

U.S. HOUSE OF REPRESENTATIVES

**SUBCOMMITTEE ON TECHNOLOGY AND INNOVATION
COMMITTEE ON SCIENCE AND TECHNOLOGY**

HEARING CHARTER

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

Thursday, January 21, 2009

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 people², 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 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

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

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

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 workers³.

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 percent⁴. 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 manufactures 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

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.

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

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

⁵ *Next Generation Manufacturing Study Overview and Findings*

⁶ *Next Generation Manufacturing Study Overview and Findings*

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 alone⁷.

IV. Issues and Concerns

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

- What are the problems facing small 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