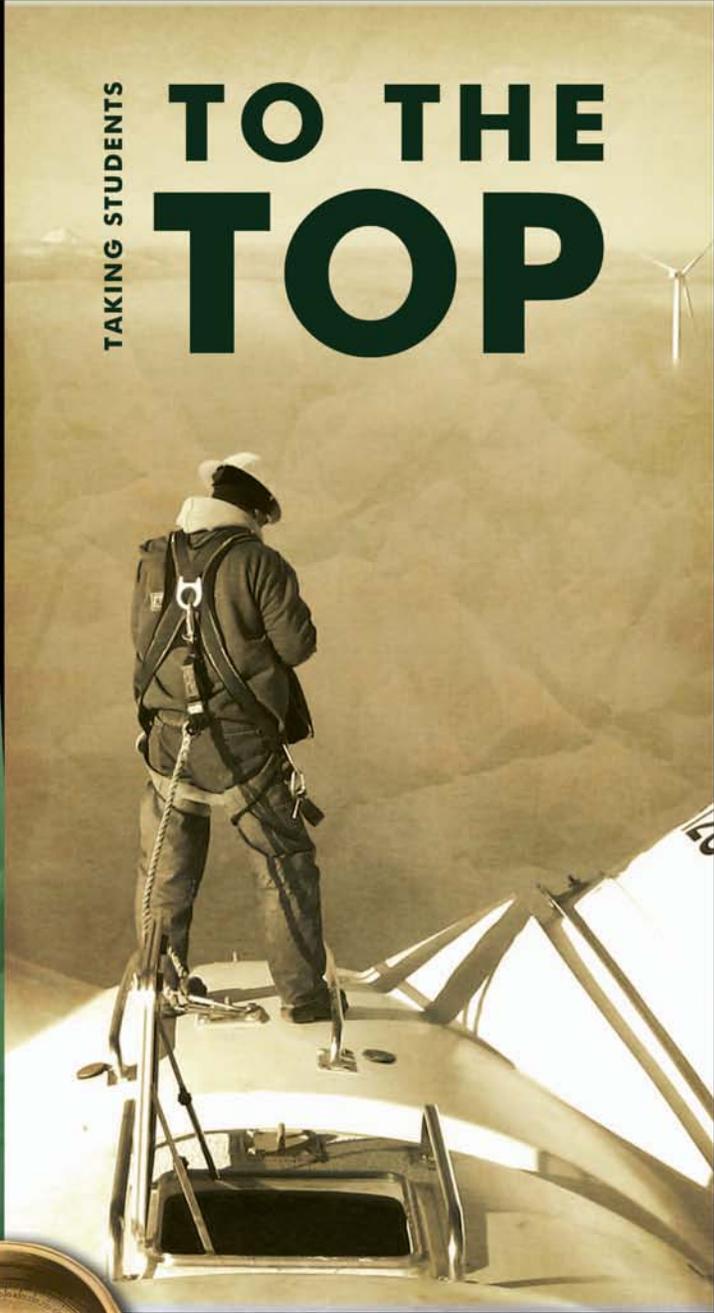


TAKING STUDENTS

# TO THE TOP



*South Dakota*  
**Technical Institutes**  
Annual Report 2010

**Meeting South Dakota's evolving skilled  
workforce demand by providing quality  
graduates with the general aptitudes,  
knowledge, technical skills and people  
skills necessary for entry into and  
advancement in their chosen career field.**

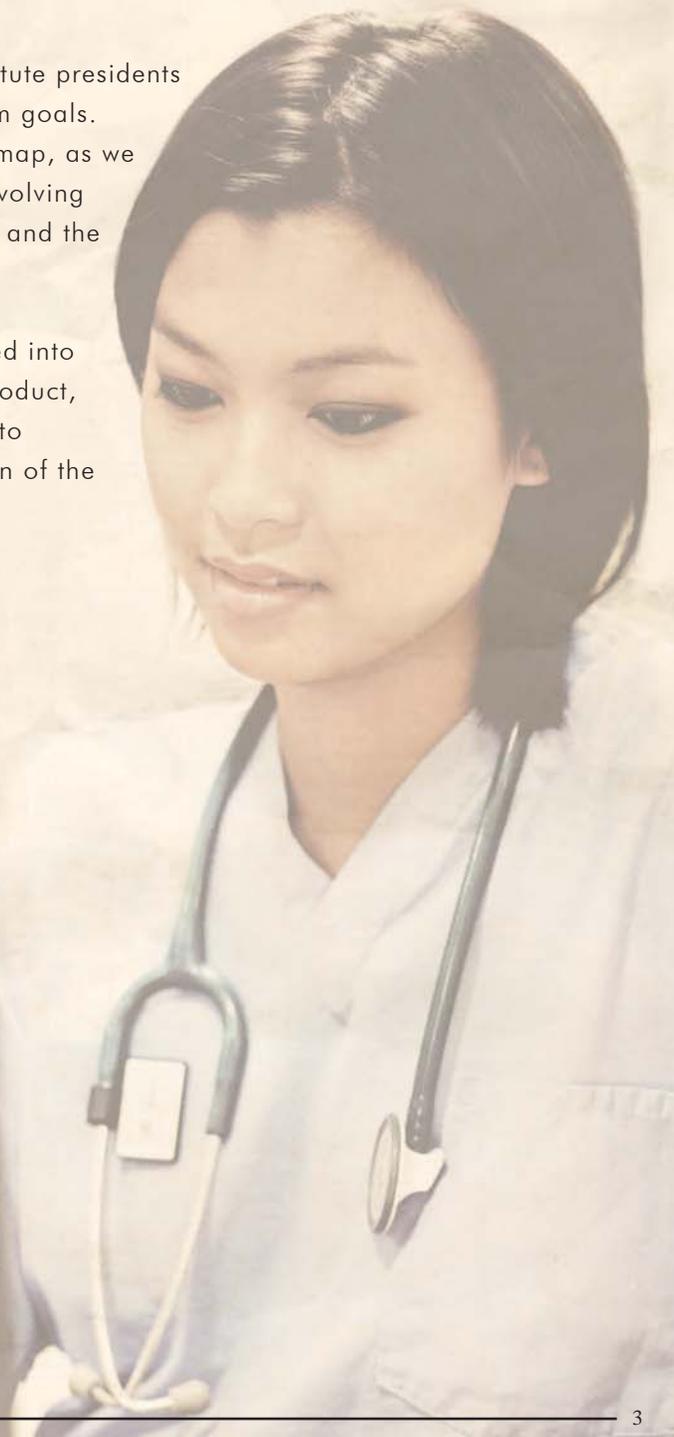


## the way for economic progress

A lot of exciting things happened during the 2009-10 school year at South Dakota's four Technical Institutes. Enrollment was at a record level; facility improvements continued as planned; and, after careful study of market factors, we made preparations to roll out several new programs. With fiscal responsibility always a concern, we also eliminated some programs that have outlived their relevance in today's economy.

In addition, the Technical Institute presidents spent time updating our system goals. We use these goals as a roadmap, as we strive to meet the constantly evolving demands of business, industry and the workforce.

These goals can be categorized into one of four areas – People, Product, Plant and Plan – and all seek to advance the vision and mission of the Technical Institutes.



# Quality People

## STANDIN G

### Behind our product

The Technical Institutes experienced record enrollment in 2009-10. Nearly 6,000 students were enrolled across the system – an increase of 18 percent over the previous year. In the fall of 2010, for the first time ever, the four schools have more than 6,000 students between them.

This record enrollment is a reflection of our reputation as leaders in technical education. Our faculties play a critical role in that reputation. Their commitment to excellence, their expertise in their fields, and their passion for giving students relevant and meaningful learning experiences means our graduates are ready to hit the ground running when they enter the workforce.



## 10-Day Enrollment Count



## Retention by Career Cluster (2009-10)

Agriculture, Food & Natural Resources	80%
Architecture & Construction	73%
Arts, Audio-Video Technology & Communications	66%
Business, Management & Administration	66%
Finance	83%
Health Science	86%
Hospitality & Tourism	67%
Human Services	74%
Information Technology	64%
Law, Public Safety & Security	65%
Manufacturing	79%
Marketing, Sales & Services	68%
Science, Technology, Engineering & Math	76%
Transportation, Distribution & Logistics	76%

**OVERALL**

**74%**



## practical skills

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Southeast Tech's "Golf Cart Project" was the invention of CAD Instructor Ron Sorensen. Sorensen, who wants to make sure his students understand the connections between their CAD drawings and the finished product, dreamed up the project for Reverse Engineering CAD IV. "This is a capstone course combining skills learned in engineering courses like Materials and Methods as well as Machine Tool and, of course, CAD drafting," Sorensen said.

Students were required to disassemble a golf cart and then set to work measuring every single part and drawing the parts in AutoCAD before reassembling it. Once finished, they took their final product out for a spin around campus!

"Employers tell us they want to see two things from our graduates," said CAD Engineering Instructor Lloyd Lunde. "One is knowing the basics of drafting and manufacture. The other is the ability to visualize an object, create it in their mind, and to produce a working drawing from that visualization. This class helps the student to develop these skills."

Heating/ Ventilation/ AC/ Refrigeration  
Southeast Technical Institute

Program cost: \$12,698

Average starting salary: \$32,656

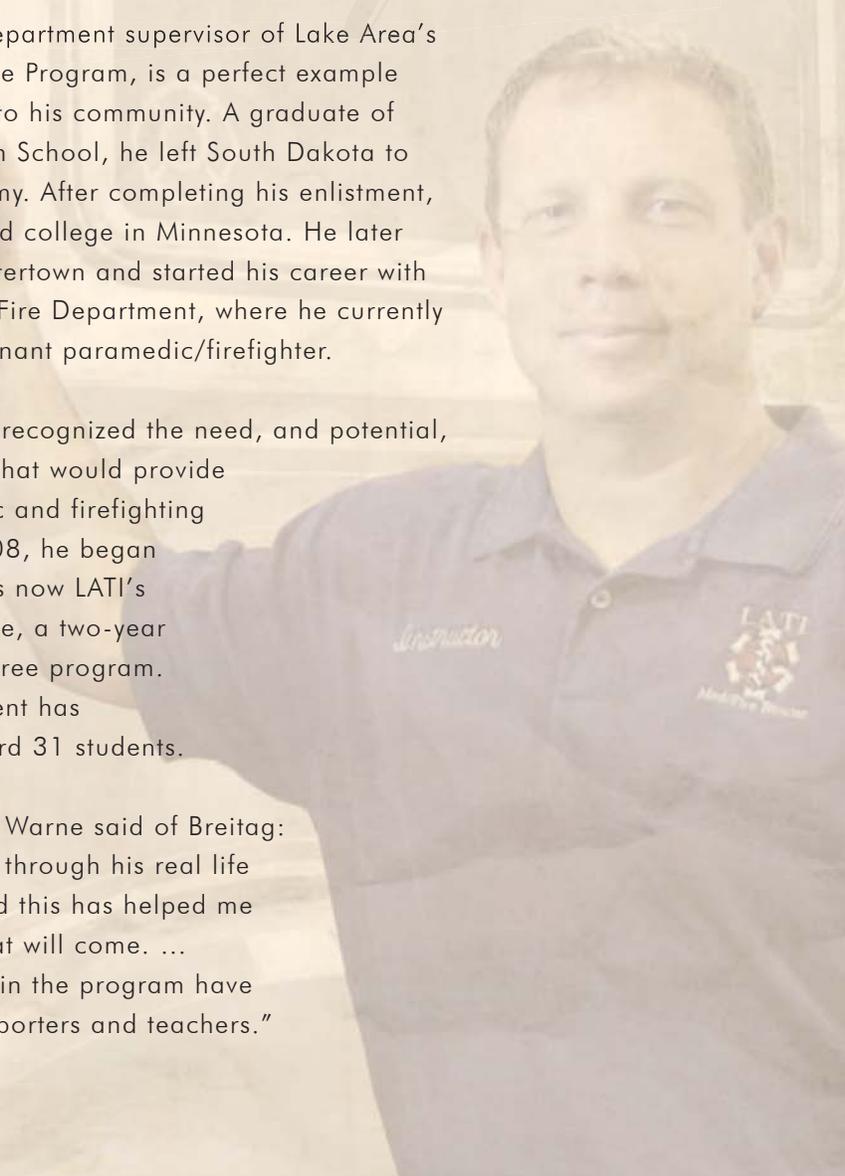
*Quality People*

**by example**

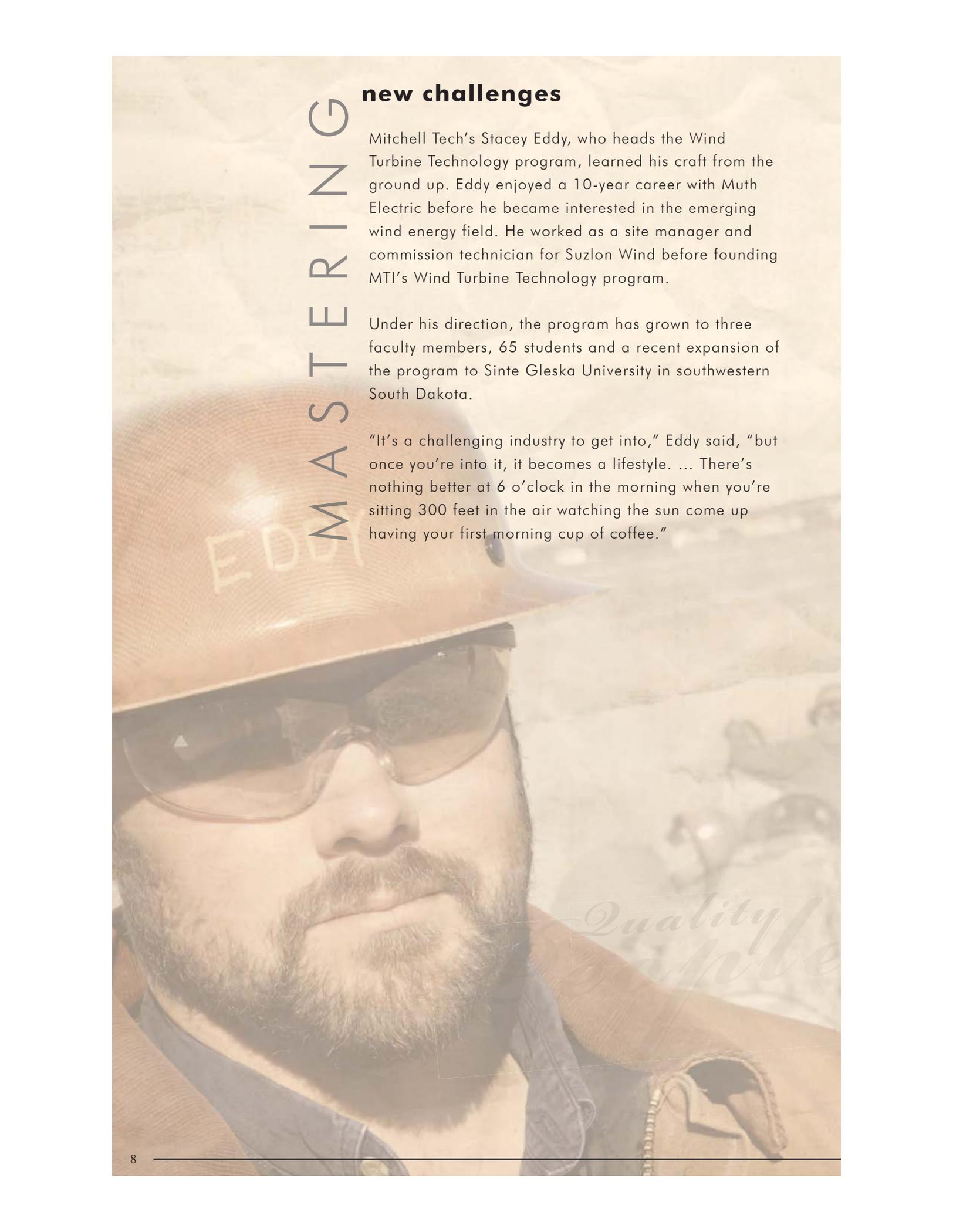
Troy Breitag, department supervisor of Lake Area’s Med/Fire Rescue Program, is a perfect example of giving back to his community. A graduate of Watertown High School, he left South Dakota to enlist in the Army. After completing his enlistment, Breitag attended college in Minnesota. He later returned to Watertown and started his career with the Watertown Fire Department, where he currently serves as lieutenant paramedic/firefighter.

Breitag quickly recognized the need, and potential, for a program that would provide both paramedic and firefighting training. In 2008, he began building what is now LATI’s Med/Fire Rescue, a two-year associate’s degree program. Today, enrollment has reached a record 31 students.

Student Megan Warne said of Breitag: “He teaches us through his real life experiences and this has helped me understand what will come. ... The instructors in the program have been great supporters and teachers.”



Lake Area Technical Institute was named as one of The Chronicle of Higher Education’s 2009 Great Colleges to Work For. Lake Area also made The Chronicle’s Honor Roll as one of the nation’s top three two-year schools in its size classification.



M A S T E R I N G

## new challenges

Mitchell Tech's Stacey Eddy, who heads the Wind Turbine Technology program, learned his craft from the ground up. Eddy enjoyed a 10-year career with Muth Electric before he became interested in the emerging wind energy field. He worked as a site manager and commission technician for Suzlon Wind before founding MTI's Wind Turbine Technology program.

Under his direction, the program has grown to three faculty members, 65 students and a recent expansion of the program to Sinte Gleska University in southwestern South Dakota.

"It's a challenging industry to get into," Eddy said, "but once you're into it, it becomes a lifestyle. ... There's nothing better at 6 o'clock in the morning when you're sitting 300 feet in the air watching the sun come up having your first morning cup of coffee."



# OPPORTUNITY

## of a lifetime

Western Dakota Tech's Welding Manufacturing Program teamed up with NASA's HUNCH Project to give students a once-in-a-lifetime opportunity to create a product for astronauts in training. WDT and Central High School students made stowage lockers – similar to those used on actual NASA flights – to be used by astronauts training at the Johnson Space Center and Marshall Space Flight Center.

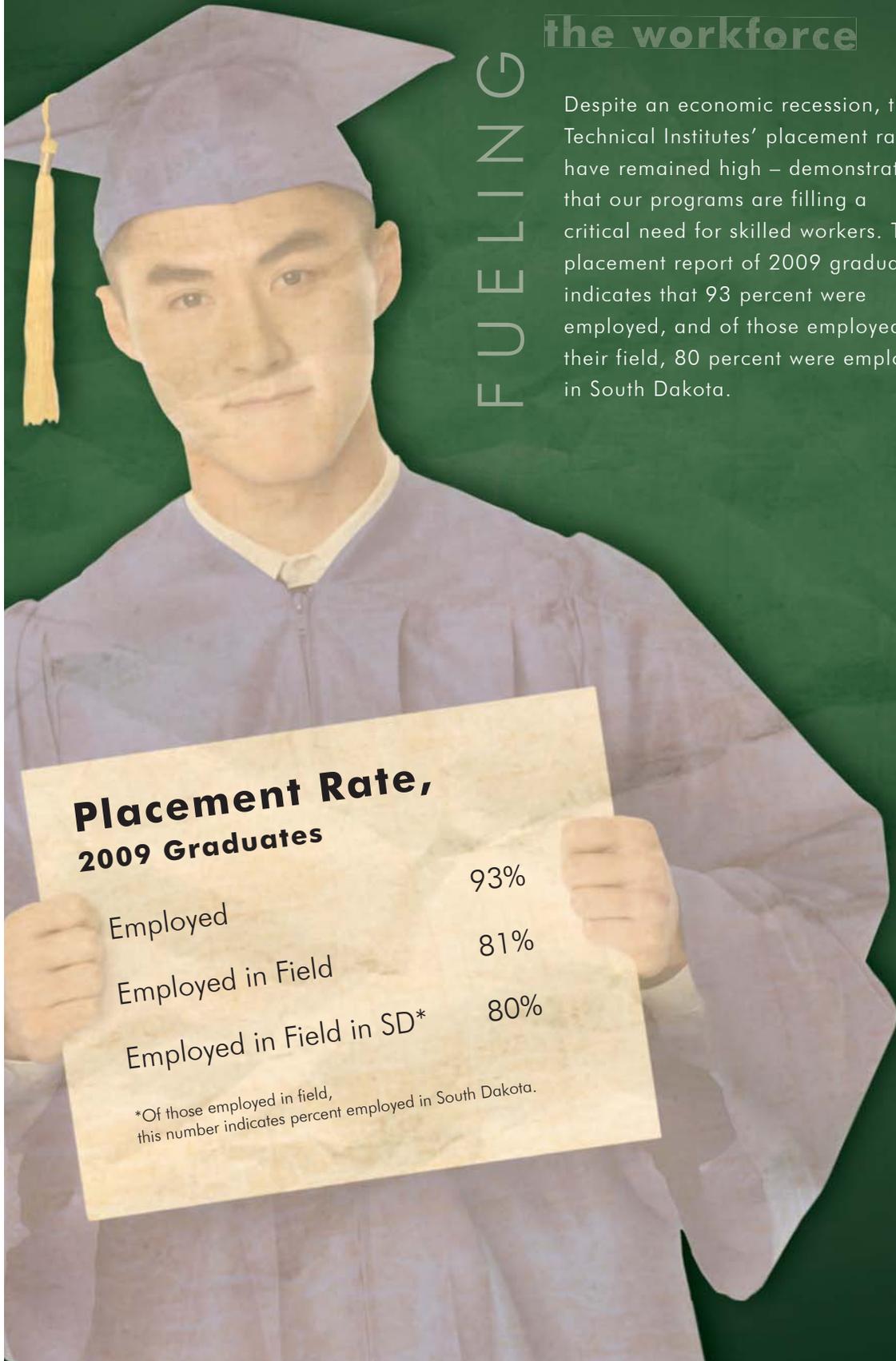
Instructor Luke Steinmetz was instrumental in arranging the project. "This is a first-class learning opportunity for our students," Steinmetz said. "These lockers need to be milled on specialized machines to meet NASA's specifications of thousandths of an inch tolerance."

"It's these types of real-world experiences that engage students and give them the confidence and skills they need to make real and immediate contributions to their employers," Steinmetz said.

Electrical & Electronic Technology  
Western Dakota Technical Institute

Program cost: \$15,236

Average starting salary: \$40,664



## the workforce

FUELING

Despite an economic recession, the Technical Institutes' placement rates have remained high – demonstrating that our programs are filling a critical need for skilled workers. The placement report of 2009 graduates indicates that 93 percent were employed, and of those employed in their field, 80 percent were employed in South Dakota.

### Placement Rate, 2009 Graduates

Employed	93%
Employed in Field	81%
Employed in Field in SD*	80%

\*Of those employed in field, this number indicates percent employed in South Dakota.

# PROGRAMS

## to boost the economy

Our programs are designed to meet the current and future workforce needs of South Dakota's employers, and to promote economic prosperity statewide.

Currently, the Technical Institutes offer 114 programs in 14 career clusters. They range from shorter diploma programs to associate of applied science degree programs, which can run up to 24 months. The Technical Institutes work closely with regional business and industry councils to anticipate workforce needs and to develop programming that makes sense with the economy. To ensure efficiency, all requests for new programs go through a vigorous feasibility study before final approval by the South Dakota Board of Education.

In 2009-10, several new programs were developed based on business and industry need. They will be offered for the first time in the 2010-11 school year. These include the new Speech Pathology Assistant Program at Mitchell Tech, which is the only program of its kind in the state, and the new Medical Assistant Program at Western Dakota Tech, which is near capacity in its inaugural year.

Annually, each program goes through a review process. This process includes data collection and tracking to ensure that the program is still effective in meeting today's workforce needs. With this process in place, we've been able to eliminate some programs that have outlived their relevance in today's economy.

Computer Systems, AAS Degree  
Lake Area Technical Institute

Program cost: \$12,577

Average starting salary: \$43,513

*Quality  
Product*



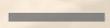
## green at MTI



With the global emphasis on protecting the environment, wind energy continues to emerge as a hot field.



Mitchell Technical Institute is dedicated to training technicians for Wind Turbine Technology. During 2009-10, MTI laid the groundwork for an expansion of the program to Sinte Gleska University on the Rosebud Reservation in southwestern South Dakota.



Students at Sinte will be able to complete a nine-month diploma without leaving their community and will be able to support an expansion of the wind energy industry in sparsely populated areas of western and central South Dakota.



MTI also offers the only Certified Green Professional and Energy Star Home Energy Rating System (HERS) programs in the state. All students in the Architectural Design and Building Construction Program become Certified Green Professionals, and students in the Heating and Cooling Technology Program learn HERS rating techniques. Energy efficient and green practices are also part of the Electrical Construction and Maintenance Program.



Telecommunications, AAS Degree  
Mitchell Technical Institute

Program cost: \$14,249

Average starting salary: \$32,240

*Quality  
Product*

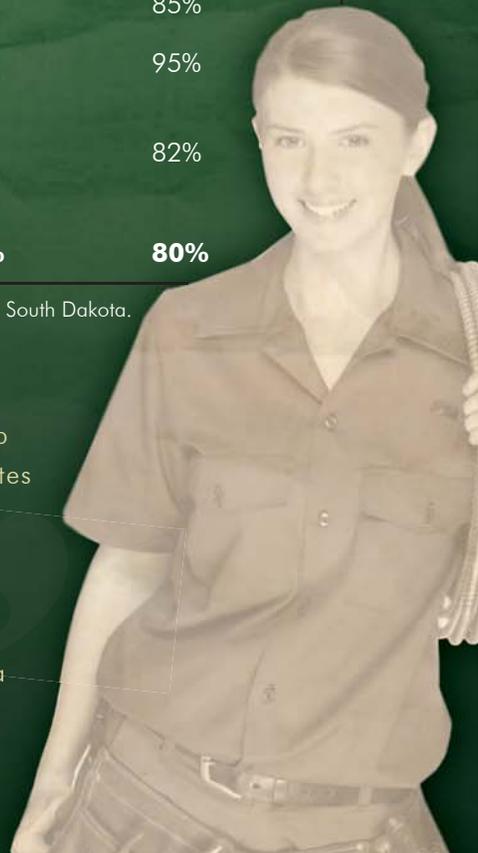
# Placement Rate by Career Cluster, 2009 Graduates

Cluster	Percentage Employed	Percentage Employed in Field	Percentage Employed in Field in SD*
Agriculture, Food & Natural Resources	99%	93%	84%
Architecture & Construction	91%	77%	90%
Arts, Audio-Video Technology & Communications	89%	74%	43%
Business, Management & Administration	92%	73%	87%
Finance	100%	100%	100%
Health Science	93%	85%	76%
Hospitality & Tourism	100%	100%	50%
Human Services	96%	80%	92%
Information Technology	84%	78%	100%
Law, Public Safety & Security	97%	61%	95%
Manufacturing	89%	76%	69%
Marketing, Sales & Services	88%	80%	85%
Science, Technology, Engineering & Math	85%	56%	95%
Transportation, Distribution & Logistics	99%	90%	82%
<b>OVERALL</b>	<b>93%</b>	<b>81%</b>	<b>80%</b>

\*Of those employed in field, this number indicates percent employed in South Dakota.

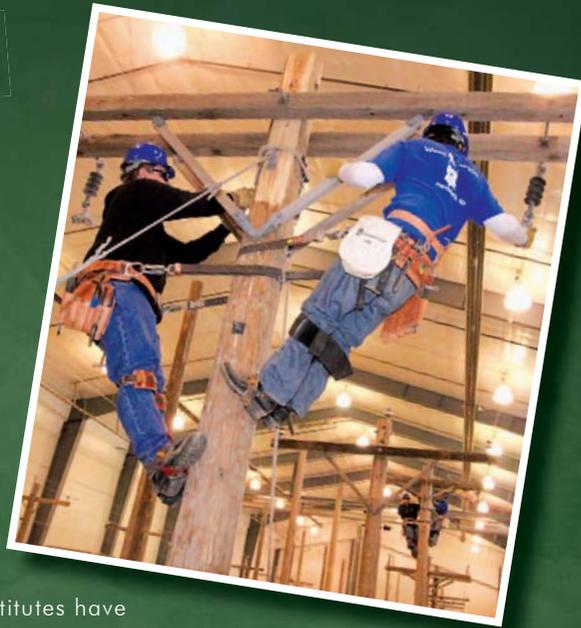
"The Avera Heart Hospital has found the relationship with Southeast Tech to be very valuable. The graduates we have hired are prepared to enter the workforce, and they have a bright future ahead of them."

Jon Soderholm, CEO  
Avera Heart Hospital of South Dakota



REACHING

## new heights



In recent years, the Technical Institutes have focused on making sure the campuses are inviting to incoming students, and facilities and equipment are up-to-date. Student centers are currently in various stages of completion at each of the institutes, and facility upgrades have also had to keep pace with enrollment increases.

Mitchell Tech's new Energy Training Center was completed during the 2009-10 school year, and now houses energy programs in Powerline, Gas Technology and Wind Turbine Technology. Students in these programs do their day-to-day training protected from the elements and using state-of-the-art equipment.

“Southeast Tech is a great campus that’s small enough to feel informal yet provides a university quality education. After graduating, I was well rounded in education that was relative to my field. It is an awesome institute for learning!”



Pam Fredrickson, STI Class of 1999  
Invasive Cardiovascular Technology  
Current Employment: Avera Heart Hospital  
of South Dakota, Sioux Falls

# INVESTING

## in the future

At Lake Area Tech, work began on a dedicated anatomy lab that will give students multi-use dissection experiences. Students in several programs, including nursing, medical lab tech, occupational therapy assistant and physical therapist assistant, will use the facility. The lab is expected to enhance the quality of learning by providing a variety of opportunities for hands-on dissection, including the opportunity to utilize prosected cadavers. Lake Area's long-time partner, Prairie Lakes Healthcare System, provided a \$250,000 gift toward this project.

"We believe investing in medical technology and the needed future workers for PLHS is a great community benefit," Doug Sharp, chairman of the PLHS Board of Directors, told the Watertown Public Opinion. "The board views the partnership between LATI and PLHS to be mutually beneficial, and we look forward to seeing all the great new programs and students that will come from the bigger and bolder LATI."





## PARTNERSHIP soars to new heights

South Dakota State University has awarded approximately \$48,000 of a federal energy grant to Lake Area Technical Institute. LATI will be a test site for SDSU's research on Aviation Grade Ethanol.

Using its engine test cell, LATI will run an IO-235 Lycoming aircraft engine for a minimum of 1,400 hours on a prototype ethanol fuel. LATI students will complete 25-hour oil changes with analysis samples, document 50-hour valve adjustments, and standard 100-hour inspections to include compression checks. SDSU is providing the engine and prototype fuel.

LATI also will perform power and fuel economy checks on several planned engine modifications intended to gain efficiency out of the prototype fuel. The results of this research could have significant benefits for both the aviation and ethanol industries.

### Connecting through new technology

At Mitchell Tech, area telecommunications companies joined forces to create a state-of-the-art lab environment, with equipment valued at more than \$1 million. This fiber-to-the-home network provides a real-world scenario for students. It also serves as a valuable training location for industry partners. It's the best kind of partnership because it allows industry access to new technicians just entering the field, and seasoned veterans the same access to new technology.



**WDT teams with private industry to build**

# SWEET RIDE

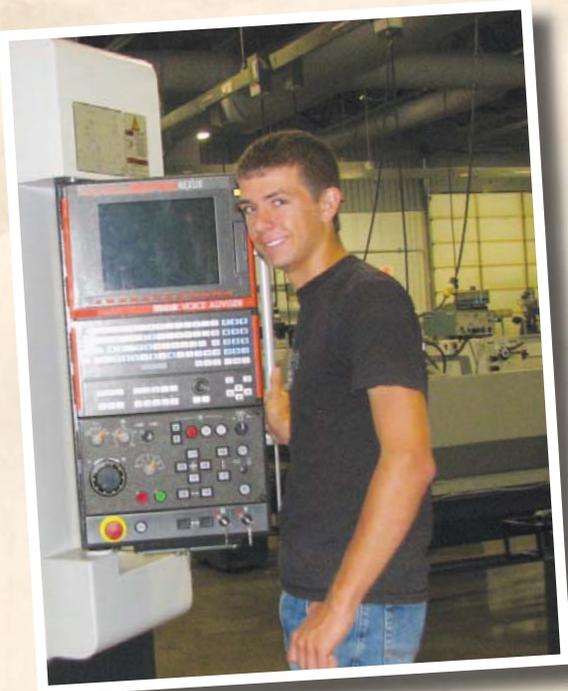
WDT welding manufacturing students paired up with nationally renowned motorcycle designer Michael Prugh to gain some real-world experience and help out a good cause at the same time. Based on Prugh's design and using parts donated by Black Hills Harley Davidson, the students built a bike from the ground up. The bike was auctioned off during the 2010 Sturgis Motorcycle Rally's Legends Ride event at the Buffalo Chip Campground, and the proceeds donated to charity. The project, called the 2K10 Challenge, gives the 25 future technicians a competitive edge, while also adding a unique personality to the bike itself.

## connections with high schools

In recent years, the Technical Institutes have put special emphasis on partnerships with the K-12 education system. These initiatives and relationships will help to ensure that students who leave all of our institutions are both college and career ready.

Southeast Tech and Western Dakota Tech have made strong connections with the high school students in their areas. Southeast's Learners to Leaders program allows students to take their regular high school courses in the morning, and specific career-related courses at STI in the afternoon. During the 2009-10 school year, 51 Rapid City students participated in WDT's welding, transportation technology or building trades courses.

Both Mitchell Tech and Lake Area Tech now offer online coursework to high school students via the South Dakota Virtual School. Students take specific courses in the health or energy fields, and earn up to two high school credits and six to 12 postsecondary credits.



Tate Uthe entered Lake Area Multi-District's secondary Machine Tool Technology Program when he was a sophomore at Watertown High School. After completing two years of machine tool at the high school level, Tate made the decision to enroll as a dual credit student at LATI. Instructors at both institutions worked together, so that Tate will graduate high school in spring 2011 and Lake Area in spring 2012. As for the future, he plans to continue his education and get an engineering degree.

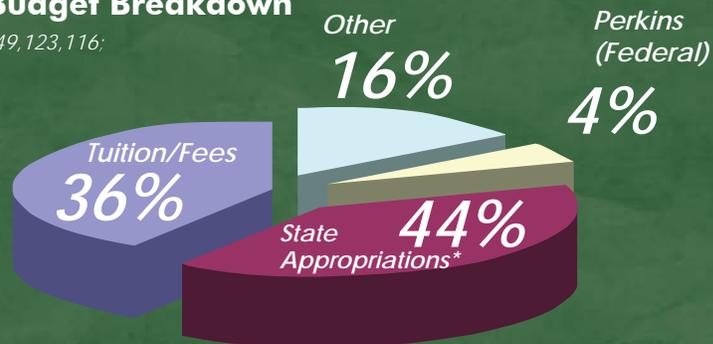
# Technical education: A valuable investment

Our programs offer students a great value for their dollar. Since most programs are under two years in length, students spend a relatively short amount of time in school – resulting in less student debt – and they can join the workforce and start earning a salary in less time.

Our students bring great value to the state. Not only are they assets to their employers, they also contribute to their local communities as neighbors, consumers and, in some cases, business owners.

## FY09 Combined Budget Breakdown

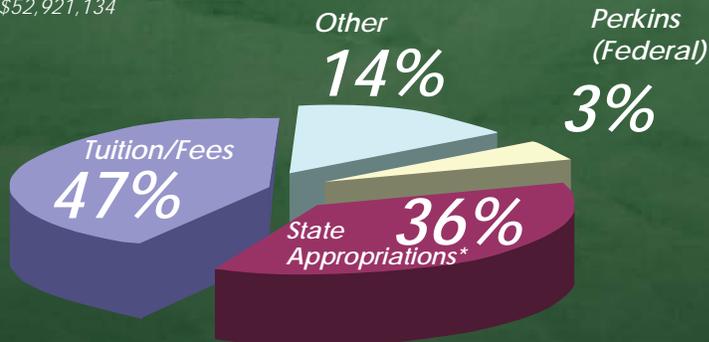
Total Operating Budget: \$49,123,116:



\*Bonding/Debt Services not included: \$824,000

## FY10 Combined Budget Breakdown

Total Operating Budget: \$52,921,134



\*Bonding/Debt Services not included: \$1,650,000

The Technical Institutes are able to provide quality education and training at an affordable rate to both students and taxpayers. Through annual program reviews and partnership efforts, the Technical Institutes demonstrate ongoing commitment to fiscal responsibility.



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