
President's High Growth Job Training Initiative

Competency-Based Apprenticeship for Metalworking



Grant amount: \$1,956,700

Grantee: National Institute for Metalworking Skills (NIMS)

Key Partners: Hydromat, Timken, Oberg Industries, Elray, OSMI, Camcraft, Promold, Alcon, Morgal Machine Tool Company, Criterion, Danly IEM, Penn United, GMT, GOE, Western Air Products, Metric Machining, Jergens, P-K Tool and Manufacturing, Stolle Machinery, McNally Industries, NTMA, Southern Manufacturing Technologies, Admiral Tool & Manufacturing, and Olson International

Leveraged amount: \$1,720,000 in cash and in-kind support from NIMS

Location of Grant Activities: Nationwide

Challenge:

Many manufacturing apprenticeship programs currently consist of time-based (versus competency-based) on-the-job training, coupled with related theoretical instruction. However, these methods neither define nor quantify the skill level of apprentices in a manner that is consistent across the metalworking industry, in which jobs range from Mold Making to CNC (Computer Numerical Controlled) Specialist. Nor do they appeal to ambitious, motivated workers who can demonstrate desired competencies more quickly. The lack of consistent, competency-based metalworking training methodologies prevents the industry from developing and growing its current and potential workforce. Despite offering high-wage job opportunities with significant career advancement potential, the metalworking industry has had difficulty attracting skilled workers and training incumbent workers to advance on available career ladders.

Addressing the Challenge:

The NIMS project aims to establish a more economical, flexible, effective, and efficient competency-based apprenticeship system and develop a credentialing system for metalworking occupations, such as Tool and Die Maker and Machinist. This competency-based apprenticeship model will facilitate the development of flexible metalworking career paths. The grant will be used to develop a "competency web," based on NIMS skills standards and the new credentialing system, in order to identify and define the competencies and advancement paths in metalworking. Additionally, NIMS will develop metalworking curriculum guides, and template apprenticeship program implementation guides for use by other industries and training providers.

Projected Outcomes:

- The competency-based metalworking apprenticeship model will allow new and incumbent metalworkers to secure industry-recognized credentials that create clear career ladders and lattices. As a result, workers may use the apprenticeship model to enhance their career opportunities and earnings potential, and employers get the benefit of consistent, high-skilled workers producing quality products.

