NTCA 2015 WIRELESS SURVEY REPORT

January 2016

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

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EXECUTIVE SUMMARY

In the fall of 2015 NTCA–The Rural Broadband Association surveyed its members on their activities in the area of providing wireless services to their customers. The survey was sent to each of the companies in NTCA's membership database; 109 members (18%) responded.[1]

Forty-eight percent of survey respondents indicated that they hold at least one wireless license below 2.3 GHz; 10% hold at least one license above 2.3 GHz. Sixty percent are providing wireless service to their customers.[2] Eighty-seven percent of those use spectrum to offer fixed broadband, 42% mobile voice, 40% mobile broadband, 37% text messaging and 28% fixed voice. Fifteen percent of survey respondents not currently offering wireless service are considering doing so.

The median total (cumulative) investment in wireless facilities, excluding spectrum, is $1.3 million; median total (cumulative) investment in spectrum totaled $75 thousand.

Seventy percent of survey respondents characterized the process of obtaining financing for wireless projects as "somewhat difficult" or "very difficult;" 20% characterized the process as "relatively easy."

Forty-seven percent of respondents are utilizing unlicensed spectrum to provide some wireless services, despite interference and line of sight problems.

Seventy-six percent of all respondents indicated that competition from nationwide carriers was their greatest concern, 55% selected the ability to make necessary investments to be able to offer the latest services, 42% handset/equipment availability, 42% the ability to obtain spectrum at auction, 39% the ability to negotiate roaming agreements with national carriers, and 34% backhaul capacity/cost.[3]

Sixty percent of survey respondents categorized their experience in negotiating data roaming and in-market roaming agreements with other carriers as moderately to extremely difficult.

Thirty-nine percent of those respondents who have a reciprocal roaming agreement with another carrier indicated that they pay about as much as they themselves are paid, while 50% pay more and 11% pay less.[4]

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[1] Many NTCA member companies also have operating companies that are included in the Association's total member count. This survey was sent to the parent companies only.
[2] Includes respondents utilizing unlicensed spectrum to provide wireless service.
[3] Totals exceed 100% as respondents were allowed to select more than one concern.
[4] Totals exceed 100% as respondents may have roaming agreements with more than one other carrier.

Seventeen percent of those survey respondents offering wireless resell another carrier's service under their own brand, and 10% do so under a national brand. Fifty-three percent sell service for which they own spectrum under their own brand, and 7% do so under a national brand. Eighty-nine percent find it difficult to compete with promotions offered by the national carriers.

Ninety-one percent of those respondents providing wireless service offer their wireless customers voice mail, and 91% offer handset promotions. Eighty-six percent offer Internet access, 86% unlimited local calling, 82% caller ID, 82% text messaging, 77% free long distance, 77% family plans, and 77% three-way calling. Fifty-four percent of survey respondents experience annual customer churn of less than 10%, while 42% reported annual churn of between 10% and 25%. These figures are well below the FCC's reported industry annual average of between 14% and 29%.

NTCA THE RURAL BROADBAND ASSOCIATION

INTRODUCTION

In the fall of 2015, NTCA–The Rural Broadband Association surveyed its members on their activities in the areas of providing wireless services to their members/customers. NTCA is a national association of nearly 900 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 (“Act”). Despite their small size, NTCA members deliver high-quality communications services in the most sparsely-populated, highest-cost rural areas of the country, in the face of substantial economic challenges. NTCA’s membership includes both cooperatives and small commercial companies.

This latest wireless survey is a follow-up to a similar survey last conducted by NTCA in 2014, and seeks to build upon the results of that survey.[5]

OVERVIEW OF SURVEY

The 2015 NTCA Wireless Survey was conducted online. Member companies were provided with a URL through which they could access the survey. Every effort was made to minimize the reporting burden on the survey respondents.

The survey itself was organized into two sections. The first section was comprised of general questions about the respondent’s current operations and future plans. The second section, which applied only to those respondents providing CMRS services to their customers, asked more specific questions about technology, customers, revenues, features offered, and capabilities.

SURVEY RESULTS

The survey URL was distributed via email to all of the NTCA member companies in NTCA’s database. The messages contained instructions for online access to the survey. Responses were received from 109 member companies, an 18% response rate.[6]

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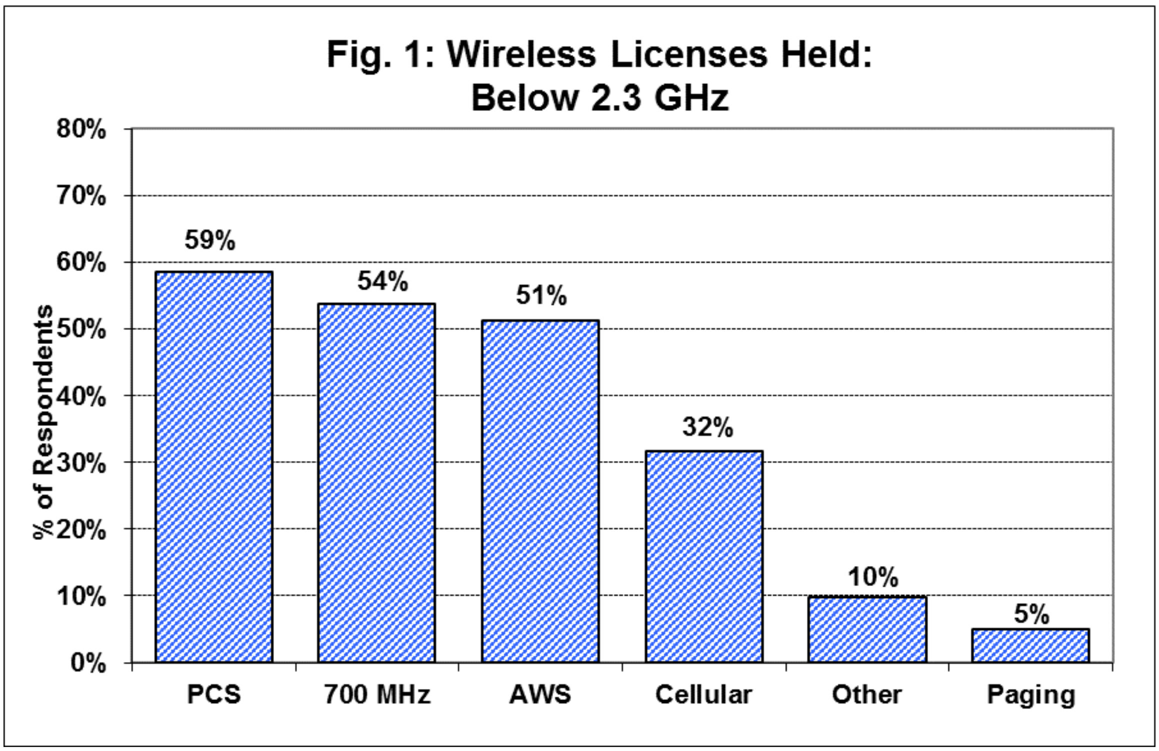
[5] Copies of this and previous NTCA survey reports may be downloaded from the NTCA website, www.ntca.org.

[6] Many NTCA member companies also have operating companies that are included in the Association’s total member count. This survey was sent to the parent companies only. Response rate is calculated based on the number of verified email addresses in NTCA’s member database. Based on the sample size, results of this survey can be assumed to be accurate to within ± 8% at the 95% confidence level.

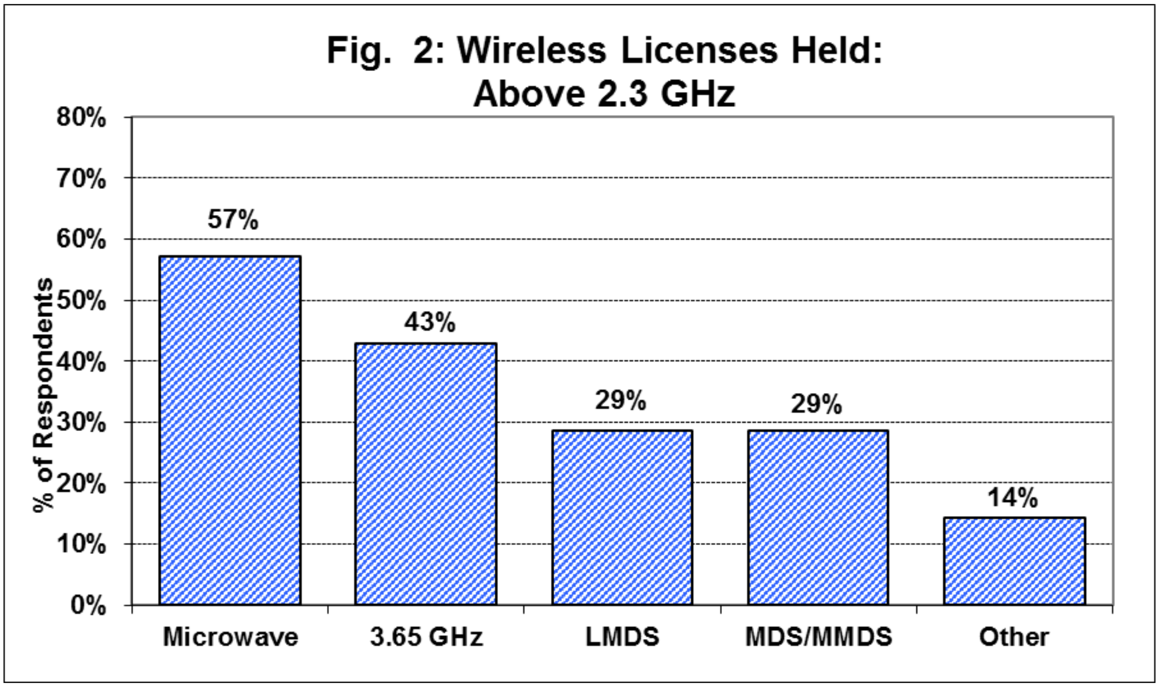
Survey responses were received from companies in 32 states. While those respondents providing wireless services range in size from approximately 36 wireless customers to almost 121,000, the median respondent served just over 2,500 wireless customers. This heterogeneity in size and geographic location mirrors that of NTCA's membership as a whole.

Forty-eight percent of survey respondents indicated that they currently hold at least one spectrum license below 2.3 GHz. Fifty-nine percent of those who hold a license below 2.3 GHz have a PCS license, 54% a 700 MHz license, 51% an AWS license, 32% cellular, 10% other (such as microwave, 800 MHz, or 900 MHz), and 5% paging.



Note: Totals exceed 100% as carriers may hold more than one wireless license.

Ten percent of survey respondents providing wireless service indicated that they currently hold at least one wireless license above 2.3 GHz. Fifty-seven percent of those who hold a license above 2.3 GHz have a microwave license, 43% a 3.65 GHz license, 29% an LMDS license, and 29% MDS/MMDS. (See Fig. 2.)

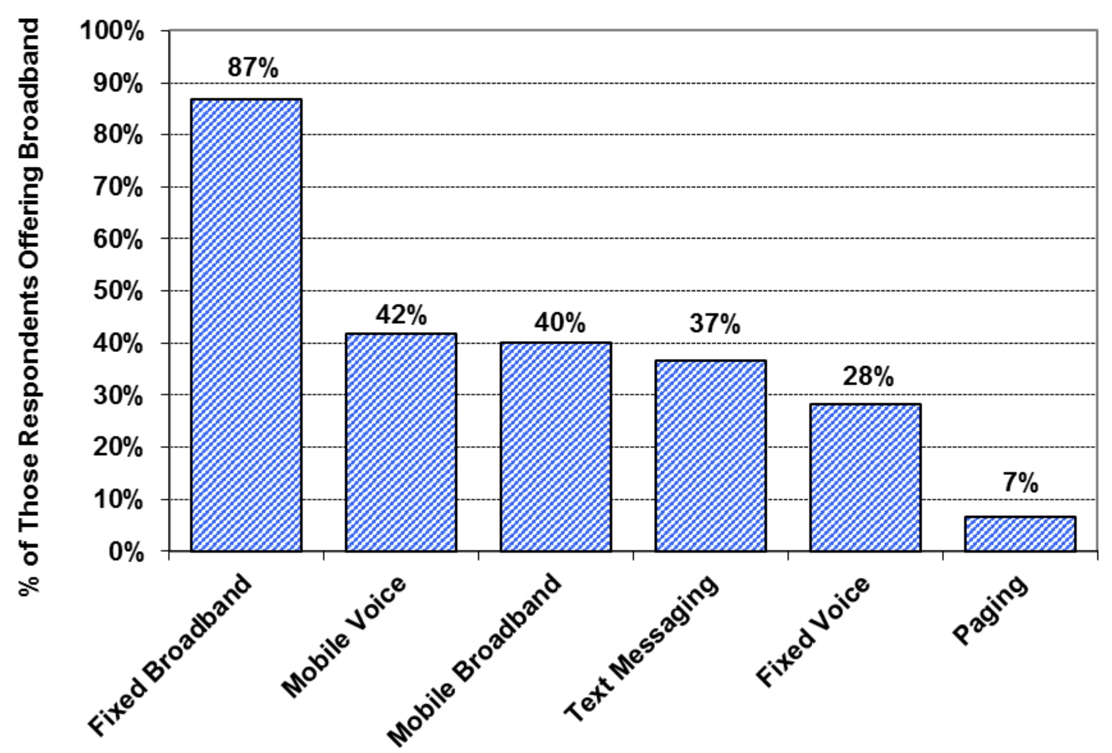


Note: Totals exceed 100% as carriers may hold more than one wireless license.

Forty percent of survey respondents indicated that they use wireless spectrum for backhaul. Of those, 61% utilize licensed spectrum, while 39% use unlicensed spectrum. Fifty-six percent said that their wireless spectrum currently used for backhaul will not be adequate to meet their forecasted future needs. Sixty-two percent of survey respondents indicated that 100% of their existing sites deployed today are currently IP backhaul ready.

Sixty percent of survey respondents are offering some type of wireless services to their customers[7]. Of those using spectrum to provide wireless services, eighty-seven percent offer fixed broadband (up from 80% a year ago), 42% mobile voice (down from 48%), 40% mobile broadband (41% last year), 37% text messaging (38%), and 28% fixed voice (up from 23%). (See Fig. 3.)

Fig. 3 : Wireless Services Provided

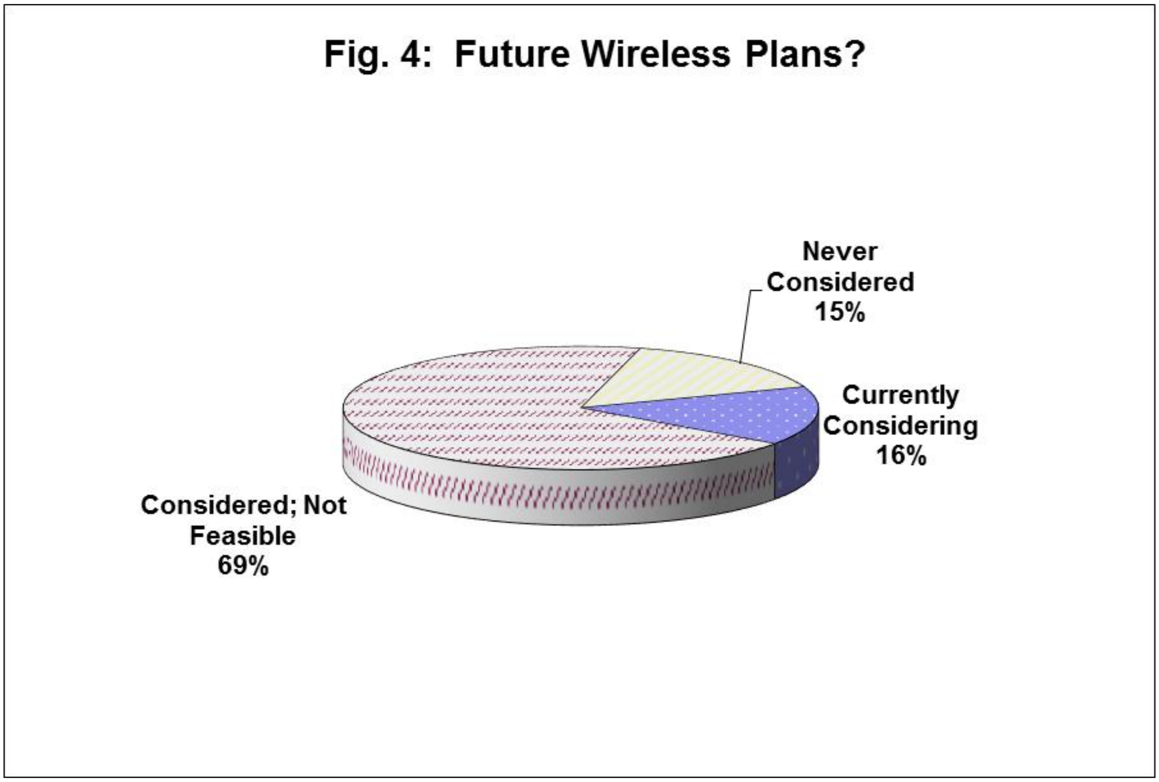


Note: Totals exceed 100% as carriers may provide more than one wireless service.

Twelve percent of survey respondents currently offer their customers text-to-911 service, up from 10% last year.

[7] Includes respondents utilizing unlicensed spectrum to provide wireless service.

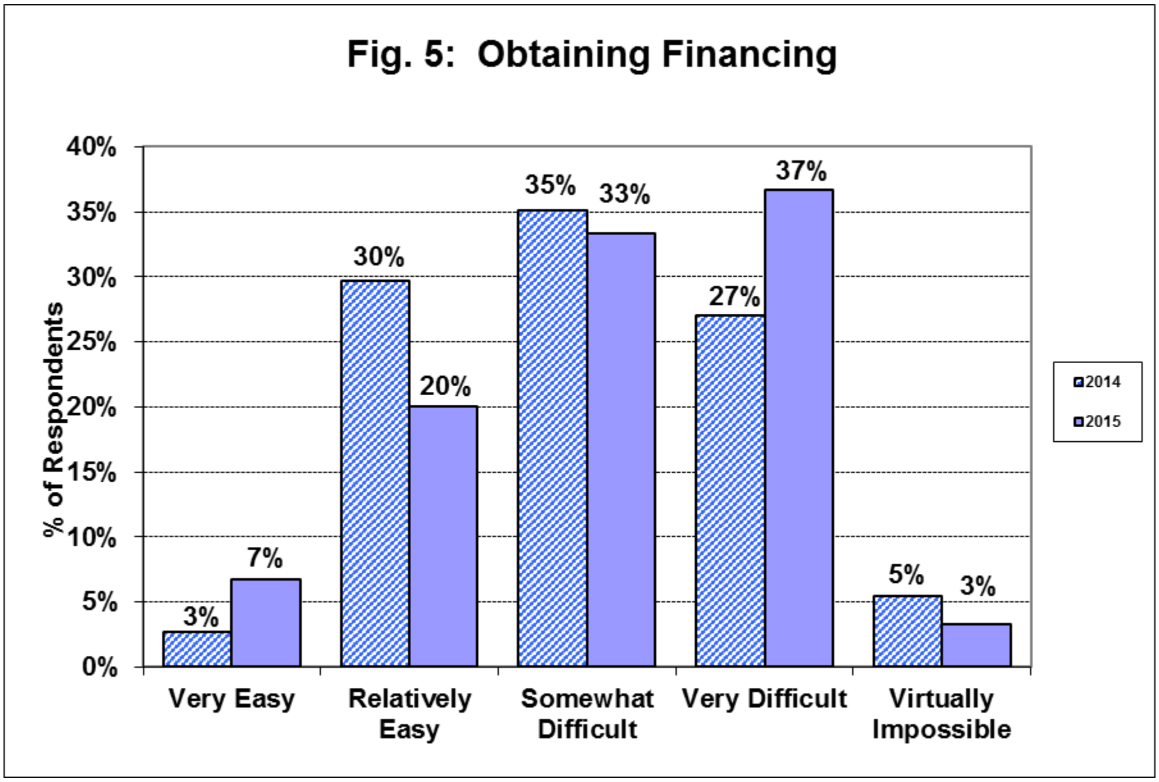
Sixteen percent of the respondents not currently offering wireless service indicated they are considering doing so (down from 35% in 2014.) Sixty-nine percent have previously considered offering wireless service and deemed it not feasible (up from 47%), while 15% have never considered wireless (down slightly from 18%.) (See Fig. 4.)



Survey respondents indicated that they have invested considerable resources in wireless. For those companies investing in wireless, the median total (cumulative) investment in wireless facilities, excluding spectrum, was $1.3 million, ranging from a high of $180 million to a low of $5,000. The average investment was $12.5 million. Median total (cumulative) investment in spectrum totaled $75 thousand, and the average was $1.1 million. Median annual wireless revenues were $4.1 million, and the average was $16.2 million. Revenues have increased over the past five years for 50% of respondents.

Survey respondents serve an average of 11,495 wireless subscribers with an average of 53 cell sites. (A few larger respondents skew these numbers upwards, however: the median number of wireless subscribers is 2,555 and the median number of cell sites is 22.) The average customer's monthly wireless bill is between $50 and $60, and the typical customer uses just over 600 minutes monthly.   Eighty-nine percent of responding companies find it difficult to compete with promotions—such as free long-distance or free/reduced price handsets—being offered by the national carriers.

Survey respondents continue to find obtaining financing for wireless projects to be challenging. While approximately the same percentage of respondents classified the process as “somewhat difficult” as in the 2014 survey (33% in 2015 vs. 35% in 2014) many more found the process “very difficult” (37% vs. 27%) in 2015 than in 2014. Fewer respondents classified the process as “relatively easy” in 2015 as in 2014, 20% vs. 30%. (See Fig. 5.)



Survey respondents utilize a variety of means of funding their wireless operations. Seventy-five percent reinvest company earnings, 41% utilize grants or loans, 34% receive high-cost USF support, and 10% use individual investors or general funds.[8]

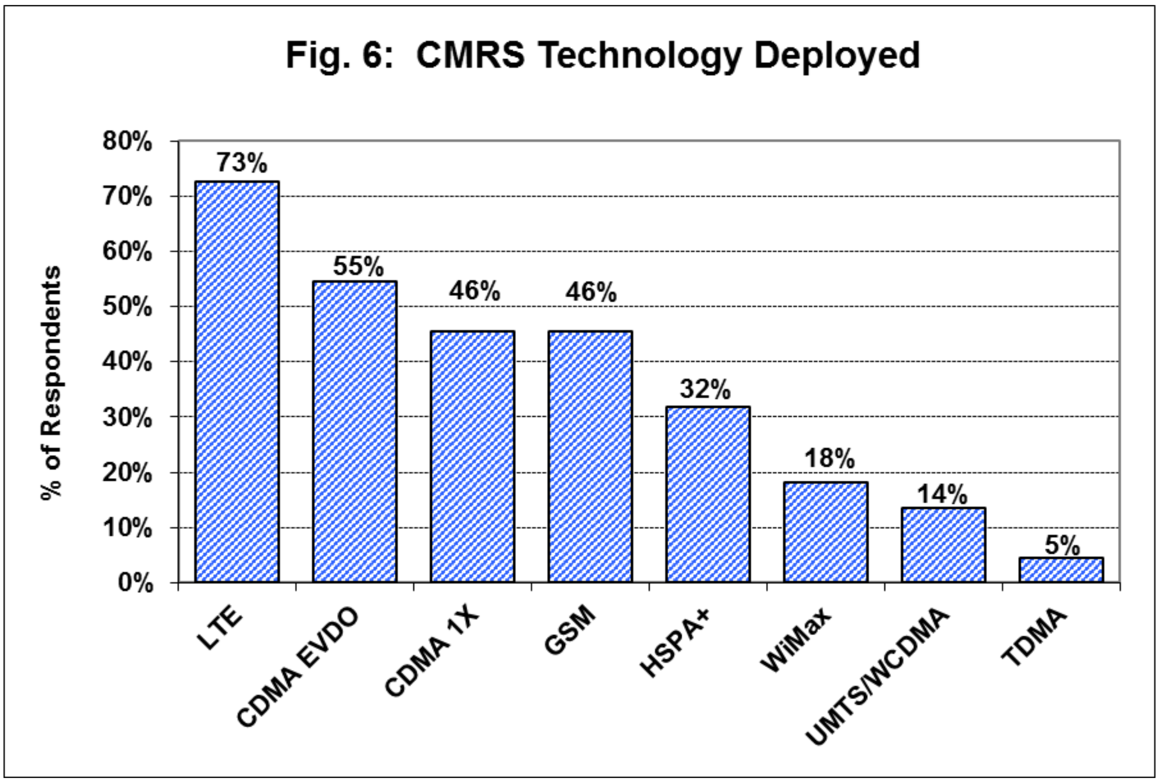
Forty percent of survey respondents indicated that they had acquired spectrum in the preceding twelve-month period, while 24% made arrangements for the utilization of previously acquired spectrum. Twenty-eight percent entered into negotiations for the acquisition of spectrum, and thirty-six percent relinquished spectrum.

Fifty-one percent of survey respondents are looking to provide wireless service to both their wireline service area and neighboring territories; 30% seek to serve neighboring territories only; and 19% their own wireline service territory only.

[8] Totals exceed 100% as respondents may utilize more than one source of financing.

Forty-seven percent of survey respondents are utilizing unlicensed spectrum to provide wireless services to their customers. Among the services identified are fixed broadband and backhaul. Sixty-five percent of those respondents using unlicensed wireless spectrum indicated that they had experienced difficulties doing so, mainly interference and line-of-sight problems.

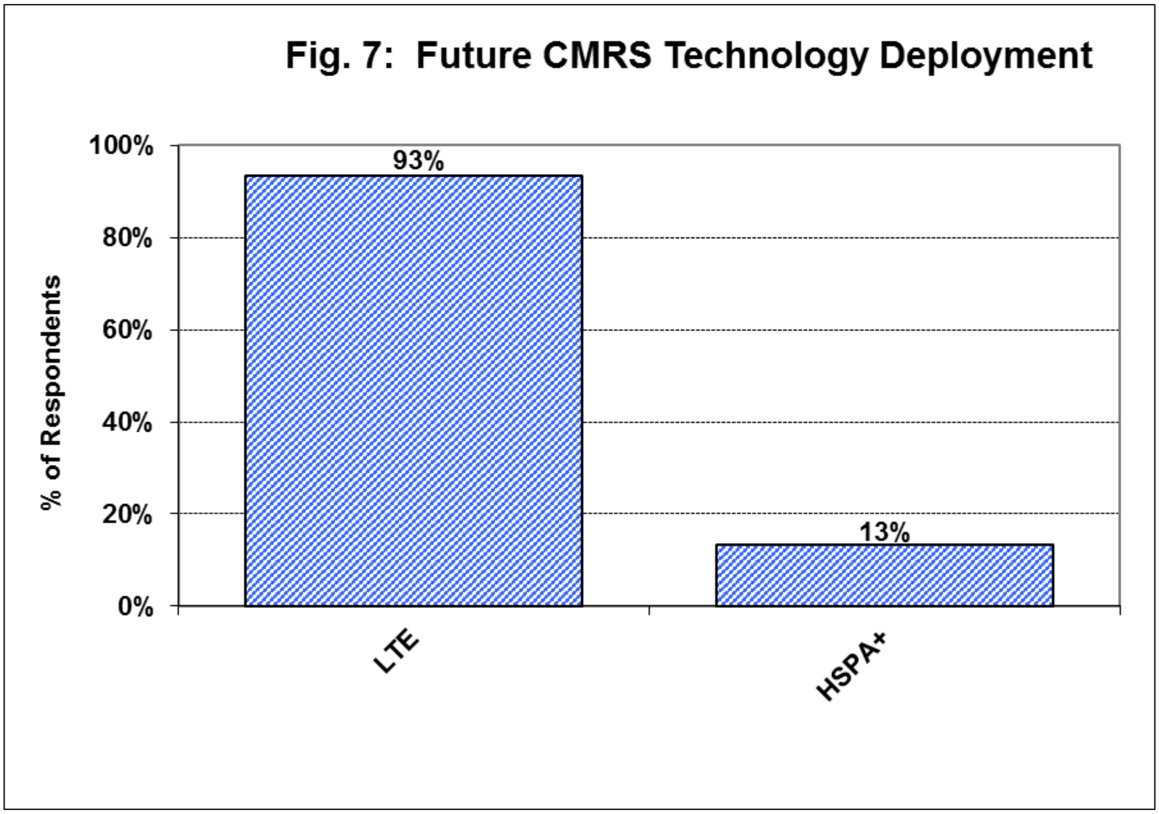
Asked which wireless CMRS technologies their company has deployed, 73% percent of survey respondents indicated LTE service (up from 50% in 2014), 55% CDMA EVDO, 46% CDMA 1X, 46% GSM, 32% HSPA+, and 18% WiMax. (See Fig. 6.)



Note: Totals exceed 100% as respondents were allowed to select more than one technology.

Sixty-four percent of those survey respondents currently offering wireless indicated that they had plans to deploy next generation technology. Of those, 75% plan to deploy in the next 1-2 years.

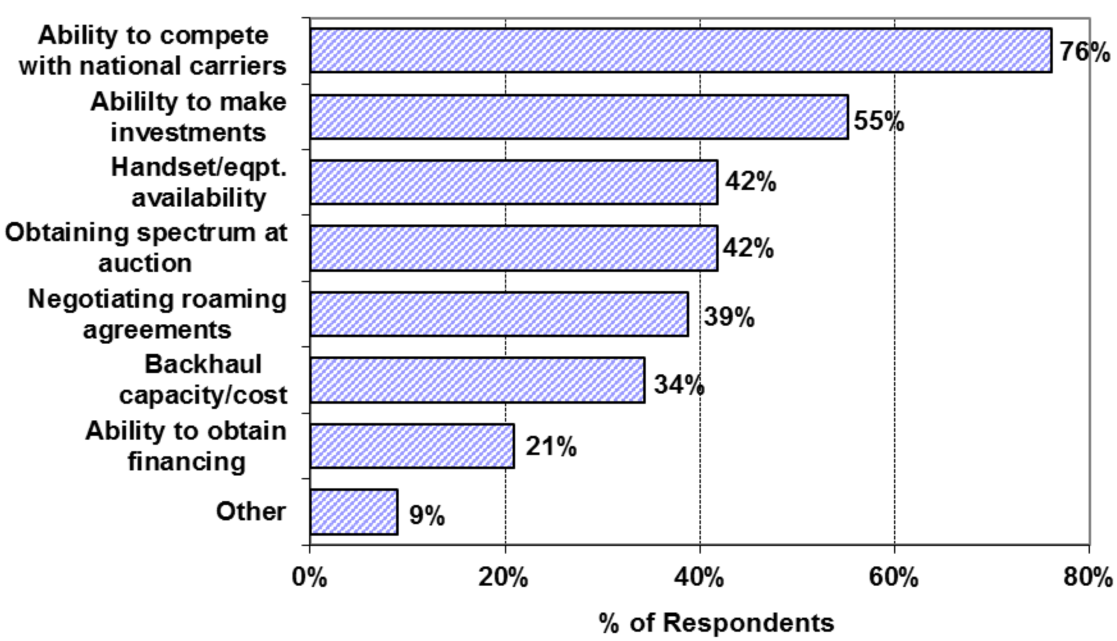
Ninety-three percent of those survey respondents who have plans to deploy next generation technology said that they would be deploying LTE. Thirteen percent indicated their next deployment would be HSPA+. (See Fig. 7.)



Note: Totals exceed 100% as respondents were allowed to select more than one technology.

Respondents intend to offer their customers a wide variety of new services over the next 12 to 18 month period: fixed and mobile data, VoIP, WiMax, and 700 MHz service were all noted. A number of concerns, however, threaten survey respondents' future plans. Seventy-six percent indicated that they were concerned about their ability to compete with national carriers, about the same as 2014. Fifty-five percent cited their ability to make necessary investments to be able to offer the latest services (versus 54% in 2014), 42% handset/equipment availability (54% in 2014), 42% the ability to obtain spectrum at auction (45% in 2014), 39% their ability to negotiate roaming agreements with national carriers (45% in 2014), 34% backhaul capacity/cost (31% in 2014), and 21% their ability to obtain financing for wireless projects (27% in 2014). (See Fig. 8.)

Fig. 8: Concerns



Note: Totals exceed 100% as respondents were allowed to select more than one concern.

"Other" concerns include overbuilding by WISPs, bandwidth capacity, local competition, and terrain.

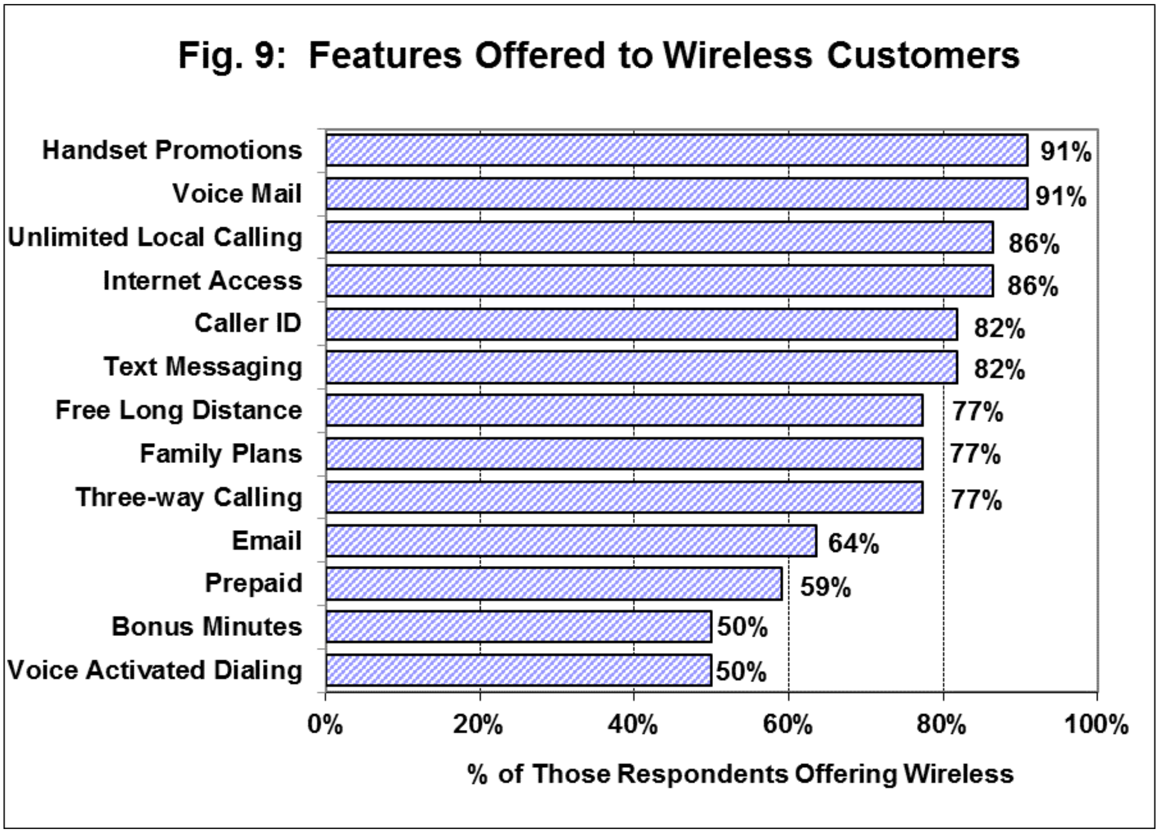
Asked to categorize their experience in negotiating data roaming and in-market roaming agreements with other carriers, 60% categorized it as moderately to extremely difficult (up from 47% in 2014.) Thirty-five percent categorized the experience as moderately to relatively easy, and 5% as extremely easy.

Of those respondents who have a reciprocal roaming agreement with another carrier, 39% indicated that they pay about as much on a per minute basis as they themselves are paid (down from 65% in 2014.) Fifty percent pay more on a per minute basis, while 11% pay less.

One hundred percent of survey respondents indicated they are facing competition from other carriers. However, 14% indicated that these competitors serve only a small portion of the respondent's service area. Fifty-two percent of respondents have at one time been hindered in their ability to provide wireless service by the actions of a national wireless carrier.

Seventeen percent of survey respondents resell another carrier's service under their own brand, while 10% do so under a national brand. Fifty-three percent sell service for which they own spectrum under their own brand, and 7% do so under a national brand. Sixty-eight percent have at one time entered into a joint venture with another wireless carrier.

Survey respondents offer myriad features to their wireless customers. Ninety-one percent offer handset promotions (such as free/reduced price, short/no contract, reduced upgrade cycle, etc.), 91% voice mail, 86% unlimited local calling, 86% Internet access, 82% caller ID, 82% text messaging, 77% free long distance, 77% family plans, and 77% 3-way calling. (See Fig. 9.)



Note: Totals exceed 100% as respondents may provide more than one wireless feature.

Respondents indicated considerable customer loyalty. Fifty-four percent of survey respondents experience annual customer churn of less than 10%, while 42% reported annual churn of between 10% and 25%. Four percent of respondents reported no customer churn. This compares favorably to the FCC's most recent estimate of industry-wide churn rate monthly averages of 1.2% to 2.4%, or from 14% to 29% annually.[9]

Twenty-nine percent of survey respondents indicated that wireless customers left due to lower prices from another carrier (up from 26% in 2014), 21% due to handset availability (down from 35%), 21% due to additional services available from another provider (up from 4%), 4% due to the ability to bundle services with another provider, and 4% due to coverage issues.

[9] Federal Communications Commission, *Seventeenth Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services*, WT Docket No. 13-135, rel. December 18, 2014, p. 14.

CONCLUSIONS

Survey respondents are noting improved access to licensed spectrum. Forty percent of survey respondents reported that they had acquired spectrum in the past twelve months, up from 22% in 2014. At the same time, the percentage of respondents using unlicensed spectrum for backhaul fell from 52% to 39%. And those respondents identifying the ability to obtain spectrum at auction as a concern dipped slightly, from 45% to 42%. While work remains to be done to ensure that small wireless carriers have access to the vital spectrum they need, the trends identified in this survey are a cause for cautious optimism.

Small wireless providers continue to have a hard time negotiating roaming agreements with larger providers. In 2014, 47% of survey respondents classified the process of negotiating roaming agreements with larger carriers as “moderately difficult” to “extremely difficult,” in this survey, that number had grown to 60%. Smaller carriers possess little negotiating leverage relative to their larger counterparts; at the same time, because of their small size, the ability to offer roaming to their customers is of critical importance.

Those survey respondents who are able to negotiate roaming agreements find themselves paying more for the privilege. Fifty percent of the respondents to this year’s survey reported paying more for roaming on another carrier’s network than the other carrier pays to roam on their network, up from 35% in 2014. Thirty-nine percent report paying about the same amount, down significantly from 65% in 2014. Again, given the vital importance to small carriers of the ability to offer their customers the ability to roam on other networks, this trend can have an extremely harmful impact on small carriers’ ongoing viability.

Survey respondents have increased the variety of handsets available to their customers, with beneficial impacts. In 2014, 54% of survey respondents indicated that handset availability was a concern, this year that percentage fell to 42%. At the same time, the percentage of customers leaving survey respondents’ due to handset availability fell from 35% to 21%. As in most businesses, in wireless the customer is king—and the inability to provide that customer with what they want is a surefire way to lose their business.