We are in the midst of a gigantic shift in education. Think about this for a moment: Our faculty are preparing students for jobs that don’t yet exist where they will use technology that hasn’t yet been invented to solve problems that we don’t yet know are problems. Here are some interesting facts from a video called “Shift Happens” released earlier this year:

- The Top 10 in-demand jobs in 2010 did not exist in 2004;
- Today’s learner will have 10-14 jobs by the age of 38; and
- Students who are preparing for a four-year technical degree find that much of the information is outdated by their third year of study

Indeed we are living in exponential times, which have a dramatic impact on higher education. But let me back up a little and talk about a shift that happened 40 years ago -- and is directly related to our rationale for developing the Pathways to Student Success Plan.

A study called Back to School Ready or Not, published in 2008, said, “Traditionally, higher education -- particularly at bachelor’s degree-
Our faculty are preparing students for jobs that don't yet exist where they will use technology that hasn't yet been invented.

— Diederich, SBHE President

granting institutions -- was for the best students. Some schools followed the philosophy of weeding out students in a make-or-break atmosphere. But as many middle-class jobs requiring only a high-school education disappeared, post-secondary education was transformed into a must-have for many who wanted a middle-class, or better, standard of living.”

Now about two-thirds of new high school graduates -- up from less than half in the 1970s -- go on to higher education, the study said. “However, the growth in the percentage of students continuing to higher education has been larger than the growth in the percentage of those who actually earn their bachelor’s degrees.” Colleges across the nation are adapting to a wider range of students, swapping a sink-or-swim approach for different instructional techniques, remedial education, tutoring and other ways to help students succeed.

That is why we are committed to Pathways to Student Success and why we are also committed to working with the Department of Public Instruction to make it happen. Students can increase their chances of success in college by taking a challenging academic load in high school. We must ensure that we are having a P-20 (preschool through graduate school) conversation as we prepare our students for those future careers that don't yet exist. In the process, we will be giving them the confidence to creatively manage whatever they face in tomorrow's world.

In my own experience as an educator, I have seen first-hand the deflation of self-confidence that occurs when a student is placed into a course for which they are ill-prepared. The goal of the Pathways plan is to ensure that those who want to learn -- can learn -- without their first experience in higher education being a failure.

If that’s too touchy-feely for you, let’s be practical for a moment. We don’t want students paying for courses in which they won’t thrive. We hear much discussion about the high cost of education and graduation rates. The rest of the story is that if students are effectively prepared for the classes they are taking, they are much more likely to graduate on time and with less debt.

However, grade point averages and ACT scores do NOT define an individual. What makes a successful student is a mixture of determination, early success, math and communication skills and a desire to learn. And just as those measures don’t necessarily define a successful
Dr. Larry C. Skogen says his appointment as Interim Chancellor of the North Dakota University System (NDUS) is giving him the opportunity to help provide NDUS with a fresh start. He has been sharing that message with faculty and staff, students, media and community and business leaders throughout the state during the past few weeks.

"The past year has had its challenges, but it's a new day now," said Skogen. "The Board, the North Dakota University System and the presidents of our colleges and universities all share the same goal — to provide our students with a quality education that helps them take full advantage of the ever-growing job opportunities in North Dakota."

Skogen's appointment as Interim Chancellor by the State Board of Higher Education took effect November 1 and will run through June 2015.

"We will continue to work hard to have the best possible educational system for our students," he said. "This includes improving graduation rates, better preparing students to succeed in their chosen path at one of our institutions, and keeping the cost of higher education affordable in our state."

Skogen said that one of the NDUS initiatives now under way to achieve those goals is the Pathways to Student Success Plan, a direction that the SBHE approved in 2012. "The
Pathways to Student Success concept from a 40,000 foot view is designed to take our system to a higher level of performance and accountability,” he said. “We are now drilling down to the details, working collaboratively with all those involved in or impacted by this plan. We are ensuring that we are making data-driven decisions that always keep students foremost in our minds.”

New Academic Leader on Board

Sonia S. Cowen, Ph.D., was recently named Interim Vice Chancellor for Academic and Student Affairs for NDUS. She began her duties Nov. 12.

"Dr. Cowen has an excellent reputation for helping to build programs," said Skogen. "We are excited that she is willing to come to North Dakota and contribute her expertise as we fine tune the Pathways to Student Success plan. In her last two positions, Dr. Cowen was specially invited to assist with ground-floor academic programming, and she did an outstanding job. I worked with her in the past, and I am confident she is the right person for this time in our history and for what we plan to achieve."

As the chief academic officer of NDUS, the Interim Vice Chancellor for Academic and Student Affairs oversees all academic and student affairs functions within NDUS including policy development, implementation management, and multi-campus coordination.

"I am looking forward to working with the University System staff and with all of the academic leaders at the outstanding institutions in North Dakota," Cowen said. "This is an exciting time, and I believe we can accomplish a great deal as we work together to provide the best possible education for our students."

Skogen said, "What we want is to make sure our students reach their greatest potential, while providing accountability to our citizens for the investments our state is making in our students' future."
Kyle Beckstead ‘09

Kyle Beckstead started at Mayville State in 2005 and graduated in 2009 with a degree in physical education, psychology minor. He is current teaching physical education at Grand Forks Central High School, and is the head baseball coach and freshman football coach. He has begun a master’s program, setting his sights on becoming a principal or athletic director in the future. Watch Kyle’s [video](#) here.

**Why did you choose Mayville State?**

You don’t feel like a number at Mayville State. I got to know all my teachers, my classmates and everyone around me on a personal basis. You don’t get lost in the shuffle. I like the small community feel.

**Was there a particular course that benefited you most in your career?**

The “methods” classes where I actually got to go out and start teaching and working with kids. There’s a lot of “hands on” here. You’re not sitting back watching or listening to my teacher lecture. When you teach lessons to your fellow classmates it can be intimidating. But the teachers evaluate you as a teacher. You know what the pros and cons are, and you know what things you need to work on. By the time you graduate, you’re ready to go.

**What would you like to tell others about your experience at Mayville State?**

The education at Mayville gives you the confidence you need when you go out to get a job. This school is known for producing quality teachers, and I definitely agree with that. The principal at my current school said, “When an application from a Mayville state student comes across my desk, I look at it.” They have the confidence they need and are well prepared when they go into the classroom. I really had a positive experience here. I wouldn’t do anything different.
Bismarck State College

The Kennedy Legacy: 50 Years Later - Capacity crowds took in historians and experts during BSC’s three-day symposium exploring the life and legacy of John F. Kennedy Nov. 5-7. Keynote speaker Clint Hill, former Secret Service agent to Jackie Kennedy, brought in a crowd of 650. More than 300 attended the day events.

Dave Clark named Interim President of BSC - Dave Clark was unanimously appointed interim president by the State Board of Higher Education effective Nov. 1 through June 30, 2015. Clark was recommended by Interim Chancellor Larry Skogen. Clark has been at BSC for 24 years, most recently as executive vice president.

BSC receives entrepreneurial grant - Bismarck State College was among 11 two-year colleges nationwide to receive a grant in the Entrepreneurial College in Action Grant Competition. BSC was awarded the $15,000 grant from the National Association for Community College Entrepreneurship and the Coleman Foundation.

Dickinson State University

Accreditation Affirmed: The North Central Association’s Higher Learning Commission (NCAHLC) has removed the Notice sanction from DSU’s accreditation status. DSU is fully accredited by the higher learning commission and is scheduled for its regular, ongoing comprehensive accreditation evaluation in 2014-2015.

DSU Awarded 2-year MSP Grant: The North Dakota Department of Public Instruction (NDDPI) recently awarded DSU a 2-year Mathematics and Science Partnership (MSP) Grant. The DSU grant project, Teaching to Meet the New Common Core in Mathematics and Science, has been approved for funding in the amount of $228,371.00.

2013 NSSE survey results: The NSSE survey asks first-year and senior students about a wide range of educationally purposeful experiences and activities. Ninety-two percent of first-year student respondents and 90% of seniors rated their experience as “excellent” or good.” Additionally, 90% of first-year student respondents and 84% of seniors indicated they would “definitely” or “probably” attend DSU again.

Lake Region State College

Lake Region State College, presented at the North American Agricultural Safety Summit September 25-27 in Minneapolis. He presented on innovative ag technologies, including unmanned aerial vehicle applications in agriculture, biomass storage and shipping, and International Labour Organization Code of Conduct with ag safety.

Mayville State University

Renovation of Mayville State’s historic Northwest Hall is nearly complete. The building has been transformed for use as Mayville State’s first alumni center and has been named the Edson & Margaret Larson Alumni and Leadership Center. The official grand opening will be held in June of 2014, in conjunction with the university’s 125th anniversary Alumni Days celebration.

Mayville State University will be offering a new B.S.Ed. in special education beginning in the fall of 2014. This is the only generalist undergraduate special education program available in the North Dakota University System. Mayville State officials feel that the
program will keep prospective special education teachers in the state.

The JLG architectural firm has been hired to prepare the schematic design for the Health, Physical Education, and Recreation facility project/Old Gymnasium replacement. Funding for the project was provided during the 63rd Legislative Assembly last spring. The new facility will serve students enrolled in sports management, fitness and wellness, health education, and physical education majors.

Minot State University

MiSU Offers Online Training for Michigan Teachers - The Minot State University Department of Special Education has entered a new partnership with the Michigan DoE to provide graduate-level training to teachers of students who are deaf or hard of hearing. This collaboration is the result of recent program closures in Michigan.

MSU, along with eight other higher education institutions from across the country, will deliver an online program that will permit certified teachers to obtain an additional endorsement on their Michigan teaching certificate in deaf/hard-of-hearing education.

MiSU Professor and Students Share Research at URMS8 Meeting - Mikhail Bobylev, chemistry professor, and Minot State University students attended an annual regional Undergraduate Research in Molecular Sciences meeting Oct. 5-6 at Minnesota State University-Moorhead. They presented five original research posters, and six abstracts were published.

Kowan O'Keefe gave an oral research presentation for which he won an American Chemical Society Travel Award. The award will support his trip to the ACS National Meeting in Dallas in March 2014. Three students, Mikayla Fick, O'Keefe and Sam Olson, received a year of free ACS membership. ACS is the largest U.S. scientific society and its national meetings gather on average 20,000 members.

MSU STEM Grant to Assist N.D. Teachers - Minot State University has been awarded $531,000 per year for two years for its project, "Learning STEMs from Experience." This grant is part of a Title II, Part B, Math and Science Partnership Grant from the North Dakota Department of Public Instruction.

MSU will provide professional development to K-12 STEM (science, technology, engineering, mathematics) teachers throughout North Dakota, including numerous partner districts. Over the grant's two-year period, the project will offer 35 graduate courses for K-12 STEM teachers (20 per year), including 19 mathematics courses, 10 science courses and six STEM courses.

North Dakota State College of Science

NDSCS recently dedicated a 65,500 sq. foot expansion of Bisek Hall. This expansion, which incorporated the latest technology into the labs and classrooms, doubled the space devoted to training high-demand technicians to diagnose, service, repair and rebuild diesel equipment. The facility now ranks among the largest devoted diesel training facilities in North America.

NDSCS was recently awarded a $2.7 million grant from the U.S. Department of Labor as part of the North Dakota Advanced Manufacturing Skills Training Initiative led by the College. The grant supports partnerships between training providers and local employers, and will allow NDSCS to enhance its delivery of focused, hands-on instruction in short courses.

NDSCS has partnered with John Deere and RDO Equipment Co. to add a John Deere Construction and Forestry Tech initiative to the NDSCS Diesel Technology program. NDSCS is one of eight colleges across the nation offering the John Deere C&F Tech specialized training.

North Dakota State University

NDSU and Cogi, a California technology company, have a new software application partnership through NDSU’s state-funded Center of Excellence in Sensors, Communications and Controls. The Centers of Excellence program partners research and development hubs from the state’s campuses with private companies to stimulate technology-led economic development.

The Upper Great Plains Transportation Institute at NDSU will partner with the Western Transportation Institute at Montana State University on a new Small Urban and Rural Livability Center funded by a two-year, $2.8 million grant from the U.S. Department of Transportation. NDSU will provide expertise in transit and rural livability.

NDSU signed a memorandum of understanding with the Sanford College of Nursing Board of Directors and the Board of Directors for Sanford Bismarck to discuss a partnership for nursing education. The partnership would create opportunities for students and help meet the state’s need for nurses.

University of North Dakota

The University of North Dakota celebrated North Dakota Spirit | The Campaign, the largest fundraiser in the history of North Dakota, on Oct. 11, when it was announced more than $324,128,000 was raised for academic programs, student scholarships, endowments and building projects. The event was part of Homecoming festivities.

Three University of North Dakota students recently explored the
The University of North Dakota Flying Team won top honors in the Region V National Intercollegiate Flying Association’s Safety and Flight Evaluation Conference (SAFECON) recently. This is UND’s third victory in a row in Region V competitions.

Valley City State University

Nearly 200 Valley City State freshmen and mentors harvested 47,000 pounds of squash at a local farm Sept. 26. The Great Plains Food Bank distributed the squash to 270 shelters, soup kitchens and pantries operating in almost 100 North Dakota communities. Valley City State held a ribbon-cutting ceremony and open house for the L.D. Rhoades Science Center on Oct. 4. The first capital construction project for an academic facility at VCSU in 40 years, the renovation and expansion of Rhoades Science Center was funded by a $10.3 million appropriation in the 2011 North Dakota legislative session.

President Thomas Jefferson, portrayed by humanities scholar Clay Jenkinson, visited Valley City State University on Oct. 15. Speaking to a crowd of 500 in historic Vangstad Auditorium, Jenkinson presented Jefferson’s views on the U.S. Constitution and suggested that North Dakota’s agrarian society—combined with the opportunities afforded by public education—was the American ideal.

Williston State College

The Williston Convention and Visitor’s Bureau has gifted $20,000 to WSC from the Capital Construction Grant. The money will be used to purchase event tents for which WSC will use in hosting events, activities, and gatherings for students and community members adding much needed venue space in a growing community.

WSC just celebrated the dedication of the newly renovated front drive and the grand opening of the WSC Foundation apartment building. The apartment building is at full occupancy and businesses are expected to move into the commercial space on the first floor in the next few months.

WSC hosted Interim Chancellor Skogen for an editorial board visit to Williston on November 14. Dr. Skogen will be visiting with local media as well as WSC employees about the future of the North Dakota University System.

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The student, neither do IPEDs graduation and retention rates necessarily define a successful institution of higher learning. But it’s the national measure that we are judged by, and as you know -- what gets measured, gets done -- so we will work with it as we strive to improve.

- The State Board is committed to enhancing the quality of higher education in North Dakota. Pathways to Student Success will help us get there, but we must to do it right.
- Doing it right means partnering with K-12 and looking at education as a journey that our students take from pre-school through graduate school. The timing is perfect because K-12 is changing its standards as well.
- We are working together to provide students a roadmap to reach their fullest potential. The transition from high school to college courses should be an exciting adventure that a student approaches with confidence, not a journey into uncharted waters that only the strong survive.

There is no better time than now to embark on this adventure. Other states are not doing as well as we are and aren’t investing in education. We have an opportunity to take a giant leap ahead and create an educational system that others will envy as much as they envy our economy. In fact, a fascinating study called American Dream 2.0 addresses higher education from many angles, especially financial aid, and it draws parallels between the energy industry and higher education. It said the oil industry reinvented its business model and adopted new ways to reach reserves formerly untapped. “Our students represent hidden reserves of talent that can power our country. What if, like the energy industry, we adopt a new business model that taps into those reserves?”

Nowhere is that a truer statement than today in North Dakota. Now is the time to work together to provide the highest-quality education possible for those who will inherit the future of this state.

Editor’s note: Dr. Diederich’s originally published column was an edited version of a presentation she made. During the editing process, her source references were inadvertently omitted. We apologize for the error and have inserted her references in this version.