

Chippewa Valley Internetworking Consortium (CINC)



Rural Health Development Council, December 2, 2010

CAN's

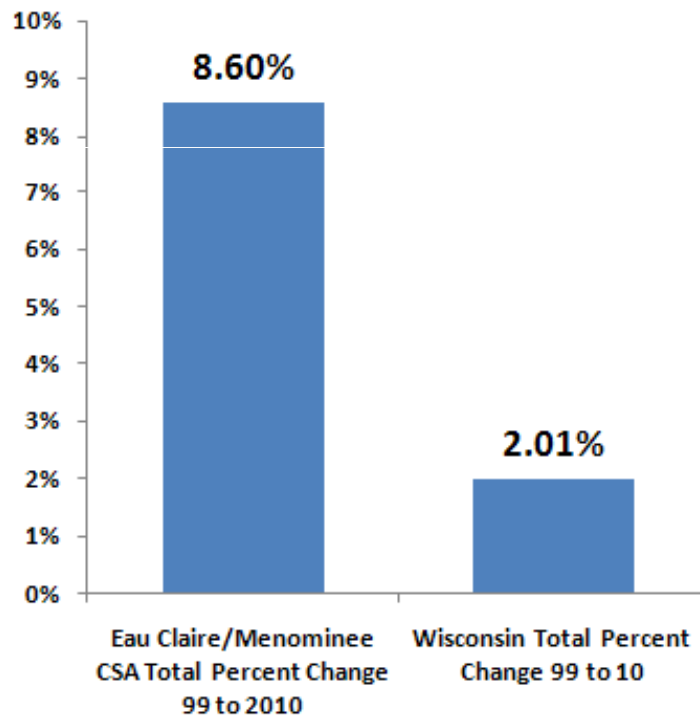


Mission Statement

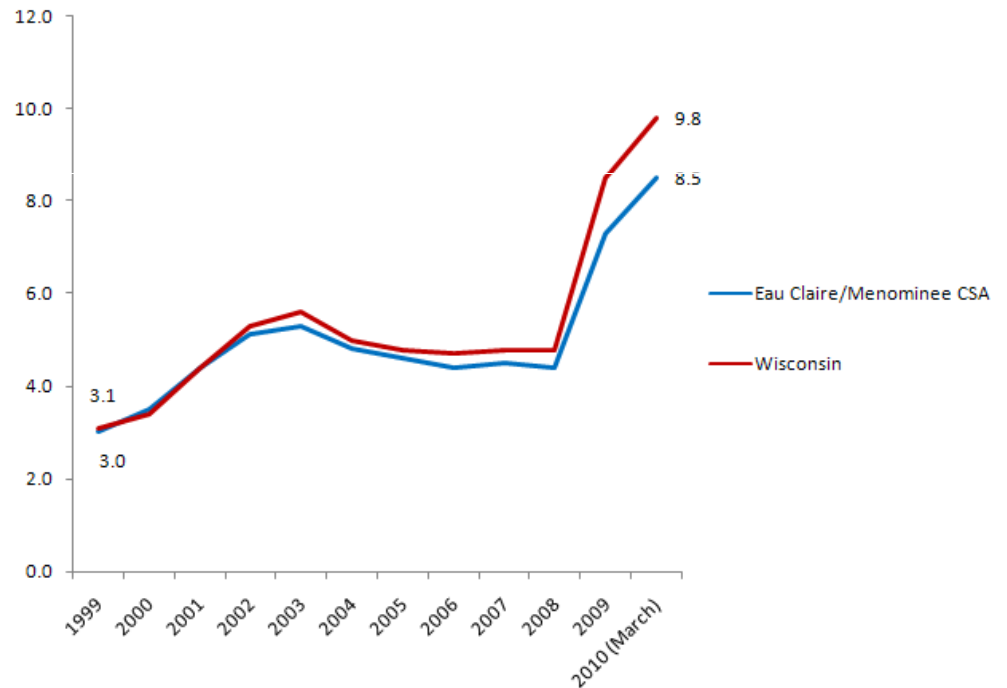
Through a coordinated regional communication infrastructure, position the Chippewa Valley to be innovative, competitive, and economically viable for present and future generations.

How has that been working for you?

Total Percent Change in Total Labor Force from 1999 to March 2010



Unemployment Rate: WI compared to Eau Claire/Menominee Combined Statistical Area 1999 to March 2010



Regional Objectives

- Bridge the digital divide in “small metro/rural environment”
- Enhance economic development in region
- Encourage telecommunications and technology providers to move beyond just basic commodity services
- Encourage medical collaboration and telemedicine
- Enhance educational opportunities across regional communities
- Increase efficiency and reduce redundancy in operations and technology services with public and private non-profit entities
- Remove barriers of market entry for new technology services and innovations

CINC Affiliated Organizations

- City of Eau Claire
- Eau Claire County
- Eau Claire Area School District
- L.E. Phillips Public Library
- CESA 10
- Chippewa Falls School District
- Chippewa Valley Technical College
- UW-Eau Claire
- Chippewa County
- City of Chippewa Falls
- Elk Mound School District
- Osseo - Fairchild School District
- Indianhead Federated Library System
- Wisconsin Department of Transportation
- Mayo Health Foundation (Luther Hospital)
- Hospital Sisters Health System (Sacred Heart and St. Joe's Hospitals)
- UW Health
- Dove Healthcare and Rehabilitation

The Problems

Public and private non-profit organizations are confronted with a more complex set of issues than previously seen in decades of service:

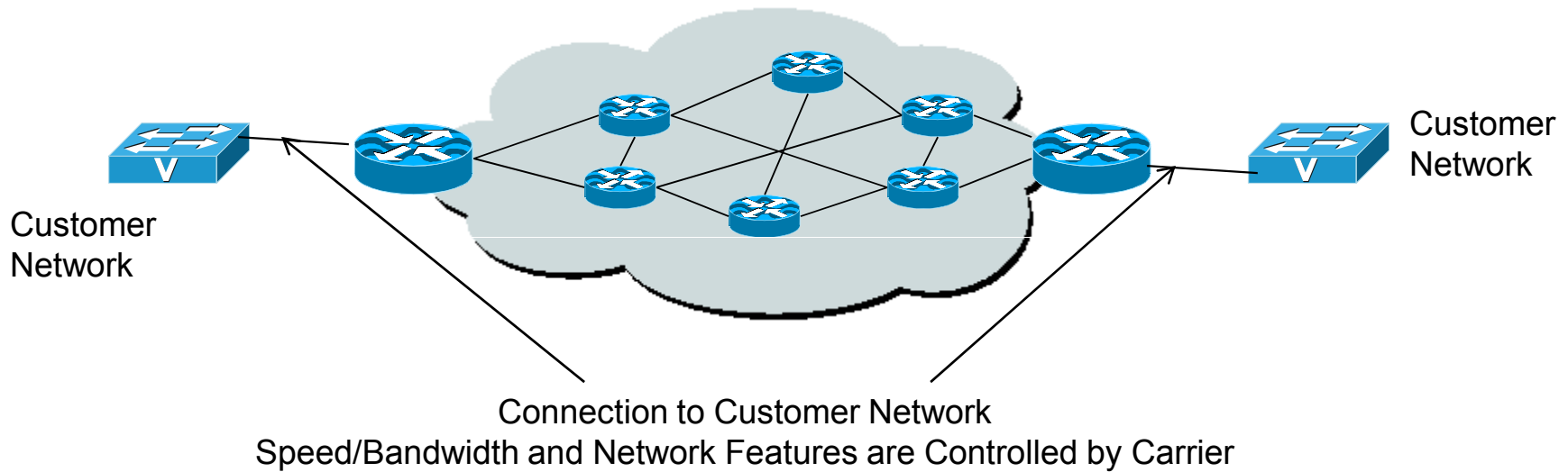
- **A re-evaluation of connectivity needs within and outside our organizations**
- **Quality and reach of connectivity has an impact on economic development and quality of services**
- **Much greater need for cost containment and greater efficiency**
- **Significant changes in the technology landscape**
- **Increasing need for bandwidth into the future**
- **Move from analog to all digital based services**
- **Glacial movements by commercial providers**

CINC as a Solution

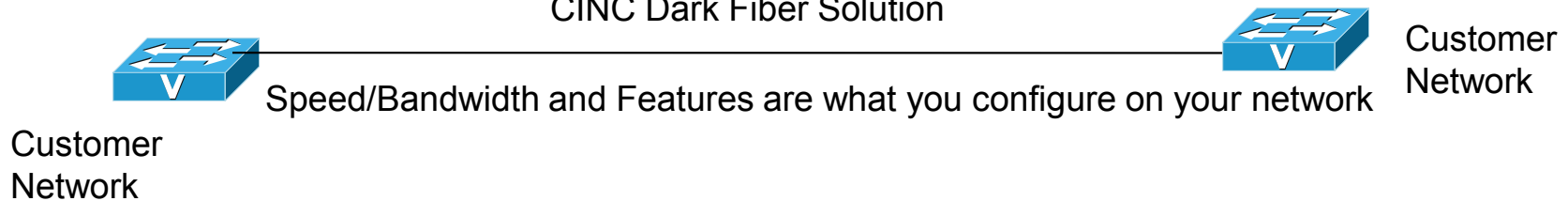
- ❑ **Facilitating solutions vs. competing with private sector business**
- ❑ **Filling gaps that private sector does not offer or can't offer at an economically feasible cost. (dark fiber & high speed and highly engineered collaboration networks)**
- ❑ **Provides a common technology roadmap for the regional area for current and future technology visions**
- ❑ **Enables regional area to keep and maintain a competitive edge**
- ❑ **Assists the public and private non-profit organizations in determining current and future costs for technology.**
- ❑ **Provides a platform for more collaborative process redesign approaches**

Carrier Network vs. Privately Owned Fiber Optics

Typical Commercial Carrier Network



CINC Dark Fiber Solution



National View – Community Area Networks

Figure 1. Recovery Act Investments in the Middle Mile Will Connect Key Institutions and Enable Service to Homes and Businesses



Source: National Telecommunications and Information Administration, U.S. Department of Commerce.

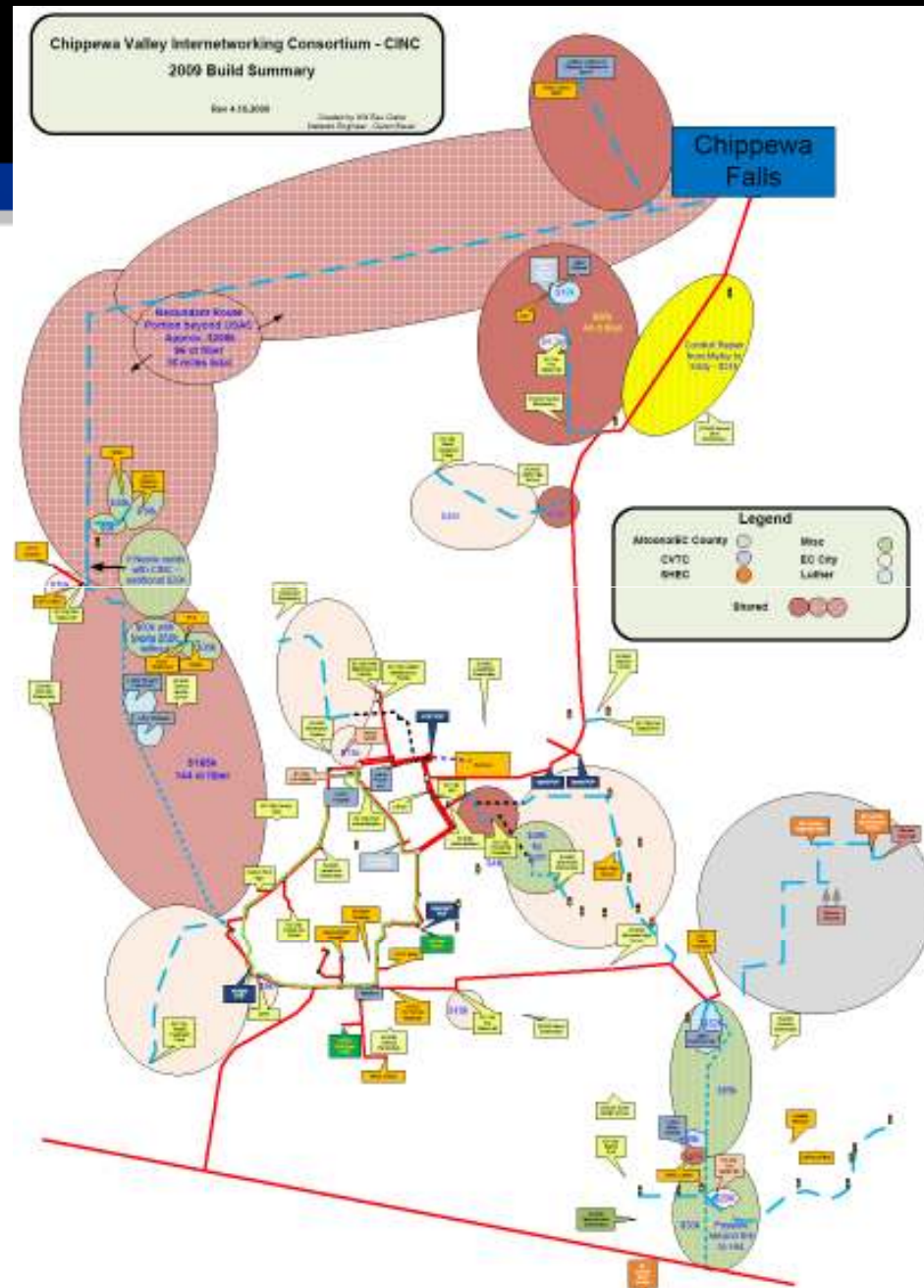
The Network Map:

~105 sites attached
~55 sites planned
**~19 sites through
vendor partners**



The Bubble Map:

How we plan projects and identify funding



CINC Contact Info

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BROADBANDUSA
CONNECTING AMERICA'S COMMUNITIES

“In the long term, these Recovery Act investments will help bridge the digital divide, improve access to education and healthcare services, and boost economic development for communities held back by limited or no access to broadband.”

NTIA

The Road to Prosperity



Context

What is broadband?

1 Gbps: 'Broadband'
as
'Broadband': Dial-up



**Two Grants:
Comprehensive Community
Infrastructure (CCI)
Sustainable Broadband Adoption (SBA)**

CCI = \$42.7 million (\$29.9 request, \$9.2 cash match, \$3.6 in-kind contribution)

SBA = \$3.2 million (\$2.4 request, \$875,000 match)

Building Community Capacity through Broadband

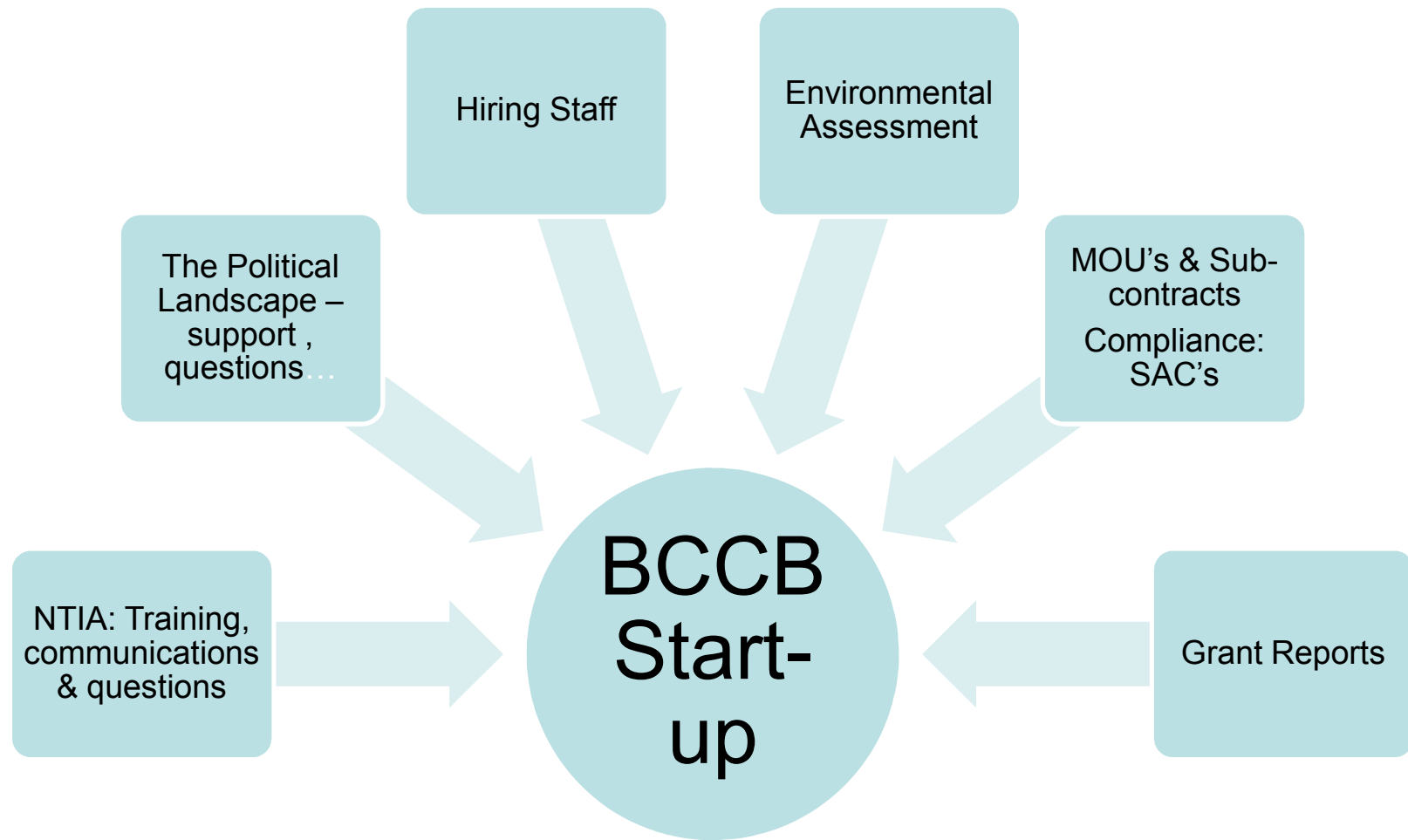
- **Driven by community needs**
- **Accomplished through partnerships**
- **A pilot built on a successful model**
- **Exploration of successful models combining infrastructure and educational outreach**

The Journey to Engagement



- Chippewa Valley
- Platteville
- Superior
- Wausau
- Menominee Nation

Building As We Go!



Follow-Up Information

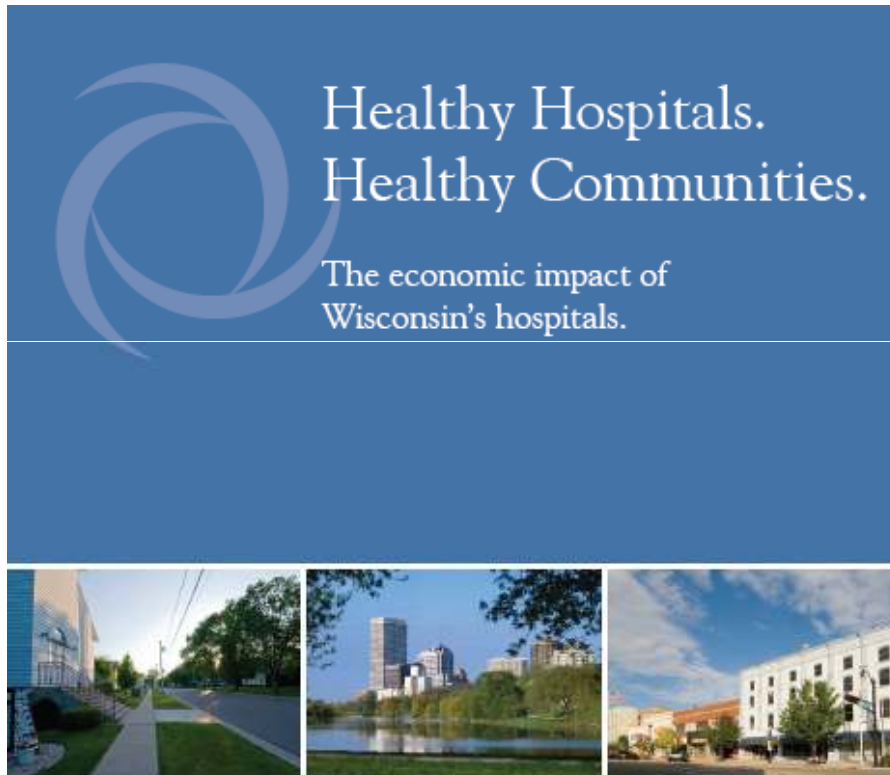
www.uwex.edu/broadband



The screenshot shows the UW Extension website with the following elements:

- Header:** UW Extension logo, University of Wisconsin-Extension, and a search bar with a "GO" button. Below the search bar are radio buttons for "Site", "Staff", and "All UW-Extension sites".
- Navigation:** A horizontal menu with tabs for HOME, ABOUT US, COURSES & WORKSHOPS, RESOURCE CENTER, NEWS, ACADEMIC AFFAIRS, JOBS, and CONTACT US.
- Content Area:**
 - Section title: "Building Community Capacity through Broadband"
 - Image: A cluster of silver fiber optic connectors.
 - Logo: BROADBANDUSA CONNECTING AMERICA'S COMMUNITIES, featuring a circular logo with a globe and stars.
 - Section: "Eau Claire Summit" with a blue header bar.
 - Text: "Materials from the meeting in Eau Claire, October 28-29, 2010"
 - Links: "Organizational Chart" and "Handouts (SBA)"
- Footer:** © 2010 Board of Regents - University of Wisconsin System. All Rights Reserved | Emergency Policy | Site Map

The Economic Impact of Wisconsin Hospitals



In 2006, Wisconsin hospitals employed 112,780 people and accounted for \$22 billion in economic activity.

Hospitals are among the top 10 employers in 44 of the 72 counties in Wisconsin and among the top five employers in 20 counties



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



The Economic Impact of Digital Exclusion

THE ECONOMIC IMPACT OF DIGITAL EXCLUSION

<http://www.digitalimpactgroup.org/stofexclusion.pdf>

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March 5, 2010

Estimated Annual Cost (2010 \$)

Economic Impact Category	Estimate of Current Annual Costs of Digital Exclusion	Intersection with FCC National Purposes					
		Health	Education	Economic Opportunity	Energy	Government / Civic Engagement	Public Safety
Health Care	\$15B	■					■
Education	\$4B		■	■			
Economic Opportunity	\$15B			■			
Civic Engagement	Too Diffuse to Quantify But Likely Very Significant					■	
E-Government	\$2B					■	
Energy	\$100M			■	■		
Public Safety and Emergency Response	\$4B					■	■
Transportation	\$100M			■	■		
Personal Financial Management	\$2.5B			■			
Consumer Benefits	\$5B			■			
Personal Communications and Entertainment	\$7.5B		■	■			
Total	\$55.2B						

Source: Econsult Corporation (2010), Digital Impact Group (2010)

A Conservative Low-End Annual Estimate of the Current Costs of Digital Exclusion –Health Care

Health Care	\$15B
This Estimate Includes:	<ul style="list-style-type: none"> Decreased medical expenditures, decreased institutionalized care, and increased workforce participation by seniors and disabled persons = approx. \$12.3B Increased virtual monitoring of patients with chronic illnesses = decreased hospital visits and emergency procedures = approx. \$2.9B
This Estimate Represents:	<ul style="list-style-type: none"> The sum of conservative estimates of two types of cost reduction, rounded down to account for overlap 0.6% drag on the health care industry \$150 in additional costs for each of the 100M+ digitally excluded people in the US
Impacts Requiring Further Research for Quantification:	<ul style="list-style-type: none"> Improved health outcomes Increased preemptive care and access to information = decreased emergency room visits by the uninsured and marginalized = decreased subsidized costs Increased use of telemedicine and virtual monitoring = decreased travel = decreased congestion and pollution Increased administrative efficiencies by health care providers = reduced costs for all individuals and groups

Source: Econsult Corporation (2010), Digital Impact Group (2010)

A Conservative Low-End Annual Estimate of the Current Costs of Digital Exclusion – Economic Opportunity

Economic Opportunity	\$15B
This Estimate Includes:	<ul style="list-style-type: none"> • Enhanced ability to search for jobs and physically access them • Telecommuting and virtual meetings reduce travel costs • Disabled persons have vastly better access to employment and entrepreneurship opportunities
This Estimate Represents:	<ul style="list-style-type: none"> • 1% of the 1% increase in labor productivity growth • A 3% increase in the earning potential of the digitally excluded among the bottom 50 percent of wage earners, assuming they represent half of that population
Impacts Requiring Further Research for Quantification:	<ul style="list-style-type: none"> • More efficient labor mobility for firms, industries, and regions • Environmental impacts associated with reduced traveling • Greater supply chain resilience

Source: Econsult Corporation (2010), Digital Impact Group (2010)

IEDC: Broadband's Impact on Economic Development

Sponsored by:



INTERNATIONAL
ECONOMIC DEVELOPMENT
COUNCIL

The Power of Knowledge and Leadership

<http://successful.com/msp/snapshot-09-10.pdf>

Community Broadband Snapshot Report™

Broadband's Impact on Economic Development: The Real Deal

September 2010

September 2010: 301 economic development professionals responded to survey

National survey report prepared by:

SUCCESSFUL.COM

UW
Extension
University of Wisconsin-Extension

“Big Broadband” Needed

“Over 90% of those surveyed found government-recommended goals of 4 Mbps for rural areas inadequate for impacting economic development outcomes. **Over 55% believe speeds of 100 Mbps** (the FCC’s goal for 100 million mostly urban and suburban households) **or more are needed**, but **within three years**, not 10 as some Federal agencies support”

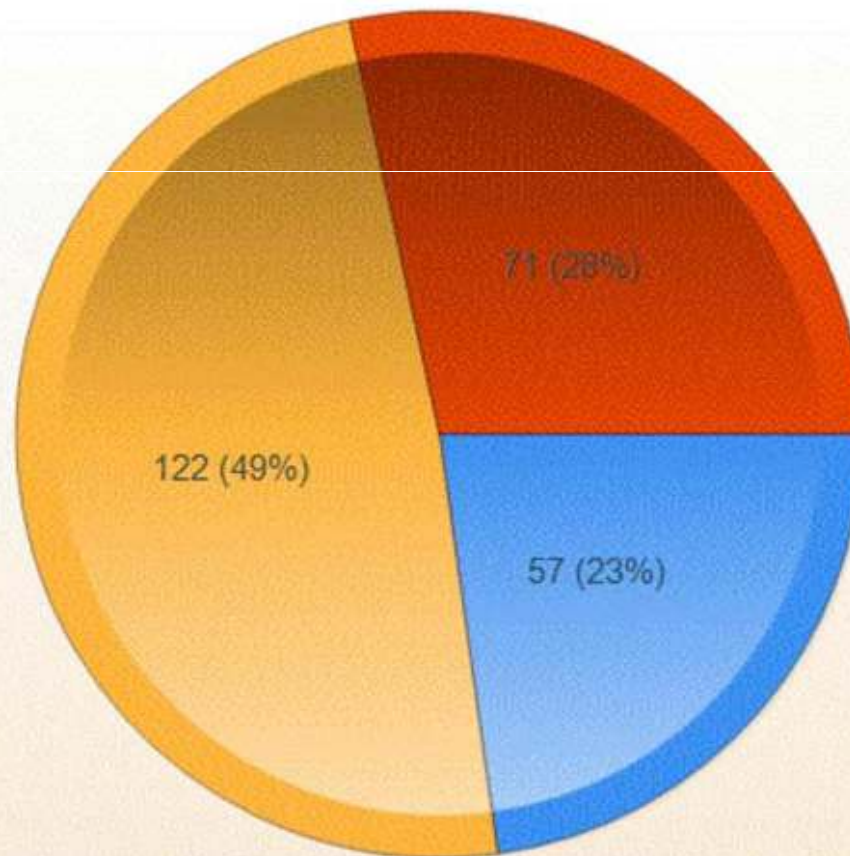
How has fiber broadband impacted (or how would you expect it to impact) economic development in your community?

	Definite impact	Indirect impact	Too soon to tell	No impact	Difficult to measure
Attract businesses	130 (55 %)	49 (21 %)	31 (13 %)	12 (5 %)	16 (7 %)
Retain businesses	100 (42 %)	68 (29 %)	35 (15 %)	15 (6 %)	20 (8 %)
Local companies	96 (40 %)	71 (30 %)	41 (17 %)	9 (4 %)	22 (9 %)
Revived depressed businesses	47 (20 %)	57 (24 %)	63 (27 %)	29 (12 %)	40 (17 %)
Revived depressed communities	40 (17 %)	50 (21 %)	74 (31 %)	33 (14 %)	42 (18 %)
Worker training	72 (31 %)	64 (27 %)	40 (17 %)	26 (11 %)	34 (14 %)
Individuals' income earning	52 (22 %)	68 (29 %)	56 (24 %)	10 (4 %)	50 (21 %)

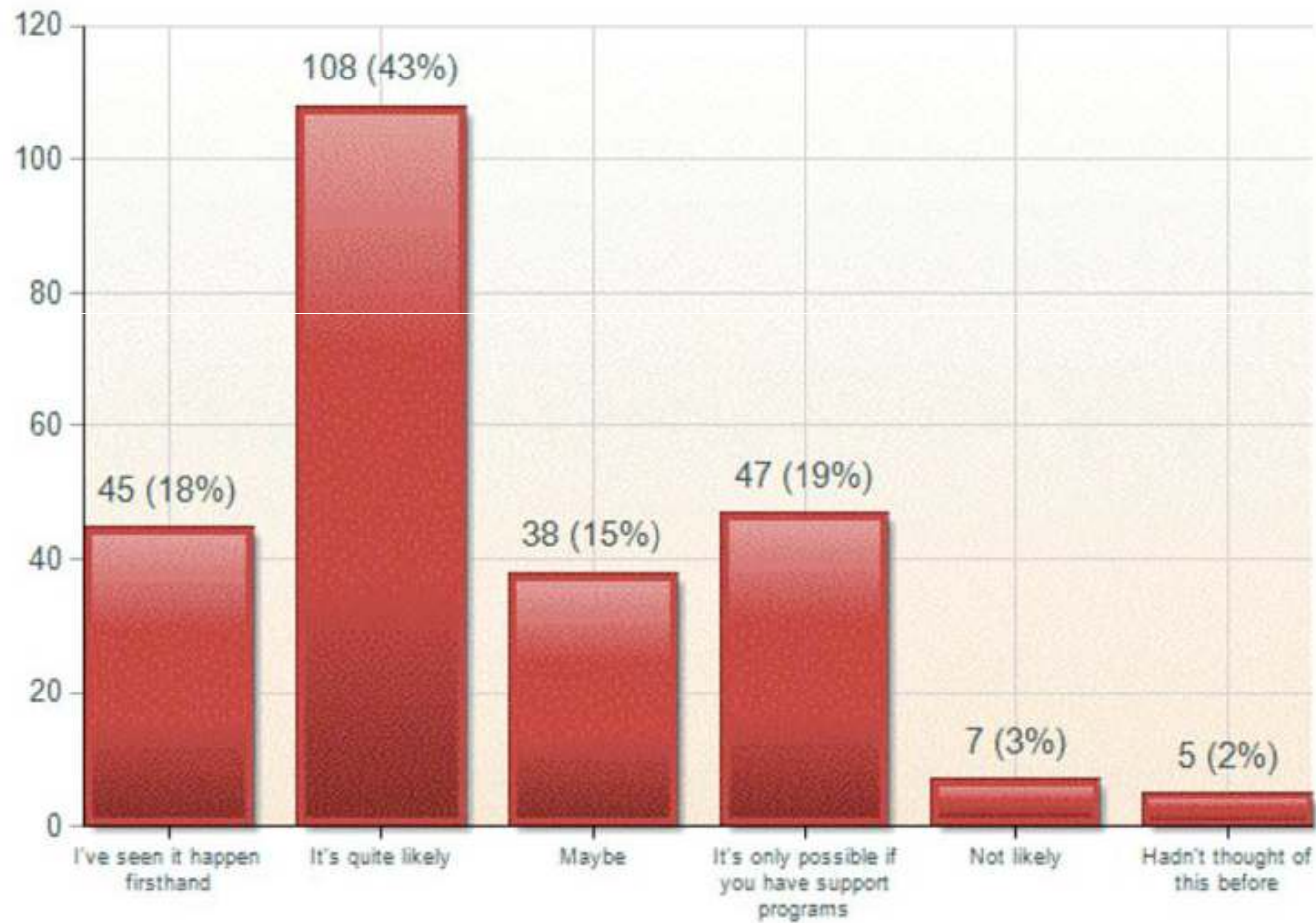
In what way do you see broadband helping individuals the most economically?

In what way do you see broadband helping individuals the most economically?

Reaching higher education level Improving job skills/professional development Transitioning to a new industry or profession



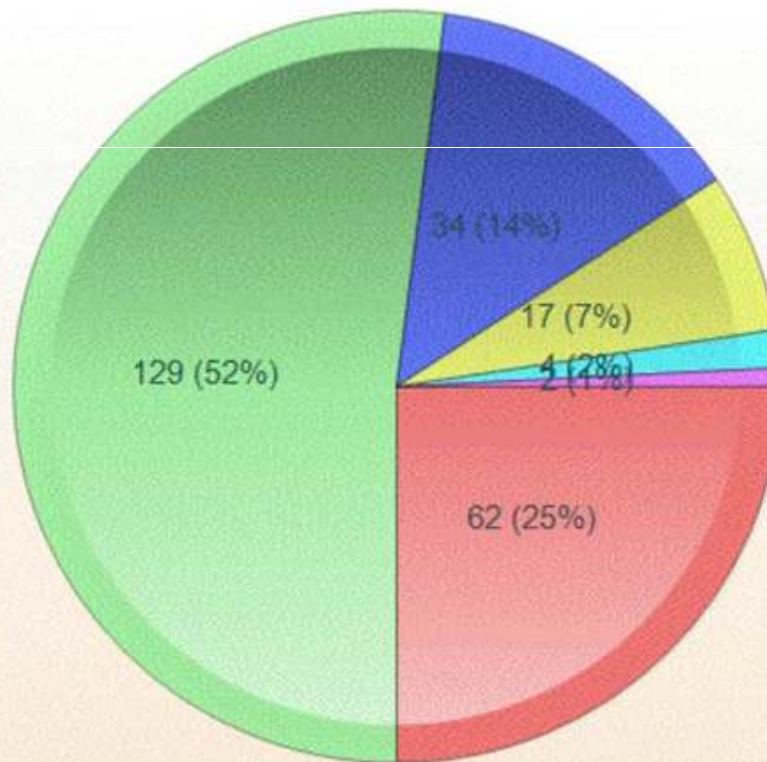
Can a broadband network encourage individual entrepreneurship among underserved constituents (low income, elderly, rural)?



Can broadband be used to harness home-based businesses into an economic development force within your area?

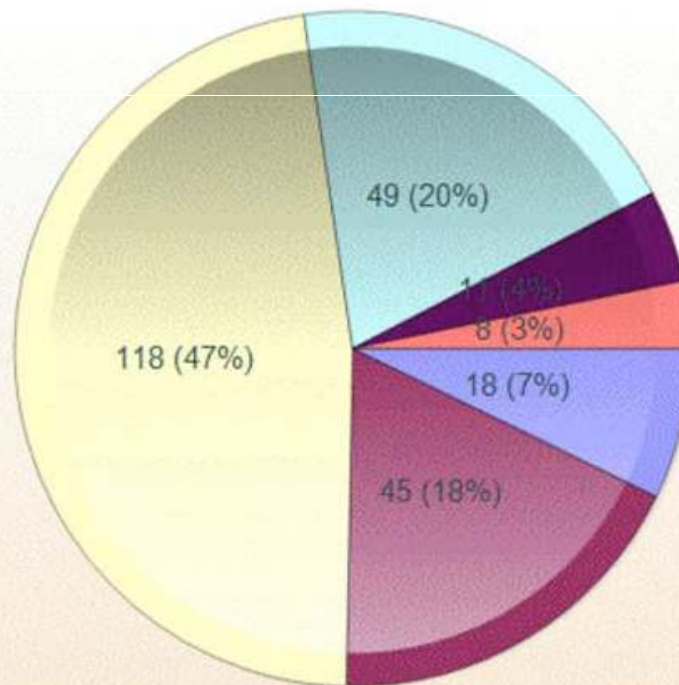
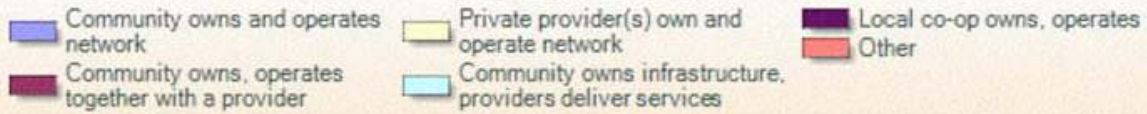
Can broadband be used to harness home-based businesses into an economic development force within your area?

- I've seen it happen firsthand
- It's quite likely
- Maybe
- It's only possible if you have support programs
- Not likely
- Hadn't thought of this before

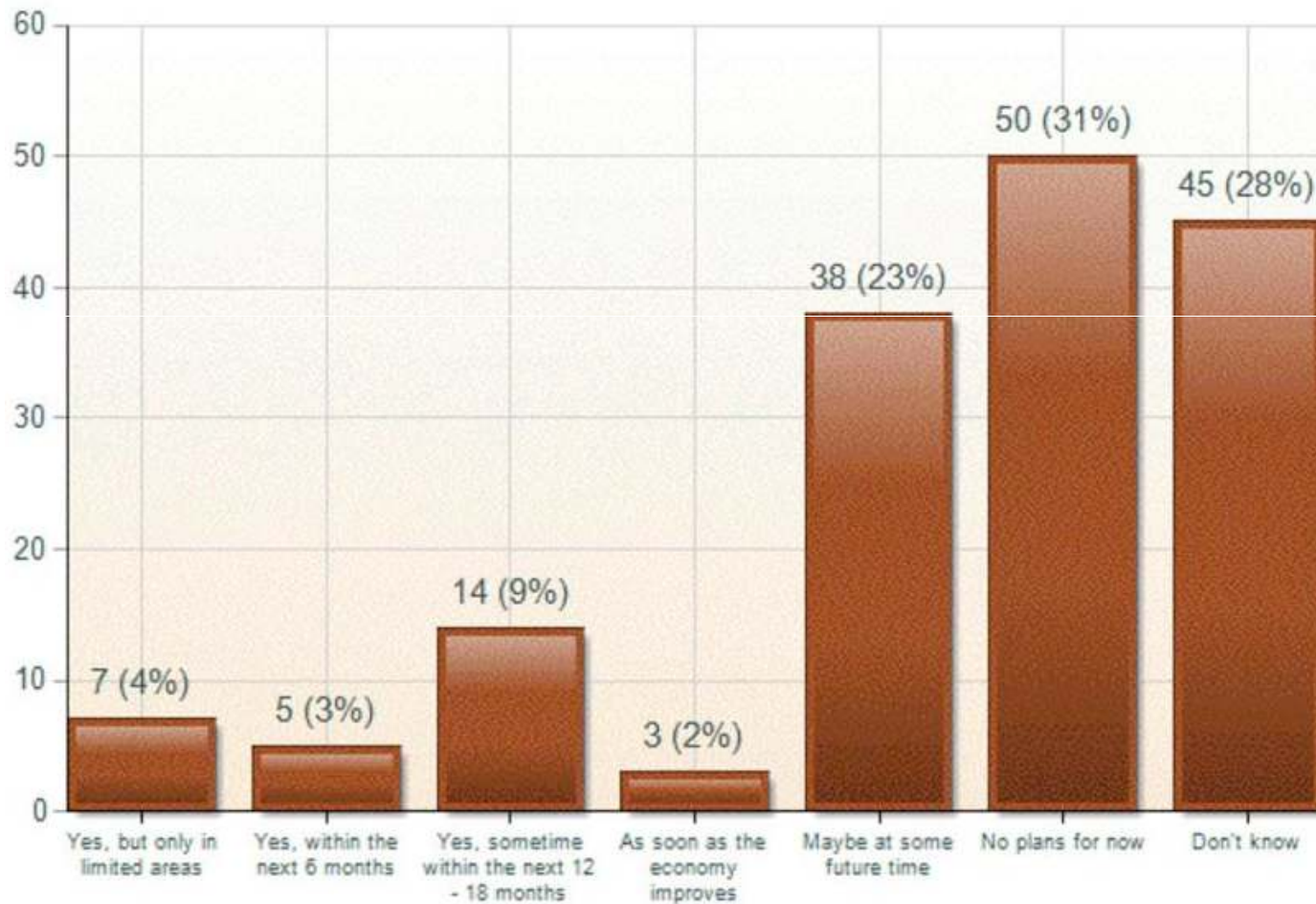


Private Providers Only?

Which business model will most likely ensure your area gets broadband capable of facilitating these economic development outcomes?



If one doesn't exist, are there plans to start building a city/area wide community fiber network?



PSC Broadband Mapping/Planning Project

The screenshot shows the 'LINK WISCONSIN Broadband Coverage Maps Beta Version' interface. It features a map of Wisconsin with a legend on the left indicating the number of broadband providers (1 to 5 or more) using a color scale from yellow to red. The map includes navigation tools like 'Map Background' and 'Map Tools', and a search bar at the top right. Text on the page includes 'Choose a Broadband Map:', 'Number of Broadband Providers', and 'About the Map:' with instructions on how to use the map.

The screenshot shows the homepage of the Link Wisconsin website. It features the 'LINK WISCONSIN' logo, a navigation menu (Home, FAQ, News, Maps, Contact Us), and a large image of a lake. Below the image is the heading 'The LinkWISCONSIN initiative' followed by introductory text. A video player is embedded on the page, showing a man speaking at a podium. On the right side, there is a vertical menu with links to various sections: LINKWISCONSIN, Regional Planning, Planning Team, Customers, Providers, Funding, Research, Public Policy, National Plans, and State Government. A search bar is located at the bottom right.

<http://www.link.wisconsin.gov/lwi/default.aspx>

Wisconsin Telehealth Summit?

- I2 medical efforts
- Wiscnet, and their peers in Minnesota, Michigan, Illinois, Indiana, Iowa, Ohio, and Missouri (fully meshed and redundant high speed backbone)
- Internet 2 Workgroup to work on this upper-Midwest healthcare/telehealth collaboration (Pete Nohelty, HSHS/Sacred Heart)
- US-UCAN efforts
- Wired for Health
- Wisconsin Hospital Association
- Rural Health Development Council
- EPIC (Judy Faulkner)
- Others?