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Community Broadband Snapshot Report™

Broadband's Impact on Economic Development: The Real Deal

September 2010

National survey report prepared by:



Introduction

Every two years, the International Economic Development Council (IEDC) and I team up to survey economic development professionals and others nationwide to learn how broadband is impacting economic development efforts. This year, 301 individuals participated, and their feedback has been particularly revealing.

The 2010 survey is “The Real Deal” as it digs beneath the hype surrounding broadband’s potential to influence local economies, and extracts data from those who deal with these issues daily. We also present for the first time the comments respondents offered to help implement broadband projects that produce economic development results.

Respondents’ peers as well as government policy makers need to read and heed both the data and the comments. Several results of the survey argue sharply against directions that some government agencies, politicians and private industries appear to be taking us.

We break out broadband into two categories, wireless and wired, to show that each has different impacts that should be considered when developing broadband strategy. We also look separately at business outcomes (attracting new business, reviving depressed business districts, etc), and personal economic outcomes such as increasing entrepreneurialism and improving job training.

Wireless has a role to play in economic development, for example, but only 37% of survey respondents believe it directly impacts new business attraction to a community whereas 55% believe that fiber networks directly impacts this outcome. Respondents consistently rated wireless higher as an indirect influence on the economic outcomes we asked respondents to consider.

There appears to be strong belief that broadband can improve local economies at the individual constituent level. 52% of respondents believe the technology can help harness home-based businesses into a strong economic development force, and 43% feel broadband can be used to influence underserved individuals to become entrepreneurs.

Support for some federal government goals is weak. 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.

Support of the private sector is mixed. 37% of rural respondents say they do not have sufficient broadband to reach the economic outcomes presented, with over half of this group believing they may never have the broadband they need. 58% of respondents from all areas believe Universal Service Fund reform should enable communities to determine where funds go that are targeted to broadband. 50% believe the community should own the network in whole or in partnership with private sector companies, while 47% feel broadband should be provided exclusively by the private sector.

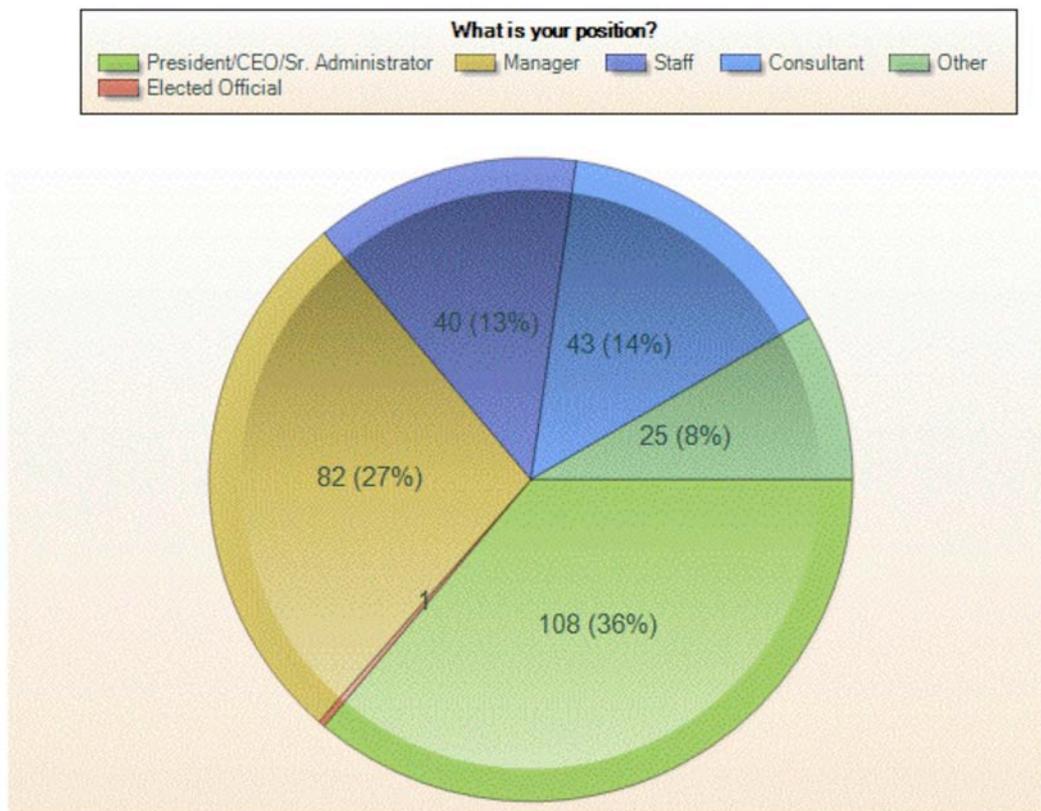
I. Background overview

We e-mailed surveys to approximately 4,500 IEDC members and several hundred city administrators, managers and staff. 301 professionals subsequently participated in the survey. The survey began by requesting information to give us some details on respondents' job positions and the communities which they serve.

1. What is your position?

2. Your organization is:

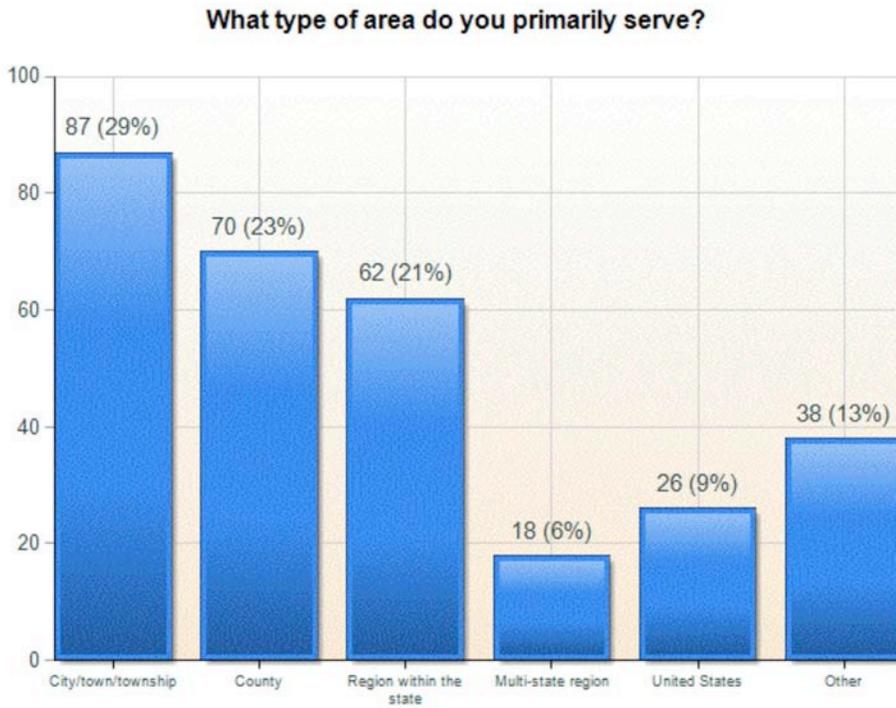
Participants were mostly presidents/senior administrators (36%) and managers (27%) with a similar number of staff and consultants at about 14% of each. 30% work for economic development departments or separate agencies, while 19% work for local or state government in a non-economic development department and 13% work for a nonprofit that addresses economic development issues.





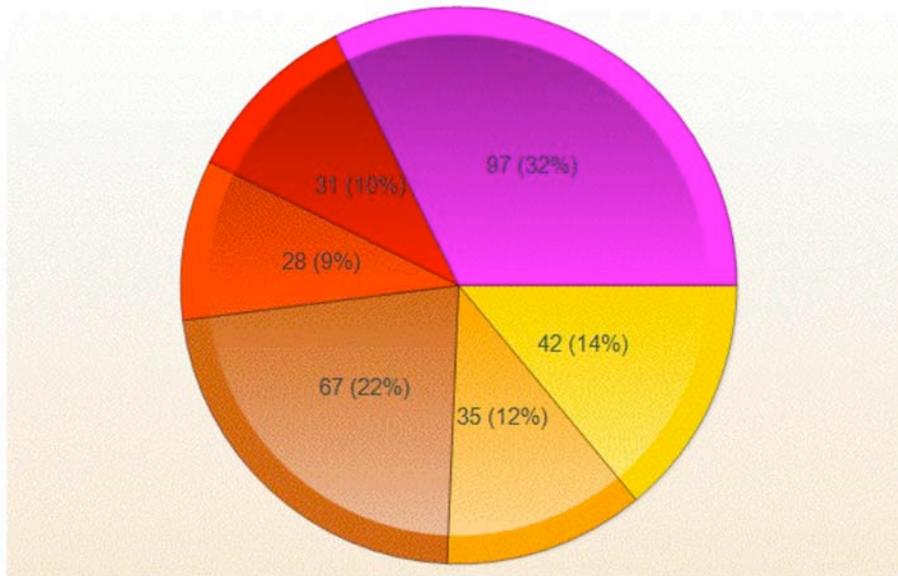
3. What type of area do you primarily serve?

Survey respondents are fairly well divided in terms of the areas they serve. 29% represent cities and towns, another 23% serve counties and 21% work for a region within their state. Almost 9% have responsibilities that cover the entire United States



4. The area you serve is mainly:

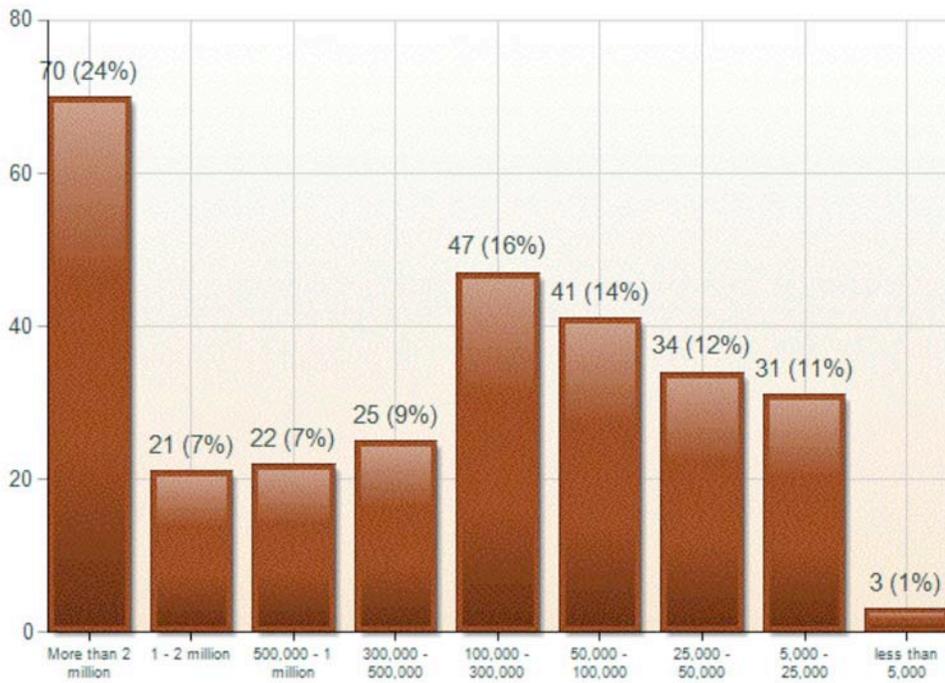
Looking at what type of areas respondents serve, I broke them down by urban, suburban and rural areas, or some combination thereof. The largest group represented by those taking the survey is rural communities with 22% and suburban/rural add another 10%. The largest category, though, is comprised of the 32% of respondents who serve areas that are a combination of rural, suburban and urban. About 24% serve urban or urban/suburban areas.



5. The population of the area you serve is:

Respondents serving constituencies of more than 2 million people make up the largest single group at 24%. However, consider that some respondents could have responsibilities for multiple counties and entire states. The remaining respondents appear to be fairly evenly divided across the population size categories.

The population of the area you serve is:



II. The current state of broadband in respondents' service areas

This section of questions probed to get an overview of what type of broadband is or is not in place where survey respondents work.

An important definition presented in the survey is "Community networks," which for survey respondents is defined as networks run by local government, a public utility and/or community stakeholders. Co-ops were listed as a separate category. Furthermore, we distinguish between wireless and wireline because further on the survey addresses how wireless and wired networks can have different impacts on economic development outcomes.

6. What are primary wireless broadband network options in the area you serve?

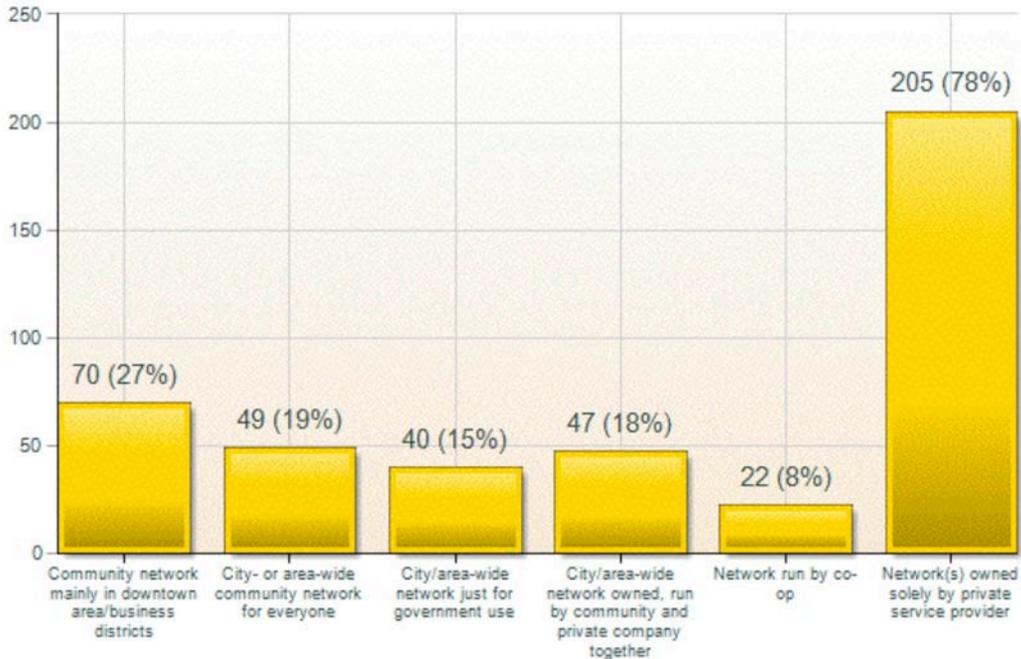
78% of respondents report that their service area has at least one wireless network providing broadband access that is owned and operated entirely by a private-sector company. 19% have responsibilities in locations that have citywide or area-wide (coverage greater than the city proper) wireless community networks offering services to all constituents.

Another 27% of respondents are in locations that have limited-reach wireless community networks, coverage restricted mainly to downtowns and business districts. It's interesting to note that in my 2008 survey, 38% of respondents reported having limited-reach wireless networks. It could be that some networks have shut down since then. However, our last survey didn't limit the question to just community networks, so it could be that those 2008 numbers reflect some percentage of privately-owned networks.

Municipal wireless city- or area-wide networks used just for government purposes are still popular, with 15% reporting to have these. But this is down from a reported 22% last survey. 18% indicate they have wireless networks run by public private partnerships, and 8% are in areas that have networks run by co-ops. These options were not in the 2008 survey.

The figures here and for wireline networks add up to more than 100% because respondents could select more than one answer.

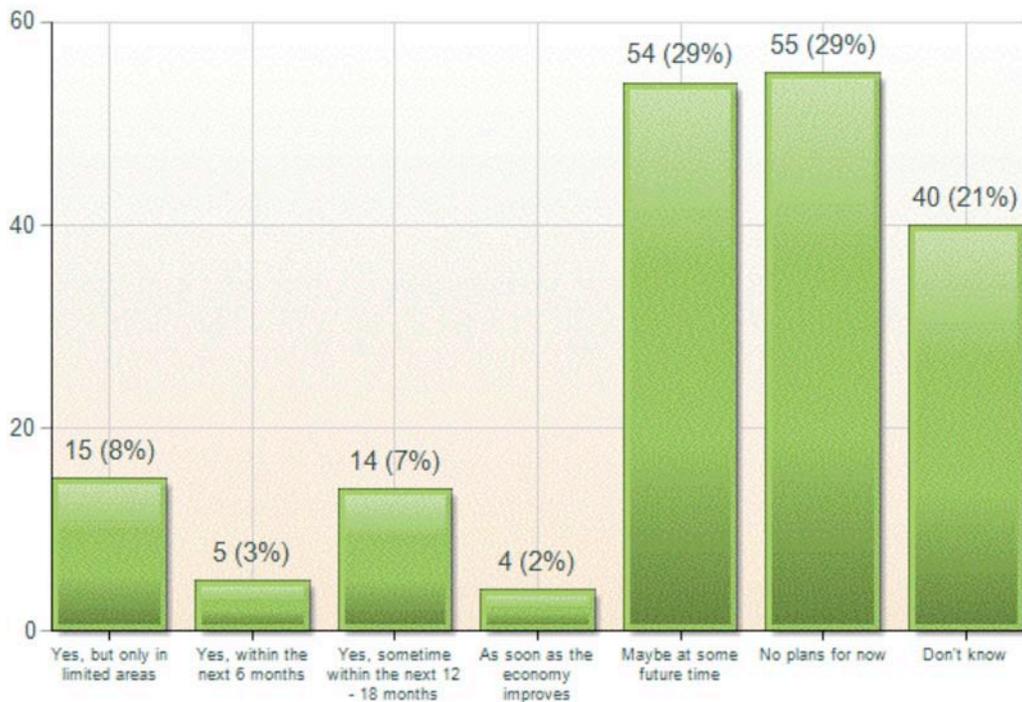
What are primary wireless broadband network options in the area you serve? (select all that apply) "Community" networks are those run by local government, public utility and/or community stakeholders.



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

There doesn't appear to be a large groundswell of efforts to build community wireless networks, with 29% claiming no such plans exist, and another 29% who feel that these might come along at some point in the future. 10% say they expect to see wireless community network projects start sometime in the next 18 months, with a few starts depending the economy improving. This does not take into account plans for networks built by private providers or public-private partnerships.

If one doesn't exist, are there plans to start building a city/area-wide community wireless netwo ...



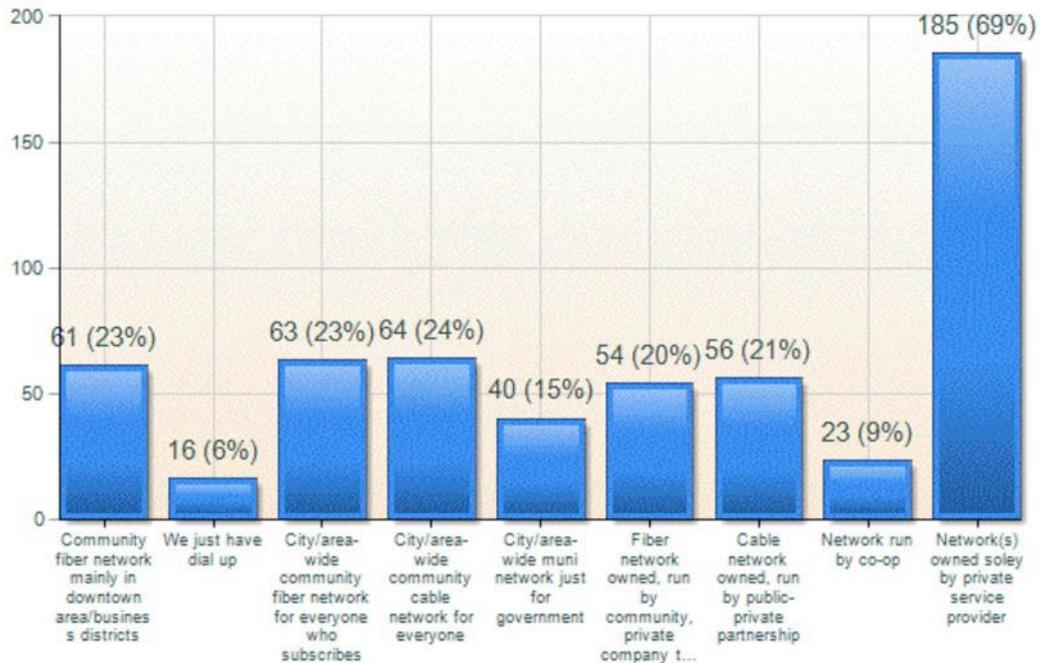
8. What are primary wired broadband network options in the area you serve?

23% of respondents report having a limited-reach fiber community network mainly for the downtown areas, up from 16% in 2008. This year, the number of muni wired networks for government use only is way down – 15% from 32% last survey. One thing that may be a factor is that the last effort didn't restrict wired networks to fiber, so there may have been cable networks represented in the previous number.

The graph for wireline networks is a little more complex because we broke wireline down into categories of fiber and cable. However, respondents show consistent numbers between the two. The percentage of areas with city- or area-wide wired networks is almost identical to the percentage in the last survey.

Compared to wireless, there are fewer networks owned solely by private companies (69% vs. 78%). But in terms of public-private partnerships, networks run by co-ops and community networks, the numbers represent only about 2% - 4% difference between wired and wireless.

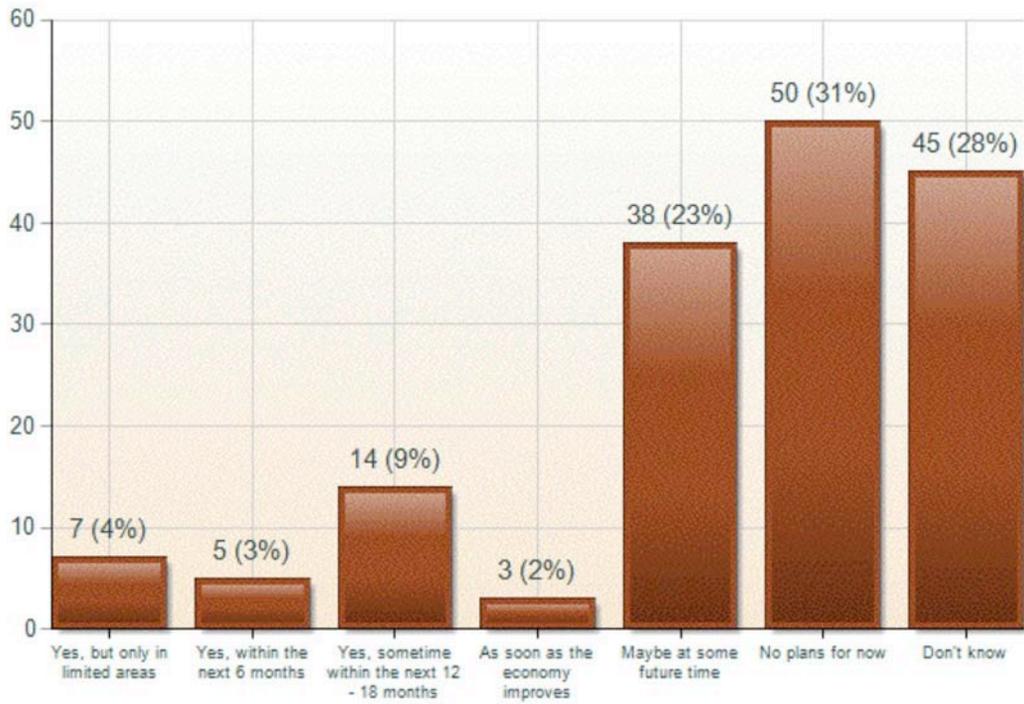
**What are primary wired broadband network options in the area you serve?
(select all that apply) "Community" networks are those run by local government, public utility and/or community stakeholders.**



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

When assessing where there are plans to build community fiber networks, these percentages also are close to those for plans to build community wireless networks. Interesting to note, however, is that the 2008 survey revealed 50% of respondents served areas that had no plans to build a community wired or wireless network. This year it is only about 30%. It has struck us as odd that economic development professionals should be one of the first to know about that status of broadband plans, yet 30% of respondents to the last survey and to this one do not know. This speaks poorly of broadband advocates and project teams that are not keeping these key people in the loop.

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



III. Specifics on how broadband impacts local communities

This section seeks to clarify, from the perspective of those deeply involved with economic development, just how it is that broadband can make a difference in local economies. This is where we face the biggest challenge in broadband, understanding what to realistically expect of the technology. It's also important to understand what we can or cannot measure.

Decision makers are challenged to make the go/no-go call on these projects because they want quantifiable economic objectives to which they can hold someone accountable. Constituents likewise desire the same assurances and benchmarks to ensure accountability. One positive sign of how things are changing in the broadband arena is that the percentage of respondents who feel certain economic results are difficult to measure has dropped as much as 60% this year.

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

A main issue this survey attempts to resolve is whether broadband has a direct or indirect impact on certain economic outcomes. For each survey cycle I like to choose outcomes touted by the widest array of politicians, broadband champions and media as being the direct beneficiaries of broadband.

Attracting new businesses to an area is a popular justification for pursuing broadband. 36% of respondents believe wireless broadband has a direct impact while 23% have experienced or expect it to have an indirect impact. Interestingly, 9% expect broadband to have no impact on business attraction and another 14% feel this is a hard call.

On the question of convincing businesses to stay in an area, the numbers show an almost perfect turnabout with 24% expecting wireless to have a direct impact and 33% believing there's only an indirect impact. The remaining three response options garnered similar percentages as did responses to the question about attracting new businesses.

There is a nine-percentage point spread between the direct and indirect impact of wireless on improving the profitability and competitiveness of local businesses, with more people believing the technology indirectly affects this issue. Only 6% of respondents have found or believe wireless won't have any impact.

When it comes to wireless improving conditions within depressed business districts and residential communities, there is a notable drop in respondents who have seen or who believe wireless broadband will have an impact. Only 11% - 13% feel there will be a direct impact, and 20% who believe there will even be an indirect impact. Almost twice as many (29%) as with the two previous outcomes believe it is too early to tell how much influence wireless will have. A greater number believe there will be no impact, or that it is difficult to measure the impact.

The feedback on wireless' impact on individual economic development – improving job skills, ability to create wealth, etc. – results fall somewhere between the highest and lowest expectations for the other economic outcomes. 23% feel wireless will directly improve worker training programs, and 15% feel the same about it increasing individuals' earning potential. 28% and 21% feel it will have an indirect impact on these respective outcomes. Increasing earning potential was the outcome that the greatest percentage of respondents (28%) felt would be difficult to measure.

	Definite impact	Indirect impact	Too soon to tell	No impact	Difficult to measure
Attract businesses	89 (37 %)	55 (23 %)	42 (17 %)	23 (10 %)	32 (13 %)
Retain businesses	58 (24 %)	81 (34 %)	33 (14 %)	32 (13 %)	35 (15 %)
Local companies	71 (29 %)	91 (38 %)	31 (13 %)	14 (6 %)	34 (14 %)
Revived depressed businesses	32 (13 %)	47 (20 %)	71 (29 %)	42 (17 %)	49 (20 %)
Revived depressed communities	27 (11 %)	46 (19 %)	68 (28 %)	45 (19 %)	55 (23 %)
Worker training	55 (23 %)	68 (28 %)	46 (19 %)	35 (15 %)	37 (15 %)
Individuals' income earning	36 (15 %)	52 (22 %)	70 (29 %)	18 (8 %)	64 (27 %)

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

When it comes to wired networks, there is greater certainty that this broadband technology will have a direct impact on economic outcomes, and also that communities will be able to measure and attribute the value of those outcomes to broadband. This is consistent with both previous surveys.

55% of respondents believe broadband has had (or will have) a direct impact on attracting businesses to a community as opposed to 37% who believe wireless will do the same. On the opposite end, only 5% believe fiber networks will have no impact and 7% believe this

outcome will be difficult to measure. Twice as many respondents believe wireless will not have an impact and or it will be difficult to measure any results.

Compared to the 2008 survey, there appears to be approximately twice as much confidence in broadband to generate these economic benefits for businesses. The last survey did not ask this specific question about depressed communities or the impact of broadband on individual economic development. When we analyzed results for respondents from just rural areas, the numbers in all categories were quite similar, with maybe two-four percentage points difference.

If there is any notable trend, it is that for those respondents in rural communities, there is a few percentage points shift from what's expected to have a direct impact versus an indirect impact. For example, across all areas of the U.S., 40% of respondents expect fiber to have a direct impact on improving the competitiveness of local companies, and 30% expect an indirect benefit. For rural areas, the numbers are 35% and 32% respectively. This indicates that broadband champions in rural areas may want to be careful not to oversell the benefits constituents should expect.

	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 %)

12. From your observation, what's the minimum broadband speed your area needs by 2013 to directly impact these outcomes? Anything less probably won't get the job done.

An important question I added to this year’s survey tackles the issue of Internet access speed, and how much is needed if we expect broadband to actually achieve these goals we continually promote. The results for Question 12 should help communities and policy makers determine whether we should question the efficacy of the 10-year broadband speed goals the FCC is promoting currently.

Policy makers should take note that less than 9% of respondents believe 2 – 4 megabits per second (Mbps) by 2013 is adequate for ANY of the five top economic development goals that are cited by the majority of people discussing this issue. This does not bode well for what we can expect from a goal of 4 Mbps download speed and 1 Mbps by 2020 for rural communities.

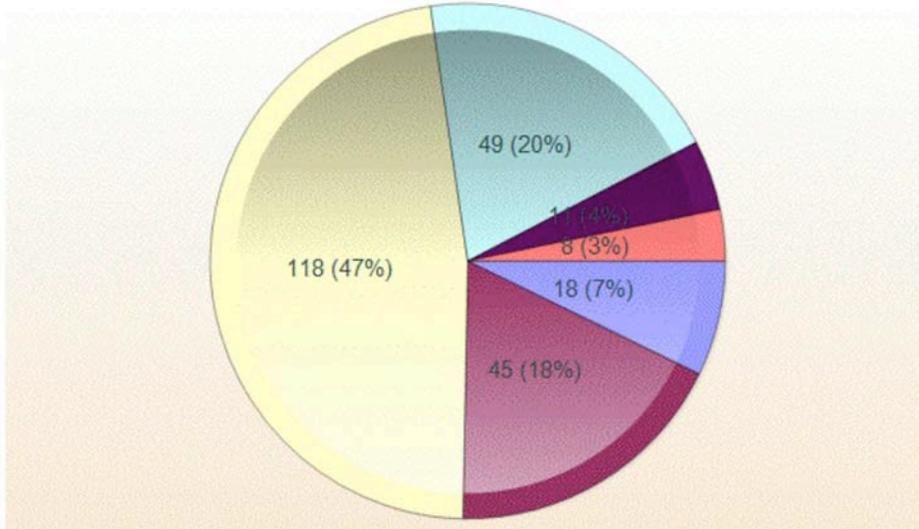
Equally telling are the percentages of respondents who believe that the minimum access speeds necessary to achieve these economic outcomes must meet or exceed the FCC’s goal of getting 100 Mbps into 100 million homes by 2020. Approximately 55% expect that 100 Mbps or more is needed by 2013, fully seven years ahead of the goal. Furthermore, if a community’s goal is to use broadband as a main incentive to attract new businesses, 34% of respondents believe this requires a minimum of 1-gigabit speed.

	2-4 Mbps	10-12 Mbps	20-25 Mbps	100-120 Mbps	500 Mbps	1 Gigabit
Lure businesses	17 (8 %)	26 (12 %)	30 (13 %)	43 (19 %)	33 (15 %)	77 (34 %)
Retain business	13 (6 %)	35 (16 %)	50 (22 %)	57 (25 %)	33 (15 %)	37 (16 %)
Local companies	12 (5 %)	29 (13 %)	53 (23 %)	55 (24 %)	33 (15 %)	44 (19 %)
Revive business districts	13 (6 %)	34 (15 %)	50 (23 %)	53 (24 %)	34 (15 %)	38 (17 %)
Revive communities	14 (6 %)	40 (18 %)	47 (21 %)	55 (25 %)	27 (12 %)	37 (17 %)
Training	14 (6 %)	33 (15 %)	48 (22 %)	54 (24 %)	40 (18 %)	33 (15 %)

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

The issue of which business model will best help broadband achieve economic goals separated respondents into two main camps: 45% who believe communities should own the broadband network (in whole or in part), and 47% who believe the network should be

owned and operated exclusively by a private provider. Another 6% believe a local co-op is the most effective model.

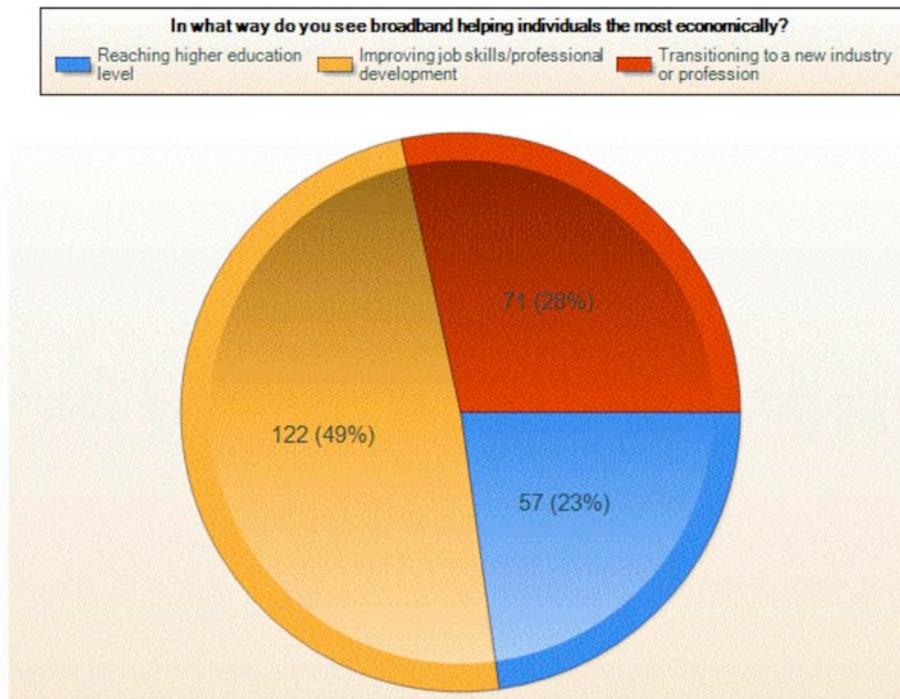


IV. How broadband influences personal economic development

This section focused specifically on personal economic development, ultimately tackling the question of how can a community make it possible for individuals to accumulate greater wealth for themselves and (where applicable) their family.

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

Though all three outcomes (improving education, improving job skills, transitioning to a more beneficial profession) are desirable, I asked survey respondents to rate which outcome they expect broadband to impact more. Nearly 50% believe jobs skill improvement to be that outcome.

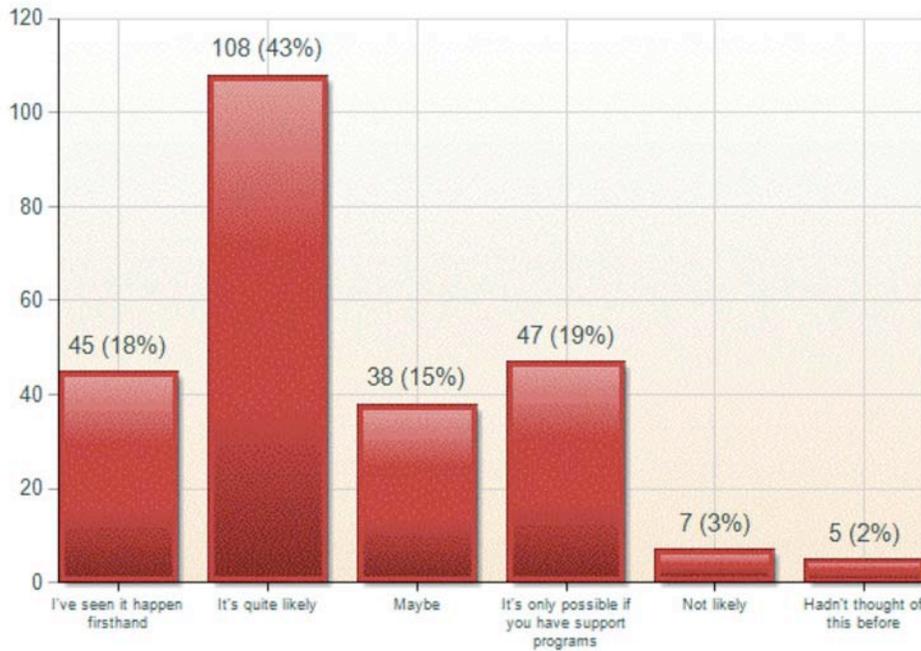


15. Can a broadband network encourage individual entrepreneurship among underserved constituents (low income, elderly, rural)?

Using broadband as a vehicle to encourage and cultivate individuals as entrepreneurs does not appear to be addressed often in the media as a possible policy option, but a sizeable number of respondents (43%) believe this idea has merit. An additional 18% have first-hand experience with programs such as these that have succeeded and likely represent a source of best practices for others.

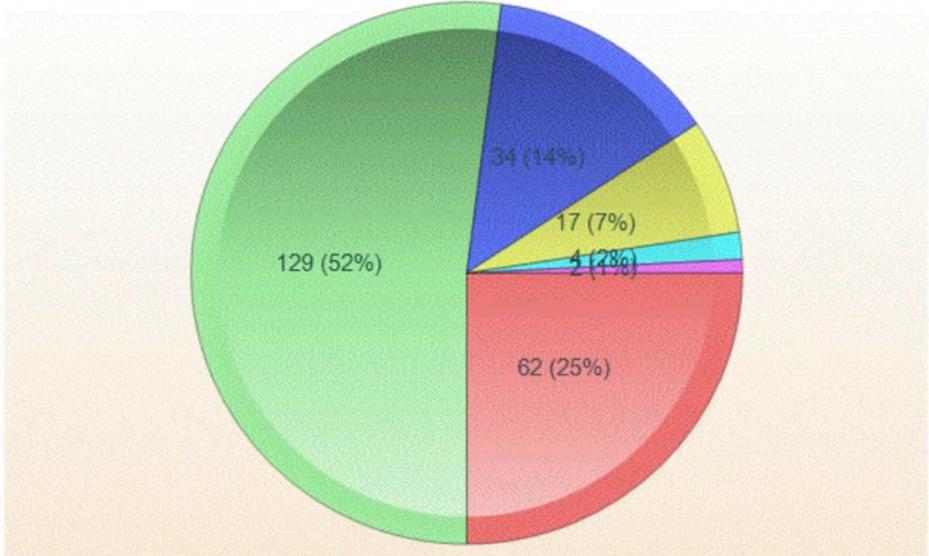
Note that 19% believe there must be support programs in place for individuals to maximize their participation. This is an important finding that reinforces the belief a community cannot simply install infrastructure and walk away, then expect to achieve the economic outcomes it desires.

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



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

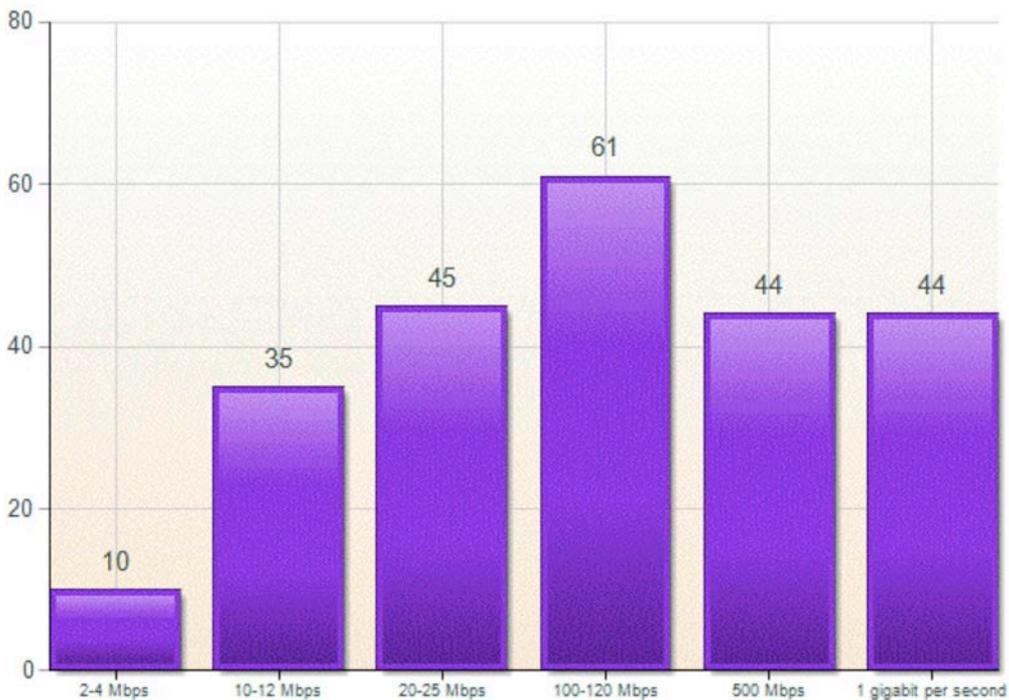
There is even broader belief that using broadband to make home-based entrepreneurs a major economic development force, with 52% of respondents saying this is a likely outcome and another 25% who have had personal experience in this area.



17. What minimum broadband speeds will be needed by 2013 to achieve these personal economic development outcomes?

The survey returned to the issue of adequate broadband speed, this time for personal economic development. Respondents feel even stronger about the need for 100 Mbps as a minimum, with 62% who believe communities need anywhere between that and 1 gigabit access speed to achieve these goals.

What minimum broadband speeds will be needed by 2013 to achieve these personal economic development outcomes?

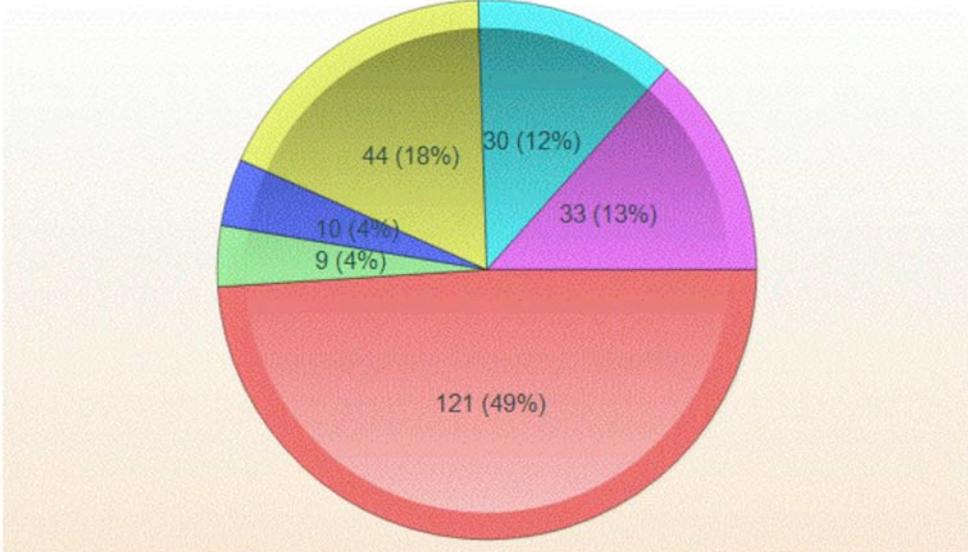
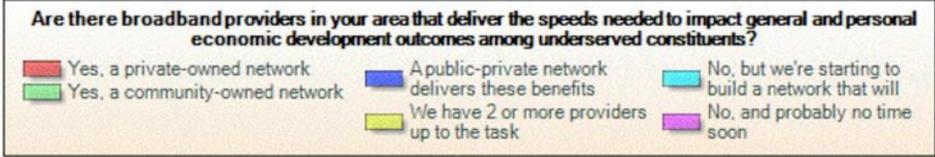


18. Are there broadband providers in your area that deliver the speeds needed to impact general and personal economic development outcomes among underserved constituents?

Taking the feedback-gathering on the need for speed one step further, I also asked respondents if there is adequate speed available in their areas to achieve both the personal and general economic development outcomes highlighted in the survey. I did not tackle the question of affordability or the quality of that service, mainly in an effort not to make an already lengthy survey more burdensome.

49% of respondents indicate they have one provider with the speed necessary, at least currently, to pursue economic outcomes, but only 18% of total respondents have two or more providers offering capable speeds. This can lead one to suspect that, for that 49% of respondents, the lack of competitors able to match speeds results in little pressure for the sole provider to lower prices. Or that those markets are incapable of supporting a second competitor with the speeds needed to achieve economic outcomes.

A full 25% of respondents have no provider capable of delivering the speeds necessary to achieve economic development objectives, and half of this group has little hope that they will get sufficient broadband.



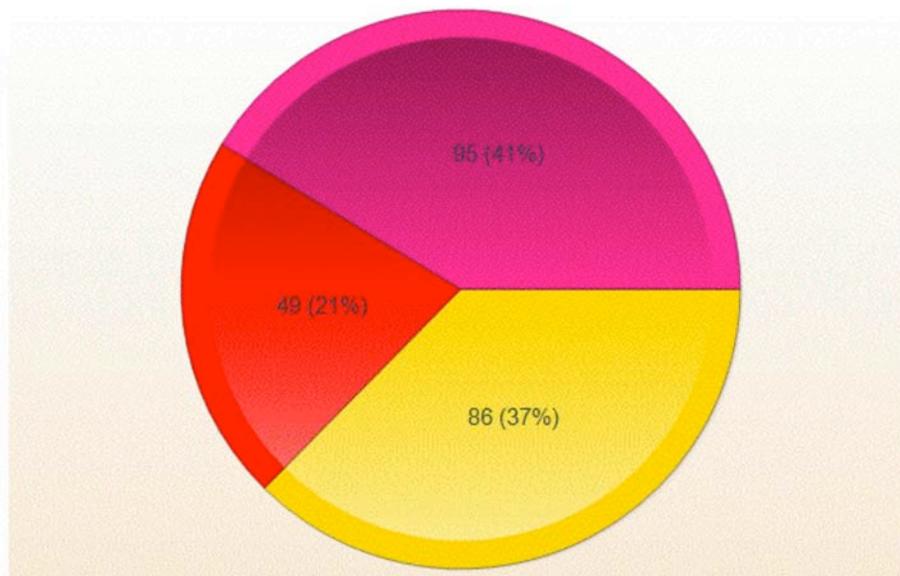
IV. National broadband policy issues

I added a new component of the survey this year. With several incredibly important policy battles going on, it seemed fitting to have those people on the front lines working for economic advancement add their input to the discussions.

19. What's your thinking on the FCC's broadband goal of 4 Mbps speed down, 1 Mbps up for rural areas by 2020?

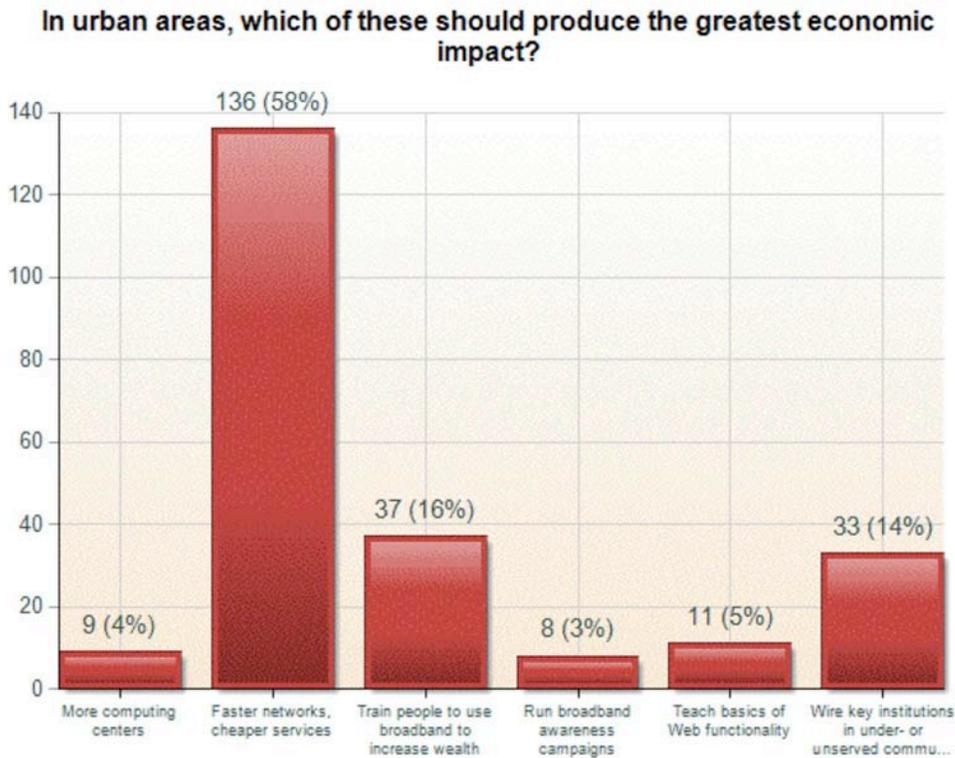
The first question tackles head on the issue of whether having a goal for rural communities that is only 4% as fast as the FCC's goal of 100 Mbps for the rest of the country. The two sentiments that captured the lion's portion of agreement are: 1) it takes too long to reach a goal that is too low to meet economic development needs (41%), and 2) if communities pursue this goal, it should be seen only as a stepping stone to more useful speeds (37%).

Feedback to the second question goes sharply against commonly cited solutions to the digital divide in urban areas: increase 1) computer centers, 2) awareness about broadband's value and 3) computers for home use. However, for almost 60% of respondents, the path to economic advancement for urban constituents is to give constituents faster networks for cheaper rates. It is the combination of the two, not just access that is considered critical.



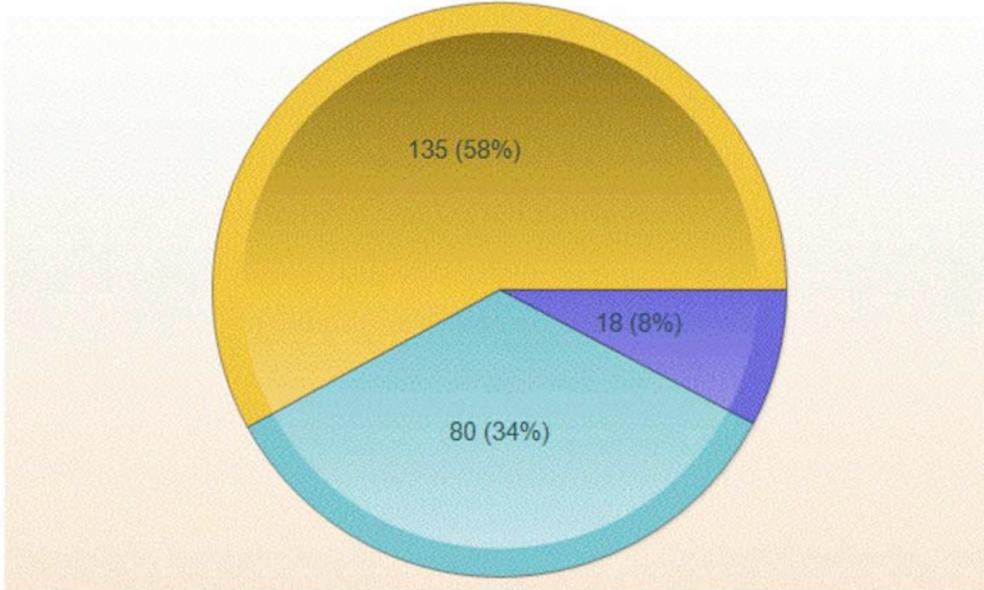
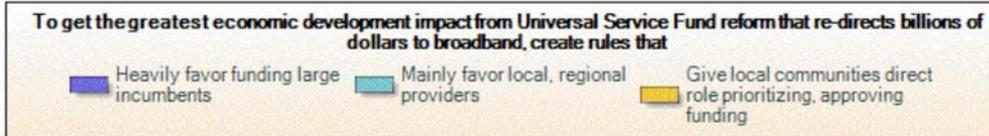
20. In urban areas, which of these should produce the greatest economic impact?

The second most popular tactic among respondents (getting support from 16%) is to train low-income constituents how to use the Internet to create wealth. Basic awareness campaigns and computer hardware/software training garnered low interest. A sizable block of respondents (14%) support the wiring of more institutions, a tactic that received a boost from the FCC as they updated their eRate program to let schools and libraries become access providers for their neighborhoods.



21. To get the greatest economic development impact from Universal Service Fund reform that re-directs billions of dollars to broadband, create rules that:

Universal Service Fund (USF) reform holds the potential \$3 or \$4 billion in “new” money for broadband, so it was important to have a question address this topic. 58% of respondents favor the seemingly rarely discussed option of having local communities play a key role in approving how and where monies get allocated. A substantial 34% prefer that USF money go to local companies rather than large incumbents.

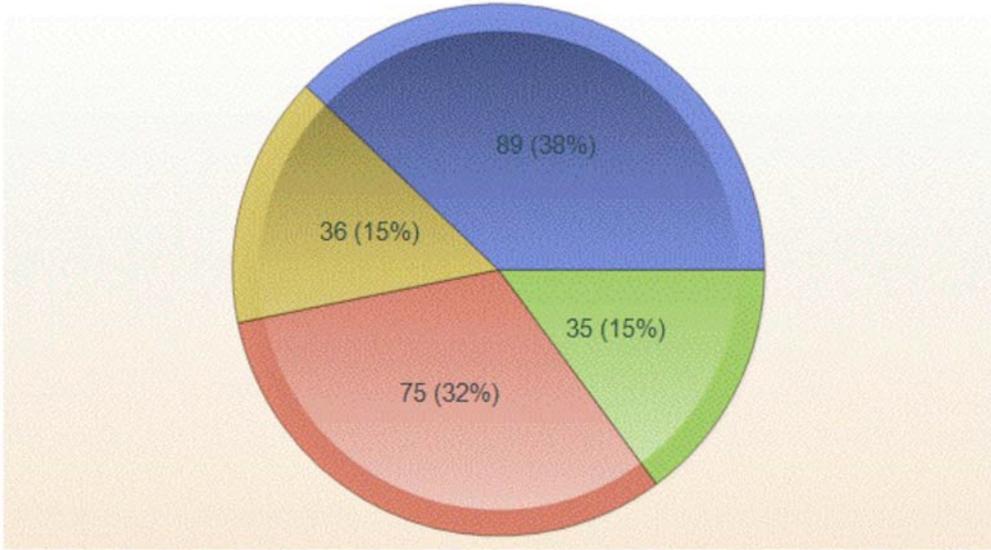


22. Some claim that creating consumer-protection regulations on Internet access providers will lead to major negative economic outcomes. What's your perspective?

Much has been made of how the FCC’s attempt to regulate Internet access providers in the interest of consumers will cause economic catastrophe, including massive job losses. A majority of the people surveyed who make their living in job creation do not share this sentiment. 47% believe you can pass regulations to protect consumers without endangering jobs, and even if there are job losses for incumbents, local economies will not be damaged. Another 38% believe that until there are actual rules to review, it is not even possible to have a credible conversation to come to a negative conclusion.

Some claim that creating consumer-protection regulations on Internet access providers will lead to major negative economic outcomes. What's your perspective?

- Any regulation is bad news for job creation
- Consumer protection regs and job creation are not incompatible
- May hurt some providers, won't hurt local economy
- Without specific rules, can't answer the question



23. How can you and your professional peers help communities get broadband services that improve local economic development?

This survey, as previous surveys have done, ends with an open-ended question that respondents could answer if they wished. This year's we decided to present all of those responses, as written, so readers can get a true sense of what those driving economic development in their communities really feel is needed in order to get effective broadband to those who need it most.

1. I think the key is question #20 - teaching or helping local business and/or entrepreneurs to understand how broadband can help increase their success/wealth. Once that is understood, the demand from the business sector will give decision makers the courage to undertake what can be a very difficult and contentious process.

2. Bat the tetherball -- get existing fiber providers to expand footprint, get community institutions to share what they have

3. The smart grid, public safety and transportation applications are the three industries that that will push the need for municipal and county wireless broadband networks forward. Public agencies must securely share and consolidate all existing communication infrastructure while looking for a private sector partner to manage and operate the network. A public private model with separate security and priority access offers the critical mass and revenue sources needed to support these networks.

4. Local communities should look at broadband and specifically fiber as standard infrastructure investments - no different than building roads and bridges. Run the local fibre network as open-access, and allow any and all private operators to access the networks to provide services. This public funding would help connect underserved, local/rural communities to larger service providers.

5. Three areas are important: 1. Universal Broadband Access 2. Training to use it 3. Tools and Technology to connect community within and without. We created a community ISP when there was none (now there are several). We provided training on the use of the Internet and we developed a community network with free service in 1994 using community foundation funding. The organization now include our community cable and radio as well as broad band services using our community fiber network (municipally owned). Broadband is like any other infrastructure and needs to be a community owned asset like roads, sewer, water, electricity, etc. Provide the path but let private vendors provide the services on it.

6. Too many people look at the major incumbent providers as a "utility"...they are more than that. Additionally, the incumbent providers have to change their public policy models and help communities prepare for the future.

7. You must first access the communities true needs for broadband and what impact that may have. Then help the community create public/private partnerships to fill that need.

8. Focus

9. Have to get the government to stop mortgaging our future to buy votes first. Then, a detailed, serious broadband development strategy must be devised among local, regional, and state stakeholders.

10. The infrastructure for improved broadband needs to be coordinated with other planning and development, especially in urban areas. A simple sidewalk improvement project that is done

independently can cost the opportunity to upgrade underground fiber while the ground is excavated. More efficient, comprehensive and integrated infrastructure planning can stretch dollars further. This includes facilitating partnership agreements among existing utilities and sharing space. It's important to lower the initial costs for the service provider AND make sure that those up front savings extend to cheaper costs for businesses.

11. Maine is historically a manufacturing state from woolen mills to pulp mills. The oldest labor force in the country as well. It will take education, awareness and training to make the leap and encourage broadband utilization and appreciation.

12. Spend time and effort getting better service provided with local private firms and support the development of additional capacity as quickly as possible.

13. We must continue to strive to provide Broadband access to rural and less-urban regions if they are going to be able to compete and even survive.

14. Private CLEC that does not provide DSL creates serious issues for suburban city just outside city served by different CLEC that does provide DSL within that city.

15. Open discussion with private provider and community. Openly discuss the needs, wants and desire, work collaborative to achieve the desired outcome and provide a structure that is a win-win for all participants.

16. Too many rural locations still have no internet access. Available in some locations and not in others.

17. Create collaborative platform to explore options and implement actions. Some states and regions are already working with a similar approach.

18. Create dialog with local government IT professionals and private sector providers on collaboration efforts to strengthen efforts to expand and increase speed of broadband.

19. Broadband is generally readily available in our area on a subscriber basis. And for those who desire access to broadband but can't afford to subscribe, our public library branches provide free access. There is still an educational gap to overcome, however. More and better training on how broadband can be a major asset in starting and sustaining an enterprise is a key.

20. I believe that most communities and areas in this region are served by some ISP.

21. Our region needs more access in the smaller towns and rural areas. Just because you don't prefer to live urban should not mean you don't have access to the full capabilities of the internet.

22. Last mile initiative designed to wire extreme rural areas have marginal impacts on economic development

23. Rural communities offer a great deal from a quality of life perspective. Greater broadband service would narrow the gap between rural and urban availability.

24. It would be unacceptable to allow federal broadband policy to create a major new digital divide by requiring one level of service in urban areas and a lower level in rural areas. This policy would serve to keep many rural areas of our country even further behind economically. Would we expect urban areas, for example, to have full-time electrical service while allowing rural areas to have rolling blackouts???

25. More provider choices, reliable networks and affordable service.

26. Keep the pressure on to provide more broadband services to all.
27. We need to work closely with companies who provide services to get out to our areas and set up lines of services. In addition, it may be helpful to go to businesses located in regions to ask them to pony up cash to offset the cost of bringing broadband, fast speed, to a region. If the cost is subsidized by the community and the provider, they may be willing to pay into the pot to make it happen. They are in rural Michigan....
28. Provide an IEDC Broadband group/blog site for those wanting to learn what is going on in other small rural local communities. Seems like we spend a lot of energy and time to just find out that we don't have what it takes, or know really how to "get there" without committing to a \$30m price tag.
29. First of all, be involved and informed on the issues. Leverage regional and state resources for broadband mapping, identifying regional priorities and acquisition of funding. Advocate locally for implementation and support programs. Inform businesses and prospects of this activity. Label your community as tech ready and friendly. Carry the message.
30. Very important tool in overall business development strategy
31. The whole of Montana is rural and underserved. We seem not to even have the population to be considered for broadband improvements. Our Indian Reservation and the depressed areas around them would greatly benefit and it would be a quick turnaround.
32. The broadband services currently serving our community are extremely limited. I would like to see more competition by private industry so we can increase our infrastructure capacity.
33. Broadband services should now be regarded as important as water, sewer, etc. Less densely populated areas are not on the priority list for private providers. Therefore, the economic development practitioner must foster partnerships between the private and public sectors to enable broadband services. It is our belief that appropriate deployment of broadband will increase literacy rates, small business formation rates, PC ownership per capita rates, and will be attractive to business. We have seen in our community how data centers, as part of other corporate operations, have been relocated to enable the rapid upload and download of extensive engineering designs, blueprints, and global conference calling.
34. Make it easy for small towns to understand their power and their ability to provide high speed internet access, and the implication it can have for their businesses and their future economies. Owning and/or operating a municipal utility whether alone or in partnership with a private provider is a fabulous way for a small community to provide a great service to their residents and businesses but they are afraid that it sounds too daunting and administratively cumbersome. It needs to be easy to manage, and easy to sell the concept to local elected officials in conservative communities.
35. Get local, state and federal representatives to focus on the issue as job creation/econ. development initiative. Too many representatives don't understand broadband or wireless - many are completely out of touch with econ. value of broadband
36. By establishing a baseline/standard provision of service just like other utilities and working towards every community having that level.
37. Let the communities run their own show. They know what their communities need and have a better understanding of can really help themselves. Give them the service and let them work it out.

38. Ubiquitous broadband service is essential economic development and future educational opportunities. In underserved, rural communities, the economic development offices should make this issue an absolute priority. Regional networks can make all kinds of sense...and can be paid for with user fees.

39. Some say that broadband is old technology - that "ethernet", which utilizes fiber optics, is the best option for our community.

40. Commit the resources and build a fiber backbone which will bring in competition.

41. Not necessary in urban areas, only needed in smaller rural areas.

42. I would like to see the Fed get involved and incentivize the providers to lower the cost and level the playing field.

43. Make it a regulated right like electricity

44. It is most important that there is a level playing field with respect to the broadcast and accessibility to information and communication. Whenever and wherever these are not "protected" and provided for the rate at which economic development will occur is negatively impacted.

45. Most ED Pro's don't see IT Broadband service as infrastructure as important as water, sewer, roads, airports etc. Currently attempting to get a regional group of counties together to address rural and urban service issues. Too much to do with little resources to do it.

46. Build collaborative partnerships with middle and last mile providers to build an infrastructure that makes sense for immediate and long term needs. Engage local business & industry in the discussion to insure their needs are met.

47. Let the communities make the decision!!!!

48. Well done survey, but missing the essential key: Demographics of the respondents. How are we to interpret the results if we don't know much about the responders?

49. To be honest, I have never contemplated the question. Our community's needs are largely served by free-market providers.

50. We have already been involved (successfully) in supporting/lobbying for federal assistance to build a high speed network.

51. Reliance on the private sector and limited-bandwidth technologies for the provision of broadband will severely limit the prospects for underserved communities. Our big local businesses are telling us they can't afford more bandwidth, but need it desperately. They can't attract qualified workers to the area, because the surrounding towns where people want to live have spotty DSL and wireless service, and even those that have these types of broadband are now complaining about slow speeds. This lack of access to abundant and affordable broadband is hurting our businesses, especially those reliant on technology, who are positioned to grow and employ more people. No new businesses are looking to our area, because we don't have fiber to the premises. And we have the largest percentage of home-based businesses in our State, that continue to be disadvantaged by higher costs, lower productivity and less access to business opportunities than businesses in suburban and urban areas. We are proximate to many high-tech industry areas and have an enviable quality of life year round. We have a significant second home population eager to telecommute or perhaps move full time to the area to start a home-based business. None of these opportunities can be realized until we get a robust, high capacity, universal fiber network for our region. Fortunately, the State is building a robust middle-mile

network, and we have a community organization, WiredWest, working to build a municipal last-mile FTTH infrastructure for the region. We believe this solution is necessary to maintain and improve economic development and the quality of life so many of us have come to treasure in Western Massachusetts.

52. More P3s needed, to make this happen in a quick and cost efficient manner

53. Develop a task force to examine the issue and determine the benefit and need in your local area. Once that is determined, link economic development officials with business leaders to determine the best route to succeed with your mission.

54. More Funding for incentives to serve the unserved and fill in the gaps in service areas.

55. Agree that increasing the broadband services will automatically boost the economy at least in my community especially when many small businesses are offering wi-fi etc.

56. Bring major customers, private and public sector, together to use purchasing power to change provider behavior or to attract new providers. Focus on users - developing entrepreneurs

57. I hope those who will be in charge will know what they are to accomplish for the betterment of not only the large areas but especially the rural areas. Farming is a large business within the United States and they must have these services as much as the large companies who can more than likely afford to pay for it.

58. The key we found in rolling out our 900 mile, 144 fiber backbone, world class system in Virginia is to stay on the wholesale side and empower to local ISP's, WISP's and other providers on the retail side. The whole object is to provide world class telecom infrastructure at a competitive price through competition. In rural areas the fundamental reality not only is access a barrier but also price plays a major role in the uptake of the service. To have a successful project you have to have the backbone fiber to empower the large and small players where they compete on a level playing field on price and service. Not on who controls the infrastructure and charge accordingly. Mid-Atlantic Broadband Cooperative has the good fortune to be the recipient of 2 stimulus grants totaling over \$20 million dollars to further expand into underserved localities so that every workforce centers colleges and K-12 has a direct fiber connection and be on network. As a not-for-profit cooperative we are driven by our member owners in other words from the bottom up. We are now cash flow positive and continue to add additional services for our members that is unheard of in rural America. The proof is in the network. We have attracted 2 major data centers the latest being \$500 million dollar Microsoft GenIV center in rural Mecklenburg County. This is there latest and most advanced data center with 2 expansions already being planned. The whole concept literally was to build it and they will come. All investments have been paid back and the network will continue to build upon itself as time passes.

59. Our rural county in Northern California is so underserved by broadband its absurd. Nearly 1/2 our residents rely on dial-up service, AT&T copper is so poor they are lucky to get 20-30 KBs. Ridiculous in this day and age and something needs to be done about it!!!

60. start to level the playing field in terms of information out there -- for example, most people (even the younger ones) do not know the difference between a bit and a byte so speed over the wire becomes something more like a shell game when vendors are promoting their particular network -- education is key -- encourage local development as a means of 'working from home' -- This would benefit both employers and employees -- Rural areas are the hardest hit when it comes to high speed availability so perhaps encouraging private development in areas with limited population even to the point of grouping that population within certain geographic bounds would take the onus off a larger firm that would have higher overhead and might be able to compete as effectively as a smaller organization would.

61. Developing open access networks as a platform where operators and service providers can offer services and act as a platform for entrepreneurs.

62. No further comment

63. Private networks that deliver services between industry members can do so with security measures far greater than the public Internet can provide. Few Industries can afford such networks, but those that can include, state and local government, medical, public safety, military, FAA, electric smart grid, water utility, traffic, and emergency services

64. Market and educate your government, business and education leaders. Build groups to develop a plan and develop non-profits or agencies to carry out the mission.

65. Political action

66. Get involved - stay involved - educate.

67. Keep government out of broadband. Let the private providers make the service available. If it is not profitable, forget it.

68. So very disappointed with BroadBand Stimulus grant award outcomes in our area. The main winner was existing provider charging 4 times the rate of other areas, and now they will probably be the only game in town...

69. WiredWest is a group here in Western Massachusetts that is exploring how to build a municipally owned, open access, cooperative FTTH network that will provide connectivity to ALL residents and businesses that want it. If we have this kind of infrastructure, our area should blossom and achieve new growth and prosperity; without it we will stagnate and communities will die.

70. Existing utilities can use existing physical (poles, conduit) and legal assets (right of ways, easements) to support widespread deployment of infrastructure. This way heavy infrastructure costs (and demand satisfaction) can be spread amongst applications that can ill afford this capital investment by themselves.

71. high speed internet is an important tool in attracting new business to the community.

72. More access is a key to future growth in both rural and urban areas. Much like roads and rail connect communities to market the broadband connects us to the global market.

73. Simply help pay the existing private providers some of the expansion costs so it will be feasible for them to expand broadband services in rural areas.

74. Continue to push for federal funding through infrastructure grants

75. The issue with local gov't rolling out wifi to citizens and businesses is the loss of utility fees. That source of revenue is significant for local governments, so there is a reluctance to publicly own or partner on municipal broadband or ppp broadband.

76. Local governments need to be given assistance to provide community wide service where the private sector is not willing to extend service or provide subsidies to low-income residents. I live and work in a rural area. Under the current business model for private providers they will never provide service to vast areas of my County. Without subsidies, the cost of extending service will always outweigh the revenues they can collect (We still have large areas that are not covered by cable tv) The other issue is many of our residents cannot afford the current costs even if available. When we had a huge spike in layoffs 18 months ago it became very apparent what the

lack of service caused. Use of public computers soared to the point people could not be accommodated. Most models and rules I've seen discussed will not work in truly rural areas.

77. Encourage completion of extremely high Broadband capabilities throughout the community.

78. Build local networks where infrastructure is owned by the community and partner with a cooperative to allow "open access" last mile service providers to benefit from community-owned infrastructure.

79. Start small ensure its a success story. Run it like a business, i.e. it should have a self-sustaining goal. Leverage all community assets (money, people, business community, physical assets) possible. Put someone responsible for its success, someone with demonstrated capabilities and support them.

80. Lack of broadband in the past year has directly impacted local business development, startups and retention

81. It remains a struggle, but communicating the benefit of technology utilization to elected officials, citizens and local business so that adoption rates rise and public participation becomes feasible should be a priority.

82. Thanks for doing this presentation. Best of luck at the IEDC conference.

83. It seems to me that the government's attitude towards broadband to rural areas will be the panacea for economic development. I disagree. And the amount of federal funds spent to that end has awful cost/benefit result, for a number of reasons. I work for a small rural telephone company with 3 exchanges and a cellular company interest. We connected our 3 exchanges with 72 miles of fiber, all planned, engineered, constructed and otherwise implemented in-house, at a cost of about \$10,000 per mile. We needed to make that connection to sustain our business.

A quasi-governmental federal grant recipient, that constructed a fiber ring to connect rural communities, many of those communities already served with broadband, spent about \$30,000 per mile. That cost was justified by the grant recipient by having to hire consultants and engineers to plan the project, acquire easements, design the project, obtain the necessary permits and perform construction engineering. Another reason that was used to justify the increased cost was having to comply with the federal prevailing wage act.

I do not believe that broadband in rural areas provide much towards economic development. Something like 95% of the American population lives in urban areas, leaving 5% in rural areas. In our rural area, the major industry is agriculture. It's true that broadband helps farmers monitor commodity prices and improve their respective balance sheets. And insurance agents and lawyers benefit too. But broadband will not be the major impact on rural economic development, in my opinion.

Policies can adopted that will require and/or encourage incumbent rural telephone companies to provide broadband service to all customers. The existing policies are just wrong headed, established by governmental wonks that believe that the government is the best entity to provide communications and health care. Neither broadband policy nor health care policy will fill the pantry, warm the house or clothe the body. What is needed is a redirection towards manufacturing consumer goods, food stuffs and sustainable energy products.

84. Get out of the way. firewall between regulators and bureaucrats and the entrepreneurs that need to do this.

85. Broadband is a necessity in our world today. Having it available to all communities - no matter how fast/slow it is - is an economic boost. The global economy isn't stopping to allow those

communities who don't have broadband to catch up, they are running ahead and not looking back. It's all about awareness...

86. Broadband is the key infrastructure. We have Mediacom offering basic at \$50, 50@100, and 105@150. Also, a few munis in larger cities that are doing fttt at slower speeds. We need fed \$ to 1) buy existing state owned fiber as backbone, and 2) develop a regional b'band system that is owned by a regional non profit and operated by a for-profit. We need higher speeds/capacity, universal access, at lower costs. High sense of frustration that rural is getting all the attention, and in metros, the big incumbents with \$ for engineering studies, etc have the edge. And no one is paying to community/neighborhood wireless. Frustration!

87. Rural America will remain at considerable technology disadvantage without some compelling legislation or leadership on the issue that provides for a minimum level of broadband service.

88. for congress to view broadband as an essential national need and provide funding to ensure this necessary utility is provided nation wide and at speeds and cost comparable with the rest of the civilized world - we are falling behind every year

89. Give Access to everyone and make it affordable

90. Vermont has a plan to achieve 100% access. Today we only have a bit under 80%. The last 20% is of course the most expensive. Our power companies are initiating a smart grid, currently out to the elec. substation in each town. They will have excess capacity and will resell that at the substations. They need to find retail service providers to extend to the consumers' homes. A Stimulus grant to several providers will build middle mile to anchor institutions. Comcast and FairPoint are building out but not into the really rural areas. A small regional independent land line company has received a large Stimulus grant to build enduser infrastructure. They plan to use towers and their 700 megahertz spectrum to build out a wireless network from the anchor tenants and 95% of endusers. The balance will have to be taken care of by femtocells or an other invention that may prove viable by the time the network is built out. Then the schools, medical centers, senior centers, state gov't and power companies will pay a bit each to reach their customers making the cost to the enduser reasonable. IF all goes as envisioned.

91. Look around the world and understand that the USA lags way behind other nations, and that will affect our ability to lead the world economy. Let's invest now, in players who can immediately upgrade their networks, to expand broadband and develop new applications rapidly.

92. Poor people, especially, are vastly uninformed about the potential for economic self-improvement and happiness that comes with broadband availability for all citizens in the community

93. large private providers are only going to supply if they see a return on the investment. Co-op deals with local gov't can offer "best bang for the buck"

94. It is well known that countries with faster, cheaper internet access, are outpacing and out competing the U.S. We have improved our speeds by 10 % over the last 10 years. That's ridiculous. Other countries are at or exceeding 100Mbps, while we languish at 10 and sub-20's. We can Not compete with this. And there is NO push from the Feds to do better, despite spending millions on Broadband Stimulus.

95. Be advocates at all levels of government.

96. Communities need to understand the economic development value and businesses need to understand how broadband can be used to grow and expand businesses.

97. We need the fastest system possible. We are a center for the CISCO Tele-presence research and we want to expand videoconferencing to all city businesses and users as quickly as possible. This will increase productivity and help us compete at a global level/

98. I want the government out of the business entirely. My plans to develop a privately funded free broadband wireless network were unattainable due to excessive government regulation. I will not revisit these plans unless the government reduces its regulations and influence over what providers at all levels do. We do not need "the Plan" or any other plan from the FCC, we do not need free government subsidized services, if the private market cannot bring it then we don't need it.

99. Bundle productive applications with service. Otherwise, service will be monopolized by entertainment, not business, usage (games, social networking, music, pornography, etc). Include ability/assistance in creating business web pages, for instance, or customized email. Partnership with an address provider (such as GoDaddy) could be helpful

100. Legislation that limits public-private partnerships or that restricts local governments from providing broadband services need to be universally repealed.

V. Conclusion

For several years, politicians with good intentions and even some broadband champions have reduced the role of broadband in economic development to sound bites. From this, policy decisions are being made that do not reflect the reality and the complexity of the technology or the solutions communities seek.

There's a lot to be said for the value of broadband in boosting local economic development. This report is just the tip of the iceberg. However, it is an important first step in what should be policy makers' top priority – getting a better understanding of the economic development needs of business communities and individuals as well as how broadband technology meets those needs.

In the next few days I hope to release a qualitative analysis report that explores in detail some of the issues and themes brought up in this survey. This is an opportunity for you to learn more about specific broadband tactics that get results, and get new perspectives on overcoming the challenges communities face putting these tactics into play.

Subscribe to, or check frequently, the blog *Fighting the Next Good Fight* (<http://roisforyou.wordpress.com>) in order to keep up with special reports and blog posts that address key issues related to the intersection of broadband and economic development.

VI. About Us

Successful.com is a consulting firm that helps public, private and nonprofit clients use broadband and other technology to reduce cost, improve operations and open new avenues to revenue generation. [Craig Settles](#), firm president and author of this survey report, has helped hundreds of organizations worldwide through his books, reports and consulting services.

The [International Economic Development Council](#) (IEDC) is a non-profit membership organization dedicated to helping economic developers do their job more effectively and raising the profile of the profession. When we succeed, our members create more high-quality jobs, develop more vibrant communities, and generally improve the quality of life in their regions.

Craig Settles is available for consultation to supplement this survey report, as well as on-site workshops and presentations to enhance the effectiveness of your broadband project team. E-mail (craig@successful.com) or call today (510-536-4522) for more information.