

CONNECTING NEW HAMPSHIRE:

Cable's Impact on
the State's Economy



NECTA

New England Cable &
Telecommunications Association, Inc.



This report was prepared by the University of
Massachusetts Donahue Institute, the public service,
outreach and economic development unit of the
University of Massachusetts Office of the President.

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The New England Cable & Telecommunications Association, Inc. (NECTA) is a six-state regional trade association representing cable telecommunications companies in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont. NECTA retained the UMass Donahue Institute to conduct research, document the nature and scale of NECTA companies in each of the six New England states and analyze the contributions generated by its firms. NECTA represents the vast majority of cable companies in New England but is not representative of the entire industry. For this report, data were collected from various secondary sources as well as major NECTA member companies. Major NECTA member cable companies operating in New Hampshire include Charter Communications, Comcast and Time Warner Cable.

PARTICIPATING NECTA MEMBER COMPANIES:



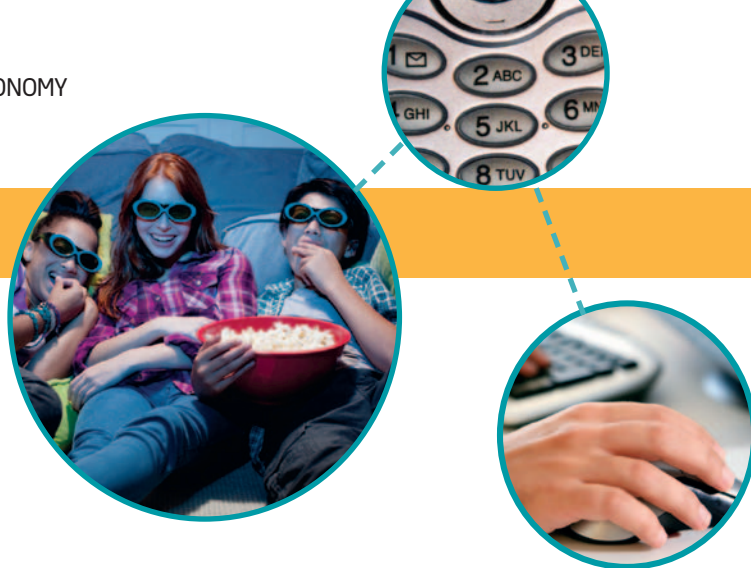
Bee Line Cable



OTHER NECTA MEMBERS:

Lincolnton Communications (Maine)
MetroCast Communications
NEPSK Inc./Polaris Cable Services (Maine)
Ski Sat (New Hampshire)
TDS Telecom (New Hampshire)
Trans Video, Inc. (Vermont)
Waitsfield Cable (Vermont)
White Mountain Cablevision (New Hampshire)

SUMMARY OF KEY FINDINGS



New Hampshire's cable companies contribute significantly to the state economy and to local communities.

In 2010, cable's capital investment in network infrastructure and operating and payroll expenses resulted in a total contribution of \$622.8 million in economic activity across the state. Further, between 2006 and 2010, when the state's overall economy slowed, New Hampshire's major cable companies added employees. Strong capital investments, growth in consumer demand for broadband, as well as diversified and emergent cable products and services have enabled this expansion. Finally, New Hampshire's cable companies also impact the communities they serve through philanthropic initiatives and by donating services to a wide variety of community institutions.

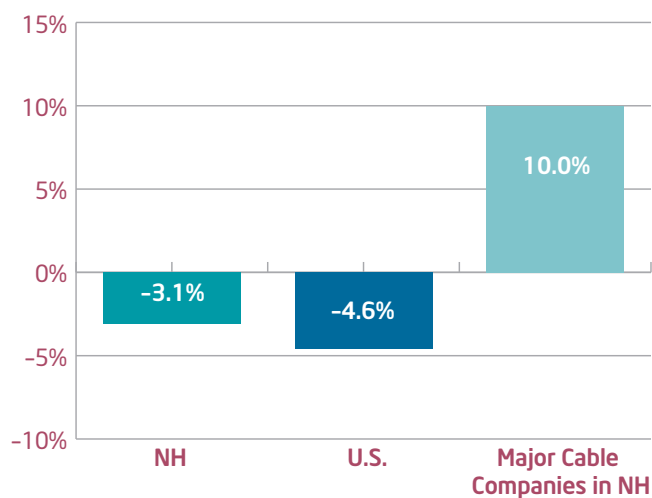
Building the foundation for economic growth

- New Hampshire's cable companies are significant broadband providers within the state, contributing nearly three-quarters of all wired high-speed lines (73.7 percent), which is the highest percentage in New England.
- Since 2005, high-speed cable broadband lines in New Hampshire have increased 75 percent from 188,000 to 329,000 in 2010, one of the fastest rates in New England for the time period.
- From 2006 to 2010, major cable companies in New Hampshire spent more than \$229.3 million on capital improvements, \$52.3 million in 2010 alone, including investments in the network, head ends, customer premise equipment and vehicles. As of 2010, these investments helped support and create nearly 10,500 miles of broadband plant and more than 2,000 fiber strand miles across New Hampshire.

Bolstering the regional economy

- During a period when the overall economy slowed, the state's major cable companies grew employment by 10 percent, from 1,306 employees in 2006 to nearly 1,437 in 2010. During this same period, New Hampshire's overall employment decreased by 3.1 percent and the nation's employment declined by 4.6 percent.

Change in Total Employment, 2006-2010



Source: United States Department of Labor, Bureau of Labor Statistics, Current Employment Statistics & New Hampshire Economic and Labor Market Information Bureau; data collected from major NECTA firms

- Along with their own employment, major New Hampshire cable companies support nearly 3,200 jobs, including more than 1,700 positions in other industries throughout the state.

- In 2010, spending by New Hampshire's major cable companies and their employees generated \$622.8 million in economic activity across the state. Direct spending by major cable companies (capital investment, operations and employee compensation) accounted for \$352.9 million of that total, and that direct spending catalyzed an additional \$269.9 million in spending by other industries throughout the state.
- Along with spending within the telecommunications industry, major cable companies in New Hampshire support a variety of important regional sectors, including real estate; advertising and related services; and professional, scientific and technical services.
- In 2010, New Hampshire's major cable companies contributed \$20.4 million in state and local taxes and \$10.4 million in franchise fees.

Supporting local communities

- New Hampshire's major cable companies annually donate cable and broadband services worth more than \$950,000 to more than 1,100 schools, libraries, nonprofits, government facilities and other community institutions in their service areas.
- Additionally, in 2010 alone, New Hampshire's major cable companies contributed more than \$615,000 in cash and other in-kind support to nonprofit organizations in their local communities.

Total Economic Contributions of Major Cable Companies in New Hampshire, 2010

Direct Spending	Additional Indirect Contributions	Total Economic Contributions
\$352.9M	\$269.9M	\$622.8M

Source: Data collected from major NECTA firms, calculations by UMDI; MIG, Inc., IMPLAN System



INTRODUCTION

New Hampshire's cable companies provide the foundation for economic growth in an increasingly sophisticated economy. Connecting more than 350,000 residential and business subscribers, major cable companies¹ in New Hampshire are expanding technologies to provide a diverse range of video, data and voice products and services. Through investments in an increasingly expansive communications network, cable companies play a major role in growing broadband connectivity throughout the state. Major investment in the communications backbone is accompanied by ongoing investment in human capital to support the operations of the sector.

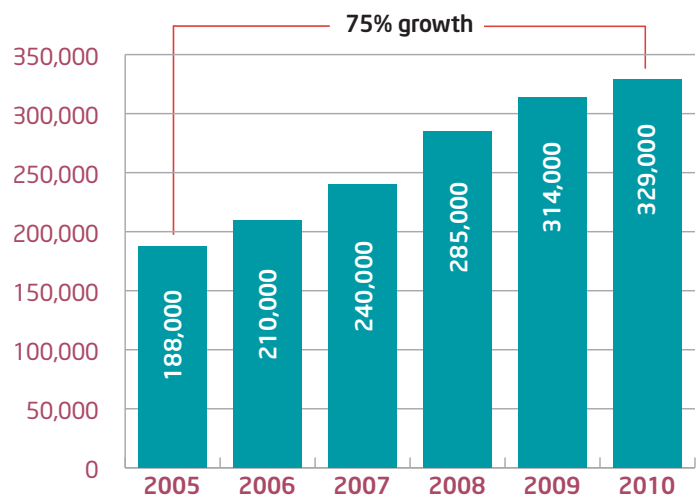
Day-to-day operations and capital investment activities have a major effect on the New Hampshire economy, contributing \$622.8 million to the state's economy in 2010. In that same year, major cable companies employed more than 1,400 workers across New Hampshire and, in the last five years, their employment numbers grew significantly despite a struggling state and national economy. While making significant economic contributions, cable companies also provide ongoing service and charitable contributions to community institutions, promoting better access to broadband and other technologies. Through their uniquely extensive and advanced broadband infrastructure, and as providers of essential communications technologies, New Hampshire's cable companies are indeed at the cutting edge, driving economic growth throughout the region.

BUILDING THE FOUNDATION FOR ECONOMIC GROWTH

New Hampshire relies on cable to connect

Broadband has revolutionized the way people live and work in New England, and cable companies in New Hampshire are significant players in providing this crucial infrastructure to the state's economy. In response to consumer demand, the number of high-speed Internet lines in New Hampshire (including cable, DSL, mobile and FTTH) has grown explosively over the past decade, with year-over-year growth in the double digits. In 2009, there were 612,000 high-speed lines, more than half of which were cable. When considering high-speed lines supplied by strictly wired providers (without mobile), the cable sector makes up nearly three-quarters of the total (73.7 percent), the highest percentage in New England.² High-speed cable broadband lines alone have increased by 75 percent in the state since 2005, from 188,000 to 329,000 in 2010, one of the fastest rates in New England for the time period.

FIGURE 1
Growth in High-Speed Cable Broadband Lines in New Hampshire, 2005–2010

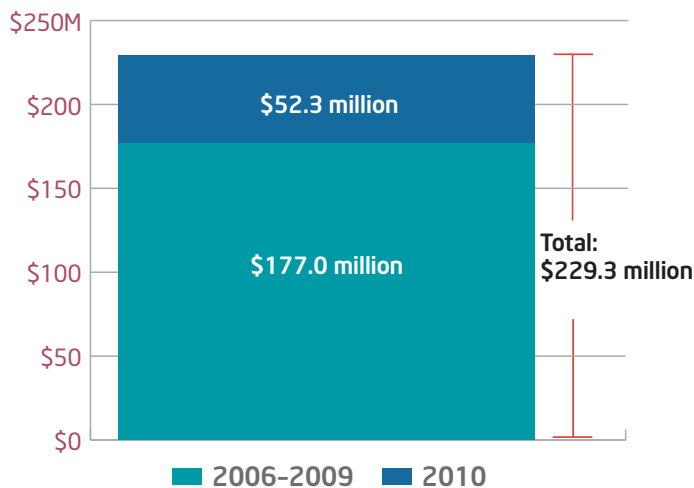


Source: Federal Communications Commission, *Internet Access Services Status as of June 30, 2010*, Table 22, <http://www.fcc.gov/wcb/iatd/comp.html>

Investing in the region's broadband infrastructure

In response to increasing consumer demand for broadband capacity, the cable sector has been investing in critical communications infrastructure throughout the region. From 2006 to 2010, major cable companies in New Hampshire invested more than \$229.3 million in capital improvements, \$52.3 million in 2010 alone, including investments in the network, head ends, customer premise equipment and vehicles. Investments accelerated through 2008 and 2009. As of 2010, these investments helped to support and create nearly 10,500 miles of broadband plant and almost 2,000 fiber strand miles across New Hampshire.

FIGURE 2
Capital Investment in New Hampshire by
Major Cable Companies, 2006-2010



Source: Data from major NECTA firms; adjusted to 2010 dollars by UMDI

Cable supports the New Hampshire IT industry

With more than \$229.3 million in capital spending over the last five years, major New Hampshire cable companies depend heavily on other information technology firms within the state to support the infrastructure so integral to their industry and the economy. Analysis of capital investment spending shows that cable companies invest heavily in all other information technology sectors. Capital spending is particularly focused on IT firms for communications, computer and plant hardware, and equipment. Major New Hampshire cable companies also spend significantly on communications infrastructure firms within the network communications sector that help build and maintain the broadband network and provide service to customers.

FIGURE 3
Top Sectors Supported by Cable Capital
Investment Spending, 2010

Industry	IT Sector
Telephone apparatus manufacturing	Hardware
Broadcast and wireless communications equipment	Hardware
Telecommunications	Network Communications
Wholesale trade businesses	**
Custom computer programming services	IT Services
Software publishers	Software
Electronic computer manufacturing	Hardware
Management of companies and enterprises	**
Other electronic component manufacturing	Hardware
Semiconductor and related device manufacturing	Hardware

Source: MIG, Inc., IMPLAN System;³ UMDI **Not an IT sector

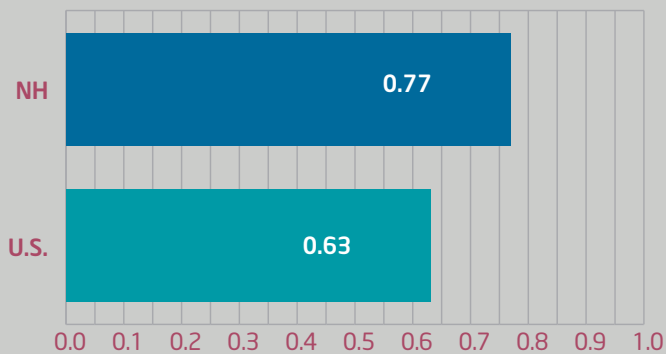


BRIDGING THE DIGITAL DIVIDE: PROMOTING BROADBAND ADOPTION IN NEW HAMPSHIRE

Broadband subscribership in New Hampshire is above the national average

With significant growth in broadband infrastructure, New Hampshire households boast high levels of broadband subscribership. In New

FIGURE 4
Residential Broadband Connections per Household, 2009



Source: FCC, Internet Access Services: Status as of 12/31/2009, Table 16. <http://www.fcc.gov/wcb/iatd/comp.html>

Hampshire in 2009, there were more than 390,000 high-speed lines serving residential customers—about 0.77 high-speed broadband connections for every household in the state, the highest in New England, compared to 0.63 in the nation overall.⁴

Promoting adoption of broadband in low-income communities in New Hampshire

Despite high levels of subscribership and the continuous development of the extensive broadband infrastructure by New Hampshire's cable companies and their competitors, the adoption of broadband remains an important public policy and economic development goal. National policy focus has been given to ensuring that all residents are able to access the economic and social benefits of broadband connectivity, particularly underserved groups like the economically disadvantaged and the elderly. In service of this broader effort, in April 2010, New Hampshire companies Charter Communications, Time Warner Cable and Comcast joined other national cable providers as part of **One Economy's⁵ Digital Adoption Coalition**. The coalition is a public-private collaborative effort to bring broadband to low-income families across the United States. As the largest provider in New England, Comcast already supports several sustainable adoption programs. Additionally, Comcast has established **Internet EssentialsSM from Comcast** to boost the number of low-income students using broadband in Comcast service areas. This national program will work with local school districts to offer low-income families high-speed Internet service for \$9.95 per month, computer equipment for less than \$150 and access to basic digital literacy training.

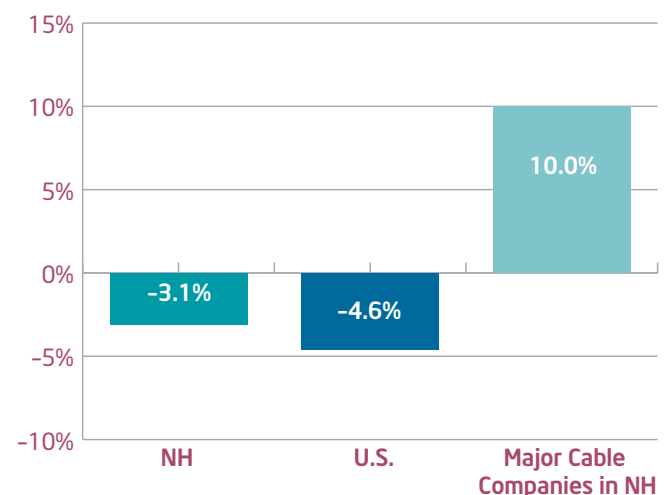
BOLSTERING THE REGIONAL ECONOMY

Cable is creating jobs

Cable companies compete as a part of a larger telecommunications industry, which includes firms that provide cable, wireline telephone and satellite distribution of voice, data, text, sound and video. In 2009, there were 3,263 New Hampshire workers in the larger wired telecommunications industry and, significantly, nearly half were employed by New Hampshire's major cable companies.

During a period when New Hampshire's overall economy experienced a slowdown, employment by major cable companies within the state grew 10 percent, from 1,306 employees in 2006 to nearly 1,437 in 2010. During this same period, the state and the nation overall endured substantial employment losses (–3.1 and –4.6 percent, respectively). Strong capital investments, growth in consumer demand for broadband, and diversified and emergent cable products and services, including a growing business market, have enabled cable companies to expand.

FIGURE 5
Change in Total Employment, 2006–2010



Source: United States Department of Labor, Bureau of Labor Statistics, Current Employment Statistics & New Hampshire Economic and Labor Market Information Bureau; data collected from major NECTA firms

Cable has a measurable impact

The cable sector contributes to the regional economy both directly and indirectly: through their spending on goods and services and ongoing capital investments; by hiring and paying employees; and through multiple forms of compensation to state and local governments. The value of major cable companies to the New Hampshire economy is illustrated by examining these key areas of spending and estimating their effects.

Total economic contributions

Major cable companies have an impressive impact on New Hampshire. Through their spending on everyday operations, capital investments and the household spending of their employees combined, these companies contributed \$622.8 million in 2010 in economic activity across the state. Additionally, major New Hampshire cable companies reported franchise fees and taxes to state and local governments of \$30.8 million. Along with their own employment, major cable companies support nearly 3,200 jobs, including more than 1,700 in industries throughout the state.



FIGURE 6

Economic Contributions of Major Cable Companies in New Hampshire, 2010

	Direct Spending	Additional Indirect Contributions	Total Economic Contributions
Operations and capital investments	\$248.8M	\$190.7M	\$439.5M
Employee compensation	\$104.1M	\$79.2M	\$183.2M
Total	\$352.9M	\$269.9M	\$622.8M

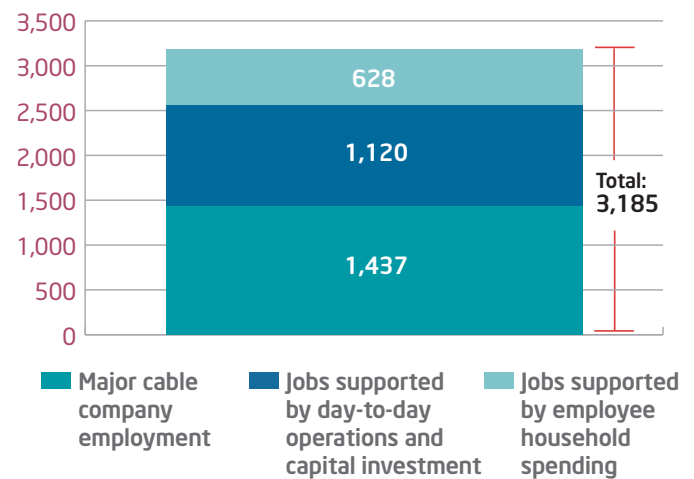
	Franchise Fees	State and Local Taxes	Total
State and Local Taxes and Fees*	\$10.4M	\$20.4M	\$30.8M

Source: Data collected from major NECTA firms, calculations by UMDI; MIG, Inc., IMPLAN System

Note: Numbers may not add due to rounding. *Includes subscriber-paid taxes.

FIGURE 7

Employment Contributions of Major Cable Companies in New Hampshire, 2010



Source: Data collected from major NECTA firms, calculations by UMDI; MIG, Inc., IMPLAN System

Major areas of spending

Spending to New Hampshire firms

In 2010, major New Hampshire cable companies spent \$248.8 million on day-to-day operations and investing in telecommunications infrastructure projects across New Hampshire. This operating and capital spending catalyzed nearly \$190.7 million of additional economic activity in firms throughout the region. In addition to spending within the telecommunications industry, major effects are also seen in real estate; advertising and related services; and professional, scientific and technical services, as shown in the table to the right. This spending also supported more than 1,100 jobs in these and other sectors.

Employee spending

In 2010, major New Hampshire cable companies employed more than 1,400 people in the state, with a combined payroll of \$104.1 million. The household spending of these employees contributed to an additional \$79.2 million in economic activity and supported more than 600 additional jobs in other industries throughout the region.

FIGURE 8

Top Sectors Supported by Major Cable Company Spending on Operations and Capital Investment, 2010

Telecommunications	\$35.9M
Real estate establishments	\$7.2M
Advertising and related services	\$6.5M
All other miscellaneous professional, scientific and technical services	\$6.2M
Architectural, engineering and related services	\$6.1M
Telephone apparatus manufacturing	\$6.0M
Cable and other subscription programming	\$5.3M
Motion picture and video industries	\$5.2M
Maintenance and repair construction of non-residential structures	\$4.4M
Wholesale trade businesses	\$4.2M

Source: Data collected from major NECTA firms, calculations by UMDI; MIG, Inc., IMPLAN System

NEW ENGLAND'S MAJOR CABLE COMPANIES SUPPORT KEY INDUSTRIES

New England has a small but robust cable programming and production sector, and major cable companies across New England spent nearly \$130 million in this sector. In 2009, this sector had 4,421 jobs across the region and grew by more than 25 percent in the last five years.



FIGURE 9

New England Employment in Cable and Other Subscription Programming Firms, 2005–2009



Source: United States Bureau of Labor Statistics, Quarterly Census of Employment and Wages for NAICS Industry 515210, the Cable Programming Industry

Contribution to state and local revenues

The cable sector contributes to government coffers, through not only state and local taxes, but also through franchise fees. In 2010, major cable companies paid \$20.4 million in state and local taxes (this includes subscriber-paid sales tax). They also generated \$10.4 million on franchise fees across New Hampshire, for a total of \$30.8 million directly supporting state and local governments.

Responding to the demands of a new economy: Cable innovation in New England

Home and business uses of data are proliferating, and the demand for lightning-fast connection speeds and capacity is growing in step, spurring cable innovation. Regional speeds are some of the nation's best, invigorating business and home uses that push economic advancement. Ongoing infrastructure investments by New England's major cable companies have contributed to the region's enviable data speed capacity. Collectively, New England states consistently rank in the top 10 for connection speeds according to Akamai Technology's quarterly *State of the Internet* report.⁶ Recent data show that on average, the United States had a measured connection speed of 5.0 mbps. New Hampshire averaged 6.1 mbps, ranking sixth in the United States overall. The improved speed and capacity allow for additional innovation at work and in the home. While enabling cable's traditional entertainment market to expand with new technologies such as high-definition television, digital video recording and 3D television, cable companies are also leveraging broadband's new speeds to foster groundbreaking new services and products that launch businesses and residential consumers into the new economy.

Growing markets for cable companies

The increasing needs of residential and business customers for connectivity and customized services are leading to growth in new markets for cable companies.

Telecommuters

Cable broadband increasingly connects employers to their employees and contractors remotely. According to the United States Census Bureau,⁷ nearly 4.3 percent of New Englanders work from home, in contrast to the national share of 4.1 percent of workers. This share is even higher in New Hampshire at a rate of 5.1 percent. Increased broadband availability, along with other business-focused cable innovations, are helping to support this wave of home offices for the self-employed and telecommuters. Select cable companies in New England are also taking advantage of their networks' speed and remote access technologies and, increasingly, are giving employees, like customer care representatives, the opportunity to work from home.

Small businesses and microbusinesses

Small businesses drive regional economies. A November 2010 survey⁸ for the United States Small Business Administration revealed that for the majority of small business respondents (54.7 percent) in the Northeast (New England with New York, New Jersey and Pennsylvania), high-speed cable is the dominant means for the provision of broadband services. In contrast to the rest of the nation, where high-speed cable connects only between a quarter and a third of small businesses, small businesses in the Northeast are highly reliant on the services of cable operators.

Further, recent work suggests that microbusinesses⁹ are essential to regional economic growth¹⁰ and, no doubt, these businesses have been highly impacted by broadband expansion. These businesses are especially important in states like New Hampshire, where, in 2008, nearly one in five workers (19 percent) was employed by a microbusiness, a rate higher than in New England (17.9 percent) and the United States overall (18.1 percent). Given the general reliance of small business on cable broadband in New England, it is clear that these extra-small businesses are relying heavily on cable companies to help connect them to their customers.



Large and institutional customers

Major cable companies are tailoring products and services to large business clients with industry-specific customization needs. Growing emphasis on increasing health care efficiencies has led to strong relationships in that industry. Cable is customizing private networks that connect hospitals, doctors' offices and labs with increased bandwidth and greater data speeds to meet the growing needs of its users.

Innovative products and services

Building on faster speeds and increased broadband capacity, the following are examples of new products and services provided to residential and large and small business customers.

Mobile and wireless

Consumers are demanding access to products and services on the go, and the cable sector is responding with new mobile and wireless options. Cable companies in New England are entering new product markets by adding additional services to the bundling trend, like wireless phones, as well as upgrading their established markets by providing online and portable access to their bread-and-butter digital subscription television services.

Home security

Advancing technologies have enabled cable companies to enter entirely new markets. Home security products are being tested in select New England markets by major cable companies, which include a Web portal, mobile applications, and text and e-mail alerts, and utilize both broadband and cellular technology.

VoIP

A significant share of New Englanders use Voice over Internet Protocol, or VoIP, for their residential voice service (28.1 percent), and businesses are starting to convert to this technology. The most recent Federal Communications Commission report¹¹ finds 2.6 percent of New England businesses have migrated to digital phone service from their traditional switched service, a rate slightly lower than the United States overall (3.1 percent).

Data storage services

Beyond voice and data, new technology innovations like cloud computing are enabling cable companies to provide more comprehensive and sophisticated data storage solutions for businesses, including disaster recovery, data backup, data protection, security and connectivity to accompany their growing suite of business products and services.



SUPPORTING LOCAL COMMUNITIES

Through philanthropic giving, unique local programming and targeted educational initiatives, major cable companies are helping to build stronger communities in New Hampshire.

Philanthropic giving

In 2010, major New Hampshire cable companies provided more than 1,100 schools, libraries, nonprofits, government facilities and other community institutions in their service areas with donated cable and broadband services with an estimated value of nearly \$960,000. Additionally, in 2010, New Hampshire's major cable companies report contributions of more than \$615,000 in cash and in-kind support to nonprofit organizations in their local communities. In a tight fiscal climate, cable companies are providing valuable support to help sustain critical community institutions.

FIGURE 10
Philanthropic Activity by Major Cable Companies in New Hampshire, 2010

Cash contributions	\$124,725
In-kind contributions	\$491,058
Voice, video and data broadband services (estimated value)	\$959,751
Total	\$1,575,534

Source: Data collected from major NECTA firms; calculations by UMDI

Serving local communities with regional programming

Almost universally, major cable companies provide unique local content to their customers in the form of sports coverage, regional politics and public interest programming through the traditional video medium and, increasingly, enhanced online content. Time Warner Cable customers in New Hampshire and Maine watch the Portland Pirates and the Maine Red Claws, along with select local high school sports, on **Time Warner Cable Sports. Comcast Sports Network New England** features New England-centric comprehensive sports programming for local, regional and national events of interest, including both college

and professional coverage. Both on TV and online, Comcast has rolled out this regional sports-focused programming in 11 areas of the country, including New England. Also New England-wide, **Comcast's New England Cable News (NECN)** is the largest 24-hour regional news network in the country and maintains a local news bureau in Manchester, New Hampshire.

Connecting and engaging 21st century learners and leaders

New Hampshire's major cable companies have established numerous programs to improve students' technological literacy and to prepare them to be future leaders and innovators in an information-based economy. **Time Warner Cable**, through its **Connect a Million Minds** initiatives, supports STEM (science, technology, engineering, and math) programs in its service areas. The programs include support for the Mt. Washington Valley Regional Science and Technology Fair for middle- and high-school students at Granite State College in Conway, New Hampshire. Since 2003, in its largest national partnership, **Comcast** supports **City Year's** recruitment of young people for a full year of community service, leadership development and civic engagement. At its New England sites, including Manchester, New Hampshire, City Year volunteers are working in schools as mentors and role models. **Charter's** national **Get Hooked on Education** initiative provides a resource for families on media literacy. Additionally, in its New England service areas, Charter sponsored events to provide the **DIGIKIDS® Child ID Program**, providing parents and authorities with the digital tools needed to respond quickly to a missing child.





CONCLUSION

Cable companies in New Hampshire support the regional economy in many ways. They are significant employers, and through their day-to-day operations, their massive capital investment and the spending of their employees, these companies contribute \$622.8 million to New Hampshire's economy. Their diverse service offerings are expanding to meet the demands of hundreds of thousands of their residential and business customers. Major cable companies are leaders in building the region's broadband infrastructure, and their investments support IT and other industries across the state. No less important, they are making further contributions to the communities they are serving through their philanthropic initiatives and by donating services to more than a thousand community institutions. As data demands change and increase, cable companies will continue to dynamically adapt, providing cutting-edge technology to residences and businesses and providing the connectivity to support and grow the region's economy.

ENDNOTES

- ¹ For the purposes of this study, major cable companies are defined as those NECTA cable companies that provided data for this study, and not necessarily all cable companies present in a region. Therefore, analysis of the employment and economic contributions of major cable companies to the region represents a conservative estimate. In New Hampshire, these companies include Charter Communications, Comcast and Time Warner Cable.
- ² Federal Communications Commission (FCC), *Internet Access Services Status as of 12/31/2009*, <http://www.fcc.gov/wcb/iatd/comp.html>.
- ³ MIG, Inc., IMPLAN System (2008 data and Version 2 software), 1725 Tower Drive West, Suite 140, Stillwater, MN 55082, www.implan.com, 1997.
- ⁴ This does not mean that 77 percent of all households have broadband service since some households may have more than one connection.
- ⁵ See <http://www.one-economy.com>.
- ⁶ Akamai Technologies, Inc. *The State of the Internet*, 3rd Quarter 2010, Vol.3, No.3, p.19.
- ⁷ U.S. Census Bureau, American Community Survey, New England Division, Selected Economic Characteristics, 2007–2009, <http://factfinder.census.gov>.
- ⁸ *The Impact of Broadband Speed and Price on Small Business*, Columbia Telecommunications Corporation, November 2010.
- ⁹ A microbusiness is defined as having five or fewer employees, minimal start-up capital and limited access to commercial loans.
- ¹⁰ *Number of Microbusinesses and Employment Levels by State, 2008*; compiled by James C. McConnon, Jr., Extension Business and Economics Specialist and Professor of Economics, University of Maine; <http://umaine.edu/soe/files/2010/08/Micro-business-Data-State2003.pdf>.
- ¹¹ Federal Communications Commission, *Trends in Telephone Service, 2010*, Table 8.6, <http://www.fcc.gov/wcb/iatd/trends.html>.

NECTA in New England

