

Joint Meeting: Small Business Commission and Manufacturing Development Commission

December 2, 2013

Meeting Summary

Introduction

The Small Business Commission and the Manufacturing Development Commission met jointly on December 2nd in Richmond to hear presentations on services provided to Virginia's manufacturers by public and private entities and a presentation explaining how the Thomas Jefferson Institute for Public Policy's State Tax Analysis Modeling Program (STAMP) works.

Bill Donohue, Interim Executive Director, GENEDGE ALLIANCE

Mr. Donohue began by emphasizing the importance of manufacturing to the United States. According to the National Association of Manufacturers, manufacturers perform 70 percent of industrial research, develop 80 percent of patents, and employ 64 percent of scientists and engineers. Mr. Donohue stated that manufacturing supports approximately 18.6 million jobs in the United States.

Beginning in 2001 the United States trade balance for advanced technology products turned negative reflecting the increased production of advanced technology products offshore. Mr. Donohue commented that the shift of businesses to an "asset-light" model to increase stock market valuations has led to many businesses moving outside of the United States or outsourcing manufacturing production offshore.

GENEDGE ALLIANCE is the business name for the A.L. Philpott Manufacturing Extension Partnership headquartered in Martinsville, which was created by the General Assembly to create and maintain industrial and manufacturing jobs. GENEDGE ALLIANCE provides high quality general consulting services to manufacturing technology and industrial enterprises located in Virginia. It is one of 60 affiliates of the National Institute of Standards and Technology Manufacturing Extension Program. Its budget is approximately \$3.75 million, of which \$1.7 million or 45 percent is generated from fees and other income relating to consulting services it provides. Another \$1.275 million or 34 percent of its budget is derived from National Institute of Standards and Technology cooperative agreements. Commonwealth grants of approximately \$400,000 make up another 10% of GENEDGE ALLIANCE's budget. GENEDGE ALLIANCE supports 29 full-time equivalent positions.

GENEDGE ALLIANCE's consulting services are aligned with the unique needs of its manufacturing clients. It offers growth strategies to help manufacturers increase market share, optimization strategies to increase the net income earned by manufacturers, and enabling strategies to minimize the costs of doing business for manufacturers.

For Fiscal Years 2011 through 2013, GENEDGE averaged \$26.1 million in sales impact for manufacturers, \$112.1 million in cost savings for manufacturers, and \$159 million in new investments made by manufacturers. It provided services to an average of 233 clients per year;

in Fiscal Year 2013 it provided consulting services to 126 clients. Over this same period, its efforts led to an average of 636 jobs per year being retained and an average of 174 new jobs per year being created. Between 2000 and 2012, GENEDGE's efforts led to 8,000 jobs being retained.

Mr. Donohue stated that currently 86 percent of manufacturers in Virginia employ less than 50 workers. Just a decade ago, under 60 percent of Virginia manufacturers employed less than 50 workers. Moreover, over the last decade Virginia has lost 200,000 manufacturing jobs. Mr. Donohue believes that the jobs lost will not be repatriated, but that Virginia can grow new advanced manufacturing jobs to help replace the jobs lost.

Mr. Donohue mentioned that underserved manufacturing sectors in Virginia include chemicals, machinery, computers, physical research and development, wood products, furniture, and social research and development. Most of the growth in these underserved manufacturing sectors is from small businesses with less than 50 employees. The predominant concern of small businesses is expanding into new markets and finding the necessary capital to fund the expansion. Other concerns include the current economy, government regulations, and health care costs.

GENEDGE faces barriers in providing services to small manufacturers. These include familiarity or establishing relationships, tailoring its consulting services to the needs of small manufacturers, and a preference of small businesses to retain control of their operations by relying on in-house resources.

Mr. Donohue concluded by reviewing programs in other countries geared to providing economic and other assistance to manufacturers including Canada's Industrial Research Assistance Program, Germany's Fraunhofer Institutes, Taiwan's Industrial Technology Research Institute, Britain's Catapult Initiative, and France's Carnot Institutes. Clients of Germany's Fraunhofer Institutes are small, privately owned manufacturing and technology companies. The Fraunhofer Institutes provide just under \$2 billion in funding each year to Germany's manufacturing companies. In comparison, funding to United States manufacturers from the federal and state governments is approximately \$175 million each year. Programs in foreign countries have a long-term focus on manufacturing and offer customized and flexible field services, substantial and sustained funding, well-equipped facilities and highly trained staff, links to clusters that support manufacturing, support for start-ups, and training for students in a hands-on environment.

Dr. Jaime A. Camelio, Associate Professor, Virginia Polytechnic Institute and State University, Center for High Performance Manufacturing

Dr. Camelio began his presentation by pointing out that motivating future workers to work in manufacturing industries is an issue for manufacturers. Manufacturing does not readily lend itself to hands-on training.

Dr. Camelio then discussed the Center for Innovation Based Manufacturing (CIBM) at Virginia Tech. CIBM was created four years ago to bring new ideas to manufacturing. Key components of CIBM include manufacturing innovation, manufacturing scale-up, local industry

applied research, student-driven initiative support, and continuing education and functional problem solving. CIBM helps bring ideas to actual demonstration facilities.

Dr. Camelio also discussed the Center for High Performing Manufacturing (CHPM) at Virginia Tech, which has been operational since 2001. The original partners of CHPM were Virginia Tech, William and Mary, James Madison University, and Virginia State University. CHPM was originally conceived to provide services to members but this has been relaxed. Dr. Camelio explained that the mission of CHPM is to provide leadership to solve the challenges of manufacturing firms, to provide sponsorship to swiftly and appropriately respond to industry inquiries, and to foster stewardship to direct and coordinate resources for the development of interdisciplinary manufacturing education, research, and services. CHPM's objectives are to assist manufacturing firms in becoming high performance producers by providing a one-stop source of manufacturing research and to enhance the manufacturing research competitiveness of Virginia universities in the federal marketplace.

Dr. Camelio indicated that CHPM serves as a single point of contact to the full capabilities of the Virginia Tech College of Engineering. Manufacturers can seek assistance in process improvement through CHPM. It is the center for manufacturing grant funding proposals to state, federal, and industrial organizations. Dr. Camelio stated that CHPM is a repository for information on advance manufacturing topics.

CHPM's total revenues in Fiscal Year 2013 were \$1.1 million. It received \$342,000 in private sponsored research dollars and \$253,000 in public sponsored research dollars.

Mr. Paul Bachman, Director of Research, The Beacon Hill Institute at Suffolk University

Mr. Bachman explained the STAMP model developed by the The Beacon Hill Institute (BHI) at Suffolk University. This is a dynamic model that can be used to forecast changes to Virginia's employment and economy as a result of changes in Virginia's state and local taxes.

BHI's approach to tax policy that is incorporated into its forecasting models is (i) direct taxes are penalties on working and saving, (ii) subsidies are rewards for leisure and dissaving, (iii) supply equals demand, and (iv) forecasting analysis needs to be dynamic.

Mr. Bachmann stated that sales and local license (BPOL) taxes increase the price of (i) goods to the final user, (ii) inputs to suppliers, and (iii) investment equipment. Capital taxes such as the local merchants' capital tax increase the after tax rental cost of capital, which sometimes results in businesses replacing capital with labor. Mr. Bachmann indicated that personal income taxes increase the after tax rental rate of both labor and capital, which reduces the quantity demanded and supplied for each.

One scenario modeled by BHI is to extend Virginia's retail sales taxes to all services except health care; eliminate the local machinery and tools, merchants' capital, and BPOL taxes; eliminate the individual income tax on the first \$5,000 of taxable income; and reduce the 5% and 5.75% individual income tax bracket rates by 9.25% each. Mr. Bachman reported that the STAMP model forecast for this scenario would be 79,800 new jobs created, \$328 million in new investment, \$3.2 billion in additional real disposable income, \$8.9 billion in real gross domestic product, and a \$36 million revenue gain.

Ms. Katherine DeRosear, Director of Workforce Development, and Ms. Alice B. Scott, Vice President, Member Services, Virginia Manufacturers Association

Ms. DeRosear and Ms. Scott touched upon efforts of the Virginia Manufacturers Association (VMA) to promote manufacturing as a career and to match job-seeking skilled workers with manufacturers who are hiring. On April 30th the VMA launched its "Dream it. Do it. Virginia" (DIDIVA) campaign website to promote these objectives. Virginia is one 25 states involved in this outreach. Since April 30th there have been over 10,000 visitors to the website. Ms. DeRosear mentioned that VMA's results and long-term objectives for the campaign include (i) annually reaching over 10,000 teachers, students, counselors, and parents, (ii) establishing DIDIVA partners in all 15 of the Commonwealth's Workforce Investment Board regions, (iii) certifying 11,000 individuals a year in critical skilled occupations, (iv) hosting at least one manufacturing technology summer camp in each of the 15 Workforce Investment Board regions, (v) supporting the development of K through 12 curriculum aligned with Mechatronics and Manufacturing Technology skills, (vi) pursuing public regulations and resources to insure that 100 percent of Virginia's workforce is certified "work ready", and (viii) assisting at least 200 transitioning veterans pursue careers in manufacturing annually through Military2Manufacturing.

Ms. DeRosear stated that each year there are approximately 67,000 job openings in manufacturing in Virginia. However, for 41,000 of these jobs workers do not possess all of the necessary skills. The target audience of DIDIVA includes youth, dislocated workers, unemployed individuals, career changers, veterans, teachers, career coaches, community colleges, higher education centers, and industry. Ms. DeRosear explained that DIDIVA also offers manufacturing technology camps, which provide participants with hands-on experience in applied manufacturing technologies. Ten manufacturing technology camps over the last 3 summers have reached more than 700 students, teachers, parents, counselors, business leaders, and community partners. Twenty-one participants in these camps were awarded scholarships for post-secondary education.

Ms. Scott concluded the presentation with an on-line demonstration of the DIDIVA website showing how a skilled person seeking a job could be matched to a hiring manufacturer.