

**Berks County Workforce Development Board**  
**Advanced Manufacturing Employment Retention/Layoff Aversion Strategy**  
**(2016-2025)**

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Duly adopted on September 16, 2016 by the Berks County Workforce Development Board:

**The Good News:** Manufacturing remains Berks County's largest industry sector by economic output and by employment with over 31,000 jobs (17.5% of local employment). Our more than 500 manufacturing establishments provide *jobs that pay*, with average annual earnings of more than \$56,000 per year. The above average benefits packages that accompany manufacturing jobs increase average total compensation to more than \$75,000 per year. Investments in advanced manufacturing technology and productivity improvements supported steady wage growth over the past decade and above average wage growth is expected to continue going forward.

Most of our local manufacturers find current business conditions to be favorable and the sector continues to add jobs at a modest rate in 2016. Layoffs among Berks County manufacturing workers are at historically low levels and any experienced manufacturing workers who were laid off in the past year have generally found appropriate opportunities for re-employment in the sector. Skilled manufacturing technicians in particular are in great demand with plentiful employment options.

Continued productivity growth will likely allow the Berks County manufacturing sector to retain its position as the region's leading sector in economic output for the next decade. However, these same productivity improvements will mitigate job growth in the sector. At the same time, the ever-changing shop floor environment will require workers with increasing education and skills. The Berks County Workforce Development Board (WDB) expects that a thriving advanced manufacturing sector will still employ approximately 30,000 workers in 2025.

**The Problem:** Berks County manufacturing employers face unprecedented demographic changes and skills shortages. Quite simply, the 31,000 workers who make up our experienced manufacturing workforce continue to age and many are approaching retirement or retiring at an alarming rate: 54% of incumbent workers in the sector are age 45 or older and 25% are age 55 and older.

As a result, the Berks County Workforce Development Board (WDB) projects that local manufacturing employers will need to hire at least 6,000 skilled and semi-skilled replacement workers by the end of 2025. At the same time, these employers will need to upskill new entrants as well as their existing employees in order to remain internationally-competitive. Particular attention must be paid to developing critical technical skills in industrial maintenance (mechatronics), precision machining, welding technology and quality systems which make up an increasing share of essential skills in the modern advanced manufacturing workplace. In fact, the viability of many semi-skilled production and other manufacturing jobs depend directly on employer success in attracting, training and retaining skilled technicians. Employer judgments about their ability to find and develop the skilled talent they need will impact their expansion

planning decisions regarding capital investment in technology. Simply put, companies will not invest in plants and equipment that they cannot effectively operate and maintain.

The current reality is that most semi-skilled and entry-level production workers lack the technical skills needed to advance into higher-paying technical positions without additional education and training. As a result, these individuals may lack employment security in a changing technology-driven environment and could be at risk for job elimination or forced replacement. While not all production workers need to acquire higher level technical skills, more and more will need to do so if their employers are to thrive and expand. In addition, many skilled manufacturing technicians are challenged to acquire the knowledge, skills and abilities necessary to stay current with increasing-sophisticated and integrated advanced manufacturing equipment and systems.

**Employment Retention / Layoff Aversion Strategy:** This manufacturing demographic and skills problem has been decades in the making and local employers, especially small-medium size firms, cannot solve it with their own resources. As a forward thinking job retention, layoff aversion and economic development strategy, the Berks WDB supports a return to the historical practice of capitalizing on incumbent worker technical training to build advanced manufacturing worker competencies while matching newly-entering talent with experienced employees for knowledge transfer. Individual production and maintenance workers will benefit by avoiding future job losses and attaining broad-level employment security in the sector. In cases where upskilled workers do become dislocated, the enhanced technical skills provided by such training will enable them to be more quickly reemployed in similar well-paying jobs at other more successful local manufacturers.

This strategy to refocus resources on advanced manufacturing incumbent worker training can also help address the region's under-employment problem as measured by Berks County's estimated U-6 rate which stood at 9.2 % in May 2016. Upskilling incumbent workers can lead to advancement opportunities which create entry-level opportunities for new entrants to these attractive career pathways.

The Berks County WDB's key strategic vehicle for assisting local manufacturing employers cooperatively address these challenges is the Berks Advanced Manufacturing Industry Partnership (AMIP). Since 2007, the Berks AMIP has supported cooperative training solutions that have benefited 1,028 incumbent workers with sponsoring companies contributing to training costs through cash and in-kind contributions.

Unfortunately, the state's annual Industry Partnership and WEDnetPA funds for incumbent worker training have proved too little and too unreliable from budget year to budget year for the type of long-term planning and continuous improvement that is needed to sustainably address the region's manufacturing technical skills shortages "at scale". Beginning in PY2016, the Berks WDB will seek and "braid" additional sources of public and private matching funds to sustain and support needed advanced manufacturing technical skills training for incumbent workers. Such funding sources will include federal WIOA Title I and Rapid Response funds, discretionary grants (including National Emergency Grants), and Pennsylvania Industry Partnership (IP) grants.