Broadband and Economic Development: The Real Deal

Broadband speed is critical, say economic development professionals working in the trenches. Many think the National Broadband Plan aims too low.

By Craig Settles ■ *Successful.com*

BROADBAND SUMMIT 2011 PROPERTIES
REBOUND . RECOVERY . GROWTH

April 27: Hear Craig Settles speak at the Broadband Properties Summit about marketing fiber networks to business customers.

Decision makers who make the go/no-go call on community broadband projects want quantifiable economic objectives to which they can hold someone accountable. Their constituents desire the same assurances and benchmarks to ensure accountability. This is where we face the biggest challenge in broadband: understanding what to realistically expect of the technology. Understanding what we can and cannot measure is equally important.

Every two years, the International Economic Development Council (IEDC) and I team up to survey economic development professionals and public officials nationwide to learn how broadband is impacting their economic development efforts. (The IEDC is a membership organization dedicated to helping economic developers do their jobs more effectively.)

This year, 301 individuals participated in the survey, and their feedback was particularly revealing. One sign of positive change is that those involved in economic development are seeing broadband's impact more clearly: The percentage of respondents who felt that specific economic results are difficult to measure dropped by as much as 60 percent since our last survey.

We've called the 2010 survey "The Real Deal" because it digs beneath the hype surrounding broadband's potential to influence local economies and extracts data from those who deal with these issues daily. Several of its findings argue sharply against the directions in which some government agencies, poli-

ticians and private telecom providers appear to be taking us.

For example, most respondents said the goals outlined in the National Broadband Plan were too limited to affect economic development. More than 90 percent of those surveyed found government-recommended goals of 4 Mbps for rural areas inadequate for impacting economic development outcomes. More than 55 percent said speeds of 100 Mbps (the FCC's goal for 100 million mostly urban and suburban households) or more were needed – but that they should be achieved within three years, not 10.

HOW BROADBAND CAN HELP

Respondents felt strongly that broadband could improve local economies both by attracting and strengthening businesses and by empowering individual residents. Seventy-seven percent of respondents believed the technol-

ogy could help harness home-based businesses into a strong economic development force, and 61 percent said broadband could influence underserved individuals to become entrepreneurs.

Confidence in private-sector investment in broadband was mixed. Thirty-seven percent of rural respondents said they did not have sufficient broadband to reach the economic outcomes presented, with more than half this group believing they may never have the broadband they need.

Fifty-eight percent of respondents from all areas believed Universal Service Fund reform should enable communities to determine where to apply the funds targeted to broadband. In addition, 50 percent said their communities should own broadband networks in whole or in partnership with private-sector companies, compared with 47 percent who felt broadband should be provided exclusively by the private sector.

About the Author
Craig Settles is president of Successful.com, a consulting firm that helps public, private and nonprofit clients use broadband and other technology. You can reach Craig at 510-536-4522 or by e-mail at craig@successful.com. Find out more about this survey on Craig's blog at http://bit.ly/94e8tL.

BROADBAND'S ECONOMIC IMPACTS

The survey asked about specific economic outcomes that politicians, broadband champions and media focus on. We distinguished between wireless and wired broadband (in particular, fiber) because the two have different impacts that are relevant to broadband strategy. Respondents were more likely to believe wired networks directly impact economic outcomes and were also more confident about communities' ability to measure the the outcomes of wired networks. These findings are consistent with both previous surveys.

Attracting new businesses is a popular justification for pursuing broadband, and for good reason: Many respondents saw positive effects for both wired and wireless broadband. (Other respondents said there was no impact, it was too soon to tell or the impact was difficult to measure.)

ATTRACTING NEW BUSINESS	Direct Impact	Indirect Impact
Wireless Broadband	36%	23%
Fiber Networks	55%	21%

On the question of **convincing businesses to stay in an area**, wireless networks were seen as more likely to have an indirect impact and fiber networks more likely to have a direct impact.

RETAINING BUSINESS	Direct Impact	Indirect Impact
Wireless Broadband	24%	33%
Fiber Networks	42%	29%

Improving the profitability and competitiveness of local businesses was also seen as more likely to be an indirect effect of wireless networks and a direct effect of fiber networks.

IMPROVING PROFITABILITY/ COMPETITIVENESS	Direct Impact	Indirect Impact
Wireless Broadband	29%	38%
Fiber Networks	40%	30%

Relatively few respondents said broadband helped **improve conditions in depressed business districts or residential communities**.

IMPROVING DEPRESSED BUSINESS DISTRICTS	Direct Impact	Indirect Impact
Wireless Broadband	13%	20%
Fiber Networks	20%	24%

IMPROVING DEPRESSED RESIDENTIAL COMMUNITIES	Direct Impact	Indirect Impact
Wireless Broadband	11%	19%
Fiber Networks	17%	21%

Respondents' assessments of broadband's impact on **individual economic development** – by improving job skills, ability to create wealth and so forth – fell somewhere in the middle ranges. Increasing the earning potential of individuals was the outcome that the greatest percentage of respondents felt would be difficult to measure.

IMPROVING WORKER TRAINING	Direct Impact	Indirect Impact
Wireless Broadband	23%	28%
Fiber Networks	31%	27%

IMPROVING INDIVIDUALS' INCOME	Direct Impact	Indirect Impact
Wireless Broadband	15%	22%
Fiber Networks	22%	29%

When results for respondents from rural areas were analyzed, the numbers in all categories were quite similar. If there was any noticeable difference, it was that respondents from rural communities were more likely to see indirect impacts rather than direct impacts of broadband. This suggests that broadband champions in rural areas should take care not to oversell the benefits that constituents should expect.

The question of which business model will best help broadband achieve these economic goals separated respondents into two camps: the 45 percent who said communities should own the broadband network in whole or in part and the 47 percent who believed the network should be owned and operated exclusively by a private provider. Another 6 percent believed a local co-op would be the most effective model.

BROADBAND SPEEDS NEEDED FOR DEVELOPMENT

An important question added to this year's survey addressed the issue of the Internet access speeds needed for broadband to achieve these goals. The answers to this question should help communities and policymakers determine whether to accept the FCC's 10-year broadband speed goals.

Policymakers should take note that fewer than 9 percent of respondents believed 2–4 Mbps by 2013 to be adequate for any of the top five economic development goals most commonly cited. This does not bode well for the FCC's goal of 4 Mbps downstream/1 Mbps upstream by 2020 for rural communities.

Equally telling are the percentages of respondents who said minimum access speeds must meet or exceed the FCC's goal of 100 Mbps to 100 million homes. To achieve any of the top five economic goals, at least 55 percent of respondents expected 100 Mbps or higher speeds to be necessary by 2013, a full seven years ahead of the FCC's 2020 goal.

Communities that hope to use broadband as an incentive to attract new businesses should note that 34 percent of respondents believed this requires a minimum of 1 Gbps speed.

SPEEDS NEEDED BY 2013 TO	2–4 Mbps	10–12 Mbps	20–25 Mbps	100–120 Mbps	500 Mbps	1 Gbps
Attract business	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%)
Make business more competitive	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%)
Improve training	14 (6%)	33 (15%)	48 (22%)	54 (24%)	40 (18%)	33 (15%)

BROADBAND AND PERSONAL ECONOMIC DEVELOPMENT

Improving education, improving job skills and transitioning to a preferred occupation may all be affected by broadband availability. When we asked survey respondents to rate which of these three outcomes was most impacted by broadband, 49 percent chose improvement in job skills, 28 percent chose transitioning to a new occupation and 23 percent chose reaching a higher educational level.

One policy option that is often overlooked is using broadband as a vehicle to encourage underserved individuals, including low-income, elderly and rural residents, to become entrepreneurs. Eighteen percent of respondents said they had firsthand experience with successful programs of this type; these likely represent a source of best practices for others. Another 43 percent said they believed this idea had merit, and another 19 percent believed such a program might work with support programs in place. This is an important finding; a community cannot simply install infrastructure and walk away, then expect to achieve the economic outcomes it desires.

There was even broader agreement about using broadband to make home-based entrepreneurs a major economic development force, with 52 percent of respondents calling this a likely outcome and another 25 percent citing personal experience in achieving this goal.

The survey returned to the issue of adequate broadband speeds, this time for personal economic development. Respondents felt strongly about the need for 100 Mbps as a minimum, with 62 percent saying that, by 2013, communities would need anywhere between 100 Mbps and 1 Gbps access speeds to achieve these goals.

We also asked respondents whether adequate broadband speed was available in their areas to achieve personal and general economic development outcomes today. I did not tackle the question of affordability or quality of service, mainly in an effort not to make an already lengthy survey more burdensome.

Although 49 percent of respondents indicated they had one provider with the speed necessary to achieve these economic outcomes today, only 18 percent of total respondents said they had two or more providers offering adequate speeds.

For the 49 percent of respondents with a single high-speed provider, whose markets may be incapable of supporting a second competitor, the lack of competitors able to match speeds puts little pressure on the provider to lower prices.

A full 25 percent of respondents had no provider capable of delivering the speeds necessary to achieve economic development objectives, and half of this group had little hope of getting sufficient broadband service.

NATIONAL BROADBAND POLICY

This component of the survey was added this year. With several important policy battles going on, it seemed fitting to have some input from people who are on the front lines working for economic advancement.

When we asked for opinions about the FCC's goal of 4 Mbps/1 Mbps broadband speeds by 2020 for rural communities, most respondents were dismissive. The two most frequent answers were these:

- It takes too long to reach a goal that is too low to meet economic development needs (41 percent).
- If communities pursue this goal, it should be seen only as a stepping stone to more useful speeds (37 percent).

We also asked what approach would have the most effect on economic development in urban areas. Close to 60 percent of respondents answered "Faster networks and cheaper services." None of the commonly cited solutions to the urban digital divide – more computer centers, broadband awareness training, digital literacy training – was regarded as particularly important. The second most popular answer, with 16 percent support, was to train low-income constituents to use the Internet to create wealth. Third, with 14 percent support, was to wire more anchor institutions, a

Among economic development professionals, the broadband policy most often recommended for urban economic development is "Faster networks and cheaper services."

policy encouraged both by the BTOP stimulus program and the FCC's recent changes to the E-Rate program.

Universal Service Fund (USF) reform holds the potential to direct $3 billion or $4 billion to broadband, so we felt it was important to address this topic. Fifty-eight percent of respondents favored the rarely discussed option of allowing communities to play a key role in allocating USF monies. A substantial 34 percent preferred to direct USF monies to local and regional providers; only 8 percent favored directing funds to large incumbents.

In recent months, many observers have predicted that the FCC's attempt to regulate Internet access providers in the interest of consumers will cause economic catastrophe, including massive job losses. However, most of our survey respondents, who make their livings in job creation, do not share this opinion. Forty-seven percent said it was possible to pass regulations to protect consumers

Communities should play a key role in allocating Universal Service Fund monies, according to three out of five of the economic development professionals surveyed.

without endangering jobs, or that even if some providers are hurt, local economies would not be damaged. Another 38 percent said that without actual rules to review, no conclusion could be drawn.

WHAT CAN BE DONE?

This survey, like our previous surveys, included an open-ended question that respondents could answer if they wished. We asked, "How can you and your professional peers help communities get broadband services that improve local economic development?"

Here are a few of the answers respondents provided.

Work with businesses.

- Teach local businesses to understand how broadband can help increase their success. The demand from the business sector will give decision makers the courage to undertake what can be a very difficult and contentious process.
- Provide more and better training on how broadband can be a major asset in starting and sustaining an enterprise.
- Ask businesses to pony up cash to offset the cost of bringing broadband to their regions.

One respondent's suggestion: To install fiber with less expense, coordinate trenching projects with government and utility projects.

- Bring major customers in the private and public sectors together to use purchasing power to change provider behavior or to attract new providers. Focus on users such as developing entrepreneurs.
- Ask existing utilities to use their physical assets (poles, conduit) and legal assets (rights-of-way, easements) to support widespread deployment of infrastructure.

Work with providers.

- Help the existing private providers pay some of the expansion costs so it will be feasible for them to expand broadband services in rural areas.
- Get existing fiber providers to expand their footprints; get community institutions to share what they have.
- Keep the pressure on to provide more broadband services to all.
- Require or encourage incumbent rural telephone companies to provide broadband service to all customers.

Work with government.

- Be advocates for broadband at all levels of government.
- Repeal legislation that limits public-private partnerships or that restricts local governments from providing broadband services.
- 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.

- Run the local fiber network as open access, and allow any and all private operators to access the networks to provide services.
- Lobby for federal assistance.
- Use federal assistance to buy existing state-owned fiber as backbone and develop a regional broadband system that is owned by a regional nonprofit and operated by a for-profit.
- Develop regional networks paid for with user fees.
- Require public agencies to share and consolidate all existing communications infrastructure (for example, for smart grid, public safety and transportation applications) while looking for a private-sector partner to manage and operate the network.
- Coordinate infrastructure for improved broadband 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.
- Establish a baseline or standard service, just like other utilities, and

work toward every community having that level.
- Make it a regulated right, like electricity.
- Provide more funding for incentives to serve the unserved and fill in the gaps in service areas.
- Reduce government regulations and influence over what providers at all levels do.

Foster collaboration.

- Assess the community's true needs for broadband and what impact that may have. Then help the community create public-private partnerships to fill that need.
- Build collaborative partnerships with middle-mile and last-mile providers to build an infrastructure that makes sense for immediate and long-term needs. Engage local business and industry in the discussion to ensure their needs are met.
- Educate government, business and education leaders. Build groups to develop a plan and develop nonprofits or agencies to carry out the mission.

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. As a result, policy decisions are made that do not reflect the reality or 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 step in what should be policymakers' top priority – gaining a better understanding of the economic development needs of business communities and individuals as well as how broadband technology meets those needs.

Broadband policy decisions do not always reflect the reality or complexity of the technology or the solutions that communities seek.

Appendix

SURVEY PARTICIPANTS

We e-mailed surveys to approximately 4,500 IEDC members and several hundred city administrators, managers and staff. A total of 301 professionals participated in the survey.

Participants were mostly presidents or senior administrators (36 percent) and managers (27 percent), along with 14 percent staff and 14 percent consultants. Thirty percent of respondents worked for economic development departments or agencies, 19 percent for local or state government in another department and 13 percent for nonprofits that address economic development issues.

In terms of the areas they served, 29 percent represented cities and towns, another 23 percent served counties and 21 percent worked for larger regions within a state. Almost 9 percent had responsibilities that covered the entire United States. We categorized the areas they served as urban, suburban rural, or a combination. Twenty-two percent of respondents represented rural communities, 10 percent represented combined suburban and rural areas, 24 percent represented urban or combined urban and suburban areas and 32 percent served combined rural, suburban and urban areas.

AVAILABLE BROADBAND NETWORKS

Wireless: Seventy-eight percent of respondents reported that their service area had at least one private-sector wireless broadband network. Nineteen percent reported citywide or areawide wireless community networks that offered services to all constituents, and another 27 percent reported limited-reach wireless community networks with coverage restricted mainly to downtowns and business districts. (We defined community networks as those run by local government, public utilities or community stakeholders.) Municipal wireless citywide or areawide networks used just for government purposes are still popular, with 15 percent reporting these. Eighteen percent had wireless networks

Many economic development professionals did not know whether community broadband networks were being planned. Broadband advocates need to keep them in the loop!

run by public-private partnerships, and 8 percent had networks run by co-ops. (Wireless and wireline networks both add up to more than 100 percent because respondents could select more than one answer.) About 20 percent of respondents from areas without community wireless networks reported plans to build such networks in the future.

Wired: Twenty-three percent of respondents reported citywide or area-wide fiber networks, another 23 percent had limited-reach community fiber networks mainly for the downtown areas and 24 percent had citywide cable networks. Sixty-nine percent reported

privately owned broadband networks, and smaller numbers reported networks run by public-private partnerships and co-ops. About 18 percent of respondents from areas without community wired networks reported plans for building such networks.

A significant number of respondents in areas without community broadband networks – 21 percent regarding wireless networks and 28 percent regarding wired networks – did not know whether any plans existed to build such networks. This speaks poorly of broadband advocates and project teams that are not keeping these key people in the loop. **BBP**