

E-Commerce: Assessing Your Community's Readiness



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It's a pleasure to be here today....trying yet another distance learning technology....Breeze. I am Andy Lewis, a community development specialist with the Center for Community & Economic Development, University of Wisconsin Extension. I am not a telecommunications specialist, however I have a number of community experiences and resources that I will be sharing with you today that I think will help you with your efforts...

When I first got involved in doing a workshop on community connectivity planning I partnered with two people who worked for Virchow Krause...Bob Herbst and Tom Asp. Virchow Krause is a company that makes most of its money on accounting services and didn't have a financial interest in any technology solutions. They had a very small division that was doing consulting in this area and for the reasons mentioned already, I felt comfortable working with them. I thought it was highly unlikely that they would jeopardize their accounting reputation by leading a community down the yellow brick road. Well....that division folded, but we were able to compile a long list of useful educational resources.

Purpose of Today's Program

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1. Provide you with an overview of E-Commerce...
 - For Communities
 - For Business
2. Discuss the Role Communities Can Play in Facilitating an Appropriate E-Commerce Environment
3. Provide you with a few resources to assist you with that process

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E-Commerce? ... Broadband?

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“electronic commerce” – the act of buying or selling or otherwise exchanging goods and services or information over an electronic network (also discussed as *telecommuting*, *distance learning*, etc.) ... business and government applications

“broadband” – high speed data transmission mechanisms such as:

- Digital subscriber network (DSL) – uses the telephone network
- Cable modems – uses the cable television network
- Wireless – satellite or microwave technology

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E-Commerce is short for electronic commerce

Over the past decade, e-commerce has increasingly provided an alternative way for buyers and sellers to transact.

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.

E-Commerce as a Community Issue

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Government's interests in E-Commerce include:

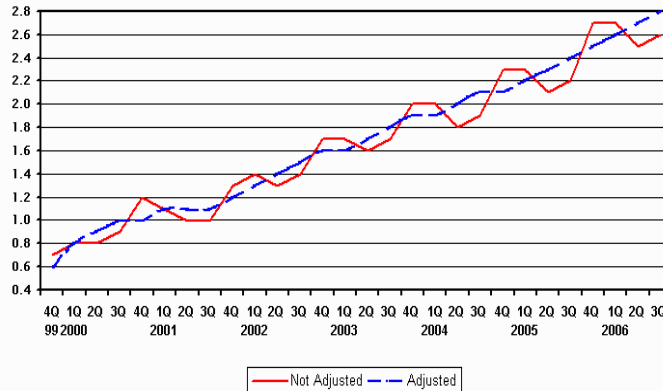
- Agency business (transactions and information)
- Education (distance learning)
- Health care (telemedicine)
- "Digital bridge" to mitigate remoteness and lack of economies of scale
- Remaining viable and fostering economic development (business to consumer and business to business)

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Estimated Quarterly U.S. Retail E-commerce Sales as a Percent of Retail Sales: 4th Quarter 1999–3rd Quarter 2006 Total Quarterly

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Source: U.S. Census,
<http://www.census.gov/mrts/www/ecom.html>

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It wasn't until 1999 that we could actually begin analyzing e-commerce data. This is the year the Census Bureau began requesting data on e-commerce in its annual survey of manufacturers, wholesalers, retailers and selected services and in its monthly survey of retailers.

The Census Bureau of the Department of Commerce announced recently that the estimate of U.S. retail e-commerce sales for the third quarter of 2006, adjusted for seasonal variation and holiday and trading-day differences, but not for price changes, was \$27.5 billion, an increase of 4.5 percent ($\pm 1.5\%$) from the second quarter of 2006. Total retail sales for the third quarter of 2006 were estimated at \$991.7 billion, an increase of 0.7 percent ($\pm 0.3\%$) from the second quarter of 2006. The third quarter 2006 e-commerce estimate increased 20.9 percent ($\pm 5.3\%$) from the third quarter of 2005 while total retail sales increased 5.1 percent ($\pm 0.3\%$) in the same period. E-commerce sales in the third quarter of 2006 accounted for 2.8 percent of total sales.

Adjusted: A stratified simple random sampling method is used to select approximately 11,000 retail firms whose sales are then weighted and benchmarked to represent the complete universe of over two million retail firms.

Special Notice – This is our final report on the current sample. Beginning with the February 16, 2007 release for 4th Quarter 2006

What are e-commerce sales?

Answer: E-commerce sales are sales of goods and services where an order is placed by the buyer or price and terms of sale are negotiated over the Internet, an extranet, Electronic Data Interchange (EDI) network, or other online system. Payment may or may not be made online.

Other indicators of the growth of e-commerce....a 2005 study by AC Nielson identified 157.3 million registered e-bay users. 724,000 eBay sellers rely on eBay sales as their primary or a secondary source of income --- more important was the trend---this was a jump of 68% over two years. In addition, 1.5 million individuals say they supplement their income by selling on eBay. Businesses that sell on eBay have an average of 13 full-time workers, 8 part-time and 2 dedicated solely to handling eBay business. Among sole proprietors, 77 percent said eBay has helped them extend their geographic reach. 69% of businesses with employees agreed. 49% of sole proprietors and 41% of businesses with employees felt eBay has helped them INCREASE their amount of business.

Traditional Approach To Economic Development

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Economic development strategies have traditionally invested in infrastructure:

- Highways
- Water sources and sewer lines
- Reliable electric and gas services
- Railroads and ports
- Affordable land
- Education and training



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New Economic Development Strategies

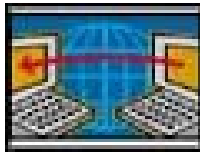
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Our information economy requires new economic development strategies to keep our communities economically viable

Technology planning is an essential element of new economic development strategies

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Extension has certainly played a role in building electric coops in Wisconsin to extend electrical service to rural Wisconsin.

...improved roads to better serve the dairy industry in Wisconsin

Telecommunications Infrastructure varies widely...

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USDA Rural Development
Committed to the future of rural communities.

Telecommunications Program

San Juan County, Utah Dedicates the New NOAA Weather Radio Transmitter on Mount Peak

Allband Communications Cooperative

Fiber 520-527 LLC, of Sabes, MI

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In 2002 the Department of Commerce estimated that Internet access increased from less than of 20% of households in 1997 to over 50% in 2001. It's obviously increased significantly over the past five years and household penetration appears to hover around 65 -75% depending on which source you want to believe. However, we cannot forget the "have nots". I was reminded of this recently when reviewing USDA Rural Development grant programs for telecommunications....

Allband Communications Cooperative started providing telephone service to its members in a 177 square mile, previously unserved area in the Northeast portion of the Lower Peninsula of Michigan on November 30, 2006.

Jerry and Cheryl McBride make their first call on the home telephone.

2002 U.S. Department of Commerce Study:

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Because broadband technologies are so new (and continue to evolve), there are no definitive studies of their actual impact on regional economic growth and tech-led economic development.

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Understanding Broadband Demand: a Review of Critical Issues,
Technology Administration, Office of Technology Policy, available at:
http://www.ta.doc.gov/reports/TechPolicy/Broadband_020921.pdf.



Of course that never prevents economists and technologists from speculating or estimating!

2001: The \$500 Billion Opportunity:

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Study prepared for Verizon by Criterion Economics estimated that:

Broadband, acting through changes to consumers' shopping, commuting, home entertainment and health care habits, would contribute an extra \$500 billion in GDP by 2006.

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Source: Crandall, R. and C. Jackson (2001), The \$500 Billion Opportunity: The Potential Economic Benefit of Widespread Diffusion of Broadband Internet Access, mimeo, Criterion Economics, Washington, DC.

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2002 New Millennium Research Council:

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Estimated 1.2 million jobs would be created from the construction and use of a nationwide broadband network.

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Source; Pociask, S. (2002), Building a Nationwide Broadband Network: Speeding Job Growth, white paper prepared for New Millennium Research Council by TeleNomic Research, available at <http://www.newmillenniumresearch.org/event-02-25-2002/jobspaper.pdf>.

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2002 Brookings Institution report

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Estimated that failing to improve broadband performance could reduce U.S. productivity growth by 1% per year or more.

Source: Ferguson, C. (2002), The United States Broadband Problem: Analysis and Recommendations. Brookings Institution Working Paper at http://www.brookings.edu/views/papers/ferguson/working_paper_20020531.pdf

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The primary route by which e-commerce will affect the economy at large is through its impact on productivity and inflation. Businesses and consumers that use e-commerce benefit from a reduction in costs in terms of the time and effort required to search for goods and services and to complete transactions. This reduction in costs results in higher productivity. Lower costs and competitive pricing on e-commerce will have a positive impact on inflation.

Community Studies began to filter in around 2003....

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- South Dundas Ontario municipal fiber system
- Cedar Falls Municipal Broadband Network
- Lake County Florida Municipal Broadband Network

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Studies in each of these communities found positive economic impacts from the local government investment.

However, Broadband does not act on the economy by itself, but in conjunction with other IT (primarily consisting of computers and software) and associated organizational changes. As with computers, the effects of broadband may be strongest in non-farm, non-manufacturing industries, where productivity improvements are typically less well captured by economic data.

South Dundas Ontario: built in 2001

Cedar Falls public broadband network launched in 1997. They were compared with neighboring Waterloo

Lake County Florida operationalized in 2001

Does Deployment of Information Communications Technology Promote Economic Development Success?

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“...It appeared unlikely that a ‘build it and they will come’ strategy regarding ICT deployment had much effect on economic development in these communities”

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Source: *Do Information Communication Technologies Promote Rural Economic Development?* Kenneth Pigg & Laura Crank, *Journal of the Community Development Society*, Vol. 36, No. 1, 2005

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Conducted informant interviews in five communities that were chosen primarily because they had deployed ICT in their community , and they were engaged in more extensive ICT-related programs than other communities within their region. Also looked at websites for evidence of the economic development strategies, and examined local newspaper accounts of recent community activities.

The five communities in the study appeared to be reasonably successful in economic development. All had population increases (90-2000), as well as growth in income and employment. These trends were not typical for small rural communities. The key informants provided little evidence that the ICT deployment had been instrumental in producing this trend.

Jack Schultz, Boom Town USA....although he talks about the merits of information and technology and potential of I.T.....it is not one of the 7 ½ keys for success that he has identified. And....his successful “ag urbs” are prospering at a rate faster then high tech areas like Boston,Seattle & the silicon valley.

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

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	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

Source: "High-Speed Services for Internet Access: Status as of June 30, 2005", <http://www.fcc.gov/wcb/iatd/comp.html>

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The early prospective studies suggest that broadband should make individuals and businesses more productive through behaviors such as online procurement and telecommuting, but national data is generally not available to observe these behaviors at the local level.

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 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%

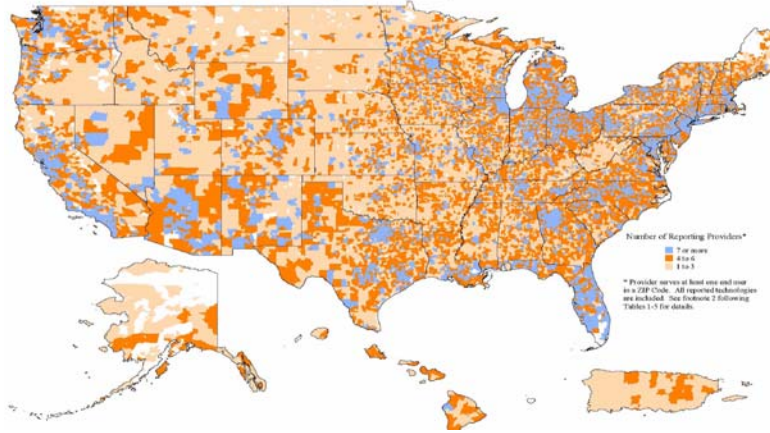
(Compared to 32% growth for the nation). I know we also have participants today from Nevada, Mississippi, Ohio, Missouri, and Kansas....but I didn't get the participant list until yesterday. So although I may not be showing you the data for your state....that data is available in this report.

Recent estimates seem to suggest that about 1/3 of households now have broadband access (2004 from study conducted by William H. Lehr, Carlos A. Osorio, Sharon E. Gillett ■

High Speed Providers by Zip Code (6-30-05)

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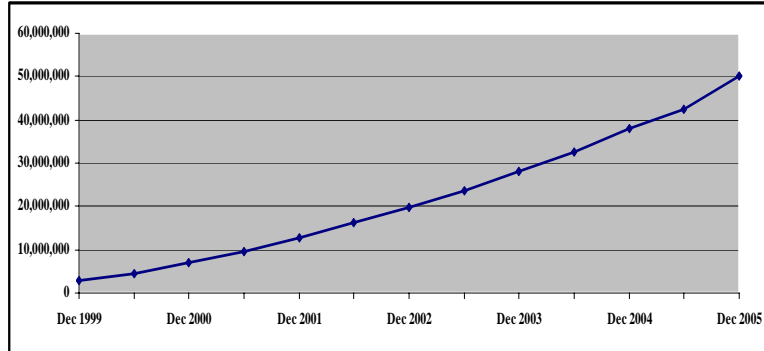
You will find this map in the same FCC report. Again however, if you were to look at this map, you might assume that there is no problem with the # of high speed providers. There are very few white areas indicating NO providers. Quite a few with 4-6 providers, and a fair number of 7 or more choices

Remember what I said about how this data is reported. If one person is served within the zip code. It would be considered to be 'served'.

Total High Speed Lines

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Source: "High-Speed Services for Internet Access: Status as of June 30, 2005",
<http://www.fcc.gov/wcb/iatd/comp.html>

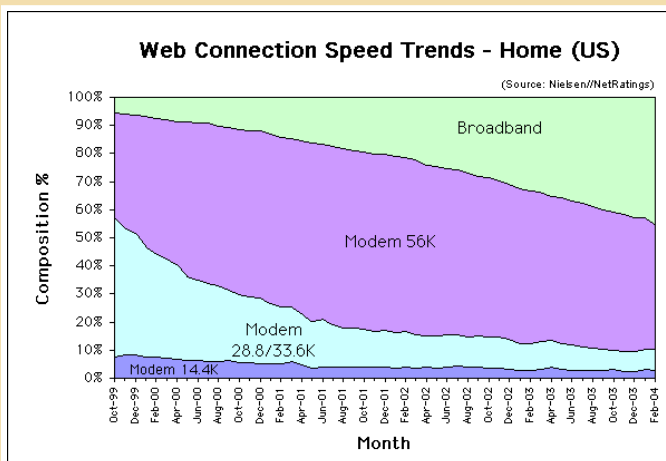
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As I said earlier there are estimates that indicates that about a third of households have broadband access....certainly the number of lines being built might support that notion.

Connectivity Vs. Speed of Connectivity

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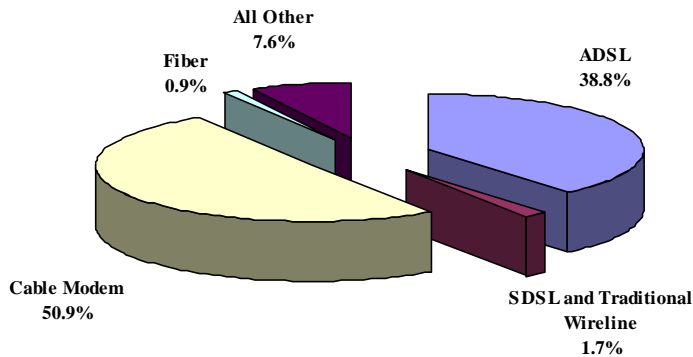
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Back in the mid 90's when I was working in grant County the real issue was having any access to internet – i.e. telephone modem connections...clearly the focus in shifting to higher speed options.

High Speed Lines By Technology (Dec. 2005)

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Source: "High-Speed Services for Internet Access: Status as of June 30, 2005",
<http://www.fcc.gov/wcb/iatd/comp.html>

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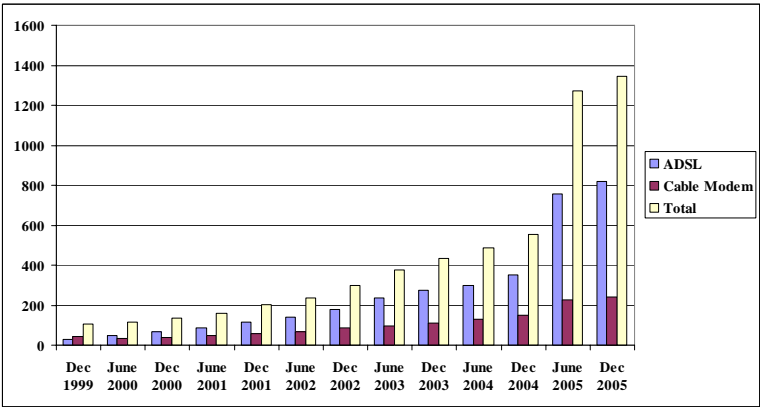
asymmetric DSL Digital Subscriber Line (ADSL): A [technology](#) that allows more data to be sent over existing copper telephone lines. [ADSL](#) supports [data rates](#) of from 1.5 to 9 [Mbps](#) when receiving [data](#) (known as the *downstream* rate) and from 16 to 640 [Kbps](#) when sending data (known as the *upstream* rate...often not meeting the government standard of 200 kbs in this direction).

symmetric DSL (SDSL) a technology that also allows more [data](#) to be sent over existing copper telephone lines. SDSL supports [data rates](#) up to 3 [Mbps](#) (More popular in Europe)

Historical Number of Reporting Providers of High-Speed Lines by Technology

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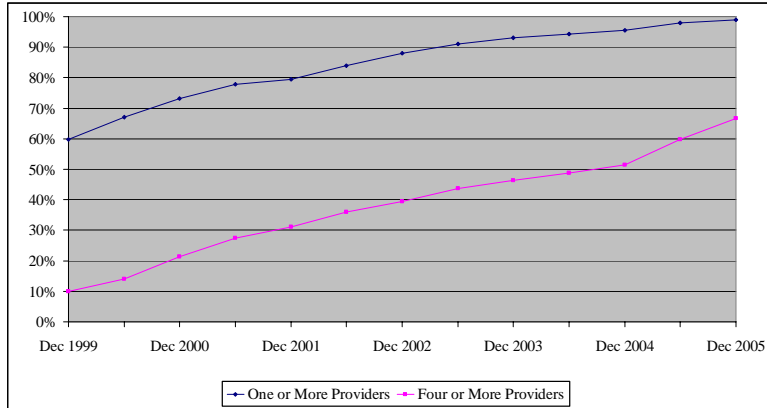
Source: "High-Speed Services for Internet Access: Status as of June 30, 2005", <http://www.fcc.gov/wcb/iatd/comp.html>



Percent of Zip Codes with High-Speed Providers

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Source: "High-Speed Services for Internet Access: Status as of June 30, 2005", <http://www.fcc.gov/wcb/iatd/comp.html>



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

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	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%

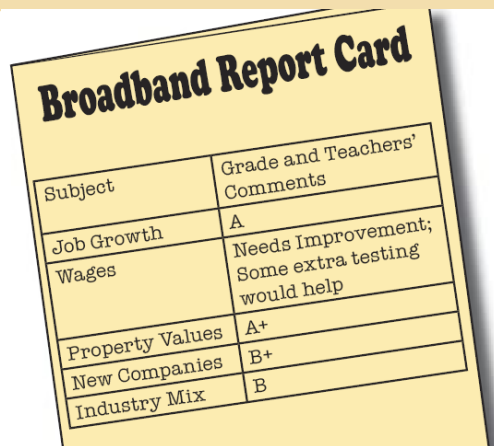
Source: High-Speed Services for Internet Access: Status as of June 30, 2005, FCC, Industry Analysis and Technology Division Wireline Competition Bureau, April 2006, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-264744A1.pdf



From 1999 to 2002, American Communities with broadband access did significantly better than those without

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A graphic of a 'Broadband Report Card' tilted at an angle. It features a table with two columns: 'Subject' and 'Grade and Teachers' Comments'. The table contains the following data:

Subject	Grade and Teachers' Comments
Job Growth	A
Wages	Needs Improvement; Some extra testing would help
Property Values	A+
New Companies	B+
Industry Mix	B

Source: *Measuring Broadband's Economic Impact*, Lehr, Osorio, Gillett, Sirbu, 1-17-06, http://cfp.mit.edu/groups/broadband/docs/2005/MeasuringBB_EconImpact.pdf

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Because of the availability of the data now reported to the FCC, researchers at MIT and Carnegie 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."

The essence of the study's design is to differentiate geographic areas by their availability and use of broadband, then look at economic indicators for these areas over a long enough period to see if consistent deviations from the secular trend are observable, controlling for other factors known to distinguish among the areas.

Broadband does not act on the economy in isolation, but as a complement to other information technologies.

- Broadband enhances economic activity, helping to promote job creation both in terms of the total number of jobs and the number of establishments in communities with broadband

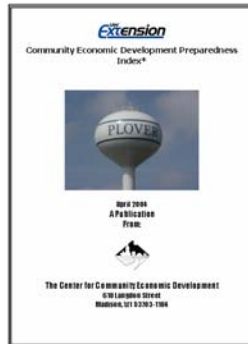
-The mean growth in rent . . . employment, number of establishments, and share of establishments in IT-intensive sectors were all higher in the communities with broadband

-They found a substantial positive impact for broadband availability on the growth in total employment "

Community Economic Preparedness

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www.uwex.edu/ces/cced/cedpi.htm

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However, as communities try to determine their preparedness for economic development, communication technology infrastructure is only one of over one hundred considerations.

I have seen too many communities place false hopes on investments only in this area and I have seen other communities latch on to technology solutions without going through a planning process to adequately determine their communication technology alternatives. While it is true that many businesses will assess your communication technology infrastructure...it will be considered along with many other attributes within your community. And just having the technology in place, doesn't necessarily place you at a competitive advantage over the thousands of communities that have adequate technology infrastructure. Could it remove you from consideration? Certainly....but so could your work force, quality of life, business park, training facilities, etc.

Realistic Business Models

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Plenty of examples of communities getting into a business without doing their homework....

- Middleton Excursion Train
- Muscoda Incinerator

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I suspect many communities that have gotten into the business of Internet access are finding the same thing. In fact, I know some of the communities that have gotten into this business are falling short of their business model and are now trying to justify the system as another public infrastructure investment.

Planning Vs. Taking Advantage of a Timely Economic Development Opportunity

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Planning takes time, and not all opportunities can wait for you to make a decision. I don't believe communication technology investments fall into that category.



There are times when you need to put aside your best planning efforts and respond to a timely opportunity. Planning takes time, and not all opportunities can wait for you to make a decision. I don't believe communication technology investments fall into that category.

Change is the Historical Constant (or--the only thing constant is change)

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Change Is Happening Quickly

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From Dial Up Access to.....?

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I was fortunate to be asked to be part of a pilot program in Wisconsin called the Community Information Partnership.....A project which began before Al Gore invented the Internet. This was in the mid 1990's where we began to construct a gopher (text-based) information system, only to encounter a rapid shift to a web based (graphic) inter-face. We were actually able to shift rather quickly and to bring the telco's to the table and provide 100% dial-up access to the Internet. Can communities shift as quickly as technology solutions change and the problem shifts from connectivity to the speed of connectivity?

The Internet has changed our lives

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Especially the way we teach, the way we learn, the way we conduct business, the way we communicate...

- The Internet service enables applications
- Broadband (or bandwidth) is required!
- The Internet is a necessity these days, it's not a luxury
- The change is not over, it has just begun

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Remember These?

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DEC Rainbow (Burnett County UWEX Office, 1983)

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Compaq "Portable"
(Grant County UWEX
Office, 1986)



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It doesn't take me long to feel old these days. I mean talk to a college student today about the good old days of black and white television and 5" monochrome computer screens and you will likely get some blank stares. When I graduated from graduate school in 1982 desktop computer were just coming on the scene. The semester after I left the Department of Urban and Regional Planning they purchased their first desktop computer. I was fortunate to go to a county office in 1983 to a County that had a single DEC Rainbow....I believe they were the first or one of the first County offices in the state to have this technology (about \$5,000) Burnett County fisherman's guide....script wrote in RED...

Compaq.....Community Information partnership (learning HTML code to create web pages...first county in the state to post community profiles on the Internet). I was self taught and eager to learn because I saw technology with great potential for extending our reach and effectiveness as an extension educators.

Technology Convergence

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Historic business model

- Separate providers and infrastructure for voice and video services
- Data is an add-on

Today's business model

- Bundle voice, video and data services

Future ? The narrowcast model

- All services provided over broadband Internet connection
 - Voice, video and other services are provided by ASP's such as Vonage
- New forms of public-private alliances
- Separation of "Content" and "Carriage".

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ASP: Application Service Provider: a third-party entity that manages and distributes software-based services and solutions to customers across a [wide area network](#) from a central [data center](#). In essence, ASPs are a way for companies to outsource some or almost all aspects of their [information technology](#) needs. They may be commercial ventures that cater to customers, or not-for-profit or government organizations, providing service and support to end users.

What is Broadband?

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Federal Communication Commission (FCC)
definition:

- Any connection that transfers data at speeds greater than 200 kbps
- Problem: Quality video-over-Internet pay-for-view needs 700Kbps



Alternative definition:

- Connection that does not limit application (i.e. VoIP, web-based video streaming)

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Applications Supported by Today's High-Speed Connection

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Voice over Internet Protocol
(VoIP)

Internet Protocol Television
(IPTV)

- Downloaded video
 - DVD Quality
 - HDTV Supported
 - ½ hour to download a 90 minute movie
- Streaming video
 - Quality is OK



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How Does a Community Prepare for Broadband

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Do your home work:

- Research the needs of residents and businesses (does the “digital divide” exist in your community?)

Organize

- Get the community involved (technology planning committee)

Lobby

- Leverage relationships with local telephone, cable, and Internet services (make sure you are getting your fair share of their capital budgets)

Take Action

- Put together a plan of attack, then implement the plan



Wisconsin Community Information Partnership.....Grant County had 14 villages, 5 cities and was largely rural. Only the city of Platteville had dial up internet access

What is Technology Planning? Our Definition

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Inventory: check out what you have now:

- An inventory (a survey) of the telephone (wire line and wireless), cable television, dat video, and Internet access (collectively know as "connectivity") available in you community now



Compare: look for gaps:

- What your citizens, businesses, and institutions need now and what connectivity they will require in the future (gaps)

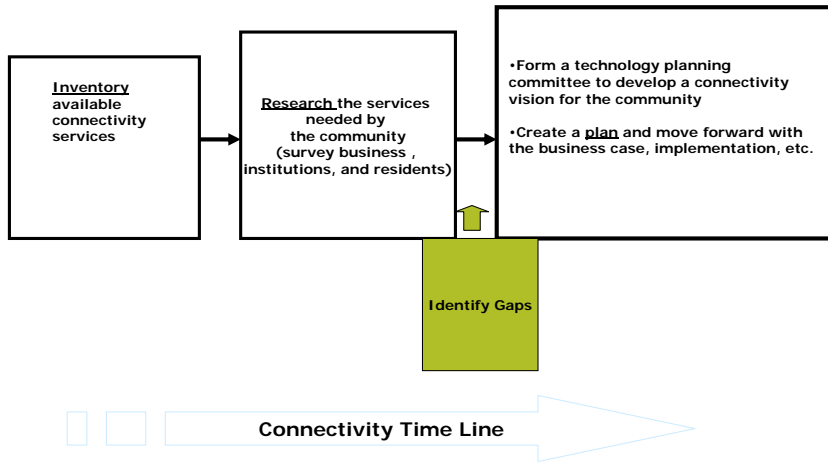
Have now	Will need
	<input checked="" type="checkbox"/>

Create: a plan to fill any connectivity gaps and address future needs

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Technology Planning involves a number of steps....

A Technology Planning Process



Vision & Objectives

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- What do you desire to accomplish?
 - What are the measurements of success?
 - What user groups do you want to support?
 - What issues & opportunities do you want to address?
 - What are decision points to move forward?
- (Don't overlook the obvious things like training, education, and access to computers and the Internet for the disadvantaged!)

Caution: be aware of "silver bullet" consultants, attorneys, equipment vendors, and others promising revenues and other riches from technology deployment. Remember, every community is unique and cookie cutter approaches don't work.



Help the community collectively define long-term goals, devise strategies to reach those goals, and situate the role of technology within those strategies. Help the community define what constitutes effective technology use for promoting community development efforts.

Facilitate partnerships between organizations and institutions: Brainstorm ways technology can be used as a tool to improve community health, housing, employment, education, child care, recreation....etc.

It was largely the "snake oil salesmen" in our state that got me interested in doing some education on technology planning. There are many firms going on and offering to do technology planning for communities. And when it comes time for recommending technology solutions....guess what they are selling? A technology solution that they have a business interest in.

Questions

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What is the role (catalyst, enabler, provider) of your city or county government?

Who are the existing providers and what services do they offer?

Who is using connectivity services?

What is the appropriate level of involvement?

What are the service gaps?

What are the risks (doing nothing or becoming proactive)?

What are the regulatory and legal restrictions?

What customer segments are underserved?

How can we future proof any investments?

What set of parameters should be used to gauge the progress?

What technologies are appropriate to meet our unique community needs?

What are the next steps towards a technology plan?



A number of questions that need to be addressed in the planning process and included in an RFP for planning services include:

Benefits of Technology Planning

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If your community has the “right connectivity stuff” significant economic and social benefits **may** result including:

- New jobs (connectivity availability helps determine where businesses locate)
- New residents (connectivity determines where people live)
- Public safety (new technologies to aid law enforcement and first responders, video surveillance of critical infrastructure, streets, etc.)
- Increased tourism
- Distance learning—share instructional resources
- Telemedicine—tap into remote medical resources
- E-government—connect with your citizens
- New workforce mobility applications—improve efficiency of mobile workers



The International Telework Association and Council reports that from 1999 to 2001, the number of Americans who telework (work exclusively from home, at telework centers, at satellite offices, on the road or some combination of these) rose from 19.6 million to 28 million.

Let me say here that I have given you a lot of data on commerce but there are some pretty amazing success stories where technology has connected people, improved public safety, improved local public health services, and improved access to local government. Admittedly, most of the communities in my state that I am aware of have focused largely on the economic development aspects of technology deployment. That haven't spent enough time providing a justification for involvement and investment based on government efficiencies, and improved public services. Instead they tend to build inflated business models that fall short....and then end up promoting the public benefits of technology. That doesn't go over well in most communities.

Planning for Community Connectivity Resources

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Cooperative Extension
Center for Community and Economic Development

Home about CEED Contact Us

CCED > Economies > Broadband

Planning for Community Connectivity

Form 477 Reporting Requirements for Deployment Data - In March, 2006, the FCC adopted a semi-annual reporting requirement (FCC Form 477) to determine the extent of local telecommunications competition and deployment of broadband services. In November, 2004, the FCC decided to modify its rules for Form 477. In particular, it decided to remove the mandatory reporting threshold, which had exempted certain entities from the requirement to file Form 477, and to make certain other modifications to the form. [Click on the links and data from these reports, all available at: http://www.fcc.gov/ed/477reporting.html](#)

High Speed Internet Access - 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.

High Speed Services for Internet Access - [Status as of June 30, 2005](#) - FCC report, Industry Analysis and Technology Division Wireline Competition Bureau, April 2006

Internet Local Exchange Carrier Annual Reports (AEC's) 1996-2002 [9th Public Service Commission](#)

Internet Local Exchange Carrier Annual Reports (AEC's) 2003+ [9th Public Service Commission](#)

PowerPoint Presentation from the 95th Fall Conference, Economics, Vol. 9, 20-25

PowerPoint Presentation from the Technology Planning Workshop, 10/9-20/05

Sample Request for Proposal for Department of Broadband Exploitation Study

- A list of companies that responded to a recent RFP (12-05) in Shawano (If you know of other companies working in this area, please send me an e-mail with contact information, and.lewis@uwex.edu)

Design, LLC, Inc.
1810 Marquette Rd.
Lawrence, KS 66047

Uptown Services, LLC
125 Chamberlayne Way
Boulder, CO 80303

Columbia Telecommunications Corporation
5050 Stewart Place, Suite 200
Columbia, MD 21044
www.ctcinc.com

CTC has a Wisconsin Office at
Thomas Aep
11521 N. Blenheim Drive
Elgin, WI 53124
608-531-1739 phone 847-922-3878 portable
tom@ctcinc.com

LinnEnergy, Inc.
808 West Terra Cotta Ave., Suite 166
Oxford Lake, IL 60174

[Planning for Internet Connectivity: A Resource for Communities](#) (Developed by the Laboratory of Community & Economic Development, University of Wisconsin Extension)

<http://www.uwex.edu/ces/cced/economies/broadband/index.cfm>

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When I first got involved in doing a workshop on community connectivity planning I partnered with two people who worked for Virchow Krause...Bob Herbst and Tom Asp. Virchow Krause is a company that makes most of its money on accounting services and didn't have a financial interest in any technology solutions. They had a very small division that was doing consulting in this area and for the reasons mentioned already, I felt comfortable working with them. Well...that division folded, but we were able to compile a long list of useful educational resources. And although I would never recommend a single consultant, Tom Asp now works for Columbia Telecommunications Corporation which is one of four companies I am aware of in our area that does this type of consulting.

Sample RFP for soliciting broadband connectivity planning services

Funding Sources: USDA Rural Development Telecommunications Programs:

Community Connect Grant Program: provide financial assistance in the form of grants to eligible applicants that will provide currently un-served areas, on a "community-oriented connectivity" basis, with broadband transmission service that fosters economic growth and delivers enhanced education, health care, and public safety services

Distance Learning and Telemedicine Grant Program

The DLT Program is designed specifically to meet the educational and health care requirements of rural America. It is a program about rural America, for rural America, and delivered to rural America. The purpose of the DLT program is to provide financial assistance to enhance learning and health care opportunities for rural residents

Broadband Loans

Rural Broadband Access, to provide loans and loan guarantees to fund the cost of construction, improvement, or acquisition of facilities and equipment for the provision of broadband service in eligible rural communities.

Expedited Telecommunications Loan and Loan Guarantee Program

The Rural Utilities Service (RUS) Telecommunications Program assists the private sector in developing, planning and financing the construction of telecommunications infrastructure in rural America.

Contact Information:

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Center for Community Economic Development
610 Langdon Street, Madison, WI 53703
<http://www.uwex.edu/ces/cced/>

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Andy Lewis
andy.lewis@uwex.edu
608-263-1432



Upcoming Programs

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March 13, 2007: Connecting Rural Communities: A Facilitators Guide for Helping Communities Become Connected

April 10, 2007: eCommerce Basic Training: What the Entrepreneur Needs to Know

May 8: eCommerce for Entrepreneurs: Marketing and Implementation

June 12, 2007: eCommerce for the North Central Region: Roles for Extension

