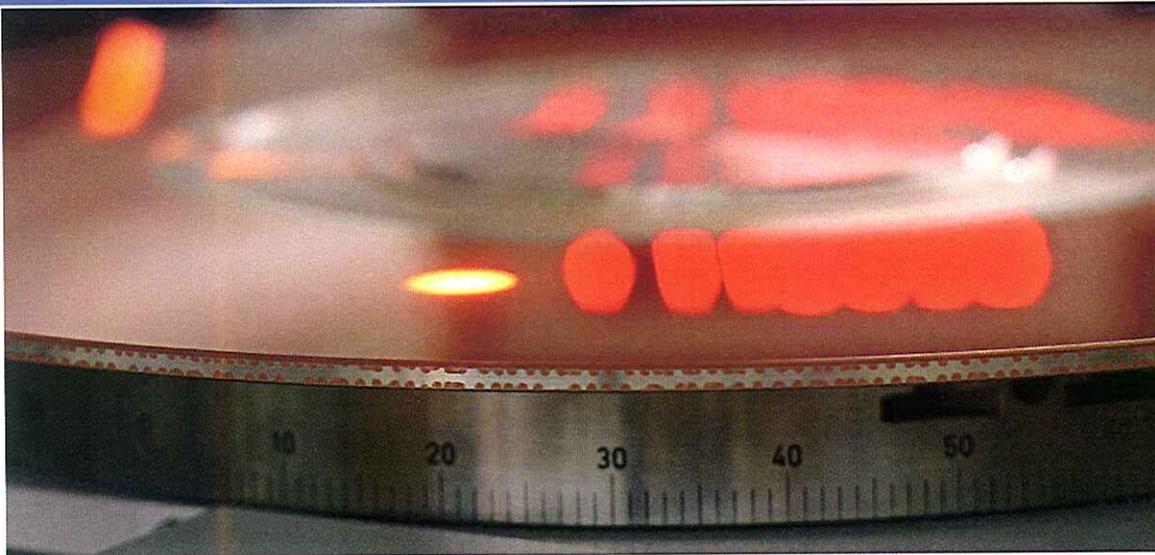


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# Advanced Technology Jobs: Retraining Virginia's Dislocated Manufacturing Workers



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## Proposal

The Manufacturing Development Commission should adopt a resolution supporting the pursuit of an unsolicited proposal to USDOL and the Virginia Workforce Council for funding skills gap assessments, training and certification for Virginia's 16,900 dislocated manufacturing workers.

## The Skilled Trades Issue

There are now four factors driving heightened concern within the manufacturing sector regarding the future supply of skilled trades workers – the substantial decline in the U.S. market, a general slowdown in the growth of the U.S. labor force, a large pending wave of retirements, and the increasingly high-tech nature of manufacturing and the changing labor force requirements that such a change entails.

## Market Decline = Unemployment

The manufacturing sector has now shed 16,900 jobs since February 2008. The sector has lost 2,700 jobs since January 2009 alone. It is likely that additional jobs may be lost during 2009 and Q1-Q2 2010. There are now 250,300 employed in manufacturing compared to 267,200 in February 2008 (VEC, February 2009).

## Solution

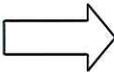
A Virginia-based public-private organization, the Virginia Council on Advanced Technology Skills (VCATS), should submit an unsolicited proposal to USDOL for funding the skills gap assessments and skills certification training for up to 75% of the currently displaced manufacturing workers – 12,675 Virginians.

VCATS should petition the Virginia Workforce Council at its June 2009 meeting to support this effort and commit to providing skills gap assessments and skills certification training to the remaining 25% through a special appropriation of the Governor's Discretionary funding under the Workforce Investment Act funds – 4,225 Virginians.

## Skills Gap Assessment and Training System

It would be preferable to have the funding available at no less than six and no more than eight community colleges to meet the needs of the industry for competency-based and industry-endorsed skill certification. It would be preferable to have the funding available for assessing and training displaced workers' using the VCATS-certified system that includes the community colleges, workforce investment boards and other qualified training providers to include private technical schools (see attached). The funding should also be available for similar competency-based industry certifications as well, such as the Career Readiness Certificate, Manufacturers' Drivers License (MDL), Quick Connect, World-Class Manufacturing Assessor (WCMA) and Apprenticeship. It would even be preferable to allow funds to be used for Middle College costs for those displaced workers without a high school diploma. Finally, soft skills assessments should be available for all dislocated workers as an initial offering.

## Cost Estimate

Soft Skills Assessments	\$125 pp	Total	\$2,112,500		<b>GRAND TOTAL: \$53,927,900 – \$94,741,400</b>
Industry Assessments	\$66 - \$500 pp	Total	\$1,115,400 - \$8,450,000		
Industry Certificates	\$500 - \$2,481 pp	Total	\$8,450,000 - \$41,928,900		
Middle College/Apprenticeship	\$2,500 pp	Total	\$42,250,000		

## Background

### Virginia's Manufacturing Sector

Manufacturing remains a critical and evolving component of Virginia's economy. In 2006, 296,054 individuals were employed in Virginia's manufacturing sector. Manufacturing accounted for 8.1 percent of all statewide employment that year, down from 14.8 percent as recently as 1990. However, this decline in employment is indicative of both weakness and strength. On the one hand, it is partly attributable to low-skilled manufacturing (*e.g.*, textiles and furniture) moving off-shore in search of cheaper labor. On the other hand, it is also reflective of technology-driven increases in labor productivity (*e.g.*, in electronic equipment, paper, semi-conductor, steel, and transportation equipment production) that have significantly enhanced industrial efficiency and reduced the need for labor, including new lean manufacturing techniques that have resulted in the outsourcing of some traditionally in-house operations, such as information technology.

Even with these reductions in employment, manufacturing still plays a major role in the state's economy. It remains the state's 4<sup>th</sup> largest sector in terms of private employment. It also ranks 8<sup>th</sup> with respect to average monthly earnings. Moreover, these statewide statistics do not adequately convey the extent to which manufacturing continues to serve as the backbone of several of the state's regional economies. For example, where manufacturing constitutes only around 8.1 percent of statewide employment, in Southside Virginia it accounts for 18.6 percent of employment, in Southwest Virginia 18.3 percent, in the Valley Region 16.4 percent, and in Hampton Roads 9.6 percent. In addition, these jobs pay wages that are significantly above the average for these regions. In Southside Virginia the average annual wage in manufacturing is 36.3 percent above the regional average, in Southwest Virginia 26.9 percent above, in the Valley Region 26.1 percent above, and in Hampton Roads 36.2 percent above.

Finally, it is important to note that the true impact that manufacturing has on Virginia's economy far exceeds its own direct employment. Because of the nature of manufacturing, manufacturers tend to purchase more inputs (*e.g.*, raw materials, intermediate manufactured goods, energy resources, and labor) than other sectors of the economy (*e.g.*, the service sector) and they tend to purchase a larger proportion of those inputs locally. As a result, the ripple effects that manufacturing has on the state economy tend to be much greater than those generated by other sectors.

In addition, because most local and state tax regimes were first created and implemented more than a century ago, they were designed to capture tax revenue from an economy that was almost solely comprised of agriculture and manufacturing. The residual effect of this artifact of history is that the instruments of state and local taxation tend to disproportionately target manufacturing relative to other sectors of the modern economy, such as the ever burgeoning professional services sector. Because of this, manufacturing also tends to contribute proportionately more in tax revenue than do other sectors of the economy.

For these reasons, it is not surprising that according to a recent study by the Virginia Economic Development Partnership, the combined direct (*i.e.*, expenditures by manufacturers on wages and other inputs) and indirect (*i.e.*, the ripple effects that the direct expenditures have as they spread out across the state's economy) economic impact of Virginia's manufacturing sector is \$172.0 billion in annual economic output, \$6.3 billion in state and local tax revenue, and 1,015, 971 jobs.

Put simply, this means that some 27 percent of the total number of jobs in Virginia are tied to, and dependent on, the manufacturing sector.

*Data Source:* Virginia Employment Commission, "Quarterly Census of Employment and Wages."

*Data Source:* U.S. Census Bureau, Data Integration Division, Longitudinal Employer-Household Dynamics Project. Manufacturing ranked 4<sup>th</sup> out of 19 industry sectors in terms of average quarterly non-government employment for the period spanning the third quarter of 2005 through the second quarter of 2006 (the most recent four quarters of data available). Only Retail Trade; Professional, Scientific, and Technical Services; and Health Care and Social Assistance exhibited higher quarterly private employment.

*Data Source:* U.S. Census Bureau, Data Integration Division, Longitudinal Employer-Household Dynamics Project. Manufacturing ranked 8<sup>th</sup> out of 19 industry sectors in terms of average monthly non-government earnings for the period spanning the third quarter of 2005 through the second quarter of 2006 (the most recent four quarters of data available).

*Data Source:* Virginia Economic Development Partnership, "Manufacturing Impact and Economic Diversification Plan (FY 2007 – 2011)," Senate Document Number 19, Commonwealth of Virginia, 2006.

*Ibid.*

## Resources:

### **VCATS**

The Virginia Manufacturers Association (VMA) and the Virginia Biotechnology Association (VA Bio) has established a workforce development training and certification organization. This organization will establish solutions to the upcoming shortage of advanced manufacturing workers in Virginia. Employers partner to design, prototype, test and refine innovative solutions that could be scaled up to meet Virginia's need for manufacturing technicians. <http://www.vacats.org/>

### **Career Readiness Certificate**

The Career Readiness Certificate (CRC) is a portable credential that promotes career development and skill attainment for the individual and confirms to employers that an individual possesses basic workplace skills in reading, applied math, and locating information; skills that most jobs require. The CRC provides employers with a uniform, accepted, third-party affirmation of the work skills that a prospective employee has to offer. <http://www.crc.virginia.gov/>

### **Middle College**

Middle College is a program to recover young adults 18 to 24 for gainful employment. It is an important element of Virginia's workforce and economic development strategy. The need is especially acute because of demographic and economic changes facing Southside Virginia businesses and because of the number of high school dropouts in the region. Middle College allows individuals without a high school degree to increase their income and employability by simultaneously pursuing a GED, community college education, and a workforce certification in a college environment. The program offers targeted remedial courses, access to workforce readiness courses, enrollment in community college courses applicable to a degree or industry-based certificate, and comprehensive support services. <http://www.vccs.edu/WorkforceServices/MiddleCollege/tabid/260/Default.aspx>