



**Strategic
Networks
Group**

- Fiber User Survey - Uses and Impacts of FTTH in Jackson, Tennessee

Conducted by SNG for the FTTH Council

April / May 2007

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Purpose and Coverage of Fiber User Survey

- Research component of FTTH Economic Impact Model project for FTTH Council*
 - Jackson is one of three communities participating in primary research of fiber impact
 - Surveyed Jackson, Reedsburg (WI), and Bristol (VA)
- Survey designed to collect information on fiber use and benefits
 - Targeted existing businesses and organizations using fiber
 - Fiber impacts include sales, cost savings, and employment to understand effect on local economy

* The Fiber-to-the-Home (FTTH) Council, North America, is a non-profit organization established to help its members with planning, marketing, implementing and managing FTTH solutions



Survey Response Statistics

- Survey deployed online and through phone contact in April/may timeframe
- Response rate for Jackson was over 14%, which is very good for this type of survey (industry avg. is 5%)
- Jackson results are presented based upon the 26 usable responses received

Location	Jackson, TN	Bristol, VA	Reedsburg, WI	Total
Number of Organizations	182	922	214	1318
Responses Received	35	167	53	255
Completion Rate %	19.2%	18.1%	24.8%	19.3%
Incomplete Responses	9	5	3	17
Usable Responses	26	162	50	238
Adjusted Completion Rate %	14.3%	17.6%	23.4%	18.1%



What does FTTP mean to businesses and org's?

Reported Uses of Fiber

- Highest uses are Research, Document Transfer, and Purchasing
- Opportunities for increased online selling
- Tele-working is a function of business type, job function, and local environment

Reported Benefits of Fiber

- Highest benefits of fiber are operational
- 58% cite cost saving as important
- 69% have adopted new processes
- 73% see marketing benefits
- 50% say fiber is important for sales



Quantified Impacts

- **21 organizations reported on fiber impact to sales**
 - 4 businesses reported a total increase to sales of \$376,000 in the previous 12 months
 - 17 organizations reported no dollar impact to sales
 - Average increase in sales of \$17,905 per organization reporting
- **20 organizations reported cost impacts due to fiber use**
 - Total cost saving is \$2,937,000 in previous 12 months – HOWEVER, this includes one large organization reporting \$3,000,000 in savings
 - The remainder represents a net average cost increase per organization of \$3,150
- **Net increase in employment of 395 jobs in the previous 12 months by reporting organizations**
 - Includes full time, part time, and temporary/seasonal jobs
 - Only 3 net new jobs reported by businesses with increased sales from fiber, a net increase in employment of 7.3% due to fiber



Direct Effects of Fiber

- Fiber use has direct and measurable benefits to businesses and organizations in Jackson
- Extrapolating* survey results to all fiber users indicates significant potential impact to the community:
 - Direct increase in sales revenues of \$3.3M per year
- Net cost savings is indeterminate for Jackson
 - Aggregate across all community surveys is \$22,969 average annual cost saving per organization
- Increased sales and cost savings contribute to business growth and additional employment
- Indirect effects flow through to non-fiber businesses that provide goods and services in the community

* The extrapolation applies the simple averages derived from the survey sample to the total number of fiber users in the community. Due to sample size this extrapolation is used to indicate order of magnitude of impacts and cannot be taken as actual results or estimates. The extrapolation does not include indirect and induced effects of increased local economic activity.



Fiber User Feedback

- Fiber users provided additional feedback on fiber use and benefits through survey and follow-up interviews:
 - Speed and bandwidth were widely cited benefits
 - In addition, many recognized the increased reliability of fiber compared to prior forms of access
 - Service pricing and customer service and support are also cited as benefits of moving to fiber
- The most common perceived benefits are to make operations easier, increasing efficiency and saving time
- Organizations are increasingly incorporating high-speed capabilities into their daily operations
 - Large document transfer, real-time communications with customers and suppliers, online-transactions, and research



Fiber User Comments on Benefits

“There are two major reasons. One, if we didn't have it we would have to move the business out of the community. Second, we are anticipating doubling our staff and profit and if it weren't for the broadband we wouldn't be able to accomplish that.”

- Publishing (10 employees)

“The main change is in file transfer. We deal a lot with electronic artwork in the printing industry, and it has enabled us to more fluidly conduct business on the artwork side.”

- Printing (6 employees)

“Research has been the biggest area which it has helped as well as access to online training materials. It reduces the time for the office staff to access external documents and serve customers.”

- Engineering firm (73 employees)

“Over fiber I'm able to transfer home and commercial building plans, engineering, and design modifications. Over dial up it would take hours to do download this information.”

- Building materials retail (5 employees)

“Time saved is \$\$\$. We have to communicate with our manufacturers and there would be no way to do this over dial-up due to the size of files that are transmitted and received. More and more departments have to communicate via PC's. Dial-up couldn't handle.”

- Auto dealer (40 employees)



Research Conclusions

- **Specific industries report the highest impacts**
 - Manufacturing
 - Retail
 - Professional & Technical Services
 - Arts, Entertainment & Recreation
 - Tourism, Accommodation & Food Services
 - Agriculture
- **Benefits take time to materialize in operations**
 - The majority of sales, cost, and employment impacts occur after 2 to 3 years of fiber use
- **Users recognize the operational benefits of fiber use**
 - Efficiency – saving time and doing more with existing staff
 - Reliability – reliable high-speed access is an increasing dependency
 - Growth – many businesses rely on fiber to service customers, deal with suppliers, and remain competitive
- **Opportunity to target business and industry categories with tangible operational benefits, increasing fiber penetration and economic impact**



About SNG

At SNG we develop solid, pragmatic, and successful strategies for investments in technology solutions within your community.

Our Mission

To revitalize communities with strategic Information and Communication Technology planning based on actionable economic analysis.

Our Philosophy

People make the difference – not technology.

Our Team

An experienced team of specialists who apply proven methodologies and analysis tools in all aspects of ICT planning.

Information and Communication Technology (ICT) – infrastructure, equipment, applications and services that enable electronic communication and sharing of information.



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