

**COMMERCE DEPARTMENT PROGRAMS TO
SUPPORT JOB CREATION AND INNOVATION AT
SMALL- AND MEDIUM-SIZED MANUFACTURERS**

HEARING
BEFORE THE
SUBCOMMITTEE ON TECHNOLOGY AND INNOVATION
COMMITTEE ON SCIENCE AND
TECHNOLOGY
HOUSE OF REPRESENTATIVES
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(III)

**COMMERCE DEPARTMENT PROGRAMS TO
SUPPORT JOB CREATION AND INNOVATION
AT SMALL- AND MEDIUM-SIZED MANUFACTURERS**

THURSDAY, JANUARY 21, 2010

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON TECHNOLOGY AND INNOVATION,
COMMITTEE ON SCIENCE AND TECHNOLOGY,
Washington, DC.

The Subcommittee met, pursuant to call, at 10:14 a.m., in Room 2318 of the Rayburn House Office Building, Hon. David Wu [Chairman of the Subcommittee] presiding.

HEARING CHARTER

**SUBCOMMITTEE ON TECHNOLOGY AND
INNOVATION
COMMITTEE ON SCIENCE AND TECHNOLOGY
U.S. HOUSE OF REPRESENTATIVES**

**Commerce Department Programs to
Support Job Creation
and Innovation at Small- and Medium-
Sized Manufacturers**

THURSDAY, JANUARY 21, 2010
10:00 A.M.–12:00 P.M.
2318 RAYBURN HOUSE OFFICE BUILDING

I. Purpose

Small- and medium-sized manufacturers employ millions of Americans and are an important contributor to economic growth. The Department of Commerce (DOC) has new and existing initiatives intended to strengthen these businesses and help them create more jobs. The purpose of this hearing is to learn about the challenges faced by small- and medium-sized manufactures, as well as entrepreneurs marketing new technology. The purpose is also to learn about DOC initiatives to address these challenges and examine how those programs can be made most effective for these enterprises.

II. Witnesses

- **The Honorable Dennis F. Hightower**, Deputy Secretary of Commerce, U.S. Department of Commerce
- **Ms. Jennifer Owens**, Vice President, Ann Arbor Spark
- **Ms. RoseAnn B. Rosenthal**, President & CEO, Ben Franklin Technology Partners of Southeastern Pennsylvania
- **Mr. Michael Coast**, President, Michigan Manufacturing Technology Center

III. Brief Overview**Manufacturing in the U.S. Economy**

Employing 11.8¹ to 13 million people,² the manufacturing sector plays a critical role in the U.S. economy. The Manufacturing Institute estimates that the \$1.637 trillion worth of goods created by U.S. manufacturers in 2008 would position the sector as the eighth largest economy in the world. Manufacturing also accounts for

¹*The Facts About Modern Manufacturing, 8th Edition (Manufacturing Institute, 2009).*

²*Next Generation Manufacturing Study Overview and Findings (American Small Manufacturers Coalition, 2009).*

more than half of U.S. exports. And, in addition to the workers directly employed in manufacturing, the industry also supports 6.8 million jobs in areas from transportation to insurance. Within this sector, small- and medium sized firms vastly out-number their larger counterparts. Of the 286,039 manufacturers in the U.S., fewer than 3,000 employ more than 500 workers.³

Even prior to the 2008 economic crisis, U.S. firms faced increasing competition from foreign manufacturers. Between 2000 and 2007, U.S. global market share of manufactured exports fell from 19 percent to 14 percent. During that same period, the Chinese share of these global exports rose from 7 percent to 17 percent.⁴ An array of factors have contributed to the decline in U.S. manufacturing. However, making progress in a number of areas could help U.S. manufacturers become more competitive and grow. These areas include:

- *Workforce.* The National Science Foundation's Science and Engineering Indicators show that only 5 percent of U.S. college graduates major in engineering, compared with 20 percent in Asia. The Manufacturing Institute reports that many U.S. manufacturers have difficulty finding the qualified engineers they need. It also reports that many manufacturers cannot find enough workers with the requisite math and science skills necessary for modern manufacturing.
- *Engaging in Global Commerce.* In 2008, U.S. imports of manufactured goods from China were seven times greater than U.S. exports to China. The U.S. total share of Chinese imports of manufactured goods is only 8.2 percent, behind Japan's share at 17.7 percent. Increased trade with foreign markets is beneficial for American manufacturers. According to the Manufacturing Institute, U.S. manufacturers in the most trade-intensive industries paid their employees on average 47 percent more than the average compensation for workers in the least trade-intensive industries. However, in a 2009 study of 2,500 small- and medium-sized manufacturers by the American Small Manufacturers Coalition only 28 percent of respondents found "global engagement" to be "highly important."⁵
- *Green Manufacturing.* In the study of small- and medium-sized manufacturers by the American Small Manufacturers Coalition, only 16 percent reported that environmental concerns were "highly important." The report notes that increasingly, major companies are requiring robust environmental standards from their suppliers and that adopting environmentally sustainable manufacturing practices are important to competitiveness.⁶

³*The Facts About Modern Manufacturing, 8th Edition.*

⁴*The Facts About Modern Manufacturing, 8th Edition.*

⁵Next Generation Manufacturing Study Overview and Findings

⁶Next Generation Manufacturing Study Overview and Findings

Commerce Department Programs

CommerceConnect

The CommerceConnect program will set up a website and physical centers to provide a “one-stop-shop,” where DOC staff can counsel businesses on DOC programs that may benefit their operations and assist them in applying for these programs. Potential services include guidance on exporting, assistance applying for grants or patents, and help using government census data to do business planning. In addition to guiding small- and medium-sized businesses toward available resources, the DOC hopes CommerceConnect will integrate currently stove-piped programs and reduce the challenge of navigating federal bureaucracy. In October 2009, the DOC opened a pilot CommerceConnect facility in Plymouth, Michigan.

The objective of the pilot is to better understand the needs of businesses and to develop more effective methods of matching them with the relevant DOC programs and services.

The Office of Innovation and Entrepreneurship

To support the Administration’s efforts to encourage innovative entrepreneurship, the DOC created the Office of Innovation and Entrepreneurship. The Office, which reports directly to Commerce Secretary Locke, will focus on a range of issues, including:

- Cultivating entrepreneurship;
- Improving access to governmental data, research, and technical resources for entrepreneurs;
- Accelerating technology commercialization of federal R&D;
- Increasing access to capital for seed and early-stage innovation-based companies; and
- Strengthening interagency collaboration and coordination.

The Office is also establishing a National Advisory Council on Innovation and Entrepreneurship to advise the Secretary. The council will include successful entrepreneurs, innovators, angel investors, venture capitalists, and others.

The Sustainable Manufacturing Initiative

The Manufacturing and Services Division within the DOC’s International Trade Administration includes a website (www.manufacturing.gov) that offers market information from different industrial sectors, as well as updates from the Manufacturing Council, and other information. One of the focuses of the Manufacturing Portal under the Obama Administration will be the Sustainable Manufacturing Initiative, originally begun in 2007. A major goal of this initiative is to help American manufacturers increase their competitiveness by reducing waste and gaining market share for more environmentally sustainable products and processes. As part of this initiative, the DOC has:

- Established an Interagency Task Force on Sustainable Manufacturing, as a subgroup of the Interagency Working Group

on Manufacturing Competitiveness. The subgroup includes representatives from 15 federal agencies.

- Launched (in October of 2009) a central online clearinghouse of U.S. Government programs and resources that support sustainable business, which includes information on 300 federal programs.
- Organized Sustainable Manufacturing Showcases where manufacturers tour other manufacturing facilities across the U.S. which have successfully adopted environmentally friendly manufacturing practices.
- Supported an Organization of Economic Cooperation and Development (OECD) study to create metrics for sustainable manufacturing. Phase II of this study, to be released later this year, will be a tool-kit to help businesses assess the cost-effectiveness of adopting more sustainable manufacturing methods.

Manufacturing Extension Partnership (MEP) Program

The MEP program, run through the National Institute of Standards and Technology (NIST) at the DOC, is a network of 59 centers located in every State and Puerto Rico, providing a range of services to small- and medium-sized manufacturers. The MEP centers advise these businesses in a variety of areas, including Lean Manufacturing, increasing environmental sustainability, and information technology. The MEP centers are non-profit, university or state-based organizations which receive one-third of their operational funding from NIST with the matching two-thirds supplied by state funds, other regional partners, and revenue from fees paid by manufacturers for the services they receive. Since the early 1990s, MEP centers have completed nearly 400,000 contracts with small- and medium-sized manufacturers. NIST reports that assistance from the MEP program has helped create or retain more than 57,000 jobs and created or retained \$10.5 billion in sales in 2007 alone.⁷

IV. Issues and Concerns

Through this hearing, the Subcommittee will explore the following issues:

- What are the problems facing small- and medium-sized manufacturers and entrepreneurs?
- How will these Commerce Department programs benefit small- and medium-sized manufacturers?
- Suggestions to improve the programs to best support small- and medium-sized manufacturers and entrepreneurs.

⁷ http://www.mep.nist.gov/documents/pdf/about-mep/impacts/Final_2009_Making_a_Difference%208.5_X_11.pdf.

Chairman WU. This hearing will come to order.

Good morning, everyone. I would like to thank everyone, especially our witnesses, for coming to this morning's very important hearing on Department of Commerce programs to support job creation and innovation. The purpose of this hearing is to understand the challenges facing small- and medium-sized manufacturers, and to learn about the initiatives of the Commerce Department which were launched to help these businesses.

The health of the manufacturing sector is crucial to the health of the economy as a whole. It is responsible for creating over \$1.6 trillion worth of goods in fiscal 2008. This sector employs between 11 and 13 million Americans, and accounts for over half of this Nation's exports. Small- and medium-sized manufacturers play a particularly important role in American manufacturing, representing the vast majority of the 286,000 manufacturing firms in America.

Even before the economic crisis of 2008, these manufacturers had to weather difficult economic circumstances, particularly because of foreign competition. The current economic situation has made it difficult for these businesses to access credit. Many have had to adjust to the slowdown in the businesses of their large customers, like the smaller firms which supply the auto industry. These are on top of the existing challenges small- and medium-sized manufacturers already face, such as finding skilled workers, successfully exporting to foreign and many times protected markets, and keeping pace with rapid changes in technology. In the face of increasing foreign competition, capitalizing on our strengths in R&D is absolutely crucial. Firms that transition and manufacture new technology, produce new services and new products will be crucial to growing the U.S. economy.

I am glad to have the opportunity today to learn about the pressing problems of small- and medium-sized manufacturers from individuals who are closely connected with these firms. Programs like the NIST Manufacturing Extension Partnership have a proven track record of helping small- and medium-sized manufacturing firms become more competitive and retain and create jobs. I visited many of these manufacturers and the MEP, the OMEP programs which help them in my home State of Oregon, and they are indeed doing heroic work. Manufacturing jobs are good jobs, and I hope the success of MEP can be replicated in other Commerce Department initiatives.

Chairman WU. I now recognize the Ranking Member, Mr. Smith from Nebraska, for his opening statement.

[The prepared statement of Chairman Wu follows:]

PREPARED STATEMENT OF CHAIRMAN DAVID WU

Good morning, I would like to thank everyone, and especially our witnesses, for coming to this morning's hearing on Department of Commerce programs to support job creation and innovation. The purpose of this hearing is to understand the challenges facing small- and medium-sized manufacturers, and to learn about the initiatives the Commerce Department has launched to help these businesses.

The health of the manufacturing sector is critically important to the health of the economy as a whole, responsible for the creation of over \$1.637 trillion worth of goods in 2008. This sector employs between 11 and 13 million Americans, and accounts for over half of the Nation's exports. Small- and medium-sized manufacturers play a particularly important role in American manufacturing, representing the vast majority of the 286,000 manufacturing firms in the U.S.

Even before the economic crisis of 2008, these manufacturers have had to weather difficult economic circumstances, particularly from foreign competition. The current economic situation has made it difficult for these businesses to access credit. Many have had to adjust to the slowdown of their large customers, like the small firms that supply the auto industry. These are on top of the existing challenges small- and medium-sized manufacturers already face, such as finding skilled workers, exporting to foreign markets, and keeping pace with rapid changes in technology.

In the face of increasing foreign competition, capitalizing on our R&D is crucial. Firms that transition and manufacture new technology will be critical to growing U.S. manufacturing.

I am glad to have the opportunity today to learn about the pressing problems of small- and medium-sized manufacturers from individuals who are closely connected with these firms. Programs like the NIST Manufacturing Extension Partnership have a proven track record of helping small- and medium-sized manufacturing firms become more competitive and retain and create jobs. Manufacturing jobs are good jobs and I hope the success of MEP can be replicated in other Commerce Department initiatives.

Mr. SMITH. Thank you, Mr. Chairman, and thank you to the witnesses for joining us here today. Supporting job creation and innovation at our small- and medium-sized manufacturers is key to American competitiveness, and I look forward to working with you toward reauthorizing the America COMPETES legislation, Mr. Chairman.

At yesterday's hearing, we benefited from the birds-eye perspective of our Nation's business leaders, and I am particularly interested to hear from our panelists today on the details.

I would like to extend a welcome again to all of you for taking the time and sharing your expertise. I know that you all are very busy. In this time of economic uncertainty and with unemployment at 10 percent, there is much this Congress can do to spur manufacturing: increasing access to foreign markets by approving trade agreements with Columbia, Panama and South Korea; providing long-term certainty in the tax code by setting stable low rates and making the R&D tax credit permanent; ensuring continued access to private capital for businesses; and taking advantage of opportunities to develop our available energy resources including wind, hydro, solar and hydrocarbons.

Within the purview of this Committee, we must work to keep the United States a world leader in developing new technologies by ensuring our manufacturers have access to the resources necessary to spur innovation. This includes developing talent through strong STEM education programs, providing necessary infrastructure and leadership through NIST, the National Science Foundation and the Department of Commerce, and ensuring government research catalyzes private investment rather than displacing it.

I look forward to hearing from our witnesses today and to learning not only about the very real issues facing small- and medium-sized U.S. manufacturers but also ways in which this Committee can assist, whether by ensuring access to necessary resources or getting out of their way. Thank you.

[The prepared statement of Mr. Smith follows:]

PREPARED STATEMENT OF REPRESENTATIVE ADRIAN SMITH

Thank you, Mr. Chairman, for calling this subcommittee hearing today to examine manufacturing innovation programs within the Department of Commerce. Supporting job creation and innovation at our small- and medium-sized manufacturers is key to American competitiveness, and I look forward to working with you toward reauthorizing the *America COMPETES* legislation.

At yesterday's hearing, we benefited from the bird's eye perspective of our Nation's business leaders, and I am particularly interested to hear from our panelists today on some of the details. I would like to extend a welcome to all of you and thank you for taking the time and effort to share your expertise with us today.

In this time of economic uncertainty, with the unemployment at 10 percent, there is much this Congress can do to spur manufacturing—increasing access to foreign markets by approving trade agreements with Columbia, Panama, and South Korea; providing long-term certainty in the tax code by setting stable, low rates and making the R&D tax credit permanent; ensuring continued access to private capital for businesses; and taking advantage of opportunities to develop our available energy resources—including wind, hydro, solar, and hydrocarbon.

Within the purview of this Committee, we must work to keep the United States the world leader in developing new technologies by ensuring our manufacturers have access to the resources necessary to spur innovation. This includes developing talent through strong STEM education programs, providing necessary infrastructure and leadership through NIST, the National Science Foundation, and the Department of Commerce, and ensuring government research catalyzes private investment rather than displacing it.

I look forward to hearing from our witnesses today and to learning not only about the very real issues facing small- and medium U.S. manufacturers, but also to the ways in which this Committee can assist, whether by ensuring access to necessary resources or merely getting out of the way.

Chairman WU. If there are other Members who wish to submit additional opening statements, your statements will be included in the record at this point.

It is now my pleasure to introduce our witnesses. First, the Honorable Dennis F. Hightower, Deputy Secretary of Commerce at the U.S. Department of Commerce. Ms. Jennifer Owens is the Vice President of Ann Arbor Spark. And now I would like to recognize the gentlelady from Pennsylvania, Ms. Dahlkemper, to introduce our next witness.

Ms. DAHLKEMPER. Thank you, Chairman Wu, and thank you for inviting me to your subcommittee to have the honor to introduce a fellow Pennsylvanian. RoseAnn Rosenthal is President and CEO of the Ben Franklin Technology Partners (BFTP) of Southeastern Pennsylvania, and she has been so since 1996. In this capacity, she has earned an international reputation with her development of innovative partnerships and initiatives. With a current portfolio of over 120 technology companies, BFTP continues to build upon its proven track record of supporting hundreds of southeastern Pennsylvania technology companies. Through her leadership, BFTP partnered successfully with two of the region's major universities, the University of Pennsylvania and Drexel University, to create the Nanotechnology Institute. Furthermore, BFTP's efforts in nanotechnology have become a model for similar approaches in energy, and Ms. Rosenthal has led her staff in the creation of new technology commercialization models. She serves on several public and private boards and committees. She has been active as an advisor in state and regional nanotechnology initiatives. She has served on several national task forces including the U.S. Department of Housing and Urban Development and the U.S. Economic Development Administration. It is my pleasure to introduce my fellow Pennsylvanian, RoseAnn Rosenthal.

Chairman WU. Now I would like to recognize the gentleman from Michigan, Mr. Peters, to introduce our final witness.

Mr. PETERS. Thank you, Mr. Chairman. It is a pleasure to introduce Mike Coast, who is the president and CEO of the Michigan Manufacturing Technology Center (MMTC), and I have had an op-

portunity to work with Mr. Coast on numerous occasions as we work with helping small manufacturers throughout our state. He has been a critical part of the MEP affiliate in Michigan for the last 14 years and has been a great asset to the business community and manufacturers operating in our state. He is responsible for the partnership between the Technology Center and the Michigan Economic Development Corporation, a partnership that has allowed the MMTTC to play a leading role in coordinating technology-related services and helping our businesses in our state diversify. Under his very astute leadership, he was awarded the Not For Profit of the Year Award from Automation Alley in 2007. He comes to us with more than eight years of technology development experience and 16 years of manufacturing experience in addition to his work at the technology center, so I am thrilled to have him here with us representing us and it is really great, I may add, to have two individuals from the great State of Michigan representing our great state, and certainly when it comes to small manufacturing, we face very tough challenges in our state but also some tremendous opportunities, so thank you, Mr. Chairman.

Chairman WU. Thank you, Mr. Peters, and I am sure that with your leadership and Mr. Coast's leadership that Michigan is well on its way back.

Now to the witnesses, you will each have five minutes for your spoken testimony. Your written testimony will be introduced into the record in their entirety, and when all of you complete your testimony, we will begin with questions and each Member will have five minutes to question the panel in each round.

Mr. Hightower, please proceed.

STATEMENT OF HON. DENNIS F. HIGHTOWER, DEPUTY SECRETARY OF COMMERCE, U.S. DEPARTMENT OF COMMERCE

Mr. HIGHTOWER. Thank you. Good morning, Chairman Wu, Ranking Member Smith, Members of the Subcommittee. I am pleased to be here this morning to discuss the steps this Administration and the Department of Commerce in particular are taking to spur job creation and innovation, particularly among small- and medium-sized businesses, manufacturers and entrepreneurs. I have submitted my written testimony for the record but would like to spend my five minutes highlighting some of the key initiatives.

As you know, one of the first things that President Obama did upon entering office was to sign the Recovery Act to stimulate an economy that was in free fall. One year later, although we still face troubling and unacceptable economic difficulties, there is agreement among economists across the political spectrum that the Recovery Act helped to stabilize the economy and to create jobs. And with the naming of Ron Bloom as his senior counsel for manufacturing policy, President Obama signaled that the revitalization of the U.S. manufacturing sector would be a key component of the Administration's economic recovery efforts.

The Department of Commerce, we believe, is uniquely positioned to complement and build upon the Administration's job creation initiatives. While the Department's portfolio is diverse, our overriding mission is to improve the competitiveness of American businesses at home and abroad, and to this end Secretary Locke has

identified four key departmental initiatives and priorities that will guide our activities going forward, and they are first to boost our country's innovative capacity, to unlock the tremendous potential in promising new green and blue industries, to expanding exports through trade promotion efforts, and finally, transforming the Commerce Department into an integrated, efficient and effective service provider.

I would like to briefly discuss a number of programs and initiatives that support these priorities. First, Secretary Locke has established an Office of Innovation and Entrepreneurship to foster the creation and success of high-growth and innovation-driven businesses and to accelerate commercialization of federal research and development programs. This office will also manage the National Advisory Council on Innovation and Entrepreneurship, which will include entrepreneurs, innovators, investors and university and nonprofit leaders.

The Department of Commerce is also putting more resources into programs that will jump-start American manufacturing. The Manufacturing Extension Program, as you know, is an important part of the National Institute of Standards and Technology, and MEP provides manufacturers with technical assistance, training and long-term strategic planning. The MEP program received an increase of \$14.7 million in fiscal year 2010 and President Obama has indicated his support for ultimately doubling the MEP funding over the next several years.

We are also in the process of reconstructing the manufacturing.gov portal to provide smaller companies information not only on sustainable manufacturing practices but also a full range of manufacturing issues, and we are working closely with the Manufacturing Council on issues of concern specifically to the manufacturing sector. Last fall, Secretary Locke opened a pilot CommerceConnect office just outside of Detroit. The purpose is to provide Main Street businesses a single point of contact, a one-stop shop, if you will, for services that are offered by the Department. Experience gained from this pilot, which I visited three times in the last three months, will be evaluated as a part of our commitment to make the Department of Commerce more useful to the everyday operation of American companies.

These are but a few of our initiatives, and I hope you will carefully look at my written testimony to see the full scope of our activities.

Mr. Chairman, we certainly appreciate your support and the support of the Members of this Subcommittee, and we certainly look forward to working with you on ongoing job creation, innovation and manufacturing efforts. Thank you.

[The prepared statement of Mr. Hightower follows:]

PREPARED STATEMENT OF HON. DENNIS F. HIGHTOWER

Chairman Wu and members of the Subcommittee on Science and Technology, I thank you for the opportunity to appear before you today to provide you with an overview of how this Administration and the Commerce Department plan to support the U.S. manufacturing sector. In particular, I will provide an update on the actions that

Secretary Locke and I are taking to focus the capabilities of the Department of Commerce on supporting job creation and innovation, particularly among small- and medium-sized manufacturers and entrepreneurs.

An Administration Focused on Recovery of the Manufacturing Sector

From the day he took office, President Obama has made exceptional efforts to provide immediate help to the small- and medium-sized businesses that are the source of a significant number of new jobs in America. And with the naming of Ron Bloom as Senior Counselor for Manufacturing Policy and the recent release of a White House manufacturing strategy, he signaled that the revitalization of the U.S. manufacturing sector would be the key to the revitalization of the American economy.

As you are aware, it all began with the Recovery Act which was essentially divided into three parts.

One third of Recovery Act funding is going directly to tax relief for families and small businesses. Another third of the money is being directed to emergency relief like additional Medicaid and unemployment insurance funding for those who have borne the brunt of this recession. The last third of the Recovery Act funding is for investments to put people back to work and lay a new foundation for long-term prosperity. These investments include vital infrastructure improvements like upgrading our roads and our bridges; and renovating schools and hospitals, as well as investments in things like renewable energy and broadband expansion. Already, upwards of \$140 million has been awarded to communities through the Department's Broadband Technology Opportunities Program (BTOP), which continues to fund broadband infrastructure, public computer centers, sustainable broadband adoption, and broadband mapping projects around the country.

Thanks to the Recovery Act, \$100 billion in funding and loan guarantees was set aside to encourage and support manufacturing in America—much of which will assist smaller enterprises. With overall unemployment remaining at very high levels (10 percent) and manufacturing employment continuing to fall,¹ I understand and share the frustration that the economy is not getting better quicker. But we should remember what the economy looked like at the beginning of 2009 when this Administration took office. Every day seemed to bring worse news. A severe recession had begun, and it was at great risk of turning into something even worse.

The Recovery Act—along with our other economic initiatives—has begun to stabilize economic conditions and help those harmed by the economic crisis. But the true measure of the Recovery Act and of President Obama's entire agenda will not be determined in just a few months. To put our economy on a sustainable path, we must make fundamental changes like we have not seen in America for decades.

One company I met during my travels retooled equipment designed to manufacture hulls for yachts to build wind turbine blades and take part in the burgeoning green economy. It is our hope and intention to replicate this kind of success with our manufacturing programs.

Focusing the Commerce Department to Better Support Manufacturing

While the Commerce Department's portfolio is diverse—from protecting America's oceans and intellectual property to improving companies' efficiency and opening up markets—our overriding mission is to improve the overall competitiveness of American business at home and abroad. The Department's diversity uniquely positions it to support businesses and entrepreneurs through every step of their lifecycle: from the birth of an idea, to the creation of a business, to global expansion—and at each step, the Commerce Department contributes to job creation and economic prosperity.

Innovation: At the innovation stage, Commerce brings tremendous value for the U.S. economy—whether in creating a business climate that supports the development of new inventions through the Patent and Trademark Office, spurring innovation in manufacturing through the Technology Innovation Program at the National Institute of Standards and Technology (NIST), or harnessing the vast economic potential of the digital economy at the National Telecommunications and Information Administration—Commerce is a critical player in supporting the creation of tomorrow's firms, industries, and jobs.

Commercialization: U.S. businesses and entrepreneurs rely upon innovations developed through the process of technology commercialization to develop new ideas into new products and services, which lead to economic growth and job creation. Commerce has a host of resources to drive this process—by exploring policies and initiatives to foster high-growth entrepreneurship through the Office of Innovation and Entrepreneurship, supporting regional innovation clusters through the Economic Development Administration, helping drive productivity through NIST's Manufacturing Extension Partnership, and helping minority-owned businesses capitalize on their market potential at the Minority Business Development Agency.

¹ Since the recession began, manufacturing employment has fallen by 2.1 million.

Global Competitiveness: Once businesses have become established, the next stage is growth. With traditional engines of growth like consumer spending flagging, accessing foreign markets becomes increasingly important. The International Trade Administration, through its Manufacturing and Services unit, interfaces with manufacturers to understand impediments to the global competitiveness of U.S. businesses, such as market access barriers, while its Commercial Service unit assists businesses to expand their exports. In addition, our Bureau of Industry and Security enables export growth in a manner consistent with national security.

Environmental Stewardship: The National Oceanic and Atmospheric Administration ensures that business and economic activity is environmentally sustainable—and also ensures that businesses across the lifecycle have the benefit of its world-class research to guide and shape investments, particularly in the massive market potential in green and blue commercial sectors.

Statistical Infrastructure: Commerce also includes two of the premier statistical agencies in the U.S. Government within the Economics and Statistics Administration. The Bureau of Economic Analysis and Bureau of the Census track changes in the economy, which can be critical to helping businesses of all sizes and sectors understand their current and future markets.

Departmental Priorities

Given the diverse range of issues we confront and activities in which Commerce is involved, Secretary Locke has prioritized his emphasis on key areas with a focus on job creation and economic growth in the years ahead. In each of these areas, support for small- and medium-sized manufacturers is a key component.

- The first priority area is in boosting our country's innovative capacity, with a particular emphasis on intellectual property and entrepreneurship to create a business environment that cultivates and rewards new ideas, technologies, products, and services.
- Second, Secretary Locke is committed to unlock the vast economic potential of the green and blue markets by helping to grow businesses that are based on clean energy and environmental conservation.
- Third, we are fundamentally focused on leveraging Commerce resources to generate growth by expanding exports through trade promotion efforts.
- Last, Secretary Locke and I are focused on transforming the Commerce Department into an integrated, efficient and effective service provider in supporting business competitiveness and job creation.

At this point I would like to highlight a few specific initiatives that illustrate how the Department will better serve small- and medium-sized manufacturers and entrepreneurs under these Departmental priorities.

Office of Innovation and Entrepreneurship: Under our “innovation” priority, we recently established the Office of Innovation and Entrepreneurship. In his Strategy for American Innovation, President Obama articulated his vision for innovation, growth, and jobs: “the greatest job and value creators of the future will be activities, jobs, and even industries that don’t exist yet today . . . It is imperative to create a national environment ripe for entrepreneurship and risk taking.” New businesses are the primary engine of job growth in the United States, with entrepreneurs creating approximately three million jobs a year. Firms less than five years old accounted for nearly all net new jobs in the private sector from 1980 to 2005.

Consistent with the President’s vision, the goal of the Office of Innovation and Entrepreneurship is to unleash the economic potential of new ideas by removing barriers to entrepreneurship and the development of high-growth and innovation-based businesses.

The Office will work closely with the White House and other federal agencies to:

- Encourage Entrepreneurs through Education, Training, and Mentoring
- Accelerate Technology Commercialization of Federal R&D
- Broaden Access to Capital for Entrepreneurs
- Improve Access to Government Resources for Entrepreneurs
- Explore Policy Incentives to Support Innovators, Entrepreneurs, and Investors
- Strengthen Interagency Collaboration and Coordination

The Office will also manage the National Advisory Council on Innovation and Entrepreneurship, which will advise Secretary Locke on key issues relating to innovation and entrepreneurship. It will include a range of stakeholders, such as success-

ful entrepreneurs, innovators, angel investors, venture capitalists, non-profit leaders, and other experts on these issues.

Hollings Manufacturing Extension Partnership (MEP): MEP is a national network with hundreds of specialists who understand the needs of manufacturers. For the past 20 years, they have worked with thousands of manufacturers delivering \$1.4 billion in cost savings annually and \$9.1 billion in increased or retained sales in one year.

MEP provides companies with services and access to public and private resources that enhance growth, improve productivity, and expand capacity. We work with companies willing to invest in their future, to make improvements in the short term, and position themselves to be stronger long-term competitors both domestically and internationally. In his 2010 budget, the President proposed to double MEP funding over seven years, so its centers can expand their efforts to bolster the competitiveness of U.S. manufacturers.

Sustainable Manufacturing Initiative (SMI) and manufacturing.gov: Commerce is increasing efforts to encourage sustainable manufacturing and increase access to information on sustainable practices that can help companies reduce operating costs and help sustain or create jobs. We are expanding the www.manufacturing.gov website to provide the most comprehensive, and current information on issues surrounding the competitiveness of American manufacturers and service industries. Through manufacturing.gov, companies can access the Sustainable Business Clearinghouse of all major federal programs that support sustainable practices. Additionally, we are organizing and leading tours of U.S. companies that showcase sustainable practices that can be used by small- and medium-sized enterprises.

CommerceConnect: CommerceConnect is a signature initiative to realize our "more efficient and effective service provider" priority. We are transforming the way we engage with businesses and entrepreneurs, allowing them to engage with a single Department of Commerce, rather than twelve separate bureaus with their own myriad of programs. Here is what this will mean in practice:

- If a business is involved in a cutting-edge field like nanotechnology or developing solutions to fight climate change, our CommerceConnect staff will connect it with our world-class laboratories developing the standards, measurements and basic R&D for products and services that allow new industries to flourish.
- If a business has manufacturing facilities, we will link it with our Manufacturing Extension Partnership, which has experts who can come onto your shop floor and provide ideas to make your production line more efficient.
- If a business wants to start selling its products abroad, we will connect it with industry specialists from the International Trade Administration, including Commercial Service officers in any of 77 countries around the world who will tap their local contacts to find you new customers.

Three months ago, Secretary Locke kicked off a pilot CommerceConnect office just outside of Detroit, Michigan, to develop best practices in how to connect with businesses both directly—through on-the-ground experts that interact with business, assessing their needs and connecting them with the most relevant services—and virtually through a web presence and eventually an online tool that can be used by businesses.

In this short three-month period, we have worked with 25 businesses, successfully connecting them to a wide range of Commerce programs. For example, Commerce referred, Machine Tool & Gear, Inc. (MTG) of Corunna, Michigan, to the Michigan Export Assistance Center. MTG was assisted with their application to join a trade mission to help automotive suppliers seeking to develop business opportunities in Italy. MTG's application was accepted and their company representatives were able to participate in an automotive trade mission to Turin, Italy, last month and will be following up on opportunities that were discussed. Also, CommerceConnect has helped connect Vogel Industries, located in Marine City, Michigan, to several Commerce programs, as well as local programs and other federal agency programs that have assisted them in registering for defense contracts, matching them with an opportunity that has helped them start engagements with peer suppliers involved in relevant joint ventures, and participating in an alternative materials workshop to find areas of opportunity for Vogel to diversify.

CommerceConnect has also made connections with businesses through the Patent and Trademark Office, the National Institute of Standards and Technology, the Minority Business Development Agency, and other Commerce bureaus' programs and services. We have also reached out to include local Michigan economic development

services as well as other federal agencies programs and services from the Small Business Administration and the Departments of Agriculture and Labor.

In the next three months, we will continue to refine the CommerceConnect approach and offer recommendations on the operational construct, procedures, processes and systems for maximum efficiency and effectiveness.

This concludes my statement. I will be pleased to answer any questions you may have.

BIOGRAPHY FOR HON. DENNIS F. HIGHTOWER

Dennis F. Hightower is a seasoned business executive with extensive global general management experience. His distinguished career spans the private and public sectors, including more than 30 years of experience in global marketing, strategic planning, operations and international general management.

Most recently, Mr. Hightower was chief executive officer of Europe Online Networks S.A., a privately held broadband interactive entertainment company based in Luxembourg. From 1987 to 1996, Mr. Hightower was a senior executive of The Walt Disney Company, where he led multi-billion dollar enterprises as president of Walt Disney Television & Telecommunications and president of Consumer Products, Europe/Middle East and Africa.

Hightower has made a continuing commitment to training future business leaders as a former professor of management at Harvard Business School, where he focused on leadership, building emerging markets and global general management. He has also been a guest lecturer at business schools throughout the world including IMD in Switzerland, INSEAD in France and the London Business School; and at the U.S. Military Academy (Bicentennial) and the USMA Preparatory School.

Hightower most recently served on the Boards of Directors of Accenture, Domino's Pizza, Lightfleet (a start-up high technology company), and privately-held Brown Capital Management. He has formerly served as a board member of The Gillette Company, Northwest Airlines, PanAmSat Corporation, Phillip-Van Heusen Corporation, The TJX Companies, Inc., and as a member of the Price Waterhouse Chairman's Advisory Council.

Previously, Mr. Hightower has demonstrated a willingness to serve his country as a decorated Vietnam veteran and as a member of the Defense Business Board. Hightower was a Regular Army officer for eight years, rising to the rank of Major by age 27. While on active duty he was awarded numerous decorations for meritorious achievement and valor.

Mr. Hightower holds an M.B.A. degree from the Harvard Business School and a B.S. degree and honorary doctorate from Howard University. He received the Alumni Achievement Award in Business from Howard University in 1986, the Alumni Achievement Award from Harvard Business School in 1992, and the U.S. Department of Commerce Pioneer Award in 1996.

Chairman WU. Thank you, Mr. Hightower.

Ms. Owens, my apologies for not greeting you personally earlier. You are so young, I didn't realize you were a witness. Please proceed.

STATEMENT OF MS. JENNIFER OWENS, VICE PRESIDENT, BUSINESS DEVELOPMENT AT ANN ARBOR SPARK

Ms. OWENS. I will take that as a compliment.

Good morning, Chairman and distinguished Members of Congress. In particular I would like to commend Congressman Peters and Congressman Ehlers for their leadership in Michigan and their work on behalf of our residents. My name is Jennifer Owens and I am the vice president for business development at Ann Arbor Spark, and I sincerely appreciate the opportunity to testify here today.

The Ann Arbor region that I represent is uniquely positioned with an array of assets. Our community is home to a world-class university, the University of Michigan, hundreds of emerging high-tech entrepreneurial ventures and established technology leaders like Toyota, Google, Terumo Cardiovascular Systems, the Crawley

Company and Thomas Reuters. Ann Arbor was recently deemed by a PBS segment as the life preserver of Michigan, and even with Michigan's massive economic struggles, our region has still remained relatively strong. Yet one of our greatest strengths is very much at risk, our manufacturing base. These firms are critical to the success of our innovation-based startups that need a partner to turn their ideas into reality. Our manufacturers can produce a new prosthetic limb, sonar device or medical sensor that our entrepreneurs design. Over the past three years, we have seen roughly 4,000 manufacturing jobs lost in our county alone. The remaining manufacturers are some of the strongest and smartest in the world. These businesses are at their absolute leanest with only critical employees remaining.

I visited with hundreds of these companies over the past two years in my jobs at both the Michigan Economic Development Corporation and Ann Arbor Spark, and the theme is all too common. Banks are often unwilling to extend credit. The remaining employees are taking on the responsibility of three full-time positions, and they are all living paycheck to paycheck, and this is why programs like CommerceConnect are so critical. Manufacturers in crisis mode don't have the time or capacity to seek out federal opportunities. They desperately need someone to hold their hand through the process, open doors for them and to essentially be an additional resource or employee. CommerceConnect offers that support, and I commend the Department for quickly recognizing the need and developing the program.

However, I implore the Department of Commerce to utilize the network of economic developers throughout the country to take their message to manufacturers. They should not create a new team of outreach professionals, rather educate the local economic developers, provide them with funding to grow their ranks and allow them to use their existing manufacturing relationships to take those programs directly to manufacturers. Ideally, CommerceConnect should be integrated into Michigan's development tool kit, which regional economic development organizations deploy for the retention and growth of companies.

The current programs offered by Commerce are very helpful for manufacturers. Firms that use Manufacturing Extension Partnership or the Michigan Manufacturing Technology Center in our state have seen dramatic results. Our MEP center has been a critical partner in helping manufacturers throughout the state, landing roughly \$300 million in new contract work.

However, Commerce cannot ignore what these firms need most is missing: access to capital. Michigan manufacturers throughout the state are being tossed aside by their banks and being forced into loans with double-digit interest rates just to keep their business afloat. Unless new programs are designed to address the access to capital crisis, our manufacturing base will likely be dramatically reduced.

The time to act is now. Commerce and Congress cannot study and research new operations. CommerceConnect as well as new manufacturing capital programs must be put into place in early 2010. Commerce must partner with economic development organizations like Ann Arbor Spark to develop new programs and take

their existing tools directly to manufacturers. Only through a true partnership with federal, state and local agencies can our manufacturing base be saved.

Thank you for the opportunity to address you today, and I appreciate your consideration.

[The prepared statement of Ms. Owens follows:]

PREPARED STATEMENT OF JENNIFER OWENS

Good afternoon Mr. Chairman and distinguished Members of Congress. My name is Jennifer and I am the Vice President for Business Development at Ann Arbor Spark. I sincerely appreciate the opportunity to testify today on this very important subject.

The Ann Arbor region, that I represent, is uniquely positioned with an array of assets. Our community is home to a world class university—the University of Michigan, hundreds of emerging high-tech entrepreneurial ventures and established technology leaders like Toyota, Google, Terumo Cardiovascular and Thomson Reuters. Ann Arbor was recently deemed by a PBS segment as “the life preserver of Michigan.” Even with Michigan’s massive economic struggles, our region has still remained relatively strong.

Yet, one of our greatest strengths is still very much at risk—our manufacturing base. These firms are critical to the success of innovation-based start-ups that need an established partner to turn their ideas into reality. Our manufacturers can produce the new prosthetic limb, sonar device or medical sensor that our entrepreneurs design. Over the past three years, we have seen roughly 4,000 automotive manufacturing jobs lost in our region. The remaining manufacturers are some of the strongest and smartest in the world. These businesses are at their absolute leanest with only critical employees remaining.

I have visited with hundreds of these companies over the past two years in my economic development role with the State of Michigan and Ann Arbor SPARK. The theme is all too common. Banks are often unwilling to extend credit. The remaining employees are taking on the responsibility of three full time positions. They all are living paycheck to paycheck.

This is why programs like Commerce Connect are so critical. Manufacturers in crisis mode do not have the time or capacity to seek out federal opportunities. They desperately need someone to hold their hand through the process, open doors for them and to essentially be an additional resource. Commerce Connect offers some of that support. I commend the department for quickly recognizing the need and developing the program.

However, I implore the Department of Commerce to utilize the network of economic developers throughout the country to take their message to manufacturers. They should not create a new team of outreach professionals. Rather, educate the local economic developers, provide them with funding to grow their ranks and allow them to use their existing relationships to take the programs directly to manufacturers. Ideally, Commerce Connect should be integrated into the economic development “tool kit” which each regional economic development organization deploys for the retention and growth of companies.

The current programs offered by Commerce are very helpful for manufacturers. Firms that use Manufacturing Extension Partnership or the Michigan Manufacturing Technology Center in our state have seen dramatic results. Our MEP center has been a critical partner in helping manufacturers throughout the state in landing roughly \$300 million in new contract work.

However, Commerce cannot ignore that what these firms need most is missing—access to capital. Michigan manufacturers, throughout the state, are being tossed aside by their existing banks and being forced into loans with double digit interest rates to keep their business afloat. Unless new programs are designed to address the access to capital crisis, our manufacturing base will likely be dramatically reduced.

The time to act is now. Commerce and Congress cannot study and research new options. Commerce Connect as well as new manufacturing capital programs must be put in place early in 2010. Commerce must partner with economic development organizations, like Ann Arbor SPARK, to develop new programs and take their existing tools directly to the manufacturing community. Only through a true partnership among the federal, state and local agencies can our manufacturing base be saved.

Again, thank you for the opportunity to address you today and for your consideration.

BIOGRAPHY FOR JENNIFER OWENS



Jennifer Owens is the Vice President of Business Development at Ann Arbor SPARK (SPARK).

SPARK is a public-private partnership whose mission is to advance innovation-based economic development in the greater Ann Arbor region. SPARK is the region's flagship economic development group to assist businesses at every stage, from those that are established to those working to successfully commercialize innovations.

SPARK represents all communities in the Washtenaw County region of Michigan and collaborates with business, government, academic, and not-for-profit partners.

Jennifer's primary responsibilities include directing the organization's retention and attraction programs. In 2009, SPARK attracted 34 new business opportunities creating more than 2,000 new jobs.

Prior to taking the helm at Ann Arbor SPARK, Jennifer served as Vice President of Business Development at the Michigan Economic Development Corporation (MEDC). At the MEDC, Jennifer was responsible for the statewide retention program managing a team of more than 20 outreach professionals. She designed and implemented a manufacturing diversification program that led to more than \$300 million in new contracts for Michigan manufacturers.

Jennifer holds a Bachelor of Arts from Michigan State University.

Chairman WU. Thank you, Ms. Owens. You may take back to Ann Arbor that as our last President was fond of saying, help is on the way. This Congress and this Administration are working mightily to improve small business programs so that both loans and grants become more available for capital purposes, and this Committee and I have been striving mightily for two Congresses to update the SBIR (Small Business Innovation Research) program and enhance the loans, perhaps up to \$2 million—I am sorry, the grants-so that they be more meaningful.

Ms. Rosenthal, please proceed.

**STATEMENT OF MS. ROSEANN B. ROSENTHAL, PRESIDENT
AND CEO, BEN FRANKLIN TECHNOLOGY PARTNERS OF
SOUTHEASTERN PENNSYLVANIA**

Ms. ROSENTHAL. Mr. Chairman and Members of the Committee, thank you for affording me the opportunity address you today. I am RoseAnn Rosenthal, President and Chief Executive Office of the Ben Franklin Technology Partners of Southeastern Pennsylvania, one of four regional private nonprofit organizations created through Pennsylvania legislative action in 1982. Ben Franklin is the Commonwealth of Pennsylvania's partner in innovation, technology and entrepreneurship, created at an earlier time of economic recession and job loss in our Nation. The Ben Franklin partnership mission was and is to catalyze efforts that rebuild Pennsylvania's economy through science and technology. Our mission is consistent with that of the Department of Commerce's Office of Innovation and Entrepreneurship. This office, given the appropriate resources, presents an ideal opportunity for implementing new policies.

The CEOs of the Ben Franklin Technology Partners had an opportunity to meet with the staff from the Office of the Secretary shortly after the announcement was made. Since then we have exchanged ideas around this office's emerging priorities, which are fundamental in their support of high-growth innovative enterprises. We are pleased to understand that the work of this office will be informed by a national advisory council that will bring the experience, insight and ideas of individuals representing state and local laboratories of democracy, as David Osborne described such efforts including ours back in 1988.

Mr. Chairman, my associates and I applaud the Committee's leadership for holding this hearing and hope that the message you and your colleagues take away is that we in the nonprofit world at the state and local levels have been commercializing technology and seeding enterprises for many years very effectively. We can offer concrete, practical suggestions for redirecting existing federal dollars to update programs in order to maximize federal investment and generate increased job creation. I recommend the following elements be considered as part of a framework for retooling. One, goals that are few, clear and nonconflicting and that keep the ultimate objective, economic growth through entrepreneurial innovation, at the forefront; two, an approach that is less prescriptive and more receptive to new models and allows program design to be driven by the specific challenges and opportunities at regional, state and local levels; three, flexibility in implementation enabling timely response as conditions change; four, programs that focus on

reducing the barriers to collaboration and innovation; and five, designs that catalyze institutional and private involvement and investment over time. The goals: increasing access to early-stage growth capital and creating effective pathways to commercialization.

In some states like ours, funding for high-growth enterprises and commercialization has come through state-backed technology development programs. However, with state revenues severely constrained, support nationwide has been cut, further depleting capital available for innovative enterprises and initiatives and straining local infrastructures for innovation created over recent years. Combined with the decrease in investment activity from among private angel investors and early-stage venture funds, companies we seed have nowhere to grow. The oft-described valley of death, a gap that stretches from the need to demonstrate proof of concept through to early revenue generation or sales, invites creative new approaches and a retooling of existing federal programs. My full written testimony offers some recommendations.

Finally, the new Office of Innovation and Entrepreneurship could be funded to launch broader comprehensive regional models. It could be the impetus for a national innovation network with funded public-private partnerships able to develop the integrated strategies and programs necessary to drive innovation through the growth companies that create high-wage jobs and to encourage multi-state partnerships able to stimulate the growth of natural clusters. The Ben Franklin Technology Partnership was launched in similar fashion with a state challenge to regions across Pennsylvania.

Thank you again, Mr. Chairman, for holding this important hearing and for the opportunity to share Ben Franklin Technology Partners' experience in stimulating innovation, enterprise formation and job creation. My colleagues and I stand ready to assist the Committee and the Administration in every way possible to advance these important goals.

[The prepared statement of Ms. Rosenthal follows:]

PREPARED STATEMENT OF ROSEANN B. ROSENTHAL

Mr. Chairman and members of the Committee, thank you for affording me the opportunity to address you today.

I am RoseAnn B. Rosenthal, President and Chief Executive Officer of the Ben Franklin Technology Partners of Southeastern Pennsylvania, one of four Ben Franklin Technology Partners created through Pennsylvania legislative action in 1982.

Ben Franklin is the Commonwealth of Pennsylvania's partner in innovation, technology and entrepreneurship, created at an earlier time of economic recession and job loss in our nation. The Ben Franklin Partnership mission was, and is, to catalyze efforts to rebuild Pennsylvania's economy through science and technology.

Our mission is consistent with the mission of the Department of Commerce's new Office of Innovation and Entrepreneurship. The newly-created Office, given the appropriate resources, presents an ideal opportunity for implementing new policies. We applaud its mission to "... unleash and maximize the economic potential of new ideas by removing barriers to entrepreneurship and the development of high-growth and innovation-based businesses."

The CEOs of the Ben Franklin Technology Partners had an opportunity to meet with Esther C. Lee, Senior Policy Advisor to the Office of the Secretary, and members of her team, shortly after the announcement was made. Since then, we have exchanged ideas around this Office's emerging priorities, which are fundamental in their support of high growth, innovative enterprises. We are encouraged that the Office will bring together representatives from the multiple agencies whose programs

impact this important, national objective. We are also pleased to understand that the work of this Office will be informed by a national Advisory Council on Innovation and Entrepreneurship that will bring to the table the experience, insight and ideas of individuals representing national "Laboratories of Democracy" as David Osborne described such efforts, including ours, back in 1988.

Mr. Chairman, my partners and I applaud the Committee's leadership for holding this hearing and hope that the message you and your colleagues take away from today is that we, in the non-profit world, at the state and local levels, have been commercializing technology for many years, very effectively. We can offer concrete, practical, suggestions for redirecting existing federal dollars to update programs to maximize federal investment and generate increased job creation.

The Ben Franklin Technology Partners operate as private, independent, non-profit organizations, strategically located in four regions of our state. We represent a diversity of cultures, span geographies from urban to rural, and are in close proximity to Pennsylvania's respected research universities.

For over 25 years, the Ben Franklin Technology Partners, working both in our regions and as a statewide network, have assembled public/private partnerships and developed models that have supported the formation and growth of technology enterprises—from their earliest, idea stage, through proof of concept, growth, maturity and reinvention. Our model has helped Pennsylvania enterprises create over 25,000¹ high wage jobs in the years 1989 through 2008 . . . over 2,100 of those in 2008; and we have worked to retain tens of thousands more. But, beyond the number, our model has helped to create and strengthen the culture for innovation and entrepreneurship in Pennsylvania.

The Pennsylvania Economy League, a nonpartisan research organization, conducted an independent, objective evaluation of the economic impact of Pennsylvania's Ben Franklin Technology Partners from 2002 through 2006. It found that the Network boosted Pennsylvania's economy by more than \$17 billion. Its report documented that:

✓ *For every \$1.00 invested in Ben Franklin, \$3.50 was returned to the state treasury.*

✓ *Jobs created by Ben Franklin's clients paid 33% higher than the average nonfarm salary in Pennsylvania as a whole.*

✓ *Over 125,000 job-years were created as a result of BFTP investments and services. Job years are the years of full-time work created.*

Over its history, Ben Franklin has been widely praised and modeled by other states and countries. The network was acknowledged by the U.S. Department of Commerce in 2008, our 25th Anniversary, with the Technology-Led Economic Development Award. In 2009, the International Economic Development Council named the statewide Ben Franklin program as the winner of its Excellence in Technology-Based Economic Development award.

Important to Ben Franklin's ability to effectively serve our constituents has been the flexibility of our enabling legislation that allows us to anticipate and respond to market changes and to evolve as the needs of our communities change. Often, government-funded programs are overly prescriptive, with multiple, conflicting goals that confuse their purpose and cloud implementation. The Ben Franklin model charges each region to develop comprehensive strategies for the implementation of state resources based on the needs and opportunities of our region. We develop approaches that attract other investment to match the state funding, and then we assume responsibility for results, under the direction of our private boards of directors.

Today, Ben Franklin pursues its mission of growth through technology-based entrepreneurship and innovation by:

- Seeding emerging technology enterprises that have gone on to become leading technology employers and partnering to create private investment pools for seed and early-stage investment;

¹ 25,371 jobs created (1989–2008)

24,736 jobs retained (1994–2008)

2,113 jobs created (2008)

1,221 jobs retained (2008)

- Providing the facilities, business and technical advice, mentoring, coaching and the networks that help emerging and growing enterprises thrive;
- Developing new pathways to accelerate intellectual property discovered in universities and federal laboratories to the marketplace;
- Helping existing manufacturers and research development companies to source and fund the specific technical and business assistance they need to move a concept to the marketplace quickly, leveraging their existing capacity to generate new revenues;
- Working with leading technology corporations to identify open innovation partners and approaches that can help fill their new product pipeline; and,
- Collaborating with institutions and diverse constituencies in our areas to develop regional core competencies into robust economic development strategies that leverage our strengths to address regional challenges to future growth and prosperity.

The three part philosophy that drives our actions in Southeastern Pennsylvania is one that starts, **first**, with a focus on the *entrepreneur* as the agent of change and economic growth. Everything that we do is structured to assist the formation and growth of technology entrepreneurs across all sectors. Our strategy links **Capital, Knowledge and Networks** into a comprehensive framework for regional growth.

Second, we work at the margins. With limited resources, we seek to deploy just enough capital and support to stimulate the flow of other public and private investment to help insure sustainability; then we exit.

And, **third**, we operate through partnerships as a way to engage the community in the business of innovation, thereby strengthening the regional infrastructure for innovation.

The observations I share, today, are those of an economic development practitioner who has worked for just over 40 years to leverage and integrate public and private resources into coherent, effective, regional growth strategies, and who is gratified to see attention to science, technology development and innovative, growth enterprises move closer into the mainstream of policy and economic development agendas.

There are many federal economic development programs, tools, and structures that seek to spur growth. However, some, designed to address needs identified 40, 50, or more, years ago, warrant a fresh look and some retooling to accommodate the challenges we face, today, in assembling the assets required for sustained innovation.

The formation and growth of technology enterprises requires access to patient capital at the very earliest stages . . . for translational research, for pre-seed and seed capital for enterprises, for the business and technical assistance needed by both emerging and reemerging companies, and for the work of planning and network building that is critical to insure returns on the public's investment. Yet, that capital is in short supply . . . or in forms that do not quite fit the bill.

Federally-funded research at universities is vital to technology breakthroughs and advancement. The goal of this work, however, is not the development or commercialization of a new product . . . or the establishment of a new enterprise. The "product" of that work is the knowledge generated. The process of transforming new discoveries into technology that has commercial application . . . the translational process . . . is not adequately encouraged or supported through federal funding, nor does federal research funding support partnerships with economic development organizations or private entities able to advance this work. The result is that many discoveries remain undeveloped . . . and economic opportunities are lost. With the right level and form of federal support, organizations like ours could bridge the gap between federally-funded university research and high-tech job creation in order to generate a greater return on the federal investment.

The work of identifying technologies worthy of further development, exploring the best application of any technology, and mitigating some of the early risks in order to attract private technology developers, are pre-competitive, technology development activities that could be accelerated through support of public/private partnerships incorporating market input at appropriate stages of development and enabling organizations such as ours, and others, to partner with large with small institutions in support of commercialization objectives.

The Nanotechnology Institute (NTI) is one such partnership. The NTI is a joint effort of Drexel University, the University of Pennsylvania and the Ben Franklin Technology Partners of Southeastern Pennsylvania, funded by the Commonwealth of Pennsylvania, with the participation of ten additional universities and research

institutions. It has put in place systems to accelerate the evaluation and further development of federally-funded research by reducing barriers to collaboration and partnering with private enterprises, both large and small.

A key accomplishment of the NTI is the establishment of its innovative legal and programmatic structure within which regional universities collaborate at all levels to promote nanotechnology research with potential payoff in economic development. The NTI model incorporates commercialization objectives through the expertise of BFTP/SEP. By breaking down barriers between institutions and disciplines, and focusing on technology transfer and commercial outcomes, the NTI brings the best talent to bear on specific technology areas, yielding a tangible increase in IP creation and commercial development. The NTI's efforts in increasing the research enterprise, linking research institutions, creating new intellectual property, fostering a vibrant environment for new ventures, and marketing the region nationally and internationally have been highly successful. These activities are generating steadily, accelerating, outcomes as measured by their ability to leverage federal research and development funding to generate new intellectual property, technology licenses, and new company spinoffs.² The accomplishments of the NTI became the impetus for the Commonwealth of Pennsylvania to support the creation of the Energy Commercialization Institute (ECI), managed by our organization, and based upon similar principles and practices.

The NTI and ECI operate at the earliest phase of the pre-enterprise formation capital gap. That gap extends as new companies are formed and seek investment capital to launch their enterprises . . . the oft-described **"Valley of Death."**

Capital for these emerging technology innovators has come primarily from the individual entrepreneurs themselves, often in the form of sweat equity, and from private investors. However, particularly over the past year to 18 months, we have seen angel investments decline as individual investors adjust to losses in their own financial portfolios. Several states have instituted favorable tax treatment designed to encourage the flow of such capital into emerging, growth enterprises. Consideration of such incentives at a national level could stimulate the flow of private, risk capital.

Venture capital is vital to many high-growth technology enterprises. However, the pace of investment from venture funds has also slowed and the number of venture funds making seed and early-stage investments has decreased. These funds are critical sources of follow-on capital . . . but, today, there are fewer of them. In recent years, successful repeat funds grew in size and moved further downstream, needing to deploy larger sums of capital into later-stage opportunities. Smaller, and first-time, early-stage funds find it difficult to attract private capital in today's market. Even when institutional investors were very active, they sought opportunities to place larger sums than could be effectively invested by small, early-stage funds. And, the funds that do exist are reserving more of their committed capital for follow-on investments in their current portfolio companies, understandably, and undertaking new investments selectively.

So, while venture funds remain an important source of follow-on investment once companies reach a certain scale and achieve critical milestones, by and large, they are not a source of investment capital at the earliest stages of company formation and development that are characterized by the triple threats of technology, market and management risk.

In some states, like Pennsylvania, pre-seed and seed capital has come from state-supported technology development programs. Over our 25+ years, the four Ben Franklin Technology Partners have seeded and invested in more start up and early stage technology ventures than any other similar organization in the nation . . . with investments in over 3,000 companies and technical support and service to thousands more. The Ben Franklin Technology Partners co-invests with individual investors and, as our companies mature, with private venture funds. In 2008, companies funded by Ben Franklin attracted \$872 million of follow-on investment.

However, with state revenues severely constrained, support for state technology-based economic development nationwide has suffered cuts, further depleting the capital available for innovative enterprises and initiatives, and straining infrastructures for innovation created over recent years. Combined with the decrease in angel investing and the reduction in venture activity . . . companies we seed have nowhere to grow.

This **Valley of Death**, a gap that stretches from the need to demonstrate proof of concept through to early revenue generation or sales, invites creative new approaches and a retooling of some existing federal programs. I recommend the following elements as part of a framework for retooling:

² NTI: 18 months 2008–2009: IP assets: 380; Licenses: 23; Spin-off companies: 11; federal leverage: \$25M.

- 1) Goals that are few, clear and non-conflicting and that keep the ultimate objective . . . economic growth through entrepreneurial innovation . . . at the forefront;
- 2) An approach that is less prescriptive and more receptive to new models, and allows program design to be driven by the specific challenges and opportunities at regional, state and local levels;
- 3) Flexibility in implementation, enabling timely response as conditions change;
- 4) Programs that focus on reducing the barriers to collaboration and innovation; and,
- 5) Designs that catalyze institutional and private involvement and investment over time.

The core areas: 1) Access to capital and 2) Creating effective pathways to commercialization.

Some examples:

1) The Department of Commerce Economic Development Administration (EDA) has revamped many of its programs over the years to support innovation . . . funding incubators and technology partnerships. However, the resources available to it for regional strategic planning and high-growth innovation are insufficient, may not be available on a consistent basis, and are encumbered by regulations that limit local creativity and ultimate effectiveness. I encourage EDA to reach out to regional and local organizations as part of its process of continuous reinvention.

EDA's **University Center Economic Development Program** could be modified and boosted to enable the formation of "**Commercialization Partnership Centers.**" These partnerships could bring together multiple universities and research institutions, with regional technology development organizations and/or private commercialization entities to drive technology to commercialization. Unlike traditional university centers of excellence, the Commercialization Partnership Centers would not require up front research funding, but be structured to leverage university expertise and resources by funding, on a cost-share basis, commercialization engagements that produce defined outcomes. Federal support could co-fund the engagement activity and the related technical and business assistance.

We have found that this form of direct, targeted, assistance is as beneficial to mature, established enterprises, who may not be comfortable or have a history of working with universities, as it is of benefit to emerging firms. In addition, it offers ways to extract the often, specialized, core competencies of small educational and research universities and partner them with other institutions to form larger, more robust commercialization centers.

EDA has capitalized Revolving Loan Funds for over 30 years. While they were innovative and effective tools designed back then, to provide debt financing to existing businesses in distressed areas, they are not a fit for today's equity-based investments in pre-revenue, technology enterprises, that have no hard assets, and whose choice of location is often determined by cost and access to needed technical resources. I recommend consideration of a pilot version that updates and retools this program as a viable source of co-investment capital, managed by qualified, experienced, technology organizations.

2) The SBIR and STTR research-support programs are useful to advance technology development; however, they have a limited focus on commercialization. Many recommendations have been offered regarding these programs. I would urge action on measures that: a) increase funding, particularly for later, commercialization phases; b) enable companies to enter the process at any phase; c) recognize the role of private capital to the growth of enterprises that require significant capital, such as in the life sciences and energy sectors; and d) insure consistency of administration to address non-significant, yet real barriers such as the form and source of other capital investment in enterprises.

3) The Small Business Administration's New Markets Fund offers a template for the creation of a **New Markets Innovation Fund**. Investments in innovative, growth opportunities could be its driving principal, and it could offer organizers the operational assistance funds needed to support the outreach, coaching and portfolio management functions that are time and cost intensive at the seed stage.

4) The National Science Foundation's Partnership for Innovation Program is a creative, yet sorely underfunded and lately, dormant, tool that provides incentives for innovative, effective public/private partnerships. It should be brought back and updated to enable, technology-based organizations to lead collaborative, multi-institutional, commercialization focused efforts.

5) NIST's Technology Innovation Program that funds "high risk" research and solutions that address areas of critical national need and societal challenges and that

encourages collaborative industry/university approaches is an example of a successful program reinvention . . . but it is sorely underfunded. It could implement measures to encourage partnerships with state technology development organizations who can aid the partnering between large and emerging enterprises.

6) Our nation's federal laboratories have a wealth of discoveries that can be the basis for commercial growth; however, there is no mechanism to help absorb the local cost of transforming those possibilities into economic opportunities.

7) And, finally, the new Department of Commerce Office of Innovation and Entrepreneurship. It could be funded to launch even broader, comprehensive, regional models, in partnership with states. It could be the impetus for a **National Innovation Network**, with funded public/private partnerships able to develop the integrated strategies and programs necessary to drive innovation through growth companies that create high-wage jobs. Special incentives could be provided to encourage multi-state partnerships that can stimulate the growth of natural clusters. In our region, the EDA funded the planning effort for the Mid Atlantic Nanotechnology Alliance, one such multi-state partnership, and efforts are underway to create Power Valley, bringing together the region's substantial energy assets.

The Ben Franklin Technology Partnership was launched in similar fashion . . . with a state Challenge Grant to the regions across Pennsylvania, to organize and compete for the Ben Franklin designation and to match the Commonwealth's investment.

Thank you, again, Mr. Chairman, for holding this important hearing and for the opportunity to share Ben Franklin Technology Partners' experience in stimulating innovation, enterprise formation and job creation. My colleagues and I stand ready to assist the Committee and the Administration in every way possible to advance these important goals.

BIOGRAPHY FOR ROSEANN B. ROSENTHAL

RoseAnn B. Rosenthal, President, CEO and member of the Board of Directors of Ben Franklin Technology Partners of Southeastern Pennsylvania (BFTP) since 1996, has forty years of experience in business investment, regional planning, and economic development. Praised by regional leaders as an invaluable resource for the tri-state area, she has earned a strong international reputation with her development of innovative partnerships and extraordinary initiatives.

Since assuming her CEO position, Rosenthal has significantly enhanced Ben Franklin's investment, technology commercialization, and business service initiatives, creating initiatives that have brought the organization national and international recognition. With a current portfolio of over 120 technology companies, BFTP continues to build upon its proven track record of seeding hundreds of southeastern Pennsylvania's technology leaders in biotechnology, information technologies, communications, advanced materials, nanotechnology and now, energy.

Rosenthal's leadership and alliance-building attributes proved invaluable in 2000 as BFTP/SEP partnered successfully with two of this region's major universities—the University of Pennsylvania and Drexel University—to create the Nanotechnology Institute™. Funded with \$17.8 million from the Commonwealth of Pennsylvania, the NTI has attracted funding and support from the National Science Foundation (NSF), the U.S. Department of Education and has leveraged more than \$110 million in federal research grants and corporate support. Moreover, the NTI has attracted national recognition for its multi-disciplinary, multi-institutional, research to commercialization model.

Rosenthal serves on the NTI's three-person Oversight Committee and co-chairs a regional team that developed the Mid-Atlantic Nanotechnology Alliance (MANA®) that encompasses eastern Pennsylvania, Delaware and New Jersey to strengthen and promote the region's competitive position in nanotechnology. Founded in 2004, MANA® is the nation's first tri-state nano collaboration. She also serves on the External Advisory Board for the Nano-Bio Interface Center (a National Science Foundation-funded Nanoscale Science and Engineering Center) at the University of Pennsylvania.

BFTP's efforts in nanotechnology have become a model for similar approaches in energy, and Rosenthal is leading her staff in the creation of new technology commercialization models and programs in conjunction with the state's \$40 million Alternative Energy Development Program. BFTP/SEP is a founding partner of the Energy Commercialization Institute where Ms. Rosenthal serves as a member of its three-member Oversight Committee.

Rosenthal has led and supported initiatives to stimulate angel investments in early stage technology companies, including efforts focused on women- and minority-owned technology enterprises. Most recently, she led efforts to create the Emerald

Stage2 Venture Fund, a private fund focused on investments in early stage IT companies across the Greater Philadelphia tri-state region. In 2007, she partnered BFTP to develop the Building 100 Innovation Center at the Philadelphia Navy Yard, a catalyst for the formation of new enterprises and commercialization partnerships, particularly in the energy sector.

Rosenthal garnered 18 years of her economic development experience at the Philadelphia Industrial Development Corporation (PIDC). As Senior Vice President for Strategic Development at PIDC, she launched and implemented several regional initiatives, including the Southeast Pennsylvania Export Consortium, now the World Trade Center of Greater Philadelphia. As a key member of the City of Philadelphia's Defense Adjustment Team, she authored the City's \$50-million Defense Conversion Fund. She was responsible for shaping, growing and managing PIDC's direct-lending capability from an initial resource of \$3 million, to over \$200 million of direct loans to commercial and industrial clients, leveraging federal and foundation funds for industrial and community development. While at PIDC, Rosenthal served as Acting Executive Director of the Delaware Valley Industrial Resource Center, the region's NIST Manufacturing Extension Partnership center. Earlier in her career, Mrs. Rosenthal staffed efforts in support of manufacturing competitiveness, waterfront development and historic district renewal.

Rosenthal serves on several public and private boards and committees. She has been active as an advisor on state and regional nanotechnology initiatives through the National Nanotechnology Initiative and the National Science Foundation for Small Business Innovation Research (SBIR) and Partnership for Innovation programs. She has served on several national task forces including the U.S. Department of Housing and Urban Development, and the U.S. Economic Development Administration.

Rosenthal is on the Boards of the Fox Chase Bank, the World Trade Center of Greater Philadelphia, the America Israel Chamber of Commerce, the Mayor's Sustainability Advisory Board in Philadelphia, and the Greater Philadelphia Life Sciences Congress. She is on the Advisory Committee of Emerald Stage2 Venture Fund, and numerous, regional committees focused on technology-based economic growth and entrepreneurship, including the Philadelphia Chapter of the national Network for Teaching Entrepreneurship. She is active at the national level with the National Association of Seed Venture Funds was a Board member of the National Council for Urban Economic Development, now the International Economic Development Council, where she helped to develop the curriculum for its Technology-led Economic Development Course.

Rosenthal has presented and consulted on various economic development initiatives around the country and has served on mayoral and gubernatorial transition teams through the years. Most recently, she was a delegate to the November 2008 Small Business Financing Forum.

She has a B.A. From Temple University and in 2007 was awarded an Honorary Ph.D. in Humane Letters from Philadelphia University. She was presented the Early Stage East Founders Award in 2008 and the Blair Thompson Lifetime Venture Award from the MAC Alliance in 2009. She was awarded 2009 Champion of Small Business Award by the National Capital Coalition in July, 2009 and will be honored with Philadelphia University's Lifetime Innovation Award in May, 2010.

Chairman WU. Thank you, Ms. Rosenthal. We look forward to asking you further about your suggestions.

Mr. Coast, please proceed.

STATEMENT OF MR. MICHAEL COAST, PRESIDENT, MICHIGAN MANUFACTURING TECHNOLOGY CENTER (MMTC)

Mr. COAST. Chairman Wu, Ranking Member Smith and Members of the Subcommittee, thank you for this opportunity to offer brief testimony on the impacts of two federal programs that aim, among other objectives, to create and retain jobs in small to mid-sized manufacturers. For more than 18 years, the MMTC has helped Michigan manufacturers improve quality, reduce cost, launch new products and diversity their customer base. Nationally, the roughly 7,600 manufacturers served by the 59 NIST MEP centers credited the work of those centers with more than \$9 billion in sales, 50,000 jobs and \$1.4 billion in cost savings. The Federal Government will

spend less than \$125 million on MEP in fiscal year 2010. These numbers suggest that it has been a good investment and one that should be scaled up to have even larger impacts on the critical and struggling U.S. manufacturer sector. In that regard, I appreciate the long-time support of this Committee and most recently by Congressman Peters and Congressman Ehlers to reduce the matching requirement for MEP's federal funding at a time when many cash-strapped states have been forced to reduce their investments in their states' MEP centers.

MEP is the only program specifically designed to assist small to mid-sized manufacturers and we look forward to working with Congress and the Administration to implement the President's campaign promise to double funding for the program by 2015.

Last year, in response to the crisis facing two of the three U.S.-based auto makers, Commerce Secretary Locke paid multiple visits to Michigan, meeting with dozens of our manufacturers, seeing how difficult they found it to access help from federal programs even within Commerce. The Secretary proposed piloting an effort to make those programs more accessible and more responsive to businesses starting with the manufacturers. We began by identifying 61 programs within Commerce and services related to manufacturers. Next we convened a dozen Michigan manufacturers and representatives of a dozen federal and state program offices within the state. At that meeting we conducted two exercises. In the first we had the manufacturers develop a list of and then rank their most critical needs. In the second, we had the federal program representatives rate how well each of those needs was being addressed by their program services.

The results made clear the manufacturers' lack of knowledge of many of the programs and that they do not know how to access their services, that programs are not focused on the priority concerns of manufacturers and that the programs are often not aware of each others' services.

Based on those findings, a pilot came to be called CommerceConnect was established. So far, CommerceConnect has worked with 25 companies. It has been fewer than four months since the pilot was launched, so my remarks today certainly do not represent a full evaluation based on hard data. However, I believe that we can begin to draw at least four lessons that should inform decisions about whether to launch CommerceConnect programs in other states, and just as important, how to design the post-pilot phase in a way that delivers the most impact at the least cost.

First, we have learned that navigating the federal program requires a good deal to know about what the programs actually do. CommerceConnect needs to have permanent staff that can invest in learning the programs.

Second, we have learned that doing case management well requires more than just making referrals. There is a great deal of follow-up that is needed. CommerceConnect case managers sometimes share the frustrations of the manufacturers they serve not being able to find personnel able to deal with the client's request. This too has a clear implication. Each program needs to have a designated point of contact that is knowledgeable about its services

and explicitly tasked with addressing CommerceConnect clients' requests in a timely manner.

Third, we have learned that the manufacturers do not respect agency or program boundaries. A given company may need loan support from an SBA (Small Business Administration) program, IP protection and legal aid from an ITA (International Trade Administration) program, and help with lean manufacturing methods from NIST MEP program. The clear implication: staff need to understand the full range of business assistance programs.

Fourth, we have confirmed that there is a vital role for a hands-on navigation function like CommerceConnect. Thus, I would recommend that the effort continue in Michigan at approximately its current scale. It probably makes good sense to charter at least a few more pilots in other parts of the country that are less automotive, less manufacturing intensive than Michigan to get a sense of how to make federal agencies responsive to distribution in service businesses as well as to manufacturers. It would, though, be premature to move from a pilot to a full-scale program. Much work remains to be done to arrive at a design that is both effective and efficient.

Thank you for the opportunity to speak today.
[The prepared statement of Mr. Coast follows:]

PREPARED STATEMENT OF MICHAEL COAST

Chairman Wu, Members of the Subcommittee—Thank you for this opportunity to offer brief testimony on the impacts of two federal programs that aim, among their other objectives, to create and retain jobs in small- and medium-sized manufacturers.

I am Mike Coast, president of the Michigan Manufacturing Technology Center (or "MMTC"), my state's affiliate of the NIST Manufacturing Extension Partnership (or "MEP"). For more than 18 years, the MMTC has helped Michigan manufacturers improve quality, reduce costs, launch new products, and diversify their customer base. In the past year, our Michigan manufacturer-clients credit us with \$430 million in new or retained sales and more than 2,000 jobs created or retained, plus nearly \$50 million in cost savings. Nationally, the roughly 7,600 manufacturers served by the 59 NIST MEP centers credited the work of those centers with more than \$9 billion in sales, 50,000 jobs, and \$1.4 billion in cost savings. The federal government will spend less than \$125 million on MEP in FY10; these numbers suggest that it has been a good investment and one that should be scaled up to have even larger impacts on the critical and struggling US manufacturing sector. In that regard, I appreciate the long-time support of MEP by this Committee, most recently Congressman Peters' efforts, along with Congressman Ehlers, to reduce the matching requirement for MEP's federal funding at a time when many cash-strapped states have been forced to reduce their investment in their states' MEP centers.

MEP is the only program specifically designated to assist small- and medium manufacturers, and we look forward to working with Congress and the Administration to implement the President's campaign promise to double funding for the program, by 2015. As much as I enjoy bringing the news of MEP's good works to the Congress, my remarks today focus instead on a new initiative, one that holds potential to make the federal government's investment go further in helping American businesses.

Last year, in response to the crisis facing two of the three US-based automakers, Commerce Secretary Locke paid multiple visits to Michigan, meeting with dozens of our manufacturers. Seeing how difficult they found it to access help from federal programs, even within Commerce, the Secretary proposed piloting an effort to make those programs more accessible and more responsive to business, starting with manufacturers. Secretary Locke asked NIST MEP's director, Roger Kilmer, to oversee the pilot, and Mr. Kilmer turned to us at the MMTC to help. He also detailed one of his senior program managers to oversee the Michigan pilot on a day-today basis. The Commerce Department gave MMTC \$185,000 of unobligated funds to execute the pilot program, so we did not have to pull funding away from our ongoing, effective

tive programs. Further funding for CommerceConnect should be separate from and in addition to future increases in MEP funding.

Working with Mr. Kilmer, we began by identifying the 61 programs within Commerce with services related to manufacturers. Next, we convened a dozen Michigan manufacturers and representatives of a dozen federal and state programs with offices in the state. (We included the Small Business Development Center, for example, because it is the Michigan window for SBA's loan funds, as well as offering other services for manufacturers.) At that meeting, we conducted two exercises. In the first, we had the manufacturers develop a list of, and then rank, their most critical needs. In the second, we had the federal programs' representatives rate how well each of those needs was being addressed by their programs' services. I attach the prioritized list of needs as voted on by the manufacturers. (We convened a second group of manufacturers in November during a session with Commerce Assistant Secretary Hightower, and the list and the rankings remained essentially the same.)

The results made clear that manufacturers lack knowledge of many programs and do not know how to access their services; that many programs are not focused on the priority concerns of manufacturers; and that the programs are often not aware of each other's services.

Based on those findings, a pilot that came to be called "CommerceConnect" was established. I stress that this pilot, while housed at the MMTC, is not (and logically cannot be) an MMTC program. It is an independent effort to help Michigan manufacturers navigate among the many relevant programs in Commerce and beyond. So far, CommerceConnect has worked with 25 companies. I understand that Deputy Secretary Hightower's testimony describes the experiences of some of those 25 companies.

Again, it has been fewer than four months since the pilot was launched, so my remarks today certainly do not represent a full evaluation based on hard data. However, I believe that we can begin to draw at least four lessons that should inform decisions about whether to launch CommerceConnect programs in other states and, just as important, how to design the post-pilot phase in a way that delivers the most impact at the least cost.

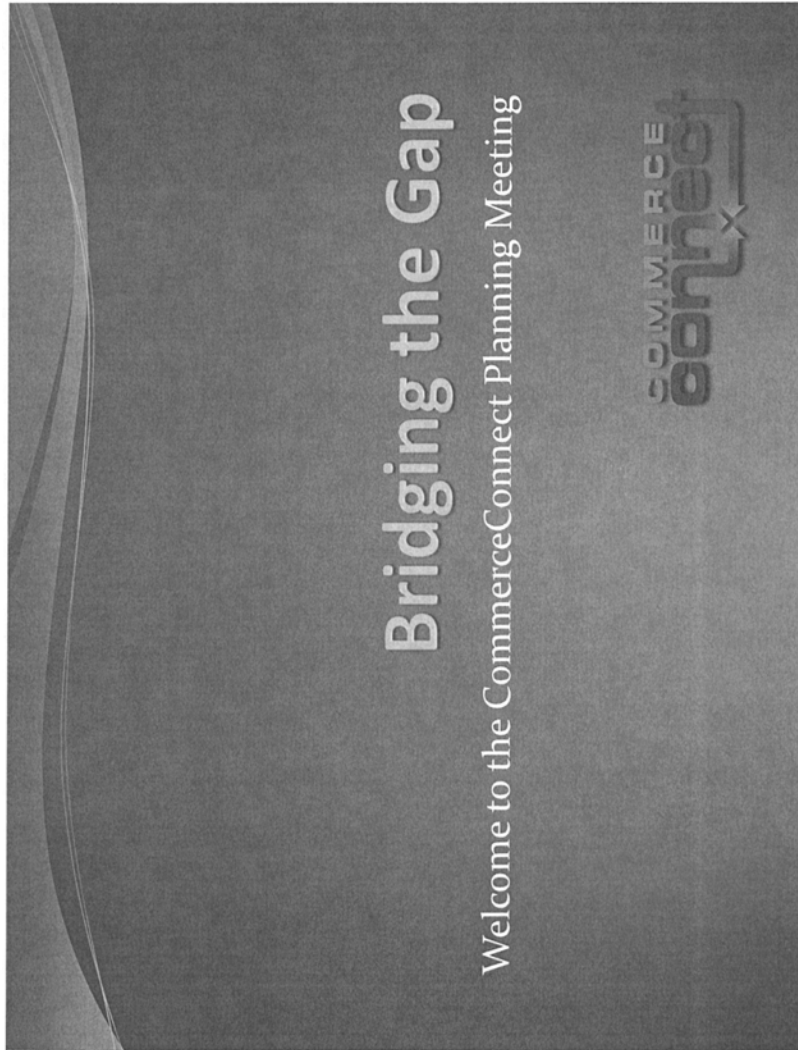
First, we have learned that navigating federal programs requires knowing a good deal about what those programs actually do. Their websites help, but are not enough. Only now, after nearly four months, is the current six-person CommerceConnect staff beginning to understand the services of just the dozen or so programs with the most manufacturer-relevant services. This has a clear implication: *CommerceConnect needs to have permanent staff that can invest in learning the programs.* That staff will be even more effective if it has good general business knowledge. Our pilot benefited greatly by having three individuals, including NIST MEP's Phillip Wadsworth, with substantial manufacturing and business backgrounds.

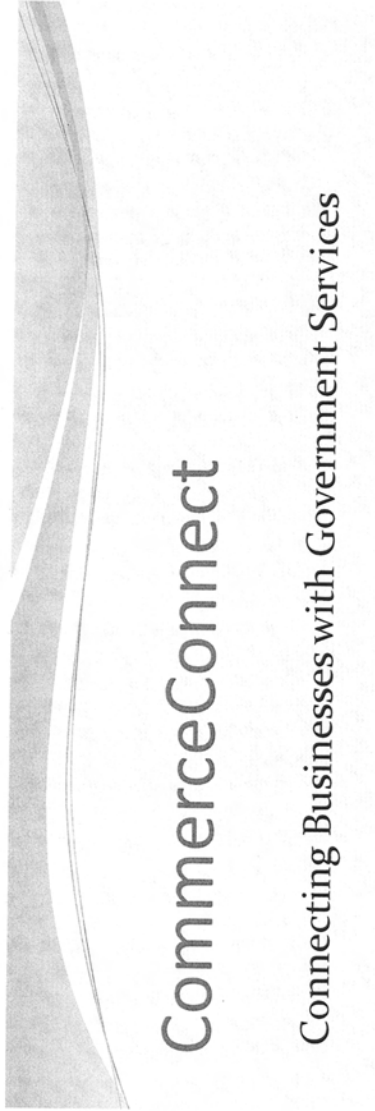
Second, after servicing the initial 25 clients, we have learned that doing "case management" well requires more than just making referrals. A great deal of follow-up has been needed to make sure that clients actually got relevant assistance from the programs to which they were referred. CommerceConnect case managers have sometimes shared the frustrations of the manufacturers they serve, not being able to find personnel able to deal with the client's request. This too has a clear implication: *each program needs to have a designated point-of-contact that is knowledgeable about its services and explicitly tasked with addressing CommerceConnect clients' requests in a timely manner.*

Third, we have learned that manufacturers' needs do not respect agency or program boundaries. A given company may need loan support from an SBA program, IP protection advice and legal aid from an ITA program, and help with lean manufacturing methods from NIST's MEP program. The clear implication: *staff need to understand the full range of business assistance programs*, though over time they may reach the useful conclusion that a subset of the programs are more effective and responsive than the others.

Fourth, we have confirmed that *there is indeed a vital role for a hands-on navigation function like CommerceConnect.* Thus I would recommend that the effort continue in Michigan at approximately its current scale. It probably makes good sense to charter at least a few more pilots in other parts of the country that are less automotive- and less manufacturing-intensive than Michigan to get a sense of how to make federal agencies responsive to distribution and service businesses as well as to manufacturers. It would, though, be premature to move from a pilot to a full-scale program. Much work remains to be done to arrive at a design that is both effective and efficient.

Thank you for the opportunity to testify. I stand ready to answer your questions.





Manufacturing Needs



Service Providers



The missing link

Manufacturing Needs



E & E Manufacturing Co.
Stampings and Fasteners



Chemico-Mays Corporation
WORLD LEADING CHEMICAL MANAGEMENT
SERVICE PROVIDER



FLUXTROL Inc.



A&M LABEL
WE LABEL YOUR BUSINESS



JTI
Joint Production Technology
Engineering Solutions - Manufacturing Products



HELLER
PRECISION MACHINING



rapid-line

Service Providers



U.S. SMALL BUSINESS ADMINISTRATION



SBA
U.S. Small Business Administration
Your Small Business Resource



THE RIGHT PLACE, INC.
NATIONAL TRAINING & EMPLOYMENT ORGANIZATION



MIRA
MICHIGAN INSTITUTE FOR RESEARCH ON LABOR EMPLOYMENT AND THE ECONOMY



Oakland County Michigan



IRLEE WORKS!
Institute for Research on Labor
Employment and the Economy



MTEC
MANUFACTURING TECHNOLOGY
EMPLOYMENT CENTRE

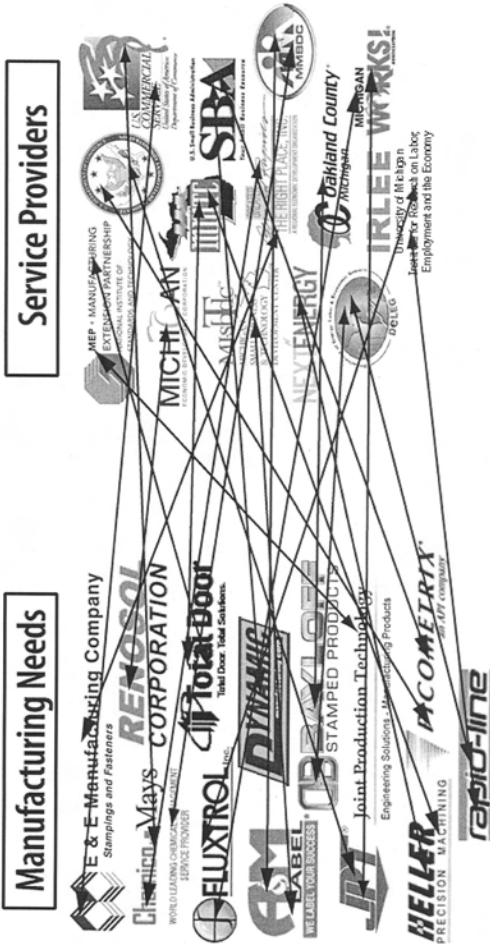


EXTENERGY



PLECO

Help or Confusion?





Manufacturer Introduction

We would like for everyone to learn a little bit about the manufacturers who are in attendance. One person from each company should give up to a three minute introduction and share the following information with the group:

Industry, sector and product

Size of company

Percentage of automotive related work

Percentage of work for the Detroit Three

Identify up to three needs or pains your company faces



State of your company

Between 2008 and 2009, have your revenues

Dropped more than 50%

Dropped 20 - 49%

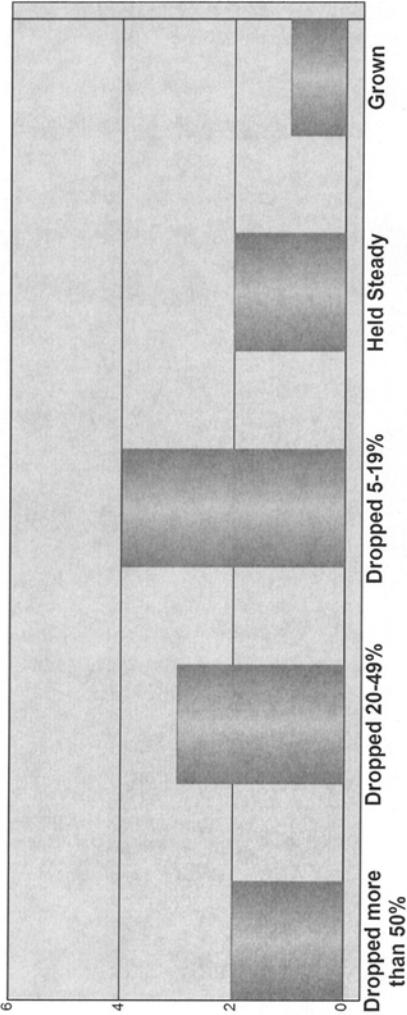
Dropped 5 - 19%

Held steady

Grown

State of Your Company

Between 2008 and 2009, have your revenues





Company Strategy

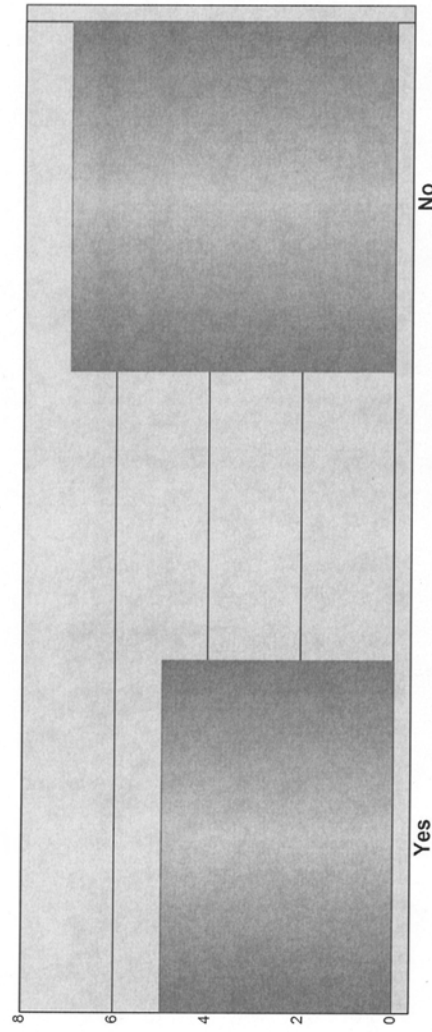
Do you currently have a written 12 month strategy to
improve your company?

Yes

No

Company Strategy

Do you currently have a written 12 month strategy to improve your company?





Search for assistance

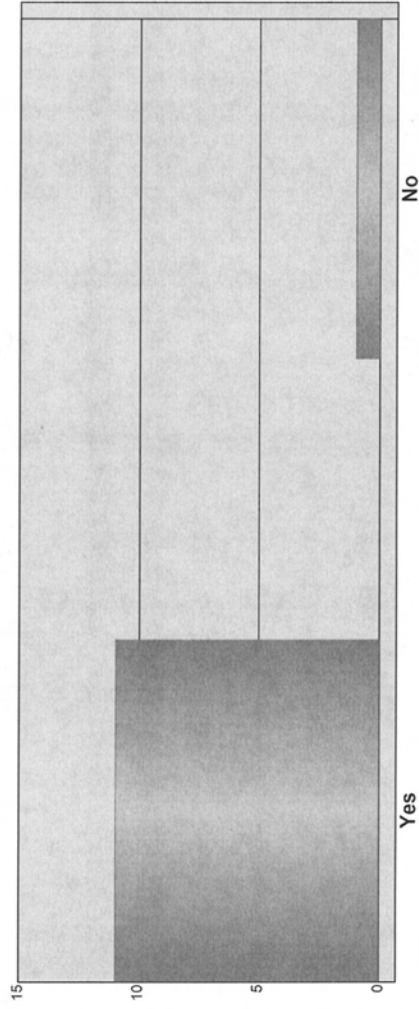
Consider your 12 month strategy, if services provided by
State / Federal agencies could help you, would you
seek them out?

Yes

No

Search for Assistance

Considering your 12 month strategy, if services provided by state/federal agencies could assist you, would you seek them out?



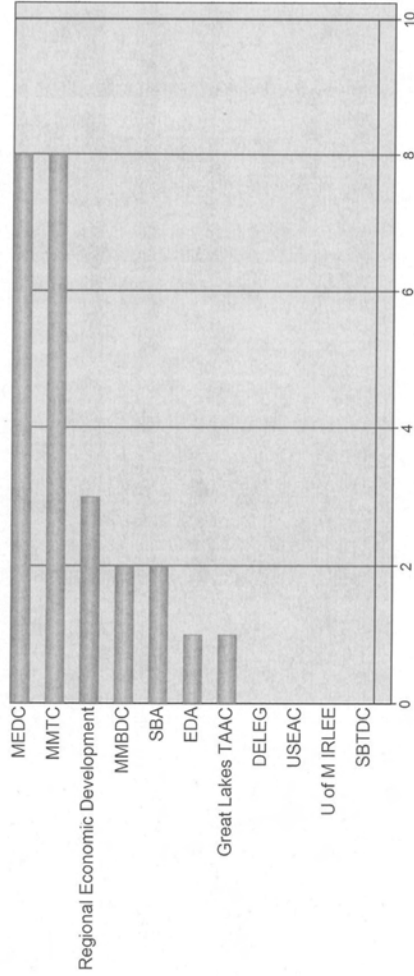
Service Provider Experience

Indicate the following State / Federal service providers
your company has interacted with
(check all that apply)

SBTDC	MMBDC
U of M IRLEE	EDA
Great Lakes TAAC	MEDC
Regional Economic Development	SBA
USEAC	DELEG
MMTC	

Service Provider Experience

Indicate the following state/federal service providers your company has interacted with (check all that apply)

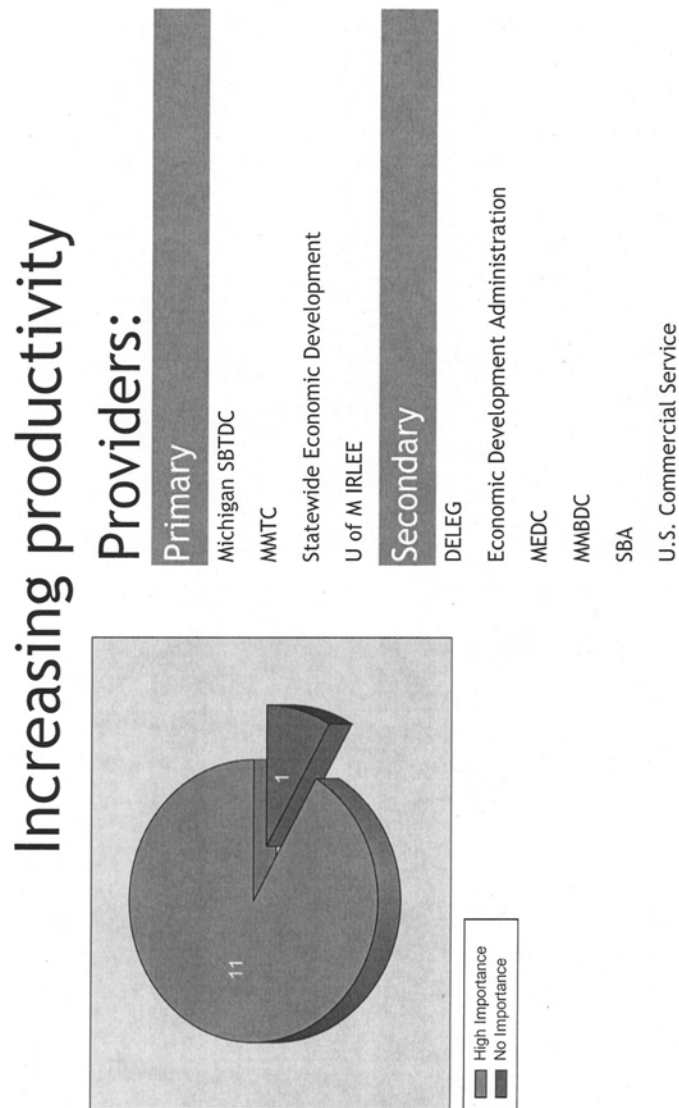


Needs and Services Overview

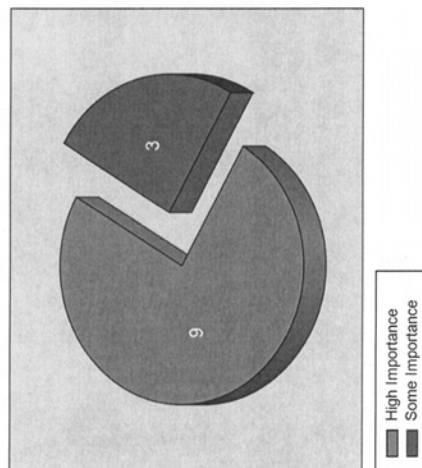
Need	Total company rating	Total provider rating
Increasing productivity	88	50
Acquiring reduced-cost financing	81	36
Reducing state and/or local tax burden	76	14
Training/coaching company leaders and managers	73	49
Winning government contracts	70	39
Training the hourly workforce	70	33
Reining in healthcare costs	70	14
Developing business and/or strategic plans	65	52
Streamlining process of bidding on government contracts	65	30
Improving skilled worker pipeline	65	27
Acquiring new technologies and/or intellectual property	63	30
Winning defense contracts (as prime or sub-prime)	62	33
Addressing unfair trade policies	62	17
Identifying prospective non-automotive customers	57	52
Improving quality: reducing scrap, rework, and rejects	54	27
Translating R and D into volume production	52	33
Protecting intellectual property	52	17
Determining the causes of defective products	52	14
Increasing exports	47	26
Launching new enterprises	45	44
Improving health and/or safety	45	9
Diversifying into alternative energy	39	39
Reducing energy usage	38	25
Finding people with strong electronics skills	36	25
Instituting emergency preparedness plans	36	17
Retraining displaced employees	31	27
Certifying compliance to quality system standards	31,	25
Responding to trade-related dislocation	28	20
Imposing Buy American requirements	27	14
Modifying codes and standards to permit and reward innovation	25	9
Achieving LEED (green) certification	19	15
Reducing company's carbon footprint	14	20

Needs and Services Overview—Continued

Need	Total company rating	Total provider rating
Winning more orders for minority businesses	11	26
Selecting, assembling, and/or remediating industrial sites	3	20



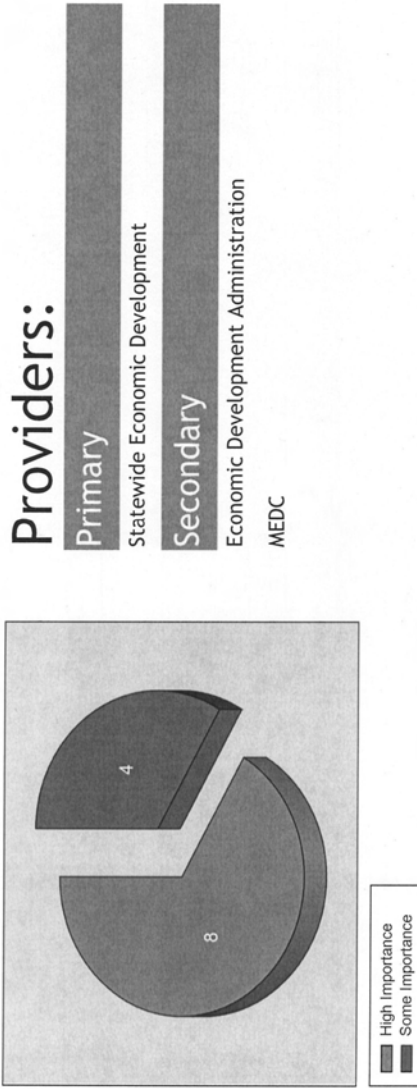
Acquiring reduced-cost financing



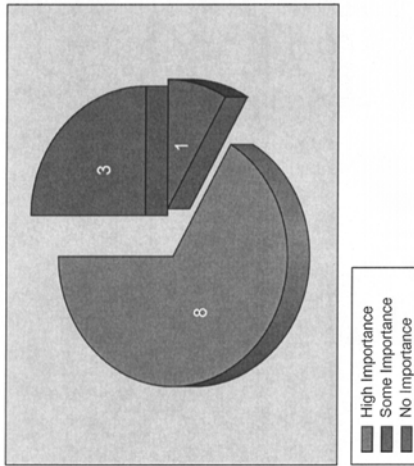
Providers:

Primary	
MEDC	
Michigan SBTDC	
Statewide Economic Development	
Secondary	
Economic Development Administration	
MMBDC	
U of M IRLEE	
U.S. Commercial Service	

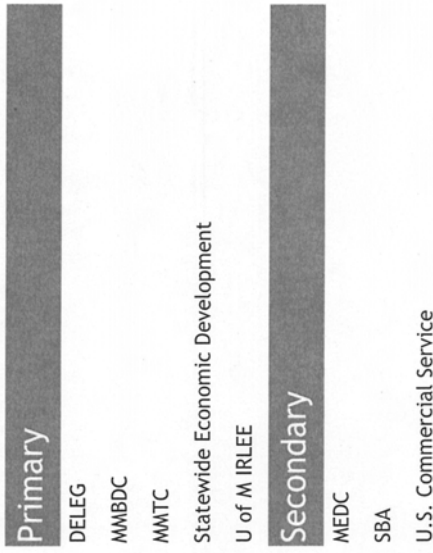
Reducing state and/or local tax burden



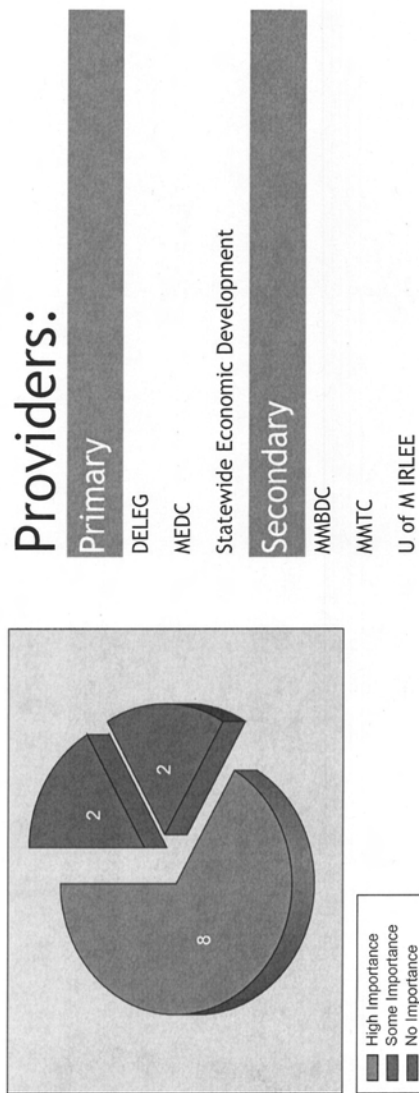
Training/coaching company leaders and managers



Providers:



Training the hourly workforce





Question and Answer

- What did we miss?
- Points for discussion:
 - Do the needed services exist?
 - Are companies aware of the existing services?
 - What is the primary problem?
 - Lack of services?
 - Difficulty figuring out how to access services?
 - Complexity of application process?



Closing Thoughts

- We will provide each attendee with a list of agencies and their contact information
- We will also provide the results of the data that was captured during the meeting via email to each attendee

Thank you for your time and participation!

CommerceConnect – Pilot Launch Plymouth, Michigan

Precision Machining Supplier

Referred By: Michigan Manufacturing Technology Center

Follow-Up between client and agency/program:

- SMALL BUSINESS ADMINISTRATION (SBA) - locate and contact financing organization which best match Vogel's needs
- DEPARTMENT OF ENERGY – Investigate grant funding for Neighborhood Electric Vehicle (NEV)
- PROCUREMENT TECHNICAL ASSISTANCE CENTER Registration – Must complete PROCUREMENT TECHNICAL ASSISTANCE CENTER registration to be eligible for defense registry
- DEFENSE CONTRACT COORDINATION CENTER Registration – Must register to be eligible for defense registry
- KEEP MICHIGAN WORKING Grant – Funding to provide training to diversify markets
- ECONOMIC DEVELOPMENT ADMINISTRATION University Centers locating and or financing equipment
- ECONOMIC DEVELOPMENT ADMINISTRATION Community Economic Adjustment Programs – Exposure to communities recovering
- and working to diversify community offerings & image (NEV Solutions)
- MICHIGAN ECONOMIC DEVELOPMENT CORP Capital Funding Program
- TANK, AUTOMOTIVE RESEARCH, DEVELOPMENT AND ENGINEERING CENTER – Explore process to expose quoting for defense work
- INTERNATIONAL TRADE ADMINISTRATION – Make aware future summits to sit one on one with trade professionals to gain access to markets
- NATIONAL INSTITUTE OF STANDARDS – Utilize two MANUFACTURING EXTENSION PARTNERSHIP centers to reduce cost on suspension part to stop off shore effort by GM

Current Status:

- SMALL BUSINESS ADMINISTRATION (SBA) – Provided two financial lending firms – No finance was rendered / company could not secure lending for new business order – lost business
- DEPARTMENT OF ENERGY – Currently policy is being negotiated on behalf of the Vogel at the Legislative level (Debbie Stabenow). Funding for future development could be available from the DEPARTMENT OF ENERGY after policy is worked around or modified.
- PROCUREMENT TECHNICAL ASSISTANCE CENTER Registration – Completed
- DEFENSE CONTRACT COORDINATION CENTER Registration – Completing
- KEEP MICHIGAN WORKING Grant- Already secured grant through Alternative Energy in August of 09. Company must decide which agency will provide services
- ECONOMIC DEVELOPMENT ADMINISTRATION University Centers – No assistance available
- ECONOMIC DEVELOPMENT ADMINISTRATION Community Economic Adjustment Programs – Not the correct agency
- MICHIGAN ECONOMIC DEVELOPMENT CORP – Set up call between Paul Brown and Rich Pirrotta to investigate access to capital.
- Working to have Vogel part of the International Auto Show to display their vehicle.
- TANK, AUTOMOTIVE RESEARCH, DEVELOPMENT AND ENGINEERING CENTER – UPDATE: Corey Clothier & Rich Pirrotta discussing competencies and have tour scheduled at Vogel.
- INTERNATIONAL TRADE ADMINISTRATION – Made recent INTERNATIONAL TRADE ADMINISTRATION events available to Vogel – Company did not attend

CommerceConnect – Pilot Launch Plymouth, Michigan

Precision Machining Supplier

cont'd

- NATIONAL INSTITUTE OF STANDARDS – Networked with Missouri Enterprise, Vogel was too late to respond. Will continue to identify other parts to work with MANUFACTURING EXTENSION PARTNERSHIP centers.
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER – Planning an alternative materials workshop with local Michigan suppliers to brainstorm growth potentials and network to create jobs
- Through matchmaking, Vogel is now engaged with Disney Corp, Orlando promoting the NEV.
- US DEPARTMENT OF AGRICULTURE – Working through Lansing, MI office exploring funding sources to further develop solutions to alternative materials & neighborhood electric vehicle.

Electrical Wiring Systems Manufacturer

Referred By: Michigan Manufacturing Technology Center

Follow-Up between client and agency/program:

- Initial site visit/interview
- Follow up visit to discuss opportunities identified
- Investigate R&D Tax Credits
- Research SMALL BUSINESS INNOVATION RESEARCH grant for Medical division
- Financing for real estate, receivables, working capital, equipment purchase

Current Status:

- Investigate R&D Tax Credits – no government program located that can help. Forwarded
- names of tax consulting firms that research R&D Tax Credits
- Research SMALL BUSINESS INNOVATION RESEARCH grant for Medical division - Sandra Cochrane from SMALL BUSINESS AND TECHNOLOGY DEVELOPMENT CENTER to meet with company to discuss SMALL BUSINESS INNOVATION RESEARCH opportunities
- Financing for real estate, receivables, working capital, equipment purchase – obtained financing for receivables. Real estate refinancing not available. Company chose not to pursue SMALL BUSINESS ADMINISTRATION (SBA) loan guarantees for working capital and equipment purchases.

Steel-Structural Manufacturer

Referred By: Michigan Manufacturing Technology Center

Follow-Up between client and agency/program:

- MICHIGAN MINORITY BUSINESS ENTERPRISE CENTER (MBEC)
- SMALL BUSINESS ADMINISTRATION (SBA) – MICHIGAN MINORITY BUSINESS ENTERPRISE CENTER (MBEC) assisting with 8a certification
- HUB-Zone Certification – MICHIGAN MINORITY BUSINESS ENTERPRISE CENTER (MBEC) assisting
- US Export Assistance Center (USEAC) – On hold, determined this is a long-term goal.

Current Status:

- Client needs interns to assist with paperwork and research requirements to participate in service referrals.
- Provided a list of internship opportunities.

CommerceConnect – Pilot Launch Plymouth, Michigan

Injection Molding; Light Assembly

Referred By: Michigan Manufacturing Technology Center

Follow-Up between client and agency/program:

- SMALL BUSINESS ADMINISTRATION (SBA)- funding opportunities
- DEPARTMENT OF DEFENSE- diversification
- MINORITY BUSINESS DEVELOPMENT AGENCY- opportunities for minority owned businesses
- DEPARTMENT OF LABOR- funding for cross training employees.
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER- market diversification

Current Status:

- SMALL BUSINESS ADMINISTRATION (SBA) - provided a list of banks that were lending for things such as working capital (status unknown on this right now). The company has been working with one of the banks, but status is unknown at this time.
- DEPARTMENT OF DEFENSE- provided information on PROCUREMENT TECHNICAL ASSISTANCE CENTER and DEFENSE CONTRACT COORDINATION CENTER registry process with contact names/numbers at local PROCUREMENT TECHNICAL ASSISTANCE CENTER office. To date, the company has been registered as a PROCUREMENT TECHNICAL ASSISTANCE CENTER client, will be taking the training class on 12/10, and has requested to be on the DEFENSE CONTRACT COORDINATION CENTER registry.
- MICHIGAN MINORITY BUSINESS ENTERPRISE CENTER (MBEC)- connected the company with the MICHIGAN MINORITY BUSINESS ENTERPRISE CENTER (MBEC) office to discuss reasons for maintaining their minority status and benefits of being classified as a minority business. To date, company is trying to coordinate a meeting date with the MICHIGAN MINORITY BUSINESS ENTERPRISE CENTER.
- DEPARTMENT OF LABOR- To date, unable to identify any program/service/funding that would aid the employer in cross-training employees.
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER- recommended the MICHIGAN MANUFACTURING TECHNOLOGY CENTER Benchmarking program to the company; they are looking into this.

Manufacturer of Cutting Edge Medical Accessories

Referred By: Michigan Manufacturing Technology Center

Follow-Up between client and agency/program:

- ECONOMIC DEVELOPMENT ADMINISTRATION – University Center Lab. Need five axis router machining center.
- SMALL BUSINESS AND TECHNOLOGY DEVELOPMENT CENTER – Funding for R&D. Pursuing research grant.
- INTERNATIONAL TRADE ADMINISTRATION – US EXPORT ASSISTANCE CENTER to increase distributors for exports. Objective is to get distributors in China.
- US PATENT AND TRADEMARK OFFICE – Inventors Assistance and Stop Fakes web sites for current and future developments.
- Grants.gov website - Client requested for information on all government grants.

Current Status:

- This client had been on hold since the initial visit due to the sponsors overseas travel
- Visit is scheduled for Thursday December 10 at 1pm to present the project plan.

CommerceConnect – Pilot Launch Plymouth, Michigan

Beverage & Material Handling Equipment Builder & Supplier
Referred By: Michigan Manufacturing Technology Center

Follow-Up between client and agency/program:

- Technology Services – Investigate Equipment Innovation processes, and Alternative Metals
- Environmental Protection Agency - Product contributes to the reduction of emissions for beverage delivery routes (demonstrated 40% reduction in route cycle time)
- R&D Tax Credit – Investigate if Green efforts fall within this category
- Market Diversification, Keep Michigan Working, & Match Making in Michigan - They have pursued suppliers in Michigan to develop jobs, reduce the cost of their products and have technology to share to help other companies keep their sourcing in the state
- Tax Credit - They have sourced and are continuing to source components locally. They want to know if there are any perks to doing this versus pursuing low cost country solutions like most others.
- Defense Applications - Their products are applicable to Navy vessels, aircraft movement, and International Traffic and Arms Regulations installations which refurbish International Traffic and Arms Regulations equipment.
- Export Expansion – Leverage UK Distribution Channel
- SMALL BUSINESS AND TECHNOLOGY DEVELOPMENT CENTER- Small Business Innovation Research Grant for the Cool Lift Product (40% reduction in diesel truck routes for beverage delivery)

Current Status:

- Technology Services – Introduced NATIONAL INSTITUTE OF STANDARDS (Technology Innovation Program) to Magline to pursue.
- Environmental Protection Agency – Investigating sources of grant funding for future development
- R&D Tax Credit – Introduced R&D Tax Credit data to Magline. No agency required
- Market Diversification (Keep Michigan Working Grant) – Contact with MICHIGAN MANUFACTURING TECHNOLOGY CENTER (Saginaw Valley State University) Process through MICHIGAN MANUFACTURING TECHNOLOGY CENTER
- Tax Credits – Have not investigated local or state tax incentives.
- Defense Applications – Currently registering with PROCUREMENT TECHNICAL ASSISTANCE CENTER and DEFENSE CONTRACT COORDINATION CENTER Registry
- Export Expansion – US EXPORT ASSISTANCE CENTER –Ruth Mayo is now working with Magline.
- Exportech – Will participate in upcoming Michigan Exportech Workshop
- SMALL BUSINESS AND TECHNOLOGY DEVELOPMENT CENTER – Investigating through Grand Rapids office

CommerceConnect – Pilot Launch Plymouth, Michigan

Metal Fabrication & Machining

Referred By: Michigan Manufacturing Technology Center

Follow-Up between client and agency/program:

- SMALL BUSINESS ADMINISTRATION (SBA)- funding opportunities
- ECONOMIC DEVELOPMENT ADMINISTRATION/University Centers- to assist with software translation issues.
- MICHIGAN DEPARTMENT OF TRANSPORTATION- access/information on contract and bidding process
- DEPARTMENT OF LABOR- funding for cross training employees.
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER- diversification

Current Status:

- ECONOMIC DEVELOPMENT ADMINISTRATION/University Centers turned over the company to U of M's Business Engagement Center (BEC); the BEC contacted the company to discuss their software translation issue for prototype specs received from different customers. Per the company, they owe a return phone call to this contact.
- MICHIGAN DEPARTMENT OF TRANSPORTATION- no success with contact at this agency; however, information was obtained from the web regarding MICHIGAN DEPARTMENT OF TRANSPORTATION's bidding process, etc. and was provided to the company.
- DEPARTMENT OF LABOR- To date, unable to identify any program/service/funding that would aid the employer in cross-training employees.
- SMALL BUSINESS ADMINISTRATION (SBA)- provided a list of banks that were lending for things such as working capital (status unknown on this right now).
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER- Engaged Market Diversification Program

Developer of Production Cell Software

Referred By: Walk-In

Follow-Up between client and agency/program:

- Ohio MANUFACTURING EXTENSION PARTNERSHIP/Magnet- new product development program
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER- market diversification

Current Status:

- MANUFACTURING EXTENSION PARTNERSHIP/Magnet- contacted Magnet and discussed how program might assist the company and provided information about the company/product and connected them directly with the company.
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER- connected company with an MICHIGAN MANUFACTURING TECHNOLOGY CENTER Market Diversification resource.

CommerceConnect – Pilot Launch Plymouth, Michigan

Metal Fabrication & Stamping

Referred By: MICHIGAN MANUFACTURING TECHNOLOGY CENTER

Follow-Up between client and agency/program:

- Export-Import Bank- locate funding to procure a piece of equipment located overseas that would bring new technology to the US to manufacture light weight/energy efficient vehicles and other parts
- SMALL BUSINESS ADMINISTRATION (SBA)- funding opportunities
- INTERNATIONAL TRADE ADMINISTRATION- assistance with INTERNATIONAL TRAFFIC AND ARMS REGULATIONS
- DEPARTMENT OF LABOR- funding for cross training employees.
- DEPARTMENT OF DEFENSE- diversification

Current Status:

- Export-Import Bank- was unable to assist company with funding to purchase piece of equipment overseas; however, they suggested trying the Export-Import Bank in that country for assistance. This information was passed on to the company.
- SMALL BUSINESS ADMINISTRATION (SBA)/SMALL BUSINESS AND TECHNOLOGY DEVELOPMENT CENTER was unable to assist with funding because the company did not fit their criteria for the SMALL BUSINESS INNOVATION RESEARCH program; however, we are looking into the SMALL BUSINESS INNOVATION RESEARCH at the federal level.
- SMALL BUSINESS ADMINISTRATION (SBA)- provided a list of banks that were lending for things such as working capital (status unknown on this right now).
- INTERNATIONAL TRADE ADMINISTRATION- received information and contacts that can explain INTERNATIONAL TRAFFIC AND ARMS REGULATIONS and the certification process.
- DEPARTMENT OF DEFENSE- provided information on PROCUREMENT TECHNICAL ASSISTANCE CENTER and DEFENSE CONTRACT COORDINATION CENTER registry process with contact names/numbers at local PROCUREMENT TECHNICAL ASSISTANCE CENTER office.
- DEPARTMENT OF ENERGY- Contacted to find out about grant programs to support R&D and the purchase equipment from overseas.

Gear Motor Manufacture

Referred By/Program: Call-In Inquiry

Follow-Up between client and agency/program:

- MICHIGAN ECONOMIC DEVELOPMENT CORP: Funding Assistance to relocate business to Eaton Rapids, Michigan from Mexico
- EXPORT-IMPORT BANK: Funding through Export Bank to reorganize business and relocate from Mexico to Eaton Rapids, MI

Current Status:

- MICHIGAN ECONOMIC DEVELOPMENT CORP – No available assistance
- EXPORT-IMPORT BANK – Sales decline and poor operating performance hindered ability to be approved
- Hennessey Capital – Client did not pursue due to poor condition of credit and performance

CommerceConnect – Pilot Launch Plymouth, Michigan

Equipment Manufacturer

Referred By: Michigan Manufacturing Technology Center

Follow-Up between client and agency/program:

- Initial site visit/interview
- Follow up visit to discuss opportunities identified
- Women-Owned Business Certification – sent link to company for registration
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER Cost Reduction – currently engaged
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER Market Diversification – currently engaged
- US EXPORT ASSISTANCE CENTER Export Assistance – contacted Ruth Mayo Pontiac US EXPORT ASSISTANCE CENTER
- PROCUREMENT TECHNICAL ASSISTANCE CENTER/DEFENSE CONTRACT COORDINATION CENTER Registration – sent link to company for registration

Current Status:

- Women-Owned Business Certification – company will register
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER Cost Reduction – in process with MICHIGAN MANUFACTURING TECHNOLOGY CENTER
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER Market Diversification – in process with MICHIGAN MANUFACTURING TECHNOLOGY CENTER
- US EXPORT ASSISTANCE CENTER Export Assistance – Pontiac US EXPORT ASSISTANCE CENTER to call company
- PROCUREMENT TECHNICAL ASSISTANCE CENTER/DEFENSE CONTRACT COORDINATION CENTER Registration – Registered with PROCUREMENT TECHNICAL ASSISTANCE CENTER, awaiting call back

Vehicle Cleaning Services

Referred By: Call-In

Follow-Up between client and agency/program:

- SMALL BUSINESS ADMINISTRATION (SBA) – New business and client needs working capital to expand

Current Status:

- SMALL BUSINESS ADMINISTRATION (SBA) – Referred business to the SMALL BUSINESS ADMINISTRATION (SBA), Vehicle Services Group chose not to work with the SMALL BUSINESS ADMINISTRATION (SBA). Client was referred to Huntington Bank as introduced to by the SMALL BUSINESS ADMINISTRATION (SBA).

CommerceConnect – Pilot Launch Plymouth, Michigan

Medium Volume Custom Sewing & Injection Molding
Referred By: Michigan Manufacturing Technology Center

Follow-Up between client and agency/program:

- TRADE ADJUSTMENT ASSISTANCE CENTER – Investigating funding due to loss of business (foreign trade). Discussing gaps to additional revenue.
- Keep Michigan Working Grant– Expected growth to double revenue in 2010. Will need employee training
- TANK, AUTOMOTIVE RESEARCH, DEVELOPMENT AND ENGINEERING CENTER – Willing to participate in engagement to pursue defense work
- PROCUREMENT TECHNICAL ASSISTANCE CENTER/DEFENSE CONTRACT COORDINATION CENTER – Gaining access to quote Department of Defense
- SMALL BUSINESS INNOVATION RESEARCH – Company is pursuing corn based plastics for products
- Minority Business – Investigate any applicable sources of sales through the Minority Business Development Agency
- INTERNATIONAL TRADE ADMINISTRATION – Possible need to ensure international trade process is working well for company

Current Status:

- TRADE ADJUSTMENT ASSISTANCE CENTER – Scott Jacobs, Great Lakes TRADE ADJUSTMENT ASSISTANCE CENTER is pursuing with company. Target is support to engage defense industry through sales support.
- Keep Michigan Working Grant– Company is now a pass through company, completing KEEP MICHIGAN WORKING Survey and is prepared should new business come to fruition
- TANK, AUTOMOTIVE RESEARCH, DEVELOPMENT AND ENGINEERING CENTER – No Progress (Currently understanding how TANK, AUTOMOTIVE RESEARCH, DEVELOPMENT AND ENGINEERING CENTER and contracting works)
- PROCUREMENT TECHNICAL ASSISTANCE CENTER/DEFENSE CONTRACT COORDINATION CENTER – Completing DEFENSE CONTRACT COORDINATION CENTER Registry
- SMALL BUSINESS INNOVATION RESEARCH – Turned over to the MI-SMALL BUSINESS AND TECHNOLOGY DEVELOPMENT CENTER – Technology office. Company is currently trying to qualify.
- Minority Business – MINORITY BUSINESS ENTERPRISE CENTER has engaged company. Focus is to earn business contracts to employ additional people
- INTERNATIONAL TRADE ADMINISTRATION – Have not discussed with INTERNATIONAL TRADE ADMINISTRATION or US EXPORT ASSISTANCE CENTER to date

CommerceConnect – Pilot Launch Plymouth, Michigan

Conveyor Manufacturing

Referred By: Minority Business Development Agency:

Follow-Up between client and agency/program:

- Initial site visit/interview
- US EXPORT ASSISTANCE CENTER Export Assistance – contacted Ruth Mayo Pontiac US EXPORT ASSISTANCE CENTER
- Minority-Owned Business Certification – company will contact local MINORITY BUSINESS ENTERPRISE CENTER to start process
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER Market Diversification – discuss with MICHIGAN MANUFACTURING TECHNOLOGY CENTER sales rep

Current Status:

- US EXPORT ASSISTANCE CENTER Export Assistance – Pontiac US EXPORT ASSISTANCE CENTER to call company
- Minority-Owned Business Certification – company will contact local MINORITY BUSINESS ENTERPRISE CENTER to start process
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER Market Diversification – MICHIGAN MANUFACTURING TECHNOLOGY CENTER sales rep to contact company

Defense, Aerospace, Alternative Energy, Industrial Machining Center

Referred By: Washington DC government contact

Follow-Up between client and agency/program:

- MICHIGAN ECONOMIC DEVELOPMENT CORP: Capital Funding Program- Access to capital for growth of business and creating jobs
- US EXPORT ASSISTANCE CENTER - Export preparation and analysis with exposure to foreign markets
- Exposure to Navy, Marine, Army, Air Force, Coast Guard (TANK, AUTOMOTIVE RESEARCH, DEVELOPMENT AND ENGINEERING CENTER)
- KEEP MICHIGAN WORKING Grant

Current Status

- MICHIGAN ECONOMIC DEVELOPMENT CORP – introduced the company to Paul Brown at MICHIGAN ECONOMIC DEVELOPMENT CORP – Open Issue
- Doug Devereaux: Consulted with Doug at NATIONAL INSTITUTE OF STANDARDS and requested that we follow this company through financing and learn the pitfalls and potential over-rides to obtaining financing.
- US EXPORT ASSISTANCE CENTER – Making contact with the US EXPORT ASSISTANCE CENTER team (Richard Corson)
- TANK, AUTOMOTIVE RESEARCH, DEVELOPMENT AND ENGINEERING CENTER - No Progress (Currently understanding how TANK, AUTOMOTIVE RESEARCH, DEVELOPMENT AND ENGINEERING CENTER and contracting works)
- KEEP MICHIGAN WORKING Grant – Company already has KEEP MICHIGAN WORKING Grant and is pursuing services through Michigan MANUFACTURING EXTENSION PARTNERSHIP

CommerceConnect – Pilot Launch Plymouth, Michigan

Mid to High Volume Precision Machining

Referred By: Michigan Manufacturing Technology Center

Follow-Up between client and agency/program:

- US Export Assistance Center (US EXPORT ASSISTANCE CENTER): Attended OE Automotive Supplier seminar with one to one meetings with experts
- Client submitted application, and participated in the CAR Mission to Turin hosted by the US Commercial Service
- Referred event for half day interactive seminar series called Exports Live! In Detroit, on December 11.
- ECONOMIC DEVELOPMENT ADMINISTRATION – Trade Adjustment Assistance Center (funding to develop strategic marketing plan). Provided information via email.
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER – Lean manufacturing and performance benchmarking.

Current Status:

- Client just returning from trade mission. Follow up meeting for next week to present project plan and additional information.

Conveyor Manufacturing

Referred By: Minority Business Development Agency:

Follow-Up between client and agency/program:

- Initial site visit/interview
- US EXPORT ASSISTANCE CENTER Export Assistance – contacted Ruth Mayo Pontiac US EXPORT ASSISTANCE CENTER
- Minority-Owned Business Certification – company will contact local MINORITY BUSINESS ENTERPRISE CENTER to start process
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER Market Diversification – discuss with MICHIGAN MANUFACTURING TECHNOLOGY CENTER sales rep

Current Status:

- US EXPORT ASSISTANCE CENTER Export Assistance – Pontiac US EXPORT ASSISTANCE CENTER to call company
- Minority-Owned Business Certification – company will contact local MINORITY BUSINESS ENTERPRISE CENTER to start process
- MICHIGAN MANUFACTURING TECHNOLOGY CENTER Market Diversification – MICHIGAN MANUFACTURING TECHNOLOGY CENTER sales rep to contact company

CommerceConnect – Pilot Launch Plymouth, Michigan

Machine Tool Manufacturer

Referred By: Michigan Minority Business Enterprise Center

Follow-Up between client and agency/program:

- Initial meeting took place on 12/9.

Current Status:

- Sent a thank you email that included information on the Export Live seminar being held on 12/11, and information on PROCUREMENT TECHNICAL ASSISTANCE CENTER/DEFENSE CONTRACT COORDINATION CENTER
- Prepared A3 and Project Plan; in process of setting up follow-up meeting for 2nd week in January.

Manufacturing of Standard & Custom Scissor Lift Table Systems

Referred By: Deputy Secretary Hightower Roundtable

Follow-Up between client and agency/program:

- First introduction meeting held December 9, 2009

Current Status:

- Identified DOC resources for client. Developing project proposal and will schedule follow up visit.
- Will contact EDA TRADE ADJUSTMENT ASSISTANCE CENTER, US PATENT AND TRADEMARK OFFICE, AND INTERNATIONAL TRADE ADMINISTRATION for potential DOC resources that could assist the client.

BIOGRAPHY FOR MICHAEL COAST

**Michael Coast**

President and CEO

MMTC

Mike Coast is the President and CEO of the Michigan Manufacturing Technology Center (MMTC). He has been with MMTC for 14 years, the last 9 years in the capacity of President and Chief Executive Officer, responsible for directing the operations, programs and working relationships with Michigan's industrial, business, and governmental stakeholders.

Additionally, he is responsible for maintaining and building on the successful partnership between the MMTC and the Michigan Economic Development Corporation (MEDC). The MMTC has been selected to play a lead role in coordinating and streamlining technology-related services to Michigan's established industries and to assist Michigan's business to diversify into new and underserved markets. Under his leadership, MMTC was awarded the Not-for-Profit of the Year award from the Automation Alley in 2007.

Prior to his appointment to President, Mike was Vice President and Executive Director for MMTC's statewide program. As Executive Director, he was responsible for developing new business, working with manufacturers to implement manufacturing technologies, collaborating with service providers, and discovering potential funding sources to increase the capabilities of the MMTC.

Professional Experience

Prior to joining the MMTC, he had more than 8 years of technology development experience and more than 16 years of manufacturing experience. He was the Director at Youngstown State University Technology Development Corporation and held a variety of managerial positions including Plant Manager at Leeds & Northrup, Quality Control Manager at Mayer China, and Manager of Industrial Engineering at Sargent Electric Company.

Education

He holds a Bachelor of Science in Engineering Degree with a minor in Industrial Engineering from Geneva College (Beaver Falls, Pennsylvania).

Professional Memberships/Certifications

Board Member, American Small Manufacturers Coalition (ASMC)

Treasurer and Board Member, Great Lakes Manufacturing Council

Member, Michigan Economic Development Corporation Advisory Board for Strategic Service Provider

Chairman WU. Thank you very much.

At this point it is in order to open our first round of questions, and the Chair recognizes himself for five minutes.

I would like to ask each member of our witness panel about your knowledge of, impressions of how well MEP programs work with community colleges in general and how well MEP works with especially with community colleges in helping community colleges train for locally available jobs. My understanding is that there was a MEP study in 2005 which found that roughly 55 percent of community colleges actually have data on what the real training or job needs are of the local economy and adjust their programs accordingly. Whoever wants to go first to address that set of questions? Mr. Hightower.

Mr. HIGHTOWER. Let me start off by, one, prior to assuming my role last August, I had run businesses for the last 35 years, mostly outside of the United States, manufacturing operations, service operations and the like across a broad spectrum of industries includ-

ing being a management consultant at McKenzie and Company for a number of years as well. I have lived in Asia twice, Latin America twice, Europe twice, and I have visited probably 90 countries over that period of time, so I am bringing the perspective of actually having worked on the ground. I have created companies. I have run—I have been in the valley of death twice myself, have been on the boards of startup companies that have gone through and made that entry and exit from the valley including one as we talked about this morning right in the state of Oregon called Light Fleet.

And when I think about the linkage, and I talked with Mike a lot about this as I made a number of trips out to Detroit to begin evaluating CommerceConnect is that there are a couple of models that I think are instructive. One I was aware of a number of years ago and it is very close to us here in the greater Washington area. It is right at the University of Maryland, Baltimore campus, Freeman Rabowski, who is the president of that institution, was I think one of the forefront—at the forefront and very much a pioneer in incubator companies, how he used the research capacity and capability at the University of Maryland to invite some 30 or 40 entrepreneurs, startup companies where they are currently on campus. They are moving from basic research to applied research to a level of commercialization where many of the students involved in that research, many of the professors involved in that research have actually been part of the startup of these companies and have subsequently in many cases joined these companies through their commercialization and their market access. Right in Detroit as we were working with Mike in the early startup phases last summer and last fall had the pleasure of visiting Tech Town, another institution where you look at Wayne State University, the fact that they actually have physically moved many of their research and development and business capability into that facility to be an on-the-ground like so that again ideas can find their way to commercialization. As we are looking at the construction today, I mean only yesterday I was reviewing the final submissions for the members of this National Advisory Council on Innovation and Entrepreneurship and you will be interested to know, I think, that as that list comes to its final stage after the appropriate vetting, there are a number of universities that are steeped in research but not only just research for the sake of research but research with commercialization as its goal, which again will find its way into the MEP programs and other programs that will begin to help this revitalization of the manufacturing sector.

And I can say one other thing, then I will turn it over to my panel colleagues, is that the thing that concerns me the most, as I said, I spend a lot of my time with technology-based companies, with basic manufacturing companies, and I have spent a lot of time in India over the last couple of years, and when you go to Bangalore and you go through the technology and the innovation centers there, and of course all the usual suspects there, whether it is Siemens, Phillips, Oracle, you name it, and they are there. What is amazing and frightening at the same time is that as you go through and you look at what is being done, you look at who is doing the work, these are mostly young people who are under 30

years old with Ph.D.'s in esoteric areas that you need a dictionary to sort of spell what it is they are actually doing. That is the scary part because they have reinvested in their technology. They are re-investing in innovation at a level that outpaces what we are doing, quite frankly.

I mean, with the Chinese—we talked about the STEM (Science, Technology, Engineering, and Math) programs. I want to mention STEM. You know, The Chinese produce 600,000 engineers a year. India produces 350,000 engineers a year. We produce 70,000 engineers a year. That is telling in terms of what we say but where we put our emphasis, where we put our resource, so we are looking at many of the ideas that the other panelists have promoted already in terms of how we get a better linkage so that we don't have to depend on DARPA (Defense Advanced Research Projects Agency), you know, for, you know, GPS commercialization. We don't have to depend on NASA (National Aeronautics and Space Administration) for, you know, how do you determine which mattress position or what level of firmness you want in your mattress. But how can we do that amongst the resource where we have the talent, we have the educational capability, we have people who know how to do these things but need the facilitation that government and agencies such as those who are here on the panel can bring to fruition.

Mr. COAST. Mr. Chairman, in Michigan we work quite well with community colleges, just to mention two, Macomb on the east side of the state and Grand Rapids Community College on the west. What typically happens is, those community colleges go out and provide services to the local communities and the MEP offsets another level of expertise to go work with those small companies. Those types of relationships are in place around the country. If you look at the MEP system nationally, there is about 301 of those relationships around the country right now, and 113 of those are in community colleges and there is 188 of them with universities and colleges. So when you look at Manufacturing Extension Partnership, that becomes—you know, partnership becomes that one word in that relationship that we go out and we leverage the precious dollars that we get from the Federal Government to go out and maintain those relationships so that we maximize our effectiveness.

Ms. ROSENTHAL. Mr. Chairman, let me first say that the community college system is critically important. I would not be here but for my start in higher education through a community college, the Community College of Philadelphia. So I understand the importance of community college systems. In our area, the manufacturing extension partner and Ben Franklin and others have come together to form a STEM compact among the deans of engineering from colleges and universities across the tri-state area, and through that effort there are programs that link the community colleges into these 4-year institutions so that there are effective articulation agreements. At Ben Franklin years ago, we supported the effort of the Community College of Philadelphia at that time with the Wistar Institute to develop a model program for training biomedical technicians that started with training at the community college and then went on to practicans through the Wistar Institute and through the Nanotechnology Institute. Years ago we also had a program. I worked with Penn State and worked with others to

reach into the community colleges again and connect them up into the 4-year institutions as their education developed. So a lot of efforts across our region, both through the MEP but also through other economic development organizations in the region.

Ms. OWENS. Mr. Chairman, I think you are very correct that that connection very much needs to take place and I think Mike and his team have done a very great job connecting with their community colleges. In Michigan, where that connection has happened is a complementary effort where the training program that community college may not be the most effective in providing, for instance, lean manufacturing, Mike and his team will come in and provide that innovation.

The challenges we have in Michigan in terms of opportunities or job opportunities in manufacturing is, currently there are not a lot of opportunities in our manufacturing environment, so what we are facing is kind of a wealth of very skilled talent that need to be retrained and refocused in terms of their efforts, so we have developed a program called Shifting Gears, which takes manufacturing talent, skilled talent, and connects them with our entrepreneurs and provides a partnership between those groups. So it is essentially an internship for displaced manufacturing talent who can try out the entrepreneurial climate and pair their assets together. So I think that is something that is very important is looking at retraining, you know, our displaced workers in the manufacturing environment we have and connecting them with the innovation that is taking place.

Mr. HIGHTOWER. If I can make one final comment to piggyback Ms. Owens and also Mr. Coast's comments, particularly as it relates to this retraining and sort of retooling of the human capital that we are talking about, there is a real story in the State of Washington in conjunction with our own economic development, the people who are actually funding grants at the community level and working in conjunction with some of the MEP capability there as well. There was a company that specialized in making fiberglass hulls for recreational yachts. Well, in this environment, there aren't too many people buying recreational yachts. This company was teetering on the cusp of going out of business. In working with them through EDA (Economic Development Administration) in this case and MEP, we had them look at what were the other applications of that technology. They are now one of the leading providers of wind turbines, so they are now—they have taken that technology that was sort of the old application and reapplied those skills into a growth industry, a green industry where their current product has been assessed by NIST as having better capacity, stronger, 20 percent more life to it, and instead of laying off and perhaps as a second- or third-generation company going out of business, they are stabilizing and are beginning to move in a different direction. So we have got to find more of those kinds of ways to not only retool but to reskill and apply those skills.

And to Mike's earlier point about looking at areas, other areas of opportunity, we have one model that we are evaluating in Plymouth, greater Detroit area, but as we think about it and we are doing that analysis now of other areas that may have very different demographics or maybe there are regions where we can have a cen-

ter that can be pulled together to provide the kind of activity that is being provided by CommerceConnect in Detroit. This is where I think directionally we are going to be heading.

Chairman WU. Thank you very much, Mr. Hightower, and I thank the entire panel for your very thorough answers to that question.

Mr. Hightower, you point out something very, very important about transitioning and adaptation. One of my law-school professors was fond of talking about a major Wall Street bank, I believe it is Chase, which started out as a small water company 200 years ago in Manhattan, and I once heard a talk by a Stanford Business School professor on how few companies transition well. There is only one survivor from the original Dow Jones 12 in the current Dow Jones Index, and I suggested to him that he ought to study the Vatican and how it has survived over a significant period of time, and he may be taking that suggestion under advisement.

Mr. Smith, please proceed.

Mr. SMITH. Thank you, Mr. Chairman, and again thank you to the panel for your time and sharing of your expertise.

Ms. Rosenthal, thank you. I appreciate the work that you do. Can you tell me once the investments have been made in new technologies and they are ready for the marketplace and, you know, the ball is rolling, how do you ensure that jobs will stay either in Pennsylvania or the entire country?

Ms. ROSENTHAL. What we do with our investments is, there is a provision in the agreement that requires the company to have a significant presence in the area or in Pennsylvania, either our specific region, or if not in our region, in the state for at least five years once the company gets rolling. Beyond that, we can't restrict the company. If they have to move, then we need to negotiate a settlement with them for a clawback of the investment that was made.

Mr. SMITH. And that is for Pennsylvania as a state or the entire country?

Ms. ROSENTHAL. Pennsylvania, because our funding is from the Commonwealth of Pennsylvania so our goal is to keep companies growing in Pennsylvania.

Mr. SMITH. When you say significant presence, is there a pretty decisive definition of that?

Ms. ROSENTHAL. It is going to depend on the company. You have to understand that some of our—most of our companies are out of the box, one person, two people, three people, so significant for three people means two. Significant for 100 means something else. So we don't have numbers because we will take a look at what is the company doing, where are they, what kind of value are they creating for the state, what kind of downstream purchases are involved, do they have a relationship with a local manufacturer. So we take the whole into consideration when we make that decision.

Mr. SMITH. Would it be conceivable that your R&D might be in Pennsylvania and your manufacturing might be elsewhere?

Ms. ROSENTHAL. It is conceivable. It is conceivable. That is right.

Mr. SMITH. Okay. Thank you.

Mr. Secretary, thank you. I appreciate your time and certainly your impressive resume with us here today. I hear a lot from man-

ufacturers in my district, small- and medium size. I hear a lot from ag producers, which in many cases are manufacturers as well in a little different way or take the processing of various things and they are very concerned about various issues, and I know that the Administration's priorities, whether it is cap and trade, health care and the commensurate taxes included, the Employee Free Choice Act. Can you elaborate on how those would help small- and medium-sized manufacturers?

Mr. HIGHTOWER. Thank you, sir. I think in sort of the larger setting, it is—I think the objective as an umbrella would be innovation-driven scale of operation, which then leads to sustainability, and I think it is my experience in being in all phases of that spectrum of whatever lifecycle your company might be in, if we are able to bring programs that intersect at that particular need whether you are a farmer company, whether you are a farmer, whether you are in medical devices, whether you are in a product or service, it is bringing those resources to bear whether we either get leverage and/or collaborative effort, realizing that Commerce can't do it all, Treasury can't do it all, the Department of Agriculture can't do it all but in more of an interagency level of cooperation, and that is what we are beginning to see and what we are beginning to actually find that is taking hold, and as we go through, for example, with the CommerceConnect activity, 62 different elements within Commerce are there but we are also working with SBA (Small Business Administration) on the capital issue, we are also working with the Department of Labor, who have these 3,200 training centers around the country, where do you get the pipeline, which gets to the sustainability issue, and how does EDA, for example, work with you on figuring out what the right strategic plan is, and a part of that strategic plan is the scalability of the operation for long-term stability.

Mr. SMITH. So do I tell these constituents of mine that these are really good programs for them even though they are opposed to those programs?

Mr. HIGHTOWER. Well, here is what I found. I have found as I have gone around companies that national pride trumps whatever their particular local political persuasion might be, and I say that gingerly and with great respect because it doesn't really matter when you are working 100 hours a week or you have a payroll to meet and the bank has changed the coverage ratios on you, it really doesn't matter. What you are concerned about is whether you can finance your inventories, whether you can feed your family, whether you don't have to put a second mortgage on the house, and many of the young entrepreneurs that I have been talking to as I go out into where sort of the rubber meets the road, that is what they are concerned about, and the extent to which we can bring these kinds of services and resources to bear will help, I think, that issue, and I think that is where we have got to find the right intersections and programs that work that when we say it is going to be delivered, it is delivered and we are there to follow through for the sustainability because it doesn't make any sense to put all of the effort in to something that in three months from now or six months from now they are either worse off than they were before or maybe not in business.

And what I found too is that many of these companies that I speak with are second, third, fourth generation owners. They are really committed, and it is one thing that whenever I have lived outside of the United States, it was very difficult getting foreigners to understand that the United States is a collection of small towns and communities. It is not Boston, New York, Chicago, D.C., Philadelphia, L.A. It is small communities where you are a part of that community, a part of the fabric of that community, and that is where we have to get these programs down to the man or woman, the family business on Main Street that provide 95 percent of the jobs in this country. It is not the Fortune 1000. It is these 95 percent that really we have got to find the best ways and the most effective ways to touch.

Mr. SMITH. When you speak of individual workers then, can you elaborate maybe on how the Employee Free Choice Act would help enhance opportunities and competitiveness for small- and medium-sized manufacturers?

Mr. HIGHTOWER. Actually, I am not prepared to talk about that today but I do have some points of view on that which I would be happy to talk with you but I am not prepared in terms of formal testimony to talk about that today.

Mr. SMITH. But are you working and advocating for the Employee Free Choice Act?

Mr. HIGHTOWER. Yes.

Mr. SMITH. You mentioned generational transfer of businesses and so forth, and I appreciate that because that is a reality—

Chairman WU. Mr. Smith, perhaps you could save your next inquiry for the next round of questions, unless they relate to your current set of questions.

Mr. SMITH. I was following up on some remarks of generational—
Chairman WU. Please proceed.

Mr. SMITH. Thank you.

It is very concerning to me on generational transfer when it comes to the death tax, and can you tell us—I know that we are in a bit of limbo with death tax and its amounts and the transition here. Can you tell me what the Administration is doing in terms of advocating for a rate or a compromise or something to that effect?

Mr. HIGHTOWER. My direct answer is, no, I can't, but I can tell you as the son of an entrepreneur who died nine years ago, there are issues that, you know, strike one personally as opposed to the academic approach to this and, again, but that's not again in my area of expertise at all.

Mr. SMITH. Okay. I think I will save questions for another round. Thank you.

Chairman WU. Thank you, Mr. Hightower. Thank you, Mr. Smith.

Mr. Hightower, you are obviously someone who has operated a business and know business very, very well. Let me take a crack at answering some of Mr. Smith's questions, since what we do around this institution is politics but try to bring this back to a policy discussion somewhat. The interesting thing about green energy and clean energy is that it is a straight transfer payment from one sector of the economy to another and one that results not only in

bringing externalities in but it also makes us more competitive internationally. I came to this conclusion in visiting a business in my own community which makes fume hoods, and they are anti-regulation, they are anti-tax, they are anti-government, but it is also the case that their entire business is predicated on EPA (Environmental Protection Agency) regulation, and without that EPA regulation they would have no business, and their revenues are derived from payments made by other American businesses and they also export their products. That industry is created by EPA regulation. It makes our environment cleaner and it creates jobs in my home State of Oregon, and yes, it does cost a manufacturer somewhere else. It forces Burger King to clean up its exhaust fumes.

Number two, health care. No one thinks of health care as related to the American economy. David Kennedy, a historian at Stanford University, argues very persuasively that the programs of the Franklin Roosevelt Administration are responsible for the post-World War II prosperity of America in the following way. Without Social Security, without unemployment insurance and without access to housing, individuals would be much more risk-averse because they have no safety net. By empowering individuals to take risks, by empowering individuals to move from place to place in America, we created a more efficient economy in addition to a more humane society. The Employee Free Choice Act is a realignment of power between employees and employers. Under the prior Administration, rapacious capitalism became prevalent rather than a working market economy. It is time. There have been generations during which employees have been denied their rights of association by very skilled consultants and employers who are not as publicly spirited as Mr. Hightower. No matter what one's views are on the individual requirements of the Employee Free Choice Act are, it is a realignment which is probably helpful.

And finally, let me address the inheritance tax, which was first created by Abraham Lincoln, endorsed by Theodore Roosevelt, and which prevents the creation of a permanent economic plutocracy in our society. I work with small businesses. I help create small businesses. I try to get folks like Mr. Hightower to be my clients. The most important factor in generational transfer of businesses is not the inheritance tax, it is having a next generation in the family which is willing and capable of taking over the business.

Mr. Peters, five minutes.

Mr. PETERS. Thank you, Mr. Chairman. I thank you for the panelists as well. There has been a very interesting discussion here related to manufacturers.

Mr. Coast, I want to get back to the MEP, and as you know, the full Science and Technology Committee is working on the America COMPETES Act, which there will be reauthorization of MEP as well in that process. I want to get a sense from you, one, some of the challenges that you see for the MEP program in the coming years. I know you mentioned the financial ones, and perhaps you could flesh out a little bit some of the challenges that we have, particularly in Michigan but in other states that are also seeing a state match, which is why Mr. Ehlers and I have sponsored a bill dealing with that. If you could talk about the ramifications of that bill with the MEP program and some of the challenges that you

will have going forward and any suggestions that you may have as to how we can make the program even better.

Mr. COAST. Thank you very much. When you look at—I was surprised last week. We went to a national meeting in Utah with all of the center directors, and as this Committee knows, there are 59 centers around the country, and I was surprised when we sat down and talked to all of the centers, we found out that about ten of those centers, their state funding at this point had stopped. That means that 49 obviously of the other centers are in trouble. And when you take a look at that, the services that we go out and provide the small to mid-sized manufacturers are going to be in trouble because centers are going to start to cut staff because they won't have some of those precious dollars.

And so with the bill that you are going to put into place is going to allow us to go out and reduce the match and it goes from 33 percent to 50 percent. That will allow the MEP centers to continue to go out and provide those services to the manufacturers. There are states that are around the country right now that have literally none. I mean, Illinois does not have any state match, California doesn't, New Jersey doesn't. We can certainly provide you a list of those, a more comprehensive list, but it is fairly typical, but as states go through this type of budgetary issues right now, that those numbers are going down, ten percent cuts, 50 percent cuts. And so the system is fragile, in my humble opinion, right now and it needs that federal investment to go out and continue to help those manufacturers. As Deputy Secretary Hightower said, the vast majority of manufacturers you there are the small companies. You know, there is 330,000 small to mid-sized manufacturers, you know, in America. Eighty-five percent of all the manufacturing is out there in those small companies. And so when you are looking at what the MEP system does, that is what we do. We go out and we provide that kind of assistance to help them pick themselves up by the bootstraps and stay in the game and employ people.

Mr. PETERS. Thank you.

Mr. Hightower, maybe you can comment on some of that as well, that you have got those states in the case of Michigan, for example, where the services of MEP and other support for manufacturers is most critical. In fact, as you know, most of the manufacturing jobs that have been lost in this country and hundreds of thousands but the vast majority of them have been in one state or concentrated in a group of states. What is the sense of the Commerce Department to help out those states that are being hit the hardest and yet their small manufacturers are in the greatest need?

Mr. HIGHTOWER. Thank you, sir. I think what is often missed when we think about the tremendous impact that Michigan has felt is that we have to also look at it from the supply chain aspect. You look in the old days when I was doing work in the auto industry, every one job meant maybe 10 to 12 additional jobs. Well, that is probably double now in terms of the supply chain implications. So it is not just concentrated, as you certainly know, in Michigan. You still have Ohio, you have Pennsylvania, you have as far out as California, you have Texas, you have South Carolina, North Carolina where other elements of that supply chain have expanded. So I think one of the things that we have been thinking about and we

have certainly talked, you know, to Mike about this and are going to continue is that as we think about these regional programs such as the one Ms. Owens has with Spark—I was in Detroit about a month ago talking with one of the southwest regional councils there about how one of the other agencies, the Economic Development Agency, has been working with them to help them with their strategic planning process of how that region or that subset of the southwestern extension of Detroit, how will they come about and come around. There are other centers that we are looking at through EDA particularly in conjunction with CommerceConnect to figure out where, one, that effort should be, and what the nature of that service or resource, where are the opportunities for public-private partnerships and other strategic alliances, where as the Innovation and Entrepreneurship Advisor Council gets underway, how do we get those former small company startup entrepreneurs who are now successful, how do they reach back and sort of climb to go back into those communities to help figure out what the right plan is, how to get that capital, how to get you kick started if you have already gotten to the point of commercialization, then is there an export opportunity. It is bringing again that full range of services to bear, and we are actively looking at other areas that those kinds of services can be provided to begin to look at the effect of that one particular industry called auto and the supply chain impact that it has had in areas that heretofore had not been really fully appreciated.

Chairman WU. Thank you very much, Mr. Peters.

We are going to recognize all the Members of the Subcommittee first and then we will proceed to non-Subcommittee Members. Mr. Garamendi, five minutes, please.

Mr. GARAMENDI. Thank you very much, Mr. Chairman, and thank you for your comments.

Years ago, back in the early 1980s, California was faced with heavy-duty competition, and I was then chairman of the joint science and technology committee in the legislature. We undertook a study and we came out with six things that needed to be done to maintain the competitiveness of then the California economy. First was education, much of what was discussed yesterday by the full Committee, and I note that the witnesses which represented the major manufacturers of this Nation were unwilling to really put their money where their mouth was, that is, to invest heavily in education. All the talk in the world about STEM, all the talk about the need for scientists, engineers and the like is of no value unless we are willing to pay for that crucial investment. I appreciate the testimony of Mr. Hightower this morning, once again pointing out that need. But again, it takes money to do this and apparently America is not willing to spend its vast resources in this critical way. The second thing we talked about was research, which will undoubtedly be a subject that we will pick up in later hearings. The third was manufacturing. The fourth was infrastructure and then the fifth was international and finally ending with the critical word called change. We have to be willing to change.

Let us focus on the manufacturing here for a while. Bottom line, it takes money. There are wonderful networks out there. That issue of coordination of all of those networks, some of which were dis-

cussed by our witnesses today and even more are critical and I would recommend that we spend some time really looking at the issue of coordinating all of the resource, state and federal, private, on the interrelationship and the necessity of coordinating those. But my issue here really goes to money once again. There is a lot of talk around these buildings about making money available. Some of it is called direct lending by the Federal Government. What I would like to focus on is the indirect lending, that is, loan guarantees, the Small Business Administration and other loan guarantee mechanisms. So my question goes to Mr. Hightower and then to the other witnesses. Let us talk about loan guarantees, otherwise known as leveraging the federal dollar, using the existing private sectors. What do we need to do to really maximize the availability of money to entrepreneurs, manufacturers so that they can once again have money to carry on their businesses? Mr. Hightower?

Mr. HIGHTOWER. Thank you. My view on this comes from again speaking with those companies as we travel throughout the United States who are suffering from the relative inability to access what has been granted. Part of it I think is a function of the will to put the money at the local levels, the small banks, and not change the ground rules. If I have heard it once, I have heard it at least 50 to 80 times, that is as many companies that I have spoken with a cross-section across the United States, and that is, they know what has been granted, what has been authorized, whether it is from SBA or other funding sources. They know that the banks are getting it but they are saying it is not getting to us. To the extent that it gets to us, the rules keep changing on us in a setting where revenues are down, operating margins are low to nonexistent, profit margins are negative, why do the banks, my local bank, why do they impose a different coverage ratio on me than I had in the good times? So it is a double whammy. It is almost a triple whammy. So unless we can figure out how to enforce the grant-making process, because I am more of a grant maker than a direct—I don't think that is the government's role. But the granting and the loan guarantees and the applauding of moving those guarantees from 75 to 90 percent is fine but it is not—it doesn't mean anything if the money doesn't actually get down to the areas where it is needed.

Mr. GARAMENDI. If I might just hone in on that or drill down, which is the current word, I talked yesterday to the former president of the National Bankers Association about this issue and he was saying that there are two problems. One, he is in a bind. He continues to be a banker in Georgia. And he said I'm in a bind, I want to make the loans but the oversight agencies keep coming down on me about the requirements, part of what you talked about here. It seems to me that the loan guarantee program should give those federal regulators, bank regulators, a high level of assurance that that loan is going to be paid off if not by the company, then by the Federal Government. So we have a problem here with the regulators and the bankers. He mentioned the other problem being the SBA is almost impossible to deal with. Their mechanisms for giving a loan or for—not giving but underwriting a loan is obtuse, complex, constantly changing, and if streamlined, he would be in much better shape to make loans that are guaranteed by the Fed-

eral Government, 90 percent or whatever. I would recommend 90 percent. The remaining 10 percent, he can put on his books and be responsible for and the federal regulator would then say oh, okay, let us move forward. We have to make the money available. Otherwise this is just a lot of talk.

Ms. OWENS. I agree with you completely and I think the money has to be available. The issue with our manufacturing base is they aren't bankable so, you know, they are continually losing profits. Their assets, their equipment is valued at a quarter of what their loans are. So banks are in some cases making a smart decision because it is not a good risk for them. So if these manufacturers want to move forward, we have to look at other options outside of the banking community or provide some type of way to allow banks to be able to take that extreme risk, because it is an extreme risk.

Mr. GARAMENDI. That is what the loan guarantee is all about, isn't it?

Ms. OWENS. But I still have—I have companies who look at SBA loan guarantees and cannot find a banking partner who is willing to do that even with the program right now. It is intended to do that but I still find very much in Michigan financial institutions are not trusting in our automotive sectors or any manufacturers at this point.

Mr. GARAMENDI. I think that comes back to the issue of the regulators on the back of the banks and setting down regulations that do not take into account the loan guarantee, picking up 90 percent of the risk.

Ms. OWENS. Right, and I actually have a small business that was started because of an SBA loan guarantee about four or five years ago so I think the program can work, but I think the automotive sector is so different right now that the loan guarantee program just, either the banks aren't educated or they are not willing to take that risk for our manufacturers.

Mr. GARAMENDI. I notice my time has long since expired so I will pass it off, but with one final comment. It seems to me that if we are going to deal with manufacturing in the small- and medium sector, it is all about money. They have to have access to money, and there is something terribly wrong here. The loan guarantee seems to me to be the best way to proceed and then to couple that with administration modifications at the regulatory system to take into account the significant reduction in risk to the bank or to the lender and the process that is necessary even to go through all the paperwork. I think we have to hone in on that. The rest of it is just a lot of talk. Thank you, Mr. Chairman.

Chairman WU. Thank you, Mr. Garamendi.

The gentleman from New York, Mr. Tonko.

Mr. TONKO. Thank you, Mr. Chair.

Ms. Owens, you deal with a number of companies and we have had a very difficult economic period over the last several years, and I am certain there are success and failure stories that are part of the networking that you have done. Can you tell us, are there any bits of information you can share concerning those success stories, why they have endured, how they have made it through a tough cycle and is there anything we can learn from them as an example?

Ms. OWENS. I think the manufacturers in particular who are willing to recreate themselves to learn, to discover new industries and opportunities, to take amazing risks have been successful in Michigan. We have an array of small manufacturers in Washtenaw County in particular who are 100 percent automotive and have now transitioned fully to other industries or 20 percent into automotive but how they have done that is, they have taken tremendous risk. They mortgaged their homes, they mortgaged all their assets, they have taken in Mike Coast and the MEP center and welcomed them with open arms, all the opportunities that are available. They have used the procurement technical assistance centers, which are a wonderful resource, so they are willing to take that risk and take the education.

Secondly, I think for manufacturers today, a lot of them in the auto industry have lost the ability to sell and market their products and so they have been essentially order takers who just kind of waited for the orders to roll in. The manufacturers have invested in sales and marketing and can recreate themselves for the other industries. Marketing the auto industry is very different than marketing to the medical device industry. Those are the ones that have been successful. There are many manufacturers who kind of dug their heels in, have seen the auto industry go up and down and are just waiting for the phone to start ringing again. Those are the businesses that have closed. The ones who have taken extreme risk, offered all the help and assistance provided by the state and the local government are the ones that have been successful and have been able to diversify.

Mr. TONKO. Have any concentrated on export opportunities? Secretary Hightower.

Mr. HIGHTOWER. Yes, in fact in Michigan there is a company by the name of Vogel Industries, a precision machining supplier which at one point was about \$140 million company with 425 employees, which in the last couple of years is now a \$6 million company with 35 employees. When they came to Mike's operation and we worked with them in coordination with the CommerceConnect pilot, we introduced them to the export assistance center to find opportunities for export, and we also introduced them to the Department of Energy to apply for a grant which will now help them to develop an alternative-energy product so again it is that transition issue and providing the way that if they get this, which we think there is a fair chance they will get the alternative-energy grant, this will actually mean reemploying 250 workers. So the more and more we find those kinds of companies and work with them on that transition process, this is where I think we are going to get the payoff for these kinds of programs.

Mr. TONKO. Are there—Mr. Coast. I am sorry.

Mr. COAST. If I might follow up on that, I have got two examples of companies that we have worked with. One is a screw machine company. They used to make parts that went into the Chevy Roadster. If you know anything about the Chevy Roadster, you know that it is now obsolete. And they had 25 employees. We helped take that company, that particular company from making parts for that roadster. They now make parts that go into a prosthetic leg. And the good news is, there are still 25 employees there. So they still

have those folks. Another one happens to be in Congressman Peters' district, which is non-automotive, and the company is called Total Door, and they have made a complete transformation. So when you start to look at this particular company, they moved from one facility. They used to have 12 × 12 wood beams in it, completely transformed themselves and went into another building and they have product flow that is in place now and they are competitive. And when you take a look at what they have done with technology, they have also used some of the current technology, off-of-the-shelf technology that is out there. They used to paint doors. And so now what they have is a way—and when you paint doors, in the old days you had a lot of fumes, VOCs (Volatile Organic Compounds), that kind of thing. Well, now they paint the doors and they cure them with ultraviolet light, and so when you start talking about green technologies and off-the-shelf technologies, that is another example of those opportunities that are out there for these companies so they can go do this kind of work.

And back to a point Jennifer made is that the companies—I can give you dozens of examples of companies that will show up to a bank with an order in hand, an order in hand for \$10 million but they can't get a loan from the bank to go buy the materials to make the product. You know, I am not sure—I am an old manufacturing guy, okay? And so I am not sure about all the intricacies of how to move that money down the supply chain. TARP (Troubled Asset Relief Program) money might be a possibility. I don't know. But I know it is not getting down to the small guys, and they have—once again, they have orders in hand. You want to bring people back off unemployment? Give that guy, a stamper in Detroit, access to that capital and he will bring 30 people off of unemployment tomorrow.

Mr. TONKO. Creatively speaking, what would be the best option to provide for that economic need, for that cash flow, that businessperson needs?

Mr. COAST. Well, the SBA in Michigan, I don't know about the other states but we work real well with the one in Michigan, and they are somewhat constrained sometimes because they are backing up—the company has to go to the bank and then the SBA will back up the loan, and that seems to be a bottleneck. So we have had good experience with the SBA in our state. It is just a matter of trying to figure out banks that will go out and lend to companies, and the automotive guys. That is another huge issue because you have automotive—we do a lot of market diversification with companies and so they are automotive and so you want to move from automotive into aerospace, wind turbine, you know, defense but they want to make the transition. They go to the bank and say you are automotive, red-lined.

Mr. TONKO. Ms. Rosenthal, you were going to respond to that?

Ms. ROSENTHAL. Yes, please. In Pennsylvania, the companies that we work with are both startups for which, back on the issue of debt or guarantees, has no bearing. It is just totally irrelevant. In terms of companies that are reinventing themselves through the commercialization of a new technology, what we will do is provide them capital on a joint basis so they can take those steps that are highly risky. We wouldn't expect a bank to lend against those kinds of needs. We can help capitalize the company to move that product,

that technology into the marketplace in a very—in an equity-like—with an equity-like vehicle. We don't want it to look like debt. We don't want to burden the company with that debt but we are taking the risk with the company and hope to get the reward downstream. So sometimes I have worked with debt programs and guarantees in my career. They are not necessarily appropriate for a company that is taking a high-tech risk and so we have to find other ways of creating vehicles that are more equity like than debt like.

Mr. TONKO. Thank you.

Mr. Chair, I think I have gone well beyond my time so I appreciate your tolerance.

Chairman WU. We have a soft gavel in this Subcommittee.

Mr. TONKO. Dr. Ehlers, five minutes.

Mr. EHLERS. Mr. Chairman, I am assuming the soft gavel because I have been sitting here watching all the minutes accumulating elsewhere. But in any event, first I want to commend Mr. Garamendi for his comments and say we have faced exactly the same problem in Michigan. We have the highest unemployment in the country. We are probably-California is in a race with Michigan to see who can reach the bottom first, but we face the same problem, and the loans, it is a problem. It is right. The federal regulators come into the banks and say you need more assets on hand to meet your responsibilities and so they don't have the money to loan.

Mr. Coast, I had the identical situation with one of my manufacturers. He needed a \$750,000 loan just to buy the equipment for—pardon me—to buy the parts and so forth that he needed to manufacture the machine and could not get a loan anywhere, even though he had the firm orders in hand from reliable companies. Loan guarantees may be a good approach for that particular part of it.

But let me get back off that a bit and get to the broader question, which involves the Congress as well as the Administration, and Mr. Hightower, or Mr. Secretary, I certainly commend you for the comments that you have made and the experience that you have. I don't want to irritate Mr. Smith, who represents highly agricultural areas, and I am not trying to denigrate agriculture in any way. Most of my relatives are farmers. But I find it striking, we go back to 1880, 80 percent of the workforce in this nation was in agriculture and we had an agriculture department, a very important department. Today, roughly 2 percent of the workforce is in agriculture and we still have the same agriculture department. Cooperative Extension Service has been marvelous throughout the country. It really established agriculture and helped them, and I certainly don't denigrate that. I think it is wonderful. But today we need a Manufacturing Extension Partnership, and I have fought hard for MEP and for its funding every year, and I think it is nonsense that the Congress and the Administration over the years has maintained \$400 million a year for the Cooperative Extension Service in agriculture, and that is fine. They need it. It is well worth it. But at the same time, manufacturing has 15 percent of their employees in the country and I had to fight like mad just to keep the funding constant for MEP. Every year was a battle, and I appreciate Mr. Peters offering this bill. That is going to help, if we

can get it passed. But when Joe Nolenburg was here, the predecessor for Mr. Peters, he was on the Appropriations Committee and he and I worked very hard every year. About the best we could do is just maintain the level of MEP, not even keeping up with inflation. We have to change our attitude in the Administration and in the Congress about programs such as MEP. We know it works. Why don't we fund it appropriately for the number of workers in that field?

I do want to add another factor, and, Mr. Hightower, that is why I appreciate what you are doing. But more needs to be done in the Department of Commerce. Again, I fought for a number of years to have a deputy secretary for manufacturing within the Department of Commerce. We should have it. We have an entire department in agriculture and I couldn't even get one position for manufacturing in the Department of Commerce. What I did get was the creation of the council that Mr. Fred Keller from my district has so ably chaired, and they have done marvelous work. But we need greater infrastructure within the Department of Commerce to deal with manufacturing. You don't have the time with all of your responsibilities to devote full time to manufacturing. There should be someone in roughly your position that deals entirely with manufacturing. And so I hope that the Congress and the Administration can work together to put more emphasis on manufacturing. I don't put it in your hands, Mr. Secretary, because you have got enough to do, but the Congress working with the Administration should create an infrastructure within the Department of Commerce that recognizes the importance of manufacturers and manufacturing and does provide the funding and the administrative ability, the sufficiency that they can really tackle the problems of manufacturing in this country. They do it in other countries. That is why they are beginning to beat us hollow.

I have the bad habit of falling into a preaching mode because my dad was a preacher, but this is one area I feel very strongly about and I will be happy to preach to anyone about the importance of manufacturing and what we should be doing. The MEP should be at least close to the \$400 million a year we spend on the agricultural Cooperative Extension. I could easily argue it should be double or triple that. And I don't mean to lower agriculture's. It is beautiful. It works. Why not transfer that model fully over to manufacturing and the Department of Commerce and make it a higher priority?

Mr. HIGHTOWER. Yes, sir. Thank you for your comments. We have made a little bit more progress since your last awareness that we do now have an assistant secretary who does focus only on manufacturing and services—she just had her hearing just before Christmas—and again, working now very closely with Ron Bloom from the White House on these issues. I think it just sort of gets to your point of the focus and putting the resources behind it. So yes, there is a lot more to be done but at least we do have someone at a level from a policy standpoint and with background in that area. She happens to come from Detroit, so she does understand the issues and I think will make a tremendous contribution once she is confirmed.

Mr. EHLERS. Well, we will see if this all results in more manpower and more money for the project. I commend you for what you are doing. I am just saying you have got support here in the Congress.

Mr. HIGHTOWER. Thank you very much.

Mr. EHLERS. We have to work together on it so that we are trying to achieve the same objective. I notice Mr. Garamendi has moved on here so apparently he is going to join the Republican Party. Thank you very much.

Mr. Coast, you had a comment?

Mr. COAST. I do, and at the risk, if you will, of sounding self-serving, if you want to make an impact, get those precious dollars you are talking about out into the MEPs and to the centers and the results will be feet on the street, create jobs, work with the companies, they hire people. So I know it sounds self-serving. But you have a shovel-ready program in place now.

Mr. EHLERS. Well, but—

Mr. COAST. We just need more engineers and more manufacturing specialists out there.

Mr. EHLERS. Let me just say that don't worry about being self-serving. That is the only way you will get anywhere in this city. We expect you to be self-serving.

Also on the issue of loans, you mentioned TARP. It is very frustrating, and I have tried to work with the Administration on this too. It is very frustrating that we bailed out the banks, the big banks, and none of that money is coming down to the small manufacturers, the local communities, and loan guarantees are wonderful, that would be great, but I would like to see the TARP reimbursements allocated as they come in, allocate them to this particular field. Manufacturers desperately need to be able to borrow the money.

With that, I will yield back, Mr. Chairman.

Chairman WU. Thank you very much, Dr. Ehlers.

Mr. Garamendi, please let me know if this is a permanent move for you.

And Mr. Smith and I are in full accord that we support getting a person in place as soon as possible but not a czar. An assistant secretary will be just fine. In fact, one czar at a time would be just hunky-dory.

Mr. Hightower, I understand that you need to leave by noon or a little bit more. We will accommodate that schedule. There is also a Floor vote which is scheduled to occur sometime or be called sometime in the next 15 minutes but let us go on for as long as we can.

For the outside witnesses, I would like you to comment on whether Department of Commerce folks have sought your input in developing their initiatives like CommerceConnect and the Office of Innovation and Entrepreneurship. Do you feel consulted? Were you consulted? And was your input acted upon?

Ms. ROSENTHAL. I would be happy to lead that one off. We have been consulted, as I mentioned in my comments, both long and short. We have had good dialog in terms of what can be done, where we see in the field the gaps. Again, to pick up the recommendation to be self-serving, there is a need for capital to flow

to the very youngest companies so that they can some day grow up to the manufacturers of the Nation. So that is our sweet spot in terms of looking at that. Also, flexible capital, that will help companies reinvent themselves, connect with universities, move forward with new technology-based products. Those are not needs that are adequately addressed by current programs. We can retool those programs. It doesn't necessarily mean new money but it means a restructuring of existing programs. You have the manufacturing base that can take a look at and be supported by more traditional financing. You have the new company base and the company transitioning that needs flexible equity-type capital.

Ms. OWENS. Previous to this career, I was with Michigan Economic Development Corporation and we worked very closely with Mike and the Department of Commerce and the CommerceConnect program. My organization, Ann Arbor Spark, was not consulted so this is a new thing, and that is kind of what I brought to the organization was an education for them. The Office of Entrepreneurship, we have not met with that group and actually are looking forward to later today to meet with them and learn about that. I know that they have worked with the University of Michigan and have kind of met with the university to ask about their insight and input. Our organization manages a venture capital fund and three incubators that have turned out roughly 300 high-tech startups, so we are very excited about collaboration and opportunities that can take place between Ann Arbor Spark and this new office.

Chairman WU. Thank you very much.

Mr. Coast.

Mr. COAST. I can say from a CommerceConnect perspective that we have worked hand in hand with the folks at the Department of Commerce. The way that it is structured, I think some of it was in my testimony. The written testimony is, we actually have four people from the Department of Commerce collocated in my building, and one of my staff that is also a manufacturing person, so we have gotten the good people that they have brought, and they have been very energetic and very open to this process. But that is also one-half of the pilot. The second half of the pilot is trying to figure out how to reach inside the Department of Commerce and find those programs and have them become customer friendly, if you will. But that process is well on its way. That is the second half of the pilot that you are looking at. And one of the things that I would offer up, and when we work with a small company we go in and we talk to them about improving their processes before you automate them, and so there are many steps down the road that I think need to be taken that can put into place a good, sustainable system that is going to allow for us, and one other point that Jennifer mentioned was one of the critical parts of that is to use the economic development folks that have feet on the street already that know some of these things and so you leverage those, and that is also part of the mix but it has been—they have listened and we are in the process of getting through that final design so that the end product will be something that works.

Chairman WU. Thank you very much, Mr. Coast. And offline we will take your and Mr. Hightower's comments on when CommerceConnect will expand beyond Michigan and what the time

frame for that expansion will be. In connection with the Commerce Department's emerging innovation programs, I would just like to add that I have followed the Brookings and ITIF (Information Technology and Innovation Foundation) recommendations on systematizing and creating some structure for the study of innovation and the promotion of innovation. Other countries have systematic ways of promoting innovation. We have had a very innovative society. We have been good at invention. It has been a byproduct of a very strong science and R&D enterprise. We do not have a systematic way of promoting innovation whether it be in finance, regulatory hurdles, the best and fastest way of transferring intellectual property, et cetera. I used to do university technology transfer and it is akin to Boswell's comments about a dog walking on its hind legs. It is not done well but one is amazed that it is done at all. We have led the world in innovation. People do come here to look at our innovative companies but they no longer come here to look at the systematic promotion of innovation. That activity is really being led by the Europeans, Japanese and some other folks.

So looking at the potential for an innovation institute or innovation foundation or locating that office at NIST or Commerce or OSTP (Office of Science and Technology Policy) or NSF (National Science Foundation), that is something that I think this Subcommittee and the Full Committee would like to explore. Perhaps creating such an entity will not take quite as long as the creation of the National Science Foundation after World War II but I think that we should approach it in a careful and systematic way because the goal is to promote innovation in an appropriate federal way, to study it, to understand it, to promote it in the private sector, to promote it in state and local government and also Federal Government policies. The goal is very much to avoid injecting bureaucratic process in what is an inherently vibrant and bubbling activity.

Mr. Smith, five minutes.

Mr. SMITH. Thank you, Mr. Chairman, and again thank you for your time with the panel.

I take very seriously my charge as an elected representative of the 3rd District of Nebraska, one that is quite diverse but certainly agriculturally based, and my prior questions are only a result of the hearing charter stated as the purpose of this hearing is to learn about the challenges faced by small- and medium-sized manufacturers. Again, I take that very seriously, and I am simply conveying the concerns that I hear from my constituents, and while I am a product of a community college, proudly so, I know that we need community colleges. I know that Nebraska has literally thousands of automotive-based manufacturing jobs. What I am saying is, we are in this together. Nebraska enjoys a far lower unemployment rate than does Michigan, but acknowledging that, please know that we are all in this together. And while we do need to support community colleges, we do need to support various programs of extension and otherwise, there are many and numerous other concerns out there facing manufacturers, and that is simply why I bring up the issues that I have today. And I guess I would only wish that we could have a Treasury Department representative here today given the fact that we have talked about lending and how the shortage of lending is causing problems for all businesses,

small and large, and I struggle to think that creating new regulations on financial institutions who are now bad actors, have not been bad actors, would increase lending, and I guess I am in the preaching mode too, Mr. Ehlers. But I also struggle to think that the creation of new regulations because it would require job creation following those regulations is a good reason for creating new regulations. That is not sustainable economically. And I hope that we can get to the bottom of some of these things. I look at the trade issues and how important those are across the board, though. For example, I have in my district the largest natural wool yarn manufacturer in America, a whopping 45 employees. Now, I am kind of proud of the fact that they not only are in my district but right down the road from where I live, even though I don't really use their product, but they get my attention when they say that the estate tax would devastate their business. Those are their words. I am prompted by any question that I had when I visited their facility. And I look forward to working together.

I admire each and every one of you for working in the trenches and it is not about improving your own lot, it is about improving many, many others, and so that is why I am grateful for not only my opportunity but I am grateful that you would share your expertise as well. So please know that I just want to share information and convey a message of concern for my constituents.

Now with a question. Sorry. Uncertainty. The marketplace is uncertain enough on its own but the marketplace in terms of ancillary concerns appreciates certainty. What would you like to see the government do or the Federal Government, the Science Committee, the Innovation and Technology Subcommittee perhaps, do to ensure more certainty? Is it the CommerceConnect? Where would that be, and if any of you would choose to answer, maybe starting with the Secretary if you would choose to answer.

Mr. HIGHTOWER. I think, one, it is important to say that we have enjoyed a tremendous amount of support and openness and accessibility for the Subcommittee and your support of NIST as one of the major elements of the Department of Commerce. As we move forward, I would want to be sure that this would be an opening or beginning, if you will, to the opportunity to continue to bring these ideas forth because there are going to be a number of new and innovative and untried and untested approaches, and we all know from a business perspective that when you start laying out new ideas and new programs, those that have a track record will always win against those that have no track record where the idea is at its early stage of coming into being. So we would ask for sort of your forbearance and your understanding that every time we want to do something new and different, it may not have the legs that a program that has been around for 15 or 20 years might have. And it goes back to something I learned in my first general management job under Jack Welch from 30 years ago, and that is that if you know 60 percent of everything you want to know before you make a decision, you are lucky. What you get paid for is the other 40 percent which is your judgment. So hopefully you will accept our judgment when we come to you having talked to our stakeholders, talked to the clients, if you will, the users of the intended services, and we will bring as much of that to bear as we can and discuss

the merits and the pros and the cons and hopefully come out of that with your support for some of these very risky, quote-on-quote, new ventures that we think are important to help get back this economy back on its feet again.

And with that, I do respectfully request that I can leave now because my next meeting is on trade.

Chairman WU. I understand. I got a note that the White House is looking for you, and perhaps you could share with them Mr. Smith's concerns, and for me to ask them to, counter to what the President said yesterday, let us get health care done quickly so that we can reduce risk for individuals so that they can assume risks elsewhere and truly engage in entrepreneurial activity.

Mr. Smith, I completely respect your efforts to represent your constituents and your constituents' concerns. We all take these concerns very, very seriously, and our oath of office and Constitutional duties. I carry a copy of the Constitution in my hip pocket. It is the authoritative Cato Institute version. There are many things on which we will continue to work together, and in that bipartisan spirit, Mr. Ehlers and I have worked mightily to preserve as much of the MEP program and the ATP (Advanced Technology Program) program, now the TIP (Technology Innovation Program) program, because there are important and legitimate public interventions in the private sector to compensate for externalities, market defects and underinvestment in things like science and research. I just want to note that we spend more on fishing tackle and potato chips, not combined but individually, than we do on the space program or on NIH (National Institutes of Health).

Are there any further—Mr. Ehlers? Oh, Mr. Hightower, please—

Mr. HIGHTOWER. Thank you very much, and really, I thank you and the Committee for the opportunity to appear before you today and hopefully, again, this will be the beginning of a mutual exchange where we can really move this forward and get people back to work in this country. Thank you very much. I look forward to it.

Chairman WU. Thank you, Mr. Hightower.

Dr. Ehlers, any further—

Mr. EHLERS. I think I pretty well concluded my sermon. It would probably help if we had a few amens from the chair.

Chairman WU. Amen.

Mr. EHLERS. Thank you. Let us go do it.

Chairman WU. Mr. Smith?

I want to thank the witnesses for being here today, and please pass on my good wishes to Assistant Secretary Hightower. This hearing is now adjourned, and comments and questions will be submitted to the witnesses in writing. Thank you very much for being here today.

[Whereupon, at 12:01 p.m., the Subcommittee was adjourned.]

Appendix:

ANSWERS TO POST-HEARING QUESTIONS

ANSWERS TO POST-HEARING QUESTIONS

Responses by Hon. Dennis F. Hightower, Deputy Secretary of Commerce, U.S. Department of Commerce

Questions submitted by Chairman David Wu

Q1. What criteria do you use to judge the success of innovation services/programs provided for small- and medium-sized manufacturers?

A1. The Manufacturing Extension Partnership (MEP) uses a client impact survey to collect impacts from clients receiving MEP services. Specific measures that capture the impact of innovation services include new and retained sales along with new and retained jobs. Recognizing that innovation-type services may generate longer-term measurable impacts that would not be captured in a survey administered six months after project completion, MEP has modified its data collection process to collect these impacts over time. As MEP expands the innovation and growth services offerings for U.S. manufacturers, the program will continue to explore measure and options to collect the impact of these services.

For more information on the MEP Client Impact Survey and the latest results, refer to: U.S. Department of Commerce, National Institute of Standards and Technology Manufacturing Extension Partnership Delivering Measurable Results to Its Clients, Fiscal Year 2008 Results, January 2010 http://www.mep.nist.gov/documents/pdf/about-mep/impacts/fy2008_dmr_final.pdf.

Q2. In her testimony, RoseAnn Rosenthal made several suggestions for retooling existing federal programs to increase their impact on innovation and job creation. For example, she suggested modifying the Economic Development Program to create Commercialization Partnership Centers. Could you please give us your views on the recommendations in her testimony?

A2. In her testimony, Ms. Rosenthal suggested two core areas to retool: 1) Access to capital and 2) Creating effective pathways to commercialization. These issues are of paramount importance to the Obama Administration and the Department of Commerce (Commerce).

The Economic Development Administration (EDA) at Commerce strongly supports university-led economic development and technology commercialization as a strategy to support collaborative regional innovation to create sustainable growth in American regions. EDA's University Center program is a diverse and flexible tool that supports a broad range of economic development activities from technical and financial support to businesses and entrepreneurs, to helping communities grow innovation clusters, to support for university-led technology commercialization partnerships. EDA recognizes the great benefits that such partnerships afford and will look for ways to continue to prioritize and support such activities in the future.

Additionally, Commerce's Office of Innovation and Entrepreneurship is working closely with the Small Business Administration, the National Science Foundation, and other federal agencies to address other programs that can be more focused on innovation and commercialization, including the SBIR and STTR programs.

Q3. All of the witnesses stated that access to capital is the top priority for manufacturers. What specific programs or mechanisms does CommerceConnect have in place to help connect manufacturers with available funding through the Small Business Administration?

A3. As you know, the first pilot office of CommerceConnect is located in Plymouth, Michigan. The CommerceConnect case managers have a base knowledge of the federal, Michigan state and local loan and grants programs. They also have developed working relationships with local Small Business Administration (SBA) representatives to help connect local companies with information on various SBA loan programs. SBA representatives have introduced local lending institutions to CommerceConnect case managers to help them better understand the specific business requirements needed before referring their clients to apply for SBA loans directly to local lenders. CommerceConnect case managers also follow up with their clients after the meetings with SBA and lenders to determine if they need to search for additional suggestions for alternative financing.

ANSWERS TO POST-HEARING QUESTIONS

Responses by Jennifer Owens, Vice President, Business Development at Ann Arbor Spark

Questions submitted by Chairman David Wu

Q1. What criteria do you use to judge the success of innovation services/programs provided for small- and medium-sized manufacturers?

A1. The success of programs are usually determined by the business served staying in business and investing in their facilities. Success should not be judge by the creation of job as most manufacturers who are adding new equipment, implementing lean practices and increasing innovation will often maintain status quo employment levels or even reduce employment as they become more efficient. Investment in facilities be it through research or machinery and equipment by manufacturers served is often the best sign that a company is headed toward success.

ANSWERS TO POST-HEARING QUESTIONS

Responses by Michael Coast, President, Michigan Manufacturing Technology Center (MMTC)

Questions submitted by Chairman David Wu

Q1. What criteria do you use to judge the success of innovation services/programs provided for small- and medium-sized manufacturers?

A1. Judging the success of a “new Program” is always interesting. Innovation falls into that category. We—the MMTC and MEP from a national perspective have been looking for the next best “Innovation Tool” to put into our tool box. The best measure over the years has been the ability of the small- and medium-sized manufacturers (SMM) to purchase the “services”. With the thought that if they find value in the services they will buy it. Which then follows that if they buy it and then use it there will be a return on investment (ROI). In this case the ROI would come in the form of increased sales. One way NIST measures this is with the NIST/Turner system—which is a post project survey of the companies. Unfortunately they do not break it out by product line—Quality, Lean manufacturing, market diversification, growth services, product development, etc. So the main criteria is increased sales—or in some cases increased RFP’s which lead to sales. The national system numbers as reported by Turner/MEP HQ is:

- In the past year alone, MEP staff and partners worked with 31,961 manufacturers, providing assistance that created or retained 52,948 jobs, produced \$9.1 billion in new and retained sales, and facilitated modernization investments exceeding \$1.71 billion.
- MEP’s performance returns \$20 for every federal dollar invested in the program.

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