

Rural Anchor Institution Survey Report



NTCA – THE RURAL BROADBAND ASSOCIATION

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INTRODUCTION/SUMMARY

Background and Methodology

In May 2018, NTCA -- The Rural Broadband Association (NTCA) contracted with Association Research, Inc. (ARI),¹ to analyze data from a survey of anchor institutions² located in responding member companies' incumbent local exchange carrier (ILEC) service areas. The survey was conducted by NTCA in September 2017 to identify the scope and scale of broadband connections provided to anchor institutions in ILEC members' service areas. NTCA also asked ARI to compare results, where applicable, to a similar survey conducted by NTCA in September 2013.

A web link of the survey was sent out on September 7, 2017, to NTCA member companies, of which 107 companies provided usable data. Some questions in the survey, especially those about maximum and average broadband speeds, had different counts. This is due to respondents not answering all survey questions. Lastly, while the survey sample pool remained substantially the same for both the 2013 and 2017 surveys, the actual survey respondents may have changed.

Executive Summary

- The average number of anchor institutions located in the respondents' ILEC service areas was 3.2 for public libraries, 5.9 for K–12 schools and 4.9 for health care providers. The data provided in this report do not reflect Veterans Administration (VA) facilities.
- Fiber-to-the-premise (FTTP) was the most prevalent connection mode for all anchor institution types.
- The maximum connection speed of broadband available to anchor institutions in the ILECs' service areas averaged around 1 Gig (1 Gig = 1,000 Mbps/1 Gbps), except for public libraries where the average maximum connection speed available was less than 500 Mbps.
- The average connection speed of broadband purchased by anchor institutions in the responding companies' ILEC service areas was the highest for K–12 schools (238.7 Mbps) and the lowest for public libraries (43.3 Mbps).
- For anchor institutions that are not connected via fiber, the average distance of those institutions from fiber facilities was 4.1 miles and the median distance was 0.6 miles. Approximately six in 10 of those institutions (59.4%) are less than a mile away from fiber facilities, while just over one-third (34.4%) are located between one and 20 miles from fiber facilities.

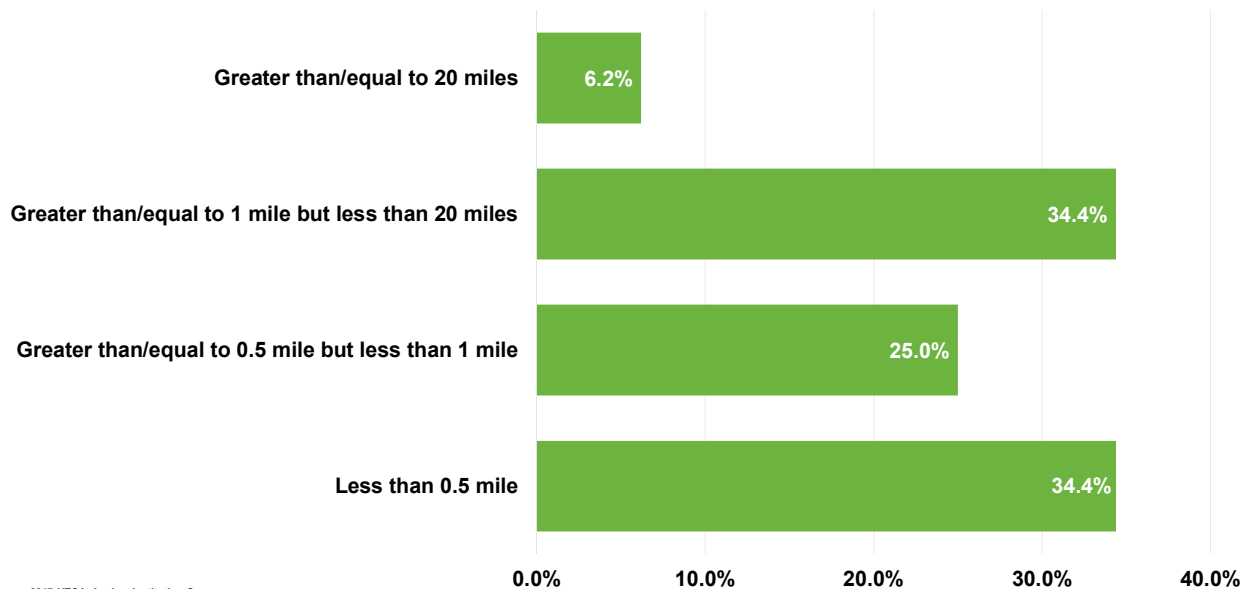
¹ Association Research, Inc., an independent survey research organization located in Gaithersburg, Maryland, analyzed the findings and prepared this report. All responses have been kept confidential; this report does not reveal information from any individual source.

² Anchor institutions are defined by the Federal Communications Commission (FCC) as “schools, libraries, health care providers, community colleges, other institutions of higher education, and other community support organizations and entities.”

Anchor Institutions: 2017 Summary Table

		Public Libraries	K-12 Schools	Hospitals/Medical Clinics
Number Located in ILEC Service Area	Count	90	94	64
	Mean	3.2	5.9	4.9
	Median	2.0	3.0	2.5
Percent Connected by FTTP	Percent	63.9	82.4	75.9
Maximum Speed of Broadband Available in ILEC Service Area (Mbps)	Mean	454.3	1156.8	734.0
	Median	100.0	1000.0	1000.0
Average Speed of Broadband that Anchor Institutions Purchased from ILEC (Mbps)	Mean	43.3	238.7	128.7
	Median	20.0	100.0	50.0

Average Distance of Non FTTP-Connected Anchor Institutions From Fiber Facilities

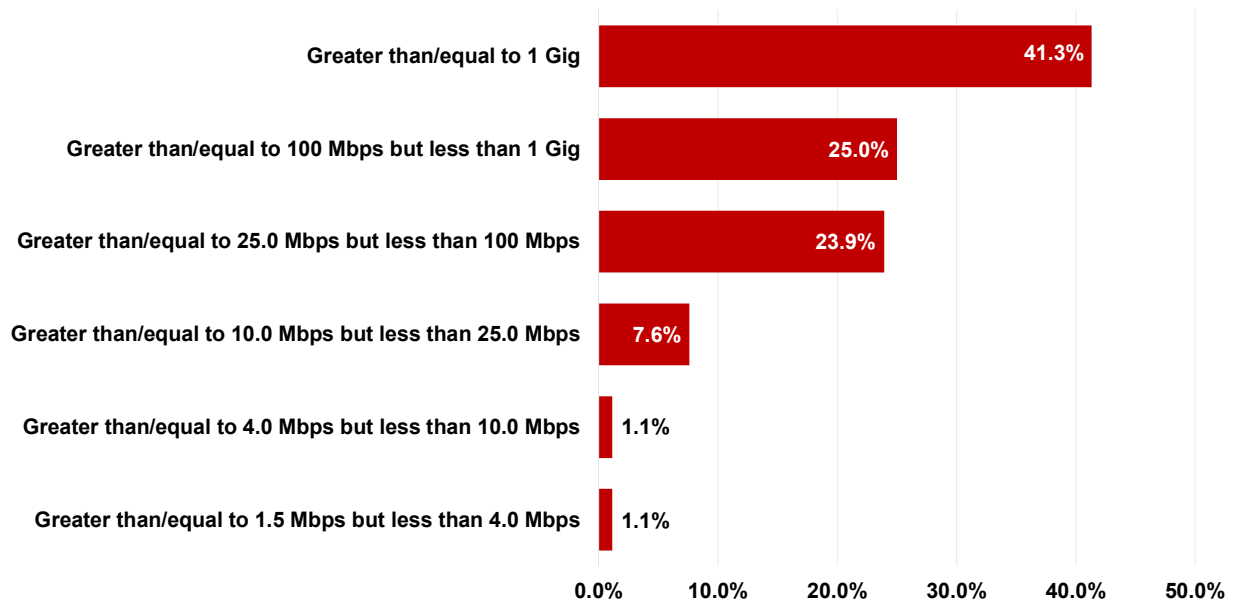


Source: 2017 NTCA-Anchor Institution Survey

PUBLIC LIBRARIES

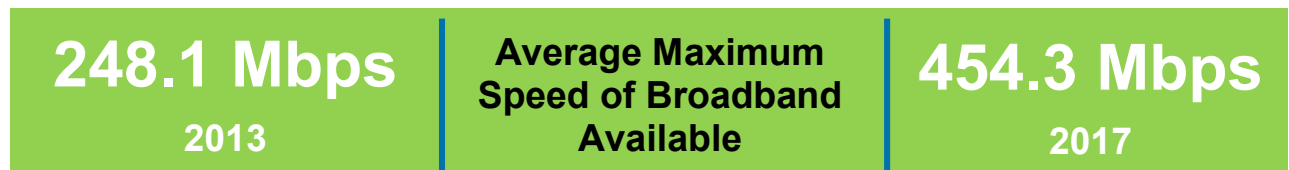
Nearly two-thirds (63.9%) of public libraries in the respondents' ILEC service areas were connected by FTTP.

Public Libraries: Maximum Broadband Speed Available



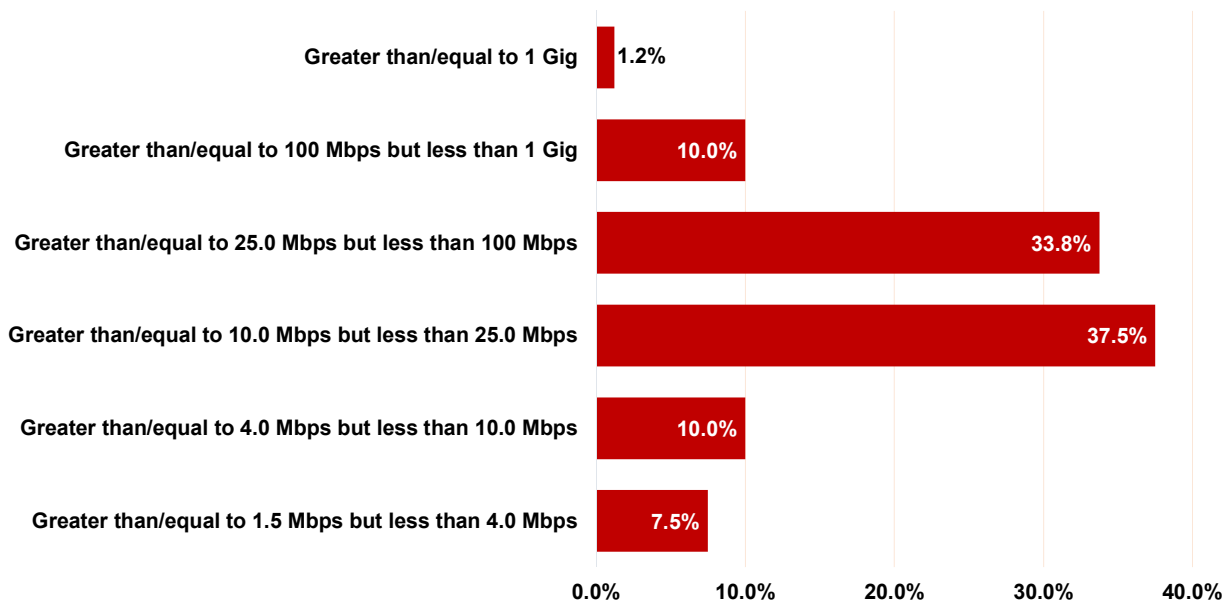
Source: 2017 NTCA–Anchor Institution Survey

- More than four in 10 respondents (41.3%) indicated that public libraries in their ILEC service areas had access to a maximum broadband speed of 1 Gig or more. For approximately one-half of the respondents (48.9%), public libraries had maximum broadband speed available ranging from 25.0 Mbps to less than 1 Gig. A very small percentage (2.2%) reported that connected public libraries in their service areas had access to a maximum speed of less than 10.0 Mbps.



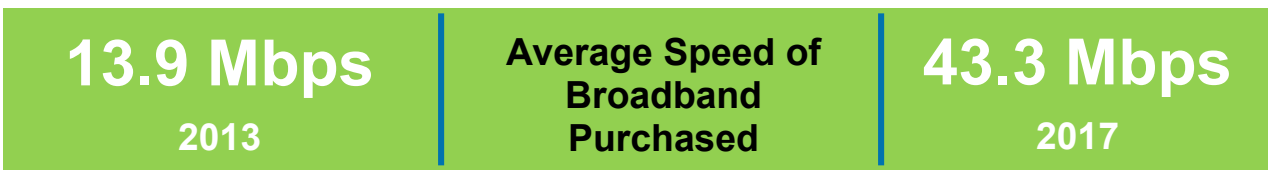
- The maximum speed of broadband available to connected public libraries averaged 454.3 Mbps (compared with 248.1 Mbps in 2013). The median maximum speed available to public libraries in 2017 was 100 Mbps.

Public Libraries: Average Broadband Speed Purchased



Source: 2017 NTCA–Anchor Institution Survey

- Nearly four in 10 responding companies (37.5%) reported having public libraries in their ILEC service areas that purchased a broadband speed of greater than/equal to 10.0 Mbps but less than 25.0 Mbps, and another one-third (33.8%) reported that public libraries purchased a speed of greater than/equal to 25.0 Mbps but less than 100 Mbps. More than one-tenth (11.2%) had public libraries that purchased a broadband speed greater than/equal to 100 Mbps.

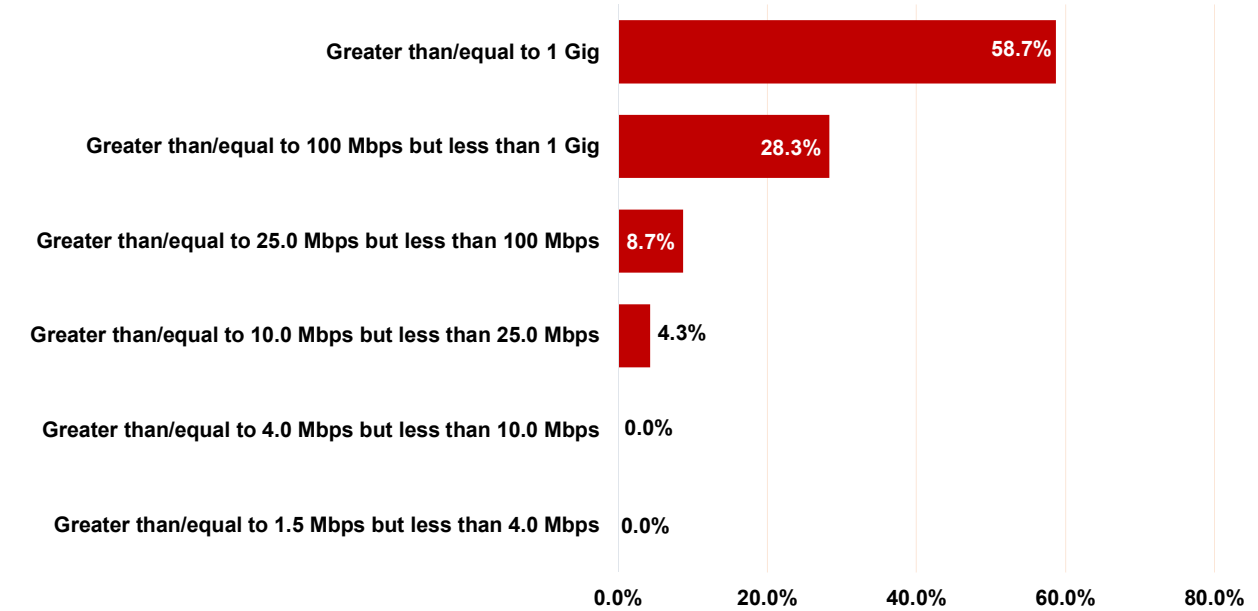


- The average speed purchased by public libraries in 2017 was 43.3 Mbps (compared with 13.9 Mbps in 2013). The median speed purchased by public libraries in 2017 was 20.0 Mbps.

K-12 SCHOOLS

More than eight in 10 (82.4%) K-12 schools were connected by FTTP.

K-12 Schools: Maximum Broadband Speed Available



- Almost three-fifths of responding companies (58.7%) reported that K-12 schools in their ILEC service areas had access to a maximum broadband speed of 1 Gig or more, and more than one-quarter (28.3%) indicated that the K-12 schools had access to a broadband speed of greater than/equal to 100 Mbps but less than 1 Gig. The slowest maximum speed available to connected K-12 schools, as reported by 4.3% of responding companies, was greater than/equal to 10.0 Mbps but less than 25.0 Mbps.

912.2 Mbps

2013

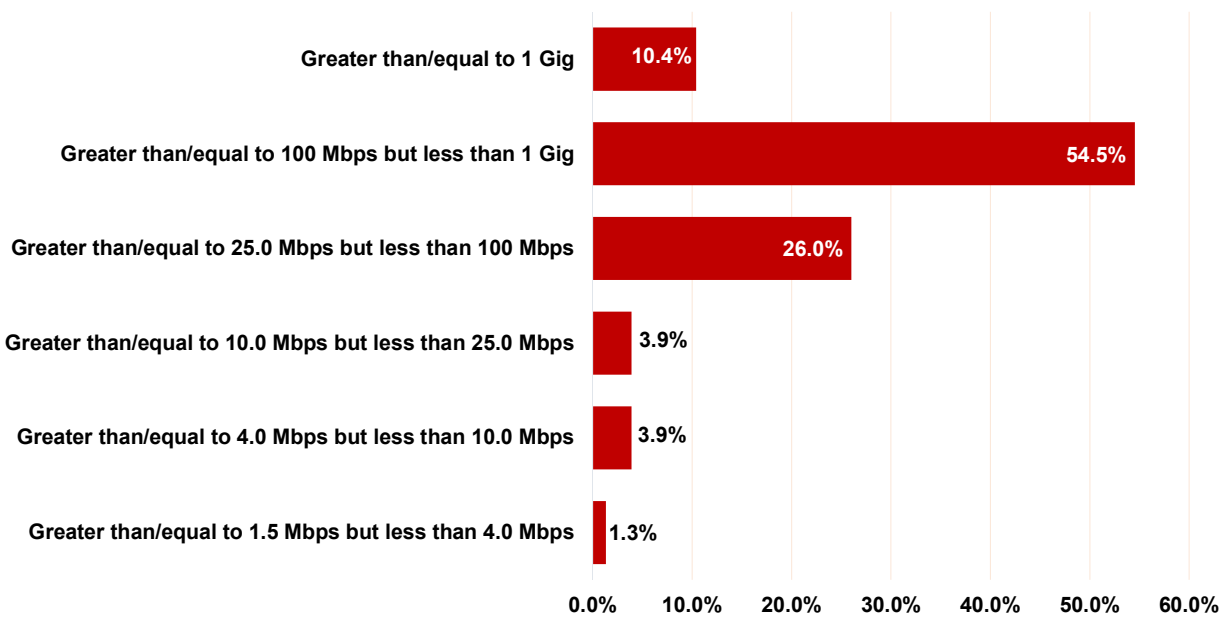
**Average Maximum
Speed of Broadband
Available**
(1,000 Mbps = 1 Gig)

1156.8 Mbps

2017

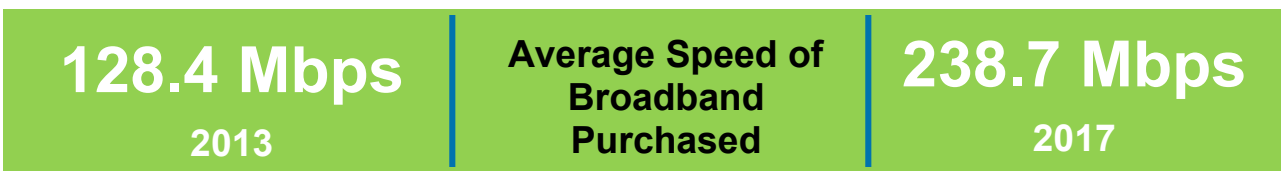
- The maximum broadband speed available to K-12 schools in the respondents' ILEC service areas was 1156.8 Mbps in 2017 (compared with 912.2 Mbps in 2013). The median maximum speed available to K-12 schools in 2017 was 1 Gig.

K-12 Schools: Average Broadband Speed Purchased



Source: 2017 NTCA–Anchor Institution Survey

- More than one-half of the respondents (54.5%) had K–12 schools in their service areas that purchased an average speed of broadband that is greater than/equal to 100 Mbps but less than 1 Gig, while just over one-quarter (26.0%) indicated that K–12 schools in their ILEC service areas purchased the third-highest speed tier (greater than/equal to 25.0 Mbps but less than 100 Mbps). Only one-tenth of responding companies reported having K–12 schools that subscribed to the highest speed tier of broadband connection (greater than/equal to 1 Gig).

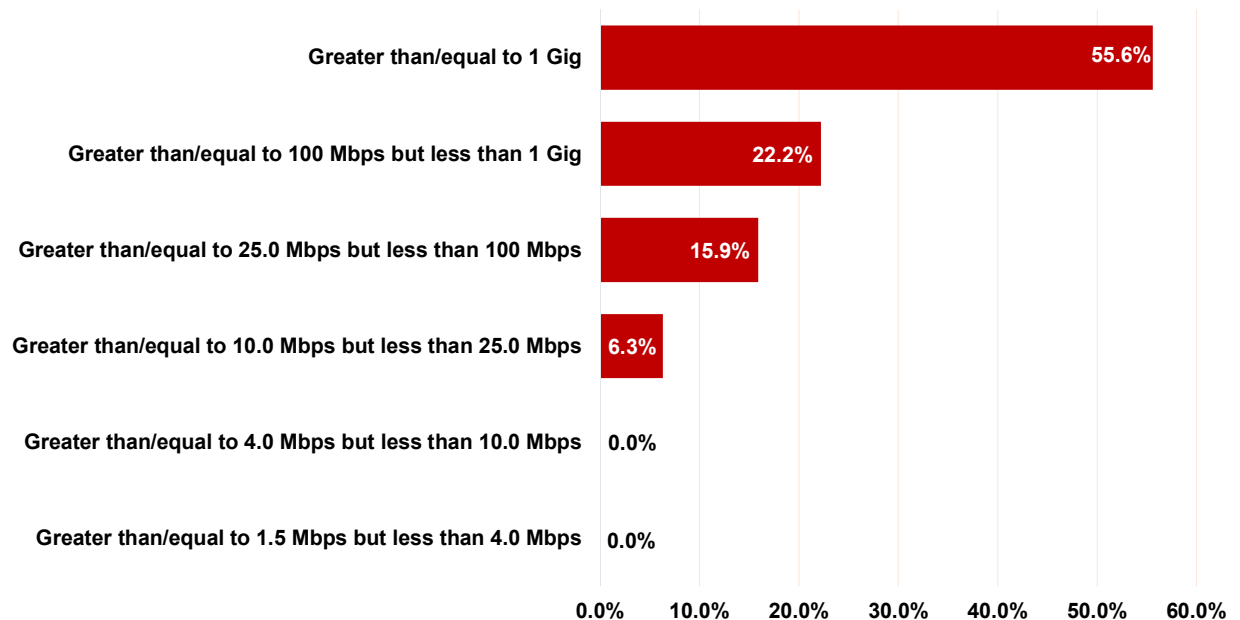


- The average speed purchased by K–12 schools was 238.7 Mbps in 2017 (compared with 128.4 Mbps in 2013), and the median speed purchased by K–12 schools in 2017 was 100 Mbps.

HOSPITALS AND MEDICAL CLINICS

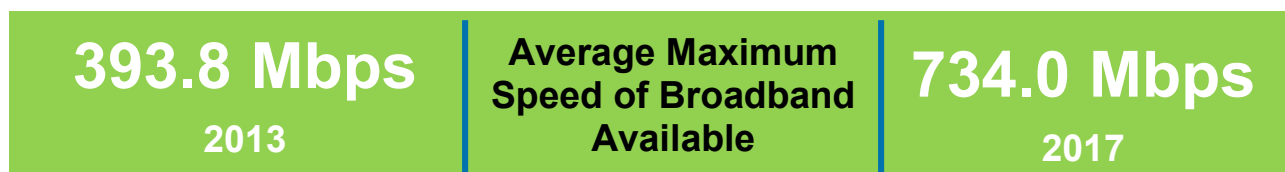
Three-quarters of hospitals and medical clinics (75.9%) were connected by FTTP.

Hospitals and Medical Clinics: Maximum Broadband Speed Available



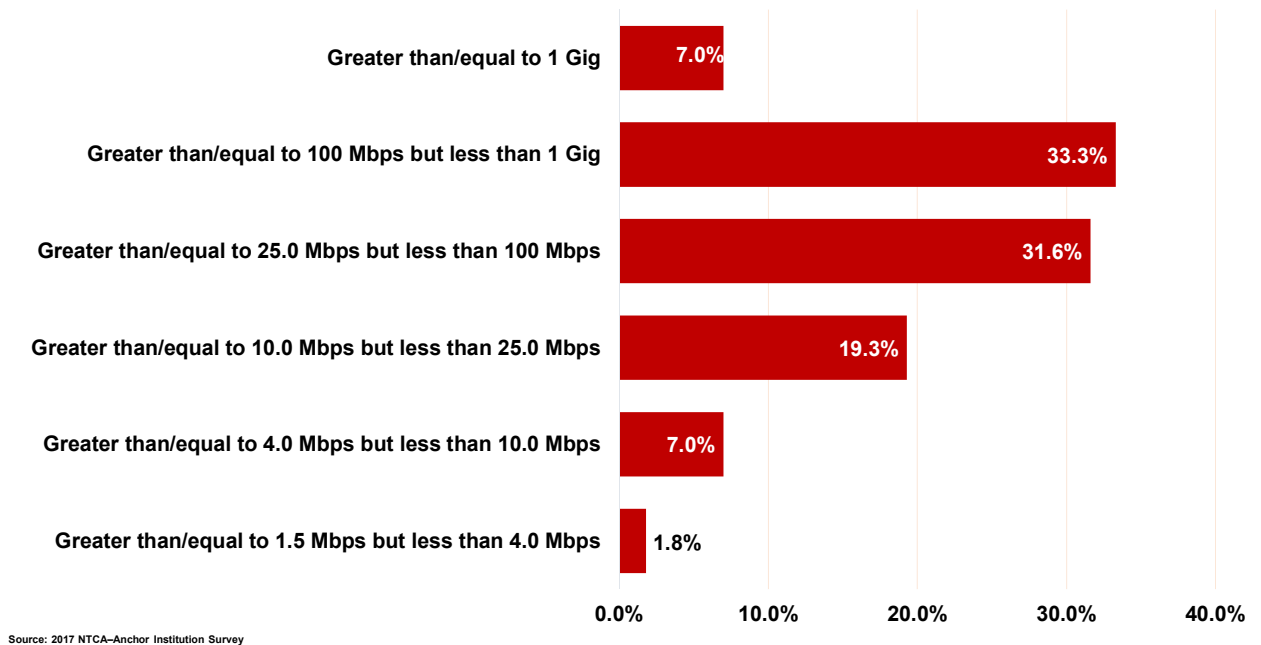
Source: 2017 NTCA–Anchor Institution Survey

- More than half of the responding companies (55.6%) had hospitals and medical clinics in their ILEC service areas with access to a maximum broadband speed of 1 Gig or more, and about one-fifth (22.2%) reported that hospitals and medical clinics in their ILEC service areas had access to a maximum speed greater than/equal to 100 Mbps but less than 1 Gig. The slowest maximum broadband speed available to connected health care providers, as reported by 6.3% of respondents, was greater than/equal to 10.0 Mbps but less than 25.0 Mbps.



- In 2017, the maximum speed of broadband available to hospitals and medical clinics in the responding companies' ILEC service areas averaged 734.0 Mbps (compared with 393.8 Mbps in 2013). The median maximum speed available to hospitals and medical clinics in 2017 was 1 Gig.

Hospitals and Medical Clinics: Average Broadband Speed Purchased



- Just under one-third of respondents reported that hospitals and medical clinics in their service areas purchased an average broadband speed of greater than/equal to 25.0 Mbps but less than 100 Mbps while another third indicated that health care providers purchased an average broadband speed of greater than/equal to 100 Mbps but less than 1 Gig. Almost one-fifth (19.3%) reported that hospitals and medical clinics purchased an average speed ranging from greater than/equal to 10.0 Mbps but less than 25.0 Mbps.



- The average speed purchased by hospitals and medical clinics in 2017 was 128.7 Mbps (compared with 16.3 Mbps in 2013), and the median speed purchased was 50.0 Mbps.