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REQUEST FOR FUNDS:
Rapid Response Applied Technology Model

ORGANIZATION: The Stout Vocational Rehabilitation Institute (SVRI) is located within the College of Human Development at the University of Wisconsin-Stout (UW-Stout). SVRI, along with its internal partner UW-Stout Risk Control Center from the College of Technology, Engineering, and Management – Department of Communications, Education, and Training and external collaborators of the University of Wisconsin-Madison Create Program (sparks technology-based product development), and University of Wisconsin -Milwaukee ATOMS Project (conducts research on assistive technology) collectively propose to accelerate the Science of Applied Technology in the State of Wisconsin for persons with disabilities.

SVRI's mission involves improving the applied technology for persons with disabilities through an integrated rehabilitation process in place since 1968. SVRI is a national leader in vocational rehabilitation education and training relating to applied technology within the rehabilitation process, adapting emerging cutting-edge technology to the workplace partnering with the private sector, conducting intensive technology assessments that maximize a person's performance and opens up new employment options, and providing customized assistive technology services to persons who have disabilities within a state-of-the-art on-campus laboratory. SVRI brings expertise in the areas of seating and positioning, computer technology, employment accommodations, transportation, and home-based accommodations. At year-end 2005, SVRI-Services had conducted 156 technology assessments, 26 intensive vocational evaluations, and 36 worksite and home accommodations were provided by their Rehabilitation Engineers.

SVRI is positioned with an award of a Rehabilitation Continuing Education Center by the U.S. Department of Education to undertake and advance an innovative polytechnic initiative that will enhance the performance and production of persons with disabilities within the workplace.

DESCRIPTION: This federal priority will advance the development and demonstration of a Rapid Response Applied Technology Model that works with private sector employers infusing cutting-edge technology of persons with disabilities who are aging, have work injuries, or are injured through war in effort of improving productivity and retaining skilled workers in American's workplace. This demonstration project will target and implement an innovative accommodation system with 40 individuals from the private manufacturing and service sector around Wisconsin with the intent of integrating applied technology-based rehabilitation services into the workplace as a proactive initiative toward reducing the impact of a disability on a person's contribution in the workplace.

The goal of this project *Rapid Response Applied Technology Model* will be to improve the performance of human capital which is enhanced by applied technology as a proactive method for retaining our skilled workforce. Bringing together the systems of Assistive Technology, Adaptive Technology, Risk Control, Technology Product Development, and Empirical Research the proposed *Rapid Response Applied Technology Model* would focus on creating a proactive integrated accommodation system that builds upon a team of expertise based with Manufacturing and Service sectors. This model would keep America's business strong and financially viable and retain persons with disabilities as a valued part of the workforce.

This process will (a) serve as an early intervention process based in the workplace, (b) stimulate active involvement from employers, (c) reach and engage employees before long-term disability impacts employment, (d) utilize a rehabilitation process to evaluate the persons functional performance along with the demands and essential functions of the job/work environment, (e) apply personalized assistive technology and an accommodation plan, (f) provide training on the technology creating a pre-script (for the person) and a post-management plan (user manuals for the technology), (g) provide ongoing information to mechanical engineers on the acute needs of persons with disabilities for innovative technology product development, (h) share the innovations between private sector networks, (i) provide follow-up and follow-along to assure success, (j) conduct research on the functional employment outcomes of persons with disabilities served, and (k) provide ongoing training to students and practitioners on the rehabilitation process refining their skills and knowledge in applied technology.

Over a one year period, SVRI will implement a concise empirical research demonstration project developing and implementing the *Rapid Response Applied Technology Model* that incorporates emerging technology practices to:

- Recruit 20 employers from around the State of Wisconsin (networking with existing employer project through the State of Wisconsin-Social Security).
- Develop the innovative processes, methods, and approaches that comprise the *Rapid Responses Applied Technology Model*.
- Create protocols for each of the partners that blend their expertise back into the workplace.
- Create templates for pre-scripts and post-management plans (provides the person guidance on how to reduce the impact of the disability and how to use and maintain the technology).
- Implement the process with the infused emerging technology into the workplace of 20 different businesses (high tech manufacturing and service sector).
- Conduct ongoing research to measure the impact of the process at each stage, productivity changes in the workplace and on the person, and extent of impact applied technology has on workplace.
- Provide ongoing follow-up and training to assure success with 40 persons.
- Share the workplace model with 120 employers.
- Conduct training with 230 practitioners and students on the rehabilitation-infused technology process.
- Estimate the outcome of the project on aggregate economic changes of retaining and advancing the person with a disability within the private sector, the effects on the business growth, and from a person with a disability perspective disseminating through employer projects, class presentations, conference presentations, journals and the SVRI website.
- Advance the growth of technology with three new innovative technology-based products stimulated by acute need cases originating in the workplace.

TIMELINE: SVRI will follow this timeline in implementing the demonstration project from July 2006 through July 2007.

July – September 2006 Start-up; identify private sector employers; create *Rapid Response Applied Technology Model* process; design the research model for the study; establish a service protocol, frame pivotal points for technology interventions, develop pre-scripts and post management plans, and follow-along processes.

October 2006 Begin first case within the workplace implementing the model research process. Conduct monthly meetings between the technology team to communicate updates, share processes, and insights. Make revisions to process to streamline its effectiveness.

December 2006 Full implementation of the model within the 20 sites in the private sector.

April – May 2007 Evaluate the process, analysis research findings, and disseminate outcomes with employers for replication.

June 2007 Embed the *Rapid Response Applied Technology Model* into a federal grant that replicate the concept into three different states maximizing its capacity for implementation and employment outcomes to 160 employers.

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PAST FUNDING: SVRI-Services provide services to persons with disabilities when the impacts of their disability limit their involvement in the workplace or home. Technology services are funded through the federal public rehabilitation agency, private sector employers, insurance companies, and private pay by the persons served. The grants within SVRI include Projects with Industry (20 years) from the U.S. Department of Education and the recent award of a Rehabilitation Continuing Education Center for \$2.5 million. The history of government funding has allowed SVRI to develop appropriate methods of accounting and program management strategies and documenting program outcomes.

BUDGET: Personnel (Rehab Engineers, Risk Control Faculty, Researchers, Graduate Students) \$135,000
Fringe Benefits \$ 57,375
Staff Travel \$ 6,500
Supplies and Materials associated with model delivery \$ 14,660
Technology equipment and applied modifications to customize \$ 33,265
Telephone and fax \$ 3,200
Total \$250,000

SIGNIFICANCE: Disability is perhaps a natural part of life for many Americans. Due to aging, involvement in the war, or work place injuries disability affects our general population every day. The current rehabilitation process starts after the person has received medical services, after they have been terminated from their employment because they can't function in the workplace, or can't get back into the workforce as the disability impairs their skills.

With the latest of technological advances that can recline a workstation, make docking stations accessible, and create sit/stand worksites maybe its time we intervene and stop waiting until the disability impacts the overall person and our American businesses.

In today's competitive market, American businesses can't afford anything short of a fully productive work force. When workers are out of work due to a disability, the corporate impact is significant as direct and indirect absences add up to nearly 18% of payroll costs and are forcing many employers to seriously think about their current disability management programs.

It's also becoming more common in the United States workforce that persons are maintaining employment longer for both personal and financial reasons. Americans over the age of 55 account for 22% of the nation's job growth and represent 18 million persons in the workforce (U.S. Bureau of the Census, 2000). As the baby-boom generation moves toward retirement age and as health care advances continue, more individuals are choosing to continue engagement in full- and part-time work activities.

In fact, 33% of the workforce over the age of 55 is employed in managerial and professional occupations (U.S. Bureau of the Census, 2000). With the occurrence of a disability after the age of 55, questions regarding ability or lack of ability to remain in employment become important considerations. As a result of persons remaining in the workforce, opportunities for greater occurrences of traumatic and disease-related disabilities exist.

Even with cutting-edge technology available, many persons are fearful of using assistive technology. It's often reported that many persons with a late onset of disability resist new advances in technology that would assist them in the workplace. Technology has advanced the equipment available can reduce specific impairments through use of screen readers, ergonomic chairs, augmentative devices, mobility aids, frequent breaks, natural supports, interpreters, drivers, and personal assistants but if a person is afraid to use the technology it use is impacted.

This proposal takes a proactive approach toward rehabilitation and brings applied technology to the forefront of services provided in the workplace. Rehabilitation Engineers/Assistive Technology professionals need to be integrated into the worksite and work side by side with Risk Control professionals, employers, the person who has a disability, and the medical community. By working together and following an assessment protocol, new emerging technology options can be tried and modified to fit the person and their work environment. The process would also be augmented with specialized training and orientation to technology so the person with a disability learns to be comfortable with, care for and maintain their technology. Technology becomes a vehicle and the person has the owners manual for keeping their job and advancing their productively in the workplace. It's good for persons with disabilities and American business who need to have that competitive edge globally. This proposal advances applied technology in the workplace and makes special aides and accommodations just another part of tomorrows work site.

CONTACTS WITH
CONGRESS: NONE TO DATE