

Pilot Project: NDSU Summer Mentorship Program for Prospective Students with Disabilities

Chung-Souk Han (Principal Investigator)

North Dakota State University, Department of Civil Engineering, Fargo, ND 58105

Email: chung-souk.han@ndsu.edu, phone: (701) 231-5647, fax: (701) 231-6185

Sivapalan Gajan (Co-Principal Investigator)

North Dakota State University, Department of Civil Engineering, Fargo, ND 58105

Email: s.gajan@ndsu.edu, phone: (701) 231-5648, fax: (701) 231-6185

Carol E. Buchholz (Evaluator)

North Dakota State University, School of Education, Fargo, ND 58105

Email: Carol.E.Buchholz@ndsu.edu, phone: (701) 231-7103

As of 2006 13,825 students with disabilities participated in special education programs of primary and secondary educational institutions in North Dakota [1]. According to a national study [2], 14% of youth with disability out of school for up to 2 years were reported to have attended some type of postsecondary school during the preceding year compared to 53% for youth in the general population who had been out of school about the same duration. Education however is particularly important for youth with disabilities in order to be employed. While the population of individuals with disabilities is significantly less likely to find competitive employment in comparison with the general population [2] graduates with disabilities of postsecondary schools have been found to be more likely to obtain competitive employment [3].

Numbers aside, there is a great variety in the disabilities. While some individuals may have mild learning disabilities others may be affected by emotional disorders, and speech, cognitive or mobile/orthopedic, and other health impairment. The disability itself will represent a challenge for the student which may be aided to some limited extent, e.g. by a hearing aid or a note taker in case of a hearing impaired individual. In addition to these challenges directly related to the disability itself, in many cases individuals with disabilities had limited exposure to other environments during their upbringing as their disabilities or care requirements may affect their mobility. Consequently many students with disabilities have difficulties to assess and adjust themselves to new environments and life situations. Prior to entering postsecondary education students with disabilities are also often instructed in adjusted ways that are usually not available at universities. The transition from secondary to post-secondary educational institutions is therefore particularly difficult and challenging for individuals with disabilities. On average individuals with disabilities are also more prone to psychological and mental problems (if it does not already define their disability) compared to the general population increasing the complexity of this transition.

In order to improve the situation of students with disabilities the *Individuals with Disabilities Education Improvement Act* (IDEA) requires -- among other things, see, e.g., [4] -- school districts to develop strategies and activities that will assist students with disabilities in reaching their postsecondary goals. This Summer Mentorship Program is conceived to assist in this endeavor. While such a program is the first of its kind in North Dakota, similar summer camps for students with disabilities have been held in other states like Washington [5].

There is however a unique situation here in North Dakota which would make such a program particularly desirable in this state. With a population of 9.30 per square mile North Dakota is one of the states with the lowest population density (47th in the US). Students with

disabilities from rural areas may in particular have to face more difficulties in finding orientation and sufficient information towards post-secondary education to be able to make an informed decision.

The one week summer mentorship program to be held at the NDSU campus in Fargo is targeting high school junior, senior and community college students, and their parents (optional). The purpose of this summer program is to inform, motivate, encourage, and prepare prospective students with disabilities for a career in science, technology, engineering, and mathematics (STEM) fields and also assist in the career selection. As pilot project the summer mentorship program is conceived for a limited number of students with disabilities and will be held in collaboration with members of other departments and institutions.

In this summer program the students will receive a one-by-one mentoring which is according to [5] the most appropriate way of mentoring and instructing for a student with disabilities in a summer camp.

In this summer program the prospective students will be housed on campus and includes following events: (i) introduction to different degree programs, (ii) discussion of guidelines toward preparing for a B.S. engineering/science program, (iii) visit of summer class sessions at NDSU to illustrate the character of university instruction, (iv) visit to companies of interest, (v) one-to-one introductory events towards basic engineering principles related to the technical specialty of the mentor – tailored to the background and interests of the student, (vi) one-to-one training and participation in a project related to the technical specialty of the mentor, (vii) meetings with local consulting and service organizations and support groups, and (viii) leisure evening events including movies, shopping, restaurants, and sport events to introduce students to Fargo-Moorhead area.

As outcome of this summer mentorship program the students with disabilities from community colleges and high schools will be able to explore prospects of engineering and science careers and enable informed decisions towards higher education in science and engineering disciplines. These activities will also familiarize students with university environments and ease their transition from high schools and community colleges.

References

- [1] W.G. Sanstead, R. Rutten, and J. Kolberg. Annual report: 2006-07, North Dakota IDEA advisory committee. <http://www.dpi.state.nd.us/speced/idea/report.pdf>, accessed July, 2008.
- [2] J. Blackorby and M. Wagner. Longitudinal postschool outcomes of youth with disabilities: findings from the national longitudinal transition study. *Exceptional Children*, 62:399(15), 1996.
- [3] J.W. Madaus. Employment outcomes of university graduates with learning disabilities. *Learning Disability Quarterly*, 29:1931, 2006.
- [4] U.S. Department of Education. Building the legacy: Idea 2004. <http://idea.ed.gov/> accessed July 2008.
- [5] VanDeGrift, S. Burgstahler, R. Ladner, and A. Poginy. The game of life workshop reaching out to high school students with disabilities. In *ASCE Annual Conference & Exposition: Excellence in Education*, 2006. Chicago, IL; USA; 18-21 June 2006