



apprenticeship WORKS

St. Paul students explore careers in the trades

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'Build Your Future' brings together current, future employees

The building and construction trades are seeking out the next generation of workers.

"Occupations in the trades have historically been a way for people to make a great living. Our ranks are aging and we are looking for bright, committed people to carry on our building traditions," said Harry Melander, president of the Minnesota Building Trades.

Recruitment is sometimes difficult because there can be a disconnect between 16-to-24-year-olds and existing building trades professionals. One of the largest hurdles has been the reduction of school curriculum, like shop classes, for high school students that have been used as a way to identify hands-on learners.

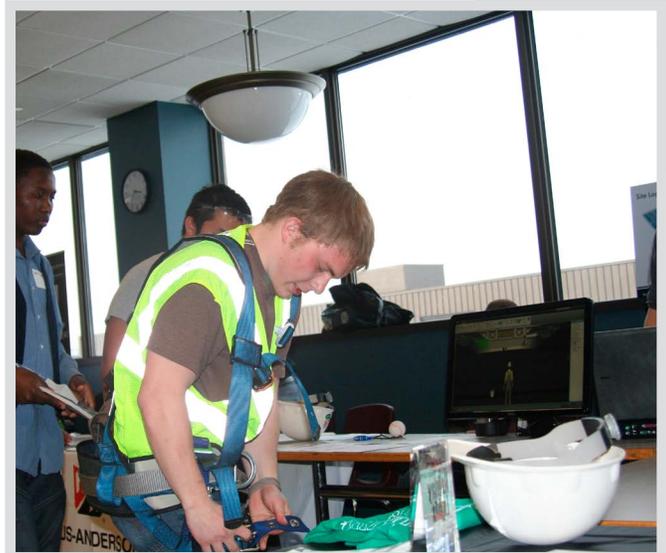
To help link students with information about careers in the trades, Ethan Laubach, teacher at Johnson High School and director of the UnderConstruction Program, designed a pilot event called Build Your Future. This event, conducted at St. Paul College on Feb. 26, 2013, brought together representatives from union apprenticeship training programs, contractors, community-based training

organizations and various government agencies to talk to students about careers in the trades.

Students were able to tour the college, try various hands-on activities such as virtual heavy-equipment operating and brick installation, and talk to contractors about their upcoming build projects.

Representatives from Mortenson Construction created a timed computer event where students were required to dress in various pieces of safety gear and then race a virtual construction worker around a course. Students also watched a new movie created by the Association of Apprenticeship Coordinators of Minnesota titled "Apprenticeship: Building Your Career" as they snacked on pizza and cookies.

Ryan Companies discussed the Saint Paul Saints stadium project and the careers supported by the construction industry. Elizabeth Campbell, Emerging Business Inclusion Coordinator at



A student puts on safety gear at Build Your Future at St. Paul College on Feb. 26, 2013.

“ Our ranks are aging and we are looking for bright, committed people to carry on our building traditions. ”

— Harry Melander, president, Minnesota Building Trades

Ryan said she liked the event. "I had the opportunity to connect to all the students that came to the table and have some really good conversations."

Laubach was pleased with the success of the pilot Build Your Future event, noting there were more than 50 students and at least a dozen teachers and parents attending the event.

"Students experienced how construction professionals work, think and act in the office and in the field," he said. "Many of the students have not been exposed to real life construction professionals and the fair gave them the opportunity to learn first-hand what is expected of them in these professions."

Registered apprenticeship programs for manufacturing

Worker development available in many fields

Registered apprenticeship meets the needs of both employers and workers by providing opportunities for workers seeking high-skilled, high-paying jobs and for employers seeking to develop a qualified workforce. In Minnesota, registered apprenticeship has been active in traditional industries such as construction since 1939, but it also has an emerging training and employment model in industries such as health care, energy and manufacturing.

Manufacturing registered apprenticeship programs

Currently there are 16 registered apprenticeship programs in the manufacturing industry including the new model program established by Alexandria Technical College (Alex Tech) in 2012. Since 1992, 709 apprentices have completed these programs and there are currently 90 apprentices registered.

Manufacturing registered apprenticeship programs are currently developing careers in the following occupations:

- tool and die makers
- CLA punch press operators
- machinist
- maintenance technicians
- millwrights
- mechanics
- machine inspectors
- control and maintenance technicians
- automotive mechanics

- machine setters
- gage room technicians

The most recent registered apprenticeship program is a new model program developed in partnership with Alex Tech. In 2012, DLI was contacted by the dean of customized training at Alex Tech to establish an apprenticeship program for machinists. Many of the local manufacturing firms were having a difficult time finding qualified employees and they spoke with Alex Tech officials about the potential for training workers. Alex Tech and the manufacturing companies formed a consortium and applied for a grant to develop a registered apprenticeship program. Part of the grant money was used to hire program coordinator Jerry Hetland. Hetland worked with the manufacturers to establish the curriculum and with DLI to develop the apprenticeship standards.

The program offers National Institute of Metalworking Skills (NIMS) credentials to apprentices. NIMS operates under rigorous and highly disciplined processes and is the only developer of American National Standards for the nation's metalworking industry accredited by the American National Standards Institute (ANSI). Apprentices take all related training coursework at Alex Tech,

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Why registered apprenticeship?

In early 2013, DLI sent a survey to the registered manufacturing apprenticeship programs asking them why they participated in a registered apprenticeship program. Some of the responses the agency received included:

"To expand our training base and to ensure that we as a company are training our employees correctly."

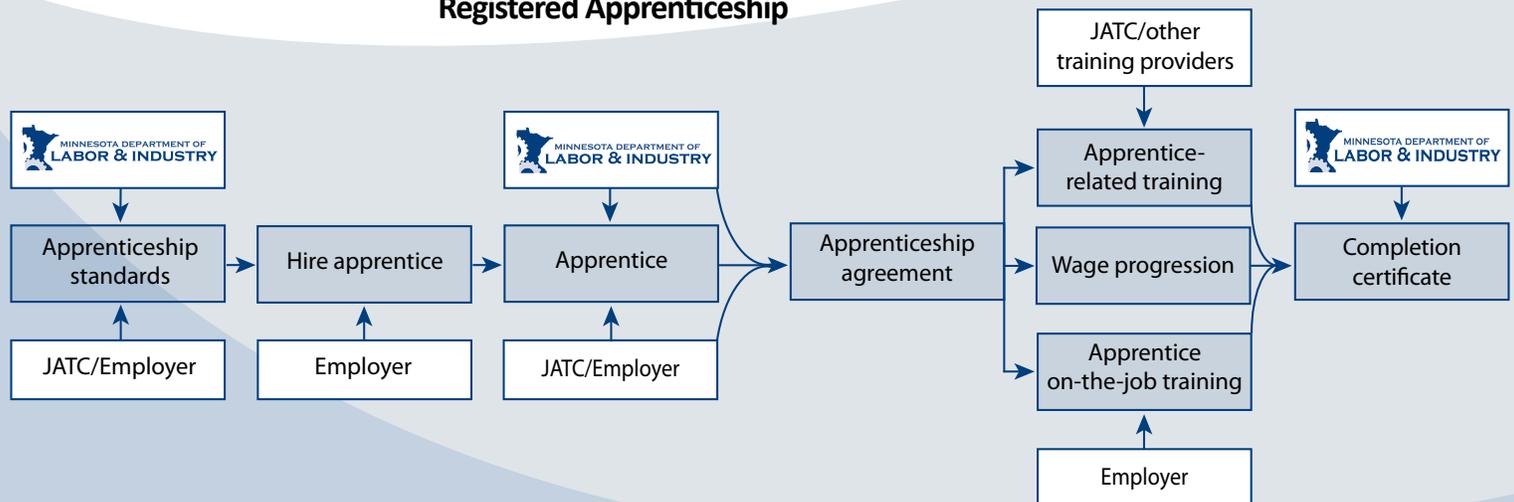
"We have a high level of confidence in registered apprenticeship because it is a successful way to get the most qualified individuals. We believe this is due in part to the structure and demands of apprenticeship."

"We feel more comfortable in knowing that the journeyworker is fully trained and competent in their occupation."

"Apprenticeship gives the plant a structured training system for high skill jobs. It also provides employee recognition when completing the program."

"Training employees for their needs and specific to the equipment at our company."

Registered Apprenticeship



Continuous Improvement:

DLI streamlines apprenticeship processes

As part of ongoing continuous improvement activities at DLI, apprenticeship staff recently reviewed how the agency processes apprentice agreements and the completion of an apprenticeship.

Using an intensive, two-day Kaizen-inspired method of process review, staff have proposed improved methods that will greatly increase the speed and efficiency with which DLI is able to process apprentice agreements and completion certificates, and issue apprentice and journeyworker cards in the future.



The Kaizen team tasked with reviewing the apprenticeship processes included (left to right): Wendy Legge, Mary DesJarlais, Johnnie Burns, Grace Ouellette, Brian Wille, Theresa Rangel-Hardy, Terry Frauly, Rich Davy and Bernie Michel.

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Registered apprenticeship programs for manufacturing

preparing them for the NIMS exams. The next steps in establishing this registered apprenticeship program is enrolling participating employers into the consortium and indenturing registered apprentices.

The first apprentice, an employee of Massman Automation, started his apprenticeship Jan. 28, 2013. Massman now has two registered apprentices. Pro Fab has also become a participating employer and currently Pro Fab is training seven apprentices.

Apprenticeship training models

There are two training models utilized in manufacturing registered apprenticeship programs: time-based and competency-based.

Time-based apprenticeship is a traditional model in which an apprentice is required to complete a predetermined number of on-the-job training and

related technical education hours for each skill category of an occupation. These skill categories are defined in the apprenticeship standards for each program.

Competency-based apprenticeship standards include defined competency and knowledge testing for the apprentice to complete and demonstrate that they have the acquired the required skills and knowledge of work processes defined in the apprenticeship standards. An apprentice can complete their apprenticeship after they have proven competency in all areas of the occupation for which they are training.

Currently, two manufacturing registered programs use the competency based approach: Eaton Manufacturing and Haberman Machine. These programs both use the NIMS study materials and performance and theory testing to demonstrate skills-based mastery. When an apprentice believes they are ready

to take a test proving their competency in a work standard, they may. If they pass the test, credit for all hours in that particular standard will be granted to the apprentice.

Apprentices at Haberman take their related technical education from materials provided by NIMS. Apprentices at Eaton attend Hennepin Technical College, in addition to the NIMS curriculum and also take courses from Tooling University, an online provider of manufacturing coursework.

For both training models, 144 hours each year, or the competency equivalent, of related technical education is required. Apprentices can complete their related technical education by attending or taking online coursework from a technical school or community college or from private online education providers that serve the manufacturing industry.

GI Bill offers apprenticeship benefits for veterans

Federal and Minnesota GI Bills provide benefits for apprentices

Registered apprentices working for an employer may be eligible to use GI Bill benefits during their apprenticeship.

The GI Bill benefits would be paid directly to the apprentice and provide extra income while the worker moves toward earning a journeyworker wage.

For employers, it is good practice to ask apprentices if they are veterans and if they know that the GI Bill can be used for registered apprenticeship.

Employer interested in starting an apprenticeship program to allow veteran employees to access the GI Bill benefits, contact DLI Apprenticeship staff members with the details below.

The Minnesota GI Bill

Veterans who seek apprenticeship

training and are not eligible for the federal GI Bill may now be able to receive benefits through the Minnesota GI Bill. To be eligible, the apprenticeship program must be registered with DLI.

Funding available through the Minnesota GI Bill to eligible veterans may include:

- \$2,000 each fiscal year for apprenticeship expenses
- \$2,000 each fiscal year for on-the-job training
- \$1,000 for a job placement credit payable to an eligible employer upon hiring a person receiving assistance under this subdivision
- \$1,000 for a job placement credit payable to an eligible employer after a person receiving assistance under this subdivision has been employed

by the eligible employer for at least 12 consecutive months as a full-time employee

No more than \$3,000 in aggregate benefits may be paid to or on behalf of an individual in one fiscal year, and not more than \$9,000 in aggregate benefits may be paid to or on behalf of an individual over any period of time.

For more information about GI Bill resources for apprentices visit www.gibill.va.gov/bill-of-all-trades/index.html.

For additional help with questions about apprenticeship in Minnesota call (651) 284-5090 and ask for a field representative, or send a message to dli.apprenticeship@state.mn.us.

From the FAQ: How to get started with apprenticeship

Students

Teachers or counselors will be able to help select courses in preparing for apprenticeship. With them, students can plan schoolwork in order to get the basic skills – mathematics, reading comprehension and knowledge of basic science – necessary to be successful in an apprenticeable profession.

Adults

A visit to a Workforce Center to explore employment opportunities – including apprenticeship occupations – can assist workers seeking advancement or those who are unemployed or dislocated searching for a high-skill, high-wage occupation.

Apprenticeship training requires a commitment by both the employer and the apprentice. The employer commits to providing the work experience and the wages for learning the occupation; the apprentice commits to learning the occupation and becoming a valued employee.

In most instances, a great deal of time is required to prepare someone for a long-lasting career. Therefore, completing



Students interested in pursuing an apprenticeship are urged to work with teachers and counselors to design coursework with the goal of working in an apprenticeable profession.

an apprenticeship can be as financially and personally rewarding as completing a four-year degree program. **For more frequently asked questions and answers about apprenticeship, visit www.dli.mn.gov/APPR/apprfaq.asp.**

Babulal has successful journey to apprenticeship

South America native melds old and new skills throughout his career path

After just over two years, Muneshwar Babulal completed his competency-based apprenticeship program in March 2013 at Eaton Manufacturing's Eden Prairie, Minn., facility. He successfully completed all of the performance and theory tests for the National Institute of Metalworking Skills (NIMS) credentials for machine maintenance and repair.

Babulal's journey to apprenticeship began in his native Guyana, South America. His family operated a rice plantation company that also featured a welding and automotive repair service shop. Babulal worked as a welder, the lead automotive technician in the service shop and coordinator of rice farming operations.

After Babulal relocated to the United States, he worked as a machine operator in New York City. Then, he moved to Minnesota and continued to work as a machine operator before enrolling at a technical college. He then completed a two-year degree in automotive mechanics and worked as an automotive mechanic for seven years.

Babulal started work at Eaton Manufacturing in assembly prior to



Muneshwar Babulal, left, is congratulated by Johnnie Burns, DLI Apprenticeship director, after completing his apprenticeship program at Eaton Manufacturing.

beginning his machine maintenance service and repair apprenticeship program. He said his experience with the apprenticeship program was positive, particularly how work experiences supplemented coursework and simplified the material into relevant contexts for application.

Apprenticeship success

Babulal said he would highly encourage other employees to take advantage of apprenticeship programs to further their careers. His education and training has made him confident and comfortable with his ability to do a wide variety of work and he has added critical tools to use throughout his career. While it is often a challenge to work and go to school, he said the rewards are worth it.

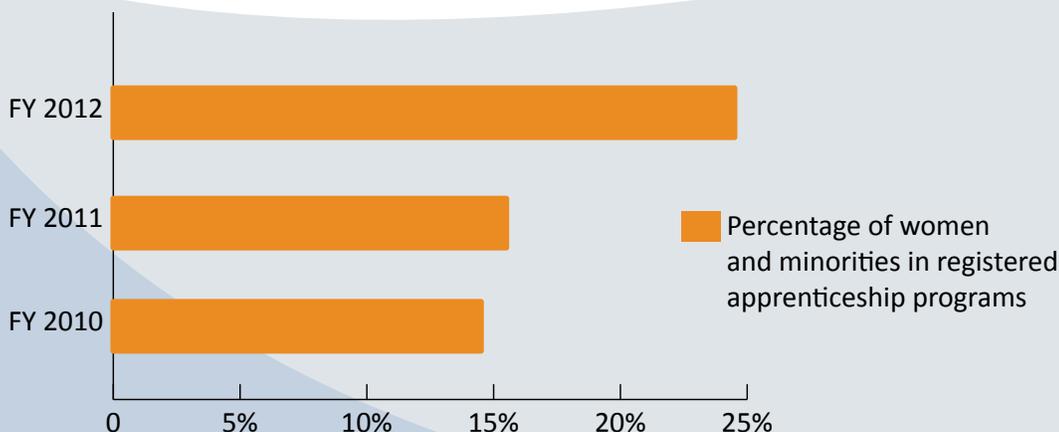
Future

Babulal said his next career goal is to learn about HVAC systems and apply this knowledge to better understand and solve problems within a manufacturing environment. He said he would also like to continue learning about principles in mechanical engineering and assess where low efficiency areas in work processes could be improved.

More information

- Eaton Manufacturing
www.eaton.com
- National Institute of Metalworking Skills (NIMS)
www.nims-skills.org

Woman, minority apprenticeship participation shows increase



DLI Dashboard shows agency performance indicators

The DLI Dashboard tracks the agency's progress in key areas. Stakeholders can see where the agency is on track and where it needs to improve.

View more performance indicators at www.dli.mn.gov/Dashboard.asp.

Apprenticeship performance measurements January, February and March 2013

	Jan.	Feb.	March
Sponsor information			
Active sponsors	298	298	298
New sponsors	3	3	2
New occupations	0	0	0
Apprentice information			
Total apprentices	6,471	6,433	6,462
Females	401	406	416
Minorities	873	871	855
Veterans	223	220	218
New apprentices	125	134	218
Graduations	68	87	72
Services to sponsors and apprentices			
Service calls	213	198	225
Information calls	62	73	92
Compliance reviews	3	5	9
Supervisory visits	9	10	16
VA visits	0	0	0
New standards	0	0	0
Revised standards	2	2	4
Community outreach visits	6	8	9
Technical assistance visits to sponsors	10	24	15
Prospective sponsor visits	7	3	6

Apprentices give back to community, earn hours



McDowall Company, along with 21 volunteer apprentices, were able to give back to their community and earn apprenticeship training hours at the same time.

Contractor and apprentices team up to repair ministry's ailing roof

An article published recently in "The Journeyman Roofer & Waterproofer" featured a Minnesota contractor and apprentices able to give back to their community and earn apprenticeship training hours at the same time.

By combining the capabilities of McDowall Company, 21 volunteer apprentices from Local 96 Roofers and Waterproofers and Local 10 Sheet Metal Workers, the roof repair project at the Dream Center, a ministry and home for men in need of shelter and support, became a reality. Read the full article at www.unionroofers.com/pdfs/4Q12p38-40.pdf.



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