

IT Career Awareness Program Input Meeting SUMMARY April 30, 2008 – MDU Resources Group, Inc.

Hosted by the Information Technology Council of North Dakota (ITCND)
and the North Dakota University System (NDUS)

Perception of IT Career Opportunities

- Ongoing need for IT professionals; jobs/internships are available and there is a strong market for IT
- Concerned about low enrollment of students in IT courses/majors
- IT is not just programming anymore; industry is requiring analysts and communicators as well; IT professionals need to be well-rounded and have soft skills (communication, leadership) in addition to technical skills
- Perception of the IT industry in ND is not attractive; need to start career awareness earlier – junior high/high school; students need to have a clear pathway from high school to college to industry
- Integration between IT and business is increasing
- IT is essential across all industries

Industry Needs

- *Numbers* – not enough IT graduates to meet industry needs; demographics make this a challenge as all industries are competing for a lower number of students
- *Skill sets* – more and more businesses may not require an IT degree but employees must have an aptitude for IT; soft skills (leadership, communication, writing) in addition to technical skills are important
- *Education* – need to prepare students for business environments

Challenges/Opportunities

- ACT college readiness assessments show students are under-prepared, especially in the areas of math and science; prepare students to pursue IT degree programs
- Educators, teachers and counselors struggle with time and resources (counselor/student ratio)
- Generation Y mindset – want flexible schedule, time with family, time for fun
- IT in comparison with nursing/teaching: IT careers offer higher salaries; IT needs to compete with other career opportunities in ND (such as nursing/teaching) as it cannot compete with other regions (Minneapolis, etc.)

- Market to individuals that moved out of ND but might come back because of the increased safety to their family, including quality of place, even if they receive lower pay
- IT industry recognizes the need and is willing to provide technical training for employees
- Students, parents and educators are unaware of IT career possibilities
- Identify skill set similarities across industries to create curriculum that will be beneficial across the board
- Industry could work with NDUS on continuing education classes
- Students are perceived as tech-savvy but not IT producers
- Connecting industry with college/university career service department
- Integration between two- and four-year programs is needed
- Academia doesn't have clear understanding of industry needs
- Externships for teachers/counselors
- Create alignment with the IT industry, NDUS and K-12
- Have core IT curriculum requirements in high school; get more people in the pipeline
- Paid student internships (especially in the early years of college) help engage students in the IT field, break down stereotypes, and help employers recruit highly qualified/talented individuals; employers are having difficulty filling internships because students can earn more at other summer jobs
- Student perceptions of IT work can be positively changed by visiting IT companies

K-12 Opportunities

- Needs to be a focus on IT career opportunities at an earlier age – 6-8th grade
- Parents are the common piece; parents need to know about IT career opportunities so they can promote them to their kids
- The perception of IT to students, parents and educators needs to change; marketing the field is important; break down the stereotype for IT (geeky) and make students aware of what IT really means
- Ensuring the right classes are being offered in the 9-12th grades to provide a career pathway for students with IT interests

Program Evaluation Measures

- Involvement of community, parents and K-12 in IT field
- Improvement in ACT scores
- Benchmark educators in awareness
- Increase of IT components in non IT-specific curriculum
- Jobs are being met – challenge: it will take 10 years after the start of the program to see those individuals in the workforce