COMMUNITY INDICATORS

High Speed Internet Access

***Community Indicators** are intended to stimulate thoughtful dialogue about your community. They can help identify potential issues, opportunities and problems facing your community. This communication piece is also intended to increase use and understanding of readily accessible demographic data on the web.*

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While it has been difficult, if not impossible, to get good data on community connectivity rates, recent data collected by the FCC could shed light on the success our communities are having in terms of deploying advanced telecommunications.

In March 2000, the FCC adopted a semi-annual reporting requirement (FCC Form 477) for the providers of broadband connections to determine the extent of local telecommunications competition and deployment of broadband services. In November 2004, the FCC modified its reporting requirements in a way that now requires reporting by more entities that were previously exempted from reporting. The new rules apply for the first time to reporting data from June 30, 2005 (made available to the public in April 2006).

The FCC report titled, "High-Speed Services for Internet Access: Status as of June 30, 2005" along with data from the Form 477 are available on the web at: http://www.fcc.gov/wcb/iatd/comp.html

The data is still only marginally useful, because it suppresses information on customer data at the community level for confidentiality reasons. While data is available at the zip code level for the number of providers, a zip code is considered "served" if a provider has as few as one end user in the zip code. Finally the government currently defines "broadband" to be services that connect homes and businesses to the Internet at speeds that exceed 200 kbps in at least one direction. This despite the fact that some Internet services such as quality video-over-Internet pay-for-view needs 700Kbps

Despite these shortcomings, several conclusions can be drawn from the form 477 data at the state and national level:

- For the twelve month period beginning June 30, 2004, high speed Internet lines to homes and businesses in Wisconsin increased by 29.6% (Compared to 32% growth for the nation).

High-Speed Lines by State
(Over 200 kbps in at least one direction)

	U.S.	Wisconsin	Minnesota	Illinois	Iowa	Michigan
June 2004*	32,458,458	565,160	567,365	1,305,091	229,811	955,242
June 2005*	42,866,469	732,706	723,484	1,854,004	325,711	1,359,079
Change	10,408,011	167,546	156,119	548,913	95,900	403,837
% Change	32.07%	29.65%	27.52%	42.06%	41.73%	42.28%
2005 Pop.**	296,410,404	5,536,201	5,132,799	12,763,371	2,966,334	10,120,860
'05 Lines Per Capita	0.14	0.13	0.14	0.15	0.11	0.13

* Source: High-Speed Services for Internet Access: Status as of June 30, 2005, FCC, Industry Analysis and Technology Division Wireline Competition Bureau, April 2006, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-264744A1.pdf

**Source: U.S. Census Bureau, Population Estimates Program

The growth rates in Wisconsin were slower then the nation and most of the surrounding states. In addition, for some unexplained reason, the percentage of high speed lines for business use was surprisingly low (6.9% of the high-speed lines were used by business, compared to 10.2% for the nation). It would appear that businesses in Wisconsin have not maximized their use of high speed Internet access.

High-Speed Lines by Type of User as of June 30, 2005

	Residential	Business	Total	% of Lines for Business
U.S.	38,515,303	4,351,166	42,866,469	10.2%
Wisconsin	682,073	50,633	732,706	6.9%
Minnesota	655,837	67,647	723,484	9.4%
Illinois	1,658,639	195,365	1,854,004	10.5%
Iowa	293,824	31,887	325,711	9.8%
Michigan	1,256,759	102,320	1,359,079	7.5%

Source: High-Speed Services for Internet Access: Status as of June 30, 2005, FCC, Industry Analysis and Technology Division Wireline Competition Bureau, April 2006, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-264744A1.pdf

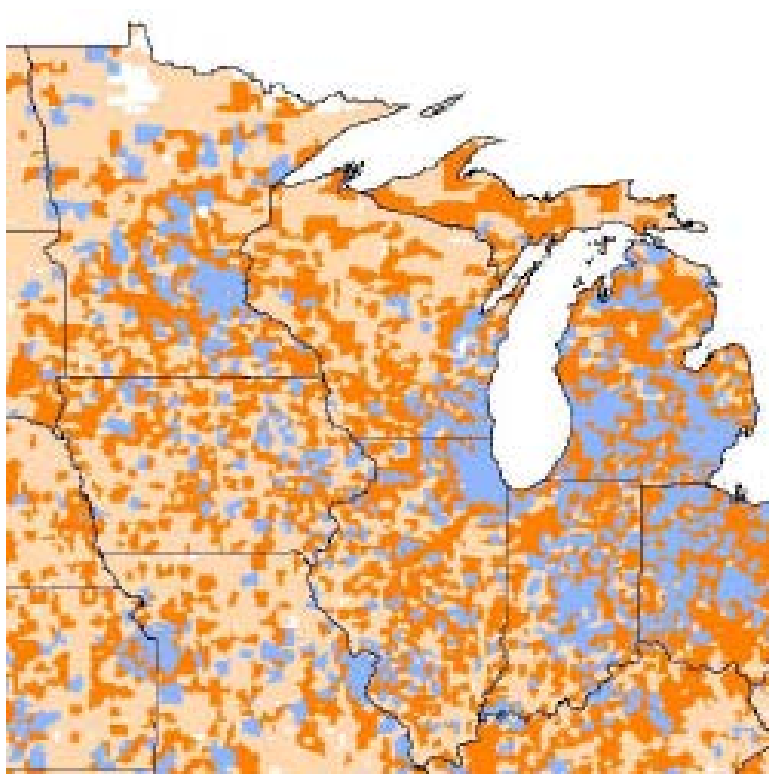
- In Wisconsin and the U.S., 98% of the U.S. zip codes had at least one customer served by at least one provider. 86% of zip codes were served by satellite, 78% by ADSL (asymmetric DSL), and 62% by cable modem.

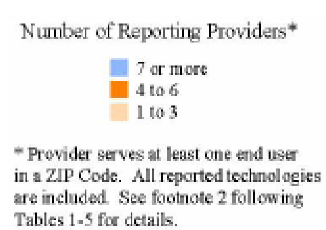
Percentage of Zip Codes with High-Speed Lines in Service as of June 30, 2005 (Over 200 kbps in at least one direction)

Number of Providers	U.S.	Wisconsin	Minnesota	Illinois	Iowa	Michigan
0	2.00%	2.00%	3%	2%	2%	0%
1	9.00%	8.00%	16%	8%	18%	1%
2	14.00%	18.00%	17%	13%	22%	5%
3	15.00%	23.00%	15%	15%	20%	12%
4	13.00%	14.00%	12%	13%	14%	16%
5	10.00%	10.00%	9%	10%	11%	13%
6	7.00%	6.00%	5%	7%	5%	10%
7	5.00%	5.00%	4%	4%	4%	8%
8	4.00%	4.00%	3%	4%	3%	5%
9	4.00%	4.00%	2%	3%	1%	4%
10+	18.00%	7.00%	16%	21%	1%	26%

While these numbers are a bit deceptive, it would appear as though the slower growth in high speed Internet access in Wisconsin is not a function of its availability.

High Speed Providers by Zip Code (June 2005)*





- Source: High-Speed Services for Internet Access: Status as of June 30, 2005, FCC, Industry Analysis and Technology Division Wireline Competition Bureau, April 2006, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-264744A1.pdf

- Of the 42.9 million total high-speed lines, 55.8% were cable modem, 37.7% were asymmetric DSL (ADSL), 2.1% were symmetric DSL (SDSL) or traditional wire line, 2.0% were fiber to the premise, and 2.3% used other technologies.

- Even the lowest population density zip codes had an annual increase in "service" from 73% to 84% .

Why is any of this important? Well, in part because of the availability of the data now reported to the FCC, researchers at MIT and Carnege Mellon University were able to analyze whether or not the presence of broadband is having an economic impact. According to the team of Lehr, Osorio, Gillett, and Sirbu, "…broadband access does enhance economic growth and performance, and that the assumed (and oft-touted) economic impacts of broadband are real and measurable."

One cautionary note that I would offer, is that this study does no cost-benefit analysis of the public investments. In other words, it doesn't look at the cost side of the equation or determine if these same investments might have had a greater or lesser impact if they had been made on other public infrastructure.

Communities interested in planning for community connectivity and taking a more proactive approach to this issue in Wisconsin should consult the resources listed on the CCED web page at:
http://www.uwex.edu/ces/cced/technology_readings.htm

This page includes links to articles, studies, and a sample RFP for requesting firms to conduct a broadband feasibility study.

"The present study has several clear implications for policy-makers. The most obvious and important implication is that broadband *does* matter to the economy".
Source: *Measuring Broadband's Economic Impact*, Lehr, Osorio, Gillett, Sirbu, 1-17-06,

http://cfp.mit.edu/groups/broadband/docs/2005/MeasuringBB_EconImpact.pdf

A shorter summary of the research also appeared in Broadband Properties magazine. See: http://www.broadbandproperties.com/2005issues/dec05issues/Measuring%20Broadband%20Eco%20Impact,%20Lehr,%20Gilett,%20Sirbu.pdf

For additional resources on the topic of "Planning for Community Connectivity", see:

http://www.uwex.edu/ces/cced/technology_readings.htm