SUNspot –Wireless Users with Disabilities in Urban, Suburban and Rural Communities

10.31.2010

We created “SUNspot” to share some of the latest findings of our ongoing Survey of User Needs (SUN). This survey is about the use and usability of wireless technology by people with disabilities. We began the survey in 2001 and launched Version 3 in May 2010.

This SUNspot addresses the following questions related to use and usability of wireless technology by people with disabilities in urban, suburban and rural communities:

- Do people with disabilities living in urban, suburban and rural areas differ in ownership or access to a mobile wireless device?
- Do urban, suburban and rural wireless customers differ in the following areas:
  - how important their wireless device is
  - how often they use their wireless device
  - how easy is it for them to use their wireless device
  - how satisfied are they with their device and service

Among 417 SUN respondents to date in 2010, 393 reported having a sensory, physical, and/or cognitive disability. The data reported here represent preliminary results.* Data collection is ongoing.

We share data like these with manufacturers and carriers, as well as with policymakers, for the purpose of improving usability of wireless technology. SUN data are regularly used in guiding industry and government initiatives. We invite the public to take the Survey of User Needs and share how wireless technology affects daily life, and how it could be improved. The survey is available on paper, by phone (800-582-6360), or online at www.wirelessrerc.org/survey.

Wireless use

SUN respondents living in suburban areas have the highest rate of wireless adoption among people with disabilities (92%). Surprisingly, rural dwellers are more likely than urban dwellers to have own or have access to a wireless device (90% vs. 86%). One might expect the opposite, given that wireless access has generally been less available in rural areas than in urban areas.

Importance and frequency of use

A high percentage of respondents with disabilities (77%) said their wireless device was “very important”. Despite greater rates of adoption than their urban peers, rural respondents were the least likely (73%) to say their devices were very important, compared to urban dwellers (76%) and suburban dwellers (79%).

People with disabilities living in less densely settled areas use their wireless device more frequently. Rural respondents with disabilities are the most likely (80%) to use their wireless devices every day, despite the fact that they are the least likely to say their device is very important to them. Urban respondents are the least likely (71%) to use their devices every day, while 78% of suburban respondents say they use their devices every day.
Ease of use and satisfaction

SUN data suggest that higher frequency of use by rural respondents did not translate into greater ease of use of their wireless devices.

Urban respondents are most likely to report being very satisfied with both their wireless devices and wireless service providers, followed by suburban respondents. Rural respondents are the least likely to report being very satisfied with their wireless device and their wireless service provider.

| How satisfied are you with the wireless device and the service provider you use? | Percentage saying VERY SATISFIED |
|---|---|---|---|
| Wireless device | Urban | Suburban | Rural | All respondents |
| Wireless device | 40% | 37% | 32% | 37% |
| Service provider | 45% | 41% | 38% | 41% |

*Data source: Survey of User Needs (SUN), Rehabilitation Engineering Research Center for Wireless Technologies (Wireless RERC). These data are based on a non-randomized population sample. The survey is promoted as broadly as possible through convenience sampling techniques, with special effort toward reaching under-represented groups. Sampling errors are corrected by weighting the response data by family income according to American Community Survey (ACS) microdata on demographics of the U.S. population of people with disabilities. This helps to mitigate potential biases introduced by the convenience sampling approach. The data reported here are weighted by total household income, which is strongly correlated with education level in the ACS sample.

Acknowledgement: The Wireless RERC is sponsored by the National Institute on Disability and Rehabilitation Research (NIDRR) of the U.S. Department of Education under grant number H133E060061. The opinions contained in this paper are those of the author and do not necessarily reflect those of the U.S. Department of Education or NIDRR.