

**34.1**

Digital Divide Index Score

## Sauk County, Wisconsin

The digital divide index score (DDI) ranges between 0 and 100, where a lower score indicates a lower divide. The infrastructure adoption score and the socioeconomic score, both in a 0 to 100 range as well, contribute to the overall DDI. Listed below each score are the factors used. These scores were calculated by looking at the geographic units (Census tracts, counties) and comparing them with their peers. For this reason, scores are not comparable across different geography tiers (Census tract versus counties versus states). For more information about the methodology, visit <https://www.pcrd.purdue.edu/signature-programs/digital-divide-index.php>

**50.6**

### Infrastructure/Adoption Score

If this score is much higher than the socioeconomic score, efforts to upgrade the broadband infrastructure may result in more benefits to the community.



**76.5**

average maximum advertised download speed in Mbps



**55.5**

average maximum advertised upload speed in Mbps



**40.0-59.9%**

percentage of households with a 10/1 Mbps broadband connection



**16.9%**

of population without access of fixed broadband of at least 25 Mbps download and 3 Mbps upload

**30.9**

### Socioeconomic Score

If this score is much higher than the infrastructure/adoption score, efforts focused on digital literacy and highlighting benefits of the technology will likely bring more return.



**16.6%**

population 65 years old or older



**12.3%**

of individuals in poverty



**10.0%**

ages 25 and older with less than a high school degree



**13.4%**

non-institutionalized civilian population with a disability

**\$**

### \$15.4 million Missed Economic Benefit

estimated over 15 years if 20% of unserved households do not have access and do not subscribe to the service.

For more information, contact the UW-Extension Broadband & E-Commerce Education Center at [wibroadband@uwex.edu](mailto:wibroadband@uwex.edu)

Digital Divide Index produced by Dr. Roberto Gallardo, Purdue University Center for Regional Development and Extension Community Development Program; September 2017.

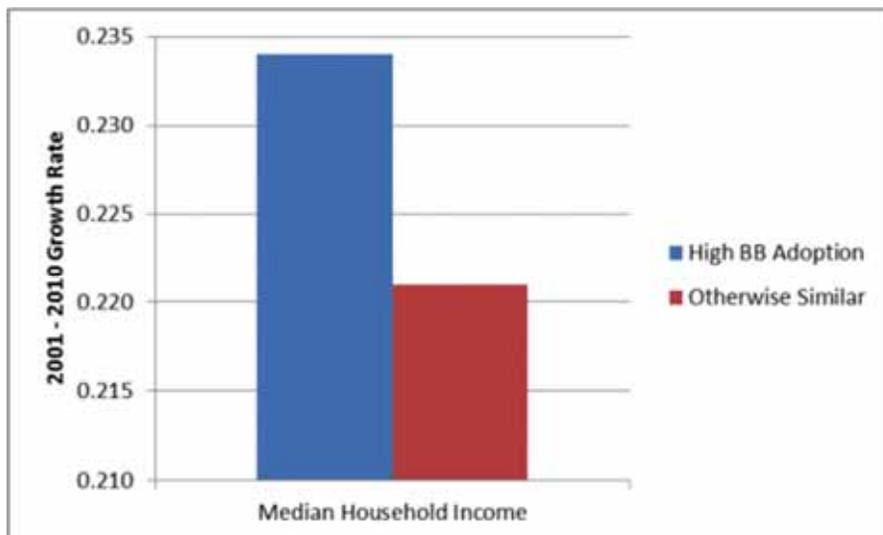
Internet access has become a key factor for full participation in modern society. Educational and professional opportunities, workforce participation, access to health information, public safety and regional economic development are increasingly dependent upon an individual's access to a high-speed broadband connection. The digital divide is the gap between those who have access to computers and the internet and those who do not. It is estimated that 96 percent of urban residents live in areas with broadband infrastructure, while only 61 percent of rural households and 32 percent of households on tribal lands are in areas where broadband speeds are available.

Availability of broadband infrastructure, however, does not mean that households have access. Not all households have adopted the technology, adoption meaning that the household has an internet subscription that allows them to use high-speed broadband at home. Consumers report affordability, lack of skills and concerns for security as barriers to adoption. Nationally, according to the American Community Survey (ACS), the residential broadband adoption rate (2016, the most recent ACS data available <http://bit.ly/2jfiCMU>) is about 81 percent; Wisconsin's adoption rate is similar. National data (NTIA, 2016) shows a consistent 6 to 9 percent gap between rural and urban internet use over time.

# What is the Digital Divide?



## GETTING ONLINE / DELINEATING THE DIGITAL DIVIDE



Research reported in 2013 by Whitacre, Gallardo and Stover ([http://www.nardep.info/Broadband\\_2.html](http://www.nardep.info/Broadband_2.html)) suggests that broadband's contribution to economic health in non-metro counties is associated mostly with high levels of broadband *adoption* (as opposed to levels of *infrastructure*). In particular, non-metro counties that demonstrated high levels of broadband adoption (defined as county-level adoption rates >60 percent) had significantly higher levels of growth in median household income, and significantly reduced levels of poverty and unemployment.

They conclude, "Given that availability gaps alone do not explain the digital divides illustrated by the data, programs addressing adoption and utilization would be the next logical steps in a comprehensive effort to improve our national statistics."

The **Purdue Center for Regional Development** has created a Digital Divide Index (DDI), reflecting the factors affecting the digital divide. An index is a descriptive tool that serves as a measure of progress or a comparison to peers. The DDI is comprised of an infrastructure score and a socioeconomic score. The *infrastructure score* reflects the region's

- percentage of 2010 population with fixed broadband of a speed at least 25 Mbps download/3 Mbps upload,
- number of residential connections of at least 10/1 Mbps,
- average maximum advertised download speeds, and
- average maximum advertised upload speeds.

The *socioeconomic score* reflects factors which tend to predict lagging adoption, including

- percentage of population over age 65,
- percentage of population over age 25 with less than a high school education,
- individual poverty rate, and
- percentage of the noninstitutionalized civilian population with a disability.