

**Written Statement for
Colonel (USAF, Retired) Michael Cartney
President, Lake Area Technical Institute, Watertown, SD
before the
Committee on Commerce, Science, and Transportation
United States Senate
regarding
The Awareness of the Technical Skills Gap
Washington, D.C.
March 29, 2017**

Chairman Thune, Ranking Member Nelson, and Members of the Committee:

Thank you for your time today. I am Mike Cartney, President of Lake Area Technical Institute in Watertown SD, this year's recipient of the Aspen Prize for Community College Excellence. I commend this committee for examining the nation's workforce skills gap and potential solutions. Some have observed that community colleges, and specifically technical colleges, are often among a community's first responders for workforce and economic development.

Let me briefly introduce you to Lake Area Tech (see attachment 2 for additional information):

- We are a public, two-year degree-granting technical college with a student population of nearly 2,500, offering 29 programs of study.
- Our student success rates are perpetually at the top or near the top of all community colleges across the nation:
 - Graduation rate - 67% (national average – 39%)
 - Placement rate - 99%
 - Lake Area Tech graduates earn 27% more than other new starts in the region.
 - Student loan default rate - 6.1% (national average is 11.3%)
 - The South Dakota system of Technical Institutes, consisting of Lake Area Technical Institute, South East Technical Institute, Western Dakota Technical Institute, and Mitchell Technical Institute, was ranked number 1 in the country this year by Wallet Hub for best value..
- Lake Area Technical Institute was only the 93rd college in U.S. history (and we believe, the only technical college) to have a sitting President as our commencement speaker.
- LATI students and staff accomplished almost 80,000 hours of community service and community learning last year.

Goal and major points.

I am here to provide foundational information on the important role that community colleges and, more specifically technical colleges, play in enabling the vibrant and targeted growth of our workforce and economy. I'll be highlighting and providing specific best practices that we believe can enable the United

States' educational and industrial entities to better fill the technical workforce gap. Today, I hope to raise awareness of these profound issues related to the local, state, and national Technical Skills Gap from a technical college standpoint. Other distinguished guests will address the topic from an industry perspective.

The problems.

The technological evolution of the workplace requires even entry level employees to possess more education and training than ever before. But the US approach and focus on post-secondary education does not align with country's workforce needs. A commonly cited projection is that 80 percent of jobs in 2025 will require post-secondary education and 80% of those jobs will require a post-secondary credential short of a four-year degree. Yet, we as a society continue to strongly value and push our students toward four-year degrees, resulting in a mismatch between the education people are receiving and workforce needs. It is also leaving a significant number of our youth with large student debt and no means of repaying it. To be clear, the need, value, and benefits of a four-year degree has not waned, but there is a realization that in many career paths, getting a four-year degree as a continuum of work/education, rather than prior to entering the workforce, better benefits both the employer and employees.

Simultaneously, the great jobs are available for those with the right skills. Trail King Industries, a South Dakota based manufacturer, had to turn down \$20M in contracts because they could not find welders. South Dakota businesses such as Muth Electric, Sheehan-Mack, 3M, Avera HealthCare, Prairie Lakes Healthcare, and Big Stone power plants were being forced to turn away contracts, delay or forego expansion, or leave positions unfilled, not because there were not workers available, but because there are not properly skilled workers available. South Dakota could quadruple our welding, electrician and licensed practical nursing program capacities and still not fill the openings just in our state. These scenarios are repeated across the nation in every state, predominately in the manufacturing, energy, healthcare, aerospace, and transportation industries.

Community colleges must also improve. Community colleges are unable to attract sufficient numbers and only graduate 39% of those attending. Further, only a small percentage of those colleges track students' employment statistics following graduation. Lake Area Technical Institute's graduation rate is 69%, we track all our students post-graduation, and our placement rate this year is 99%. It is our desire to share our best practices with other community colleges in order to bolster their graduation rates and contributions to the technical workforce through efforts like the Aspen Prize for Community College Excellence.

Across the nation, there are not enough skilled workers to fulfill critical workforce needs.

In South Dakota and across the nation, key industries do not have enough technically skilled employees to fill the workforce needs. The demand for jobs which require education beyond high school but not a four-year degree remains strong. Between 2014-2024, 49% of job openings in South Dakota will require less than a four-year degree. These jobs account for 55% of South Dakota's labor market, but only 49% of the state's workers are trained to this level.

<http://www.nationalskillscoalition.org/resources/publications/2017-middle-skills-fact-sheets/file/South-Dakota-MiddleSkills.pdf>).

One contributing factor to this problem is the aging workforce. Young people are not attaining the technical education needed to replace the retiring workforce. We need to get people into technical degree and credential programs and dispel the myth that we can do more with less. Today's technology is a force multiplier that enables people to do more. It often doesn't reduce the number of people to do it, as we

need people to build, operate, and maintain the technology. And, we don't need workers to do what they did before; they need to perform different tasks. For example in today's manufacturing industry, jobs are more technical. We need workers who can maintain and operate the robots that raise the quality and throughput of the production line. Because technical workers in the U.S. perform job duties differently, there is often a wage disparity with foreign countries. Often, foreign countries employ workers at lower wages to perform tasks manually.

Career and Technical Education -- A different approach to education:

Just this last year, South Dakotans amended our state constitution to recognize Technical Education as the third form of education – giving us the traditional K12 system, the traditional higher education, and what I like to refer to as “HIRE” – (that's H I R E) technical education system. The Technical Education system is focused on enabling South Dakota's economic development by growing our technical skilled workforce.

South Dakota's Technical Institutes have partnered with Industry, communities, and State Government to take on our skills gap head on. Over 300 businesses work with Lake Area Tech's program staff and students to provide a coherent and relevant educational experience that support our state's workforce demands. These businesses consult and oversee curriculum, provide internships and on-the-job experience for students, provide industry standard training aides and equipment for the students to learn with, mentor our students, and most importantly they hire our students – in short, they are heavily invested in their pipeline.

Through the vision and generosity of T Denny Sanford and Governor Dennis Daugaard, students receive full ride scholarships to South Dakota's technical institutes in return for working in South Dakota. Lake Area Tech's “Stretch-the-Million” program leveraged these funds with industry providing 33% more scholarships to students willing to work for a specific employer at graduation. But the impact of the Build Dakota Scholarship reaches beyond just those students receiving scholarships. I believe the exposure and informational aspects of Build Dakota enabled the state's public two-year technical institutes to grow when nationally 2-year enrollment declined by 10%.

The core approach of tightly knit student cohorts with close connections to their industry trained instructors has been a formula for success in SD's technical institutes for over 50 years. Our students' education also includes the soft skills needed to succeed in today's modern workforce. We view college as pathway, not a destination. And we know for more than 40% of our students, college is the road out of poverty. As we aligned our programs with industry needs, we redefined success as placement not graduation because it makes college more relevant, we avoided labelling students because fitting in at college is already hard enough, we ensured students knew the paths to success with clear expectations, and we emphasized every employee had a role in student success. Then we wrapped those efforts in our Culture of Caring: It was these guidelines that makes a road that was previously perceived as less travelled, now seem achievable and a journey worth taking.

Even after 14 consecutive years of growth, Lake Area Tech needs to expand our capacity. Today, South Dakota could quadruple our welding, electrician and licensed practical nursing program capacities and still not fill the openings just in our state. So we have turned to even more innovative approaches. Online and dual credit programs are paying significant benefits. Our **Learn Where You Earn** concept encourages local companies to allow employees to up-skill in their home communities. We also encourage communities to **Grow Your Own** and we encourage businesses to promote employment

opportunities in their communities by developing relationships with high school students, parents, and educators.

But there is much yet to do

Today, there is a disparity between the workers and the job openings. This gap will continue to grow. In South Dakota, our industries are pleading for more technically trained workers. Here are just a few examples of the critical need for employees that, in most cases, are causing financial and human resource hardships for the companies.

Deb Fischer-Clemens, RN, the Senior Vice President of Public Policy for Avera and a member of the Skilled Workforce Advocacy Council: Currently, there are 148 openings for licensed practical nurses (LPNs) across the system; some long-term care beds have been closed because of staffing shortages. . In other facilities, traveling staff are used to cover the shortages. This causes other issues, as the average hourly pay rate for an LPN is \$20.12, while a facility will pay, on average, \$49 per hour for a traveling LPN; this salary is an unsustainable amount for facilities to pay based on current reimbursement rates.

Terry Sabers, Co-President, Muth Electric, Inc.: We believe strongly in the value of hiring educated apprentices from a technical institute in our area. During the recession there were about four companies attending the job fair recruiting the 30 or so graduating students. At the event in the last month there were 36 companies recruiting the 32 graduates. All construction and service based companies in the upper Midwest are at an extreme shortage of workers.

Trail King Industries, Mitchell, SD: In a period of approximately 16 months in 2013 and 2014, Trail King had to turn down \$20 million of business because we did not have the skilled workers, specifically welders, to complete the business in the timeframe needed by the customer. Even though Trail King used a number of innovative and very generous recruiting methods and employed robotic welders where possible, there simply were not enough skilled welders available to fill the needs of the company.

Gage Brothers, Sioux Falls, SD

This lack of skilled workers has cost the company approximately \$5 million in sales each of the past three years. Additionally, we have sold between \$2-6 million in work to a competitor in Minnesota in order to keep our production schedule on track.

Hancock Concrete, Sioux Falls, SD

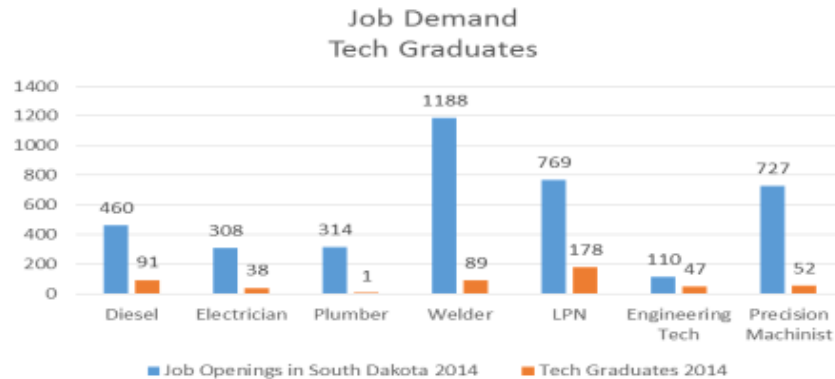
The labor shortage affects our current employees as well. They are required to work longer hours to fulfill orders which in turn is an increased safety risk and also increases turnover. One other adverse effect of the items that I have described is increased product cost for the infrastructure projects which affects all tax payers.

Worthington Industries Engineered Cabs, Watertown, SD

At Worthington Industries Engineered Cabs, our business levels are at historic lows due to equipment markets in Agriculture, Mining, and Construction. Even with an extremely slow market we struggle to fill open positions for skilled labor especially welders and painters. Some of these positions have remained unfilled for 3-4 months before finding a qualified candidate. We have a sister plant in Greeneville, TN that builds very similar products. One of the considerations on whether to build products in SD or TN is labor availability.

(see Atch 1 at the end of this document for complete South Dakota Industry Stories.)

We must
INCREASE SKILLED GRADUATES
 to meet South Dakota's economic demand.



South Dakota's Technical Education system could quadruple our program capacities in welding, licensed practical nursing, and manufacturing and still not fill the open positions just in our state.

Technical Skills Gap is exacerbated by multiple issues.

There are various issues contributing to the Technical Skills Gap problem. One of the major issues is at the ground level: **finding ways to attract students** (future employees) to enroll in technical education programs. In South Dakota, we know that some high school graduates have never been exposed to Career and Technical education in their K-12 experience. This is due to a number of factors including cuts in funding, graduation requirements, and a greater emphasis on four-year college attendance.

Overcoming negative perceptions about technical education is also a continuous struggle. Often people associate manufacturing/technical jobs with dirty, dark work environments. Nothing can be further from the truth! Today's state-of-the-art shops offer employees a bright working environment that is well-ventilated and clean. At Lake Area Technical Institute, we teach our students that taking pride in their work space is just as important as the work they perform on machines, engines, and robots.

Overcoming the emphasis on **'having to attend' a four-year college** by parents, students, and high school counsellors is also an issue. (Incidentally, high school counsellors and teachers are almost exclusively four-year degree holders who are helping our youth plan their futures.) The opinion of many is that students need to continue their post-high school education at a four-year college to make something of themselves. Often, the many benefits of technical education are not considered, partly because they're unknown to the person. On the other hand, there is the faction that believes technical education is 'for those who cannot go to college.' Again, the benefits of an education that enables a career AND allows for continued education are being overlooked by those subscribing to this attitude.

Finally, an issue of great significance regarding the Technical Skills Gap is the **lack of capacity for CTE education and training**. With our newly amended constitution in South Dakota, it will help shine the spotlight on the need for more available dollars for technical education and, ultimately, filling the workforce gap.

Lake Area Tech is making concerted efforts to decrease the Technical Skills Gap.

Three years ago, Lake Area Tech zeroed in on redefining student success. Redefining success as placement (employed or continuing their education), and making graduation (completion) a step along a student's journey affects not only the faculty and staff of the institution, but also students, parents, and industry that need a different perspective on their education. At the institutional level, the first step was formally changing our mission statement to **"Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers"** to focus this initiative. This subtle adjustment changed the whole conversation and focus with potential and current students. Rather than discussing degrees, which is an abstract concept to many new students, we discuss what they want to be, what they want their future to be, and then laying out a path for them to get there. Instead of discussing "where can you go with a particular degree," we are discussing which degrees can get them where they want to go. Things become immediately more relevant. Going to class, doing homework, and passing tests – it's not just about completing a course, but rather, it's about learning what students need to know to be what they want to be!

The conversations with students and parents have changed to emphasize and explain that **college is a pathway, not a destination**. At Lake Area Tech, we provide students a pathway to graduation that allows them to begin not only their careers, but their experience as life-long learners who take advantage of all educational offerings that will allow them to advance throughout their time in their chosen field.

From recruiting to advising to completion, the conversation at Lake Area Tech is career-focused. Admissions reps guide students to examine their aptitude and career goals. **A detailed program graduation plan defines expectations**; placement data and salary information provide motivation; and experienced staff helps candidates make an informed career decision. Students are not accepted into LATI and then accepted into a major. Rather, career selection is required during the application process. Students whose chosen career program is at capacity, or they are otherwise unable to enter, often chose an alternate path or pursue their career choice elsewhere. And these conversations cannot be fruitful unless local and regional employers are involved in the system to provide real-world expectations, insights, support and guidance to the institution and its future employees.

Universities must also prepare to provide the same perspectives and guidance to those transferring to their programs. Transfer student success is defined, at a minimum, not as a successful transfer to a four-year school, but completion of that next degree. Extending the logic further, ultimately, baccalaureate completers should measure success by being employed in a job with family-sustaining wages. This process is affirming our belief that our consumer is not just the student, but their future employers as well. And it is enlightening us and industry to the importance of their role in our success.

At Lake Area Technical Institute, we are doing everything we can to **make college affordable**. If we are doing it right, technical education is more expensive due to the resources needed to train the graduates: advanced equipment, modern facilities/labs, and instructors who should be earning wages equal to those working in the field.

Recognizing cost as one of the biggest factors to attracting as well as retaining students, Lake Area Tech strives to make college affordable and minimize the financial barriers. LATI offers low-cost on-campus child care and works with students to qualify for state childcare assistance. By providing cafeteria

services in-house and at-cost, we offer nutritious, affordable meals. Our bookstore also operates at a target margin of less than 10%. Bolstered by campus initiatives, instructors work diligently to keep costs of text books, tools, and technology in check while ensuring students have access to high-quality equipment needed to succeed. Over 65% of courses use the learning management system to provide resources to students compared to a 60% national average; therefore, reducing the overall cost of materials.

LATI developed a Prior Learning and Work Experience Model to assess the training experiences of veterans and students previously employed in the field to identify accelerated graduation paths. This enables students to accelerate degree completion time and save on the overall cost of their degree. Remarkably, even though technical education is more expensive than traditional forms of education, the last calculated default rate at Lake Area Tech, 6.1%, is nearly one-half the national average, 11.3%, on student loans.

Getting a good paying job after graduation is paramount in making college affordable. Six months after graduation, 81% of our graduates are employed, and another 17% are continuing their education, meaning 99% of our graduates are placed, a key factor in why LATI's student loan default rate is less than half the national average. Our latest placement report findings include:

- An increase from 7 programs earning \$20 per hour or more (2015) to 8 programs (2016) with Agriculture joining the list of highest earners. The highest average salary is from our Energy Technology program, which is \$25.93/hr. (\$53,934.40).
- Increased placement percentage "in training field in South Dakota" from 80% (2015) to 84% (2016)
- 82.63% of graduates in this cohort were from South Dakota. 86% were employed in South Dakota six months after graduation for a net gain of 3.37% (18 graduates) to the South Dakota workforce pipeline

Culture of Caring. Student success at Lake Area Tech begins with our culture. We care about our students, and they know we care. We believe in our students, and they know we believe in them. And, we listen to our students, and they know we are listening. If we aren't talking about students' challenges, their goals and their vision for success, it can be translated into a belief that we as faculty and staff do not care about their individual success. Everyone, from administration to faculty, to staff takes personal responsibility for student success. The culture is something we've been working on for a number of years. We have older faculty who know who we are and how we have done these things over the course of years to benefit our population. We added a retention coordinator who did preemptive engagement and learning engagement and also hired some personnel to focus on diversity issues. So a part of our approach has been to make new investments, but largely, our biggest investment was time in changing our institutional philosophy.

Within our region, Lake Area Tech works closely with business and industry members. Workforce development through partners is at the heart of LATI's success and includes a wide spectrum of individuals, organizations, and businesses. With over 300 industry and community partners, our commitment to expand industry's role in student success may seem out of reach. But we enhanced our efforts with two business partner specialists, and the results have been astounding. For example, The State of South Dakota and T. Denny Sanford expanded access to college through the Build Dakota Scholarship Program, a \$50 million investment to provide full-ride scholarships to students in high demand occupations. LATI partnered with businesses to expand the impact of Build Dakota through the Stretch the Million campaign, in which businesses pay 50% of the full-ride scholarship. The local and regional community encourages and appreciates the achievements of students by recognizing their economic impact and community service efforts.

Lake Area Technical Institute also promotes career opportunities within our community and surrounding communities. Our **Learn Where You Earn** concept encourages local companies to allow employees to up-skill through Lake Area Tech's online hybrid options or LATI Corporate Education to gain the skill sets employees in those communities need. We also encourage communities to **Grow Your Own**. We know that today's young people prefer to live and work close to home. To accommodate those that can, we encourage businesses to promote employment opportunities in their communities by developing relationships with high school students, parents, and educators.

At the state level, the South Dakota Office of Economic Development funded over \$1 million in equipment to LATI annually to expand access to the latest technology without increasing the cost to students. The state also matched the \$25 million private donation from T. Denny Sanford to create the **Build Dakota Scholarship** fund. LATI expanded the reach of the full-ride scholarships through the Stretch the Million program with over 20 partners initially pledging \$175,000-\$200,000. Beyond the Build Dakota Scholarship program, the LATI foundation is instrumental in expanding access to college through scholarships. Last year, the foundation awarded over 400 scholarships exceeding \$300,000. Additional efforts to keep college affordable include participation in the national Free Application Week, Financial Aid Workshops, Financial Aid Literacy Program, and credit for corporate education and prior learning.

Lake Area Tech's recommendations.

In closing, I'll emphasize The Technical Skills Gap is not solely an industry problem. It is not solely a government problem. And, it is not solely an education problem. It is a multi-faceted problem that requires a multi-faceted response.

First, we need to tighten the bonds between education and industry. Together we need to re-image high demand occupations to more highly valued to society. People understand these are great jobs with good pay, great work environments with great people, and that we need them! We need to be reaching into our middle schools and high schools to inform young minds, and their parents, about the great opportunities available in these industries. Additionally, technical education is more expensive than traditional academic environments, so we must find ways to share resources and control costs while keeping our schools updated and aligned with industry standards.

Second, we need to facilitate the alignment of post-secondary education with our emerging workforce skills demands, and find ways to ensure our educational system is responsive to industry as well as individual needs. We need to merge and align our educational careers with our occupational careers by providing 'just in time education' versus the current segregated models. In the same vein, education must better value work experience.

Third, Federal, state, and local governments must look for innovative ways to be the catalyst for workforce development. Workforce development grants where there were critical needs; establishing programs modelled after SD's Build Dakota scholarships to make college affordable in exchange for work commitments; financial support for students coming from the lower part of the economic spectrum; and assistance in building infrastructure and expanding workforce targeted educational opportunities. Finally, taking a look at some of the exceptional technical colleges across the country and establishing Centers of Excellence for Career and Technical Education focused today's and tomorrow's technical skilled workforce in a scalable, proven, and cost-effective manner.

In closing I want to again commend the committee and thank you for going the extra mile to make our nation the greatest place to Live, Work, and Learn.

Acknowledgements.

I acknowledge the outstanding support in developing this document on such short notice. Playing particularly key roles were: Karen Henricks, Lake Area Technical Institute; Tiffany Sanderson, SD Dept of Education; Dawn Dovre and Aaron Schiebe, SD Dept of Labor and Regulation; and Greg VonWald, SD Skilled Workforce Advocacy Council. Our industry partners were also invaluable in putting this document together.

Attachments:

- 1) South Dakota: Stories from Industry
- 2) Lake Area Technical Institute



South Dakota: Stories from Industry

Avera, the health ministry of the Benedictine and Presentation Sisters, is a regional partnership of health care professionals who share support services to provide excellent care at more than 300 locations in eastern South Dakota and surrounding states.

Deb Fischer-Clemens, RN, the Senior Vice President of Public Policy for Avera and a member of the Skilled Workforce Advocacy Council, shares several examples of health care workforce issues that Avera faces. Currently, there are 148 openings for licensed practical nurses (LPNs) across the system; some long-term care beds have been closed because of staffing shortages. In other facilities, traveling staff are used to cover the shortages. This causes other issues, as the average hourly pay rate for an LPN is \$20.12, while a facility will pay, on average, \$49 per hour for a traveling LPN; this salary is an unsustainable amount for facilities to pay based on current reimbursement rates.

In addition, Avera currently has 12 openings for surgical technicians across the system. Bonuses of between \$1,000 and \$4,000 being offered for these positions, but there are no surgical technicians applying. Medical laboratory technicians (MLTs) are also in short supply, resulting in travelers from other states being contracted at a rate of \$38.64 per hour, while employed MLTs are earning \$21 per hour on average.

Again, neither closing beds, nor paying wages to contracted traveling staff, is sustainable.

America has an increasing issue with a mismatch between the qualifications of its labor force and the skills required for open positions. Jobs go unfilled because unemployed citizens do not have the skills demanded. Two-year colleges can provide the focused education needed to fill these openings quickly. Enrollment in one and two year career programs must expand to meet projected workforce need. Since over 70% of the jobs require technical skills, society needs to acknowledge the value of this type of education. Lake Area Tech works extremely hard to communicate that these degrees are as vital to our country as any type of degree.

LATI has strong vital partnerships with businesses. Every program has an active Advisory Board which meets each semester to provide input on curriculum and relay industry trends which impact our instruction. Partners are asked to contribute time, talent, and financial resources.

Muth Electric, Inc.

The shortage of a skilled workforce has become steadily worse in the last few years. It was at a critical stage in 2007 but the recession slowed it somewhat. Now the problem is back and even worse.

We believe strongly in the value of hiring educated apprentices from a technical institute in our area. During the recession there were about 4 companies attending the job fair recruiting the 30 or so graduating students. At the event in the last month there were 36 companies recruiting the 32 graduates. All construction and service based companies in the upper Midwest are at an extreme shortage of workers.

What this means is that in the next 10 years there will be a critical situation in the battle for a sufficient skilled workforce. This workforce (in our case electricians) is the same team that will make sure that the hospitals' ever-growing electronic workplace gets the proper maintenance to protect its patients. This team of workers also makes sure our food processing plants get upgraded and maintained to produce the needed food for the population of the US. The list goes on and on of critical situations.

Attachment 1: Stories from Industry

Even with the growing labor saving technology features available, there are still many needs for a trained workforce. We have instituted many efficiency aids in the construction field but there are still critical positions that need to be filled with humans. We need help in ensuring that there are people to fill those critical positions to serve the needs of the US. --- Terry Sabers, Co-President, Muth Electric, Inc.

Trail King Industries, Mitchell, SD

Trail King Industries is a privately owned manufacturer of large scale specialty trailers employs approximately 700 employees and has manufacturing sites in Mitchell and Yankton, SD and Fargo, ND.

In a period of approximately 16 months in 2013 and 2014, Trail King had to turn down \$20 million of business because we did not have the skilled workers, specifically welders, to complete the business in the timeframe needed by the customer. Even though Trail King used a number of innovative and very generous recruiting methods and employed robotic welders where possible, there simply were not enough skilled welders available to fill the needs of the company.

Trail King has invested heavily in the welding programs of the technical colleges in South and North Dakota in hopes of nurturing a consistent pipeline of qualified welders. It has also been instrumental in establishing the South Dakota Skilled Workforce Advocacy Council as proactive measures to grow the workforce. We believe, however, that a much broader national effort will be required to address the skills gap that has developed across the United States if this nation is to be competitive in manufacturing.

Glacial Lakes Energy, LLC, Watertown, SD

We consistently incur higher costs (such as overtime) when we cannot easily and readily find qualified labor. In our production operation, the plant has to run and we are forced to pull in operations staff from other shifts to cover the vacancies that sometimes sit for months. This results in higher overtime costs and potential “burn-out” of our existing team members.

Another frustrating aspect is the quality and quantity of applications we receive. Many times, we receive only a 1-3 applicants with less than desirable backgrounds for a position which gives us limited options in the selection process. --- Jim Seurer, Chief Executive Officer, Glacial Lakes Energy, LLC

Gage Brothers, Sioux Falls, SD

Gage Brothers was founded by members of the Gage family in 1915 and has been employee-owned since 2008. Our company has struggled to maintain a full workforce for several years and regularly have anywhere between 10-40 job openings. These positions include but are not limited to: production workers, carpenters, welders and equipment operators.

This lack of skilled workers has cost the company approximately \$5 million in sales each of the past three years. Additionally, we have sold between \$2-6 million in work to a competitor in Minnesota in order to keep our production schedule on track.

Part of the solution lies in automation, which has transformed U.S. manufacturing. This will require us to ramp up job-training efforts because we will need workers who can operate, program and maintain the new computerized equipment. No matter how you slice it, we need the manufacturing industry and our education system to join forces to create a system to recruit, train and retain skilled workers. It is

Attachment 1: Stories from Industry

paramount to the future economic growth and prosperity of South Dakota. Every dollar of manufacturing produces \$1.41 for our state. --- Terry Kelly, President, Gage Brothers, Sioux Falls, SD

Hancock Concrete, Sioux Falls, SD

At Hancock Concrete we are producers of precast concrete products for infrastructure projects across 4 states in the upper Midwest. Our Sioux Falls production facility supplies product for projects in eastern South Dakota and northwest Iowa. The months of March through November are the heaviest months of production and when we are most in need of workers.

In the past few years it has become increasingly difficult to find laborers to fill out all of the crews that we have in our Sioux Falls plant. We have found that the labor pool in the local area is just not consistent enough for the type of work we do. During the past few years we have had to go to extreme measures to ensure we had enough laborers to fulfill all of our orders. These extreme measures included bringing laborers in from outside the state from as far as Texas, just to make sure we could fill our crews with consistent workers. This was an increased financial burden for Hancock as we would house those out of state workers and need to perform additional training each year when we brought them in. Also, during that time of worker shortage, we had to look to our other plants in neighboring states for help to make product to fulfill our orders. At times we would back away from bidding on projects because we did not know if we would have enough workers to meet the delivery needs of the customers.

The labor shortage affects our current employees as well. They are required to work longer hours to fulfill orders which in turn is an increased safety risk and also increases turnover. One other adverse effect of the items that I have described is increased product cost for the infrastructure projects which affects all tax payers.

This area of the Midwest has a shortage of workers for performing specific technical trades as well as a lack of general laborers that have the desire to put in the work necessary to perform less skilled jobs that at times may be more physically demanding than working a department store or restaurant. We have hired many employees and looked at many different backgrounds and ethnicities but the consistency is just not there. We will continue to explore other options for our labor needs and help to grow our local workforce in any way we can. --- Ray Pierson, Sales Territory Manager, Hancock Concrete, Sioux Falls, SD

Worthington Industries Engineered Cabs, Watertown, SD

At Worthington Industries Engineered Cabs, our business levels are at historic lows due to equipment markets in Agriculture, Mining, and Construction. Even with an extremely slow market we struggle to fill open positions for skilled labor especially welders and painters. Some of these positions have remained unfilled for 3-4 months before finding a qualified candidate. We have a sister plant in Greeneville, TN that builds very similar products. One of the considerations on whether to build products in SD or TN is labor availability. I want to keep all possible jobs in SD, but we also have to make the best business decisions for our business and our customers. Skilled workforce development and availability is a key factor in our ability to grow our business in SD.

--- Bruce Lear, Watertown Operations Manager, Worthington Industries, Watertown, SD

BX Civil & Construction, Inc.

The ability to grow a construction company is currently constrained by the available workforce and our ability to attract, train & retain that workforce. At the same time infrastructure is in major disrepair and needs a long-term investment to preserve and increase the value of our communities, states and nation.

As a highway construction company, we have shifted our mindset to managing our work load based upon available workforce hours. Our growth as a company is now based up how much we think we can reasonably grow our workforce. Companies in our industry grow incrementally by in-house recruitment and training people on the job. We knowingly or unknowingly “trade” or “steal” employees from each other on a seasonal basis. Some like us have embraced the immigrant workforce and have grown with that population. The reality is that none of that is sustainable as a stand-alone tactic. We work hard to attract and retain our scarce resource. We realize that all employees need an investment in skills, communication & leadership training. Gone are the days of the “farm boy” who grew up working along the side of his father. That boy not only learned work ethic by working from a very young age but also learned that he had the ability to learn and do new things every day with his hands. Those days brought people like my father to the construction industry in the 1960s. He learned by doing and out of necessity to support himself and his family. His learning was by watching, listening and doing. He learned not only to do, but also to think about how to do it better.

The initial building of the interstate system in the 60s, 70s and 80s was supported on the hard-working backs of people like my father and many other fathers. Growing up in the 70s and 80s and like most, if not all, of my peers, we were told to get a “college” education by our parents & teachers so that we didn’t have to dig ditches or build bridges. Many of us did. Now, we face a dilemma as we push our children out of the nest. How do we change the image and mindset of the influencers? The educators and parents are the influencers. They don’t realize how “good” our jobs are.

We need to invest in changing their perspective. At construction industry gatherings in the 90s, we started hearing that we had a looming demographic problem. People were leaving the industry at a much faster pace than they were entering the industry. This proved to be fact. Add on top of that the great recession of 2008-2009 when unemployment increased and at alarming pace in our overall economy. It was significantly worse in the construction industry. That event made what was already and downward employment trend in our industry worse. Generally, the people that were unemployed by our industry never returned to the industry when the industry entered recovery. They had either moved on to other industries or retired out.

Fast forward....it is now 2017. We have a collision occurring. Infrastructure investment is recognized to be Critical Need both locally and nationally and our citizens are willing to reinvest. At the same time, the skilled Construction worker force is in scarce supply and largely untrained.

How do we do the first without addressing the second? The reality is that the industry will rise with innovation and efficiency, but the need for a trained & skilled workforce will not go away. The technology and efficiency improvements will require people with specific skills. People like:

- *Diesel Mechanics*
- *Service Technicians*
- *Electronics Technicians*
- *GPS Specialists*
- *3 and 4D modeling specialists*
- *Scheduling Experts*
- *Project Managers*
- *Engineers*

Attachment 1: Stories from Industry

There will continue to be the need for skilled laborers, skilled trades people & skilled equipment operators. What are those skill needs?

- *Concrete Finishers*
- *Carpenters*
- *Electricians*
- *Plumbers*
- *Welders*
- *HVAC Specialists*
- *Equipment operators who have basic operational skills & understand technology*
- *Truck Drivers*

As opposed to the 1960s and 1970s, close to 100% of our American workforce comes to us having never: changed the oil in their own car; driven anything but an automatic transmission vehicle; scooped their own snow let alone dirt or gravel; fixed anything that was broken; built even a bookshelf; wired their own light switch; etc. All those things and many more, my dad and yours probably came to the workforce having done. Not only do we as infrastructure contractors build projects, we train every single worker to do even the simplest tasks. We aren't backing down. We are up for the TASK! If you visit any contractor who is in this "gig" for the long haul, you will see they are:

- *Training hands-on trade skills*
- *Training to keep their workers safe*
- *Training soft skills including work ethic, interpersonal skills and leadership skills.*
- *Investing in Technology to make them more efficient*

Not only are they training, they are providing good solid jobs that pay well and provide a multitude of perks and benefits. We need HELP! This training and investment takes time and money. Please support investing in programs that enhance and support the great jobs that our industry offers.

--- Kari Karst, President, BX Civil & Construction, Inc. Dell Rapids, SD

Glacial Lakes Energy, LLC

I can say that we consistently incur higher costs (such as overtime) when we cannot easily and readily find qualified labor. In our production operation, the plant has to run and we are forced to pull in operations staff from other shifts to cover the vacancies that sometimes sit for months. This results in higher overtime costs and potential "burn-out" of our existing team members.

Another frustrating aspect is the quality and quantity of applications we receive. Many times, we receive only a 1-3 applicants with less than desirable backgrounds for a position which gives us limited options in the selection process.

--- James A. Seurer, Chief Executive Officer, Glacial Lakes Energy, LLC, Watertown, SD 57201

Sheehan Mack Sales and Equipment

In the past 20 years or ever since the DOT COM boom is seems that nationwide we have had a decline in the amount of qualified individuals entering the workforce with a skilled trade (technicians). In the same time machines, trucks and equipment have all become more complex and more difficult to repair. The demands on our Technicians are greater now than they have ever been in the past while the supply of qualified individuals has only shrunken. With the combination of these two factors companies like ours have felt the pain of the shrinking work force in the form of increased cost, lost revenue and customer satisfaction.

Limited skilled labor in the workforce has

Attachment 1: Stories from Industry

- *Increase wages at alarming rates*
- *Increased the burden of training on us*
- *Hurt our ability to respond to customers quickly and efficiently*
- *Created a labor market where there is more demand for skilled labor than supply (this has helped to lower loyalty and increased the likelihood of techs job hopping)*

Let's look at what the shortage of trained individuals costs us

- *Hiring, sign on bonus' are common place now (Between \$2,000 and \$5,000)*
- *Wages have increased to more than 17% over median income for State of SD*
- *Training costs have skyrocketed to about \$100,000 per technician to reach required levels of training once they are hired*

Now, let's look at the indirect costs of not having trained skilled labor

- *Loss income from supporting products we sell – less work completed*
- *Increase in customer downtime – less production*
- *Loss in New Machine and Truck Sales – customer are more concerned now than ever with support after the sale*
- *Increased lead time to begin repairs, longer repair times*

I have calculated that that these direct and indirect costs to my business are in the hundreds of thousands if not more than a million dollars per year. Moving into our busy construction season I am afraid that the lack of trained individuals may be at CRISIS Levels.

Building our labor force with skilled labor is more important now than ever before! We need high school programs, post-secondary programs and technical institutes geared up and adding top talent into our workforce. We need High School Counselors to see and understand the need for Skilled Labor in our workforce. We need Parents and Students to know and understand the great earning potential that is available to them after attending a trade school and incurring very little school debt. We need technicians that are great in math, science and have people skills. We need to change the mindset or perception on skilled labor. Skilled labor jobs pay well and these jobs are out there right now needing top candidates. These skilled worker once in the field are our next Service Managers, General Managers, Fleet Managers and leaders of our industry.

--Mike Sheehan, President, Sheehan Mack Sales and Equipment, Sioux Falls, Aberdeen, Rapid City, SD



It's your world.

LAKE AREA TECHNICAL INSTITUTE



2017 Recipient of the Aspen Prize for Community College Excellence

This point paper is a brief overview of the high points for Lake Area Technical Institute since our 2015. Much of the press and national level engagement stems from our Aspen Prize recognition.

New Mission Statement reflects new definition of success: Lake Area Technical Institute: superior, comprehensive technical education that changes lives and launches careers.

Philosophy: What is different about Lake Area Tech? Some things we believe:

- Success is defined as placement rather than graduation.
 - College is a pathway, not a destination.
 - It about what a student wants to be. Changes the conversation, the motivation, and the connection.
 - We do not place students, we give them the skills (soft and hard) and opportunities to be placed.
- Connections are key to student success
 - Every job is important to student success. Faculty are student advisors, guiding them through college and into their career. Staff in all positions mentors students.
 - Lake Area Tech fosters a culture of caring. Statistically it is more important for students to make a meaningful connection on campus than any other student success factor.
 - We tell every student “Be around people who care about you and care about those around you, and you will both succeed”.
 - The community and industry play key roles in student desire and confidence.
 - LATI new Scholar Stone connections current students with Alumni and heritage.
- Lake Area Tech is committed to a participatory management approach and a continuous planning process.
- Community/Industry connections, support, and oversight are crucial to LATI’s culture and success.
 - Efforts to engage industry in student success.
 - Added two Business Partnership Specialist position to further enhance industry’s understanding of their role in student success.
 - LATI Community and Business “Learn where you Earn” pilot projects underway.

Success Indicators:

- **Enrollment:** 13 consecutive years of enrollment growth; the student population is at the level projected for 2033.
- **Retention:** 83%, highest in the nation. WalletHub cites LATI #1 graduation rates as 20 times that of some community colleges.

- **Placement:** Increased from 98% to 99.12% employed or continuing education. Two programs had average graduate salaries over \$50,000 per year six months after graduation.
 - **Native American:** Graduation rate increased to 68.75%. Placement of 100%. Average salary after graduation higher than their peers.
 - **Low-income students:** Retention is up. 8% gap in graduation from their peers has been removed, in fact last year low-income students outperformed their peers in graduation rate (84% to 79%).
 - **Dual Credit:** Our high school dual credit program has doubled. This semester we are providing over 1000 credit hours of dual credit to area HS students.
 - **Build Dakota Scholarship program:** Key success factor to keeping college affordable. Couple with Governor's buy down of \$10/credit on student tuition.
 - **Overwhelming Community Support:**
 - **K-14 System:** Lake Area Tech and the Watertown School District are uniquely a true K-14 system. In Fall 2014, high school students across the state are enrolled in over 1000 dual credits.
 - **Community Embrace:** The Watertown community embraces our students and our mission.
 - **Industry Advisory Boards:** Each program engages industry advisory boards to ensure our graduates meet the need of industry. Over 500 business and industry partners participate in educating and employing our students.
 - **Addressing our growth needs:** Seeing LATI need for future growth and the potential lack of state funding, the community has stepped forward and formed the "Creative Finance Advisory Committee" focused on providing funding options for LATI (recent endeavor).
 - **Build Dakota Scholarships (BDS).** T. Denny Sanford and Governor Dugaard contributed \$50 million to fund full-ride scholarships in high-demand workforce programs starting in Fall 2015. Industry partners added \$185,000 through the Stretch the Million program that matches the industry contribution of 50% of the full-ride scholarship with Build Dakota funding.
 - **Amendment R.** The voters of the state passed an amendment to South Dakota's constitution recognizing the technical institutes and solidifying our workforce development mission.
 - **House Bill 1182:** The legislature passed a sales tax to, in part, help SD technical institutes offer industry competitive salary adjustments to recruit/retain instructors.
-

PRESIDENT BARACK OBAMA, 2015 LAKE AREA TECH COMMENCEMENT ADDRESS (93RD SUCH ADDRESS IN US HISTORY BY A SITTING PRESIDENT)

(EXCERPT from White House release)

"Well, the reason is because I believe that in a fast-paced, hyper-connected, constantly changing world, there are few institutions that are more important to America's economic future than community colleges. And there are few community colleges that are as important as Lake Area Tech. This school is leading the way.

Compared with other community colleges, the graduation rate at Lake Area is more than three times the national average. Three times. (Applause.) Within six months, 98 percent of those graduates -- you -- are either employed or continuing your education. The average Lake Area graduate who enters

Attachment 2: An Overview of Lake Area Technical Institute

the workforce earns nearly 50 percent more than other new hires in this region. And as has already been noted, since 2011, there's been an award for excellence called the "Aspen Prize." It's basically the Oscars for great community colleges. Only two community colleges in the country made the top 10 every year the prize has been awarded -- and one of them is Lake Area Tech. (Applause.)

This is not an accident. It's the result of a relentless focus on teaching real-world skills that lead directly to a job. In your time here, you've done hands-on work with companies across the upper Midwest. Employers even help design the curriculum. You work direct with the tools and the technology that you'll encounter in the workforce -- from car engines to welding equipment to your new MakerSpace, with 3D printers that were actually built by Lake Area students. And your instructors haven't just taught you new skills -- they've helped place you in new careers.

And you might think all this attention on job training comes at the expense of great teaching -- but if anything, the opposite is true. This is the kind of place where students are on a first-name basis with their instructors. If you call at 10 p.m., they'll answer your call -- although I hope you don't do that, because folks need their sleep. If you don't make it to morning classes, they'll check up on you and make sure you're okay. I heard one student who skipped school to go hunting found that out the hard way that somebody was going to check up on you. (Laughter.) One of today's graduates, Colin Blume -- where's Colin? Raise your hand. (Applause.) Stand up, Colin, just so you -- hey, that's Colin. Colin is a big guy, by the way. So Colin -- I'm going to quote Colin on this. He said, "You're family, and they'll do anything to help you along the way.""

International press story on LATI: Prompted by Aspen notoriety, LATI was featured in "*The TakeAway*", which is daily news show out of New York City, but broadcast nationally, the title of article is: *What's the secret to a nation full of successful community colleges? South Dakota may have the answer.* They highlight LATI's ThinkBIG program. The Takeaway is an award-winning daily news show produced by WNYC in partnership with The New York Times and Public Radio International. The show airs across the country on more than 200 stations, reaching upwards of 2 million listeners nationwide. Their goals include deepening public understanding of the role of community colleges in driving economic growth and expanding social mobility in America. "*The TakeAway*" featured LATI in two stories:

Story 1:

<http://www.wnyc.org/story/introducing-lake-area-technical-institute/>

Story 2:

<http://www.pri.org/stories/2015-11-18/whats-secret-nation-full-successful-community-colleges-south-dakota-may-have> (The audio interview is what is actually airing.)

PBS Documentary features LATI. The series "Dropping back in" is a documentary produced by Kentucky Education TV, and was about 14 months in the making. LATI is featured in the fourth episode, highlighting our commitment to student success of underprivileged students. The LATI segment in the bottom left-hand side segment (titled *Lake Area Technical Institute*) on the linked page:

<http://www.droppingbackin.org/the-stories/>

Other Stories of our Success:

- Only college in the nation to finish the Aspen Prize competition as a Finalist with Distinction all three times.
- Participated in the Championing Completion of Low Income Students strategy session with Dr. King, the US Secretary of the Department of Education, as one of only two community colleges represented .
- Selected to author a case study for the Aspen Institute’s leadership curriculum. This curriculum for Aspen’s Presidential Fellowship program demonstrates LATI’s unique approach to problem solving and student success.
- Invited by the White House to participate in the College Promise/Heads Up, It’s on Us , & College Affordability campaigns.
- Low Income Student Success: LATI was featured in an Aspen Institute publication “Structural Equity: Big-Picture Thinking & Partnerships That Improve Community College Student Outcomes” for improving the graduation rate of Pell Grant recipients from 8 percentage points behind non-Pell students to surpassing the average graduation rate for all students.
- Hosted the White House Administration for a session on the College Promise Campaign at the annual Western Interstate Commission for Higher Education annual conference.

Highlighted National Accolades:

- Aspen Finalist with Distinction (2011, 2013, 2015)
- Presidents Community Service Honor Roll – seven times named Honor Roll designations, over 80,000 hours of community service and community learning annually
- Military Friendly Designation – seven years
- Marcom National Marketing Awards – Platinum Award winner for marketing (twice) and Gold awardees multiple times
- Digital Community Colleges – Top 10 in the nation two years in a row.
- Great Colleges to Work For – 7 years with Honor Roll distinction
- Numerous online awards: WalletHub, Niche, etc.

Lake Area Tech 2016 Placement Report



**LAKE AREA
TECHNICAL INSTITUTE**
It's your world.

P. O. Box 730
Watertown, SD 57201
www.lakeareatech.edu

Lake Area Technical Institute 2015-16 Placement Report by Clusters

Clusters	Programs	CIP Code	Graduates	Number Responding	Number in South Dakota	Continuing Ed / Military	Not in Labor Market	Still Seeking	Total Employable	Total Employed	Employed in Field	Employed in SD	Employed in Field in SD	% Employed	% Employed in Field	Avg Hourly Salary
Agriculture, Food & Natural Resources	Agriculture (AAS)*	01.0101	138	138	117	15	1	0	122	122	116	101	95	100%	95%	\$21.83
Agriculture, Food & Natural Resources	Environmental Tech (AAS/Diploma)	03.0104	4	4	1	2	0	1	2	1	1	0	0	50%	50%	\$14.00
Architecture & Construction	Building Trades (AAS)	46.0201	7	6	6	1	0	0	5	5	5	5	5	100%	100%	\$16.08
Architecture & Construction	Heavy Equipment Operations (AAS/ Diploma)	49.0202	15	14	11	3	0	0	11	11	11	8	8	100%	100%	\$19.90
Finance	Financial Services (AAS)	52.0803	16	15	13	0	0	0	15	15	13	13	11	100%	87%	\$13.97
Health Science	Dental Assisting (AAS/Diploma)	51.0801	38	37	32	3	0	0	34	34	33	29	28	100%	97%	\$16.71
Health Science	Medical Assisting (AAS/Diploma)	51.0801	15	15	15	0	0	0	15	15	15	15	15	100%	100%	\$12.32
Health Science	Medical Lab Tech (AAS)	51.1004	9	9	7	0	0	1	9	8	8	6	6	89%	89%	\$18.14
Health Science	Occupational Therapy Asst (AAS)	51.0803	21	21	13	2	1	1	18	17	15	11	9	94%	83%	\$20.96
Health Science	Physical Therapist Asst (AAS)	51.0806	23	23	15	0	0	2	23	21	18	13	11	91%	78%	\$19.27
Health Science	Practical Nursing (Diploma)	51.3901	57	57	49	24	0	1	33	32	32	26	26	97%	97%	\$17.49
Human Services	Cosmetology (Diploma)	12.0401	29	28	27	2	0	0	26	26	24	25	23	100%	92%	
Human Services	Human Services Tech (AAS/Diploma)	44.0000	43	43	39	26	0	0	17	17	11	16	11	100%	65%	\$10.73
Information Technology	Computer Systems (AAS)	11.0701	12	11	10	1	0	0	10	10	9	9	8	100%	90%	\$17.12
Law, Public Safety, Corrections & Security	Law Enforcement (AAS)	43.0107	12	12	11	0	0	0	12	12	10	11	10	100%	83%	\$19.72
Law, Public Safety, Corrections & Security	Med/Fire Rescue (AAS)	51.0904	3	3	2	0	0	0	3	3	3	2	2	100%	100%	\$22.26
Manufacturing	Energy Operations (AAS)	15.0613	5	5	4	1	0	1	4	3	3	2	2	75%	75%	\$20.18
Manufacturing	Energy Technology (AAS)	15.1001	9	9	8	1	0	0	8	8	5	7	5	100%	63%	\$25.93
Manufacturing	Precision Machining (AAS/Diploma)	48.0501	25	25	24	2	0	0	23	23	22	22	21	100%	96%	\$22.86
Manufacturing	Electronics/Robotics (AAS)	15.0405	12	12	11	2	0	0	10	10	9	9	8	100%	90%	\$22.01
Manufacturing	Welding Technology (AAS/Diploma)	48.0508	48	48	45	24	0	0	24	24	20	21	17	100%	83%	\$16.90
Marketing	Business Associate/Entrepreneurship (AAS/Diploma)	52.1401	35	34	30	5	1	0	28	28	25	25	22	100%	89%	\$13.53
Transportation Distribution & Logistics	Automotive (AAS)	47.0604	21	20	19	1	0	0	19	19	18	19	17	100%	95%	\$17.15
Transportation Distribution & Logistics	Aviation Maintenance (AAS/Diploma)	47.0608	11	11	4	2	1	0	8	8	7	2	1	100%	88%	\$19.26
Transportation Distribution & Logistics	Custom Paint & Fabrication Technology	47.0603	20	20	19	2	0	1	18	17	14	16	13	94%	78%	\$15.78
Transportation Distribution & Logistics	Diesel Technology (AAS)	47.0605	73	73	65	2	0	2	71	69	65	61	57	97%	92%	\$20.58
Transportation Distribution & Logistics	High Performance Engine Machining (AAS/Diploma)	47.0615	7	7	6	0	0	0	7	7	7	6	6	100%	100%	\$17.44
TOTALS			708	700	603	121	4	10	575	565	519	480	437	98%	90%	

* Wage figures do not necessarily include bonuses, overtime, or the earnings of graduates who are self-employed farmers.

**Cosmetology salaries are heavily comprised of commission, tips, and retail sales so accurate salary data is not available.

2015-2016 LATI Graduates

Graduates	708	
Graduates Responding	700	99% of Total Graduates
Graduates Not in the Labor Market*	4	1% of Graduates Responding
Graduates in the US Armed Forces	2	0% of Graduates Responding
Total Seeking Placement (Grads Responding - Not in Labor Market - Military)	694	99% of Total Graduates Responding
Graduates Reporting Continuing Education	119	17.15% of Graduates Seeking Placement
Graduates Employed	565	81.41% of Graduates Seeking Placement
- Graduates employed in South Dakota	480	85% of Total Graduates Employed
- Graduates employed in a training-related field	519	92% of Total Graduates Employed
- Graduates employed in a training-related field in South Dakota	437	84% of Total Graduates Employed in training-related field
Graduates Seeking Employment	10	<1.4% of Graduates Seeking Placement

OVERALL GRADUATE PLACEMENT RATE (Employed or Continuing Education) = 98.56%

Not in Labor Market is self-reported status and includes such cases as chronic illness, raising families, or severe injury