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North Dakota University System

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What will higher education look like in 2030? That singular question recently called for a diverse group of individuals – all with a stake in education – to gather together and discuss the goals for the coming years within education, and the challenges in bringing them to life.

The North Dakota State Board of Higher Education and the North Dakota University System, with input from its 11 public member colleges and universities, policy makers, legislators, business leaders, and students, met to hear guidance on that topic, and to share own perspectives at the Envision 2030 educational summit in Bismarck. In order to anticipate what should be done in the next three years (2018), five years (2021) and 14 years (2030), nine separate and distinct breakout sessions were held during that event gather information on Agriculture, Diversity, Energy, Health Care, Liberal Arts & Humanities, Manufacturing, Technology, Tomorrow's Student, and The Whole Student (NDUS, p. 2-7).

With further input from NDUS Institutional Research, data from the State Longitudinal Data System, studies from the Midwestern Higher Education Compact, National Student Clearinghouse reports, and the NDUS' five-year strategic plan, The Edge, a clearer picture emerges on how to drive the system of higher education along its current path to one that includes the goals set recently by business interests, lawmakers and educators.

Envisioning the present, envisioning the future

With much focus given to retention, completion and recruitment, systemwide metrics currently exist – both with trending data and as a baseline for reaching higher. According to NDUS Institutional Research, systemwide rates for 100 percent completion is 25 percent, 150 percent completion is 49 percent, and retention rate is 74 percent. Compared to national rates, North

Dakota is higher. In a study on attainment using information gathered through the U.S. Census Bureau and IPEDS, the Lumina Foundation found that starting in 2008, North Dakota's rate of attainment was 45.2 percent, well above the national average of 37.9 percent. By 2014, both numbers had risen, with North Dakota having a rate of attainment of 47.2 percent versus the 45.3 percent national average. (Lumina Foundation, 2016). In the same report, North Dakota was listed as above national averages by 2-3 percent. However, work continues with recent goals set by the Lumina Foundation of placing the attainment rate goal at 60 percent. Undoubtedly, reaching that goal will require some programmatic shifts, as well as teaching more to the students of the future. Information from the Delta Cost Project indicated that 85 percent of the state's 54,945 students were enrolled in public institutions, which could be taken to mean the greatest obstacle to attainment isn't recruitment, but retention. (American Institutes for Research, 2010).

Teaching X, Y and Z

If retaining students is the first step in reaching attainment goals, certain pedagogical methods needs to be taken into account. Teaching across generations requires different methods to ensure widespread students success, as those considered traditional may need differing methods to succeed than those considered non-traditional. Work to increase retention through student intervention has begun with implementation of Predictive Analytics Reporting and Starfish. When used alongside data from SLDS, intervention strategies can be put in place that help to ensure that at-risk students have the guidance they need, when they need it.

To help ensure that strategies remain proactive certain teaching elements must focus on the learning styles of the new generation. It can be assumed that Baby Boomers learned from more traditional methods of lecture-based environments. As technology in the classroom

increased, so did subsequent generation's reliance on it. Generation X saw personal computers replace type writers, and Generation Y began their learning at a young age on desktops and laptops. Even now, Generation Z is going to class with an tablet in hand, and Learning Management Systems have been implemented to foster tech-based learning.

Even the recently-published nonfiction work, *Generation Z goes to college,* seeks to outline the major shift in learning styles anticipated when the generation born between 1995 and 2010 began entering academia – which already started in 2013 and will last well into the Envision 2030 summit's titular year. Seemiller and Grace indicate findings not dissimilar to previous studies on the topic; that Generation Z will consist of independent learners who will have a higher tendency toward entrepreneurial behavior and a notable reliance on technology as a learning tool.

Silverman (2006) noted as much in her article discussing challenges in cross-generational instruction. Students from older generations are more accustomed to lecture-based learning, while students from younger generations are more open to online-based programming. Additionally, more are comfortable with the inclusion of URLs in content, and show a preference for video content. These last details have been shown by other studies to highlight the rise of massive open online courses (MOOCs). While study continues on Generation Y and Z's reliance on technology as it combines with MOOCs and Learning Management Systems such as Blackboard Canvas, or Moodle, it's possible that an increase in shared services and collaborative effort could lessen redundant programming and save campus costs. Paired with increases in Open Education Resources, and the savings continue for students. Students at institutions within NDUS will soon begin seeing the results of that work due to efforts at Mayville State University, University of North Dakota and Valley City State University. At those three campuses a total of

25 courses that have implemented OER could result in as much as $382,000 in savings for the

Spring 2016 semester alone. Growth in OER use and distance education have already begun

meeting legislative goals articulated by the Interim Higher Education Committee (Sanford,

2015).

To determine best practices across other areas, the Chancellor's Cabinet has undertaken

study of Cost Containment, Governance, Mission, Retention, Shared Services, and Tuition and

Fees. Once complete and paired with the Board's vision as outlined in The Edge, those studies

and the information gathered from the Envision 2030 summit should help to create a more

inclusive higher education system. With retention and attainment in mind now, the SBHE and

NDUS are faced with the task of facing how to implement the necessary changes to achieve the

goals listed in each of the educational summit's nine breakout sessions. With some of those

sessions exceeding two dozen participants, a wealth of details emerged on what held to be highly

important goals for each topic. More detailed information is available in the accompanying

document Challenges and Goals of N.D. Higher Ed - Breakout Findings from Envision 2030

(NDUS, 2016).

Agriculture

2019: Begin raising awareness of the need to double current food production by 2050.

2021: Develop technology, partnerships, and infrastructure.

2030: Extend model of teaching from U.S. to the world

Diversity

2019: Redefine traditional student and delivery methods based on available metrics.

2021: Provide intentional programming and delivery methods to meet those needs.

2030: Prepare students to work in a global environment and diverse society.

Energy

2019: Bring students to the state to research across-the-board technology/solutions

2021: Research across entire energy sector.

2030: Continue extensive research, create vibrant communities to attract people

Health Care

2019: Expand rural medicine, encourage implementation of Healthcare Workforce Initiative.

2021: Implement loan repayment programs for nurses, expand telehealth options.

2030: Increase interprofessional training centers and housing in rural areas.

Liberal Arts & Humanities

2019: Continue focus on liberal arts/humanities as programming to create lifelong learners.

2021: Advance scholarly faculty to embrace critical thinking and discovery.

2030: Increase attention to the need for well-rounded, educated citizens.

Manufacturing

2019: Ramp up marketing to increase recruitment and enrollment.

2021: Define clear pathways and curriculum to include communication/interpersonal skills.

2030: Change perceptions of manufacturing, expand CTE into high schools.

Technology

2019: Increasing tech-based programming at colleges and universities.

2021: Build awareness for how new technologies can grow the workforce/state economy.

2030: Recruit students into those programs, areas of research and workforces.

Tomorrow's Student

2019: Increasing numbers of first generation, low-income students.

2021: Continued focus on affordability, how technology is changing the learning patterns.

2030: Grow attainment to meet SBHE/Lumina goals, create more engaging learning.

The Whole Student

2019: Invest in Student Affairs (Mental Health, Substance Abuse).

2021: Increase private fundraising and donations of professional time.

2030: Be adaptable to changing needs of students, expand opportunities for distance learners.

Conclusion

Implementing systemwide changes on behalf of current and future students will take cooperation among all 11 public colleges and universities, but also external guidance from the Board and help from the legislature and business community. Certainly, that work has begun in earnest with such initiatives as the grant awards for OER and support for distance education. However, even with the rise in distance education there will still need to be focus given to the majority of students who will be taking in-class coursework. As those students begin taking classes at NDUS institutions, or begin thinking of enrolling there, we believe the time is right to undertake the work that has been envisioned. Just as the Whole Student breakout session indicated that a whole student needs to be adaptable, so too does the university system have to be standardized, yet flexible enough to meet the needs of its whole student body.

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