

Public Benefits of Broadband Service to the Town of Jaffrey

<https://www.gencourt.state.nh.us/rsa/html/III/33/33-3.htm>

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Background

The Town of Jaffrey (population 5,297) is a rural community in southwest New Hampshire which has many miles of low density population resulting in internet service that is poor or non-existent outside of the immediate downtown area. The lack of service impacts the community's sustainability and future economic growth. Jaffrey appears to be well served on paper (broadband map) but service gaps, and lack of service for many locations is impacting future growth and current sustainability. Small businesses, entrepreneurs and home-based business retention and growth are currently negatively impacted by unreliable, inaccessible and in places, non-existent, broadband connections. Small businesses are crucial to the town's sustainability, providing a diverse economy by blending our large manufacturing sector with downtown growth and investment.

A recent survey of regional towns completed by Accelara Publishing Research provided relevant data to inform our project of local business needs. In addition, the Town has conducted its own survey which indicates that more than half of the respondents are either dissatisfied or very dissatisfied with their internet connection. Most users are accessing the internet for video conferencing, working from home, education, email and entertainment. The survey results show that the users prioritize and expect 1) reliability and 2) speed from an internet provider. The major concerns with current services are intermittent service, dropouts and slow download/upload speeds.

The Accelara survey results also indicate that 4 in 5 businesses would operate more efficiently and profitably with higher internet speed service. Further, 3 in 5 would improve video teleconferencing and increase real time collaboration, improve company networks (VPN) and in-house web hosting. And 70% of businesses responding indicated they would adopt a higher internet speed option, when available, with an increase in price up to 30%. If there were no increase in price to access the improved system nearly every business would upgrade (Accelara, 2015). [Check our survey for similar results](#)

Preliminary Survey responses can be found [here](#).

The Jaffrey region is rural, sparsely populated outside of the town centers, and challenged by topography and forest cover. The enhancement of internet services is impeded by the high cost of infrastructure deployment, the lack of state and federal incentives and regulatory and permitting barriers. These limitations all play into the challenges facing small business, entrepreneurs, and home-based workers. Small and growing businesses find it difficult to compete in the global economy, and must compete with other states which are making investments in the universal provision of Broadband access. Thus it is difficult attracting new business and residents to Jaffrey.

We face a two-fold problem in providing broadband access; reaching unserved and underserved populations and expanding the infrastructure capacity to meet broadband upload and download speeds necessary for web based applications. Home based workers need capacity for large data transfers, video-conferencing and remote computing.

Project Need

It is apparent to those of us who live in rural communities, that we don't fit the traditional business model for large internet providers. There is not enough customer density per mile to incentivize providers to

expand broadband networks on their own. This in turn has a negative effect on real estate values, with those properties without access to reliable and affordable broadband internet services falling below market value. This, in turn affects the growth of the community and desirability for potential new residents. For our community to prosper in the future Internet access must be addressed as a utility and a key infrastructure element of the community.

To illustrate, FCC minimum standards for download speed is 25 Mbps and minimum upload speed is 3 Mbps. The average download speed in Jaffrey is 9.13 Mbps. 500 Jaffrey residents out of 2800 possible service connections have one or fewer wired internet options available. Jaffrey ranks 149th out of 223 in connectivity in the state putting it in the 65th percentile (Reese and Anderson, 2018).

Internet access in NH is reported to attain a statewide average download speed of 28.8 Mbps. While the providers report that 96.7% of New Hampshire residents have access to 25Mbps, and 84.0% have access to 100Mbps the reality on the ground is far different for our rural communities (Reese, 2017).

The Statewide data mapper for broadband availability, housed by UNH Broadband Mapping and Planning Program depicts Jaffrey as being served. (UNH Broadband Mapping and Planning). Jaffrey appears to be well served on paper but service gaps and lack of broadband service have a significant affect to our future growth and current sustainability. Recent research has provided clear evidence of the impact broadband service has on those communities which have it.

“Having access to broadband can impact household income by as much as \$2,100 annually. Startups can save an estimated \$16,500 by using broadband services. The Fiber to the Home Council found that companies with fiber connectivity saved about 20 percent on operating expenses. Electronic health records and remote access will save over \$700 billion nationally over the next 10 to 15 years. Adequate broadband increases real estate values \$5,000 to \$6,000 and lack of it decreases real estate value up to 20 percent” (Miller, 2015). From data available from the US Census in 2016, the median home price in Jaffrey was \$187,600. Documentation on the effects of Broadband coverage on home prices is available from an ongoing nationwide study at the University of Colorado at Boulder. In addition to the benefit directly accrued by the property owner, the broader increase in overall real estate values results in increases in property tax revenue, benefiting the entire community.

In the Southwest region of New Hampshire, only 30.8% of those testing broadband speeds can be categorized as being “served” the remaining 42.7% are underserved and 26.6% are not served. Maps provided by the ISPs, Comcast and Consolidated Communications, do not reflect actual availability or “advertised” speeds (SWRPC, Broadband Plan, 2015).

With Consolidated Communications, Comcast and the much smaller WiValley, as the sole wired providers, many of our residents don’t have a choice as only one of these is likely to provide service in a neighborhood if at all.

Small businesses and entrepreneurs need access to high quality reliable broadband and high-speed internet. Real estate values are affected by lack of access to broadband, we have vacant properties available for development but with no interest being shown due to the lack of adequate broadband access. The current state of internet infrastructure leaves the town at risk of becoming an internet backwater, while neighboring communities successfully move into the future. The Economic Development Council and Select Board consider internet as much of a necessary utility as electricity and water and sewer.

Public Benefits

The New Hampshire FastRoads project brought fiber optic through town as part of its build out from Rindge to Enfield. We have an opportunity to extend that network for the benefit of our small businesses, local government, and public safety organizations. Without access to broadband, the town and region face disparities in economic opportunity, education, and community vitality.

Small businesses, entrepreneurs and home-based businesses will benefit through expanded opportunity, job retention and growth. Manufacturing and high-tech industry is key to Jaffrey's future.

Complementary to that is providing an attractive place for employees to live, raise a family and enjoy civic life.

Project benefits would include *improved educational opportunities* with access to broadband in the primary and secondary schools accelerating student performance and readiness. The use of more innovative teaching methods with student access at home and narrowing the gap between served and underserved students. Economic growth would be supported by improving access to the global economy, increasing business operation efficiency and establishing a setting conducive to the influx of new enterprises. Home based workers would benefit through increased capacity for large data transfers, video-conferencing and remote computing. It will remain difficult to attract new business and residents without providing a level of internet access that has become a universal expectation elsewhere.

Emergency management personnel will benefit through improved ability to transmit "live feed" emergency situations to hospitals and emergency facilities. Sharing information with the public during an emergency and lack of access at critical transport sites such as Silver Ranch Airpark.

Town office experiences frequent time outs as well as interruptions in access to our cloud based applications and storage. In addition, town departments such as recreation, fire, department of public works, police, and library are all presently on separate networks inaccessible to one another. Currently we have poor transmission of live stream public meetings and video-conference. With access to and expansion of capacity with the fiber optic network we can overcome many of these deficiencies.

Access to electronic records such as *tele-med* is especially important for rural communities like Jaffrey where the elderly or disabled would benefit from remote patient monitoring for chronic conditions. This is especially so for those who do not have access to public transportation making in-person doctor visits vital for these citizens.

Today's *homeowners* insist on having high speed Internet access. Selling your home will be easier if a high speed fiber optic network is available in the town, whether you subscribe to it or not. This has been demonstrated by Jaffrey's residents' comments during public meetings, referencing their personal experience when dealing with potential home buyers, as well as residents who have recently moved into the Town. Rural New England realtors have noted that in many cases buyers are unwilling to even consider properties that do not currently have adequate internet service.

Project benefits also include improvements to *system reliability, redundancies and back-up*. This project documents the data needed to generate public support for funding the build-out.

What people are saying about the need for broadband in Jaffrey ¹

- my income would definitely improve if I had better internet service
- while trying to complete this survey, my internet crashed, which is normal, I lost everything & had to start again- even small tasks become time consuming and frustrating when the internet isn't reliable
- we are at the end of the line - they cannot provide speed higher than 3.0 download - we usually get 1.3, sometimes none at all
- high speed broadband internet has become a necessary part of life, education and work
- internet service will make or break communities' ability to compete in the future
- sometimes I drive 25 miles to my place of work (and another 25 back) just to use a computer there
- I am not able to take advantage of all of my business opportunities because I do not have strong enough internet
- if we had fiber in Jaffrey, I would be able to work from home and spend more in Jaffrey - and potentially hire people in Jaffrey
- lack of broadband is a deal-breaker for more and more Jaffrey home buyers, no matter how much they would otherwise like to live here
- COVID - need to work from home very challenging when the internet is as poor as it is.
- need better options, Consolidated is *****, comcast wants \$25k to run the line 100 yards to my house
- in the 21st century, we should ALL have usable and reliable access to the internet
- reliable high speed internet access needs to be accessible to everyone
- PLEASE PLEASE bring fiber to the door in Jaffrey - the town, students, people who work from home are being disadvantaged and will fall further behind over time
- high speed broadband internet has become a necessary part of life, education and work - a requirement not optional.
- we need fiber - our unreliable landline requires a service call every couple of months
- the future is working, schooling and health services from home
- internet service will make or break a communities ability to compete in the future
- please expedite fiber optic to homes & small businesses like Rindge has done - Jaffrey missed the boat on this one
- would really like to have the higher speeds that friends around the country easily achieve
- a real hardship - I have to work from my car in the library parking lot or the free Subway Wifi
- please hurry up, this questionnaire was done over a year ago by the Chamber of Commerce
- lack of high speed internet availability is very likely to make homes difficult to sell in the near

¹ (comments excerpted from 2020 Jaffrey town survey, edited for brevity/clarity)

future, without reliable internet service Jaffrey is at a competitive disadvantage

- my employer is in MA - it's embarrassing having to make excuses for our "crappy New Hampshire internet" when I can't fully participate in an online meeting.
- I've been having to drive to work to use the internet sometimes instead of staying home and safe from COVID
- while I may be retired, I use the internet daily and feel it is essential to our life in rural NH

Supporting Data/Reports

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-figures are adjusted for inflation to 2016 rate