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## The State of Manufacturing

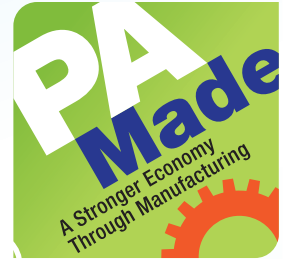
### Challenges and Opportunities

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*Commissioned by*

**Pennsylvania's Industrial Resource Centers (IRCs)**

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The IRCs are a network of seven public/private partnerships throughout the state. Since 1988, the IRCs have been dedicated to working with small and medium-sized manufacturers to help them grow, develop new products and increase profitability.

## The State of Manufacturing – Challenges and Opportunities

### Key Findings

Despite challenges in recent years, including the Great Recession, an increasingly global economy and an undervalued Chinese currency, manufacturing remains the largest industry in Pennsylvania in terms of gross state product (GSP).

**In 2008, manufacturing accounted for 13.6% of gross state product.**

It's also the state's fourth largest industry in terms of employment. Pennsylvania's average yearly manufacturing wage was a family-sustaining \$52,204 in 2008.

**In 2008, manufacturing employed 643,753 people.**

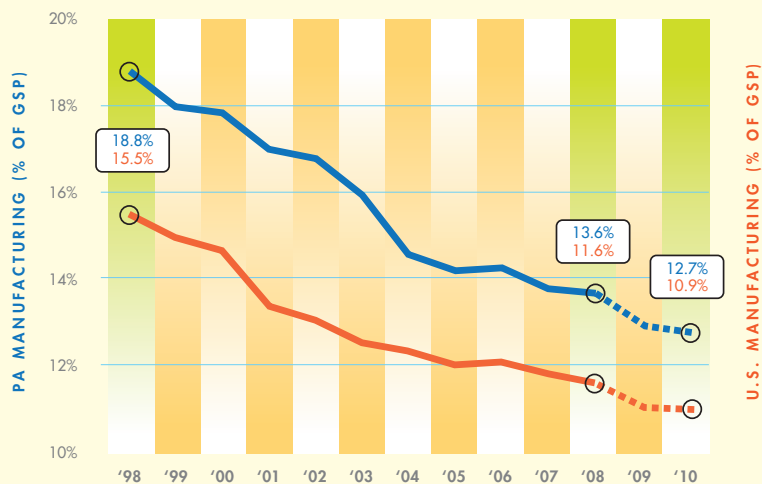
Pennsylvania's economy is more dependent on manufacturing than the U.S. economy. In 2009, Pennsylvania was the 6th largest manufacturing state in the nation in terms of GSP. Manufacturers need the state's continued support to get back to #1. →

Through the struggles, it's important to note where the job decline has been. The chart below shows there has been significant job loss for large companies as companies move overseas. Smaller companies haven't shown much of a change in employment – showing their flexibility in adapting to changing markets.

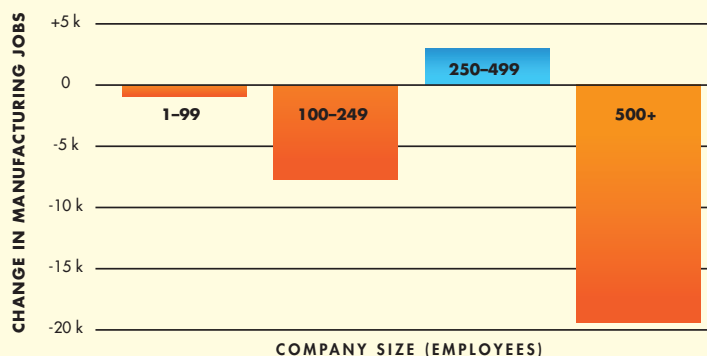
*The IRCs work with companies with fewer than 500 employees and spend significant resources assisting firms with less than 100 employees, where there have been stable jobs and even some growth. →*

For the executive summary or more details on the study, visit [www.pamade.org](http://www.pamade.org).

MANUFACTURING AS A PERCENTAGE OF TOTAL GROSS PRODUCT



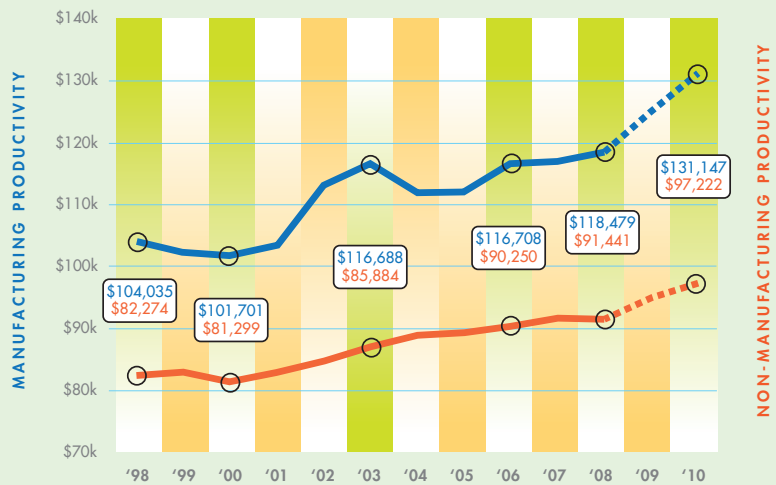
NUMBER OF JOBS ADDED OR SUBTRACTED / 2006-2008



**Because of the challenges**, successful companies have been adapting to the changing markets through alterations in capital and managerial practices. This has resulted in Pennsylvania manufacturers being more productive than non-manufacturers. →

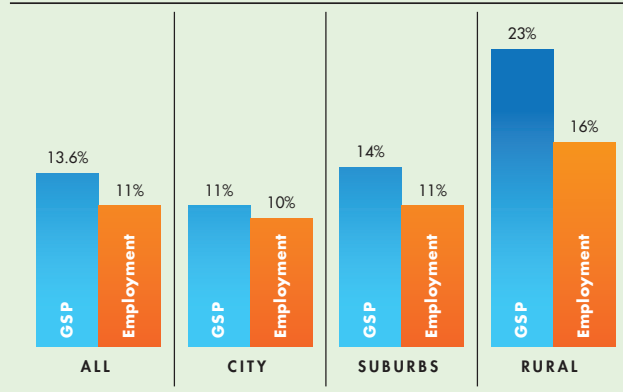
*In order to fight against commoditization, Pennsylvania manufacturers are also innovating – through new product development. Of the 16,054 patents issued between 2001 and 2010 to PA companies and universities – nearly 60% were assigned to manufacturing companies.*

PRODUCTIVITY: PENNSYLVANIA MANUFACTURING vs NONMANUFACTURING



**Manufacturing has a huge impact** on the entire state – but has more of an effect on the citizens and economies of rural counties. One in six workers in rural counties work in manufacturing. →

PERCENT OF TOTAL IN 2008 (GSP/Employment)



## Manufacturers in Their Own Words

Seventy manufacturing company CEOs from across the state participated in focus groups, explaining challenges, opportunities and how the state can foster the industry:

“We’re pretty versatile,” said a manufacturer in the York area. “We’re not afraid to try things we’ve never tried before. Our product mix has changed over the past five years. That’s probably why we’re still around now – product flexibility.”

Focus groups identified three areas the state can help manufacturing grow, continue to innovate and provide even more jobs:

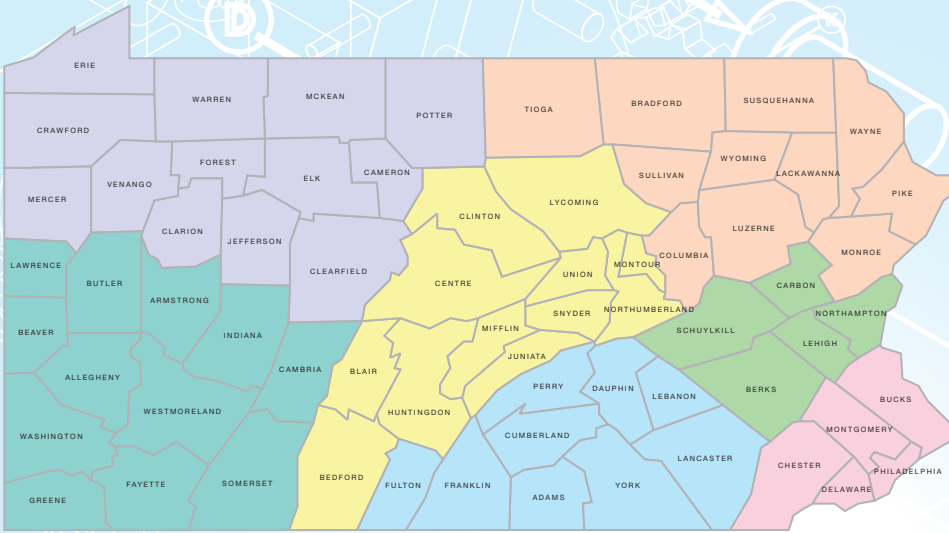
- Continued support for new product development and management best practices – through programs such as the Industrial Resource Centers.

- Workforce development related support for on-the-job training as well as growing the pipeline for future workers.
- Lowering corporate tax rates, supporting R&D tax credits and eliminating some of the complexities in the state’s regulation.

### Manufacturing makes an impact...

Despite challenges, manufacturing is the biggest sector of the state’s economy and worthy of continued public investment and support.

Every \$1 increase in final demand for manufactured product leads to a total increase in gross value added by all industries of \$2.52, the highest multiplier for any industry in the state. An increase in manufacturing will have a significant ripple effect throughout the entire economy.



**The Industrial Resource Centers**

As nonprofit 501 (c)(3) organizations, each IRC receives funding directly from the Pennsylvania Department of Community and Economic Development (DCED), and from the federal MEP program out of the U.S. Department of Commerce – National Institute of Standards and Technology/ Manufacturing Extension Partnership. This money is used for awareness and outreach to manufacturers.

Once the manufacturer engages in an improvement project with an IRC, the company pays for that project.

**IRC Impact FY 2009/2010**

The IRCs received \$6.854 million in DCED funding -- which leveraged an additional \$15.294 million in federal funds and revenues from clients for a total statewide budget for the program of \$22.148 million.

*The results were:*  
 \$566 million of sales.  
 \$118 million of additional investments.  
 952 jobs created.  
 4,599 jobs retained.  
 For a total of 5,551 jobs created or retained.

