

JUNE 2015 MINNESOTA PIPELINE PROJECT STATUS UPDATE



In 2014, the Minnesota Legislature created the PIPELINE (Private Investment, Public Education, Labor and Industry Experience) Project to expand dual-training and registered apprenticeship in advanced manufacturing, agriculture, health care services, and information industries.

The PIPELINE Project is managed by the Minnesota Department of Labor and Industry (DLI) in collaboration with the Department of Employment and Economic Development (DEED) and Minnesota State Colleges and Universities (MnSCU).

The project objectives are to:

- Develop and enhance Minnesota’s skilled workforce.
- Involve participation from industry leaders.
- Expand dual-training and registered apprenticeship.
- Provide industry leaders a forum to engage in the PIPELINE Project.
- Identify occupations in each industry for the development or expansion of dual-training or registered apprenticeship.
- Establish and verify competency standards and skill levels for each identified occupation.
- Align dual-training and registered apprenticeship with Minnesota educational institutions to provide education and training to meet the competency standards established.

PROJECT PLAN

I. Industry Councils

Convene Industry Councils in four industries:

- Advanced Manufacturing
- Agriculture
- Health Care Services
- Information Technology

II. Competency standards

Technical experts develop and validate occupational competencies.

III. Support dual-training

Develop delivery models and support for dual-training.

IV. Recommendations

Implement Industry Council recommendations to expand dual-training and registered apprenticeship.

OCCUPATIONS IDENTIFIED BY INDUSTRY COUNCILS IN FALL 2014

INDUSTRY	OCCUPATIONS			
Advanced Manufacturing	CNC Operator/ Machinist	Maintenance and Repair Worker	Mechatronics Technician	Welders
Agriculture	Skilled Mechanic (Agriculture)	Agronomist	Herd Manager	
Health Care Services	Health Information Technician	Health Support Specialist	Psychiatric Technician	
Information Technology	Security Analyst	Web Developer	Software Developer	Service Desk/ Front Line Support



I. INDUSTRY COUNCILS

DLI convened Industry Councils in:

- Advanced Manufacturing
- Agriculture
- Health Care Services
- Information Technology

More than 250 recognized industry experts, representative employers, higher education institutions, and labor representatives participate in ongoing industry council discussions about the development of dual-training and registered apprenticeship programs in these industries.

During fall 2014, these Industry Councils came together to learn about dual-

training and registered apprenticeship and to:

- Identify current and future industry workforce needs;
- Select three or more occupations to develop competency standards;
- Identify technical experts to assist with occupational competency standard development and validation;
- Explore dual-training and registered apprenticeship development and delivery models for Minnesota; and
- Provide recommendations and ideas to achieve PIPELINE project objectives.

INDUSTRY COUNCIL

COMPETENCY
STEERING COMMITTEE

COMPETENCY
COUNCIL

COMPETENCY
COUNCIL

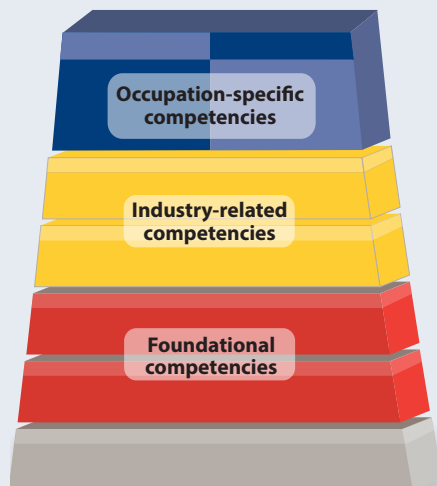
COMPETENCY
COUNCIL

OCCUPATION

OCCUPATION

OCCUPATION

II. COMPETENCY COUNCILS



Occupational
competency
standard template

During January through June 2015, DLI worked with groups of technical experts that were identified by members of the Industry Councils to develop competency standards. These groups were called Competency Councils. They used modified versions of the U.S. DOL occupational competency pyramids to identify competency standards for the occupations identified by the Industry Councils.

Competency Councils first review and validate the foundational competencies for each occupation including personal-effectiveness, academic, workplace and industry-wide competencies.

Then, using their technical expertise the members of the competency council identify Industry Sector Technical competencies for each occupation. These competencies are typically those that will be provided during the related instruction component of dual-training.

Next, the competency council members identify the occupation-specific competencies for each occupation.

These competencies are typically those that will be gained during the on-the-job training component of dual-training.

A critical component in the development of industry valued competency standards is to acknowledge that each individual employer will also provide employer-specific training to their employees. To reflect this, each of the occupational competency standards templates (at left) includes an empty blue box in the upper-left of the pyramid. This is to allow a space for individual employers to reflect their own training needs as part of a broader industry based dual-training program.

All of the competencies developed by the competency councils are then validated and used to develop baseline occupational competency standards templates.

Fourteen of the competency standards templates have been completed as of June 30, 2015. These standards can be found at www.dli.mn.gov/pipeline.asp.

III. SUPPORT FOR DUAL-TRAINING

In June 2015, the Minnesota Legislature passed new PIPELINE Project legislation that allows DLI to continue to facilitate the development of competency standards and to help employers and related instruction providers deliver dual-training to meet competency standards.

The PIPELINE legislation also created a grant award program through the Office of Higher Education.

Employers can use grant awards to train an employee in an occupation for which a competency standard has been identified in one of the four PIPELINE industries.

The employers must have an agreement with a training

institution or program to provide the competency training.

Grants will be awarded by balancing metro and greater Minnesota needs for each of the four industries.

A large employer (\$25,000,000 or more in revenue) must pay at least 25 percent of the training institution's or program's charge for the training to the training institution or program.

The maximum total grant application is \$150,000. The maximum grant award for each employee participating in dual-training is \$6,000.

DUAL-TRAINING AND REGISTERED APPRENTICESHIP

In Minnesota, DLI has the authority from the U.S. Department of Labor to develop, administer and oversee registered apprenticeship programs.

Dual-training, which includes registered apprenticeship, has many advantages for employers and workers. These employment-based training models provide living wages and benefits for employees while they are learning new skills and advancing their careers.

An individual entering a dual-training program can be hired into the position as a dual-trainee or registered apprentice, then through on-the-job training and related instruction the employee can gain knowledge and skills needed to be an expert worker in their chosen occupation.

Dual-training and registered apprenticeship programs can be developed in a variety of ways including:

- Single-employer with a customized-training provider.

- Multi-employer and labor joint programs.
- Education driven with multi-employer participation.
- Industry association with multi-employer participation.

Training options for dual-training and registered apprenticeship are also flexible and designed to meet the needs of both the employer and the employee:

- Time-based programs require a specific number of hours the dual training employee or apprentice spends in on-the-job training and related classroom instruction.
- Competency based programs required successful completion of competency assessments to ensure mastery of specific skills.
- Hybrid programs require a combination of the time-based and competency-based approaches.

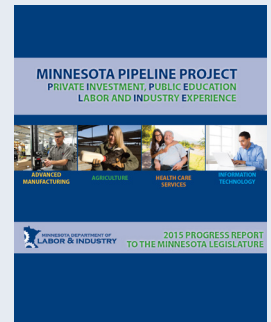
DUAL-TRAINING		REGISTERED APPRENTICESHIP
Dual-trainee is an employee of participating employer		Registered Apprentice is a an employee of sponsoring employee
Competency Standards	Work process for structured OJT	Work process: 2,000 hours or equivalent of structured OJT
	Related technical instruction	Related technical instruction: 144 hours each year or equivalent
		Safety training: 50 hours
		Progressive wage schedule
		State-issued completion certificate

IV. PROJECT RECOMMENDATIONS

DLI continues to develop the January 2015 Industry Council recommendations:

1. Complete occupational competency standards for all occupations identified through the PIPELINE Project.
2. Build Competency Councils for each targeted industry to develop competency standards for additional occupations in each industry.
3. Establish dual-training committees for a PIPELINE project identified occupation in each targeted industry.
4. Develop templates and implementation tools for new dual-training programs for all occupation identified through the PIPELINE Project.
5. Create and execute a plan for dual-training outreach, exposure and awareness.
6. Align dual-training delivery system to other workforce initiatives.
7. Develop research and analysis tools to determine dual-training system costs and benefits.
8. Explore providing financial support to make dual-training programs viable and sustainable for employers and employees.

The PIPELINE Report can be found online at www.dli.mn.gov/pipeline.asp.



KEY FINDINGS JUNE 2015

- There is a high demand for employees in entry, mid- and advanced-level occupations in advanced manufacturing, agriculture, health care services, and information technology.
- Employers and industry representatives support competency-based workforce development and dual-training systems and they want to further develop programs to help meet workforce needs.
- Employers and industry representatives recognize and value their leadership role to identify and validate occupational competencies standards.
- Given sufficient resources, government has the ability to provide infrastructure, tools, and assistance to help employers develop and manage dual-training and registered apprenticeship programs.
- It is essential to engage education and organized labor to assist employers with early exposure, hiring, recruiting, and related instruction for dual-training and registered apprenticeship programs.
- It is necessary to promote awareness about high-growth and high-demand industries and dual-training and registered apprenticeship opportunities, especially to young people, people of color, women and veterans.
- In order to develop strong occupational competencies, at least two employer champions are actively engaged in the identification and validation processes.
- Competency council work is focused on the key industry technical (related instruction) and occupational specific (on-the-job training) needs of each occupation with leadership from the employer champions.
- Each industry is unique. Providing multiple methods of communication, outreach, and competency standard validation to meet the needs of each industry makes the implementation of dual-training more effective.

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