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DEPARTMENT OF EDUCATION

34 CFR Chapter III

[Docket ID ED-2014-OSERS-0018]

Proposed priority--National Institute on Disability and Rehabilitation Research--Disability and Rehabilitation Research Projects and Centers Program--Rehabilitation Engineering Research Centers

[CFDA Number: 84.133E-4.]

AGENCY: Office of Special Education and Rehabilitative Services, Department of Education.

ACTION: Proposed priority.

SUMMARY: The Assistant Secretary for Special Education and Rehabilitative Services proposes a priority for the Disability and Rehabilitation Research Projects and Centers Program administered by the National Institute on Disability and Rehabilitation Research (NIDRR).

Specifically, this notice proposes a priority for a Rehabilitation Engineering Research Center (RERC) on Improving the Accessibility, Usability, and Performance of Technology for Individuals who are Deaf or Hard of Hearing. We take this action to focus research attention on areas of national need. We intend to use this priority to improve

rehabilitation services and outcomes for individuals with disabilities.

DATES: We must receive your comments on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Submit your comments through the Federal eRulemaking Portal or via postal mail, commercial delivery, or hand delivery. We will not accept comments submitted by fax or by email or those submitted after the comment period. To ensure that we do not receive duplicate copies, please submit your comments only once. In addition, please include the Docket ID at the top of your comments.

- Federal eRulemaking Portal: Go to [www.regulations.gov](http://www.regulations.gov) to submit your comments electronically. Information on using Regulations.gov, including instructions for accessing agency documents, submitting comments, and viewing the docket, is available on the site under "Are you new to the site?"

- Postal Mail, Commercial Delivery, or Hand Delivery: If you mail or deliver your comments about these proposed regulations, address them to Patricia Barrett, U.S. Department of Education, 400 Maryland Avenue, SW., room 5142, Potomac Center Plaza (PCP), Washington, DC 20202-2700.

Privacy Note: The Department's policy is to make all comments received from members of the public available for public viewing in their entirety on the Federal eRulemaking Portal at [www.regulations.gov](http://www.regulations.gov). Therefore, commenters should be careful to include in their comments only information that they wish to make publicly available.

FOR FURTHER INFORMATION CONTACT: Patricia Barrett, U.S. Department of Education, 400 Maryland Avenue, SW., room 5142, PCP, Washington, DC 20202-2700. Telephone: (202) 245-6211 or by email: [patricia.barrett@ed.gov](mailto:patricia.barrett@ed.gov).

If you use a telecommunications device for the deaf (TDD) or a text telephone (TTY), call the Federal Relay Service (FRS), toll free, at 1-800-877-8339.

SUPPLEMENTARY INFORMATION:

This notice of proposed priority is in concert with NIDRR's currently approved Long-Range Plan (Plan). The Plan, which was published in the Federal Register on April 4, 2013 (78 FR 20299), can be accessed on the Internet at the following site:

[www.ed.gov/about/offices/list/osers/nidrr/policy.html](http://www.ed.gov/about/offices/list/osers/nidrr/policy.html).

The Plan identifies a need for research and training in a number of areas, including issues related to individuals with hearing impairments. To address this need, NIDRR seeks to: (1) improve the quality and utility

of disability and rehabilitation research; (2) foster an exchange of research findings, expertise, and other information to advance knowledge and understanding of the needs of individuals with disabilities and their family members, including those from among traditionally underserved populations; (3) determine effective practices, programs, and policies to improve community living and participation, employment, and health and function outcomes for individuals with disabilities of all ages; (4) identify research gaps and areas for promising research investments; (5) identify and promote effective mechanisms for integrating research and practice; and (6) disseminate research findings to all major stakeholder groups, including individuals with disabilities and their families in formats that are appropriate and meaningful to them.

This notice proposes a priority that NIDRR intends to use for competitions in FY 2014 and possibly in later years. NIDRR is under no obligation to make awards for this priority. The decision to make an award will be based on the quality of applications received and available funding.

Invitation to Comment: We invite you to submit comments regarding this notice. To ensure that your comments have

maximum effect in developing the notice of final priority, we urge you to identify clearly the specific topic that each comment addresses.

We invite you to assist us in complying with the specific requirements of Executive Orders 12866 and 13563 and their overall requirement of reducing regulatory burden that might result from this proposed priority. Please let us know of any further ways we could reduce potential costs or increase potential benefits while preserving the effective and efficient administration of the program.

During and after the comment period, you may inspect all public comments about this proposed priority in room 5142, 550 12th Street, SW., PCP, Washington, DC, between the hours of 8:30 a.m. and 4:00 p.m., Washington, DC time, Monday through Friday of each week except Federal holidays. Assistance to Individuals with Disabilities in Reviewing the Rulemaking Record: On request we will provide an appropriate accommodation or auxiliary aid to an individual with a disability who needs assistance to review the comments or other documents in the public rulemaking record for this notice. If you want to schedule an appointment for this type of accommodation or auxiliary aid, please contact the person listed under FOR FURTHER INFORMATION CONTACT.

Purpose of Program: The purpose of the Disability and Rehabilitation Research Projects and Centers Program is to plan and conduct research, demonstration projects, training, and related activities, including international activities, to develop methods, procedures, and rehabilitation technology that maximize the full inclusion and integration into society, employment, independent living, family support, and economic and social self-sufficiency of individuals with disabilities, especially individuals with the most severe disabilities. This program is also intended to improve the effectiveness of services authorized under the Rehabilitation Act of 1973, as amended (Rehabilitation Act).

Rehabilitation Engineering Research Centers (RERCs) Program

The purpose of NIDRR's RERCs program, which is funded through the Disability and Rehabilitation Research Projects and Centers Program, is to improve the effectiveness of services authorized under the Rehabilitation Act. It does so by conducting advanced engineering research, developing and evaluating innovative technologies, facilitating service delivery system changes, stimulating the production and distribution of new technologies and equipment in the private sector, and providing training opportunities. RERCs seek to solve rehabilitation problems and remove

environmental barriers to improvements in employment, community living and participation, and health and function outcomes of individuals with disabilities.

The general requirements for RERCs are set out in subpart D of 34 CFR part 350 (What Rehabilitation Engineering Research Centers Does the Secretary Assist?).

Additional information on the RERCs program can be found at: [www.ed.gov/rschstat/research/pubs/index.html](http://www.ed.gov/rschstat/research/pubs/index.html).

Program Authority: 29 U.S.C. 762(g) and 764(b)(3).

Applicable Program Regulations: 34 CFR part 350.

PROPOSED PRIORITY:

This notice contains one proposed priority.

Improving the Accessibility, Usability, and Performance of Technology for Individuals who are Deaf or Hard of Hearing.

Background:

The World Health Organization (WHO) defines hearing loss as the inability to hear sounds of 25 decibels (dB) or less. According to this definition, one in five Americans over the age of 12 has hearing loss in at least one ear (Lin, et al., 2011). This figure translates to roughly 48 million Americans, and the number is expected to rise as the population ages (Lin, et al., 2011). Hearing loss can affect people's lives in a number of areas, including

education, transition from school to work, employment, participation in the community, and general social and emotional well-being (Kochkin, 2010b). However, successful auditory enhancement technologies have been shown to improve the quality of life for people with hearing loss (Fellinger, et al., 2012; Kochkin, 2010b).

Research and development of technologies that address hearing loss has produced advances in areas such as digital and wireless hearing aids, assistive technologies, cochlear and middle ear implants, and aural rehabilitation; however, research and development needs remain. For example, research has indicated that while 95 percent of people with hearing loss can benefit from hearing aids, only an estimated 20 to 25 percent actually use them (Fischer, et al., 2011). Commonly cited technology limitations that negatively affect overall consumer satisfaction ratings with hearing aids include difficulty with volume control, reduced benefit in noisy environments, and insufficient transferability across settings (Kochkin, 2010a).

Research and development is needed in other areas as well. Assistive listening devices (e.g., FM systems, infrared systems, and audio induction loop systems) have significant limitations in their portability, usability, and performance, particularly during group discussions

(Harkins & Tucker, 2007). More research and development is needed on cochlear and middle ear implants to optimize performance and benefits in a variety of settings (Peterson, et al., 2010).

In addition to technologies that address the physiological challenges of hearing loss, other technologies exist that focus on improving access to auditory information through alternate methods. For example, captioning technology provides access to the auditory content of multimedia for individuals who are deaf or hard of hearing through a simultaneous display of text and sound or pictures (Wald, 2010). This kind of technology can be used in multiple formats (e.g., pre-recorded or real-time) and in a variety of entertainment, educational, workplace, community, and recreational settings; however, there are cost and time considerations for manual captioning. Research indicates that automatic speech recognition technology may address some of these considerations, but concerns remain regarding accuracy of this software (Wald, 2010). For all the reasons cited above, NIDRR seeks to fund an RERC to develop, refine, and evaluate technologies for individuals who are deaf or hard of hearing.

References:

Fellinger, J., Holzinger, D., & Pollard, R. (2012). Mental health of deaf people. *The Lancet*, 379, 1037-1044.

Fischer, M., Cruickshanks, K. J., Wiley, T., Klein, B.E.K., Klein, R., & Tweed, T.S. (2011). Determinants of hearing aid acquisition in older adults. *American Journal of Public Health*, 101(8), 1449-1455.

Harkins, J., & Tucker, P. (2007). An internet survey of individuals with hearing loss regarding assistive listening devices. *Trends in Amplification*, 11(2), 91-100.

Kochkin, S. (2010a). MarkeTrak VIII: Consumer satisfaction with hearing aids is slowly increasing. *Hearing Journal*, 63(1), 19-24.

Kochkin, S. (2010b). MarkeTrak VIII: The efficacy of hearing aids in achieving compensation equity in the workplace. *Hearing Journal*, 63(10), 19-26.

Lin, F.R., Niparko, J.K., & Ferrucci, L. (2011). Hearing loss prevalence in the United States. *Archives of Internal Medicine*, 171(20), 1851-1853.

Peterson, N.R., Pisoni, D.B., & Miyamoto, R.T. (2010). Cochlear implants and spoken language processing abilities: Review and assessment of the literature. *Medicine, Clinical Neurology and Exercise & Occupational Therapy*, 28(2), 237-250.

Wald, M. (2010). Synote: Accessible and Assistive Technology Enhancing Learning for All Students. ICCHP 2010, Part II, LNCS 6180, 177-184.

Proposed Priority:

The Assistant Secretary for Special Education and Rehabilitative Services proposes the following priority for the establishment of a Rehabilitation Engineering Research Center (RERC) on Improving the Accessibility, Usability, and Performance of Technology for Individuals who are Deaf or Hard of Hearing. The RERC must focus on innovative technological solutions, new knowledge, and concepts that will improve the lives of individuals who are deaf or hard of hearing.

Under this priority, the RERC must research, develop, and evaluate technologies, methods, and systems that will improve the accessibility, usability, and performance of technologies that benefit individuals who are deaf or hard of hearing. This includes:

- (a) Improving technological and design features (e.g., device fit and comfort, ease of control) in order to maximize adoption and use of auditory enhancement devices;
- (b) Improving the compatibility of auditory enhancement technologies with other technologies such as

mobile devices, telephones, televisions and other media devices);

(c) Improving the performance of auditory enhancement devices and other access-promoting technology (e.g., voice to sign computer, smart phone applications, or portable real-time captioning applications) in social environments (e.g., school, work, recreation, and entertainment); and

(d) Enhancing aural rehabilitation and consumer involvement strategies (e.g., online access to peer and expert input on auditory technologies and communication strategies, consumer focus groups and surveys, and consumer beta testing and review of products) to maximize access to auditory information in a variety of settings (e.g., educational, recreational, community, and workplace). The RERC must involve key stakeholders in the design and implementation of RERC activities.

Types of Priorities:

When inviting applications for a competition using one or more priorities, we designate the type of each priority as absolute, competitive preference, or invitational through a notice in the Federal Register. The effect of each type of priority follows:

Absolute priority: Under an absolute priority, we consider only applications that meet the priority (34 CFR 75.105(c)(3)).

Competitive preference priority: Under a competitive preference priority, we give competitive preference to an application by (1) awarding additional points, depending on the extent to which the application meets the priority (34 CFR 75.105(c)(2)(i)); or (2) selecting an application that meets the priority over an application of comparable merit that does not meet the priority (34 CFR 75.105(c)(2)(ii)).

Invitational priority: Under an invitational priority, we are particularly interested in applications that meet the priority. However, we do not give an application that meets the priority a preference over other applications (34 CFR 75.105(c)(1)).

Final Priority:

We will announce the final priority in a notice in the Federal Register. We will determine the final priority after considering responses to this notice and other information available to the Department. This notice does not preclude us from proposing additional priorities, requirements, definitions, or selection criteria, subject to meeting applicable rulemaking requirements.

Note: This notice does not solicit applications. In any year in which we choose to use this priority, we invite applications through a notice in the Federal Register.

Executive Orders 12866 and 13563

Regulatory Impact Analysis

Under Executive Order 12866, the Secretary must determine whether this regulatory action is "significant" and, therefore, subject to the requirements of the Executive order and subject to review by the Office of Management and Budget (OMB). Section 3(f) of Executive Order 12866 defines a "significant regulatory action" as an action likely to result in a rule that may--

(1) Have an annual effect on the economy of \$100 million or more, or adversely affect a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities in a material way (also referred to as an "economically significant" rule);

(2) Create serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impacts of entitlement grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles stated in the Executive order.

This proposed regulatory action is not a significant regulatory action subject to review by OMB under section 3(f) of Executive Order 12866.

We have also reviewed this regulatory action under Executive Order 13563, which supplements and explicitly reaffirms the principles, structures, and definitions governing regulatory review established in Executive Order 12866. To the extent permitted by law, Executive Order 13563 requires that an agency--

(1) Propose or adopt regulations only upon a reasoned determination that their benefits justify their costs (recognizing that some benefits and costs are difficult to quantify);

(2) Tailor its regulations to impose the least burden on society, consistent with obtaining regulatory objectives and taking into account--among other things and to the extent practicable--the costs of cumulative regulations;

(3) In choosing among alternative regulatory approaches, select those approaches that maximize net benefits (including potential economic, environmental,

public health and safety, and other advantages;  
distributive impacts; and equity);

(4) To the extent feasible, specify performance objectives, rather than the behavior or manner of compliance a regulated entity must adopt; and

(5) Identify and assess available alternatives to direct regulation, including economic incentives--such as user fees or marketable permits--to encourage the desired behavior, or provide information that enables the public to make choices.

Executive Order 13563 also requires an agency "to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible." The Office of Information and Regulatory Affairs of OMB has emphasized that these techniques may include "identifying changing future compliance costs that might result from technological innovation or anticipated behavioral changes."

We are issuing this proposed priority only upon a reasoned determination that its benefits justify its costs. In choosing among alternative regulatory approaches, we selected those approaches that maximize net benefits. Based on the analysis that follows, the Department believes

that this proposed priority is consistent with the principles in Executive Order 13563.

We also have determined that this regulatory action would not unduly interfere with State, local, and tribal governments in the exercise of their governmental functions.

In accordance with both Executive orders, the Department has assessed the potential costs and benefits, both quantitative and qualitative, of this regulatory action. The potential costs are those resulting from statutory requirements and those we have determined as necessary for administering the Department's programs and activities.

The benefits of the Disability and Rehabilitation Research Projects and Centers Programs have been well established over the years, as projects similar to the one envisioned by the proposed priority have been completed successfully. Establishing new RERCs based on the proposed priority would generate new knowledge through research and development and improve the lives of individuals with disabilities. The RERC that would be established under this proposed priority would generate, disseminate, and promote the use of new information that would improve the

options for individuals with disabilities to fully participate in their communities.

Intergovernmental Review: This program is not subject to Executive Order 12372 and the regulations in 34 CFR part 79.

Accessible Format: Individuals with disabilities can obtain this document in an accessible format (e.g., braille, large print, audiotape, or compact disc) by contacting the Grants and Contracts Services Team, U.S. Department of Education, 400 Maryland Avenue, SW., room 5075, PCP, Washington, DC 20202-2550. Telephone: (202) 245-7363.

If you use a TDD or TTY, call the FRS, toll free, at 1-800-877-8339.

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Dated: April 10, 2014

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Michael K. Yudin,  
Acting Assistant  
Secretary for Special  
Education and  
Rehabilitative Services.

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