlined in its policy directive.
- Some participating agencies are not submitting SBIR award data in the standard format established in SBA's policy directive. For example, almost a quarter of the data provided by five participating agencies in 2004 and 2005 did not comply with SBA's formatting guidance. In light of the problems we identified with the Tech-Net database and the implications for these errors to limit evaluations of the SBIR program, we recommended that SBA work with participating agencies to strengthen efforts to improve the quality of the data. According to an SBA official, as of October 2008, agencies can directly enter SBIR-related data into the Tech-Net database over the Internet in a way that does not accept incorrectly formatted data.
- To determine a firm's eligibility for the SBIR program, DOD, NIH, and SBA focus primarily on criteria relating to ownership, for-profit status, and the number of employees. The agencies primarily rely on the applicants' self-certification of eligibility, although in some cases they may take additional steps to verify this information. When agency officials are unable to ensure the accuracy of an applicant's information, they refer the matter to SBA. After SBA makes an eligibility determination, it makes information about ineligible firms available on its website, but it does not always indicate that the determination was for SBIR purposes. Once agencies receive SBA's determination of eligibility, they may or may not have a process to share this information across the agency.

Successes and Challenges of the SBIR Program

Our reviews of the SBIR program between 1985 and 1999 found numerous examples of program successes such as the following:

- *Funding high-quality research.* Throughout the life of the program, awards have been based on technical merit and are generally of good quality.
- *Encouraging widespread competition.* The SBIR program successfully attracts many qualified companies, has had a high level of competition, consistently has had a high number of first-time participants, and attracts hundreds of new companies annually.
- *Providing effective outreach.* SBIR agencies consistently reach out to foster participation by women-owned or socially and economically disadvantaged small businesses by participating in regional small business conferences and workshops targeting these types of small businesses.
- *Increasing successful commercialization.* At various points in the life of the program we have reported that SBIR has succeeded in increasing private sector commercialization of innovations.
- *Helping to serve mission needs.* SBIR has helped serve agencies' missions and R&D needs, although we found that agencies differ in the emphasis they place on funding research to support their mission versus more generalized research.

Our reviews of the SBIR program during that time have also identified a number of areas of weakness that, over time, have been either fully or partially addressed by the Congress in reauthorizing the program or by the agencies themselves. For example,

- *Duplicate funding.* In 1995,⁸ we identified duplicate funding for similar, or even identical, research projects by more than one agency. A few companies received funding for the same proposals two, three, and even five times before agencies became aware of the duplication. Contributing factors included the fraudulent evasion of disclosure by companies applying for awards, the lack of a consistent definition for key terms such as “similar research,” and the lack of interagency sharing of data on awards. To address these concerns, we recommended that SBA take three actions: (1) determine if the certification form needed to be improved and make any necessary revisions, (2) develop definitions and guidelines for what constitutes “duplicative” research, and (3) provide interagency access to current information regarding SBIR awards. In response to our recommendations, SBA strengthened the language agencies use in their application packages to clearly warn applicants about the illegality of entering into multiple agreements for essentially the same effort. In addition, SBA planned to develop Internet capabilities to provide SBIR data access for all of the agencies.
- *Inconsistent interpretations of extramural research budgets.* In 1998,⁹ we found that while agency officials adhered to SBIR’s program and statutory funding requirements, they used differing interpretations of how to calculate their “extramural research budgets.” As a result, some agencies were inappropriately including or excluding some types of expenses. We recommended that SBA provide additional guidance on how participating agencies were to calculate their extramural research budgets. The Congress addressed this program weakness in 2000, when it required that the agencies report annually to SBA on the methods used to calculate their extramural research budgets.
- *Geographical concentration of awards.* In 1999,¹⁰ in response to Congressional concerns about the geographical concentration of SBIR awards, we reported that companies in a small number of states, especially California and Massachusetts, had submitted the most proposals and won the majority of awards. The distribution of awards generally followed the pattern of distribution of non-SBIR expenditures for R&D, venture capital investments, and academic research funds. We reported that some agencies had undertaken efforts to broaden the geographic distribution of awards. In the 2000 reauthorization of the program, the Congress directed the SBA Administrator to establish the Federal and State Technology (FAST) Partnership Program to help strengthen the technological competitiveness of small businesses, especially in those states that receive fewer SBIR grants. The FAST Program was not reauthorized when it expired in 2005. In 2006, when we looked at the geographical concentration of awards made by DOD and NIH, we found that while a firm in every state received at least one SBIR award from both agencies, SBIR awards continued to be concentrated in a handful of states and about one third of awards had been made to firms in California and Massachusetts.¹¹
- *Clarification on commercialization and other SBIR goals.* Finally, in 2000, the Congress directed the SBA Administrator to require companies applying for a phase II award to include a commercialization plan with their SBIR proposals. This addressed our continuing concern that clarification was needed on the relative emphasis that agencies should give to a company’s commercialization record and SBIR’s other goals when evaluating proposals. In addition, in 2001, SBA initiated efforts to develop standard criteria for measuring commercial and other outcomes of the SBIR program and incorporate these criteria into its Tech-Net database. In Fiscal Year 2002, SBA further enhanced the reporting system to include commercialization results that would help establish an initial baseline rate of commercialization. In addition, small business firms participating in the SBIR program are required to provide information annually on sales and investments associated with their SBIR projects.

SBIR Tech-Net Data base Limitations

Many of the solutions cited above to improve and strengthen the SBIR program relied to some extent on the collection of data or the establishment of a government-use database, so that SBA and participating agencies could share information and

⁸ GAO, *Federal Research: Interim Report on the Small Business Innovation Research Program*, GAO/RCED-95-59 (Washington, D.C.; March 8, 1995).

⁹ GAO, *Federal Research: Observations on the Small Business Innovation Research Program*, GAO/RCED-98-132 (Washington, D.C.; April 17, 1998).

¹⁰ GAO, *Federal Research: Evaluation of Small Business Innovation Research Can be Strengthened*, GAO/RCED99-114 (Washington, D.C.; June 4, 1999).

¹¹ GAO-06-565.

enhance their efforts to monitor and evaluate the program. However, in 2006,¹² we reported that SBA was 5 years behind schedule in complying with the congressional mandate to develop a government database that could facilitate agencies' monitoring and evaluation of the program. We also reported that the information SBA was collecting for the database was incomplete and inconsistent, thereby limiting its usefulness for program evaluations. Specifically, we identified the following concerns with SBA's data-gathering efforts:

- SBA had not met its obligation to implement a restricted government-use database that would allow SBIR program evaluation as directed by the 2000 SBIR reauthorization act. As outlined in the legislation, SBA, in consultation with Federal agencies participating in the SBIR program, was to develop a secure database by June 2001 and maintain it for program evaluation purposes by the Federal Government and certain other entities. SBA planned to meet this requirement by expanding the existing Tech-Net database to include a restricted government-use section that would be accessible only to government agencies and other authorized users. In constructing the government-use section of the database, SBA planned to supplement data already gathered for the public-use section of the Tech-Net database with information from SBIR recipients and from participating agencies on commercialization outcomes for phase II SBIR awards. However, according to SBA officials, the agency was unable to meet the statutory requirement, primarily because of increased security and other information technology project requirements, agency management changes, and budgetary constraints. When we reported on this lack of compliance with the database mandate, SBA told us that it anticipated having the government-use section of the Tech-Net database operational early in Fiscal Year 2007. However, according to an SBA official, the database became operational in October 2008, and agencies have begun to provide data on their SBIR programs using the Internet.
- While Federal agencies participating in the SBIR program submitted a wide range of descriptive award information to SBA annually, these agencies did not consistently provide all of the required data elements. As outlined in SBA's policy directive, each year, SBIR participating agencies are required to collect and maintain information from recipients and provide it to SBA so that it can be included in the Tech-Net database. Specifically, the policy directive established over 40 data elements for participating agencies to report for each SBIR award they make; a number of these elements are required. These data include award-specific information, such as the date and amount of the award, an abstract of the project funded by the award, and a unique tracking number for each award. Participating agencies are also required to provide data about the award recipient, such as gender and socio-economic status, and information about the type of firms that received the awards, such as the number of employees and geographic location. Much of the data participating agencies collected are provided by the SBIR applicants when they apply for an award. Agencies provide additional information, such as the grant/contract number and the dollar amount of the award, after the award is made. For the most part, all of the agencies we reviewed in 2006 provided the majority of the data elements outlined in the policy directive. However, some of the agencies were not providing the full range of required data elements. As a result, SBA did not have complete information on the characteristics of all SBIR awards made by the agencies. SBA officials told us that agencies did not routinely provide all of the data elements outlined in the policy directive because either they did not capture the information in their agency databases or they were not requesting the information from the SBIR applicants. Officials at the participating agencies cited additional reasons for the incomplete data they provided to SBA. For example, some officials noted that SBA's Tech-Net annual reporting requirements often change and others said that if the company or contact information changes and the SBIR recipient fails to provide updated information to the agency, the agency cannot provide this information to SBA.
- Participating agencies were providing some data that are inconsistent with SBA's formatting guidance, and while some of these inconsistencies were corrected by SBA's quality assurance processes, others were not. In 2006,¹³ we determined that almost a quarter of the data provided by five of the eight agencies we reviewed was incorrectly formatted for one or more fields in the Tech-Net database. As a result, we concluded that these inconsistent or inaccurate

¹²GAO-07-38.

¹³GAO-07-38.

data elements compromised the value of the database for program evaluation purposes. SBA's quality assurance efforts focus on obtaining complete and accurate data for those fields essential to tracking specific awards, such as the tracking number and award amount, rather than on those fields that contain demographic information about the award recipient. We found that SBA electronically checked the data submitted by the participating agencies to locate and reformat inconsistencies, but it did not take steps to ensure that all agency-provided data were accurate and complete. We also determined that inconsistencies or inaccuracies could arise in certain data fields because SBA interpreted the absence of certain data elements as a negative entry without confirming the accuracy of such an interpretation with the agency. As we reported in 2006, such inaccuracies and inconsistencies were a concern because information in the Tech-Net database would be used to populate the government-use section of the database that SBA was developing (as discussed above) to support SBIR program evaluations. However, at the time of our review, SBA had no plans to correct any of the errors or inconsistencies in the database that related to the historical data already collected. As a result, we concluded that the errors in the existing database would migrate to the government-use section of the database and would compromise the usefulness of the government-use database for program evaluation and monitoring purposes.

To address the concerns that we identified with regard to the quality of the data that SBA was collecting for the Tech-Net database, we recommended in our 2006 report that SBA work with the participating agencies to strengthen the completeness, accuracy, and consistency of its data collection efforts. According to an SBA official, the database is currently operational and some agencies have entered data for Fiscal Years 2007 and 2008 over the Internet. Moreover, according to this official, the system is set up in such a way that it does not accept incorrectly formatted data.

Agencies Focus on Select Awardee Eligibility Criteria

In 2006,¹⁴ we also found that SBA and some participating agencies focused on a few select criteria for determining applicants' eligibility for SBIR awards. Specifically, we reviewed DOD's, NIH's, and SBA's processes to determine eligibility of applicants for the SBIR program and found that they focused largely on three SBIR criteria in their eligibility reviews—ownership, size in terms of the number of employees, and for-profit status of SBIR applicants. Although agency officials also told us that they consider information on the full range of criteria, such as whether the principal investigator is employed primarily by the applying firm, and the extent to which work on the project will be performed by others.

Moreover, we found that both NIH and DOD largely relied on applicants to self-certify that they met all of the SBIR eligibility criteria as part of their SBIR applications. For example, at NIH, applicants certified that they met the eligibility criteria by completing a verification statement when NIH notified them that their application had been selected for funding but before NIH made the award. The verification statement directs applicants to respond to a series of questions relating to for-profit status, ownership, number of employees, where the work would be performed, and the primary employment of the principal investigator, among others. Similarly, DOD's cover sheet for each SBIR application directs applicants to certify that they met the program's eligibility criteria. NIH and DOD would not fund applications if the questions on their agency's verification statement or cover sheet were not answered. Both NIH and DOD also warned applicants of the civil and criminal penalties for making false, fictitious, or fraudulent statements. In some cases the agencies made additional efforts to ensure the accuracy of the information applicants provided when they observed certain discrepancies in the applications.

In 2006,¹⁵ we reported that when officials at the agencies had unresolved concerns about the accuracy of an applicant's eligibility information, they referred the matter to SBA to make an eligibility determination. We found that when SBA received a letter from the agency detailing its concerns, SBA officials contacted the applicants and asked them to re-certify their eligibility status and might request additional documentation on the criteria of concern. Upon making a determination of eligibility, SBA then notified the official at the inquiring agency, and the applicant, of its decision.

Although, SBA made the information about firms it found ineligible publicly available on its Website so that all participating agencies and the public could access the

¹⁴ GAO-06-565.

¹⁵ GAO-06-565.

information, we found that it did not consistently include information on the Website identifying whether or not the determination was for the SBIR program. An SBA official told us the agency planned to include such information on its Website more systematically before the end of Fiscal Year 2006. Once the agencies received information about applicants' eligibility they also had different approaches for retaining and sharing this information. For example, while both NIH and DOD noted the determination of ineligibility in the applicant's file, NIH also centrally tracked ineligible firms and made this information available to all of its institutes and centers that make SBIR awards. In contrast, DOD did not have a centralized process to share the information across its awarding components, although DOD officials told us it was common practice for awarding components to share such information electronically.

In conclusion, Mr. Chairman, while the SBIR program is generally recognized as a successful program that has encouraged innovation and helped Federal agencies achieve their R&D goals, it has continued to suffer from some long-standing evaluation and monitoring issues that are made more difficult because of a lack of accurate, reliable, and comprehensive information on SBIR applicants and awards. The Congress recognized the need for a comprehensive database in 2000 when it mandated that SBA develop a government-use database. Although SBA did not meet its statutorily mandated deadline of June 2001, the database has been operational since October 2008, and contains limited new information but may also contain inaccurate historical data.

Mr. Chairman, this concludes my prepared statement. I would be happy to respond to any questions that you or other members of the Committee may have.

The CHAIRMAN. Thank you very much, Ms. Dalton. I've changed my mind. Actually, I'm going to put my statement in the record.

[The prepared statement of The Chairman follows:]

PREPARED STATEMENT OF HON. JOHN D. ROCKEFELLER IV,
U.S. SENATOR FROM WEST VIRGINIA

One of my top priorities as chairman of the Commerce Committee is maintaining our country's role as the global leader in technological innovation.

It's no secret that to maintain our leadership in the global economy, we must continually invest in new ideas. And our investment dollars have to come from both the private and public sectors.

One of the Federal Government's successful technology innovation programs is called the Small Business Innovation Research (SBIR) program, which supports scientists and entrepreneurs who have great ideas, but haven't been able to develop their ideas far enough to attract the attention of private investors.

This program has a good track record. A NASA SBIR contract led to the development of the water filtration system used on space missions. Another SBIR-funded project helped develop the de-icing systems used today on many of our aircraft. There are many more examples of innovative products and technologies that started as SBIR research proposals.

I want to make it clear: I firmly believe that programs like SBIR are crucial to our country's national security and our ability to compete in the global economy. I support investing in basic research and working with the private sector to develop new technologies.

But here's what I don't support. I don't support handing over Federal research dollars to businesses that have lied to the government about their qualifications or their research capabilities. And I don't support funding businesses that are willing to accept taxpayer dollars for research they haven't actually done.

Unfortunately, today we are going to hear stories about this kind of conduct. We are going to hear that some of the businesses that won these awards didn't do the work they promised. They committed fraud against the government plain and simple.

We don't expect that every research project we support will lead to the next breakthrough technology. But we do expect the people who receive these funds to use them carefully and honestly. It is that simple.

The Federal Government's scientific research dollars are scarce and precious. And so funding research is a zero-sum game: Every time NASA, or the Department of Defense, or the National Science Foundation awards money to a dishonest business, those agencies miss an opportunity to support an honest man or woman with an idea that might make our country safer or our economy stronger.

I want to welcome our witnesses and thank them for testifying today. I am looking forward to hearing from Mr. Al Longhi, a businessman who found himself involved in a small technology company that was ripping off the government. He did the right thing, not the easy thing, and he's going to tell us his story.

I would like to read one sentence from Mr. Longhi's testimony, because I think it explains why today's hearing is so important. He says: "*Technological advances in energy, medical, defense and many other areas have been and will continue to be one of the fundamental strengths of our country.*"

I couldn't agree with you more, Mr. Longhi. And so every research dollar we lose to waste, fraud and abuse turns one of our country's great strengths into an enormous weakness. We can't let it happen.

I yield back the balance of my time.

The CHAIRMAN. But simply want to—so that we can get to questioning. Senator McCaskill is still free to make a statement if she wants to. But I—I did want to say that a large part of that statement, Mr. Longhi, was in praise of you.

Mr. LONGHI. Thank you.

The CHAIRMAN. I don't think most Americans have any idea. I mean, they read it in the newspapers, and somebody's a whistleblower, and this is something that took place in 2002, when you first had to start dealing with this, and it has been a long time since then. You and your family—you indicated that you had mortgaged your house in order to be a part of this.

Mr. LONGHI. Yes.

The CHAIRMAN. Unfortunate adventure, but that was because you believed in something, and you believe in strengthening our country through technology and all the rest of it.

So, I just—it just needs to be made very, very clear that people like you are not always commonly before us, and when you do come before us in the Congress, you make an enormous difference. And, so, all the nice things that could be said about you and just congratulating your courage need to be said.

Mr. LONGHI. Thank you very much, sir.

The CHAIRMAN. Senator McCaskill?

**STATEMENT OF HON. CLAIRE McCASKILL,
U.S. SENATOR FROM MISSOURI**

Senator McCASKILL. Thank you, Mr. Chairman. I—I will not put a statement on the record at this time. I do have questions.

I will just say that there's something terribly wrong that so much of the accountability that happens in our government happens through whistleblowers. If it weren't for whistleblowers and IGs, I can't even imagine the stuff that would go on. And sometimes I get so discouraged because it feels like we are just chipping away at the tip of the iceberg. And I think we've got an iceberg here, and I think we've got to do more than chip away at it.

And the most frustrating thing for me, Mr. Chairman, is this is not hard. This is just basic A, B, Cs of accountability. Check to make sure that they're not turning in more than one application, and check when it's over, and make sure you got what you paid for. This is not hard. And it's very frustrating.

So, as my 17-year-old would say, Mr. Longhi, I heart whistleblowers.

[Laughter.]

Senator McCASKILL. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator.

Mr. Longhi, it was in 2002, I believe, that you alerted the Federal Government that the company you worked for, Lithium Power Technologies, was defrauding the SBIR Program, and that's correct, I assume.

Mr. LONGHI. That is correct.

The CHAIRMAN. What would have happened if you had not come forward with this information?

Mr. LONGHI. The fraud would have gone undetected. The founder, Dr. Munshi, was fairly sophisticated, and he was clever in changing titles, changing a few things, even though if you really dug, if you had the ability between different SBIR agencies to compare documents, you would have found it, but that ability does not exist. And the fraud would have gone undetected.

The CHAIRMAN. Why do you think it was that the Federal Government was unable to discover this? I mean, after all, you went to them in 2002. Why do you think the Federal Government has not reacted to this to the extent that is necessary?

Mr. LONGHI. There's very little communication between the different SBIR agencies. The United States Army does not know the extent of the projects that the United States Air Force is working on. The Ballistic Missile Defense Organization doesn't know what the Army and the Air Force details are. Likewise, with NASA, you know, they all want in this case portable power. It's key to—given the missile defense systems, any—any type of weapon system, you need better portable power, and they wanted it for their own, and I think there's a little bit of, I don't know, envy. If they learned that Dr. Munshi was working with the Army, they didn't want to miss out, and they wanted in on it, too, but for their own specific needs.

So, I think it came—comes back to communication. There is no mechanism. The contracting officers that oversee the—the grants, would—would surely want to stop the fraud. There's—there's no doubt about that. But they don't have the time nor the tools or the resources to do that.

The CHAIRMAN. I thank you, and I am reminded that I should—that we're going to include the Committee's report, which is entitled "Cases of SBIR Waste, Fraud, and Abuse" into the Committee record, and that will be done without objection.

You worked with many people, and I have two questions.

A lot more folks that worked there than just you had to know something was wrong.

Why didn't they do something? What were the pressures?

And, second, why did Mr. Munshi believe that he could get away with this, other than the fact that he was, which probably answers my question, but I—I'd like to hear you phrase it.

Mr. LONGHI. Both very good questions. I'm not sure I have the answers to either one.

Other people did know of the duplication and fraud that was going on. There was one scientist that had stood up, Dr. Krishnan Menon, and confronted Dr. Munshi on that, and he was terminated.

All the employees have families, they—during that time, 2001, 2002, was a very difficult job market in—in America. They felt that if they lost this employment, that it'd probably be difficult to find

other employment. And I think that played a lot—a big part in them remaining quiet. You know, after they saw someone being terminated in front of their eyes for raising the issues.

In regards to Dr. Munshi, I—I don't know. I don't know why he chose this route other than I know he enjoyed it.

We—we have him on tape laughing about the Air Force Contracting Officer, Dr. David Ryan, not knowing about the duplicative NASA research. You know, this was—in some ways, he—he took pleasure from putting one over on the government, but I don't know if that was the—you know, the sincere or the original motivation for it.

The CHAIRMAN. My time is pretty much up, and I want to go on with you and others, but just to give you some sense that you're not all alone in this, although maybe what I'm saying is that you are all alone, we are spending virtually all of our—at least I'm spending virtually all of my time in something called healthcare reform debates, and health care is 20 percent of the economy of the United States, which would be quite a lot of money. And there are—experts agree that there are about \$700 billion that are being lost to or being spent in the health care system through waste, fraud, or abuse. And, so, as I listen to you, I wonder where all of those folks are.

Senator McCaskill?

Senator MCCASKILL. Thank you, Mr. Chairman.

I was—Mr. Longhi, I—I have the documents that we will make part of the record, if there is no objection, Mr. Chairman, from your company, where, on May 1, 2002 and May 2, 2002, essentially, the same proposals were submitted to two different agencies for the same funding.

[The information referred to follows:]

SBIR Air Force Report, Page 5—Submitted May 1, 2002

Table 2.—E-beam Deposition of Lithium Using Different Source Crucibles

Run	VVN1.380.1	VVN1.380.2	VVN1.381.1	VVN1.381.2
Evaporation Technique	E-beam	E-beam	E-beam	E-beam
Source Crucible/liner	Baffle box	Molybdenum boat	Molybdenum boat	Molybdenum boat
Substrate	Cu foil.	Cu foil	Cu foil	Cufoil
Substrate Thickness, um	19	19	19	19
Substrate Width	55	55	55	55
Test Duration, Min.s	<1.00	1.30	4.29	6.20
Density	1.06	1.06	1.06	1.06
z-ratio	3.999	3.999	3.999	3.999
Tooling Factor, %	110	110	110	110
Deposition Thickness kA	0.112	1.071	2.043	13.50
Deposition rate A/s	N/a	11.9	7.59	35.5
Ion Gauge Pressure, torr	N/a	N/a	N/a	N/a

SBIR NASA Report, Page 11—Submitted May 1, 2002

Table 1.—E-beam Deposition of Lithium Using Different Source Crucibles

Run	VVN1.380.1	VVN1.380.2	VVN1.381.1	VVN1.381.2
Evaporation Technique	E-beam	E-beam	E-beam	E-beam
Source Crucible/liner	Baffle box	Molybdenum boat	Molybdenum boat	Molybdenum boat
Substrate	Cu foil	Cu foil	Cu foil	Cu foil
Substrate Thickness, um	19	19	19	19
Substrate Width	55	55	55	55
Test Duration, Min.s	<1.00	1.30	4.29	6.20
Density	1.06	1.06	1.06	1.06
z-ratio	3.999	3.999	3.999	3.999
Tooling	110	110	110	110
Factor, %				
Deposition Thickness kA	0.112	1.071	2.043	13.50
Deposition Rate A/s	N/a	11.9	7.59	35.5
Ion Gauge Pressure, torr	N/a	N/a	N/a	N/a

Lithium Power Technologies, Inc.*SBIR Air Force Report, Page 5—Submitted May 1, 2002*

These three runs produced films that had total thickness of 16.61 kilo-angstroms of lithium. These films were dried for 24 hours in a vacuum oven. The films were then punched into 12.5 mm plates and were put back into the vacuum oven for additional drying. These plates would have been used for half-cell testing, but after 48 hours in the oven, the plates had a black tarnish coating. It was clear that the plates were reacting with some elements in the vacuum oven. The conclusion was that the lithium plates were reacting with the solvent, specifically NMP, given off from the drying of the coated cathode and anode materials. Thus for future runs, the lithium plates should be isolated.

SBIR NASA Report, Page 12—Submitted May 2, 2002

These three runs produced films that had total thickness of 16.61 kilo-angstroms of lithium. These films were dried for 24 hours in a vacuum oven. The films were then punched into 12.5 mm plates and were put back into the vacuum oven for additional drying. These plates would have been used for half-cell testing, but after 48 hours in the oven, the plates had a black tarnish coating. It was clear that the plates were reacting with some elements in the vacuum oven. The conclusion was that the lithium plates were reacting with the solvent, specifically NMP, given off from the drying of the coated cathode and anode materials. Thus for future runs, the lithium plates should be isolate.

Senator McCASKILL. Did you—at the point in time this happened, did—you actually confronted the boss, Mr. Munshi, about this?

Mr. LONGHI. No, I had not.

Senator McCASKILL. OK, and, at some point in time, did you confront him that—that this was going on?

Mr. LONGHI. No, I knew better. I—I would have been terminated. It—it's—and to give you a little bit of background on that, he had earlier on in 2001, tried to conduct some workmen's compensation insurance fraud, and I confronted him on that, and I was nearly terminated.

Senator McCASKILL. Has—has he gone to jail yet?

Mr. LONGHI. No.

Senator MCCASKILL. Has he been prosecuted by anyone for either the worker's compensation fraud or for this fraud?

Mr. LONGHI. Only civilly on the SBIR fraud.

Senator MCCASKILL. Let me ask the IGs. You know, I've read the Committee's report, which, by the way, Mr. Chairman, is excellent work. Congratulations to your staff. It is—it would make any prosecutor proud, this report. Except for I want to hear all the results of this report that people are going to jail.

You know, we spend a lot of money in this country putting people in jail that steal cars, and, you know, you can walk in a 7-11 and steal 5 sandwiches for your family and know that you're going to—at least going to go to Municipal Court and be held accountable for what you do.

These are really good thieves. Is they're preying upon the incompetence of government to steal millions and millions of dollars from the taxpayer.

Are you all aware, the IGs that have testified today, of people who have spent time behind bars for doing this?

Mr. HOWARD. Behind bars, I'm not actually sure.

Certainly, we have—one of the cases that I talked about earlier was a contractor that had recycled previous deliverables. He was convicted for tax evasion and wire fraud. He was sentenced to 12 months home confinement and 5 years probation. And, in addition, he agreed to pay a civil settlement of \$1.4 million.

Senator MCCASKILL. How about you, Ms. Lerner? Are you aware of anybody—

Ms. LERNER. I'm not aware—

Senator MCCASKILL.—who's gone to jail?

Ms. LERNER.—of anyone serving any actual jail time, although, we have had successful civil recoveries along the lines that were mentioned by the gentleman from NASA.

Senator MCCASKILL. You know, that's part of the problem, is that there's a sense that if you do things like this, you can pay people back, and you won't be separated from your families, and you won't go to prison, and it breaks my heart when I—I have some very extensive knowledge about the people who go to prison, and, you know, people who live in certain neighborhoods and who engage in certain illegal activity, their chances of going to prison are pretty darn good. People who put on a fake title or claim fake university affiliation and try to rip off the government for research dollars, their chances to go to prison are way too slim, and that's one of the reasons why have a cavalier attitude about how easy it is to get away with this.

Let me drill down just for a minute and see if either one of you or—any of you on the panel can tell me, it's my understanding that this problem was uncovered awhile ago, and that there was a great deal of sound and fury about these grants and—possible fraud and waste and abuse in this program, and at that point in time, there was a requirement that SBA do a database that would allow everyone just to do something basic like hey, is he trying to—are they trying to get the same money out of you that they're trying to get out of us? We're not talking about 100,000 programs here; we're talking about a manageable database.

I mean, we're going to do a hearing on databases in the government because, you know, talk about databases gone wild, we've got databases gone wild in the U.S. Government. But this would be pretty straightforward and simple, and easily searchable, and it hasn't been done.

Now, I know that was at SBA that it was supposed to have been done, but do either of you have any input as to what has been the problem?

I think that was a decade ago. Mr. Chairman, I think that Congress instructed them to do this.

Mr. HOWARD. Close to it. I believe it was 2000, ma'am.

Senator MCCASKILL. Yes, so, we've—we've gone 9 years, and now we're back at another hearing, and nothing's happened.

Is—is—has there been any progress made that you're aware of any type of just basic, you know, before you send out an award, you better check and make sure that they aren't double-dipping?

Mr. HOWARD. I'm told by my staff that both the NASA people who attempt to use the database and our staff, as well, find that it's not useful and that they're unable to do the kinds of things that were intended to be done with the database.

Ms. LERNER. I hear the same thing. It contains a certain amount of information, but the critical information that we need, information as basic as if we find that they've received an award from another SBIR agency, who's the agency contact, so that we can call them and get access to the proposals. It doesn't have proposal information, it doesn't have an agency contact information, and, so, we have to rely on backdoor channels to try and ferret out, how to get at the basic information that we need, and program officers face the same challenge in order to determine if we have duplicate funding.

Senator MCCASKILL. Well, I—I—you know, it—it—I understand that it may not contain all the information needed, but it would seem to me that if you came across another proposal from the same entity, that we ought to be able to figure out how to pick up the phone and call someone and double-check it's not the same proposal.

Ms. DALTON. Senator, we looked at the government-use database that SBA claimed was operational. Going through that in preparation for this hearing, what we were finding was award information, but not proposal information. And that's a key piece of information to know what these companies are proposing to and to see whether or not there are any similarities between them.

We also found that it would contain the name of the company, but those names may not be unique. You know, you could have a company listed several times, but they used abbreviations, so, it would be identified separately as opposed to using a unique identifier, like a DUNS number or an EIN, which should be in the government-use database, not in the public-use database. It's the government-use database that really needs to be accessible and easy to use and searchable so that all the agencies that are participating in this program can look at and use it before they make awards.

Senator MCCASKILL. Well, I'm going to see if we can't continue to put a lot of attention in this area at SBA and see if we can't get that fixed. And I do think that there is merit in this program.

I'm aware that there are a couple of awards that have recently been given to two entities in Missouri that are both doing important research on alternative energy. In fact, a lot of the progress we had made on alternative energy—up until this presidency, we weren't spending a significant amount of resources on our alternative energy; we are now, but a lot of the work, the early work that it was done on, biomass and many other things, to say nothing of what was going on with DoD and NASA has come through this program, so, I think it's worth saving, but, Lord knows, we can do better than we're doing.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator McCaskill.

I—you know, there are all kinds of EPSCoR, if you're familiar with the National Science Foundation, are fantastic programs, and they were developed to help smaller universities so that Harvard, Yale, Stanford, and Princeton didn't get all the money. And, to that, I really say so what, I'm glad that's going on. That's simply a matter of a legislator—a couple of legislators sitting down and, with the head of NSF, which happened to be Erich Bloch at the time, who didn't like the idea because he thought that if it wasn't at Harvard, Yale, Stanford, or Princeton, there probably wasn't going to be a result. But, anyway, we made him change his mind, and it's been unbelievable the success that's come from that.

But what disturbs me a little bit in listening to—the three of—the last three of you—in front of me, not you, Mr. Longhi, is that there—that there are bits and pieces of reasons that you couldn't do something.

Now, I understand. I serve on the Intelligence Committee. I understand what stovepiping in is. What I have come to understand much more effectively is that stovepiping is—is not as frequent in the Intelligence Committee as it is in—in the government itself at large. That somehow you talk about, well, there was a little thing about radiation or—or people didn't call each other or whatever.

Data communication is—is just a part of what we do these days, it's what's going to—one of the things that will surely pass in the—in the healthcare bill. I sense a—to be honest with you, a little bit of ennui in your answers. That what will be, will be, what is, is what is. We deal with this as best as we can.

So, I need to ask you: Do you have insufficient people to do what it is that you're meant to be doing? Do you have insufficient money to do what it is? That you have bosses who are against you're doing what you're meant to be doing? Or what—what's—what's the deal on this? I don't just mourn this problem; I'm profoundly upset by it. Obviously, particularly because it's the government, it's people's money. People I represent in West Virginia don't have a lot of money to throw around on waste, fraud, and abuse or anything else. What—what is the reason? What's at root for this? How much have you three spoken up?

Mr. HOWARD. I'll go first, Senator.

We have spoken up over the years.

The CHAIRMAN. You gave an example.

Mr. HOWARD. Well, 1992, 2004, 2005, we've alerted the Agency to vulnerabilities of this program to fraud, waste, and abuse, and we've made recommendations to improve it.

The CHAIRMAN. You made recommendations to improve it. Have you followed up to see what happened?

Mr. HOWARD. Yes, sir, we have, and the Agency has implemented our recommendations.

The CHAIRMAN. OK, so, how come it's only 2009, you know, 2 years into the last century, 2002, 2004, 2005, et cetera? I mean, this is going on every day all the time?

Mr. HOWARD. Yes, Senator.

The CHAIRMAN. You just aren't aware of it?

Mr. HOWARD. Well, I think we're aware of what's been brought to our attention, and we have certainly investigated the cases that have been brought to our attention.

We've had 50 cases brought to our attention since about 2001. We've investigated those. We've had eight that have been closed with a conviction or a civil settlement, and we have five currently in process.

We're not a substitute for the Agency's internal control process, sir, and I think that's where the breakdowns are.

The CHAIRMAN. Well, you're—you're the Acting Inspector General of NASA. Allison Lerner, you're the Inspector General of the NSF.

Ms. LERNER. Correct.

The CHAIRMAN. And, Patricia Dalton, you're the Managing Director of Government Accountability Office section.

Do you—do you have to wait until things come to you? Do you have anybody that goes around and pokes—pokes into these situations?

Ms. LERNER. We do poke, but, our efforts to poke are stymied, to a certain extent, by the limitations of the databases that exist. I will say I've been at NSF in the IG position only since the end of April, but in the dealings that I've had with our investigative staff, they love these types of cases. They take them seriously, more seriously than perhaps some other people within the OIG community. But, they are difficult cases to work because of the difficulty in obtaining the information that will enable you to understand if you have an actual instance of duplicate funding or not.

We do take them seriously. We have. And as I indicated, we've had 64 investigations since the program began at NSF, and we've had some significant outcomes as a result. We have five ongoing cases right now that we are taking seriously and that we are working.

We got the attention of NSF management back in the early 90s and got them to institute some strong disclosures and certifications that really help us in instances where there is fraud to have successful prosecutions or outcomes.

The relationship that we've developed with the program staff and the presentations given by our staff to awardees that walk them through the ramifications of fraud, and show them the actual checks that we've been given by people to pay back and the pictures of Federal prisons where they could go, not that they have been, but where they could go if they defraud, have an impact. I know we don't catch every instance of fraud, but I think we're doing our level best to prevent it, and when it's detected, to pursue a strong, positive outcome.

The CHAIRMAN. Why am I dissatisfied?

Ms. DALTON. I would think, Senator, it's because these problems have been identified for many, many years. GAO has identified these for the Congress since the early 90s, and Congress has acted and asked for things to be done, and they have not been completed on time, and even, as I reported, it's not where it should be now.

The CHAIRMAN. If somebody is labeled an "inspector general," doesn't that mean that you spend all of your waking hours pursuing? In other words, isn't it your job to assume that waste, fraud, abuse, and corruption is going on? That, in other words, you—you don't accept that—

Ms. DALTON. Yes.

The CHAIRMAN. You hope not to run into any, you assume that it's going on? Because it's—it's the nature of—of what happens in this country. I don't hear passion. I don't hear anger.

I mean, you talked about, Mr. Howard, somebody getting a—as though he was trampled, paying \$1,100,000, but got to stay at home, and—and I heard that, and I almost—I almost interrupted Senator McCaskill in outrage that—that this would somehow be acceptable to you. I mean, when people do things like this, I mean, shouldn't they be fired, stripped, go to—go to prison?

Mr. HOWARD. Sir, I agree. We don't get to make those decisions.

The CHAIRMAN. Now, what do you mean "we don't?" You're an—you're an Inspector General.

Mr. HOWARD. But, sir, I'm not a judge or a jury.

The CHAIRMAN. Well, that—so, that means that—that the person above you decided this was not worth pursuing.

Who is the person above you?

Mr. HOWARD. Department of Justice, sir. That is who we work with on these cases with the Federal prosecutor.

The CHAIRMAN. Well, what about—what about NASA itself?

Mr. HOWARD. Sir, there is no one in NASA that influences what I do.

The CHAIRMAN. I'm not suggesting that, but there's obviously nobody in NASA that wanted to follow up what you were doing. The Department of Justice didn't.

Why are you an inspector general? Why—why do you hold the position? What—what is your—

How do you—how do you get out of bed every morning?

Mr. HOWARD. To prevent and deter fraud, waste, and abuse, and to improve the Agency's operations and programs. And I think we've been fairly successful at that, sir.

The CHAIRMAN. Ms. Lerner?

Ms. LERNER. It is a frustration when you are an Inspector General that you can't be everywhere at every time and fight every instance of fraud that occurs in the agency that you oversee, and if passion isn't coming across, I'm sorry; it should. I've spent my entire Federal career in this type of work, and I believe passionately in the mission of what we do.

But as has been noted, we can't be everywhere at every time, and we have many different programs with fraud that we have to oversee, many different areas that we have to pursue, and we do find ourselves spread very thin in attempting to cover all of the fronts in which the fraud can occur and is occurring.

I do think that at NSF, we've done our level best at tackling every allegation of fraud in the SBIR Program that's come our way, and when we've been able to substantiate the charge to pursue it as far as we can. We are limited because we investigate, but the Department of Justice makes decisions about prosecution.

The CHAIRMAN. Well, what would happen if you decide that you couldn't prosecute, but that you had done the investigation and you just held a press conference saying what you turned up and then turned it over to the Department of Justice? Would that get you fired? Would that embarrass you? I mean, compare yourself to—Mr. Longhi. Look what he did. Why can't you hold a press conference?

Ms. LERNER. That's a strategy I haven't considered, but I think in most instances where we've substantiated the charge, we have been able to follow the case through and receive some sort of positive outcome, whether it's administrative in that it's opened—or it's terminated so that no further funds could be abused—civil awards wherein we could recover—potentially double or triple damages back to the program. Unfortunately, no real criminal outcomes, but we pushed it as far as we can.

The CHAIRMAN. Were there criminal activities?

Ms. LERNER. You know, when you have tax evasion, potential—

The CHAIRMAN. Isn't that a criminal activity?

Ms. LERNER. Yes, but—

The CHAIRMAN. So, when they—when it came back far short of that from the Department of Justice and—

Ms. LERNER. Well, when settlement agreements are reached, that's part of the settlement and it can be that jail time is avoided, but—

The CHAIRMAN. Well, give me an example of a settlement agreement that was reached.

Ms. LERNER. I'm sorry?

The CHAIRMAN. Can you give me an example of a settlement agreement? Give me some context.

Ms. LERNER. I believe our office has turned over copies of settlement agreements to your staff, and I do have those. I can't off the top of my head give you specifics from them, but they do have several examples of—

The CHAIRMAN. I'm glad they have several examples. I'd like to have an example. Can you just plumb your thinking a little bit and see?

I'll—I'll go to Ms. Dalton and see what she has to say, and you think about.

Ms. LERNER. OK.

Ms. DALTON. Well, at the Government Accountability Office, most of our work is done directly at the request of the Congress, and our work is almost exclusively program evaluation work.

Since the inception of this program, we have reported numerous times to the Congress about problems with the program, including the issue of duplicate awards, and we've been reporting that since the mid-1990s. We do not do the investigative work that the inspector generals do.

The CHAIRMAN. OK, so, you turned it over to the Congress.

Who—where did you—who did you turn it over to?

Ms. DALTON. It would have been numerous committees of the Congress. It's whichever Member of Congress or Committee that has requested the work is who are reports are written to, and then they're publicly available.

The CHAIRMAN. Mr. Longhi, do you understand my frustration? I assume it's yours, too.

Mr. LONGHI. Yes, I do. I—may I add something here?

The CHAIRMAN. Please.

Mr. LONGHI. I very much wanted to see Dr. Munshi have a criminal conviction because of everything that went—that transpired. I wasn't there in the room, but I believe from input from my lawyer that the—the NASA special agents aggressively tried to get this case tried criminally. When they presented the—the evidence to the Department of Justice, the Criminal Division, it was decided that—not to go forward because I think, in part, it was so technical that they—they understood the evidence, but trying to present that to a jury, they thought it would be a very, very difficult case to try when you start to get into chemical compounds, and it breaks down in showing the—the details of the fraud, and they just—I—I think it came down on that point that the Department of Justice, the Criminal Division shied away from it because it would be so hard to try on a technical basis.

The CHAIRMAN. Now, I don't want to be—I'm going to seem political when I say this, but I—I fully understand that—that in the last 8 years that the Department of Justice was not as active as it might have been on a number of fronts, but it's—it's incomprehensible.

Did you ever see the movie "A Civil Action?"

Mr. LONGHI. No, sir.

The CHAIRMAN. Any of you see it?

[No response.]

The CHAIRMAN. Do you remember—I'm sorry. I'm—I'm really sorry about that. It's a very good—it's a very good movie, and it's a story about the case against Grace and Company. It's not a story, it's a factual account, and Grace and Company paid the largest amount in the history of litigation in New England for—for cleanup of toxic waste, which they—which happened after what you're talking—all of what you're talking about. It was very technical. And the lawyer who was taking this on couldn't get a jury to understand, and, more importantly than that, he couldn't afford to hire the—the different toxicologists and, you know, all the fancy specialties at \$100,000 a year or—or month or whatever, you know, to pursue it.

And it was—it came to the attention of the EPA because three boys who didn't like the man who had owned this, you know, supremely toxic land had gotten out of it by a weak judge, they—they were tossing firecrackers and one went into the river next to this dumping ground, and the river exploded into fire, and then, you know, a month later, EPA closes down the company, cleans everything up, and hits Grace and Company with the largest suit in the history of New England.

So, things happen in different ways. Things are complicated, but I—I had always thought that, I don't know, that IGs somehow pushed, they just pushed. And that's the value of their work.

That a case—and I'm not saying that you don't, and you all have cases that have come, that have been settled. Well, sometimes you don't want to settle something. Sometimes, you don't want to settle something, you want to make a point. And, so, you just—you just stick with it, and—and then you either make it or you don't make it. If you—if you don't make it, then you don't get the settlement money, and bravo for the person who gets away with a—with a, you know, criminal or antisocial behavior.

I'm just—I'm perplexed because, you know, you don't have to go to Iraq; you don't have to go to anything going on in this country.

There's—we're dealing the other day with some soldiers from—from Iraq who'd been hit with the same chemical compound that was sort of like Hexavalent Chromium or something like that. In other words, it was the worst kind of chromium which would just eat out your insides and turn you cancerous. And it was in dust form. They all dealt with it. The Army denied that there was any problem. And they broke out into rashes and their marriages broke up, they couldn't read newspapers and they couldn't keep jobs. And they finally came to us, and some of us are very, very mad about it, and I suspect you'll see results from it. And, as far as I'm concerned, results are the only things that count. Effort is nice, but results are what count.

I'm not lecturing you. I'm—I understand I'm not making any friends here, and I don't really care. I—I'm just on behalf of aggrieved people, much less taxpayers, I would—I just—I want to see hope.

So, let me—so let me just close—let me just close by asking each of you what you think could be done to ameliorate the situation and make it more efficient. Starting with you, Ms. Dalton.

Ms. DALTON. Sure. I think there are a number of things that could be done. Some of which they already are supposed to be doing, but I think they can be done better, and there are some things that they haven't done that they need to do.

I talked about this database. It was supposed to be done in 2001; it still is not where it needs to be by a long shot. It, as I said, doesn't include the proposal information. That, I think, is critical because we've been talking about fraud, but the best way to stop fraud is to prevent it from happening in the first place, and if we could get proposal information that all agencies could look at easily and search, it would be much easier to identify these duplicate awards, and, hopefully, that they would never occur.

Second, I think that the certification statements could be improved. All of the agencies have done better, but there are differences among the agencies in terms of the types of certifications that each awardee is given. When we were talking about criminal penalties, one of these is false statements, 1,001 certification violations. Those can be prosecuted very easily, but you need a clear certification statement. If we could get quality certification statements as to what each of the people at the organizations that are getting awards are certifying that they are not receiving duplicate awards, et cetera, I think that would improve the program.

I also think that we should have clearer definitions of what similar proposals are or identical proposals. Because we have repeatedly found duplications of awards.

And then, finally, I think that we should have clear, good information on what we're getting for the money. Have we gotten technology that can be commercialized? What other outcomes have come such as the research that the government needs, for example, to improve our weapon systems or health research.

So, those are four things that I would recommend that we focus on.

The CHAIRMAN. OK. Ms. Lerner?

Ms. LERNER. I'll reiterate what Ms. Dalton said. The single most important thing that would help us make more cases like this would be an improved database so that we could proactively go out and try and find instances of duplicate funding instead of having to wait for program officers to raise issues to us or whistleblowers like Mr. Longhi to raise the issue. If we had a proactive, better database. We have software, we have the ability to go out and match the proposals and find these things and could make tremendous progress in that regard.

I do think the certifications that we have are 1001 Certifications. We require them throughout the lifecycle of the award. We're very well-positioned, and I'd be happy to work with other Inspectors General, and if we want to convene a working group and talk about the certifications and how those could be improved across the community because I think we have a good example that could be worked from.

I'll turn it over.

Mr. HOWARD. Thanks. I agree that the working group is a very good idea. I think there are two things that we could do.

One, in the Inspectors General's Office, we will be passionate and proactive in finding out why these internal control weaknesses exist in the Agency's program, and make definitive recommendations to address them.

Second, we will encourage the Agency while we're doing our work, to take a look at itself and try to find out why it's not complying with its own internal control regulations.

The CHAIRMAN. Do you know what the first law that was passed after 9/11 was? Passed by the Congress? Any of you know?

[No response.]

The CHAIRMAN. It was a law that required the FBI and the CIA to be able to talk to each other. FBI did internal, CIA did external, so, they couldn't talk to each other. Which is one of the main reasons that 9/11 happened. There were all kinds of clues to indicate that this was going to happen, and there were all kinds of clues to indicate exactly how it was being set up to happen, the 9/11 Commission makes those very clear.

But it—it was interesting because it didn't make—it didn't make very much difference. The FBI kept on being the FBI. That means they had long yellow, legal pads, they were lawyers, and they were only there to arrest criminals. The CIA was only there to surveil suspects to find out who their contacts were and trail them. Not to arrest them, but to trail them in order to learn what the wider

situation was. Those two cultures would not meet, and, to this day, have not met effectively enough.

Now, why do I mention that? Simply because I'm at a loss trying to figure out how you get people to talk to each other, not just to have conferences, but you get hooked up by the—the IT that you need to be, that what goes across any of your desks goes across all the rest of your desks and all of your other folks that Mr. Munshi was ripping off money from. It just seems to me these things are possible.

Doctor—I mean Mr. Longhi, do you have any suggestions?

Mr. LONGHI. Yes, I do. Something very specific.

I agree with my fellow witnesses, but shine the light on it. Your biggest deterrent would be publicity. Scientists fear negative publicity. Their reputations are everything. It's the—the scientific mind. They want to do research; they want to be known for their research. If you associate negative publicity with—put these actions out in the open and highlight them, run them up the flagpole, this will be a tremendous deterrent. It's just the psyche of the scientist. They will avoid or try to avoid at all costs negative publicity.

The CHAIRMAN. Good idea. I don't mean to appear to be unfriendly or to be unfriendly. I think this is a very important hearing, and I think we've made some progress in it.

I'm going to stop it now. I'm going to put all of the questions which I didn't ask in the record, so, it'll be a part of the record, and I may send some of those questions to all of you.

So, despite my dour appearance, I adjourn this hearing. Thank you.

[Whereupon, at 4:23 p.m., the hearing was adjourned.]

A P P E N D I X

Cases of SBIR Waste, Fraud and Abuse *Compiled by Senate Commerce Committee Staff*

Background

In February 2009, it was publicly disclosed that Federal authorities were investigating a Florida technology engineering business called New Era Technology (NETECH) for Small Business Innovation Research (SBIR) Program fraud. In a filing in a Florida Federal district court, investigators alleged that NETECH's owners repeatedly submitted fraudulent SBIR proposals and invoices to the National Aeronautics and Space Administration (NASA) and used the award money to enrich their children and to purchase personal property for themselves, including a BMW automobile and a condominium in Ft. Lauderdale, Florida.¹

To learn more about the NETECH case, on March 6, 2009, Chairman Rockefeller wrote a letter to NASA requesting all documents related to contracts awarded to the company.² After discovering that NETECH had won contracts from two other agencies, Chairman Rockefeller made similar requests to DOD and DOE on May 6, 2009.³

According to the documents produced through these requests, since 1999, NETECH has received seven Phase I and five Phase II SBIR or Small Business Technology Transfer (STTR) Program contracts worth \$3,379,566 from NASA, the Air Force, and the Navy. Federal investigators allege that NETECH defrauded the government in the course of performing most of these contracts. NASA Inspector General (IG) officials recently informed Committee staff that their criminal investigation of NETECH is ongoing.

In the course of investigating the NETECH case and the SBIR program, Commerce Committee staff learned of other instances in which SBIR awardees defrauded the government. Using online searches and case files produced by the Inspectors General of NASA and NSF, Committee staff has collected 29 cases of SBIR fraud between 1990 and the present. These cases involved more than 300 SBIR or STTR contracts valued at more than \$100 million. Information about these cases is presented in a table in the following pages.

Some of the cases ended in criminal convictions or civil penalties imposed under the Federal False Claims Act, while others were resolved administratively within the respective IG offices and never made public. Based on the facts of each case, the table also estimates the number and dollar value of SBIR contracts that were at risk for waste, fraud, and abuse.⁴

¹Verified Complaint for Forfeiture in Rem, *U.S. v. Real Property Located at 501 South Moody Ave., Unit 117, Tampa, FL* (Feb. 19, 2009) N.D. Fla. (No. 1:09 cv 41-MP/AK).

²Letter from Chairman John D. Rockefeller IV to Acting Administrator, NASA, Mr. Christopher J. Scolese (Mar. 6, 2009).

³Letter from Chairman John D. Rockefeller IV to Secretary of Defense Robert Gates (May 5, 2009); Letter from Chairman John D. Rockefeller IV to Secretary of Energy Steven Chu (May 5, 2009).

⁴For example, based on the allegation of the contractor's conduct in the NETECH case discussed above, Committee staff determined that 11 contracts worth \$3.3 million are potentially at risk for waste, fraud and abuse.

Company Name	Description	Awards at Risk	Dollars at Risk	Year Investigation Closed
New Era Technologies (NeTech)	Company has been accused of improperly funneling NASA SBIR grant funds to personal bank accounts, and submitting fraudulent grant proposals and invoices. Search warrants were executed on February 25, 2009, and an investigation is ongoing. Company also received awards from DOD and DOE.	11	\$3,309,730	Ongoing
Materials and Electrochemical Research Corp.	Whistleblower suit, which the U.S. Department of Justice joined in May 2008, alleges that company forged signatures on financing statements for a number of successful Phase II proposals submitted to NASA, DOE, and the Army.	13	\$9,000,000	Ongoing
Not Public	Company owner made false statements to NSF to transfer a Phase II proposal to a different company than the company that performed the Phase I proposal.	2	\$599,941	2008
Not Public	Submitted two Phase I proposals to NSF that contained plagiarized text and figures.	4	\$1,477,475	2006
Not Public	Submitted proposals to NSF containing falsified information that led to the issue of the award for Phase I and II awards.	21	\$4,315,092	2006
Not Public	Originating from the OIG Hotline, the NASA OIG found in a joint investigation with the DOD OIG, that the company had submitted multiple duplicate proposals and reports to DOD, NSF and NASA.	2	\$159,981	2005
Lithium Power Technologies, Inc.	Through a whistleblower lawsuit, Lithium was found to have submitted false statements and duplicative proposals to various DOD components and NASA.	22	\$5,558,969	2005
M.L. Energia	Whistleblower claims led to a mail fraud conviction for false certifications, duplicative rewards, and plagiarized research. Awards came from NASA, NSF, DOD, DOE, USDA, and US Air Force.	17	\$2,314,000	2005
Not Public	After allegations that the awardee was misusing funds, an NSF OIG audit identified \$34,000 which was unaccounted for.	2	\$599,701	2004
Nanomaterials Research Corporation	A whistleblower alerted DOD that the owner was using awards for personal benefit (including a vacation home), submitting falsified time sheets, falsifying data, and submitting duplicative proposals. The company had received 50 SBIR grants from various agencies including NASA, NSF and DOD between 1994 and 1999.	50	\$19,000,000	2004
Amav Systems, Inc.	NASA Office of Procurement informed NASA OIG that company was inflating its labor rates for a Phase II project.	2	\$669,946	2004
Not Public	Company was accused of mischarging labor costs on multiple DOD and NASA SBIR contracts.	17	\$5,769,618	2003
Not Public	Owner submitted false statements on proposals, including names and resumes of researchers not employed by the company. Owner overpaid himself \$20,000. Included 3DOE and 1 NSF awards.	4	\$400,000	2003
LaserGenics Corporation	Submitted duplicative proposals to NASA and NSF, and made 12 false statements in DOD, NASA, DOE, and NSF proposals.	49	\$4,734,995	2002
Not Public	Based on an anonymous complaint, the NASA OIG discovered that the company had charged NASA \$100,000 for unallowable costs.	36	\$12,477,805	2002

<i>Not Public</i>	NASA OIG received information that company made false statements in proposals related to the principal investigator, and also forged signatures on grant applications.	2	\$139,982	2002
<i>Not Public</i>	Company received funding from NSF and the Office of Naval Research for same proposal.	2	\$170,000	2002
<i>Not Public</i>	NSF OIG was alerted by the FBI that the owner of the company had been accused of embezzling \$1.25 million from a foreign company. The NSF OIG determined company had obtained duplicate funding from NASA and the NSF for Phase I proposals, and had forged signatures of the CFO on falsified proposals.	2	\$50,000	1999
<i>Not Public</i>	Received duplicative awards from NSF and the Air Force for identical Phase I and Phase II Projects.	12	\$3,864,700	1999
<i>Not Public</i>	Company failed to disclose simultaneous pending Phase I proposals to the DOD and DOE.	2	\$150,000	1998
GMS Systems	Company submitted duplicate proposals to the Department of Education and National Institutes of Health.	3	\$110,000	1998
<i>Not Public</i>	Submitted duplicate proposals and fraudulently reported research results to NSF, NASA and DOD from 1991-1998. NSF SBIR reviewer purchased stock in company.	4	\$547,000	1998
<i>Not Public</i>	Submitted duplicate proposals to NSF and NASA, mischarged NASA for work, used subcontractors for more than 2/3 of the work.	27	\$6,895,528	1997
Electro-Optek	Received duplicative awards from NSF, NASA and DOD. Charged federal agencies for work that was not performed, plagiarized research, and misrepresented qualifications of researchers.	44	\$6,902,814	1996
AKM Associates	Submitted identical proposals and received duplicative awards from NSF, NASA, the Army and the Air Force.	17	\$2,204,452	1995
Excel Technology, Inc.	Submitted at least 36 false statements about duplicate proposals and re-wards, key personnel and billing to NSF, NASA and DOD.	NA	\$2,001,573	1995
<i>Not Public</i>	Submitted false claims about principal investigator's employment eligibility and plagiarized data in final report.	4	\$391,118	1993
High Energy Laser Associates	Received Phase II NSF funds, but did not use them to perform work.	1	\$250,000	1990
<i>Not Public</i>	Anonymous letter alerted NSF OIG to plagiarized report data and duplicative proposals. Company had received grants from 7 federal agencies and submitted identical data tables in 20 different reports to these agencies.	49	\$11,519,521	NA
	<i>TOTAL</i>	300	\$105,583,941	

Committee Staff Analysis

The information presented in the table above represents a group of individual cases in which Federal investigators and prosecutors collected evidence, developed facts, and in some cases, brought a civil suit or filed criminal charges. Viewed collectively, these cases provide important information about the features of the SBIR program that are most vulnerable to waste, fraud, and abuse.

Duplicative Proposal Fraud A review of the cases described in the table shows that the most common type of SBIR fraud appears to be the submission of so-called “duplicative” proposals to SBIR-awarding agencies. While SBIR regulations allow companies to submit the same research project to multiple agencies, they prohibit companies from accepting payment from more than one agency for the same work.⁵ In spite of this prohibition, there are a number of cases showing that some SBIR awardees have managed to receive multiple payments from different SBIR-awarding agencies for the same research project.

The fact that the SBIR program is vulnerable to duplicative proposal fraud has been a matter of public record since the mid-1990s. In December 1995, in what the New York Times called, “the largest case of fraud involving the main Federal program that steers research money to small businesses,” the government settled cases against two companies for misusing \$1.7 million in SBIR awards. Excel Technology of Hauppauge, NY, agreed to reimburse the government \$1.7 million and to pay \$1.6 million in penalties, while ESDI of Bohemia, NY, agreed to reimburse the government \$600,000 and pay penalties of \$150,000. The companies were accused of illegally accepting money from DOD, NASA and NSF for identical research proposals and for submitting research work that had already been completed at state universities.⁶

At about the same time, Congress heard testimony about the program’s vulnerability to duplicative proposal fraud. In March 1995, the then-Government Accounting Office (GAO) released a study warning, “the SBIR program is at a growing risk of willful or accidental financial abuse.”⁷ The report noted that in some cases, “a few companies received funding for the same proposals twice, three times and even five times before agencies became aware of the duplication.”⁸ According to GAO, unless informed by a whistleblower of the duplicative proposals, agencies had a very limited ability to identify duplicative proposals.⁹

The Senate Commerce Committee heard similar testimony about the vulnerability of the SBIR program to duplicative proposal fraud during a 1997 hearing examining major management issues at agencies under the Committee’s jurisdiction. When he was asked about SBIR fraud, NSF Deputy Inspector General, Philip Sunshine, told the Committee that, “compared to other programs at the agency, there is more fraud in the SBIR program than any other program . . . it is an ongoing problem and an issue we’re focusing on, I think I can report with confidence that the agency agrees with us that it is an issue.”¹⁰

Both GAO and the NSF Inspector General told Congress that the program was vulnerable to duplication fraud because there was no program-wide information system that allowed an agency to check if a company had submitted duplicative proposals to or recently won duplicative awards from other agencies. As the 1995 GAO report explained this problem, “. . . individual agencies maintain records of recent awards, but this information is generally not available to other agencies. If an official in one agency wants to obtain information from another agency about a specific proposal or company, such information is available only through personal contacts and conversations.”¹¹

In the 1997 hearing mentioned above, the Senate Commerce Committee heard similar testimony expressing concern that the lack of information sharing between SBIR-awarding agencies made the program vulnerable to duplicative proposal fraud. NSF Deputy Director, Joe Bordogna, testified that, “a major problem here is one in which the agencies don’t have a system yet that’s quick to use, a computerized system to check all the input coming in. We just did a check with some arduous hand

⁵ Small Business Administration, *SBIR Program Policy Directive 7(a)(1)(iii)* (online at: <http://www.sba.gov/SBIR/SBIR-PolicyDirective.pdf>) (accessed August 4, 2009).

⁶ *2 Companies To Repay U.S. in Fraud Case*, NEW YORK TIMES (December 10, 1995) (online at <http://www.nytimes.com/1995/12/10/us/2-companies-to-repay-us-in-fraud-case.html>)

⁷ General Accounting Office, *Interim Report on the Small Business Innovation Research Program* (March 1995) (GAO RCED-95-59).

⁸ *Id.*

⁹ *Id.*

¹⁰ Senate Committee on Commerce, Science and Transportation, *NASA and NSF Program Efficiency*, 105th Congress, (July 24, 1997) (S. Hrg. 105-722).

¹¹ General Accounting Office, *Interim Report on the Small Business Innovation Research Program* (March 1995) (GAO RCED-95-59).

labor on the 208 or so proposals we presently have in hand. We found 12 overlaps.”¹²

When it re-authorized the SBIR program in 2000, Congress ordered the Small Business Administration (SBA) to create and maintain a public database containing information about SBIR awards, and a government-access database containing information about proposals submitted to SBIR-awarding agencies.¹³ In conversations with Commerce Committee staff over the past few months, officials responsible for administering and overseeing SBIR programs have repeatedly stated that a government-wide database of SBIR proposals would be a valuable tool for reducing duplicative proposal fraud. While SBA’s public “Tech Net” website now contains comprehensive SBIR award information, it still does not provide the SBIR proposal database mandated in the 2000 statute.

False Billing and False Representations The table above also shows that some companies have won SBIR awards based on proposals containing false information. Companies have misrepresented the qualifications of their researchers, presented plagiarized data as their own, and forged signatures on proposals in order to win grants or contracts. As a general matter, the awarding agencies rely on companies’ self-certification that the information in their proposals is accurate and truthful. A Federal appeals court recently noted that “the DOD generally does not verify all of the information submitted in a proposal, and it depends heavily on the integrity of SBIR applicants.”¹⁴

In addition, after the SBIR grant or contract has been awarded, awardees have sometimes been able to exploit weaknesses in the program’s financial controls to bill the government for work it has not performed. While SBIR grants and contracts are based on a company’s agreement to perform a specified project for a fixed price, the SBIR statute requires agencies to make their payments “on the basis of progress toward or completion of the funding agreement requirements.”¹⁵ In other words, payments to companies are based on their “level of effort”—the actual hours and resources they put into the project.

Evidence collected by Committee staff during this investigation indicates that SBIR award recipients can actually work fewer hours than they propose in their budgets and still receive full award payments. Companies can submit invoices to agencies for the “budgeted” hours worked and then pocket the difference, because the agencies do not generally require the awardees to prove they actually worked the number of hours they proposed in the budget. Without a “budget-to-actual” reconciliation process, there is no way to determine if agencies are overpaying for services performed.¹⁶

For example, when the Department of Energy Inspector General (DOE IG) audited its agency’s SBIR program in 2001, it identified significant weaknesses related to the agency’s handling of invoiced costs submitted by program awardees. The IG noted that DOE, “generally limited its cost reviews to pre-award evaluations of the costs proposed in the application submitted by grantees; it did not, as we would have expected, place sufficient emphasis on post-award reviews of actual costs.”¹⁷

According to this report, once an SBIR award was made, there was no established procedure within the agency to verify that the amount submitted on an invoice actually matched up to the work performed by an awardee. In its 2001 audit, the DOE IG did its own cost review by asking grantees for documentation to support invoiced costs and it found that DOE reimbursed grantees for questionable costs. In one example, three awardees did not provide any documented support for \$2.4 million in claimed costs. These awardees simply sent invoices to DOE and were paid without having properly documented the work. The IG concluded that although it supported

¹²Senate Committee on Commerce, Science and Transportation, *NASA and NSF Program Efficiency*, 105th Congress (July 24, 1997) (S. Hrg. 105-722).

¹³P.L. 106-554, codified at 15 U.S.C. § 638(k)(2).

¹⁴U.S., ex rel. *Alfred J. Longhi v. Lithium Power Technologies* (5th Cir., July 9, 2009) (WL 1959259).

¹⁵U.S.C. § 638(g)(7).

¹⁶As discussed above, one of the government’s principal allegations in the NETECH case is that “. . . on multiple occasions, NETECH submitted fraudulent invoices to NASA on these contracts which represented labor hours for alleged employees that NETECH claimed to have paid or for whom NETECH incurred labor costs.” Verified Complaint for Forfeiture in Rem, *U.S. v. Real Property Located at 501 South Moody Ave., Unit 117, Tampa, FL* (Feb. 19, 2009) N.D. Fla. (No. 1:09 cv 41-MP/AK).

¹⁷Department of Energy Office of Inspector General, *Administration of Small Business Innovation Research Phase II Grants* (Aug. 2001) (DOE/IG-0521).

the objectives of the SBIR program, it was concerned, “. . . that the shortcomings identified in this audit undermine the viability of the program.”¹⁸

The DOE IG performed a follow-up audit of the DOE SBIR program in 2008 in order to determine if the previously observed weaknesses in the agency’s program had been corrected. The audit found that the agency, “had not corrected all previously reported weaknesses in monitoring and administering the SBIR phase II grants program.”¹⁹ Specifically, the report cited that, “action had not been completed to resolve about \$1.2 million of the approximately \$2.4 million of questionable costs identified in our previous audit,”²⁰ and that the agency was continuing the practice of, “not reviewing grant costs or closing out completed awards in a timely manner.”²¹

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. TOM UDALL TO
THOMAS J. HOWARD AND ALLISON C. LERNER

Question 1. Mr. Howard and Ms. Lerner, like my colleagues, I’m troubled to hear about the fraud going on with SBIR. It is especially troubling because we all know that these dollars could and should have been spent by other hard working and innovative small businesses.

And that’s who I’m concerned about—the businesses that have played by the rules.

I believe we must improve oversight, but in a responsible manner that doesn’t over burden honest applicants. Our program in New Mexico tells me that they spend about 100 hours preparing each of these applications. How will you ensure that new oversight efforts do not overburden honest applicants?

Answer from Mr. Howard. In my testimony, I noted two deficiencies that make it more difficult for us to detect, investigate, and prosecute fraud in the SBIR program: (1) the lack of a comprehensive government database that contains both SBIR proposals, awards, and reports and information about them, and (2) inconsistencies among the certifications required of awardees by the SBIR agencies. It is my view that rectifying these deficiencies will impose no burden on honest applicants.

To create a comprehensive SBIR database, SBIR would need to coordinate with the eleven SBIR agencies to ensure that, in addition to the information that these agencies currently provide to SBA, they also provide electronic copies of all SBIR proposals, awards, and reports. There should be a strict timeline for SBA to create and populate this database in order to ensure that it becomes an effective coordination portal. Creation of such a database should impose no burden on the SBIR companies because they are already accustomed to providing SBIR documentation to the government in electronic format.

With regard to certifications, all of the SBIR agencies already expect that certain uniform requirements will be adhered to by applicants and awardees: the company must be a small business; the principal investigator must be primarily employed by the company; most of the work must be, carried out by the company; the work must not be duplicative of work previously or currently funded by another agency; the SBIR funds must be expended properly on the specific project covered by the award; the Phase II awardee must be the same company that received the Phase I award; and all statements in the proposals and reports must be true. The honest companies are already complying with all of these requirements, and the NSF awardees already certify on their proposals, requests for payment, and reports. Reinforcing the expectation of adherence to these already- extant requirements by adding certifications to all of the documents submitted by applicants and awardees to all of the SBIR agencies will impose no perceptible burden on the honest companies. There is a small chance that having to read and select yes or no for each of the detailed certifications will deter some companies tempted to defraud the SBIR program—but there is certainty that those certifications will facilitate prosecuting companies that succumb to that temptation.

Answer from Ms. Lerner. While our work has focused on fraud, waste and abuse, we remain mindful that the program’s intent is to provide increased opportunities for small business participation in research and development and to help agencies in accomplishing their missions. As part of our audit of NASA’s management of its SBIR Program, we will assess the adequacy of the Agency’s internal control process

¹⁸ *Id.*

¹⁹ Department of Energy Office of Inspector General, *Management Controls over Monitoring and Closeout of Small Business Innovation Research Phase II Grants* (July 2008) (OAS–M–08–09).

²⁰ *Id.*

²¹ *Id.*

and will consider whether those processes provide a reasonable balance between the requirements levied on program participants and what the Agency needs to achieve the program's objectives and maintain compliance with existing laws and regulations.

Question 2. Mr. Howard and Ms. Lerner, as we heard during the hearing, many small businesses are playing by the rules of the program. I'm certain that they have ideas about how to improve fraud detection; after all, fraudulent applicants take dollars that could have gone to them. Have you reached out to applicants that are following the rules to get their input on preventing fraud?

Answer from Mr. Howard. As I discussed in my testimony, NSF requires all companies that receive Phase I awards to attend an SBIR Phase I workshop, at which a presentation by my staff makes it clear to awardees that violations of SBIR program requirements constitute wrongdoing, and outlines the specific criminal, civil, and administrative consequences of such wrongdoing. That presentation ends with my staff encouraging audience members to contact our office if they have evidence of wrongdoing (which some have indeed done). Similarly NSF's SBIR Solicitation contains warnings about the consequences of abuse. NSF OIG has an active outreach program to NSF awardees and is continually seeking input from both NSF and its awardees. We have not however, solicited specific suggestions for preventing or detecting fraud from SBIR awardees. The idea is an excellent one, and I can assure you that we will be seeking such input beginning with the next such workshop and in future outreach activities.

Answer from Ms. Lerner. To date, we have not proactively reached out to applicants who are following the rules to get their views on preventing fraud but we will consider this as part of our audit of NASA's SBIR program.

