

Midwest Alliance

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Midwest Alliance Staff

University of Wisconsin-Madison

Principal Investigator:

Jay K. Martin, Ph.D.

Professor, Mechanical Engineering
Director, UW Center for Rehabilitation
Engineering and Assistive Technology
(UW-CRETE)
martin@engr.wisc.edu

Midwest Project Manager:

Amy B. Fruchtmann, M.S., CCC-SLP
afruchtm@wisc.edu

Outreach Coordinator:

Dan Nordstrom, MSSW
dnordstrom@wisc.edu

University of Illinois at Urbana-Champaign

Midwest Director:

Norma J. Stumbo, Ph.D., CTRS
nstumbo@uiuc.edu or stumbo@wisc.edu

Severe Physical Disabilities Coordinator:

Brad N. Hedrick, Ph.D.
Director, Disability Resources and
Educational Services (DRES)
bhedrick@uiuc.edu

Psychological Disabilities Coordinator:

Kimberly D. Collins, Ph.D.
Clinical Psychologist, Asst. Director DRES
kdcollin@uiuc.edu

Outreach Coordinator:

Tina Lam, M.S.
tinalam@uiuc.edu

University of Northern Iowa

Education Coordinator:

Gregory Stefanich, Ed.D.
Professor, Curriculum and Instruction
gregory.stefanich@uni.edu

Midwest Alliance main office:

338 Goodnight Hall
1975 Willow Drive
UW-Madison
Madison, WI 53706
Tele: 608-262-6467
TTY: Relay through 711
FAX: 608-262-6466



PI's Column

We are delighted you could join us for this 2nd issue of the Bi-Monthly Newsletter for the Midwest Alliance in Science, Technology, Engineering and Mathematics (STEM).

This newsletter contains a number of items we hope are of interest. First is an introduction to the University of Illinois (UI) project on Metrics on Disability and Postsecondary Education, and a short discussion of work done at UI on Comprehensive Support Strategies for students with severe physical disabilities. The Director of Disability Resources and Educational Services at UI and Midwest Alliance Severe Physical Disabilities Coordinator Brad Hedrick is highlighted, to allow you to connect a face to this work.

We have included a description of the National Workshop we will be hosting at UI, in Urbana-Champaign, this summer. This workshop will focus specifically on Personal Assistance Support services for students with severe physical disabilities in post-secondary education.

The Midwest Outreach Coordinators are introducing their "Corner" in this newsletter. They would be delighted to hear from you if anything they describe is of interest to you.

Thanks for joining us!



Sincerely,
Jay K. Martin
Principal Investigator



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Programs and Activities

Highlights

National Workshop- Personal Assistance Services for Students with Severe Physical Disabilities in STEM and Other Post-Secondary Education

The Midwest Alliance will be hosting a National Workshop June 5-6, 2008 in Urbana-Champaign, Illinois, focused on Personal Assistance Services (PAS) in post-secondary education (PSE). Attendees will include members of the NSF Regional Alliances, PSE disability service providers and researchers, representatives from NSF, ED, and NIH, Voc. Rehab, Veterans' Affairs, and Independent Living Centers. The Workshop will last for a day and a half, with the focus on both discussion and developing of a set of recommendations.

We are hosting this workshop because of the importance of PAS to the accessibility of PSE for students with severe physical disabilities (SSPD). Unless PAS are adequate and reliable, access to PSE is limited or not available for SSPD. Furthermore, many SSPD do not possess the requisite knowledge, skills, experience and self-efficacy needed to independently recruit, interview, hire, train, schedule and evaluate the non-familial PAS personnel required to safely and effectively meet all of their PAS needs while attending a PSE institution. Finally, we believe that the impact that very limited access to PAS has upon the PSE enrollment, academic performance and post-graduate career success of SSPD has not been substantially addressed.

The specific objectives of the Workshop include:

1. To assess the state of the state of PAS for SSPD in STEM and other PSE.
2. To review and assess PAS strategies used at Midwest Alliance campuses and elsewhere.
3. To identify policy, fiscal and programmatic barriers that have affected current practice in PSE PAS for students with SSPD
4. To develop specific recommendations to increase opportunity for PAS for SSPD in PSE

Prior to the Workshop, background papers will be provided describing research done on PAS in PSE and details on different PAS strategies. Post-Workshop, a summary document, including the recommendations that will be developed, will be produced.

If you are interested in participating in the workshop, or know someone else that should be invited, please contact Jay Martin at martin@engr.wisc.edu.

Metrics on Disability and PSE

Higher education institutions in Illinois are working to develop, test and implement systemic disability metrics: (1) to support the objective, longitudinal, statewide assessment of disability access and impact, (2) to support the disaggregation of critical institution-specific data across disability subtypes, (3) to provide access to a statewide population of control subjects against whom the efficacy of

specific interventions can be longitudinally assessed, and (4) to promote institutional ownership for the access and impact of postsecondary programs and services upon students with disabilities as per other underrepresented groups. Areas in which data are being collected include: demographics and services, satisfaction, climate and accessibility, learning outcomes, employment outcomes and institutional infrastructural and financial support. The model endeavors to minimize the need for specialized metrics by including disability demographic items in existing data collection instruments and processes to accommodate disaggregation of data that are already being collected by disability subtype. This includes the Illinois Shared Enrollment and Graduation Consortium statewide database. The latter was created in 1991 in response to the Illinois Board of Higher Education (IBHE) mandate that all public community colleges and public four year universities annually submit a roster of their enrolled students. As of 2006 the database currently contains over 14 million individual scores from each of the public and two private institutions. The MDPE model is, however, also pilot testing two disability specific surveys. The latter instruments include a survey of registered, self-identified students with disabilities and an administrative survey of disability service and other administrative personnel.

Comprehensive Support Strategies

The IDEA, Rehab Act and ADA have unquestionably improved the accessibility of PSE including STEM curricula for students with disabilities. However, inadequate transitional preparation and discontinuities in the statutory bases of disability accommodation policies and practices continue to impede the enrollment and success of students with severe disabilities in PSE. Concomitantly, ineffectual self-advocacy and disability management skills and the aforementioned discontinuities in accommodation policies and practices exacerbate the likelihood that students with such disabilities who enter college will not graduate or that those who do graduate will experience limited career longevity and success. Indeed, for comparable access and outcomes to be experienced, supports that either exceed legal requirements or that are not clearly specified by the law are frequently needed. To address these concerns, the University of Illinois at Urbana-Champaign has provided comprehensive transitional and educational support services for students with disabilities for nearly six decades. The intent of these supports has always been to optimize the PSE participation, rate of graduation, and employment of persons with severe disabilities. The program, which currently serves approximately 1,100 students annually, provides individualized training in a wide range of areas to help students to independently manage their disability-related needs. Information describing the comprehensive Illinois program is available at www.disability.uiuc.edu/files/best_practices_files/textonly/document1.html#0.

Staff Spotlight

Brad Hedrick

Brad Hedrick earned his baccalaureate degree in political science from the University of North Carolina at Chapel Hill in 1974, and his M.S. in recreation administration from UNC-CH in 1980. He earned his Ph.D. in the Department of Leisure Studies, now Recreation, Sport and Tourism, at the University of Illinois at Urbana-Champaign in 1984. From 1981 to 1995, Dr. Hedrick served as head coach of the University of Illinois' varsity athletic teams for students with disabilities, as well as an administrator, researcher, and educator within the Division of Disability Resources and Educational Services (DRES). For the last 10 years, he has served as the DRES Director. He has 33 years of professional experience in the fields of vocational rehabilitation and postsecondary disability support services, and has extensive experience and expertise in the administration of adapted sports and recreation for persons with disabilities. He has coached at the collegiate and international levels, and has authored two books, one book chapter, three monographs, 24 refereed/invited articles, 31 professional articles, and two instructional videotapes on a broad range of scientific and applied topics related to disability, rehabilitation and adapted sports and recreation. He has also made over 54 presentations at international, national and regional professional conferences on similar topics.



He presently serves as the Severe Physical Disabilities Coordinator for the Midwest Alliance. In that capacity, he supports Midwest Alliance initiatives directed at enhancing the access afforded students with severe physical disabilities to postsecondary education in STEM. In addition, his ongoing research interests include the validation of effective practices in optimizing the postsecondary educational success of students with disabilities; the assessment of the impact of physical activity upon the short and long term health and wellness of persons with physical disabilities, and the development of a postsecondary disability metrics model that can be systemically used throughout the state of Illinois to more accurately assess the access and outcomes experienced by students with disabilities enrolled in Illinois higher education institutions.

In 2006, Dr. Hedrick received the University of Illinois Chancellor's Academic Professional Excellence Award and the College of Applied Health Sciences Academic Professional Excellence Award. He is a recipient of the

Tolland Award for Outstanding Achievement in Disability Sports and the Paralyzed Veterans of America Jack Gerhardt Award. In 2005, he was inducted into the National Wheelchair Basketball Association Hall of Fame for his contributions to the development of wheelchair basketball. He is a past Treasurer of the Association on Higher Education and Disability, and former [National Wheelchair Basketball Association](#) Division II Commissioner. He is a member of the Disability Access Committee of the Illinois Board of Higher Education, and formerly served as the higher education representative to the Illinois State Advisory Committee on the Education of Children with Disabilities.

Introducing....

Courtney Weisman

Courtney Weisman is an alumna of the University of Illinois with a degree in Community Health. Her concentrations include Rehabilitation and Disability Studies as well as Health Education and Promotion. She is currently a graduate student at the University of Wisconsin studying Rehabilitation Psychology. Courtney has a wide range of experiences working with individuals with disabilities. She founded the I.C.E. (Ice Skating in the Community For Everyone) program at the University of Illinois, served on the executive board of Delta Sigma Omicron (the rehabilitation service fraternity), worked as an inclusion companion for Northern Suburban Special Recreation Association for several years, and has volunteered with several community agencies.



Through these and other activities Courtney has acquired many skills including programming, planning, and organization. Courtney is assisting Midwest Staff in research to determine the barriers and facilitators in pursuing STEM and non-STEM educational programs and careers. She is looking forward to learning new research skills and more about individuals with disabilities in relation to STEM areas.

Did You Know?

The National Organization on Disability/Harris Survey (2004) found that only 14% of American adults with disabilities had completed college, while 25% of their contemporaries without disabilities had done so – a difference of 11% percentage points. And only 2% of people with severe disabilities complete college.

Student Successes

Internship Program



As a participant in the Midwest Alliance internship program, Laura Hart used her stipend to travel to Costa Rica to study ecology. One of Laura's most memorable moments was during a hike through a tropical forest where she was able to see many types

of animals including a white-faced cauchin monkey. During lunch time one of the monkeys jumped from a tree top, stole a lunch bag, then ate the sandwich enclosed. During Laura's time abroad she learned a great deal about the natural systems of Costa Rica including plants, animals, and insects, which she says, "are the things that stayed with me the most". She also came away with "eye opening" insights into Costa Rican customs and culture, especially since this was her first trip outside of the United States. Since returning and finishing high school in June 2007, Laura has entered the University of Wisconsin-Madison and is considering a major in civil/environmental or mechanical engineering.

Laura is continuing her involvement with Midwest, most recently presenting at the Midwest Alliance-sponsored STEM tour event for high school students in January, 2008.

Mentorship Program

Megan O'Brien is a mentor who recently graduated from the University of Wisconsin-Madison. She was excited and willing to participate in the mentorship program to help others learn about resources and make the college transition easier.

To Megan, the most enjoyable and rewarding aspect of the mentorship program included "getting to know the people I worked with". When asked to describe her mentorship relationship she says it was, "fun in both a professional and friendly way". Megan took pride in seeing her mentees' confidence levels rise and uncertainty fade

related to various aspects of their lives. The biggest challenge she experienced was building a trusting relationship with her mentee and ensuring that it was a "worthwhile relationship". Megan says the program helped her realize her love of helping others, which is why she is currently studying for the MCATs with plans to attend medical school.



Outreach Coordinators' Corner

-Tina Lam and Dan Nordstrom

Introduction

The Midwest Alliance offers several types of learning, enrichment and funding opportunities designed to benefit and support students and alumni with disabilities who participate in our outreach activities. The main activities that we oversee are mentorships, internships, and contributions to the Midwest Alliance consortium's enrichment, training, and research activities. We also collaborate with others in identifying, targeting, and promoting evidence-based transitional services for secondary and post-secondary education students with disabilities in science, technology, engineering, and mathematics (STEM) fields. The overall purpose of these activities is to increase the involvement and level of success of students with disabilities transitioning into and completing postsecondary degrees programs, and to support students moving from these programs into careers in STEM fields.

Mentorships

Midwest Alliance mentorships pair mentors (college/university students and alumni) and mentees (high school and college/university students) with similar backgrounds, skills, and interests in STEM fields. Mentors share their knowledge and experience about being a student or employee with a disability, and how they acquired resources and support, solved problems or overcame barriers, and achieved success in their studies and careers.

One-on-one, supervised mentorships can be set up at any time and any place (via internet, phone, etc.). Participation takes place over 20 to 25 hours and includes training, direct mentoring, keeping a time log, and completing a final project. Mentors may also take on a second mentee, and increase their level of participation to 40-50 hours.

We are actively recruiting students and alumni to become mentors and mentees. Applications can be downloaded from our website and submitted at any time throughout the year. We are also happy to mail out applications on request.

Internships

The Midwest Alliance is offering internship opportunities for high school, college, undergraduate and college graduate students with disabilities who have a strong interest in pursuing degrees in STEM fields. Whether through a college or university research laboratory or through a business or other type of organization, the Midwest Alliance can assist eligible students. We help recruit and place students in high-quality internships through the use of our database of companies, by creating or identifying research laboratory opportunities at universities, and by providing guidance and referrals regarding accommodations. We also provide limited stipends based on student need.

Businesses, companies and organizations are encouraged to list their internships with us in order to help in their recruitment efforts, and to utilize our knowledge and expertise as a resource in determining how best to provide accommodations to their interns and employees with disabilities.

Research laboratory placements include university-based REU's (Research Opportunities for Undergraduates), which are offered at universities throughout the United States, and include several-week-long, all-expense-paid STEM research programs. These opportunities are geared

to undergraduates who are interested in pursuing graduate school studies. Other laboratory placements can be arranged on an individual basis for any eligible students in high school or in postsecondary degree programs who want to nurture their interest and gain experience in a STEM field.

How to Get Involved

- High School Students: Become a Mentee or Intern, Attend one of our forums or campus visits
- College and University Students (Associate, Baccalaureate, Graduate): Become a Mentee, Mentor (sophomore year or above), or Intern
- STEM Alumni: Become a Mentor, Share our information with your trade organization, alumni association, etc.
- Teachers, Faculty, Administrators, & Others: Let us know about research laboratory opportunities, Share our information with students/alumni
- Businesses: Let us know about your internship openings. Ask us if you have questions about providing accommodations or recruiting interns

Check in with us for upcoming developments and be sure to watch our activities as they continue to grow! Keep in touch with us through our list-serve by visiting our website, or by sending a blank email to midwest-recruit-subscribe@groups.google.com. Specific information on eligibility, benefits, and application procedures for interns, mentors, and mentees can be found on our website at <http://www.stemmidwest.org/outreach.html>.

Important Upcoming Dates

March

7 Midwest Outreach Program Info Session (UW-Madison Memorial Union)

27-30 National Science Teachers Association 2008 Conference (Boston)

April

10-11 Illowa AHEAD Conference (Davenport)

17 Office of Civil Rights Transition Conference (Urbana-Champaign)
*For more information contact Tina Lam

June

5-6 National Workshop on PAS in PSE (Champaign)
*see description on page 2 of this newsletter

17-19 National Science Foundation
Division of Human Resource Development
2008 Joint Annual Meeting (Washington, D.C.)

July

14-19 AHEAD 2008 - 31st Annual Conference (Reno)