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Municipal Broadband Snapshot Report™

The Economic Development Impact of Municipal Broadband

December, 2008

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Successful.com

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All views, opinions and recommendations expressed in this report are solely those of the author and the individuals interviewed.

Introduction

As 2008 winds down, municipal broadband is probably feeling the last of the Bad Headlines Blues. Elected public officials have abandoned their free-muni-WiFi bandwagons, weaker but wiser. Good thing, too, because the change that's hitting D.C. could bode well for the proponents of muni broadband who kept their heads while others were losing theirs.

This year's survey of economic development professionals reinforces the point I made in 2005 that muni networks are wise local government investments because they can improve economic development. Working mostly out of the spotlight, municipalities have proved out this point.

As current economic turmoil fuels the President-elect's intense effort to use infrastructure investment to move the country to new prosperity, broadband technology is rising in prominence. Elected officials and thought leaders are coalescing around the fact highspeed access to the Internet is a 21st century utility that is, or should be, as much a part of an infrastructure focus as waterways, roads and electricity.

The 260 survey respondents from across the U.S. and Canada have added their feedback to the discussion. They were asked for their views on three issues:

- 1) how can citywide and regional broadband networks impact economic development;
- 2) is there value to limited-reach wireless and wired networks that just cover commercial zones or districts within a city; and
- 3) can municipal broadband facilitate personal economic development and individual entrepreneurship within underserved communities.

Among the respondents to this survey

- ▶ 13% have or are building area-wide wireless networks and 38% have limited-reach wireless networks, while 27% have or are building wired networks and 16% have limited-reach wired networks
- ▶ 25% with wireless networks say these directly or indirectly improved local businesses' profitability, as do 41% of those with wired networks
- ▶ 66% without limited-reach wireless and 46% without limited-reach wired networks would encourage business communities to build them
- ▶ 66% feel muni networks can improve disadvantaged businesses, 69% say the networks can be used to re-train the workforce in these areas
- ▶ 71% believe muni networks can influence individual entrepreneurship in underserved areas

If President-elect Obama's team wants to create new jobs through infrastructure investment, municipal broadband has a vital role to play.

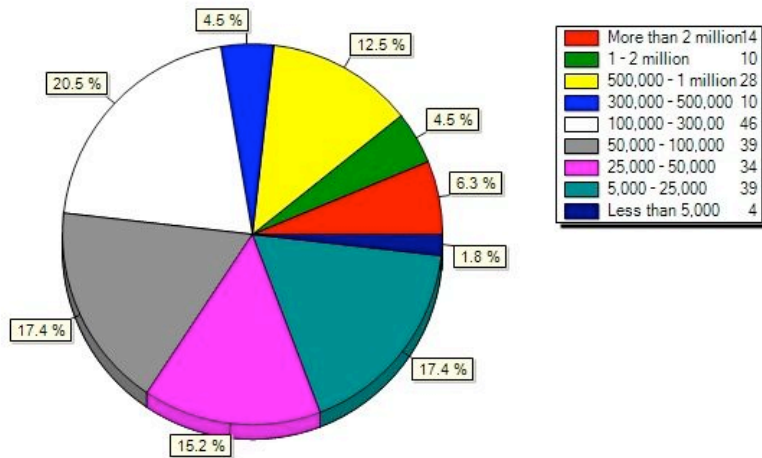
I. Going to the source – survey participants

An e-mail survey was sent to over 4,000 members of the International Economic Development Council (IEDC), the great majority of whom are in the United States and Canada. Several blog posts about the survey by those who follow municipal broadband issues generated about 30 respondents.

260 mostly senior-level executives and managers responded. The majority (158) are from economic development departments of local governments, or economic development agencies. Representatives of chambers of commerce, and government agencies not related to economic development, each comprise 7% of survey respondents, and 5.4% of respondents are from community development organizations. Consulting firms focused on economic development and others make up the remaining number of respondents.

Of those surveyed, 46% of respondents' area of responsibility is cities, while 37% have a countywide scope of responsibility. Just over 9% have a regional focus greater than a single county and 7% have a state- or province-wide focus.

For the greatest bulk of respondents (70.5%), their departments and agencies are responsible for cities or counties with populations between 5,000 and 300,000. 2% of respondents work for cities with less than 5000 people, and the remaining respondents are involved with cities and counties with over 300,000 citizens.

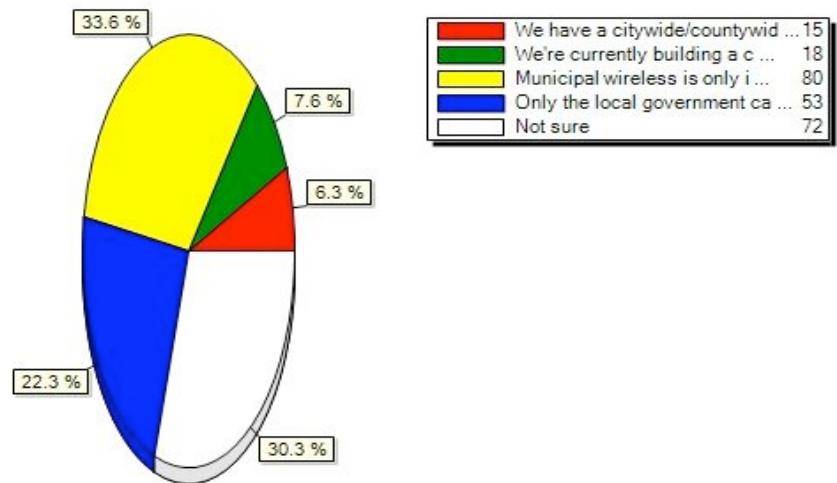


II. Survey results: municipal broadband – who’s got it

NOTE: None of the survey questions were answered by 100% of the 260 respondents. Percentages shown here relate to the number of people answering the respective questions.

This section of survey results addresses the impact municipal broadband networks (wireless and wired) are having on various aspects of economic development. I also probed to see what are the expectations for municipal broadband by respondents in areas that don’t yet have networks.

1. Does your city (county, region, state) have a municipal wireless network that businesses can use?



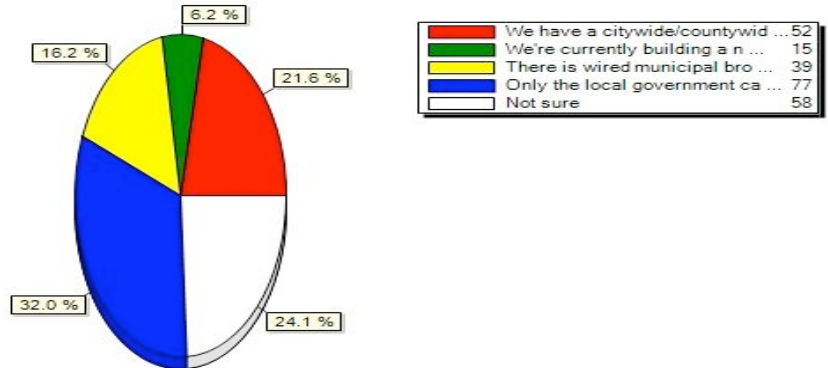
Few places (14%) have city- or countywide wireless networks in place or being built, while 33% of respondents have wireless networks with limited reach only in some parts of their city or county. Follow-up study would likely reveal that many of these evolved from pilot projects started during the height of the muni wireless hype. It is interesting to note that 22% of respondents reveal that only local government can use the wireless networks in their area.

2. If you don’t have an area-wide wireless network, will your city (county, region, state) likely begin a network project?

The responses to this question do not indicate there is the same level of support that existed two or three years ago for wireless networks that target businesses and general consumers. Only 6% of respondents indicate a wireless network project definitely will start in their area in 2009, and 23% feel a project might begin. 51% say there currently are no plans for network projects in their area.

Responses to this question do not necessarily reflect economic development professionals' support for municipal broadband, but rather indicate the state of affairs in their areas. In question 9, many respondents without a wireless network nevertheless advocate such projects, though not necessarily to cover an entire city or county.

3. Does your city (county, region, state) have a wired municipal network that businesses can use?



Wired muni networks (predominantly fiber) appear to be more established, with almost 22% of respondents saying they have city- or countywide networks that businesses can access. Another 6% of respondents' are in areas where networks are being built. There are a smaller number of limited-reach fiber networks (16%) than limited-reach wireless networks (34%). However, there are a greater number of muni fiber networks limited to government use (32%) than wireless networks.

4. If you don't have an area-wide wired network, will your city (county, region, state) likely begin a network project?

There are fewer people indicating that fiber network projects may get underway in 2009, with 5% saying that such projects definitely will launch and only 16% indicating that a project is possible. As with wireless networks, almost 50% of respondents say there are no plans for such projects. Finally, the number of respondents who do not know if any fiber projects will move forward are almost twice as many as those are unaware of wireless projects.

5. If you have an area-wide wireless network that businesses can access, how has it affected economic development?

This question addresses the specific ways municipal broadband networks are impacting economic development. Survey participants weighed in on elements of economic development frequently cited as main reasons to build muni networks.

In general, anywhere from a quarter to a third of respondents believe that benefits in their areas are difficult to measure in quantitative terms. Likewise, similar percentages believe it is too early to measure benefits. However, through other sources I have surveyed, there is increasing quantifiable evidence that shows a direct impact from muni networks.

() = number of respondents

	Definite impact	Indirect impact	Too soon to tell	No impact	Difficult to measure
New businesses moved to your area	13.9% (16)	12.2% (14)	25.2% (29)	19.1% (22)	29.6% (34)
Existing businesses have stayed	13.9% (16)	18.3% (21)	19.1% (22)	20.9% (24)	27.8% (32)
Local companies have become more profitable, competitive	11.6% (13)	13.4% (15)	25.9% (29)	16.1% (18)	33.0% (37)
More tourists are visiting	4.4% (5)	9.7% (11)	28.3% (32)	22.1% (25)	35.4% (40)
An increase in events (conventions, concerts, fairs)	2.7% (3)	9.8% (11)	25.9% (29)	32.1% (36)	29.5% (33)
Revitalized depressed business areas	6.1% (7)	10.5% (12)	30.7% (35)	26.3% (30)	26.3% (30)

It is interesting to note that a similar number of respondents find municipal wireless networks have a direct and an indirect impact on bringing and retaining businesses in an area. However, those who feel wireless has an indirect impact on drawing tourists and special events is noticeably larger than those who find wireless has a direct impact. In 2006 and 2007, elected officials cited the ability to attract tourists and events as main reasons for building WiFi networks. The numbers in both the 2008 and 2009 surveys do not prove out this claim.

6. If you have an area-wide wired network that businesses can access, how has it affected economic development?

Wired networks are far and way the bigger inducement for businesses to locate into an area, with nearly three times as many respondents saying wired networks definitely impact location decisions as those who say networks indirectly influence these decisions. Right up there with quality roads, schools and the local workforce, highspeed communication is a key factor. Depending on the business, this may be the number one issue that can seal the deal – or kill it.

Whether directly or indirectly, wired networks appear to have a greater impact on current businesses and businesses moving into an area than wireless. Separate interviews with North American cities and counties show that these networks equally impact commercial entities from all industries, as well as nonprofit and not for profit organizations.

There is a similar drop-off in the impact that wired networks have on drawing tourists and special events to an area. These networks, though, do appear to have a greater role in revitalizing distressed business areas than wireless networks.

It could be because fiber network projects have had a longer time to mature in communities, but a lower percentage of respondents feel the benefits of wired networks are harder to measure compared to those with wireless networks in their areas. Also, a smaller percentage believes that it is too early to tell what benefits wired networks deliver.

	Definite impact	Indirect impact	Too soon to tell	No impact	Difficult to measure
New businesses moved to the area	32.0% (41)	12.5% (16)	20.3% (26)	16.4% (21)	18.8% (24)
Existing businesses have stayed	26.0% (33)	22.0% (28)	14.2% (18)	15.7% (20)	22.0% (28)
Local companies have become more competitive, profitable	23.2% (29)	18.4% (23)	18.4% (23)	14.4% (18)	25.6% (32)
More tourists are visiting	5.6% (7)	12.7% (16)	20.6% (26)	27.8% (35)	33.3% (42)
An increase in major events (conventions, concerts, fairs)	5.7% (7)	13.0% (16)	20.3% (25)	32.5% (40)	28.5% (35)
Revitalized depressed business areas	9.6% (12)	13.6% (17)	24.8% (31)	27.2% (34)	24.8% (31)

It appears that similar percentages of those with wired and wireless networks feel there is no impact at all on attracting tourists and special events, and on revitalizing depressed areas. However, a smaller percentage of respondents believe that wired networks have no influence at all on current and potential businesses.

7. When it’s in place, how do you expect the wireless muni broadband network to affect economic development in your area?

Almost all of the people who already have a network in place also responded to this question, and results indicate even those who say

measuring economic benefits is difficult have high hopes for their network projects.

	Direct impact	Indirect impact	No impact	Difficult to measure	Haven't considered
Attract new businesses	39.1% (77)	40.1% (79)	10.2% (20)	7.6% (15)	3.0% (6)
Keep existing businesses from leaving	30.8% (60)	42.1% (82)	15.4% (30)	8.2% (16)	3.6% (7)
Increase local companies' competitiveness	37.9% (75)	32.8% (65)	15.2% (30)	11.1% (22)	3.0% (6)
Draw more tourists	19.9% (39)	35.2% (69)	26.5% (52)	13.3% (26)	5.1% (10)
Draw more events (conventions, concerts, fairs)	19.1% (37)	35.6% (69)	28.9% (56)	11.3% (22)	5.2% (10)
Revitalize depressed business areas	27.3% (53)	34.0% (66)	19.1% (37)	14.9% (29)	4.6% (9)

8. When it's in place, how do you expect the wired muni broadband network to affect economic development in your area?

	Direct impact	Indirect impact	No impact	Hard to measure	Haven't considered
Attract new businesses	46.4% (98)	33.6% (71)	10.9% (23)	5.2% (11)	3.8% (8)
Keep existing businesses	41.9% (88)	34.8% (73)	14.3% (30)	4.8% (10)	4.3% (9)
Increase local companies' competitiveness	42.5% (88)	32.9% (68)	13.0% (27)	8.2% (17)	3.4% (7)
Draw more tourists	16.6% (34)	29.8% (61)	29.8% (61)	17.1% (35)	6.8% (14)
Draw more events	17.4% (36)	33.3% (69)	30.0% (62)	12.6% (26)	6.8% (14)
College grads returning to live	25.0% (51)	34.3% (70)	25.5% (52)	9.8% (20)	5.4% (11)

III. Survey results: the impact of limited-reach networks

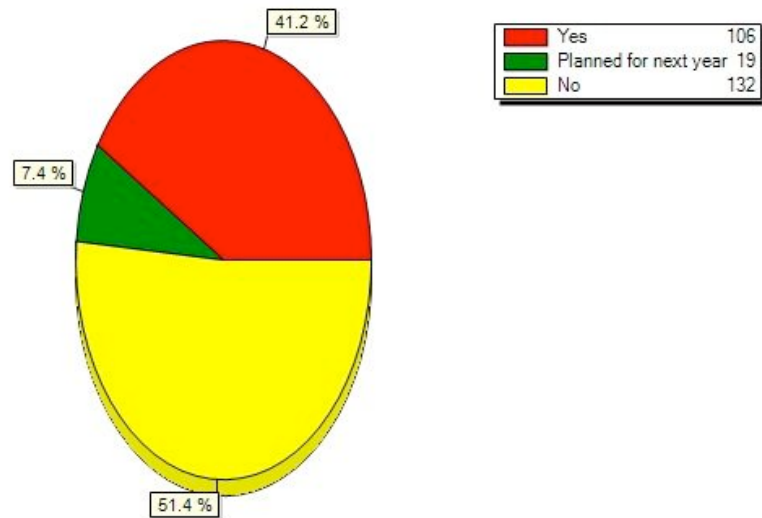
Either through necessity or design, local governments, economic development agencies and business associations have launched what I call limited-reach networks. Consider these surgical implementations of wired or wireless networks into areas targeted with specific objectives to entice or improve businesses.

Many limited-reach wireless networks started as pilot projects initiated by city officials who wanted to test the waters in a downtown retail corridor before attempting a full-blown citywide network. Philadelphia implemented such a project. Other cities such as Seattle, WA and Houston, TX picked depressed neighborhoods to build these networks to attack economic development issues. Meraki is a company driving the development of these limited-reach networks in many cities.

Likewise, cities rolled out limited-reach fiber networks to businesses, schools and residential areas, particularly in areas where incumbent telecom carriers refused to provide any kind of broadband services. Some cities such as Santa Monica, CA had carriers that delivered some fiber services to businesses, but not others they considered low-profit, so local governments filled the gap using municipal fiber resources.

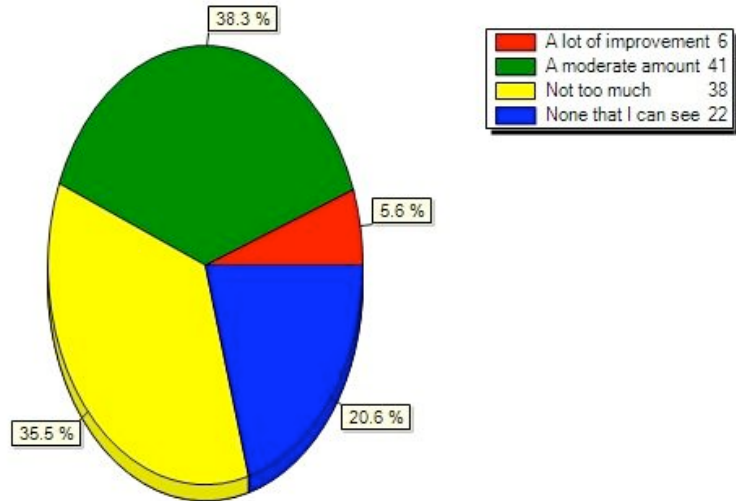
Regardless of municipalities' original intent several years ago, present economic conditions necessitate taking a close look at how limited-reach networks can be an important element of the bigger broadband picture.

9. Has your business community or local government created an outdoor WiFi zone in its downtown, mall, business park or other areas of concentrated businesses?



As represented in the following chart, of those who said they plan to have a limited-reach wireless networks in their cities or counties, over 38% believe these networks have had a moderate amount of economic development impact. Nearly 6% feel there has been a lot of improvement, but 35.5% are on the opposite side, seeing not much economic improvement. The remaining respondents have seen no improvements at all.

9a. What economic development have you seen?



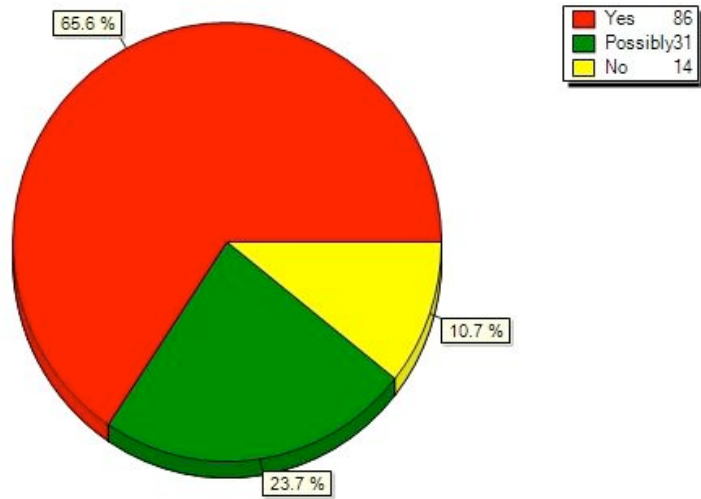
Among respondents who expect to see limited-reach networks come online in 2009, most of them are keeping their expectations in check. 73% expect a moderate impact on economic development.

9b. What economic development impact do you expect?



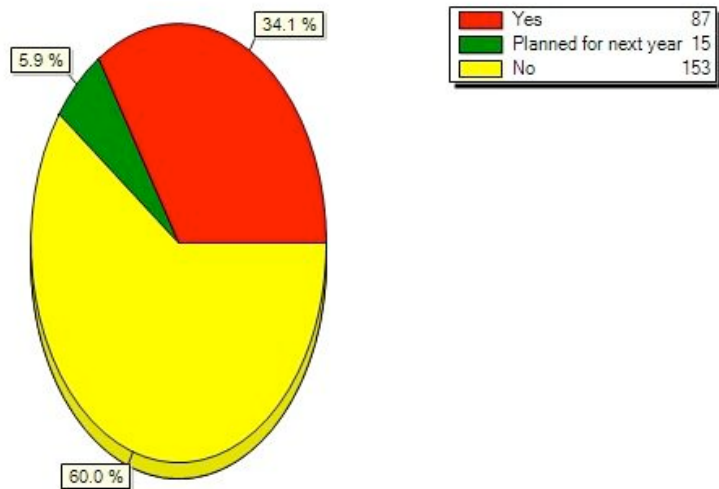
Among the group of respondents who reported that they do not have limited-reach networks currently, there appears to be a great amount of interest in building such networks. Close to 66% would encourage their business communities to implement these projects, and another 24% possibly would support such initiatives.

9c. Would you encourage these networks in your business community?



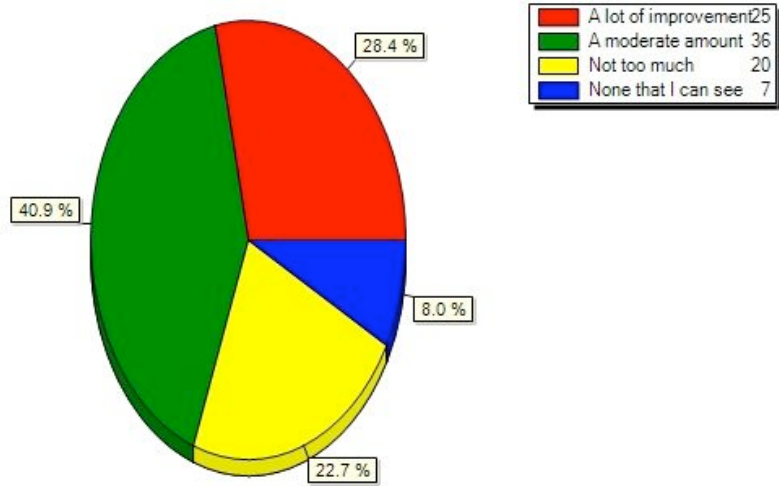
10. Has your business community or local government built a wired network in its downtown, mall, business park or other areas of concentrated businesses?

Answers regarding limited-reach wired networks are similar to those for wireless. Most responded that they do not have these networks, while 40% either currently have them or plan to do so in 2009.

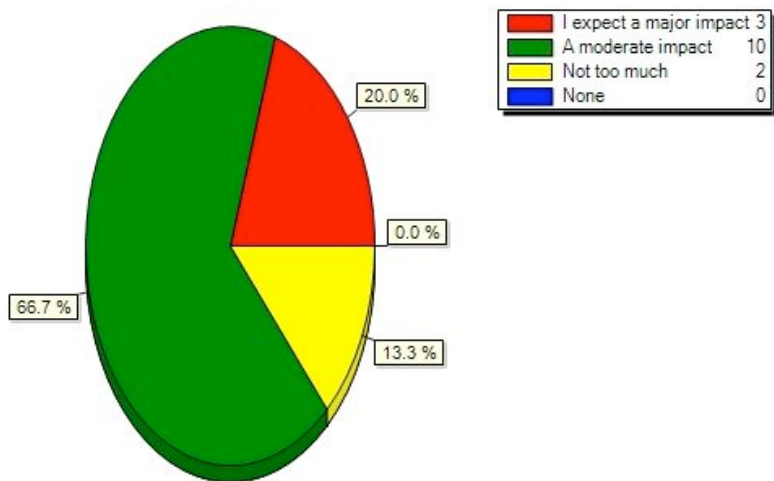


Consistent with comparisons between wireless and wired networks earlier in this report, there is a stark contrast between results produced by wired limited-reach networks and wireless. Of those who have these wired networks in their areas, five times as many people as those with wireless see a lot of economic development, while an equal percentage with wired and wireless networks are seeing moderate improvement.

10a. What economic development have you seen?



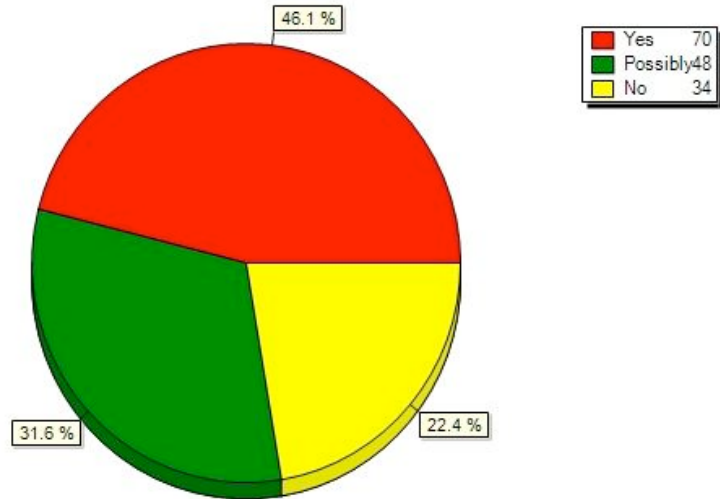
10b. What economic development impact do you expect?



In something of a turnabout from earlier survey results, only 46% of respondents who do not have limited-reach wired networks in their areas indicated they would encourage their business communities to build

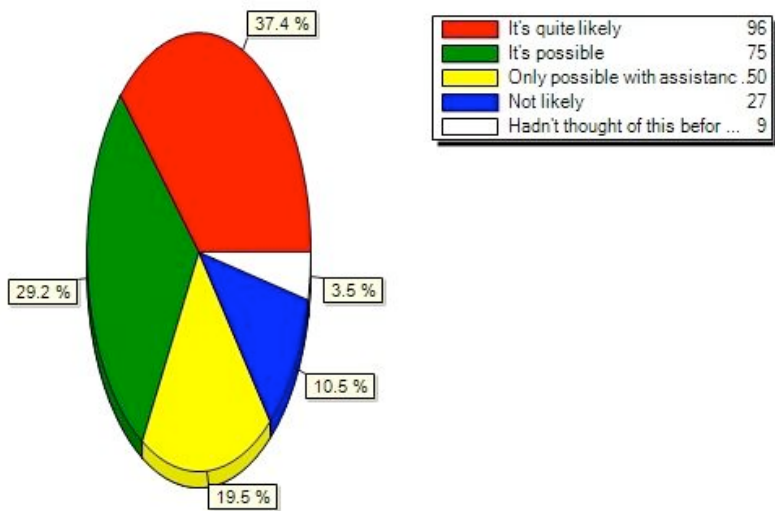
them (65% would encourage wireless networks). A higher percentage of respondents are on the fence, and more respondents would not support these initiatives than those with wireless networks.

10c. Would you encourage these networks in your business community?



11. Do you feel a municipal highspeed network can bridge the digital divide between disadvantaged businesses and other companies in your area?

The prevailing feeling is that municipal broadband can close the divide between disadvantaged and other businesses. Only 10% feel that this is not a likely occurrence with muni networks.

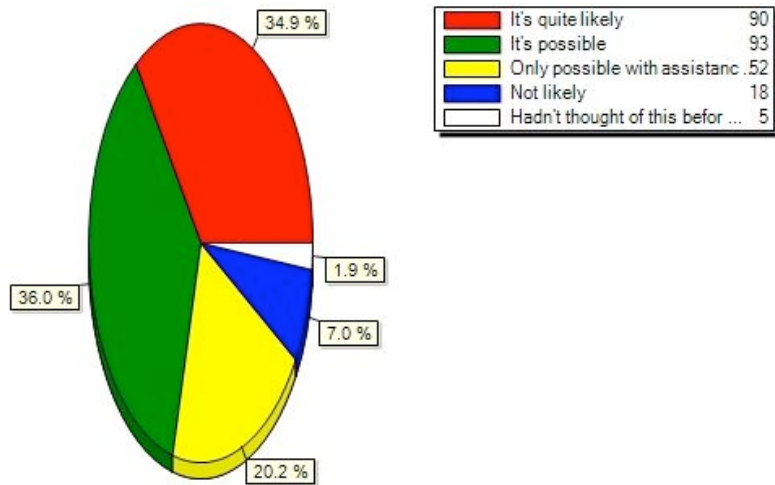


IV. Survey results: the impact on personal economic development

Another significant goal driving many local governments implementing municipal broadband is to close the digital divide between disadvantaged individuals and the rest of the community. They want to make it possible for lower income and geographically isolated people to become proficient using technology to advance themselves.

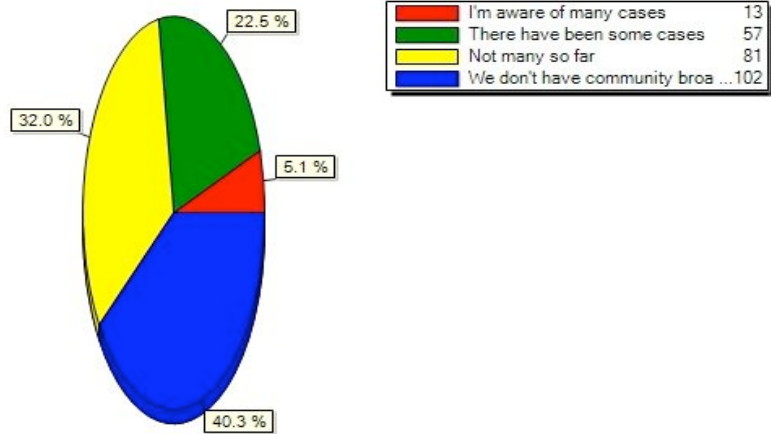
12. Can a municipal or community broadband network influence individual entrepreneurship among underserved constituents (low income, elderly, rural)?

Respondents are quite bullish on municipal networks' potential role in helping to foster entrepreneurship. One approach sure to remove individuals from public assistance rolls is to enable them to create and manage a business using the Internet for global outreach. 20% of respondents also realize that some entity must provide assistance such as training and mentor programs.



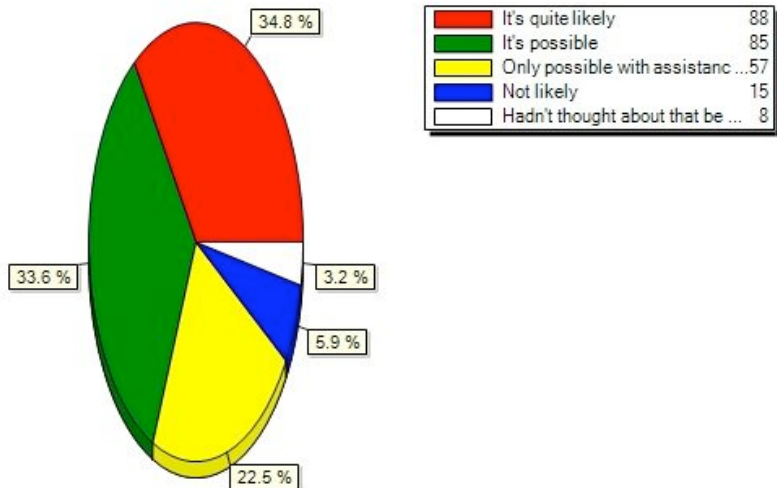
13. Have you seen a muni or community broadband network in your area improve individual entrepreneurship in underserved neighborhoods?

Indications are that we are just at the beginning of the journey to tackle personal economic development. Though there are numerous stories about muni networks in this role, survey results indicate many respondents are not familiar with these. Of course, the more local success stories unfold, the more leverage economic development agencies have to advance these efforts.

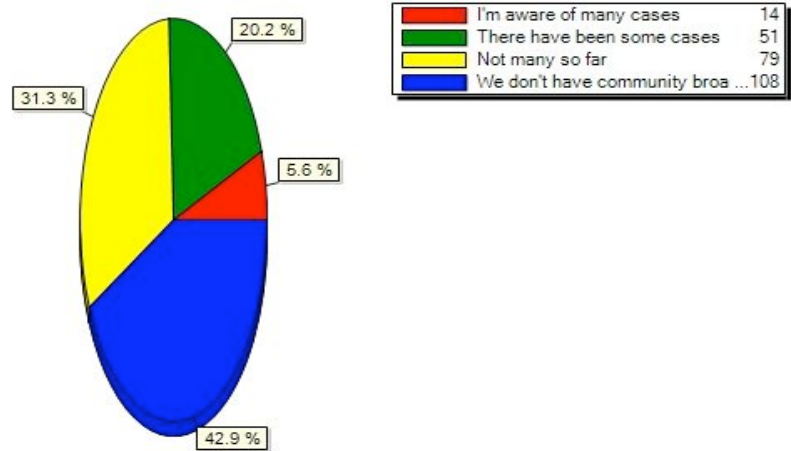


14. Can the use of muni or community networks help effectively prepare and/or re-train the workforce in underserved areas for better jobs?

The results for this and the last question are fairly similar to those for the questions about personal entrepreneurship.



15. Have you seen a muni or community broadband network in your area improve underserved individuals' personal economic development?



V. In the final analysis

What this survey says

1. The majority of economic development professionals believe that broadband is a major tool they and local government can use to attack the slumping business economy, and also make our current and potential workforce better able to work effectively in a global, digital economy.
2. Targeting these network projects to address business needs should, in many cases, lead to significant economic benefits. Definitely more so than the networks' impact on attracting tourists, special events and people who have left the area to attend college.
3. Personal economic development, through closing the digital divide, re-training the workforce for a digital economy and increasing home-based businesses, is another credible area to focus on with broadband technology. A significant portion of the professionals surveyed also believe these benefits cannot be achieved just through access, but there must also be complementary programs such as training, mentoring, business networking, etc.
4. Wireless networks, no doubt still cast in a negative light from all of the high profile muni WiFi network failures in 2007, are less popular as a city- or countywide project. Conversely, many economic development professionals and others believe that limited-reach wireless zones of coverage are a good way to tackle economic issues on a community-by-community basis.
5. Wired networks, though more expensive to implement, are viewed by a significant number of cities, counties and states as better than wireless networks for making a direct positive impact on economic development. However, when it comes to limited-reach networks, it could be that the cost of digging up city streets or dragging wire through rural areas is so

high that the effort does not merit the expense unless entire cities or regions are covered.

6. There is a need for some standards or widely accepted guidelines for measuring muni networks' success. It is particularly challenging in the current economy to justify investments in broadband technology without understanding how or when the investment will pay off. At the same time, everyone involved with these projects must understand that it may take several years to realize the payback, particularly for wired networks.

In addition to their responses to survey questions, many of these professionals added detailed comments with observations on broadband's affect, and insights as to where this is evolving as an economic development driver. You can read these responses at: <http://desktop.vovici.com/analysis/generatepublicreport.aspx?esid=261470&subaccountid=62995> (if you cannot get to the page by clicking the link, cut and paste it in your browser).

VI. Conclusion

One question should be front and center of any discussion on reversing the current economic troubles facing the United States, and indeed, the world. How do we make broadband a leading tool to boost businesses' profitability, and raise up our workforce so more people take charge of and improve their financial situations?

The resolution lies primarily in hands of the economic development professionals at the local and state levels such as those who participated in this survey. They, much more than the Federal government and definitely more than the national telecom companies, are the ones who best understand the broadband needs of their businesses and citizens.

During my time at the University of California, Berkeley a very popular bumper sticker read, "Think globally, act locally." So it must be with using broadband as a vehicle for improving our economy. The new administration in Washington is proving itself capable of thinking progressively about broadband as an agent of change. But where the rubber will meet the road is through effective city, county and state initiatives supported by federal government as well as local and national telecom service providers.

Action, not reaction, needed

While this survey reports the results municipalities have had or expect to have with municipal networks, and highlights where to focus these efforts to improve economic development, there remains another important question to answer. How should governments – local and federal - proceed with network projects to ensure that they have a maximum impact on local and regional economies?

In my supplement to this report, to be released soon, I go into detail about the specific steps local, regional and federal governments need to take as they move forward. This supplement addresses not just strategies for rolling out the network, but also what governments need to do once the networks are in place. It concludes with guidelines for President-elect Obama's administration so that hopefully the change they bring to the broadband discussion is the change we need.

You can get details on this report supplement starting December 16 at <http://roisforyou.wordpress.com>.

For more information

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About the author

For 20 years Craig Settles' consulting services, books and workshops have helped organizations worldwide understand how to use technology to make money, save money and run a better business operation. Since 1999 he has concentrated on developing strategies and tactics for using wireless technology. Former clients include Microsoft, Symantec, AT&T, City of Glendale, CA and Kindred Healthcare. Mr. Settles has written several books, plus numerous articles and columns for leading publications on wireless business topics.

You can follow Mr. Settles' writings on mobile applications, wireless and broadband implementation strategies at

<http://roisforyou.wordpress.com>.

Need further assistance with your broadband plans?

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