



Minnesota State Senator Terri Bonoff

Minnesota PIPELINE apprenticeships will help to build a stronger workforce

A Civic Caucus Focus on Human Capital Interview

November 21, 2014

Present

John Adams, Sen. Terri Bonoff, Dave Broden (vice chair), Pat Davies, Paul Gilje (executive director), Randy Johnson, Ted Kolderie, Dan Loritz (chair), Paul Ostrow, Dana Schroeder, Clarence Shallbetter, Fred Zimmerman. By phone: Janis Clay, Amir Gharbi, Sallie Kemper.

Summary

Minnesota state Senator Terri Bonoff describes her role in advocating for more apprenticeships in the state as an important way of training and educating workers with the advanced skills needed for increasingly technical jobs in today's economy. She was chief sponsor of the 2014 legislation creating the Minnesota PIPELINE Project, intended to encourage and facilitate the use of apprenticeships. She notes that Minnesota is a national leader in educational attainment, with nearly 500,000 students participating in some form of postsecondary education. But, she says, a college degree is no longer a guarantee of economic security and is not producing workers who meet the needs of 21st century businesses. The PIPELINE Project is aimed at designing a sustainable and scalable program of apprenticeships that will help match student skills to business needs.

She describes the wide use of apprenticeships in Germany, where 65 percent of students are affiliated with a company when they start postsecondary education. She notes several apprenticeship programs already operating in Minnesota. She says that through the PIPELINE Project, employers can partner with higher education institutions to ensure that graduates have the skills necessary to fuel growth and innovation. The project is focused on four industry sectors: advanced manufacturing, agriculture, health care services and information technology.

Bonoff states that merging the state's technical colleges into the Minnesota State Colleges and Universities (MnSCU) 20 years ago has created a problem and that some people would say it was a mistake. But she says there is too much to do on upgrading Minnesota's workforce training to become embroiled in the issue of splitting off the technical schools from MnSCU. She is willing to

explore the issue of whether high school should end at age 16, as in Finland, allowing young people to start apprenticeships then. She endorses starting to expose students (and their parents) by middle school to other job, education and training opportunities beyond automatically seeking four-year college degrees.

Background

Since the Civic Caucus issued its [statement on human capital](#), we have concentrated on learning more about the continuing need for a strong workforce in Minnesota in coming years. One week after a November visit to the Apprenticeship Academy of Bühler Inc., in Plymouth, Minnesota, the Civic Caucus interviewed Minnesota Senator Terri Bonoff about her advocacy for the development of apprenticeships and the recently approved Minnesota PIPELINE Project.

Biography

Minnesota State Senator Terri Bonoff (DFL- Minnetonka) is chair of the Senate Higher Education and Workforce Development Committee and chair of the Higher Education and Workforce Development Division of the Senate Finance Committee. She represents Senate District 44, which includes parts of Plymouth, Minnetonka and Woodland, and has served in the Senate since 2005. Her special legislative concerns include education policy and finance reform, state government redesign, business and commerce issues, early childhood education, and transportation.

Bonoff began her business career working in the family business of Jackson Graves, a chain of women's clothing stores. She then served as manager of promotional services at Tonka Toys and later as Vice President/General Manager for Navarre Corporation. Her public service prior to becoming State Senator included serving on the Minnetonka City Planning Commission and co-chairing the Hopkins School District Legislative Action Coalition.

Bonoff has a B.A. degree in psychology and sociology from Clark University in Worcester, Mass.

Discussion

The Minnesota PIPELINE Project was created by the 2014 Legislature based on a successful education and training model used in the United States and Europe for more than a century: apprenticeship. State Sen. Terri Bonoff, chief sponsor of the PIPELINE legislation, described the PIPELINE Project as "the most important project and the most exciting thing" she has worked on since she started in the Legislature in 2005. On her [website](#) she describes the PIPELINE (Private Investment/Public Education Labor-Industry Experience) Project as a new approach to the education and training of Minnesota's young people to prepare them to enter the workforce through the use of experience-based learning opportunities.

She says the state continues to be a national leader in educational attainment, with nearly 500,000 students participating in some form of postsecondary education, ranking Minnesota seventh in the nation. Yet, she notes, a college degree is no longer a guarantee of students' economic security. Nor is it producing workers who meet the needs of 21st century businesses. In addition, she notes that the state's achievement gap is unacceptable and must be reversed. The PIPELINE Project is aimed

at designing a sustainable and scalable program that will help match student skills to business needs, she says.

The Minnesota Department of Labor and Industry (DLI) website says the project is designed to move the focus on apprenticeships outside of traditional apprenticeship industries to new areas of economic demand and potential growth. The goals are (1) to develop a path for individuals to obtain a degree and career without being burdened with debt; and (2) to allow employers to obtain highly-trained workers in the areas of advanced manufacturing, agriculture, healthcare services and information technology.

(At the [DLI website](#), you can view the video "Success in the New Economy," which describes the misalignment between education and our workforce now and into the future. See the Nov. 14, 2014, Civic Caucus Bühler Apprenticeship Academy [interview](#) for a list of highlights from the video.)

Bühler Apprenticeship Academy in Plymouth, which trains apprentices as customer service engineers for Bühler, Inc., was the inspiration for creating the PIPELINE Project. Bonoff pointed out that Bühler's three-year apprenticeship program takes students who've finished high school, pays for their training and also pays them a stipend while they complete the program. (See Nov. 14, 2014, Civic Caucus [interview](#) about Bühler's apprenticeship program for more details.)

Workforce development trips to Germany began to introduce Minnesota policymakers to the German apprenticeship system. Sabine Engel, former director of the University of Minnesota's (U of M) interdisciplinary DAAD Center for German and European Studies, led the trips. (Engel is now program director for economic development at the Office of University Economic Development at the U of M.)

Bonoff said 65 percent of German students are affiliated with a company when they start postsecondary education. Apprenticeship programs there have competency standards, so that companies know that students have attained certain competencies. She said Germany tracks kids starting in eighth grade into different academic or vocational education paths, whereas in the U.S., most do not believe that tracking kids is a good idea. However, U.S. students do face the very real challenges of the high cost of postsecondary education, high levels of student debt, and high rates of youth unemployment.

An interviewer pointed out that Germany has three times more people working in manufacturing than the U.S. and one-third the number of lawyers. He said there is a difference between Germany and the U.S. in the relationship of government and industry. Germany has a more efficient education system, he said, which provides an educational background on which industry can grow. He argued that the PIPELINE Project should enlist not only public educational institutions but private colleges as well, such as Dunwoody College of Technology, in developing apprenticeships. Bonoff agreed that private colleges should be included.

Several apprenticeship programs are working in Minnesota. Bonoff cited five examples:

- 1. Minnesota Department of Labor and Industry Apprenticeships.** DLI is charged with overseeing all registered apprenticeship programs in Minnesota, ensuring that there are proper quality and safety controls built into on-the-job training, ensuring wage schedules for employees, and

helping employers build the appropriate dual-education model that works best for them. Minnesota has employers participating in over 300 registered apprenticeship occupations and has over 7,700 registered apprentices. Eighty percent of all apprentices in Minnesota are in more traditional construction trade apprenticeship programs, which only represent twenty percent of the 300 occupations that use this dual- education/training model. See the DLI [website](#) for more information.

2. Bühler Apprenticeship Academy (discussed above). See the Civic Caucus [interview](#) with Ellen Bies of Bühler, Inc.

3. E.J. Ajax Metal Forming Solutions Apprenticeship. E.J. Ajax company offers new employees an 8,000-hour apprenticeship program with a curriculum certified by the National Institute for Metalworking Skills (NIMS). The initial apprenticeship is focused on one of three career ladders: punch press operator, sheet metal worker, or tool and die maker. Forty percent of E.J. Ajax workers have achieved journey-worker Level III status in at least one career ladder.

4. International Union of Operating Engineers, Local 49 Training and Apprenticeship Center. These training and apprenticeship programs develop professional operating engineers. All training takes place either at a facility located just east of Hinckley, Minnesota, or at locations spread across the service area. The programs are funded entirely by contributions from the union's membership.

5. Aging Services of Minnesota Apprenticeship Program . The Health Support Specialist (HSS) Registered Apprenticeship program is quickly redefining how leading organizations and communities are preparing their workforce to serve older adults. HSS represents a breakthrough in the traditional system of care delivery, creating opportunities for highly capable caregivers to advance in their lives and careers through cutting-edge skill training, rich on-the-job experiences, redesigned job descriptions, improved working environments, accessible career pathways and meaningful wage increases.

The PIPELINE Project combines private investment and public investment. Through the project, employers partner with higher education institutions to ensure that graduates have the skills necessary to fuel growth and innovation. Businesses pay students to work while they learn the skills needed to create career opportunities and make a good living. The Legislature appropriated \$250,000 to DLI to launch the program and to help develop some pilot projects that could be scaled up.

DLI and the Minnesota Department of Employment and Economic Development (DEED) have convened four advisory industry councils through the PIPELINE Project: advanced manufacturing, agriculture, health care services, and information technology. Each council includes representatives from industry, higher education, labor and employers. Each industry council develops competency standards and identifies models Minnesota's education providers can use to develop the training needed to meet the standards.

"Top-notch companies have come to the table," Bonoff said, offering as examples 3M, Land O'Lakes, Target, Cargill, Thomson Reuters, IBM and the Mayo Clinic.

Folding the state's technical colleges into the Minnesota State Colleges and Universities (MnSCU) system 20 years ago may have created a distance between those colleges and their

local communities. (MnSCU's history dates back to 1991, when the Minnesota Legislature passed a law mandating the merger of the community colleges, technical colleges and state universities. The merger took effect on July 1, 1995.) An interviewer expressed this concern and asked about the feasibility of separating the technical colleges from MnSCU, adding that he thought the current system acts at cross purposes to the PIPELINE Project.

"It's a problem," Bonoff said. Some people would say folding in the technical colleges was a mistake, she said. "But we don't need to be embroiled in the issue of splitting off the technical schools. We have too much to do." She believes that technical colleges do want to work with local businesses to create curriculum.

She said State Sen. Kathy Sheran (DFL-Mankato) met with all the postsecondary institutions in her district and was told the separation of high schools from the postsecondary schools is a major problem. Bonoff said one of the ideas raised by the PIPELINE Project advisory councils is that we must start working with kids by eighth grade to let them know about job and educational opportunities.

We don't want an opportunity gap in any field. An interviewer commented that Minneapolis Edison High School looked into a technical training program several years ago, but the parents felt marginalized and worried that their students were being channeled into training for technical careers rather than into four-year colleges. Bonoff said the racial and ethnic balance should mirror the population in both two- and four-year schools. She stated that we do not want to disproportionately send our students of color to the two-year postsecondary track.

"It's time to rethink this attitude toward technical training and careers," Bonoff said. "These are good jobs and shouldn't be viewed as lesser jobs than the jobs people with four-year degrees can get."

One interviewer suggested that perhaps high school should end at age 16, allowing young people to start apprenticeships then. In response, Bonoff said that at the legislature, there have been discussions regarding the relevance of high school and pointed out that in Finland, high school ends at age 16. She noted that the PIPELINE Project law contains a provision allowing 17- and 18-year-olds to work in manufacturing, which was previously prohibited by state law.

"It's crazy that we think traditional school is the only way up," Bonoff said. Through the Postsecondary Enrollment Options (PSEO) program, she noted, students could do practical work while taking courses at postsecondary institutions.

One barrier to students attending technical colleges or doing apprenticeships is the need to familiarize kids at a young enough age and their parents to the possibility of trying something other than a four-year college education. Bonoff said one of her key goals is to expose kids starting in middle school and their parents of other educational and career opportunities.

Low-income students who participate in one or more postsecondary classes through PSEO have a high school graduation rate of 89 percent. Bonoff said that high schools often dissuade kids from using PSEO to attend college classes, because the high schools lose funding when that happens. "We must change the incentives to make PSEO in the high schools' best interest," she said.

The need to take action to train skilled workers for Minnesota jobs now and in the future is very, very urgent. Bonoff said the problem is that it's difficult to create structural change. "We have to ask whether the path is going in the direction we want things to go," she said. The focus on a four-year college education, and its cost, is leaving people behind.

Bonoff is working with industry, the state and postsecondary institutions to draft legislation to take the program further. "It will take a lot to get everybody on board," she said. Her staff is beginning to write legislation for the 2015 legislative session that will include changes to the ways we approach career education of high school students, new PSEO incentives and a structure for connecting businesses, postsecondary educators and students. "It will be pretty substantial," she said.