



# NTCA 2010 BROADBAND/INTERNET AVAILABILITY SURVEY REPORT

January 2011

**DISCLAIMER:** Data from the survey has been presented as reported.

*To get more information on this report please contact Rick Schadelbauer at NTCA  
(703-351-2019, [richards@ntca.org](mailto:richards@ntca.org)).*

## TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	3
INTRODUCTION.....	4
OVERVIEW OF SURVEY.....	5
SURVEY RESULTS.....	5
CONCLUSIONS.....	13
Appendix A.....	14

## **FIGURES**

Figure 1. Technologies Used to Provide Broadband.....	6
Figure 2. Availability of First Generation Data and Broadband Service.....	7
Figure 3. Broadband Marketing Promotions.....	9
Figure 4. Barriers to Broadband Deployment.....	10
Figure 5. Offering Video Service?.....	11
Figure 6. Barriers to Video Deployment?.....	12



## EXECUTIVE SUMMARY

For the last twelve years, the National Telecommunications Cooperative Association (NTCA) has conducted its annual Broadband/Internet Availability Survey to gauge the deployment rates of advanced services by its member companies.<sup>1</sup> In the late spring and early summer of 2010, NTCA sent an electronic survey form to each of the companies in NTCA's email database; 115 members (23%) responded.

One hundred percent of the 2010 survey respondents offer broadband to some part of their customer base, compared to the 58% of the 2000 survey respondents who offered the then-lower definition of broadband service.<sup>2</sup> Respondents indicated that they use a variety of technologies to provide broadband to their customers: 94% of those who offer broadband utilize digital subscriber line (DSL), 68% fiber to the home (FTTH) or fiber to the curb (FTTC) (up from 59% last year and 44% the year before that), 20% unlicensed wireless, 13% licensed wireless, 8% satellite and 7% cable modem. Only 29% of 1999 survey respondents offered DSL service, and none offered wireless broadband. Sixty-two percent of survey respondents provide both DSL and fiber broadband service, while 32% offer DSL but not fiber and 6% fiber but not DSL.

Seventy-nine percent of respondents' customers can receive 200 to 768 kilobits per second (kbps) service, 77% 768 kbps to 1.5 megabits per second (Mbps), 75% 1.5 Mbps to 3 Mbps, 61% 3 Mbps to 6 Mbps, and 45% greater than 6 Mbps. The overall take rate for broadband service is 55%.

The typical respondent is 128 miles from its primary Internet connection. Eighty-nine percent of those who recently changed backbone providers did so for price reasons. Seventy-eight percent of respondents indicated they are generally satisfied with their current backbone access provider, while 14% are generally dissatisfied.

Ninety-eight percent of survey respondents indicated they face some type of competition in the provision of advanced services from at least one other service provider in some portion of their service area. By comparison, only 66% of respondents to the 2003 survey indicated they faced competition and only 43% in the 1999 survey. Current competitors include national Internet service providers (ISPs), cable companies and wireless Internet service providers (WISPs.) Respondents are taking numerous marketing steps to increase broadband take rates, including free customer premise equipment installation, bundling of services, price promotions, free modems, free

---

<sup>1</sup> Following the completion of the 2001 survey in December 2001, it was decided that subsequent Broadband/Internet Availability Surveys would be conducted in the first half of the year in order to capture year-end data. Consequently, no survey was conducted and no survey report published in calendar year 2002.

<sup>2</sup> For the purpose of this survey, broadband is defined as throughput of at least 768 kbps in one direction. Previously, the Commission had defined broadband as service of at least 200 kbps in one direction.



introductory service and free education and training. More than three-quarters of respondents find it difficult to compete with price promotions offered by competitors.

Sixty-seven percent of those respondents with a fiber deployment strategy plan to offer fiber to the node to more than 75% of their customers by year-end 2012, while 46% plan to offer fiber to the home to at least 50% of their customers over the same time frame, down from 55% last year. Deployment cost remains the most significant barrier to widespread deployment of fiber, followed by regulatory uncertainty, long loops, low customer demand, and current regulatory rules. Throughout the history of the survey, deployment cost has been respondents' most significant concern.

Fourteen percent of respondents currently offer voice over Internet protocol (VoIP) service, up slightly from 10% last year. Forty-seven percent of respondents not currently offering VoIP have plans to do so in the foreseeable future, down from 54%. Seventy-three percent of respondents offer video service to their customers, roughly unchanged from 75% last year.

## INTRODUCTION

In the summer of 2010, NTCA surveyed its members on their activities in the areas of providing broadband services and Internet availability to their members/customers. NTCA is a national association of approximately 575 local exchange carriers in 44 states that provide service primarily in rural areas. All NTCA members are small carriers that are "rural telephone companies" as defined in the Communications Act of 1934, as amended by the Telecommunications Act of 1996 ("Act"). Only four NTCA member companies serve 50,000 lines or more; the largest serves just over 90,000. Population density in most member service areas is in the 1 to 5 customers per square mile range. Approximately half of NTCA's members are organized as cooperatives and the other half are commercial companies.

This latest broadband survey is a follow-up to similar surveys conducted in recent years by NTCA, and seeks to build upon the results of those surveys.<sup>3</sup> This year's survey asked about technologies used to provide broadband service, broadband availability and subscription rates, prices charged, quantity and type of competition, broadband marketing efforts, fiber deployment, emerging technologies, Internet backbone connections, finance and availability of capital. The survey also provided an opportunity for respondents to provide any specific comments they wished to share.

---

<sup>3</sup> Copies of this and previous NTCA survey reports may be downloaded from the NTCA Web site, [www.ntca.org](http://www.ntca.org).



## OVERVIEW OF SURVEY

The 2010 NTCA Broadband/Internet Availability Survey was conducted online. Every effort was made to minimize the reporting burden on the survey respondents.

The survey was comprised of general questions about the respondent's current operations, competition/marketing and current and planned fiber deployment. Additional questions dealt with the Internet backbone, voice over Internet protocol (VoIP) and video. The survey also provided an opportunity for respondents to offer any miscellaneous thoughts.

## SURVEY RESULTS

The survey URL for each part of the survey was distributed via e-mail to all member companies in NTCA's email database. The message contained instructions for online access to the survey. Responses were received from 115 member companies, a 23% response rate.<sup>4</sup>

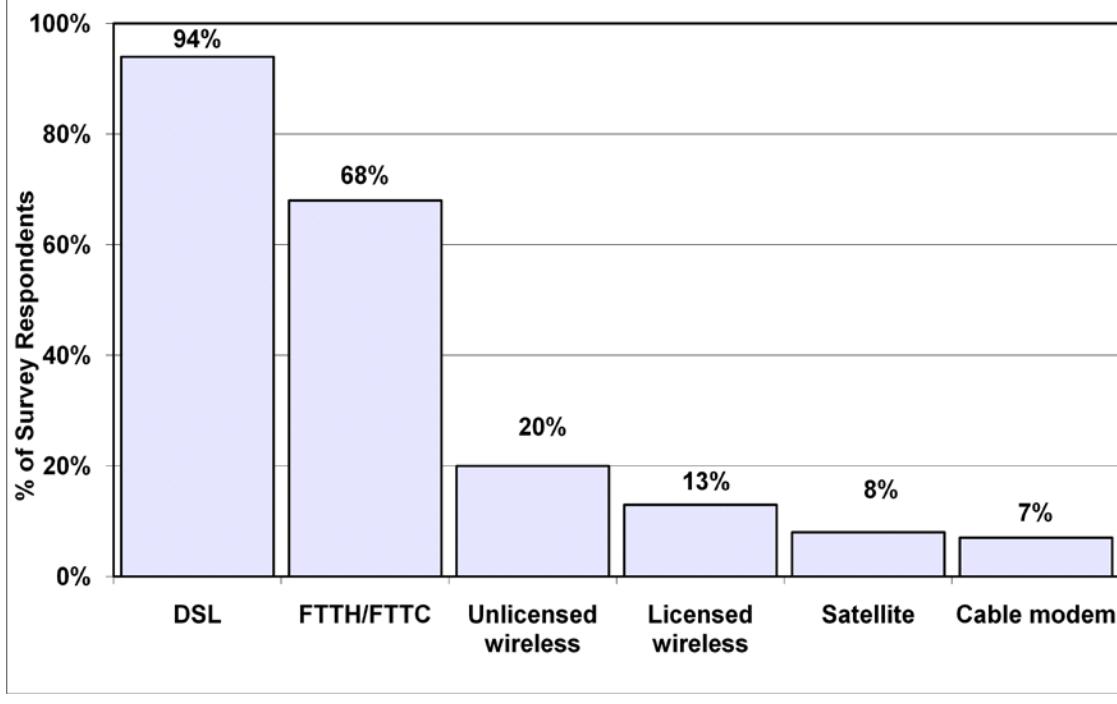
Forty-seven percent of survey respondents' service areas are 500 square miles or larger; 24% are at least 2000 square miles. Three-quarters—75%—have customer densities in their service area of 10 residential customers per square mile or less. Nearly one-third—31%—have customer densities of 2 residential customers per square mile or less.

---

<sup>4</sup> Based on the sample size, results of this survey can be assumed to be accurate to within  $\pm 8.0\%$  at the 95% confidence level.

The average survey respondent serves 4,566 residential and 797 business lines; a few larger companies skew these numbers upward, hence the median respondent serves 2,304 residential and 294 business lines. One hundred percent of survey respondents offer broadband<sup>5</sup> service to some part of their customer base. Respondents indicated that they use a variety of technologies to serve their customers: 94% utilize digital subscriber line (DSL), 68% fiber to the home (FTTH) or fiber to the curb (FTTC), 20% unlicensed wireless, 13% licensed wireless, 8% satellite, and 7% cable modem.<sup>6</sup> (See Figure 1.) Fiber deployment is up from 59% in the 2009 survey and 44% in 2008. Sixty-two percent of survey respondents provide both DSL and fiber broadband service, while 32% offer DSL but not fiber and 6% fiber but not DSL. Thus, one hundred percent of those respondents who offer broadband service include either DSL, fiber, or both among their service offerings.

**Fig. 1: TECHNOLOGIES USED TO PROVIDE BROADBAND**



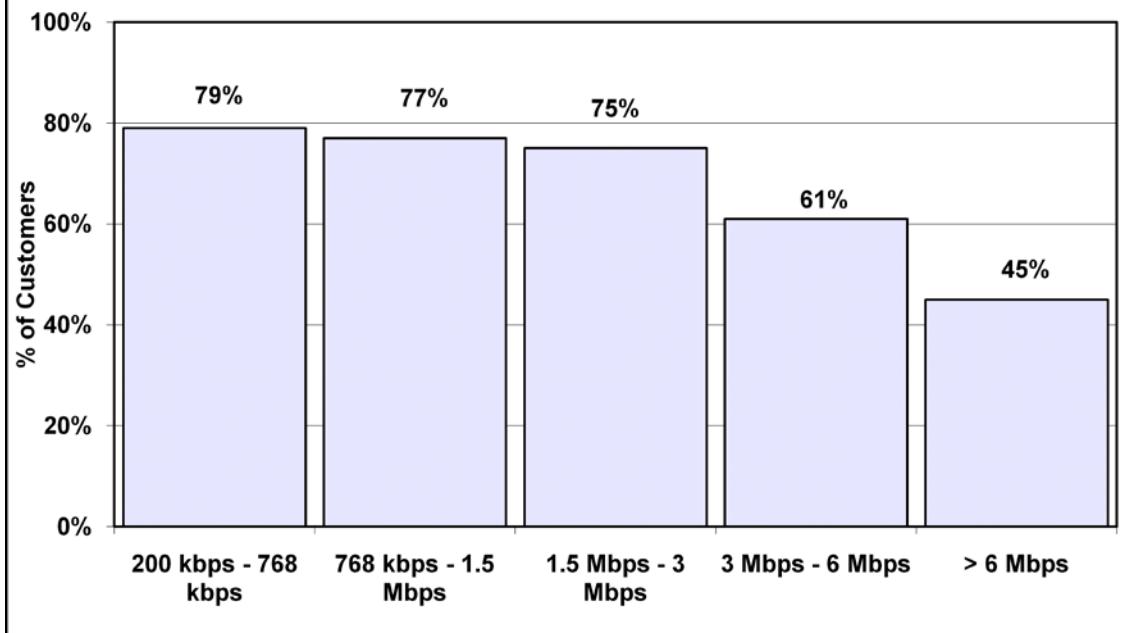
<sup>5</sup> For the purpose of this survey, broadband is defined as throughput of 768 kbps in at least one direction. This was the definition implemented by the FCC in 2008. According to the Commission, throughput speeds of between 200 kbps and 768 kbps are classified as “first generation data” and throughputs between 768 kbps and 1.5 Mbps are classified as first tier “basic broadband.” This report adopts those FCC conventions.

<sup>6</sup> Percentages sum to greater than 100% as some respondents utilize more than one technology to serve their customers. For example, a provider may utilize FTTC to serve some portion of its serving area, while relying upon copper plant and DSL technology to serve the rest of its customers.

Forty-seven percent of survey respondents are currently borrowing funds from the Rural Utilities Service for broadband deployment, 17% are borrowing from CoBank, and 8% are borrowing from the Rural Telephone Finance Cooperative.

Seventy-nine percent of respondents' customers can subscribe to 200 kbps to 768 kbps service, 77% to 768 kbps to 1.5 megabits per second (Mbps), 75% to 1.5 Mbps to 3 Mbps, 61% to 3 Mbps to 6 Mbps, and 45% to greater than 6 Mbps service. (See Figure 2.)

**Fig. 2: AVAILABILITY OF FIRST GENERATION DATA AND BROADBAND SERVICE**



Survey results indicate an overall broadband take rate from NTCA member companies of 55%.<sup>7</sup> Typical prices charged range from \$34.95 to \$44.95 for cable modem service, \$29.95 to \$44.95 per month for DSL service, \$39.95 to \$49.95 for wireless broadband service, and \$39.95 to \$54.95 for fiber service.

Forty-one percent of survey respondents indicated they offer their customers so-called “naked DSL”—DSL service without a voice component. Take rates for naked DSL service are extremely low, with the majority of those respondents offering naked DSL reporting take rates of 1% or less.

Fifteen percent of all respondents estimate that they could bring all of their customers currently receiving service below 25 Mbps up to that speed for \$1 million or less. An additional 30% could do so for between \$1 and \$10 million, 26% at a cost of between \$10 and \$20 million, 11% between \$20 and \$50 million, and 19% estimate the total cost would exceed \$50 million.

### **Internet Backbone**

The typical respondent is 128 miles from its primary Internet connection. Eighty-nine percent of those respondents who have recently switched Internet backbone access providers did so for price reasons, while 55% switched due to quality of service concerns and 13% for other reasons, such as obtaining diverse routing or gaining the ability to access the Internet backbone using Ethernet transport.<sup>8</sup> Seventy-eight percent of respondents indicated they are generally satisfied with their current backbone access provider, while 14% are generally dissatisfied. On average, survey respondents expect to require additional backbone capacity within 1.8 years.

### **Competition/Marketing**

Competition in broadband is becoming more prevalent and more varied: 98% of survey respondents indicated that they face competition from at least one other service provider in some portion of their service area. Survey respondents typically compete with national ISPs, wireless Internet service providers (WISPs) and cable companies. Other potential competitors include electric utilities, local ISPs and neighboring cooperatives. Forty-four percent of those respondents facing competition indicated that their competitors were serving only the cities and towns in their service areas, while 56% said that competitors were serving customers in other portions of their service area as well. Sixty-seven percent of those survey respondents with competition indicated that their

---

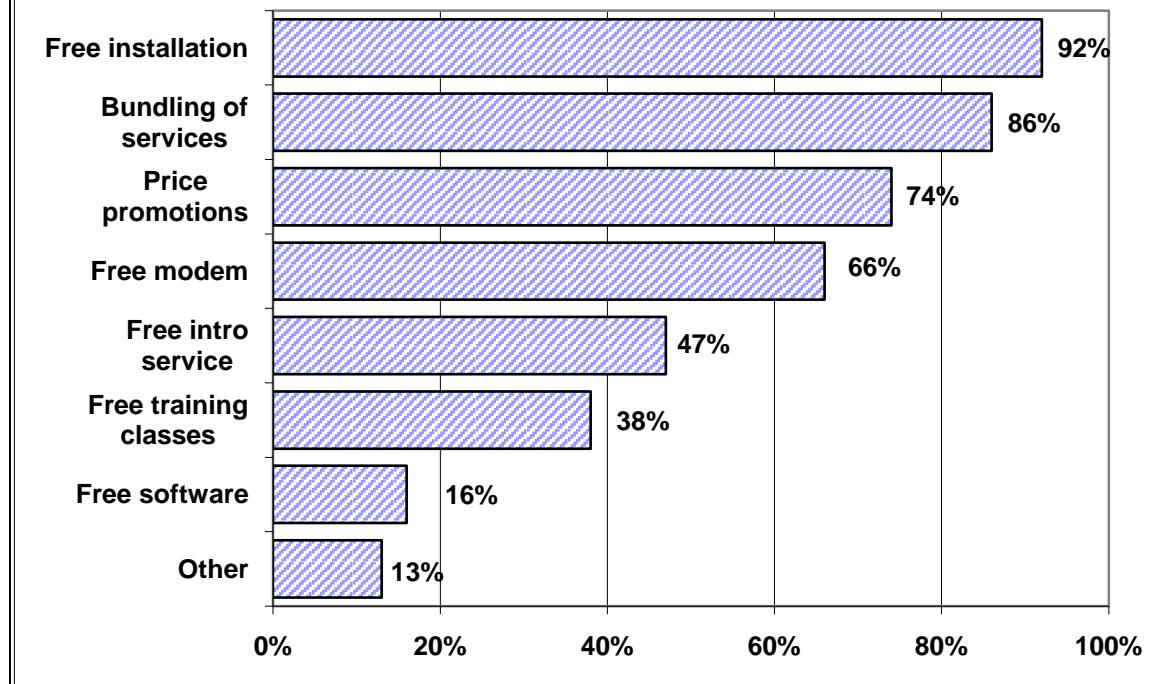
<sup>7</sup> Keep in mind that the take rate provided here is for customers taking service from NTCA member companies only. Actual rural broadband subscription rates are likely significantly higher, as survey respondents are joined by a variety of competitors in the provision of broadband services within their service area.

<sup>8</sup> Totals exceed 100% as respondents were allowed to select more than one reason for switching providers.

competitors were serving more than half of their geographic service area within two miles of a wire center, while 47% said that competitors were serving more than half of the geographic service area more than 5 miles from a wire center.

Rural ILECs are taking numerous steps in the marketing arena to increase broadband take rates. Ninety-two percent are offering free installation, 86% are bundling services, 74% are offering price promotions, 66% are offering free modems, 47% offer free service for an introductory time period (such as 30 days), 38% offer free education/training classes, 16% offer free software and 13% are offering other promotions, such as computer tune-ups, direct mail marketing, or bill inserts.<sup>9</sup> (See Figure 3.) Seventy-seven percent of respondents find it difficult to compete with price promotions offered by competitors, while 46% struggle to match competitors' service bundling. Respondents consider their bundling of services, free installation and price promotions to be their most effective marketing promotions.

**Fig. 3: BROADBAND MARKETING PROMOTIONS**



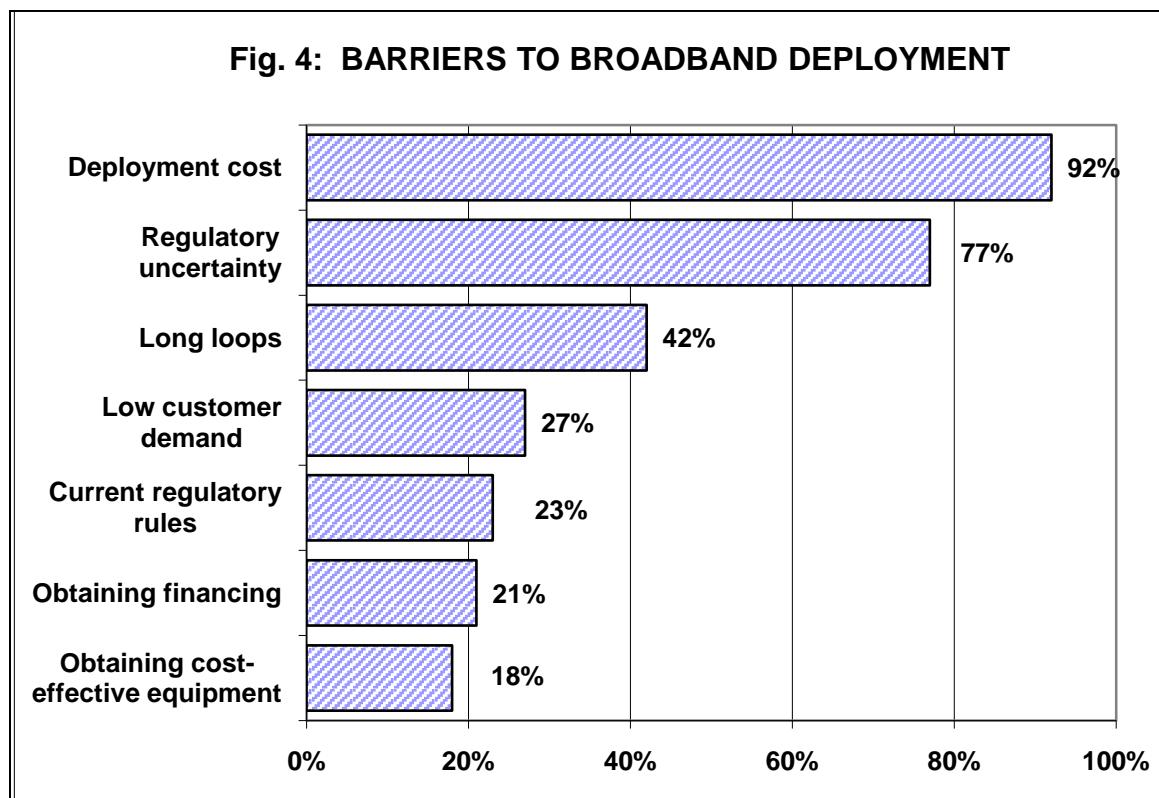
<sup>9</sup> Totals exceed 100% as respondents' companies may be offering more than one marketing promotion.

## Fiber Deployment

Twenty-five percent of those survey respondents currently deploying fiber serve more than 50% of their customers using fiber, while 59% serve 20% of their customer base or less.

Survey respondents described their companies' plans to deploy fiber to the curb (FTTC) and fiber to the home (FTTH) to their customers. Sixty-seven percent of those survey respondents with a fiber deployment strategy expect to offer fiber to the node to more than 75% of their customers by the end of 2012. Twenty-seven percent of respondents expect to be able to provide FTTC to at least half of their customers by year-end 2012 (up from 22% last year); 46% expect to be able to offer FTTH to the same percentage (down from 55%).

Ninety-two percent of survey respondents identified the cost of fiber deployment as a significant barrier to widespread deployment. Regulatory uncertainty was the number two barrier (77%), followed by long loops (42%), low customer demand (27%), current regulatory rules (23%) and obtaining financing (21%).<sup>10</sup> (See Figure 4.)



<sup>10</sup> Totals exceed 100% as respondents were allowed to select more than one barrier.

## Other Services

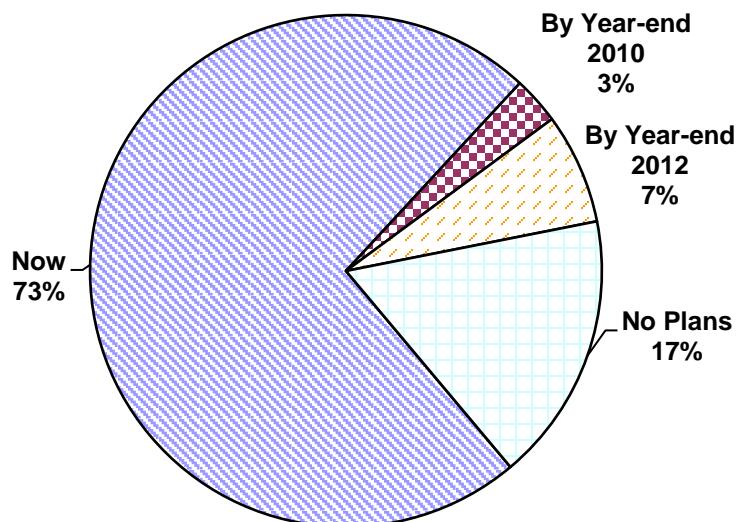
- **VoIP**

Fourteen percent of survey respondents currently offer voice over Internet protocol (VoIP) service to their customers, up from 10% one year ago. Forty-seven percent of those respondents not currently offering VoIP have plans to do so in the foreseeable future, down from 54%. Forty-six percent of respondents perceive VoIP as a significant threat to their current operations (down from 54% last year), while 36% perceive VoIP as a moderate threat (up from 29%).

- **Video**

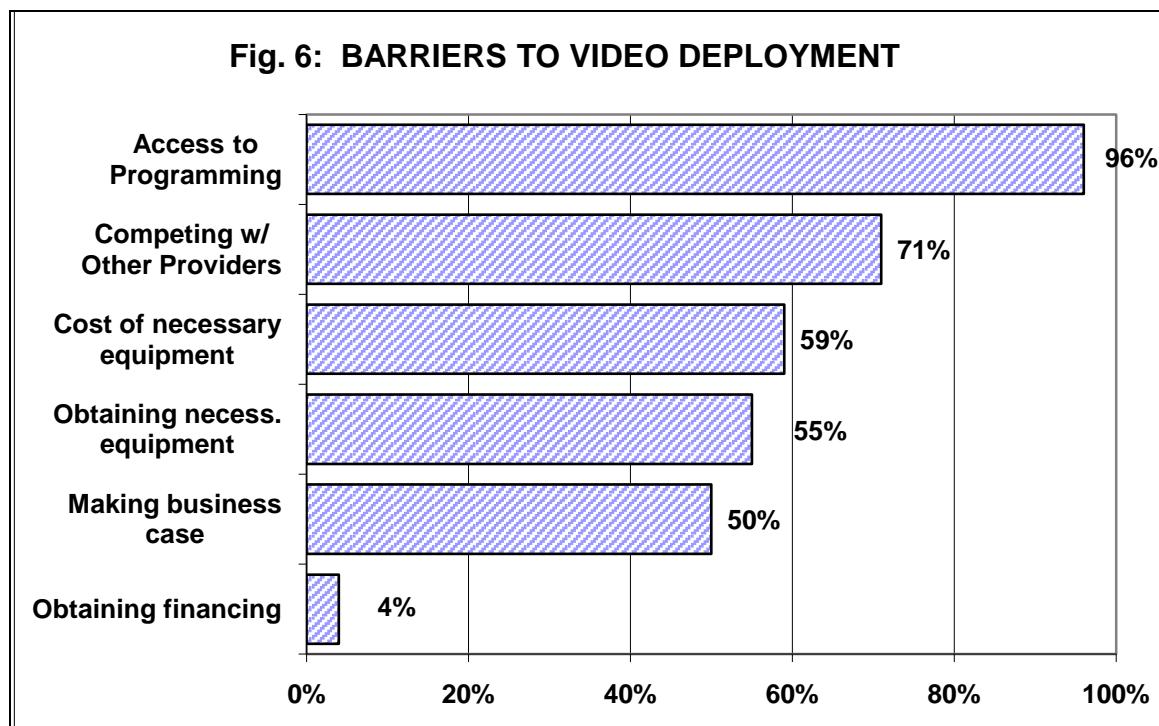
Seventy-three percent of survey respondents offer video service to their customers. Of those respondents not currently offering video, 11% (3% of all respondents) plan to do so by year-end 2010, and 26% (7% of all respondents) expect to do so by year-end 2012. The remaining 63% of those not currently offering video (17% of all respondents) currently have no plans to offer video service. (See Figure 5.) More than three-quarters (77%) of those planning to offer video in the future intend to offer Internet protocol television (IPTV) service.

**Fig. 5: OFFERING VIDEO SERVICE?**



Of those respondents currently offering video services, 76% offer IPTV, while 67% offer legacy coax (CATV) service, and 31% offer direct broadcast satellite (DBS).<sup>11</sup> Fifty-six percent of those providing CATV service use an analog system, while 44% use a digital system. Forty-eight percent of responding video providers utilize a shared headend, 32% a managed headend, and 30% a satellite aggregator.<sup>12</sup> The average respondent offers their customers three “tiers” or entertainment television packages from which to choose.

The main barrier facing those survey respondents providing or wishing to provide video service is access to reasonably-priced programming, as cited by 96% of survey respondents. Seventy-one percent cited difficulty competing with other providers, 59% the cost of necessary equipment, 55% difficulty obtaining necessary equipment, and 50% the challenge of making a business case for video service. (See Fig. 6.)



### Miscellaneous

Survey respondents were asked what specific obstacles they have encountered in their efforts to deploy fiber to their customers, and how conditions would need to change to allow them to successfully overcome those obstacles. Their responses are presented in Appendix A of this report.

<sup>11</sup> Totals exceed 100% as respondents may offer more than one type of video service.

<sup>12</sup> Totals exceed 100% as respondents may utilize more than one of the choices offered.

## CONCLUSIONS

**Survey respondents continue to deploy broadband to their customers, and overall take rates continue to show gains.** Throughout the history of this survey, respondents have done an excellent job of deploying broadband services under trying circumstances. While take rates have historically lagged behind deployment rates, over the past several years subscriber rates have picked up dramatically. This year, the overall broadband take rate is 55%, up significantly from 38% a year ago.

**Respondents continue to deploy fiber within their service areas, despite the inherent challenges.** Those survey respondents deploying fiber was up from 59% a year ago to 68% this year—a net increase of more than 15%. But while fiber deployment continues, providers are cautious about where and how they deploy fiber, due primarily to the cost. For example, providers are deploying fiber incrementally within their service areas and are often deploying fiber to the node first.

**Respondents continue to seek to provide a video offering, despite the near ubiquitous challenge of obtaining access to reasonably-priced programming.** Survey respondents continue to find a video offering to be critical to survival in a competitive marketplace. More than eight in ten survey respondents expect to have a video offering in place by year-end 2012. However, a major impediment exists in the difficulty gaining access to reasonably-priced programming—a point agreed upon by virtually all respondents currently providing video services. Policies which provide small carriers some protection in their negotiations with content providers will be critical to their long-term ability to remain competitive.

**Telco providers are feeling tremendous uncertainty about their future operations.** Offered the opportunity to elaborate on any topic that is causing them concern, an overwhelming majority of survey respondents chose to express their anxiety about the impact that the implementation of the National Broadband Plan could have on their future operations. In the near term, the uncertainty surrounding the form the impending changes will take is impacting their current decision-making processes and impeding their ability to obtain necessary funding. While the FCC's actions in the coming months will determine the ongoing viability of this critically important sector of the industry, in the meantime the lingering uncertainty can only negatively impact small telco operations.

## APPENDIX A

*Q: What specific obstacles have you encountered in your efforts to deploy fiber to your customers, and how would conditions need to change to allow you to successfully overcome those obstacles?*

“The cost. We applied for and received a RUS loan to construct our FTTH network. Glad we went with the loan instead of waiting for the grant process.”

“In the normal course of business we face and overcome challenges daily in our efforts to deploy fiber infrastructure. However, I contend the largest obstacle we face is the chaos and uncertainty that has been created by the National Broadband Plan. If policy makers are truly sincere in creating a national policy directive that moves our country forward toward a ubiquitous national broadband network that will benefit all Americans then they need to either lead, follow or get out of the way!”

“It is very costly to deploy fiber as it requires rebuilding the network. Exchange plant is costly and costs cannot be recovered from the end user alone in our less than 2 customers/square mile area. Uncertainty regarding future revenue streams has made these upgrades less likely.”

“Cost of construction to get fiber to all of our locations. Federal grant and loans would need to be provided with an assurance that the current rural company support mechanism stays in place, i.e., high cost loop support.”

“The biggest obstacle is the cost. We are able to get speeds of 1.5 Mbps to all of our customers which at this time is satisfactory to all customers. We do not have hospitals, schools or libraries in our service area. We have 24 DSL customers and 4 dial up out of 39 customers.”

“No obstacles in building it. The main problem is customer demand and their willingness to pay for it. At the present time, we are providing speed that the customer wants at a price they are willing to pay. Our high speed on DSL is 5 Mbps down and 1.24 up. If the customer wants more we can provide it in a short period of time.”

“In our ILEC area the capex cost is an issue but the stimulus helps - we had problems with NIDS and battery back-ups but that seems to be getting better here. The uncertainty of future op-ex expense is a major concern, particularly making interest payments and stable cash flows for that type of investment.”

“The obvious obstacle is related to resources. Resource limitations such as the large capital outlay that is required for large infrastructure projects in a rural environment. When capital is available the fiber projects are resource intensive in the amount of time a fiber overbuild can take. The funded programs via the various federal organizations can really help with capital. Some of the newer programs are having issues related to inconsistent guidelines, time delays



NATIONAL TELECOMMUNICATIONS COOPERATIVE ASSOCIATION  
*The Voice of Rural Telecommunications*  
www.ntca.org

and often unrealistic objectives that can be challenging to overcome.”

“We are in the first phase of making extensive fiber investments in our ILEC network. The biggest challenge has been the process for lending through RUS. We have been going through the loan process for 2 years. Our loan had final/formal approval 30 days ago. This has taken way too long to get started!”

“The cost of deployment in our rural area is prohibitive in today's uncertain economic environment. We would need a resource for loan funds along with a stable environment to allow for the repayment of the loans.”

“Our company has faced large obstacles in trying to deploy fiber to our customers. We are located in a high cost area with a large sparsely populated area. The high cost of providing fiber to our customers in a rural area has made it near impossible to secure funding for the fiber project.”

“Obtaining financing for large projects has become more difficult than in the past due to the regulatory uncertainty. Lenders are more conservative and monitor financial performance closer. Another obstacle is having the resources to obtain ROW from every subscriber, engineer and construct the project and then cutover every subscriber. We hesitate to hire additional staff because we are not certain how long we will be able to maintain our current pace (goal is to have FTTH to all 39 of our exchanges by 2024) given the regulatory uncertainty.”

“As long as we have some sort of USF regime and USDA funding we would continue to deploy.”

“Deregulated subsidiary CLEC financial challenges (financed with Broadband Loan program) preventing us from securing new FTTP financing from RUS. RUS needs to engage in a solution.”

“Cost is the main concern for deploying fiber. A stable and predictable revenue stream from USF would allow us to invest in fiber based broadband.”

“Overall cost to deploy has been a major obstacle. We would need to see our access revenues at least stabilize to become more aggressive in our plant rebuild.”

“The obstacles that we are encountering are time to place fiber in the ground, cost for outside plant material and the cost for the electronics for fiber to the home. We would need more manpower to place facilities in the ground and pricing of materials would need to be reduced significantly in order for us to be more competitive. The other issue is we have long loop lengths that are very costly for us to place fiber in the ground, in order for us to provide broadband services.”

“The cost in the out of town areas. Having 10 to 15 miles to some houses makes you want to stop projects because of the cost and the challenge of paying back loans.”

“A clear vision of what the rules are going to be. As long as I know what the rules are, I can build a business plan and operate my company within those guidelines. The "Not Knowing" what the rules are is currently the single biggest issue preventing companies from continuing to invest in new technology. I need to know that Universal Service will continue and that broadband will be supported by it.”

“The current conditions in the communications industry where talk of revamping USF causes our company to question if making the investments in our network is wise until we know the future of USF in our country.”

“The obstacle to CONTINUING to roll out FTTH as a replacement for copper is the uncertainty of the future of support mechanisms. If the support system is modified to shift more costs to the rate payer, it will take years for [my] state to approve rate changes and I can't take the risk of defaulting during this period. I need the loss of HCL to be treated as a revenue neutral rate adjustment.”

“Distance to the premise and cost in constructing and maintaining the necessary facilities.”

“Cost per customer is estimated to be \$3,515.41. Cost to deploy FTTH in a hybrid network environment (active in the ‘city’ & passive in the country) is estimated to be close to \$4 million. Our company serves 850 POTS lines & 250 DSL customers (we serve 100% with ADSL and will shortly have everyone ADSL2+). In the county where we serve there are 8 households per square mile and, according to the 2006 Bureau of Economic Analysis Regional Economic Accounts, it ranks dead last in per capita personal income in the state and over 3,000 out of 3,111 counties in the Nation.”

“We have fiber to the node, but copper to the home running DSL. Cost is the main concern.”

“Costs! We have received grants and loans for this purpose but if not for the grant funding it would be unaffordable.”

“It takes time to rebuild the networks with fiber as the copper is nearing 30 years old and our TIER is the limiting factor for our construction rate.”

“T-1, DS-3, OC-3 access rates are killing the little guys, we must have better rates for Internet-only connections. Current cost is about 10K per DS3 (45Mb), I used 3 DS-3's for a total of \$30K per month just in Internet access charges.”

“FTTP carries a large price tag. The 2 year lag with USF has caused some difficulty, and the

uncertainty surrounding the National Broadband Plan and its implications appears to be causing additional concern with lenders.”

“1 - Cost of deployment due to subscriber density. 2 - Replacement of copper plant that is VDSL2 capable. 3 - Recovery mechanisms specific for fiber deployment in rural areas.”

“We need more time in deploying fiber to the home and more revenue to succeed in doing it.”

“Stable and predictable USF, cost efficient broadband backhaul, financing.”

“It is economically challenging if not impossible to justify placing fiber in a rural agrarian economy without economic and political support. Rural America deserves to not be left behind when it comes to advanced service offerings and the large corporations have traditionally shunned low or no margin services in favor of the easily serviceable and highly profitable densely populated suburban areas. Government regulations have and still continue to favor the larger metropolitan areas and have ignored the rural areas of the country.”

“We bury all the fiber so it costs more and it is rocky on top of the mountain and don't mess up my yard. No legal or leg. problems. Getting the \$ is a trick.”

“1. Uncertainty of ability to recover investment and make a profit. 2. Cost of deploying fiber to each customer in a low density rural area.”

“Fiber Optic Training in maintenance and repair. Switching customers equipment from DSL to Ethernet, protecting fiber cables, UPS battery maintenance, record keeping, fiber jumper housekeeping, Fiber not acceptable for alarm systems, Fiber takes up a large footprint at all connection points. We learn as we go, but certainly training on some of these aspects so that we are all on the same page would be useful. As far as the alarm system issue goes, we the alarm companies need to figure out that fiber optics is reliable and get over the phobias.”

“We need to go first to customers that can choose one of our competitors. We will go last to our customers that have only satellite to choose from (obviously no choice). This is unfortunate, but is the reality. Lack of money is an obstacle. The RUS BIP Grant will help with that. Without it we would have found a way—with patience and great care.”

“Cost. We plan to have all our subscribers on fiber by the end of 2011.”

“The inability of the FCC to recognize that support payments should be based upon a broadband pipe to the home/business no matter what service is delivered - voice-TV-Internet. CTC should be able to offer simple RF TV to our members without loss of USF funding!”

“Our biggest obstacle is the cost of building or getting access to middle mile and redundancy to the access tandem.”

“The high cost to deploy fiber to very remote areas (20+ mile loops) is a continuing problem along with the high cost of backhaul for broadband to the cloud. We are working to deploy fiber to the home in four of our ten exchanges (these should complete by mid-2011). Deployment in the remaining exchanges would require stimulus help.”

“Securing a loan to fund the project.”

“Forty-five year old aging copper facilities have presented challenges regarding the higher voltage equipment needed to transmit broadband services. Currently constructing new fiber facilities but now have concerns regarding future settlements for financial assistance to support our rural network. Governmental conditions would need to stabilize in order to project for future demand and growth.”

“1) Belief that fiber isn't needed, since copper can supply the speed demanded today. 2) Uncertainty surrounding support mechanisms.”

“There are no identified applications for the residential user except for video that require the bandwidth fiber provides. (Our company is 88% residential.) We need more robust applications that require more bandwidth. We leave our customers on copper until they request an application that requires a fiber connection. We currently have fiber available to 10% of our customer base but of those only 20% request an application that requires fiber.”

“The biggest single cost is the expense to overlay a brand new plant to customers who may or may not take new services. Internet services in rural areas are normally taken by families. Older farmers without children or whose children have already left home may be satisfied with dial up. The revenue stream from existing customers is insufficient to cover costs of deploying fiber to rural customers. Subsidies are required.”

“The cost to get to our most rural customers is the main obstacle. Added support for those customers is the answer.”

“Cost of deploying. Certainty that USF and rate of return settlements will be available after deploying.”

“As the demand for greater broadband speeds increases, there is a need to push fiber optic cable deeper and deeper into our service area. However, the existing support mechanisms that are in place today are geared toward cost-recovery for the provision of voice services. In order for our company to continue to provide high quality broadband services, we need to be able to recover those dollars spent on broadband investment.”

“We basically do not have any obstacles other than it is not economically feasible to spend an average of \$4000/customer to deploy FTTH when you will not realize any additional revenue or profit for doing so.”

“Forest service permits, and unreasonable pole attachment fees.”

“We have deployed 768 kbps capability. Our concern about the NBP ending RoR regulation is causing reluctance to borrow the additional funds necessary to meet the goals of the NBP.”

“Permitting: need more streamlined processes and accountability - particularly with government agencies. Rights-of-way: provide pre-defined rights-of-way along highways etc. for public utilities. Certainty of support mechanisms to justify rural and low-density investments.”

“Regulatory uncertainty - makes it difficult if not impossible to finance projects when the lender is nervous. Also causes us to pause internally when we don't have a clear picture of what our future revenue streams will be.”

“1.) High cost related to rural deployment (cost per home average is high). 2.) High cost support decreasing. 3.) Equipment sensitivity to electrical surges.”

“Most customers at this time do not use bandwidth and are not willing to pay for speeds that fiber services provide-- yet.”

“Today the pending National Broadband Plan has stifled every capital source except the RUS. We cannot make the leap of faith without a clearer understanding of the implications this looming regulatory change. Once a clear direction is established a business model can be applied.”

“Currently less than 20% of our residential lines have DSL service. The Stimulus funding will allow us to build high capacity plant. The problem is creating interest from customers who have never used the Internet.”

“My obstacle has been the slowness of RUS process in approving loans and advancing funds to move construction forward.”

“Easements to get onto property and cost of construction. Less restriction from landowners and solve who pays if it is cut on their property. Costs?”

“Right now right of way, working on a solution.”

“Lack of secure revenue streams to make the investment, however we are deploying fiber in greenfield applications, i.e., new subdivisions, new construction and in areas where we are short of cable pairs.”

“Financials, being able to leverage loans has sometimes been challenging.”

“Access to capital to invest in fiber in addition RUS has tightened down all the requirements for funding and it is taking almost 18 months to secure loan funds. In some places it will cost \$60k-70k per customer to complete rural build outs.”

“Obstacles: The high cost of construction and available capital dollars for funding. Change: Some form of broadband USF.”

“The expense coupled with lending challenges and the uncertainty to pay back the loan without some secure settlements mechanisms in place.”

“COST.... We have 54 miles of area that is primarily rural. At this time our board cannot justify the cost of overbuilding our copper plant with fiber.”

“Cost is the largest obstacle. While we continue to deploy fiber the cost of installation of the facilities is large. Funding mechanisms that have been in place to build the rural networks need to continue to stay in place.”

“Our biggest issue is the uncertainty about the USF and NECA pooling mechanisms for ongoing funding that is reliable, predictable and sufficient. Need to make sure that any change in these items is sufficient, predictable and reliable.”

“While end user demand for faster high-quality broadband service is growing in our market, customer density is such that a retail rate structure alone is insufficient for [my company] to build and sustain a fiber-optic network, particularly in rural areas. To deploy fiber throughout our service area, the Company would need more assurance of its ability to recover these costs, whether from end-users or via a cost-recovery mechanism. In a low-density rural market such as [our company’s] service area, it is not feasible to expect end-user revenue to solely support a fiber network deployment.”

“The biggest obstacle now is the uncertainty surrounding the NBP. The means of cost recovery for installation and maintenance costs are being threatened, and that certainly hinders the deployment of what is the best long term broadband solution, both from a quality of service and reliability standpoint.”

“The lack of clear and dependable revenue streams in the future due to the uncertainty surrounding the drastic changes in settlements proposed in the National Broadband Plan have required us to halt our broadband deployment efforts.”

“We are just completing our fiber to the home upgrade for all of our subscribers. We have overcome the technological issues with our main concern being how we are going to pay back RUS for all of this plant in place.”



“The main obstacle for additional fiber deployment in our area is the Washington decision-makers' lack of understanding in what true speeds will be required in the future. Without an accurate understanding of what speeds will be required for common applications in the future, there is no commitment to rural investment. This lack of understanding and commitment has required us to pull back on network investment plans because it is an undisputed fact that businesses cannot pay for this investment in high cost areas without adequate cost recovery. The National Broadband plan does not provide adequate investment for rural America and sets goals that will ensure that rural America is left behind.”

“The uncertainty in the future of funding for future FTTH deployments. We are planning our first FTTH project and other than the technical issues, my biggest concern is whether or not the current funding systems will continue to be in place. Will the changes that are coming make it more difficult to pay for the broadband network needed to meet future customer demands?”

“We've had two main obstacles. First, the homeowner is reluctant to allow us to dig up his yard to install it. They have had other utilities that haven't restored their yards like they were before digging. Second is the whole powering issue. We mandate that the customer allows us to take a wire from an outlet in the premise to our Optical Network Terminal. Some customers have just plain not allowed us to do that. Since we have merged with our local electric cooperative, we are starting to deploy the electric connection straight off the meter, which has eased the push back.”

“Availability of capital due to uncertainty caused by proposed National Broadband Plan.”

“Cost of deployment and uncertainty of cost recovery in the future.”

“In regulated areas, the biggest obstacle in deploying fiber to our customers is the cost and the uncertainty of future recovery. While we believe that fiber is extremely important to provide a level playing field for business, education and economic development efforts in our rural areas, we are concerned that the National Broadband Plan fails to recognize the investments that we have made in the past and are committed to make under the ARRA Broadband Stimulus award we received in 2010. Changes must be made in the plan to recognize these investments and to assure that the plan allows companies to continue to earn a reasonable rate of return on the investments and to operate the facilities. This will allow continued principal and interest payments to RUS for the traditional loan program, as well as the Broadband Stimulus program.”

“The #1 obstacle is the uncertainty of an on-going cost recovery system.”