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To: <u>NBRArfc2016</u>

Subject: Comments on Broadband Research Agenda
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Comments on Broadband Research Agenda Socioeconomic Impacts from David J. Rosen, Ed.D

What research proposals regarding broadband access should be prioritized?

- 1. In 2016, the XPRIZE Foundation launched a private-sector initiative to encourage app developers, and to award prizes for the development of apps, to serve low-skilled (zero-grade three reading) adults, both native speakers of English and immigrants who need to learn English, who presumably will use broadband technology to improve their reading and English writing skills. This is an important and unprecedented private-sector investment in a population that is greatly underserved by the federal government, for whom especially for English language learners there are long waiting lists for classes in all but one state. Many apps will be developed as part of this competition. Only a few will be field-tested. None, as far as I am aware, will have been subjected to rigorous research to know for which populations which apps produce the best learning outcomes. Since the XPRIZE competition has such important potential, I would like to see these apps considered as an important area for outcomes-based research.
- 2. There is both Pew research and a great deal of anecdotal evidence for teachers that adult basic skills learners, especially immigrants, now largely have access to broadband through smartphones and other portable digital devices: some may believe that because they have "access" the digital divide for them has been bridged. However, if they do not know how to <u>use</u> their devices for learning and for getting high quality information that can address their individual, family and community needs we may now have a new digital divide, not one based on access but on use. I would like to see research that explores the extent of this new digital divide in America which, I believe, like the original digital divide, is defined by a person's level of education and by economic class. Are the poor and uneducated still on the wrong side of the digital divide and, if so, what do we need to do about that not only through K-12 education but, equally important, in publicly support adult basic skills education?

How can cross-disciplinary collaboration in broadband research be enhanced?

There is a need for collaboration at the community level of community health centers, local public libraries, and adult basic skills programs. One important way this could happen is through the provision of training to low-skilled adults, on how to use smartphones for health-related purposes beyond current widespread common practices like appointment reminders sent from health care providers by phone and text messages. New digital device practices need to include: regular communication with a patient's health team, the skills needed to find and judge the quality of health-related information, and use of health information apps that enable patients to send vital signs and other physiological data directly by smartphone to their health care provider. All of these require more than technical access; they require the literacy, numeracy, and technology comfort and competence to use these applications effectively. I would like to see a national research and development demonstration project to highlight best practices in providing these collaborative training efforts for low-skilled adults.

What is needed to understand how to reach population groups that have traditionally underutilized broadband technology?

Populations that have greatly underused broadband technology for human services (e.g. job skills training, health, English language learning, basic skills learning, access to services such as food stamps, housing, legal services) can be found in nearly every adult basic skills education education program in nearly every state. Research is needed to determine the best ways to serve these adults, and specifically what new public funds at the state and federal level are needed to enable the needed local collaborations and provision of services to this adult learners.

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