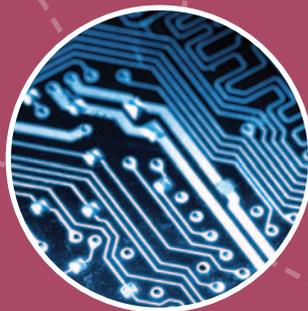


CONNECTING RHODE ISLAND: Cable's Impact on the State's Economy





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. The sole NECTA member cable company operating in Rhode Island is Cox Communications.

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



In Rhode Island, cable contributes 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 \$354.3 million in economic activity across the state. Further, between 2006 and 2010, when the state's overall economy slowed, employment by Rhode Island's dominant cable company remained steady. Strong capital investments, growth in consumer demand for broadband, as well as diversified and emergent cable products and services have enabled this expansion. Finally, cable in Rhode Island also impacts the communities it serves through philanthropic initiatives and by donating services to a wide variety of community institutions.

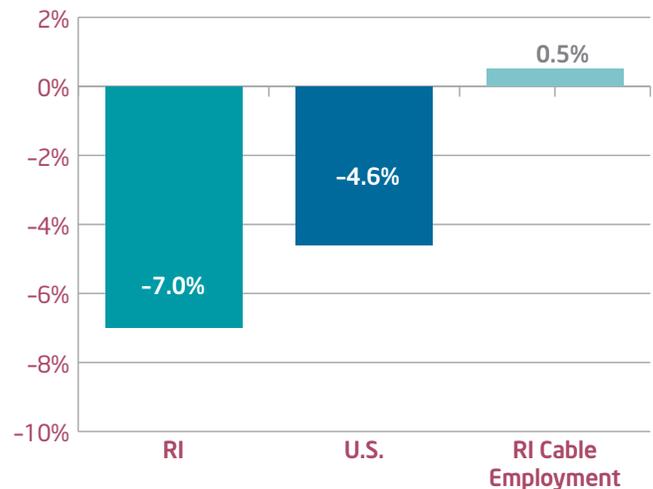
Building the foundation for economic growth

- Mirroring New England-wide trends, Rhode Island's total number of high-speed Internet lines has grown explosively over the past decade, with year-over-year growth in the double digits. In 2009, there were almost half a million high-speed lines (488,000), up 29 percent from the previous year.
- From 2006 to 2010, Rhode Island's dominant cable company, Cox Communications, spent \$322.6 million on capital improvements, \$53.1 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 5,700 miles of broadband plant and more than 2,100 fiber strand miles across Rhode Island.

Bolstering the regional economy

- During a period when the overall economy slowed, Cox Communications' employment remained steady, with 1,196 employees in 2006 and 1,202 employees in 2010. During this same period, Rhode Island's overall employment decreased by 7.0 percent and the nation's employment declined by 4.6 percent. The state's employment losses for the time period were the most significant in New England.

Change in Total Employment, 2006–2010



Source: United States Department of Labor, Bureau of Labor Statistics, Current Employment Statistics & Rhode Island Department of Labor and Training; Data collected from major NECTA firms

- Along with their own employment, Cox Communications supports more than two-thousand jobs, including more than eight-hundred in other industries throughout the state.

- In 2010, spending by Cox Communications and their employees generated a total of \$354.3 million in economic activity across the state. Direct spending (capital investment, operations and employee compensation) accounted for \$224.8 million of that total, and that direct spending catalyzed an additional \$129.5 million in spending by other industries throughout the state.
- Along with spending within the telecommunications industry, the company supports a variety of important regional sectors, including real estate; motion picture and video industries; professional and technical services; and communications hardware manufacturing.
- In 2010, Cox Communications contributed \$39.1 million in state and local taxes and fees.

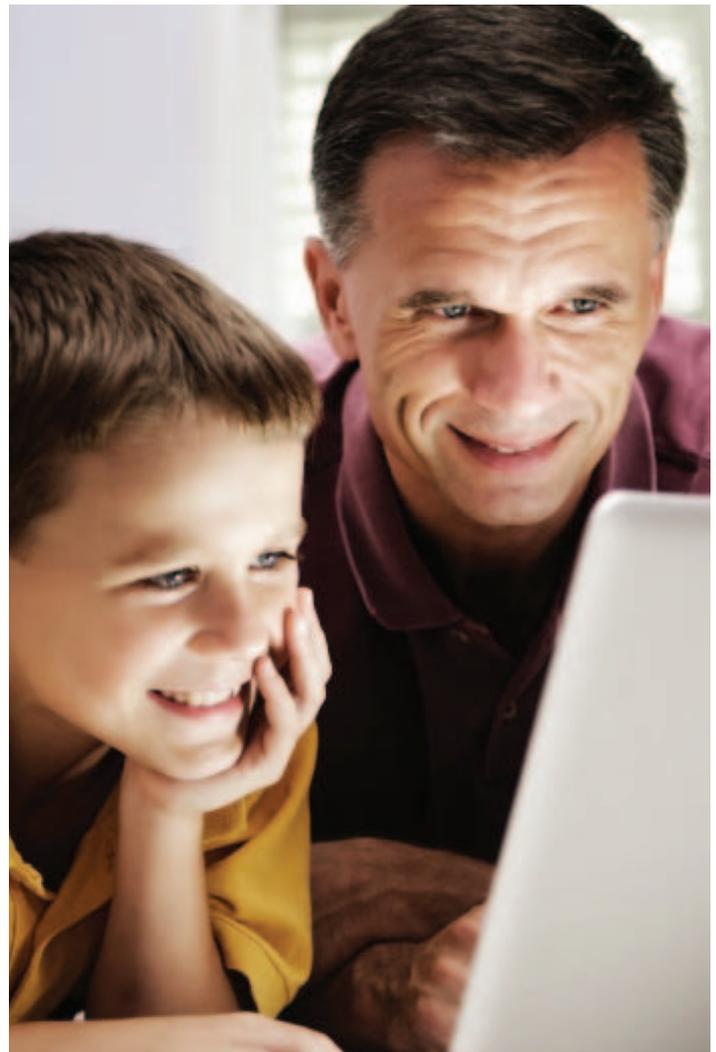
Supporting local communities

- Cox Communications annually donates cable and broadband services worth \$1 million to nearly 1,100 schools, libraries, nonprofits, government facilities and other community institutions in their service areas.
- Additionally, in 2010 alone, the company contributed more than \$4.3 million in cash and other in-kind support to nonprofit organizations in their local communities.

Total Economic Contributions in Rhode Island, 2010

Direct Spending	Additional Indirect Contributions	Total Economic Contributions
\$224.8M	\$129.5M	\$354.3M

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



INTRODUCTION

Cable companies provide the foundation for economic growth in an increasingly sophisticated economy. Connecting hundreds of thousands residential and business subscribers, Rhode Island's dominant cable company, Cox Communications, is expanding technologies to provide a diverse range of video, data and voice products and services. Through investments in an increasingly expansive communications network, the company plays 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 Rhode Island economy, contributing \$354.3 million to the state's economy in 2010. In that same year, Cox Communications employed more than 1,200 workers across Rhode Island and, in the last five years, their employment numbers remained steady despite a struggling state and national economy. While making significant economic contributions, the company also provides 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, cable in Rhode Island is indeed at the cutting edge, driving economic growth throughout the region.

BUILDING THE FOUNDATION FOR ECONOMIC GROWTH

Rhode Island has a distinctive broadband landscape

Broadband has revolutionized the way people live and work in New England, and Rhode Island is uniquely positioned with a distinctive broadband landscape. Mirroring New England-wide trends, the number of total high-speed Internet lines in Rhode Island (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 almost half a million high-speed lines (488,000), up 29 percent from the previous year. Rhode Island's consumers have enviable options when it comes to choosing broadband providers. Significantly, more than 70 percent of Rhode Island households have the choice between multiple broadband service providers, ranking fifth in the nation for access to multiple providers, including cable, DSL and other wireline options.

FIGURE 1
Rank by Percentage of Households with Access to Multiple Wireline Broadband Service Providers

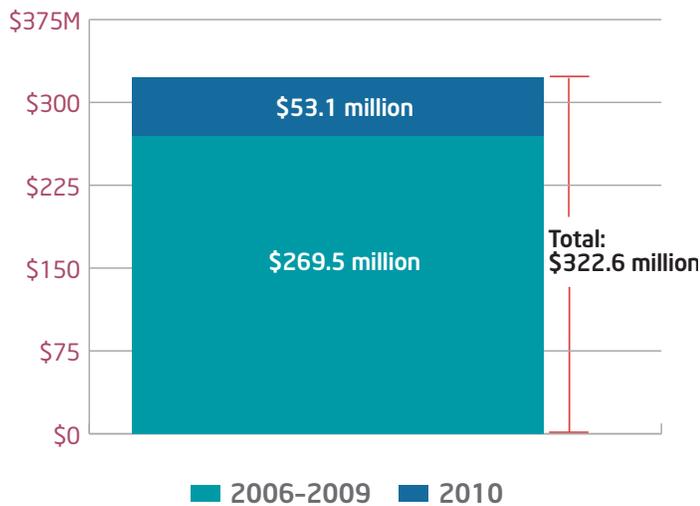
Rank	State	Percent Households
1	District of Columbia	99.9
2	New Jersey	74.4
3	Maryland	73.2
4	Vermont	70.2
5	Rhode Island	70.1

Source: National Telecommunications and Information Administration (NTIA) and Federal Communications Commission (FCC), National Broadband Map, <http://www.broadbandmap.gov/rank>

Investing in the region’s broadband infrastructure

In response to increasing consumer demand for broadband capacity in a uniquely competitive market, Cox Communications, as Rhode Island’s dominant cable provider, has been investing in critical communications infrastructure throughout the state. From 2006 to 2010, the cable company invested more than \$322.6 million in capital improvements, \$53.1 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 5,700 miles of broadband plant and more than 2,100 fiber strand miles across Rhode Island.

FIGURE 2
Capital Investment in Rhode Island, 2006–2010



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

Cable supports the Rhode Island IT industry

With more than \$322.6 million in capital spending over the last five years, Cox Communications depends 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 the company invests heavily in all other information technology sectors. Capital spending is particularly focused on IT firms for communications, computer and plant hardware, and equipment. Cox Communications also reports that significant spending 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
Semiconductor and related device manufacturing	Hardware
Electricity and signal testing instruments manufacturing	**
Computer terminals and other computer peripheral equipment manufacturing	Hardware

Source: MIG, Inc., IMPLAN System¹; UMDI **Not an IT sector



BRIDGING THE DIGITAL DIVIDE: PROMOTING BROADBAND ADOPTION IN RHODE ISLAND

Broadband subscribership in Rhode Island is above the national average

With significant growth in broadband infrastructure, Rhode Island households boast high levels of broadband subscribership. In Rhode Island in 2009, there were 285,000 high-speed lines serving residential customers—about 0.70 high-speed broadband connections for every household in the state, compared to 0.63 in the nation overall.²

Promoting adoption of broadband in low-income communities in Rhode Island

Despite high levels of subscribership and the continuous development of the extensive broadband infrastructure by Cox Communications and their competitors, the adoption of broadband remains an important public policy and economic development goal. Key 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, major New England cable companies, including Cox, Cablevision, Charter, Comcast and Time Warner Cable, joined other national cable providers as part of **One Economy's³ Digital Adoption Coalition**. The coalition is a public-private collaborative effort to bring broadband to low-income families across the United States.

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>

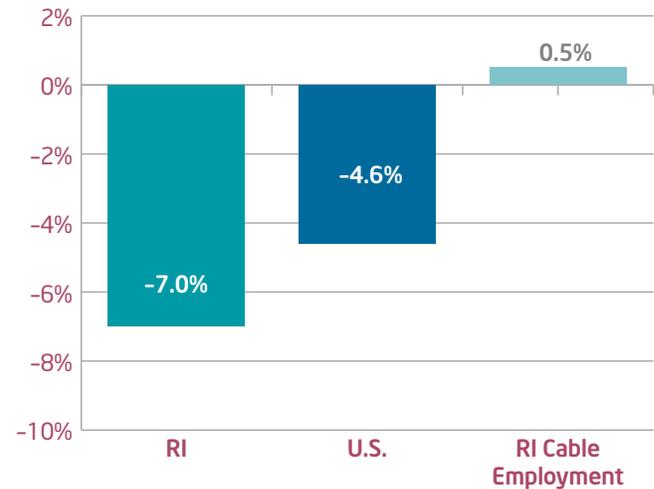
BOLSTERING THE REGIONAL ECONOMY

Cable has remained steady

Cox Communications competes 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 more than 2,350 Rhode Island workers in the larger wired telecommunications industry and, significantly, more than half were employed by Cox Communications.

During a period when Rhode Island's overall economy experienced a considerable slowdown, employment by Cox Communications remained steady with 1,196 employees in 2006 and 1,202 employees in 2010. During this same period, the state and the nation overall endured substantial employment losses (–7.0 and –4.6 percent, respectively), with the state's total employment losses the most significant in New England. 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 stay strong.

FIGURE 5
Change in Total Employment, 2006–2010



Source: United States Department of Labor, Bureau of Labor Statistics, *Current Employment Statistics* & Rhode Island Department of Labor and Training; Data collected from major NECTA firms

Cable has a measurable impact

Cox Communications 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;⁴ and through multiple forms of compensation to state and local governments. The value of the cable sector to the Rhode Island economy is illustrated by examining these key areas of spending and estimating their effects.

Total economic contributions

Cox Communications has an impressive impact on the Rhode Island economy. Through their spending on everyday operations, capital investments and the household spending of their employees and others combined, Cox Communications contributed \$354.3 million in 2010 in economic activity across the state. Additionally, Cox Communications reports taxes and fees to state and local governments of \$39.1 million. Along with their own employment and that of other major New England cable companies with local employees, Cox Communications supports more than two-thousand jobs, including more than eight-hundred in industries throughout Rhode Island.



FIGURE 6
Economic Contributions in Rhode Island, 2010

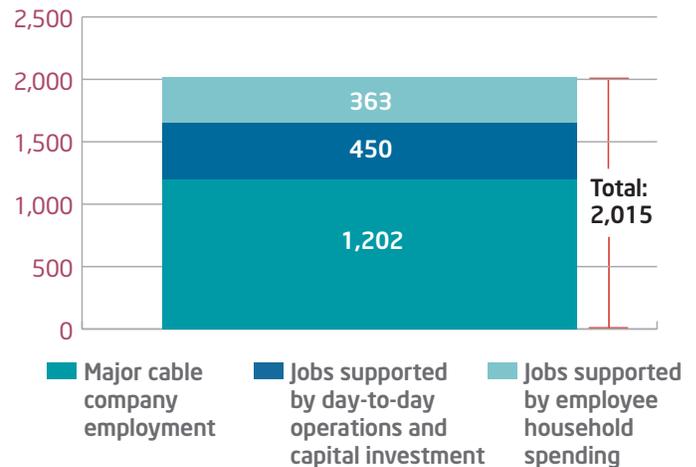
	Direct Spending	Additional Indirect Contributions	Total Economic Contributions
Operations and capital investments	\$158.7M	\$82.2M	\$240.9M
Employee compensation	\$66.1M	\$47.3M	\$113.4M
Total	\$224.8M	\$129.5M	\$354.3M

State and Local Taxes and Fees*	\$39.1M		
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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 in Rhode Island, 2010



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

Major areas of spending

Spending to Rhode Island firms

In 2010, Cox Communications spent \$158.7 million on day-to-day operations and investing in telecommunications infrastructure projects across Rhode Island. This operating and capital spending catalyzed nearly \$82.2 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; motion picture and video industries; and telephone apparatus manufacturing, as shown in the table to the right. This spending also supported another 450 jobs in these and other sectors.

Employee spending

In 2010, Cox Communications employed more than 1,200 people in Rhode Island. The payroll of these employees, and that of other major cable companies in New England who have employees residing in Rhode Island, totaled more than \$66.1 million. The household spending of these employees contributed to an additional \$47.3 million in economic activity and supported more than 360 additional jobs in other industries throughout the region.

FIGURE 8
Top Sectors Supported by Spending on Operations and Capital Investment, 2010

Telecommunications	\$20.3M
Real estate establishments	\$3.6M
Motion picture and video industries	\$3.3M
Telephone apparatus manufacturing	\$3.1M
Architectural, engineering and related services	\$2.9M
Cable and other subscription programming	\$2.8M
Maintenance and repair construction of non-residential structures	\$2.3M
Monetary authorities and depository credit intermediation	\$2.0M
Advertising and related services	\$1.6M
Accounting, tax preparation, bookkeeping and payroll services	\$1.6M

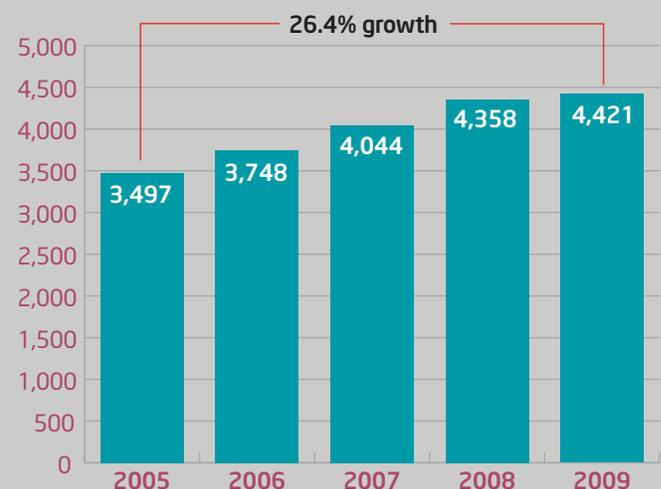
Source: Data collected from major NECTA firms, calculations by UMDI; MIG, Inc., IMPLAN System

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, including Cox Communications, spent nearly \$130 million in this sector. In 2009, this sector had 4,421 jobs across New England, and it has grown in the region 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

In 2010, Cox Communications paid a total of \$39.1 million in Rhode Island state and local taxes and fees (this includes subscriber-paid taxes).

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.⁵ Recent data show that on average, the United States had a measured connection speed of 5.0 mbps. Rhode Island averaged 6.3 mbps, ranking fourth in the United States overall and the fastest in New England. 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,⁶ 3.5 percent of Rhode Island residents work from home. 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 survey⁷ 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 microbusinesses⁸ are essential to regional economic growth⁹ and, no doubt, these businesses have been highly impacted by broadband expansion. These businesses are especially important in states like Rhode Island, 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

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. In Rhode Island, Cox Communications and the Ocean State Higher Education and Administrative Network (OSHEAN) recently announced a partnership under which Cox Communications will construct a dedicated, 350-mile, fiber-optic network linking hospitals, colleges and universities, schools and government agencies. The \$31 million broadband network, built using federal broadband stimulus funding, will enable OSHEAN members to leverage the state-of-the-art network for new applications in the fields of medicine, education and government.

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. In May, Cox Communications launched Cox Wireless and became the first New England cable company to offer wireless phone service to its customers in Rhode Island and Connecticut.

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 report¹⁰ 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, cable is helping to build stronger communities in Rhode Island.

Philanthropic giving

In 2010, Cox Communications provided nearly 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 more than \$1 million. Additionally, in 2010, the company reports contributions of more than \$4.3 million in cash and in-kind donations in service of their local communities. In a tight fiscal climate, cable is providing valuable support to help sustain critical community institutions.

FIGURE 10
Philanthropic Activity in Rhode Island, 2010

Cash contributions	\$0.4M
In-kind contributions	\$3.9M
Voice, video and data broadband services (estimated value)	\$1.1M
Total	\$5.4M

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

Serving local communities with regional programming

Almost universally, major cable companies across New England 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. In Rhode Island, **Cox Sports** provides its service areas with coverage and original programming on the local and regional sports scene. From *Varsity Life*, the network's weekly program on Rhode Island's high school athletes to *Friars All Access*, a new program in 2011 providing a behind-the-scenes look at all things Providence College men's basketball, Cox Communications is tailoring its local programming to its region.

Connecting and engaging 21st-century learners and leaders

Cox Communications has established programs to improve students' technological literacy and to prepare them to be future leaders and innovators in an information-based economy. **Cox Charities New England** has focused its community grant program on outcomes-based academic after-school programming for middle-schoolers. Past grantees have included the College Crusade of Rhode Island, City Year Rhode Island and the Boys and Girls Clubs of Pawtucket and Warwick, among others.





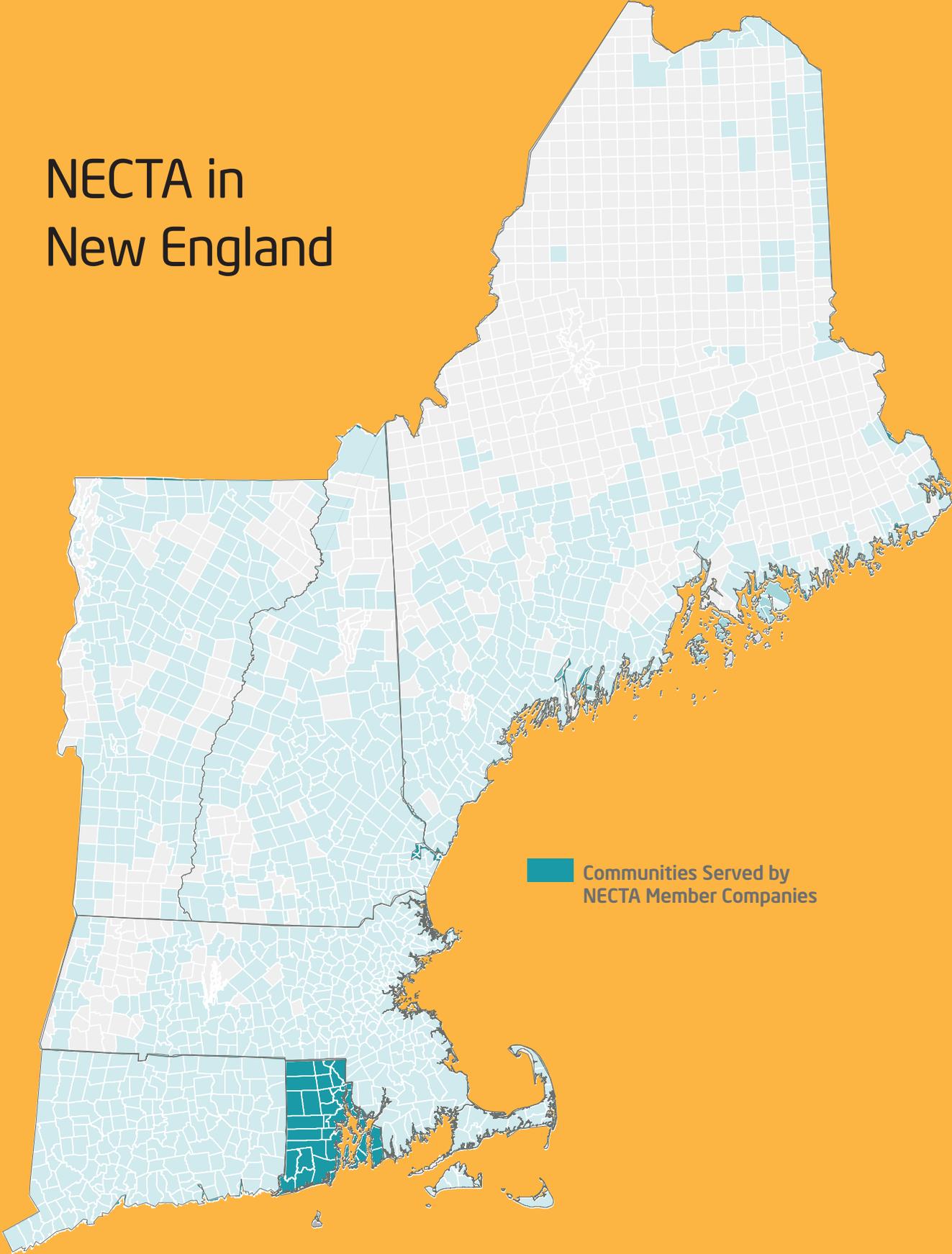
CONCLUSION

Cable companies support the regional economy in many ways. Cox Communications in Rhode Island is a significant employer, and their day-to-day operations, their massive capital investment and the spending of their employees and others drives \$354.3 million in economic activity throughout the state. The company's diverse service offerings are expanding to meet the demands of thousands of their residential and business customers. They 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 serve 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.

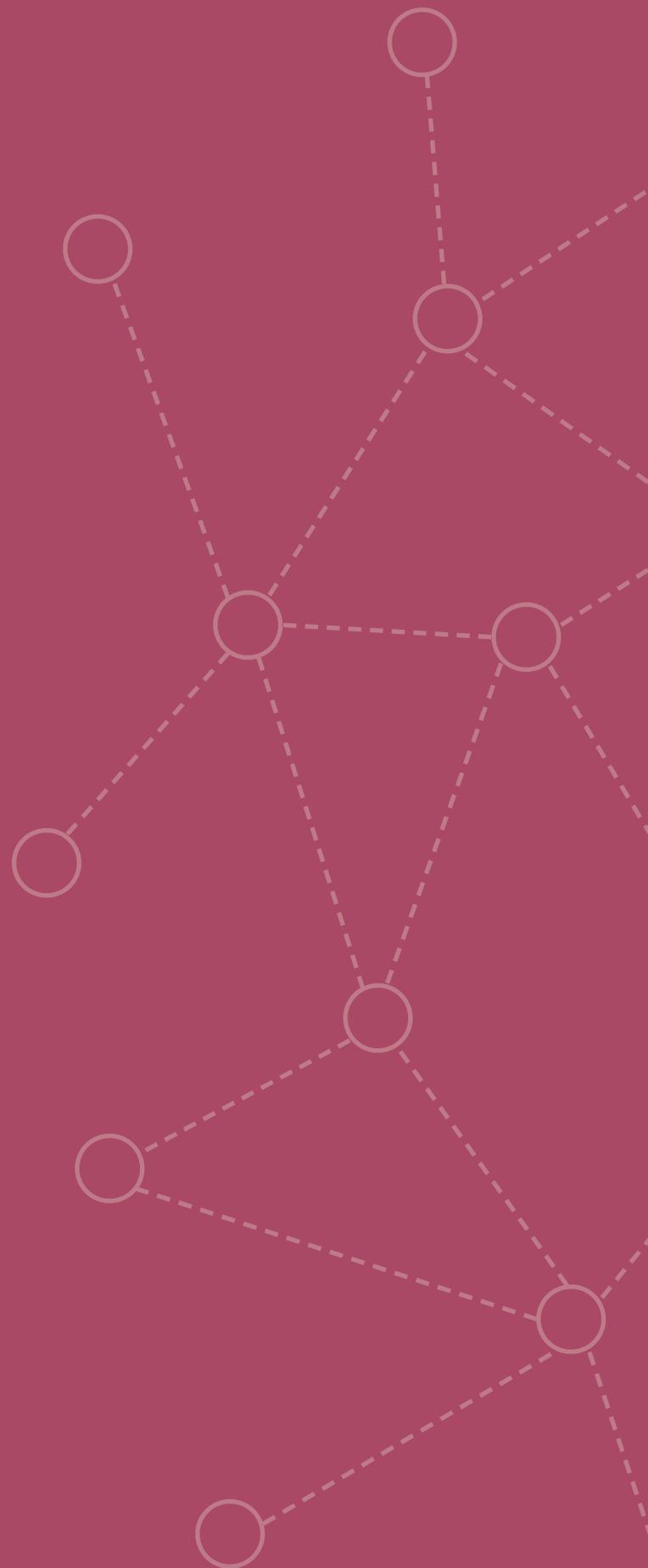
ENDNOTES

- ¹ MIG, Inc., IMPLAN System (2008 data and Version 2 software), 1725 Tower Drive West, Suite 140, Stillwater, MN 55082, www.implan.com, 1997.
- ² This does not mean that 70 percent of all households have broadband service since some households may have more than one connection.
- ³ See <http://www.one-economy.com>.
- ⁴ As this is a report about the contribution of NECTA cable providers on the Rhode Island economy, major NECTA cable companies other than Cox who have employees that reside in Rhode Island are included in this section in the analysis of employee household spending.
- ⁵ Akamai Technologies, Inc. *The State of the Internet*, 3rd Quarter 2010, Vol.3, No.3, p.19.
- ⁶ U.S. Census Bureau, American Community Survey, New England Division, Selected Economic Characteristics, 2007–2009. <http://factfinder.census.gov>.
- ⁷ *The Impact of Broadband Speed and Price on Small Business*, Columbia Telecommunications Corporation, November 2010.
- ⁸ A microbusiness is defined as having five or fewer employees, minimal start-up capital and limited access to commercial loans.
- ⁹ *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>.
- ¹⁰ Federal Communications Commission, *Trends in Telephone Service, 2010*, Table 8.6, <http://www.fcc.gov/wcb/iatd/trends.html>.

NECTA in New England



Source: Federal Communications Commission, <http://www.fcc.gov/mb/engineering/liststate.html>
Map by UMDI



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