Unleashing Connectivity and Entertainment in America

A STUDY OF THE CABLE INDUSTRY'S ECONOMIC IMPACT

ncta

THE INTERNET & TELEVISION ASSOCIATION

Unleashing Connectivity and Entertainment in America

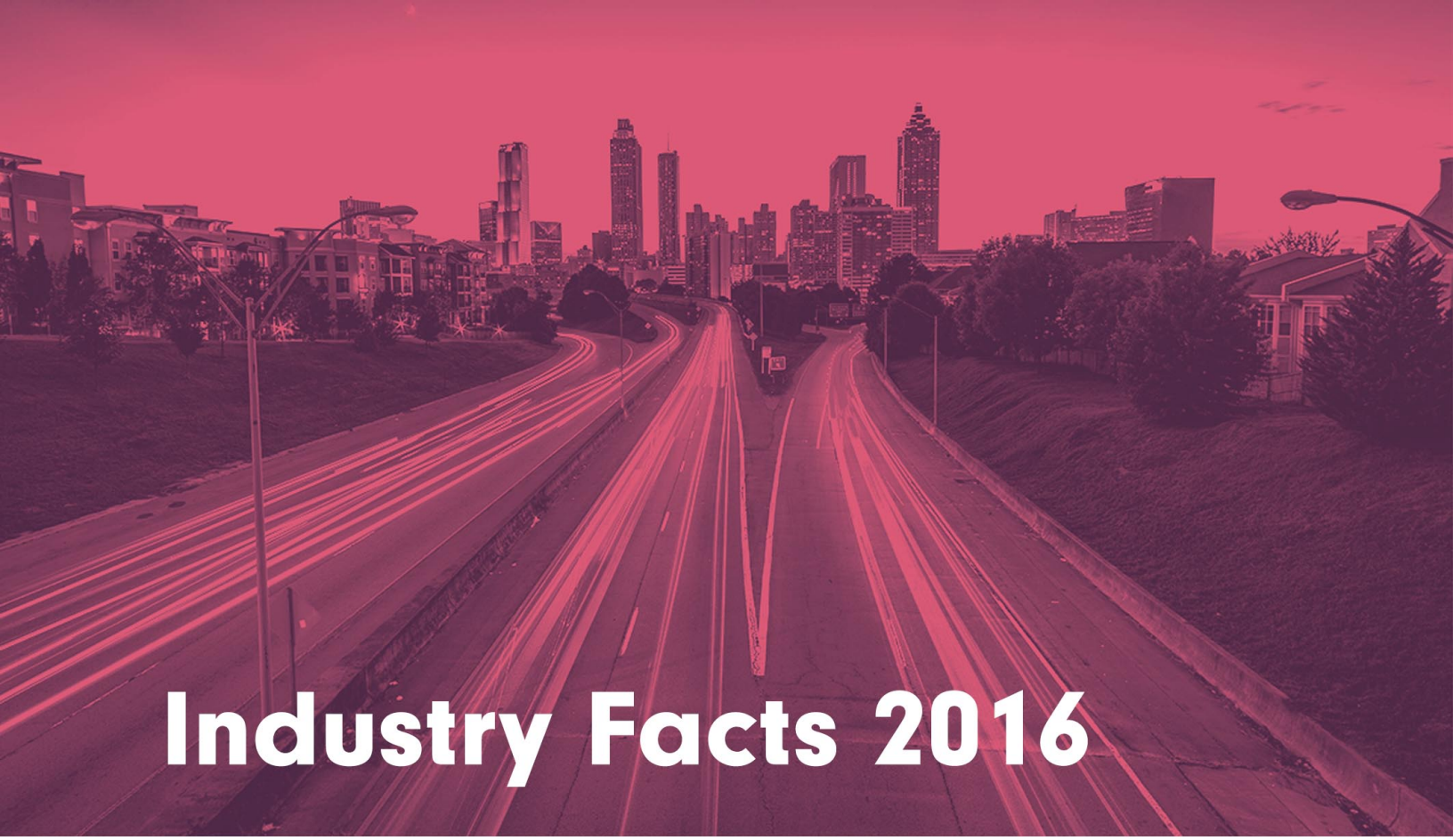
An Executive Summary of the Cable Industry's Economic Impact

If there is one trademark of the American cable industry, it's that you can find employees in nearly every community, with at least 300 in every congressional district. An industry that was born in rural America continues to build powerful broadband networks in nearly every corner of our country. At the same time, it continues to produce the award-winning TV programming that is attracting the best creators and brightest stars, transforming living rooms into home theaters. It's a diverse workforce of all skill levels and backgrounds.

In a highly competitive marketplace, the industry's story is one of growth, creativity and innovation. Its expansion continues to have a significant positive impact not only on the national economy and workforce, but also on the millions of consumers and businesses that utilize its innovative services and features. Billions of dollars annually are being invested to improve the speed and capacity of networks. And, billions more are creating the celebrated shows and TV Everywhere services so viewers can enjoy their favorite entertainment anytime and anywhere.

ncta

THE INTERNET & TELEVISION ASSOCIATION



Industry Facts 2016

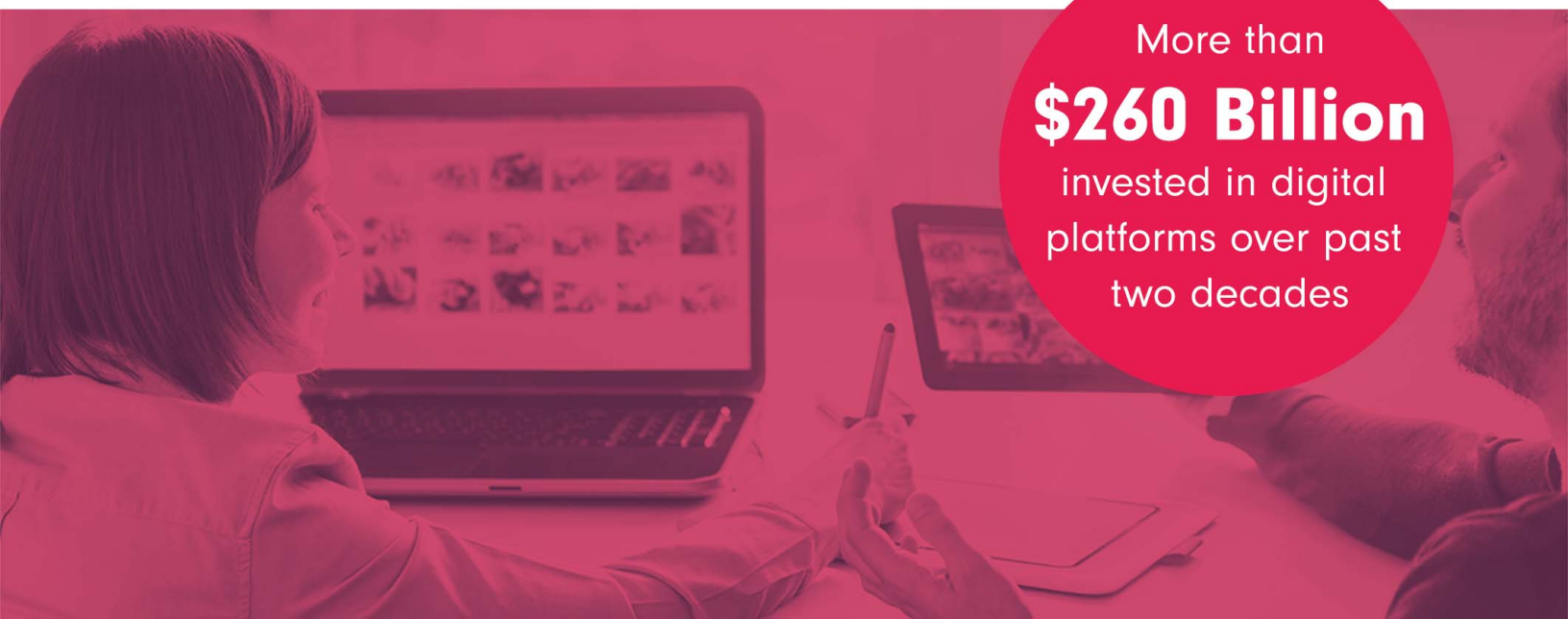
Total Industry Economic Impact	**$421 Billion**
Total Jobs:	**2.9 Million**
Industry Employee Personal Income Earnings:	**$152 Billion**
Industry Jobs Added In Last Decade:	MORE THAN **1 Million**
Total Industry Cash & In-Kind Charitable Donations:	MORE THAN **$1 Billion**
Industry Employees in Every Congressional District:	AT LEAST **300**

The fastest broadband for everyone.

Cable's fast and powerful internet services are available to over 100 million U.S. homes, with average peak connection speeds exceeding 50 Mbps in all 50 states.

Powering the Internet.

The industry's ubiquitous broadband networks provide the necessary technology platform for some of the world's biggest companies - Amazon, Google, Facebook, Netflix and more - to grow, experiment and thrive.



Taking television to the next era.

The groundbreaking and creative programming that dominates ratings and awards is the hallmark of cable's entertainment offering, and more "anywhere anytime" services are being introduced. Annual spending on programming by basic cable networks grew from $1.4 billion in 1990 to $38.2 billion in 2016. These investments have created an exponential increase in high-quality, original content available to consumers.

In 2016, approximately **5.4 billion** program views took place on alternative devices, up from 2.1 billion in 2014

Contributing to local economies.

The industry contributes substantially to charities, non-profit organizations and state/municipal governments nationwide. In 2016, franchise fees paid directly to local municipalities totaled over $3.5 billion. In addition, subscriber taxes and fees added $4.2 billion in revenues to state and local government coffers.

More than **$1 billion** total cash and in-kind donations in 2016

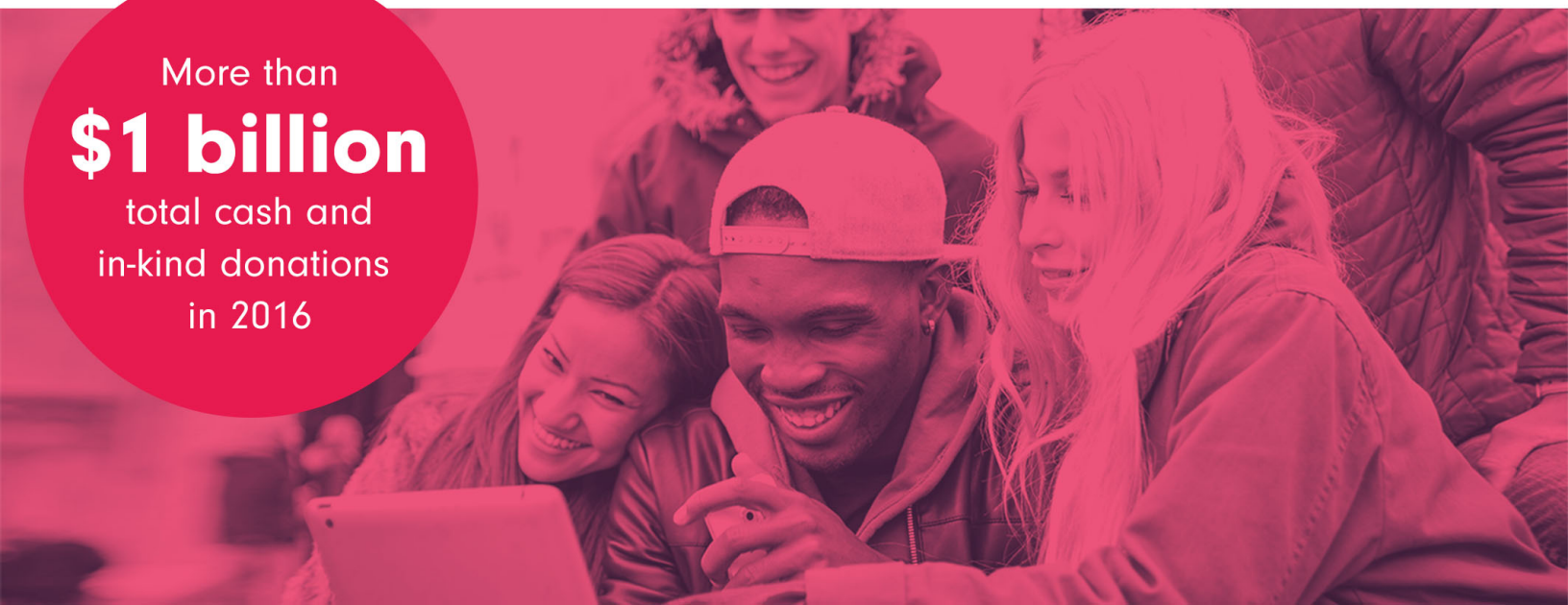


TABLE OF CONTENTS

Page

INTRODUCTION ..... **iii**

EXECUTIVE SUMMARY ..... **iv**

SECTION I. CABLE OPERATOR AND PROGRAM NETWORK INDUSTRY STRUCTURE AND FINANCIAL FLOWS **1**

Overview/Methodology 1
Cable Operator Industry Structure and Financial Flows 2
Cable Operator Industry Suppliers 7
Program Network Industry Structure and Financial Flows 10

SECTION II. ECONOMIC IMPACTS OF THE CABLE OPERATOR INDUSTRY **12**

Direct Impacts 12
Linked Economic Activity 12
Combined Direct and Linked Impacts 13
Total Economic Impacts 14
Impacts by State and Congressional District 15
Cable Operator Industry Growth: 2002-2016 16

SECTION III. ECONOMIC IMPACTS OF THE PROGRAM NETWORK INDUSTRY **17**

Direct Impacts 17
Linked Economic Activity 17
Total Economic Impacts 20

SECTION IV. OTHER CABLE OPERATOR AND PROGRAM NETWORK INDUSTRY PERSPECTIVES **21**

The Cable Industry: Capital Investment Fostering Competition 21
Cable Operators, Program Networks and Viewing 27
Cable Operator and Program Network Industry Contributions to Communities 31

APPENDIX A. METHODOLOGY AND DATA SOURCES **34**

Overview 34
Direct Dollar Flow Estimation 35
Projection of Economic Impacts 36
Comparison with Earlier Studies 36
Limitations 37

APPENDIX B. CABLE OPERATOR INDUSTRY EMPLOYMENT AND ECONOMIC IMPACT BY STATE AND CONGRESSIONAL DISTRICT **38**

LIST OF TABLES AND FIGURES

Figure I-1. Income Sources and Flow of Economic Impacts Generated by the Cable Industry 3

Table I-1. Growth in Cable System Revenues, 1990-2016 4

Table I-2. Cable System Funds Flow Comparison, 1990-2016 4

Table I-3. Growth in Cable Network Gross Advertising Revenues, 1990-2016 6

Table I-4. Cable Operator Linked Supplier Revenues, 2016 8

Table I-5. Program Network Funds Flows, 2016 11

Table II-1. Cable Operator Linked Supplier Employment and Employee Compensation, 2016 13

Table II-2. Cable Operator Combined Direct and Linked Impacts, 2016.....13

Table II-3. Cable Operator Total Economic Impacts, 2016.....14

Table II-4. CableOperator Growth Indicators, 2002-2016 16

Table III-1. Program Network Industry Production and Acquisition Expenditures, 2016 19

Table III-2. Program Network Industry Production and Sports Links, 2016 19

Table III-3. Program Network Industry Total Economic Impacts, 2007 to 2016 20

Figure IV-1. Cable Operator Capital Expenditures, 1996-2016 (in billions) 22

Figure IV-2. Cable High Speed Internet Customers, 2002-2016 (in millions) 25

Figure IV-3. Cable Telephone Service Customers, 2002-2016 (in millions) 27

Figure IV-4. Total Basic Network Program Investment, 1990-2016 (in billions) 30

Figure IV-5. Average Program Investment for Top 10 Basic Networks, 1997- 2016 (in millions) 30

INTRODUCTION

Bortz Media & Sports Group, Inc. was retained to update its 2015 study for NCTA - The Internet & Television Association (NCTA) that evaluated the impact of the cable industry on the United States economy for the year 2014. This report sets forth the results of that analysis, including estimates of the direct and indirect impact of the cable operator and program network industries on employment, personal income and gross output in 2016. Finally, an overview of other cable operator and program network industry contributions is provided, focusing on the role of these industries as major sources of domestic capital investment; in spurring telecommunications competition; in technological innovation and new services deployment; in providing programming choice; and in influencing American television viewing habits.

The report is divided into four sections:

- Section I briefly summarizes the methodology and objectives of economic impact analysis, and details the flow of funds between cable operators and their key suppliers – including the program network segment.

- Section II details the direct, linked and total economic impacts attributable to the cable operator industry in 2016, and reviews the growth in the industry's economic contributions since 2002.

- Section III assesses the direct, linked and total impacts attributable to the program network industry in 2016, and reviews the growth in its economic contributions over the past decade.

- Section IV examines other cable operator and program network industry contributions and impacts, emphasizing domestic capital investment, competition, choice, viewing and the use of technology to bring new services to U.S. households. The role of the cable operator industry in stimulating local economies through localized capital investment and job creation is a specific focus.

Finally, Appendix A to the report provides a more detailed discussion of the study methodology and the range of data sources used to compile the impact estimates, while Appendix B provides detail on the cable operator industry's impacts in each state and U.S. Congressional District.

Bortz Media gratefully acknowledges the assistance of many firms and individuals, both inside and outside the cable industry, in providing the information necessary to complete this report.

EXECUTIVE SUMMARY

The cable operator and program network industries are important providers of entertainment and information to the American consumer, and have a significant and rapidly growing role in the delivery of video and telecommunications services. Through its aggressive re-investment of capital and its efforts to deploy new and innovative services to consumers, the cable operator industry has fostered the development of a highly competitive telecommunications market and has been a catalyst for broadband growth in the U.S. Through these investment and innovation initiatives, the industry has exerted a substantial impact on the United States economy. The program network industry has a substantial economic impact of its own – one that is both linked to and distinct from its role as a supplier to the cable operator industry. Its investment in innovative programming has increased the quality, quantity and diversity of content available to consumers, and has resulted in significant viewing share growth, despite an increasingly competitive media landscape.

Cable Operator Industry Economic Impacts

As of 2016, the cable operator industry (directly and indirectly) accounted for more than 2.3 million U.S. jobs representing more than $106 billion in personal income. Gross economic output attributable to the cable operator industry amounts to $348 billion.

Other measures of the cable operator industry's economic impact include:

- Cable operator revenues in 2016 totaled more than $123 billion, providing direct employment to 255,600 people. Compensation to cable operator employees totaled $22 billion.

- These cable operator employees can be found in all 50 states, as well as the District of Columbia and U.S. territories, reflecting the overwhelmingly local character of an industry comprised of approximately 5,200 local cable systems. In fact, there are at least 300 cable operator employees in each U.S. Congressional District – and anywhere from 1,000 to more than 3,000 cable operator employees in 38 Districts (see Appendix B for employment and impact by District).

- Cable operator suppliers provide another 161,000 cable-related jobs, representing personal income of $17.2 billion.

- Since 2002, direct and indirect employment attributable to the cable operator industry has increased by nearly 1.2 million jobs.

- Considering only those employment increases attributable directly to cable operators, growth since 2002 totals almost 80,000 jobs – or 0.5 percent of all net new jobs created in the U.S. during this period.

- Cable operator's economic impacts are spread throughout all major sectors of the U.S. economy. The largest private sector impacts are in the manufacturing, information and services sectors, each of which are critical to both the growth and the overall health of the economy. The industry also is estimated to have a substantial effect on public sector employment.

Program Network Industry Economic Impacts

The program network industry (directly and indirectly) accounted for more than 1.26 million U.S. jobs in 2016, representing over $45 billion in personal income. The industry's employment impact has increased by nearly 500,000 jobs in the last nine years. Gross economic output attributable to the industry amounts to $155 billion despite the ongoing problem of content piracy which undermines the industry's economic vitality.

Other measures of the program network industry's economic impact include:

- Program network revenues in 2016 totaled more than $86 billion, providing direct employment to 59,000 people – an increase of about 25,000 jobs since 2002. Compensation to program network industry employees totaled $10.0 billion.

- The industry's impact is spread throughout all sectors of the U.S. economy. However, program network industry expenditures have a particular concentration (and resulting impact) on the program production and sports industries. Together, these two industries derive more than $37 billion in revenues, 86,700 jobs, and $13.1 billion in employee compensation from the program network industry.

Combined Impacts

The total impacts reported here accurately reflect the economic impacts of both the cable operator and program network industries. However, since the program network industry is a supplier to the cable operator industry, a portion of the program network industry's total impacts are also subsumed in the total impacts estimated for the cable operator industry. As such, the total impacts for each industry as presented in this report are not additive.

Bortz Media estimates that the two industries combined, representing the Cable Industry at large, have an aggregate economic impact (direct and indirect) of approximately $421 billion in gross economic output, and together account for more than 2.9 million jobs.

Other Cable Operator and Program Network Industry Impacts

In addition to the purely economic impacts described above, the cable operator industry has led the development of the country's broadband infrastructure, contributing both to a

truly competitive telecommunications marketplace and to more robust growth in the penetration of broadband services. Cable operators and programmers have also fundamentally altered the manner in which most Americans view television, and through a continuing pattern of innovation have introduced new content and services to consumers.

Specific indicators of these contributions include:

- Made possible by an infrastructure investment of more than $270 billion since the mid-1990s, the cable industry has led the development of broadband Internet service in the U.S. – providing service to more than 63 million customers as of year-end 2016. Largely as a result, U.S. broadband speeds are among the world's fastest, while entry level broadband pricing is among the most affordable.

- Top cable companies have been consistently recognized over recent years as "Investment Heroes" for their strong commitment to domestic capital investment. Notably, the industry is maintaining its investment commitment even while overall domestic capital investment is suffering due to what the "Investment Heroes" report authors describe as "short-termism."

- Moreover, numerous analyses have concluded that broadband is a crucial component of economic development and recovery, and that the overall economy has benefitted from investments in broadband infrastructure. One study quantified a "broadband bonus" that was estimated to add almost one percent to U.S. GDP in 2010 (and is likely to exceed that level today). Further, a 2015 study found a positive relationship between home values and broadband speeds. As such, there is quantifiable evidence that the cable industry's leadership role in introducing broadband and continually improving its service speeds has had significant economic growth benefits on a national level.

- In addition, cable has fostered true competition in local telephone service – capturing more than 31 million customers by the end of 2016. The cable industry is also a rapidly growing presence in business telecommunications services, with revenues doubling in just the last five years to more than $13 billion in 2016.

- At the same time, innovation from cable operators and programmers has greatly improved the television services available to the American consumer, and has facilitated access to television programming on a vast array of devices. In 2016, approximately 5.4 billion program views took place on these alternative devices, up from 2.1 billion in 2014.

- As a measure of the program network industry's commitment to programming quality, the annual spending on programming by basic networks grew from $1.4 billion in 1990 to $38.2 billion in 2016. Spending has grown more than fourfold in the last 14 years. The top 10 cable networks spent an average of

over $1.5 billion per network during 2016, compared with $732 million in 2007 and just $267 million in 1997. These investments have resulted in an exponential increase in the amount of high quality original content available to American consumers.

- Finally, the cable industry annually contributes substantially to charities, non-profit organizations and state/municipal coffers on a nationwide basis. In 2016, it is estimated that franchise and other consumer-related fees totaled $3.5 billion, reflecting funds paid directly to local municipalities. In addition, sales and use taxes associated with cable subscriptions amounted to over $4.2 billion in revenues to state and local government entities. Moreover, including both cable operators and program networks, the industry's public service announcements as well as cash and "in-kind" contributions to local and national non-profit organizations for 2016 are estimated to have exceeded $1.0 billion.

SECTION I. CABLE OPERATOR AND PROGRAM NETWORK INDUSTRY STRUCTURE AND FINANCIAL FLOWS

Economic impact analysis recognizes the interdependence among various sectors of the national economy – that dollars invested by a business or an industry help stimulate business activity and personal consumption throughout the economy. As a result, the presence and growth of a particular industry generates total economic effects several times larger than the industry itself. In this report, Bortz Media has applied the principles of economic impact analysis to the cable operator and program network industries, based on our assessment of each industry's financial and investment characteristics.

This section briefly summarizes the attributes of economic impact analysis and the methodology employed in our assessment, followed by discussion of the major assumptions underlying our estimates of the cable industry's impact in 2016. These assumptions primarily include the structure of the industry, estimates of 2016 industry financial flows and the role and characteristics of cable industry suppliers. The program network industry's role as a cable industry supplier and its structure is also addressed.

Overview/Methodology

The cable operator industry. This economic impact analysis traces the flow of cable operator generated dollars (and related jobs and personal income) throughout the economy, recognizing that a portion of each dollar spent initially by each industry is re-spent several times. For example, assume that a cable video subscriber pays his or her local cable operator for a subscription to the premium service HBO. The cable operator then pays a portion of that subscription fee to HBO. HBO, in turn, pays a portion to its employees, who may then use that income to purchase goods and services. Ultimately, the dollars initially paid by the cable subscriber are re-spent many times over, by many different businesses and individuals, in many different sectors of the economy.

In measuring these re-spending effects, impacts are categorized as follows:

- *Direct impacts*. These are impacts generated directly by cable operators, including cable system jobs and employee income.

- *Linked impacts*. These are impacts generated by cable operator suppliers such as programming services, equipment manufacturers and professional services firms.

- *Indirect impacts*. Indirect impacts include: (1) economic activity generated by the purchase of goods and services by firms dependent upon the cable industry (i.e., linked suppliers), referred to as intermediate effects; and (2) induced effects, or economic activity generated by the purchase of goods and services by individuals whose incomes derive directly or indirectly from the cable industry.

For purposes of simplification, only direct, linked and total impacts (combining direct, linked and indirect impacts) are presented in this report.

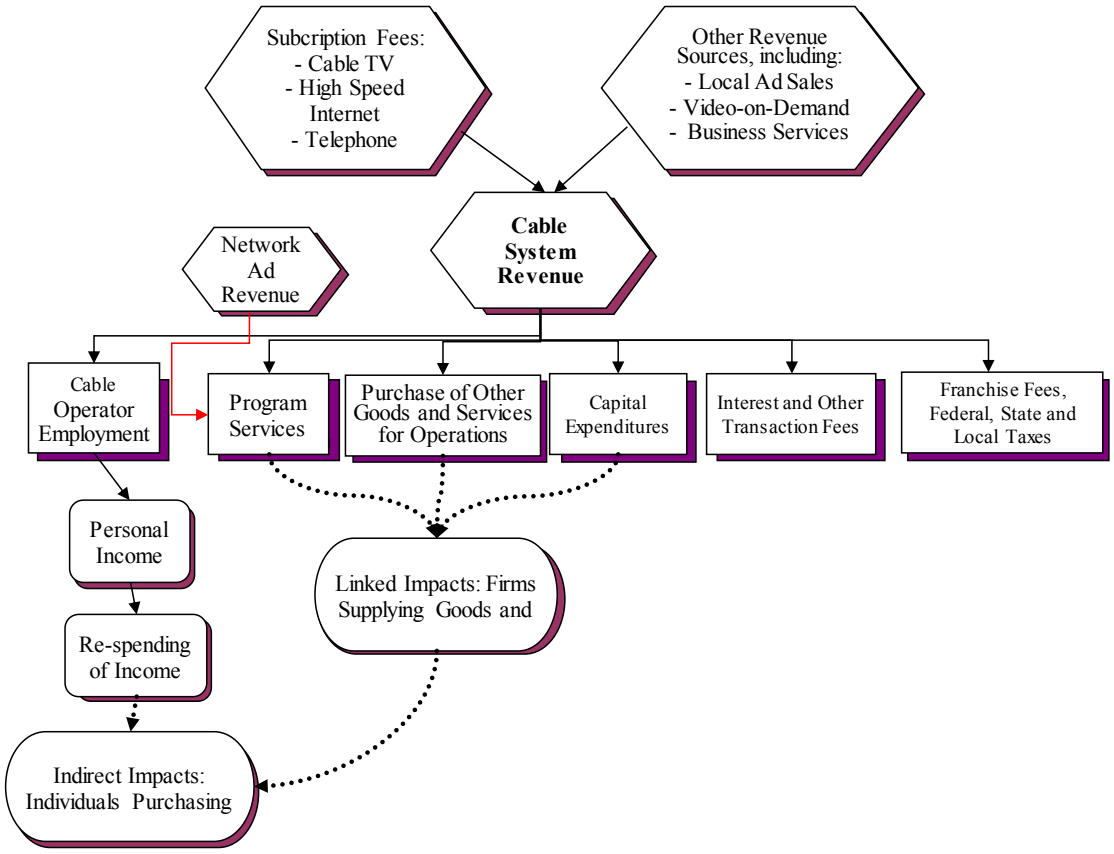
Bortz Media's impact estimation methodology is described in greater detail in Appendix A. Briefly, Bortz Media developed estimates of cable industry financial flows (including both direct and linked economic activity), and allocated these flows into more than 40 separate economic sectors. Aggregate economic effects attributable to these financial flows were then estimated using multipliers obtained from the Regional Input-Output Modeling System (known as RIMS II) developed by the Bureau of Economic Analysis at the U.S. Department of Commerce. RIMS II provides a comprehensive tool for quantifying the linkages between economic sectors and estimating aggregate economic impacts.

The program network industry. As indicated above, the program network industry is both a key supplier to the cable operator industry and a substantial industry in its own right. In this report, Bortz Media has evaluated the program network industry on both levels – first considering the industry in its supplier role and its resulting contribution to the total economic impact of the cable industry (in Section II), and subsequently evaluating the direct, linked and total economic impacts specifically attributable to the program network industry (in Section III). The methodology employed to estimate the impact of the program network industry is essentially the same as that used in evaluating the cable operator industry's impact.

Cable Industry Structure and Financial Flows

Figure I-1 depicts the overall structure of the cable operator industry and the resulting flow of economic impacts generated by the industry. As the figure indicates, the industry captures subscription and other revenues from the sale of television, high-speed Internet access, telephone and other services to both residential and business customers. In addition, both cable operators and program networks generate revenue from the sale of advertising, although the large majority of these advertising revenues go directly to the program networks.

Figure I-1. Income Sources and Flow of Economic Impacts Generated by the Cable Industry



Cable operator revenues, and (more specifically) the manner in which they are spent to deliver the services provided, are reviewed in the remainder of this section. In particular, four aspects of the industry structure are the focus of the discussion:

- System operations
- System capital expenditures
- Financing activities (including system sales)
- Network advertising

System operations. The majority of the cable industry's impact is attributable to revenues and expenditures by the more than 5,200 local cable facilities serving communities throughout the U.S. Revenues generated by these systems are estimated to have exceeded $123 billion in 2016, or more than seven times the industry's revenues in 1990:[1]

[1] Revenues for 1990, 2002, 2007, 2010, 2012, 2014 and 2016 are Bortz Media estimates; revenues for 1996 are based on Kagan World Media, *Broadband Cable Financial Databook 2002*, p. 7.

Table I-1. Growth in Cable System Revenues, 1990-2016

Year	Cable System Revenues (Billions)
1990	$17.3
1996	26.9
2002	48.2
2007	78.6
2010	94.4
2012	104.5
2014	110.2
2016	123.5

The vast majority of these revenues consist of subscription fees paid by consumers and businesses for video programming, high-speed Internet access, telephone services, and related equipment. In particular, growth in revenues from the provision of services to local businesses has been substantial over the past few years. A small fraction of operator revenues (just under five percent) come from the sale of national, regional and local advertising.

These revenues are utilized to compensate employees and to purchase goods and services necessary to operate the business (e.g., programming, system power and other utilities, pole and conduit rental, etc.). Funds remaining after direct operating expenses (termed "operating cash flow" or "EBITDA") are available for interest payments, taxes, capital expenditure investment and distribution. (As discussed further below, the cable industry has in recent years, including 2016, re-invested – in the form of capital expenditures – a substantial percentage of the industry's collective operating cash flow.)

Table I-2 below summarizes the flow of funds from operations during 2016 and compares these funds' flows to those in 1990, 2002, 2007, 2010, 2012 and 2014:[2]

Table I-2. Cable System Funds Flow Comparison, 1990-2016

	Billions						
	1990*	2002	2007	2010*	2012*	2014	2016
Operating Revenues	$17.3	$48.2	$78.6	$94.4	$104.5	$110.2	$123.5
Operating Expenses	9.8	30.4	48.7	$58.1	$64.8	$68.3	$76.6
Operating Cash Flow/EBITDA	$7.4	$17.8	$29.9	$36.4	$39.7	$41.9	$46.9
Operating Margin	43.0%	36.9%	38.0%	38.5%	38.0%	38.0%	38.0%

*Column does not add to total due to rounding.

[2] Bortz Media estimates based on 2016 and prior year operating data for public cable companies; Federal Communications Commission (FCC), *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, December 31, 2007; and Kagan World Media, *Broadband Cable Financial Databook 2002*, p. 144.

These estimates reflect operations at both the system and corporate/headquarters levels.

It is important to note that, while cable operator revenues have grown substantially over the past 24 years, operating expenses have increased to an even greater degree. As a result, operating cash flow, or EBITDA, margins in the industry are lower than they were in 1990.

Capital expenditures. In addition to operating revenues and expenses, cable operators also make ongoing capital investments in their systems. These capital expenditures reflect several types of activity, including upgrading of systems (to increase capacity and support new services), new construction (extending service to additional homes and businesses), purchase of customer premise equipment (e.g., digital set-top boxes, cable modems, telephone network interface units, etc.) and maintenance. It also includes increasing amounts invested to provide services to business customers – reflecting the industry's growing commitment to the business community.

The cable industry is capital intensive by nature, and the industry's focus on upgrading its network infrastructure and deploying new services that require the placement of new technology in customers' homes has necessitated consistently large capital expenditures. In 2016, Bortz Media estimates that cable operator capital investment totaled $19.6 billion.[3]

Notably, the industry's capital investment in 2016 (as well as in recent prior years) exceeds the amounts invested during most years of the intensive industry-wide infrastructure upgrade that took place in the late 1990s and early 2000s. This is largely due to the high cost of the advanced in-home technology that is in increasing demand by subscribers, as well as the support infrastructure associated with the delivery of advanced services.

Estimated capital investment reflects both capitalized construction/maintenance labor and equipment/materials purchases. For the purpose of this analysis, estimates have been made regarding the proportion of labor expenditures paid to outside contractors relative to those paid to cable system employees. In addition, the equipment purchase component has been adjusted downward to account for the off-shore manufacturing of certain cable equipment.

Financing activities. Cable-related financing activities result in additional expenditures and economic impacts not accounted for in estimates of either system operations or capital spending. Financial transactions encompass both capital formation (i.e., debt and equity financing) and the purchase and sale of cable properties. In addition, the cable industry makes substantial interest payments annually on its outstanding debt.

The industry is estimated to have applied its resources in 2016 primarily toward capital investment (see above) and debt reduction. Even so, it is estimated that approximately $7.0 billion in interest payments were made during 2016.[4]

---

[3] Bortz Media estimate based on public cable company operating data.

[4] Bortz Media estimate based on public company data and SNL Kagan, *Broadband Cable Financial Databook*, 2016 Edition.

Cable program network advertising. "Basic" programming networks, such as ESPN, USA, CNN, and FX generate revenues from two primary sources – license fees paid by cable operators and the sale of advertising. Operator license fees are accounted for in the cable system operating expenses set forth earlier. In contrast, advertising revenues of the basic networks (and other, smaller network revenue streams such as revenues derived from the syndication of programming) represent an additional source of funding for these programming services.

Growth in the number of networks, the number of households served by individual networks, and the aggregate audience attracted by those networks have contributed to corresponding growth in gross program network advertising revenues. Since 1990, gross program network ad revenues have increased from less than $2 billion to over $31 billion:[5]

Table I-3. Growth in Cable Network Gross Advertising Revenues, 1990-2016*

Year	Cable Network Gross Advertising Revenues (Billions)
1990	$1.9
1996	5.1
2002	11.2
2007	19.9
2010	23.0
2012	27.0
2014	30.1
2016	31.4

*These revenues reflect payments made directly to cable programming networks by advertisers. They are separate and distinct from the local advertising revenues generated by cable system operators, which are estimated to have totaled about $5.6 billion on a gross basis during 2016.

Advertising agency commissions on these program network revenues are estimated to be almost $4.7 billion for 2016. In addition, these revenues (along with the network intake from license fees and other sources) fund the acquisition of programming, the compensation of employees and other network expenditures.

Advertising revenues generated by program networks are a function of the networks' total reach, including households receiving the networks from cable operators as well as from other, competing distributors. For the purpose of this analysis, Bortz Media estimates that just over 53 percent of network advertising revenues can be attributed to the distribution provided by the cable industry.

[5] Bortz Media estimates for 2016. Historical data based on SNL Kagan, *Economics of Basic Cable Networks,* 2016 Edition, and *Media Trends*, 2010 Edition; and estimates of revenues generated by regional sports and news networks.

Cable Industry Suppliers

Based on the funds' flows described above, cable operator expenditures during 2016 included almost $77 billion in operating expenses, more than $13 billion in domestic capital expenditures[6] and approximately $500 million in commissions and other fees associated with operator financing activities. Of these expenditures, more than $20 billion (or roughly 25 percent) is paid directly to cable industry employees in the form of wages and other compensation, and over $4 billion represent bad debt, certain taxes and other payments to governmental entities. Even so, the remaining $64 billion go to purchase goods and services from industry suppliers. In addition, advertising revenues flowing to program networks (and related commissions to advertising agencies) as a result of distribution via cable system operators approximated $18 billion in 2016.

Cable industry suppliers are found throughout most major sectors of the national economy. Many of these firms, such as utilities, leasing companies, financial/professional services firms and insurance carriers, provide services to cable operators as well as an array of other businesses. Other suppliers, such as programming networks, customer billing companies, certain manufacturers and construction firms, and brokers, specialize in the cable industry and garner all or a substantial majority of their revenue from cable companies.

The estimated overall distribution of 2016 cable expenditures among the various major economic sectors is summarized below, followed by a brief description of the principal suppliers represented within each sector.

Dollar flows. As summarized above, Bortz Media estimates that total cable-related dollars flowing to firms directly supplying goods and services to cable operators approximated $81.7 billion during 2016:[7]

---

[6] This figure is smaller than the total capital expenditure estimates discussed elsewhere in this report due to the exclusion of the portion of capital investment that is spent outside the U.S. (Cable operators purchase the bulk of their equipment and materials from U.S.-based companies. However, certain electronics and other components are manufactured outside the U.S.)

[7] Total linked economic activity is the sum of cable operator expenses (including domestic capital investment and fees related to financing activities) plus the cable-related advertising revenues of basic cable networks, less direct employee compensation, bad debt, certain taxes and other payments to governmental entities. Distribution by sector is a Bortz Media estimate based on the NAICS classification format of the U.S. Department of Commerce. Our use of the NAICS format (adopted in 1997 to replace the historical Standard Industrial Classification or SIC) is discussed in more detail in Appendix A.

Table I-4. Cable Industry Linked Supplier Revenues, 2016

Economic Sector	2016 Linked Supplier Revenues (Billions)*
Utilities	$1.1
Construction	5.1
Manufacturing	11.0
Transportation/Warehousing	0.1
Wholesale and Retail Trade	3.8
Information	47.3
Finance/Insurance	1.2
Real Estate	4.3
Prof./Mgmt./Admin. Services	7.6
Arts/Ent./Rec./Other Services	0.1
TOTAL	$81.7

*Column may not add to total due to rounding.

Information. The information sector obtains by far the largest revenues from the cable industry, due primarily to the more than $31 billion in cable industry expenditures captured by program networks in the form of license fees paid by cable operators and another $14 billion in cable-attributable advertising revenues generated directly by the networks.

Utilities. This sector includes payments by cable operators for system power and general heating, lighting and water needs. Expenditures during 2016 are estimated to have exceeded $1 billion, primarily to power utilities to cover pole/conduit rental and meet system power requirements. Because local cable systems serve communities throughout the country, these expenditures are distributed among utilities across the United States.

Construction. This sector primarily reflects payments by cable operators to providers of contract construction services. Expenditures, which are estimated at $5.1 billion for 2016, are used primarily to acquire labor and services connected with equipment installation, system upgrades and line extensions (i.e., the deployment of the cable network infrastructure to new or previously unserved buildings and housing developments).

Manufacturing. The bulk of cable capital expenditures (as well as some maintenance and replacement-related operating expenses) go toward the purchase of subscriber equipment – including digital set-top boxes, cable modems and telephone network interface units – and "network" products including fiber optic and coaxial cable, head-end equipment and node electronics.

As discussed earlier in this section, the vast majority of cable industry purchases of this type are from U.S.-based manufacturers. However, the actual fabrication and assembly of

many of these products occurs outside of the United States. Even so, we estimate that expenditures remaining in the U.S. amounted to approximately $11.0 billion in 2016.

Transportation/warehousing. This sector receives only modest expenditures from the cable industry, principally associated with air travel by cable employees.

Wholesale and retail trade. Cable operators are estimated to have purchased $3.8 billion in wholesale and retail goods during 2016. Most of these expenditures are for the typical materials and supplies necessary to run a business, including paper products, printed marketing materials, fuel for company vehicles, etc. Cable operator purchases from wholesalers of cable-specific equipment could not be broken out and are therefore included in the manufacturing sector.

A specific note with respect to retail sales is the cable industry's provision of home shopping program services such as QVC Network and HSN. U.S. retail sales of these companies during 2016 are estimated to have amounted to nearly $10 billion. These sales (and their resulting economic impacts), while achieved in large part through the subscription TV medium, are not directly accounted for in this study.[8]

Finance/insurance. Linked activities in this sector include commercial and investment banking and cable brokerage functions as well as business insurance. Particularly in the banking segment, providers to the industry include the major nationally based firms as well as a number of smaller firms specializing in the cable industry. As an illustration, the *Television & Cable Factbook 2017* lists nearly 100 firms offering brokerage or financing-related services to the television and cable industries.[9]

Bortz Media estimates that direct payments to the financial and insurance sector by the cable industry approximated $500 million during 2016. Moreover, the industry is estimated to have paid approximately $7 billion in interest payments in 2016 – a portion of these payments will be used by financial institutions to pay for the funds they loan (i.e., interest payments to depositors) while the remainder constitute net revenue to the financial institution. (The economic impact of these interest payments to financial institutions is not directly accounted for in this analysis.)

Real estate. Cable industry expenditures flowing to the real estate sector consist primarily of rental payments associated with land, office space and other facilities used by cable providers. These facilities are located throughout the country, and payments are spread among many different firms. Expenditures during 2016 are estimated to have totaled $4.3 billion.

Professional/technical/management/administrative services. Cable industry payments to services firms in 2016 amounted to $7.6 billion. Commissions to advertising agencies and rep firms were the largest single services category, accounting for almost half of this

---

[8] While made possible by distribution on cable systems, these retail sales involve finished products developed and manufactured by other industries. As such, it was determined that these sales should be excluded from the analysis.

[9] Warren Communications News, *Television & Cable Factbook 2017*, Cable Volume 2, pp. E-133 to E-138.

total. Other major categories included data processing services, legal, IT and accounting services, and collections. These payments flow to literally thousands of local firms spread throughout the country.

Arts/entertainment/recreation and other services. Payments flowing directly to these sectors are modest (about $100 million in 2016), and include the portion of copyright fees that are paid to sports leagues and franchises. It is important to note that payments to sports entities, as reported here, do not include sports rights payments – which are typically a payment made by program networks rather than by cable operators. These payments (and their impacts) are discussed separately in Section III of this report.

Summary. More than $81 billion flowed directly to cable industry suppliers during 2016. The employment and personal income created by these expenditures and the subsequent economic impacts resulting from the flow of these dollars throughout the U.S. economy are described in Section II.

Program Network Industry Structure and Financial Flows

The program network industry's role as a supplier to the cable operator industry is reflected in the preceding discussion. Even so, the industry has experienced dramatic growth and exerts a substantial economic impact in its own right. Its operational and financial characteristics are briefly summarized below as a prelude to the economic impact discussion in Section III.

Industry structure. There are two primary categories of subscription TV program networks:

- *"Basic" networks.* Networks in this category are typically combined with a large number of other networks as part of one or more subscription packages offered by distributors including cable operators, satellite providers and telephone companies. The basic networks generally derive revenue from two principal sources – license fees charged to distributors for the right to carry the network, and advertising revenues generated as a result of viewing of the network by subscribers. Examples of national basic networks include CNN, ESPN, USA, FX, and The Discovery Channel, while networks such as Fox Sports West and MSG Network are illustrative of the many regional sports networks.

- *"Premium" networks.* The HBO, Showtime and Starz families of networks are examples of networks in the premium category. Distributors charge a retail subscription fee for these networks and share a portion of this fee with the networks. In general, these networks are not advertiser-supported.

As a supplier of cable programming, the program network industry also includes out-of-market premium sports packages and entities (such as iN DEMAND) that assemble programming for sale on a video-on-demand or pay-per-view basis.

Operations and financial flows. The program network industry generated more than $86 billion in net domestic revenues in 2016, with operating expenses of over $56 billion. Four-fifths of the industry's operating expenses went directly toward the creation or acquisition of programming:

Table I-5. Program Network Funds Flows, 2016*

	Billions		
	Basic Networks	**Premium/ VOD/PPV**	**Total**
Operating Revenues**	$76.4	$12.0	$88.4
Operating Expenses:			
Programming/Production	$38.2	$6.7	$44.9
All Other	9.2	2.3	11.5
Subtotal	$47.4	$8.9	$56.3
Operating Cash Flow/EBITDA	$29.0	$3.1	$32.1
Operating Margin	38.0%	25.5%	37.2%

*Columns may not add to totals due to rounding.

**Net of agency commissions.

In addition, the industry was responsible for over $4.7 billion in advertising agency commissions in 2016.

SECTION II. ECONOMIC IMPACTS OF THE CABLE OPERATOR INDUSTRY

This section summarizes the impacts of the cable operator industry on the United States economy in terms of jobs, personal income and total economic activity. Direct, linked and total impacts are analyzed.

Direct Impacts

Direct economic impacts include the jobs and personal income provided by the more than 5,200 cable systems operating in the United States, as well as the regional and corporate offices of the MSOs that manage most of these systems.

Employment. Bortz Media has compiled information on cable operator employment from several sources, including public cable company reports and presentations, analysis of key industry ratios/benchmarks such as the ratio of subscribers per employee, and responses of several major MSOs to a survey developed for the purpose of this study. Based on these data, Bortz Media estimates that 2016 cable operator employment approximated 255,600. *This reflects the creation of nearly 80,000 net new cable operator jobs since 2002*.

Growth over recent years resulted from significant structural changes in the industry, attributable to the extensive marketing of digital cable and high-speed Internet access services, the widespread deployment of residential telephony and the more recent emphasis on providing business services. Each of these new services is labor intensive, requiring incremental sales, installation, customer service and technical/maintenance personnel. As a result, the ratio of subscribers per employee has declined steadily over the last few years. Stated another way, proportionately more cable personnel are now required to support the increasing array of services offered to an individual subscriber.

Direct employee compensation. Direct cable operator employee compensation (including payroll tax payments, as well as capitalized in-house labor) is estimated to have totaled $22.0 billion for 2016. Excluding capitalized labor costs, employee compensation accounts for approximately 27 percent of cable operator operating expenses.

Linked Economic Activity

As noted in Section I, linked economic activity encompasses the jobs, income and related economic effects of firms supplying goods and services to cable system operators. Based on the dollar flows from cable operators to these firms (see Section I), the cable-related activities of cable industry suppliers are estimated to have accounted for over 161,000 jobs and $17.2 billion in employee compensation during 2016 (as summarized below on Table II-1):

Table II-1. Cable Industry Linked Supplier Employment and Employee Compensation, 2016

	2016 Linked Suppliers	
Economic Sector	**Employment***	**Employee Compensation (Millions)***
Utilities	1,100	$150
Construction	21,000	1,520
Manufacturing	41,700	3,330
Transportation/Warehousing	800	60
Wholesale and Retail Trade	6,200	410
Information	41,400	7,040
Finance/Insurance	1,500	160
Real Estate	5,800	400
Prof./Mgmt./Admin. Services	41,000	4,030
Arts/Ent./Rec./Other Services	700	60
TOTAL	161,300	$17,150

*Column may not add to total due to rounding.

The manufacturing, information and professional/management/administrative services sectors each provide 41,000 or more cable-related jobs. The high-paying information sector (which includes program networks) is the largest linked supplier category in terms of employee compensation, with approximately $7.0 billion in cable-related compensation.

Combined Direct and Linked Impacts

Combining direct and linked employment provides a particularly useful depiction of "the cable operator industry" (i.e., the employment and income generated by cable operators and their immediate suppliers of goods and services). In 2016, total employment on this basis approximated 417,000, while compensation of those employees amounted to over $39 billion:

Table II-2. Cable Industry Combined Direct and Linked Impacts, 2016

	Direct Plus Linked Impacts
Employment	416,900
Employee Compensation (Millions)	$39,110

Total Economic Impacts

Total economic activity associated with the cable industry extends far beyond the direct and linked impacts summarized above. As noted in Section I, additional economic effects are created by:

- Economic activity generated by the purchase of goods and services by firms dependent on the cable operator industry (intermediate effects); and

- Economic activity stimulated by the purchase of goods and services by individuals employed as a result of the cable operator industry (induced effects).

The total impacts attributable to the industry can be measured in the form of job creation and resulting personal income, as well as in the form of total output. As described further in Appendix A, estimation of these total impacts derives from the application of economic impact multipliers – in this case, multipliers developed by the Bureau of Economic Analysis of the U.S. Department of Commerce.

Employment and income. Total employment associated with the cable operator industry during 2016 (including direct, linked and indirect effects), is estimated at more than 2.3 million jobs. Total 2016 earnings attributable to the industry were more than $106 billion:

Table II-3. Cable Industry Total Economic Impacts, 2016*

Economic Sector	2016 Total Impacts Employment**	Earnings (Millions)**
Agriculture/Mining	8,300	$280
Utilities	16,000	830
Construction	129,100	5,380
Manufacturing	217,800	9,860
Transportation/Warehousing	18,200	760
Wholesale and Retail Trade	130,200	4,920
Information	960,500	49,460
Finance/Insurance	72,000	2,850
Real Estate	47,400	1,230
Prof./Mgmt./Admin. Services	228,500	9,220
All Other Services	120,200	4,260
Public Administration	383,100	17,170
TOTAL	2,331,200	$106,240

* As noted above and in Appendix A, total impacts combine direct, linked and indirect impacts. Estimates of indirect impacts (or "re-spending effects") are derived by applying U.S. Department of Commerce multipliers for each industry sector to Bortz Media estimates of direct impacts.

**Column may not add to total due to rounding.

The information sector (which includes the cable industry's direct employment and compensation impacts) is by far the largest sector in terms of cable-induced employment. The greater relative importance of the trade sector in comparison with the distribution of linked supplier impacts is a function of personal consumption patterns, which account for a significant portion of indirect economic impacts.

Finally, more than 380,000 government jobs are induced by the cable industry. Most of these positions are found at the state and local level.

Output. Economic output impacts (as estimated in this report) reflect the total value of all cable-related transactions as they occur throughout the economy. Specifically, gross output measures the sum of the revenue received by firms at each step in the distribution process.[10] The gross 2016 output associated with the cable operator industry is estimated at $348 billion. [See Table II-4.]

Impacts by State and Congressional District

[10] By way of example, assume that the raw materials (or components) used in a digital cable set-top box are sold to a manufacturer for a total of $25, the manufacturing process for the unit contributes an additional $75 in "value-added" (resulting in a wholesale price of $100), and the final "retail" price to the cable operator is $200. In this case, gross output is the sum of all three "prices" charged for the product at the three steps in the distribution chain, or $325.

Bortz Media also estimated cable employment and economic impacts by state and Congressional District. Estimates of employment and impact for each state and District are set forth in Appendix B.

Employment estimates are derived from zip code level employment data provided by individual cable companies. Determining impacts in each state and District is more complex, and cannot be estimated with precision without evaluating whether dollars spent in a particular location go to suppliers located in the same location. For purposes of this analysis, Bortz Media estimates state and District level impacts assuming all dollars spent by the local cable system remain within the state or District. This method allocates the full level of total industry impacts – but does not account for the fact that some states and Districts receive substantial net inflows of cable dollars while others experience substantial net outflows. Impacts are therefore understated in some states and Districts and overstated in others.

Despite these limitations, our analysis confirms that the cable industry's localized structure results in significant employment and economic impacts in each and every state and Congressional District. A few key findings include:

- *Direct cable employment.* Bortz Media's analysis indicates that at least 300 direct cable operator employees reside in every Congressional District. Further, there are 38 Districts with more than 1,000 cable operator employees and several with more than 2,000.

- *Employment impacts.* Using the total impact approach, the cable operator industry is responsible for at least 2,800 jobs in each District, and upwards of 4,000 jobs in almost 250 Districts.

Cable Industry Growth: 2002-2016

As indicated in Sections I and IV, the cable operator industry has experienced substantial growth over the last decade and a half. The economic implications of this growth can be seen by comparing the industry's economic impacts in 2016 to those estimated in Bortz Media's 2002 impact analysis.[11] This comparison illustrates that the direct and linked employment attributable to cable operators has grown from 307,000 employees in 2002 to 417,000 in 2016. Similarly, total employment impacts (including indirect effects) have increased from 1.1 million employees (2002) to more than 2.3 million for 2016. Similar growth patterns are evident in other major measures of the industry's impact:

[11] Changes in NAICS industry classifications necessitated certain methodical changes for the 2007 and 2010 studies as compared with the 2002 study. As such, comparisons of specific job classifications between the two studies should be viewed with caution. Even so, Bortz Media believes broad trend comparisons such as those described here are representative of the growth in the industry's overall economic impact.

Table II-4. Cable Industry Growth Indicators, 2002-2016

Economic Indicator	Year 2002	2007	2010	2012	2014	2016	Absolute Growth	Percent Change: 2002-2016
Cable Operator Direct Impacts:								
Revenues (Billions)	$48.2	$78.6	$94.4	$104.5	$110.2	$123.5	$75.3	156%
Employment	176,000	229,000	233,700	235,100	248,900	255,600	79,600	45%
Employee Comp. (Billions)	$8.9	$14.3	$17.3	$19.9	$20.4	$22.0	$13.1	147%
Direct plus Linked Supplier Impacts:								
Employment	307,200	365,300	369,300	381,300	403,900	416,900	109,700	36%
Employee Comp. (Billions)	$16.2	$23.4	$28.4	$33.1	$35.9	$39.1	$22.9	141%
Total Economic Impacts:								
Employment	1,134,400	1,501,200	1,771,900	1,958,500	2,124,700	2,331,000	1,196,600	105%
Earnings (Billions)	$42.3	$61.9	$76.7	$89.2	$97.1	$106.2	$63.9	151%
Gross Output (Billions)	$173.4	$226.7	$251.2	$291.4	$317.8	$347.9	$174.5	101%

The cable operator industry's direct employment gain of nearly 80,000 net new jobs from 2002 to 2016 represented over 0.5 percent of all net U.S. jobs added during that period – a substantial contribution for any single industry.

SECTION III. ECONOMIC IMPACTS OF THE PROGRAM NETWORK INDUSTRY

The program networks that represent the key suppliers to the cable operator industry comprise a substantial industry in their own right – and their economic impact is only partially reflected in the total impacts calculated in Section II. This section details the direct and total impacts of the subscription program network industry on the United States economy in terms of jobs, personal income and total economic activity. It should be noted that piracy continues to plague the program network industry, which has a direct impact on its revenue and ability to reinvest in programming, future employment and other linked economic activity.

Direct Impacts

Direct economic impacts include the jobs and personal income provided by the approximately 900 basic and premium program networks operating in the United States, as well as the regional networks serving particular segments of the country.

Employment. Bortz Media has compiled information on program network employment primarily from responses to surveys of major program network groups developed for the purpose of this study. In addition, several other sources have been reviewed including public company reports and presentations, analysis of key industry ratios/benchmarks such as the ratio of revenues per employee, and Bortz Media's own experience in developing staffing plans for start-up networks. Based on these data, Bortz Media estimates that 2016 program network employment approximated 59,000. This represents an increase of about 2,000 employees since 2014 and about 8,300 net new jobs since 2010.

Bortz Media's 2002 analysis did not directly address program network employment. However, based on information supplied by selected network groups in 2002 and in response to the survey conducted for this analysis, it is estimated that program network employment has increased by nearly 75 percent over the past 14 years – resulting in the creation of roughly 25,000 new jobs.

Direct employee compensation. Program network industry employees are highly compensated, with compensation in 2016 estimated to average approximately $170,000 per employee. Direct program network employee compensation is therefore estimated to total $10.0 billion for 2016. Employee compensation accounts for about 16 percent of program network operating expenses.

Linked Economic Activity

As noted in Section I, linked economic activity encompasses the jobs, income and related economic effects of firms supplying goods and services to program networks. An in-depth examination of program network linked supplier activity was beyond the scope of this assessment. However, because program network expenditures are heavily concentrated on

the suppliers of the programming content that the networks provide, it is useful to consider the relationship between the program networks and two key supplier segments – the studio/production industry and the sports industry.

The studio/production segment. For the studio/production industry, the importance of basic and premium networks as distribution outlets continues to increase. Whereas subscription TV was originally a secondary distributor (i.e., programming premiered on an alternative distribution vehicle), it has increasingly assumed a primary role. Major, award-winning original series such as *Game of Thrones*, *Walking Dead* and *Homeland* have become a core part of the basic and premium network landscape, as have acclaimed original movies and mini-series' such as *The People v. O.J. Simpson: American Crime Story*, *Fargo, and The Night Manager*. Cable networks are also home to popular reality series' including *Love & Hip Hop, Gold Rush* and *Fixer Upper.*

Within the program syndication marketplace, basic networks are increasingly the primary outlets for off-network drama series such as *NCIS, CSI: Crime Scene Investigation* and *Bones*, as well as increasingly a primary outlet for comedy series such as *The Big Bang Theory, Modern Family* and *Family Guy* – oftentimes bypassing the traditional run on local over-the-air stations.

Finally, premium as well as basic networks continue to invest heavily in the acquisition of feature films.

Sports. Basic and premium program networks continue to offer an increasing amount of sports programming, and, in general, have greatly increased the overall number of televised sporting events. The growth of sports on program networks is attributable to a combination of factors, including investment in high-profile sports content by national networks such as ESPN and ESPN2, TNT, TBS, NBC Sports Network, FOX Sports 1 and HBO; the continued growth of regional sports networks; and the ongoing evolution and development of networks dedicated to the delivery of college athletics and/or specific types of sports. One or more regional sports networks are offered to the vast majority of all cable subscribers, while widely-distributed national sports networks (in addition to those mentioned above) include The Golf Channel, The NFL Network, The MLB Network, NBA TV, The Tennis Channel, CBS Sports Network, ESPNU, The Big Ten Network and The SEC Network.

The resulting income flowing to professional sports franchises from increased program network carriage at both the national and local levels has provided owners with an important incremental revenue stream. Similar benefits have been realized by collegiate institutions and other sports entities. As such, program networks are key contributors to the continued financial health of the sports industry.

Monetary flows. Program network spending on the production and acquisition of content is estimated to have totaled $45 billion during 2016, including expenditures by basic networks (national and regional), premium services and for video-on-demand and pay-per-

view delivery. Bortz Media estimates the distribution of program network expenditures to be as follows:

Table III-1. Program Network Production and Acquisition Expenditures, 2016

	Billions
Basic Networks	$38.2
Premium Networks	4.1
Pay-Per-View/VOD Services	2.7
TOTAL	$45.0

A portion of these programming dollars are spent internally by the program networks. For example, the production costs associated with the news programming of CNN, CNBC, MSNBC, Fox News Channel and others are included in these estimates. However, Bortz Media estimates that almost $25 billion of this total flows to motion picture studios and other members of the production community. In addition, an estimated $12.7 billion is paid to holders of sports rights.

Employment and income. The dollar flows described above stimulate employment and personal income in the program production/distribution and sports sectors of the economy. Based on Department of Commerce data for these sectors, the program network industry is responsible for 66,000 jobs in the motion picture and video industry sector as well as over 20,000 sports industry employees. These program network-related employees receive compensation totaling $5.0 billion (production) and $8.1 billion (sports):

Table III-2. Program Network Industry Production and Sports Links, 2016

	2016 Sector Links	
	Sports Teams & Clubs	Motion Picture & Video Industries
Revenues (Millions)	$12,700	$24,750
Employment	20,300	66,400
Employee Compensation (Millions)	$8,140	$4,990

Supported by rapidly growing revenues received from program networks, program network attributable employment in these two sectors is estimated to have increased by more than 32,000 jobs since 2007.

Total Economic Impacts

Total economic activity associated with the program network industry extends far beyond the direct and linked impacts summarized above.[12] As noted in Section I, additional economic effects are created by:

- Economic activity generated by the purchase of goods and services by firms dependent on the program network industry (intermediate effects); and
- Economic activity stimulated by the purchase of goods and services by individuals employed as a result of the program network industry (induced effects).

The total impacts attributable to the industry can be measured in the form of job creation and resulting personal income, as well as in the form of total output. As described further in Appendix A, estimation of these total impacts derives from the application of economic impact multipliers – in this case, multipliers developed by the Bureau of Economic Analysis of the U.S. Department of Commerce.

Total employment associated with the program network industry during 2016 (including direct, linked and indirect effects), is estimated to be 1.26 million jobs or an increase of almost 500,000 jobs since 2007. Total 2016 earnings attributable to the industry were over $45 billion:

Table III-3. Program Network Industry
Total Economic Impacts, 2007 to 2016

	Year					Change:
	2007	2010	2012	2014	2016	2007-2016
Employment	767,000	854,000	980,000	1,138,000	1,261,000	494,000
Earnings (Billions)	$29.8	$31.7	$35.8	$41.3	$45.3	$15.5
Gross Output (Billions)	$100.7	$108.1	$123.4	$141.7	$154.8	$54.1

As discussed previously, economic output impacts (as estimated in this report) reflect the total value of all program network-related transactions as they occur throughout the economy (i.e., the sum of the revenue received by firms at each step in the distribution process). The gross 2016 output associated with the program network industry is estimated at over $154 billion.

[12] The total impacts detailed below accurately reflect the economic impacts of the program network industry. However, since the program network industry is a supplier to the cable industry, a portion of the program network industry's total impacts are also subsumed in the total impacts estimated for the cable industry. As such, the total impacts for the two industries as presented in this report are not additive.

SECTION IV. OTHER CABLE AND PROGRAM NETWORK INDUSTRY PERSPECTIVES

The first three sections of this report detail the impact of the cable operator and program network industries on the United States economy, focusing on the creation of jobs and income and contributions to the nation's economic growth. This section highlights the many other impacts of the two industries -- including the cable industry's critical role in U.S. infrastructure investment, in creating a competitive telecommunications marketplace and in stimulating the emergence of an increasingly "broadband society" in the United States, and the profound impact of both industries on American television viewing habits and the development of new and innovative television programming. Finally, this section reviews the substantial monetary and non-monetary contributions of both segments to the communities they serve.

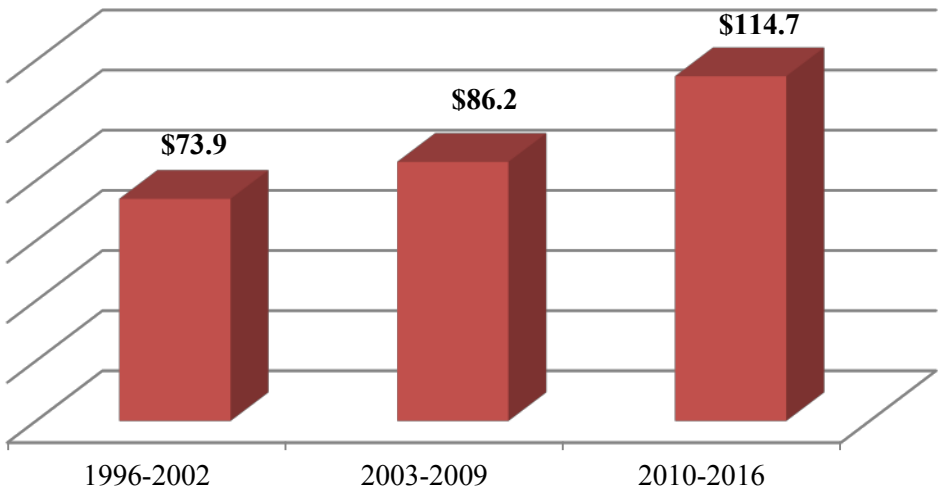
Cable Operators: Capital Investment Fostering Competition

Cable operators engage in a capital-intensive business that requires substantial investment to maintain and upgrade the extensive network infrastructure used to provide services. Following the passage of the Telecommunications Act of 1996, the industry undertook a massive infrastructure upgrade in the late 1990s and early 2000s (investing about $74 billion from 1996 to 2002 while also incurring a multi-billion dollar deficit in free cash flow) that transformed the competitive landscape in telecommunications and continues to benefit American consumers in innumerable ways.[13]

Subsequently, the industry's capital investment commitment has continued, such that total expenditures over the past two decades exceed $270 billion. Notably, the industry has spent more than $10 billion annually for each of the past 18 years, shifting its capital and operating focus toward competitive service implementation, the introduction of innovative service applications, and equipping homes with the technological tools and capabilities needed to make the most of their entertainment, information and communications options.

[13] Bortz Media estimates based on NCTA data, Kagan World Media/SNL Kagan, *Broadband Cable Financial Databook 2000, 2002* and *2010*, and company reports.

Figure IV-1. Cable Industry Capital Expenditures, 1996-2016 (in billions)



Source: Bortz Media compilation based on analysis of company reports and SNL Kagan data.

The majority of the cable operator industry's capital investment is made at the local level, in communities across the United States. And about one-quarter of the industry's total investment represents capitalized labor, which equates to local jobs -- the majority of which are local contractors.

In fact, top cable companies have consistently been recognized as "Investment Heroes" in an annual report by economists at the Progressive Policy Institute measuring the volume of domestic capital expenditures by U.S. companies.[14] Emphasizing the role that long-term capital investment plays in helping to raise both productivity and wages across the country, the authors included Comcast (top 10) and Time Warner Cable (now part of Charter; top 25) on a list of the top 25 U.S. companies that made the greatest investments domestically in buildings, equipment and infrastructure – and further noted that the combined Telecom/Cable category represented the country's largest source of domestic capital investment. Moreover, the report noted that the broader technology/Internet sector, which is closely linked to both cable operators and the programming industry highlighted in section III, was the third largest contributor to domestic investment in 2015. Further, it is notable that the cable industry has maintained and/or increased its levels of capital investment over recent years, even while overall domestic investment across all industries is suffering from what the authors characterize as "short-termism."

While substantial, neither the dollar amounts nor the recognition described above fully capture the impact that the cable industry has had in driving the adoption of broadband Internet access in this country, in opening the nation's telephone market to true competition at the residential level, and in fostering innovation in electronic entertainment. Moreover,

[14] Michelle Di Ionno and Dr. Michael Mandel, *Progressive Policy Institute,* "Investment Heroes 2016: Fighting Short-termism", October 2016.

the cable industry's recent gains in the business services segment are creating additional competition in this arena as well.

The services made possible by the cable industry's innovation and investment are reviewed in more detail below.

Advanced video services. As of 2016, 95 percent of all cable video customers subscribed to digital cable video service, up from 80 percent in 2012, 60 percent in 2007 and about 30 percent in 2002.[15] This represents more than 50 million digital cable video customers. Digital cable video (and the sophisticated set-top boxes that accompany it) has in turn facilitated the provision of an array of advanced services to digital subscribers. In addition to rapidly adopting cable's digital video service tier, customers have also taken advantage of the advanced services available to digital subscribers as well as the increasing availability of programming services on other media platforms:[16]

- *Video-on-demand (VOD).* Nearly all digital video customers have access to extensive libraries of VOD programming offered by cable companies -- and by all indications customers are taking full advantage. The Video Advertising Bureau (VAB) reports that cable operators make an average of more than 37,000 VOD titles available to their subscribers every month – more than online competitors Netflix, Hulu and Amazon combined.[17]

- *Digital video recording (DVR).* As of the end of 2016, it is estimated that more than 22 million cable customers (or 44 percent of cable homes) had DVR service. This is more than double the number of cable DVR customers at the end of 2007. DVR capability has significantly altered the way viewers watch television – enabling programs to be recorded and viewed at times more convenient to the customer, while also allowing programs to be paused and replayed when viewed "live."

- *High-definition television (HDTV).* Approximately 39 million cable homes had HD-enabled set-top boxes as of the end of 2016, a substantial increase from 26 million in 2010 and 13 million in 2007.

- *TV Everywhere.* In their ongoing efforts to extend and reinforce the value of their service to customers, cable operators and programmers have worked together to make content available on multiple platforms. By allowing access to TV programming online, these services allow customers to watch on-demand programs on personal computers, laptops and mobile devices including tablets and smartphones. In 2016, an estimated 5.4 billion programming views took place on these alternative devices – up from 2.1 billion in 2014.

---

[15] Bortz Media estimates based on cable company reports, SNL Kagan data, and NCTA estimates.

[16] Except as otherwise noted, data presented below is from SNL Kagan, *Broadband Cable Financial Databook*, 2016 Edition.

[17] Video Advertising Bureau, *2017 Video Facts*, p. 35.

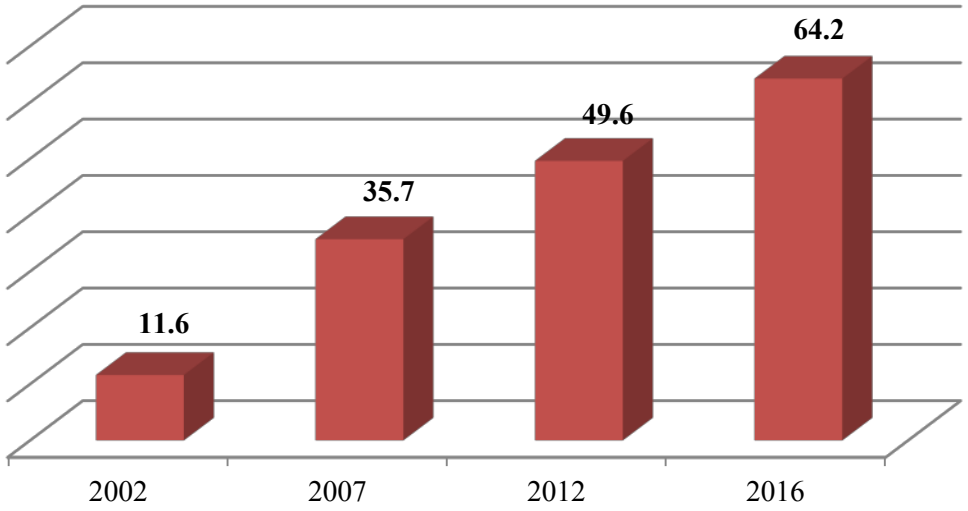
High-speed Internet service. The cable industry's bold (and unquestionably risky) infrastructure commitment in the latter half of the 1990s enabled it to "take the early lead" in the broadband services market and to attract more than 64 million high-speed Internet customers as of year-end 2016.[18] Equally important, it forced a competitive response from initially reluctant regional telephone incumbents, which ultimately resulted in most U.S. households now having access to broadband services from at least two experienced and reliable service providers. Moreover, by continually pressing its technological advantage and increasing broadband Internet speeds offered, cable forced a further response from the telephone industry in the form of increased DSL capabilities and substantial investments in fiber optic infrastructure.

By investing earlier than their principal competitors, cable operators initially brought broadband service to prospective customers sooner than would otherwise have been the case – giving consumers the opportunity to realize the benefits of the service and "proving" that a market existed for faster speeds. As penetration grew, the early success of cable operators forced a competitive response from ILECs – which faced a major lost opportunity if cable's early advantage persisted over time. Through the combination of providing access directly as well as stimulating the development of a competitive alternative, it is reasonable to assume that cable's early entry led to faster overall evolution of the broadband market.

By taking the lead in making broadband widely available (88 percent of U.S. households today have access to at least two wired internet providers and 98 percent have access to at least two wireless internet providers),[19] the cable industry has maintained its leadership in the delivery of high-speed Internet service and increased its customer base by a factor of five over the past 14 years:

[18] Bortz Media estimate based on company data.
[19] NCTA data.

Figure IV-2. Cable High Speed Internet Customers, 2002-2016 (in millions)



Source: Bortz Media compilation based on company reports.

Moreover, as indicated below, the cable industry's commitment has led to U.S. broadband service that is among the fastest, most affordable and most widely available in the world:[20]

- The average peak connection speed offer by cable operators exceeds 38 Mbps in all 50 states, and averages more than 75 Mbps in at least 10 states. Moreover, cable operators have launched ultrafast 2 Gbps broadband service in selected markets. Speeds in many U.S. states rank among the fastest average peak connection speeds in the world.

- The U.S. is one of only two countries where three broadband technologies (cable modem, DSL and wireless broadband) are fully deployed.

- Entry level pricing for U.S. broadband is the second lowest among the 35 countries that are members of the Organization for Economic Co-operation and Development (OECD).

The "Broadband Bonus." Numerous analyses have concluded that broadband is a crucial component of economic development and recovery, and that the overall economy has benefitted from investments in broadband infrastructure. The concept of a "broadband bonus" was developed in an attempt to quantify how much new economic value has resulted from the global transition to broadband Internet access. A 2012 report, "Measuring the Broadband Bonus in Thirty OECD Countries,"[21] provides an estimate of the net economic value created by broadband Internet (over and above what would have

[20] NCTA data.
[21] Authored by Shane Greenstein (Northwestern University) and Ryan McDevitt (University of Rochester), April 19, 2012.

been expected had dial-up Internet access continued to be the only means to access the Internet). For 2010, the estimated U.S. "broadband bonus" measured by the authors amounted to $125 billion, or almost three times the level of direct broadband revenues; furthermore, the measured "bonus" nearly tripled in just three years (i.e., from 2007 to 2010).[22] At $125 billion in 2010, the broadband bonus was estimated to add almost one percent to U.S. GDP (and certainly seems likely to exceed that level today based on its recent growth pattern). Finally, a more recent analysis from 2015 suggests that housing values are positively impacted (by nearly two percent) by the speed of the broadband connection available to the home.[23] As such, there is quantifiable evidence that the cable industry's leadership role in introducing broadband and continually improving its service speeds has had significant economic growth benefits on a national level.

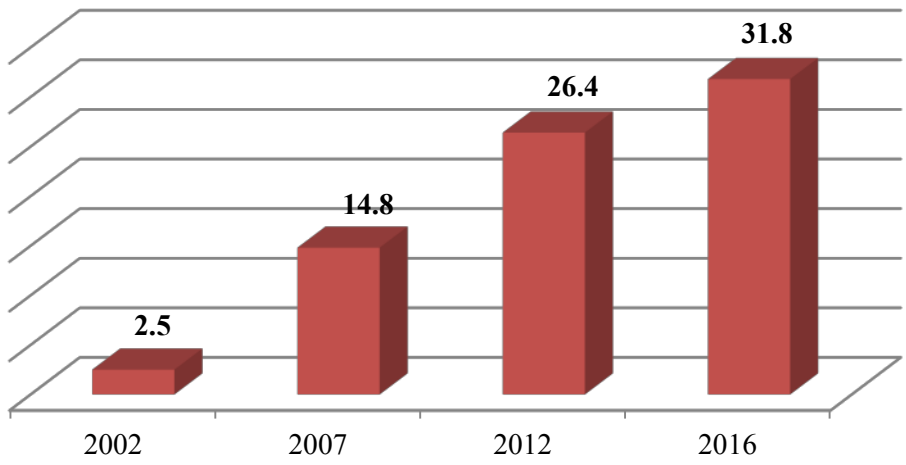
Recognizing the importance of broadband to communities, the cable industry has also undertaken several initiatives to encourage broadband adoption and narrow the "digital divide" (see additional detail below in the discussion of cable's impact on communities).

Digital voice service. In the telephone market, the FCC and Congress recognized the importance of creating a competitive market with the passage of the Telecommunications Act. However, despite the early efforts of CLECs and other would-be competitors, the regional telephone companies still controlled over 93 percent of residential primary access lines as recently as the end of 2001. It has only been since the cable industry's aggressive commitment to telephony (starting in 2001) that true residential competition has emerged. The cable industry has emerged as the primary source of competition to the incumbent telephone companies in the local telephone market, and the number of digital phone customers served by the industry has grown from just over 2.5 million at the end of 2002 to almost 32 million at year-end 2016.[24]

---

[22] Greenstein, S. and R. McDevitt (2012), "Measuring the Broadband Bonus in Thirty OECD Countries", *OECD Digital Economy Papers*, No. 197, OECD Publishing.
[23] G. Molnar, S. Savage and D. Sicker, "Reevaluating the Broadban Bonus: Evidence from Neighborhood Access to Fiber and United States Housing Prices." June 26, 2015.
[24] Bortz Media estimates based on cable company reports.

Figure IV-3. Cable Telephone Service Customers, 2002-2016 (in millions)



Source: Bortz Media compilation based on company reports.

Business services. Over the last several years, cable companies have begun offering the services described above to small and mid-sized businesses. Business services now account for over 12 percent of cable company revenues – or more than $15 billion in 2016 revenues.[25] Industry revenues from business services have more than doubled in just the last four years.

Cable Operators, Program Networks and Viewing

To be sure, cable operators' ongoing infrastructure investments and implementation of digital technology have combined to broaden the industry's role in its customers' lives and to accelerate the pace at which appealing new services are deployed. Even so, recent trends are merely a continuation of a long tradition of providing the improvements and choices that consumers want.

The U.S. cable industry was launched in the early 1950's to bring broadcast television (network affiliates, independents and public stations) to those households that could not otherwise receive the full complement of signals off-air. This remained the driving force behind the industry well into the mid-1970's and accounted for the first 10 to 12 million industry subscribers.

As cable's early focus expanded to include urban settings during the late 1970's and early 1980's, the characteristics of cable's service offering changed as well. From the 1980's through the early 2000's, cable's focus shifted to the sale of programming variety or choice – programming in addition to, and predominantly different from, broadcast television. Finally, over the last decade, growth in competitive alternatives has accelerated the trend

[25] Bortz Media estimates based on cable company reports.

toward ever improving options for the consumer. (As noted previously, customer choice has also evolved beyond just video programming to include high-speed Internet and telephone service). Today, more than ever, the cable "sell" is contingent on providing a wide range of innovative and differentiated programming and services that consumers value and are willing to pay for, and on giving customers the flexibility to purchase all or only a fraction of those services.

The commitment and success of the cable operator and program network industries over the years in creating and providing choice to their customers can be measured in a number of different ways.

Choice and flexibility. The ongoing infrastructure and technological evolution of the cable industry has provided, first and foremost, the expanded bandwidth needed to offer more program choices (along with other services) to subscribers. Combining expanded bandwidth with digital compression, cable operators now offer nearly all customers the option to select from packages that include hundreds of programming choices. While this increased capacity is an essential part of the enhanced value that cable offers, the industry well recognizes that not all of its customers have an interest in hundreds of programming choices. In fact, across the country, some customers opt to purchase as few as 20 to 50 channels of video programming (i.e., "broadcast basic" subscribers), while many others pay to receive 300 or more channels.

As described earlier in this section, most subscribers now also have access to literally thousands of programs on-demand, providing enormous flexibility. Finally, all or nearly all of the channels received on the home television set are now available on multiple devices (computer, tablet, mobile phone) and can be accessed outside the home.

Serving this range of consumer interests and consumer devices is the essence of choice – as measured by the combination of quantity and flexibility.

Combining variety with control. The sheer number of program networks is indicative of the diversity evident in the subscription TV program offering. Networks focused on specific niches, including those providing ethnically-targeted programming, children's programming, and other areas such as news, food, health, movies, music, sports, etc., are continually growing in number. As just one example, many cable systems now provide multicultural packages offering 50 or more channels specifically designed for particular ethnic groups. Primary examples are Latino tiers that include traditional Spanish-language networks as well as versions of popular program networks specifically designed to reflect the viewing interests of Latino subscribers.

In addition, recognizing that some of the diverse array of programming offered may not be appropriate for all viewers, cable operators provide parental controls that enable parents to manage how television is viewed in the home. In addition, programmers put a TV rating at the beginning of TV shows to help parents decide what programming is appropriate for their families to watch. Additionally, they have increased the size of ratings icons shown at the beginning of programs and after each commercial break. Together, operators and

programmers have committed more than $500 million in public service announcements since 2005 to ensure that consumers are aware of the parental control capability.[26]

Viewing metrics. Viewing of subscription TV programming provides another indicator of the importance and value of the programming choices cable operators and program networks now provide. The prime time viewing share of basic networks measured against all TV households has approximately doubled over the past twenty years.[27] This has occurred even as television has maintained its dominant position in an increasingly competitive media landscape. Media consumers watched more than 32 hours weekly of live and time-shifted television in 2016, more than twice the time spent with the next most-used medium (using apps or the Internet on a smartphone).[28]

The continued growth in the audience appeal of basic networks is also reflected in several recent viewing achievements by individual networks and programs:[29]

- *Most-viewed series programming.* Among viewers in the key 18-49 age group, AMC's *The Walking Dead* was by far the most watched non-sports series on television in 2015-16, averaging 11.27 million 18-49 viewers or 60 percent more than the next most viewed series among this demographic (CBS' *The Big Bang Theory*). HBO's Game of Thrones ranked fourth in the 18-49 demographic, while FX's American Horror Story: Roanoke was ninth.

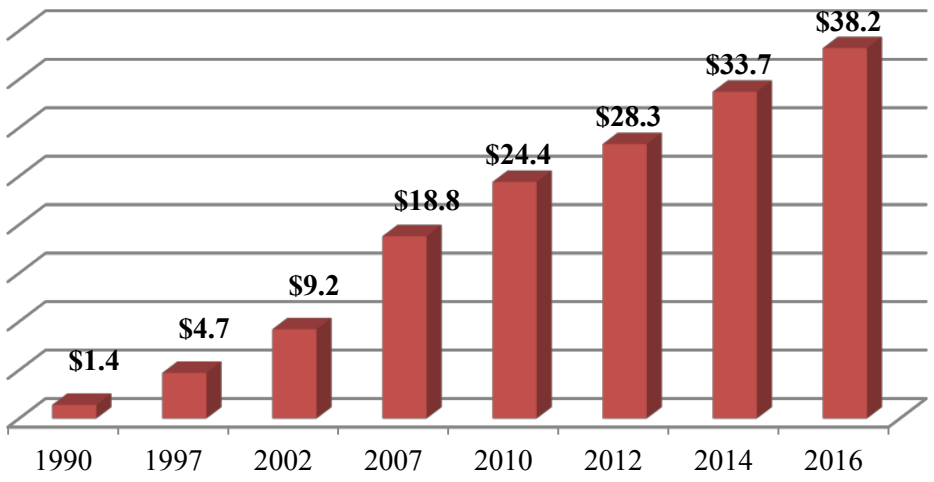
- *Most-viewed basic cable networks.* Fox News Channel claimed the top spot as cable's highest rated network in primetime in 2016 by averaging nearly 2.5 million total viewers nightly. ESPN, TBS, HGTV and TNT all captured more than 1.5 million average viewers.

Program quality. As summarized in Section III, the importance of this viewing shift, from an economic perspective, lies in the corresponding increase in program network advertising revenues. By re-investing these funds (as well as the growing license fees obtained from cable operators), program networks are continually increasing the resources devoted to purchasing and/or producing better programming. As Figure IV-4 illustrates, collectively, the annual spending on programming by basic networks grew more than sixfold from $1.4 billion in 1990 to nearly $9.2 billion for 2002, and has since more than quadrupled to over $38 billion in 2016:

---

[26] NCTA.
[27] Bortz Media estimate based on Nielsen data reported in Video Advertising Bureau, *Cable TV Facts* and *Video Facts*, various years, and in SNL Kagan, Economics of Basic Cable Networks, various years.
[28] Nielsen, *The Nielsen Total Audience Report*, Q3 2016.
[29] Bortz Media compilation of trade press reports and Nielsen data.

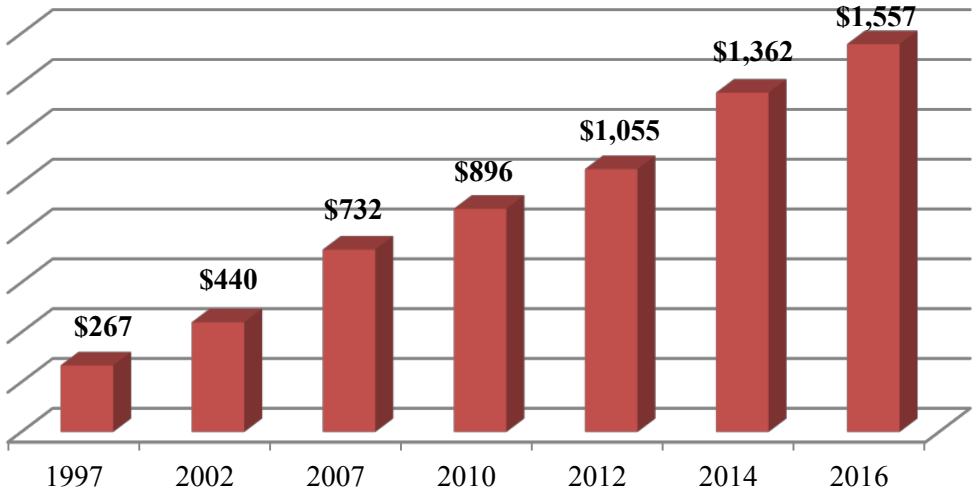
Figure IV-4. Total Basic Network Program Investment, 1990-2016 (in billions)



Source: Bortz Media estimates based on SNL Kagan, *Econ. of Basic Cable Networks* , various years.

It should be noted that growth in programming expenditures is not merely a reflection of the addition of literally hundreds of new networks but also a reflection of increased spending on an individual network basis. As Figure IV-5 illustrates, average program spending for the top 10 basic networks has increased from $267 million in 1997 to more than $1.5 billion in 2016:

Figure IV-5. Average Program Investment for Top 10 Basic Networks, 1997-2016 (in millions)



Source: Bortz Media compilation based on SNL Kagan, *Economics of Basic Cable Networks,* various years and SNL Kagan *TV Network Analytics* data.

Reflected in the industry's investment, the characteristics and quality of basic and premium network programming has been greatly enhanced:

- The Video Advertising Bureau reports that the number of original programs (i.e., programs produced directly by networks rather than acquired from outside sources) has more than doubled from 1,493 in 2006 to 3,126 in 2016.[30]

- Basic or premium networks won five of the seven awards for outstanding programming series at the most recent Primetime Emmy Awards, and received 23 total series nominations. These awards included Outstanding Drama Series (HBO's *Game of Thrones*), Outstanding Comedy Series (HBO's *Veep*), and Outstanding Limited Series (FX's *The People v. O.J. Simpson: American Crime Story)*.

- HBO and FX were the most nominated networks at the Emmy's, receiving 40 and 28 major nominations, respectively.

Cable Operator and Program Network Industry Contributions to Communities

The cable industry contributes substantially to charities, non-profit organizations and state/municipal coffers on a nationwide basis. These funds come in the form of franchise fees and sales/use taxes, programming services and on-air public service messages, equipment donations and direct cash contributions. With 5,200 individual cable systems operating in nearly every community in the country, the effect of these payments and contributions is felt directly by the communities served.

Through its own initiatives, including the use of valuable airtime, the program network industry also makes substantial contributions at the national and local levels.

Financial contributions. Franchise and other customer-related fees paid by cable operators in 2016 are estimated to have totaled $3.5 billion,[31] reflecting funds paid directly to local municipalities across the country. In addition, sales and use taxes associated with cable subscriptions amounted to over $4.2 billion in revenues to state and local government entities.[32]

Moreover, based on MSO and program network survey responses and prior research by The Association of Cable Communicators, the cable industry (including both cable operators and program networks) contributed more than $1.0 billion in 2016 in public service announcements, cash and "in-kind" contributions to local and national philanthropic, charitable and public service projects.[33]

---

[30] Video Advertising Bureau, *2017 Video Facts*, p. 26.
[31] Bortz Media estimate based on MSO survey responses.
[32] Bortz Media estimate based on MSO survey responses.
[33] Bortz Media estimate based on MSO and program network survey responses, as well as prior research by the Association of Cable Communicators.

Community involvement. The cable industry strives to ensure that cable systems are positive, contributing members of the communities in which they operate. This commitment frequently takes the shape of partnerships among program networks and local cable systems to bring public affairs initiatives to local communities. Cable industry companies also leverage industry-wide initiatives, both new and longstanding, for the benefit and to meet the needs of local communities. A few examples of industry-wide cable public affairs initiatives include:

- *NCTA Foundation*. The cable industry has established a foundation dedicated to social responsibility, which leverages the industry's resources – including its platform, technology and content – to support economic and community development among underserved populations and to support youth development. The foundation is a fitting successor to *Cable in the Classroom*, the industry-wide program in place for decades that helped wire the nation's schools for TV and broadband and that leveraged partnerships with cable program networks to offer free use of the best of cable's educational content. Additional examples of the industry's commitment in these areas include:

    - Mission Media and "Heroes Work Here." Mission Media is an industry-wide collaborative effort to develop sustainable platforms for hiring veterans. Separately, Walt Disney Company's "Heroes Work Here" program is a company-wide initiative to hire, train and support military veterans across all the company's divisions and cable networks including ESPN.

    - Spectrum Housing Assist. Spectrum's signature community initiative has leveraged more than 2,000 volunteers to make safety and health improvements to more than 8,000 homes – with a goal of improving 25,000 homes by 2020.

    - Comcast Foundation. The Comcast Foundation has donated nearly $200 million in support of digital literacy, community service initiatives and youth development in the communities they serve.

- *Narrowing the "digital divide".* Now, more than ever, access to the Internet through a broadband connection is necessary in almost all aspects of life -- for students completing school assignments, in managing health care, for finding work and in communicating with friends and family. And still, too many families remain unconnected. The cable industry's ongoing commitment to narrowing this "digital divide" is carried forward with programs that offer low-cost and discounted broadband services to low-income households as well as digital literacy training programs and centers. The cable industry has invested hundreds of millions of dollars in broadband adoption programs connecting more than 750,000 families and more than 30,000 schools with broadband connections.

- *C-SPAN.* Since 1979 and continuing today, cable companies fund the operation of the Cable-Satellite Public Affairs Network (C-SPAN) as a public service providing public access to the U. S. political process, and local cable systems throughout the country offer channel space for distribution of C-SPAN programming. Cable support for these operations exceeds $60 million annually. In a similar vein, cable also supports and/or makes channel space available for the distribution of numerous state public affairs networks ("state-SPANs") including The Pennsylvania Cable Network, The California Channel, Michigan Government TV, and others. Also, municipal-access channels on systems throughout the country provide viewer access to city council, school board meetings and other government activities.

- *Workforce diversity.* Through a number of cable industry organizations, cable actively encourages diversity within its own employment and supplier ranks in order to better reflect the diversity in the communities that cable serves. The Walter Kaitz Foundation, managed by NCTA - The Internet & Television Association, raises and distributes more than $1 million annually to organizations promoting diversity within cable. The National Association for Multi-Ethnicity in Communications (NAMIC), whose members include cable operators, programmers, hardware suppliers and others, engages in education and advocacy in support of diversity, including an online job bank, an executive leadership and development program, and a mentorship program. Women in Cable Telecommunications (WICT) administers an institute that assists women in the cable industry in the development of professional skills and also provides mentoring support. Finally, the Emma Bowen Foundation was established by the cable and broadcast industries to increase the access of minority students to permanent job opportunities.

APPENDIX A. METHODOLOGY AND DATA SOURCES

This Appendix describes the overall methodology used to estimate the economic impact of the cable operator and program network industries, and reviews the primary information sources on which Bortz Media's estimates and underlying assumptions are based.

Overview

Economic impact analysis is based on the interdependence of various economic sectors. In other words, impact analysis recognizes that economic activity in one sector of the economy stimulates activity in other sectors, and attempts to quantify these relationships. Each dollar created in one sector is essentially re-spent indefinitely (with steadily diminishing impacts), resulting in an economic effect greater than the original stimulus. Due to the complexity of tracking such dollar flows through the complete re-spending process, "multipliers" are used to estimate the total impact of activity in a sector. The multipliers used are derived from sophisticated mathematical models that replicate dollar flows in the economy.

In measuring economic effects, impacts are categorized as follows:

- *Direct impacts*. These impacts reflect the economic activity of cable operators (or program networks) themselves, including cable operator (or program network) jobs and employee income.

- *Linked impacts*. These impacts reflect the industry-related economic activity of industry suppliers. For cable operators, key suppliers include program networks, equipment manufacturers and professional services firms. For program networks, key suppliers include providers of content such as the major studios and sports leagues/franchises.

- *Indirect impacts*. Indirect impacts include: (1) economic activity generated by the purchase of goods and services by firms dependent upon the cable operator or program network industries (i.e., linked suppliers), referred to as intermediate effects; and (2) induced effects, or economic activity generated by the purchase of goods and services by individuals whose incomes derive directly or indirectly from the cable or program network industries. Indirect impacts are also sometimes termed "re-spending" effects.

For purposes of simplification, only direct, linked and total impacts (combining direct, linked and indirect effects) are presented in this report.

Based on the factors described above, this study included two key steps: (1) estimation of the direct revenue flows both to cable operators/program networks and from cable operators/program networks to their direct suppliers; and (2) projection of economic impacts attributable to these flows.

As noted elsewhere in this report, total impact figures reported for each industry are believed to accurately reflect the economic impacts of that industry. However, since the program network industry is a supplier to the cable operator industry, a portion of the program network industry's total impacts are also subsumed in the total impacts estimated for the cable operator industry. As such, the total impacts for the two industries as presented in this report are not additive.

Direct Dollar Flow Estimation

Cable operator and program network revenues, expenditures and the allocation of these expenditures by economic sector were estimated based on data from the following sources:

- Review and analysis of 2016 operating and financial statements for the major publicly held cable multiple system operators, along with a review of various investor presentations providing more detail on individual revenue and expenditure categories.

- A survey of both large and small cable MSOs (with respondents representing more than two-thirds of all cable subscribers), as well as of the parent companies of the major programming networks. These surveys obtained information on employment and employee compensation, as well as the disposition of certain key expense and capital investment categories.

- Review and analysis of detailed operating data from certain individual cable systems and program networks/network groups.

- Review of various industry level economic data for the cable industry, the program network industry and the major supplier industries for both from the U.S. Department of Commerce Bureau of Economic Analysis.

- A comprehensive review of available secondary source data including information from NCTA - The Internet & Television Association (NCTA), SNL Kagan, the Video Advertising Bureau (VAB), cable trade publications and various other sources. These data sources have been cited when used directly.

- Interviews with selected industry executives.

Information obtained from the data sources summarized above was used to create cable operator industry and program network industry economic models for the year 2016. Major categories of funds' flows analyzed included: cable system and program network operations, cable system capital expenditures, cable operator financing activities, and program network advertising. Within each industry, each area was analyzed in detail to avoid double-counting.

Dollar flows from each of these categories were allocated to cable operator and program network employee compensation, the purchase of goods and services from industry suppliers, or to special classifications such as payments to government (e.g., taxes, franchise fees, etc.). Payments to suppliers were then segmented into individual categories based on the North American Industrial Classification System (NAICS) utilized by the U.S. Department of Commerce.

In any analysis of this type, certain categorization decisions must be made to accommodate the economic model utilized, and the level of detail available regarding the underlying data. Based on our review of the data and the characteristics of the impact estimation methodology, moderate variations in the classification of individual expenditures components would not have a meaningful impact on the overall economic impacts estimated.

Projection of Economic Impacts

The dollar flows identified above, as well as other information obtained from the sources noted, were used to estimate employment, compensation and related impacts at all three impact levels – direct (cable systems/MSOs or program networks), linked (suppliers) and indirect (re-spending effects).

Direct estimation. Economic impacts were estimated directly whenever possible. For example, cable operator employment and employee compensation were estimated based primarily on survey responses from MSOs and public company reports and presentations. Industry level data reported by the Department of Commerce were used as a check on these sources. Similarly, linked supplier employment estimates were derived from Department of Commerce sector data, as well as (for the key program supplier category) surveys of key program suppliers.

Similarly, for the program network estimates, surveys of key program network groups represented the key information source with respect to employment and compensation.

Indirect impact estimation. Indirect impacts were estimated using sector level multipliers obtained from the Regional Input-Output Modeling System (known as RIMS II) developed by the Bureau of Economic Analysis at the U.S. Department of Commerce. RIMS II provides a comprehensive tool for quantifying the linkages between economic sectors and estimating aggregate economic impacts.

Multipliers utilized and resulting economic relationships were compared with prior Bortz Media economic impact analyses for consistency.

Comparison with Earlier Studies

As noted in Section II, Bortz Media completed a similar cable industry economic impact analysis for the year 2014 (as well as analyses for the years 1986, 1988, 1990, 2002, 2007, 2010 and 2012). The methodology and data sources used for the 2016 analysis are

generally consistent with the approaches used in the prior studies. In particular, the basis for the development of direct impact assumptions and the quantification of direct and linked impacts is virtually identical to that employed in the prior studies.

With regard to indirect impacts, the estimation methodology (i.e., the use of multipliers to derive re-spending effects) is the same as that used in 2014 and prior years. However, the studies in 1990 and prior years used a different model describing the U.S. economy (i.e., the Conjoined Input/Output Forecasting and Simulation Economic Model, instead of RIMS II). Both models are based on Department of Commerce data, and have the same goal of quantifying the linkages between economic sectors. In addition, the multipliers obtained from both models are similar in the vast majority of instances.

As such, while slight methodological differences exist between the 2002, 2007, 2010, 2012, 2014 and 2016 studies, we believe cable industry comparisons involving the overall estimates resulting from the four studies are both appropriate and instructive. Similarly, comparing the program network industry in 2007, 2010, 2012, 2014 and 2016 is also worthwhile.

Limitations

The limitations associated with the economic impact components of this study are primarily attributable to reliance on economic relationships developed through a generic input/output model of the national economy as a basis for indirect impact estimation. Industry sector designations, while highly disaggregated, do not precisely fit the cable operator or program network industries. The dollar transactions and relationships between output, employment and income are averages representative of all businesses within a particular classification rather than solely those serving the cable operator or program network industries.

We believe these limitations are minimized by our use of detailed “first round” expenditure data (i.e., direct expenditures by cable systems and program networks), verified through many and varied sources.

APPENDIX B.

CABLE EMPLOYMENT AND ECONOMIC IMPACT BY STATE AND CONGRESSIONAL DISTRICT

The Cable Industry's Economic Impact

Alabama

Statewide

NCTA Member Companies
Charter, Comcast, Mediacom

Cable Operator Employees
2,858

Total Local Impact
26,066 direct and indirect jobs
$3.9 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 399
Total Local Impact – 3,634 jobs
$542 million economic impact

2nd Congressional District
Cable Operator Employees – 367
Total Local Impact – 3,350 jobs
$500 million economic impact

3rd Congressional District
Cable Operator Employees – 337
Total Local Impact – 3,072 jobs
$458 million economic impact

4th Congressional District
Cable Operator Employees – 329
Total Local Impact – 3,002 jobs
$448 million economic impact

5th Congressional District
Cable Operator Employees – 655
Total Local Impact – 5,969 jobs
$891 million economic impact

6th Congressional District
Cable Operator Employees – 434
Total Local Impact – 3,960 jobs
$591 million economic impact

7th Congressional District
Cable Operator Employees – 338
Total Local Impact – 3,078 jobs
$459 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Alaska

ncta
THE INTERNET & TELEVISION ASSOCIATION

Statewide

NCTA Member Companies
GCI

Cable Operator Employees
1,420

Total Local Impact
12,951 direct and indirect jobs
$1.9 billion economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Arizona

Statewide

NCTA Member Companies
Cox, Comcast, Altice, Charter, Mediacom

Cable Operator Employees
4,740

Total Local Impact
43,231 direct and indirect jobs
$6.5 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 345
Total Local Impact – 3,144 jobs
$469 million economic impact

2nd Congressional District
Cable Operator Employees – 603
Total Local Impact – 5,495 jobs
$820 million economic impact

3rd Congressional District
Cable Operator Employees – 621
Total Local Impact – 5,661 jobs
$845 million economic impact

4th Congressional District
Cable Operator Employees – 454
Total Local Impact – 4,138 jobs
$618 million economic impact

5th Congressional District
Cable Operator Employees – 381
Total Local Impact – 3,475 jobs
$519 million economic impact

6th Congressional District
Cable Operator Employees – 767
Total Local Impact – 6,997 jobs
$1,044 million economic impact

7th Congressional District
Cable Operator Employees – 330
Total Local Impact – 3,010 jobs
$449 million economic impact

8th Congressional District
Cable Operator Employees – 907
Total Local Impact – 8,272 jobs
$1,235 million economic impact

9th Congressional District
Cable Operator Employees – 333
Total Local Impact – 3,040 jobs
$454 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Arkansas

Statewide

NCTA Member Companies
Altice, Cox, Comcast, Vyve

Cable Operator Employees
1,936

Total Local Impact
17,657 direct and indirect jobs
$2.6 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 462
Total Local Impact – 4,209 jobs
$628 million economic impact

2nd Congressional District
Cable Operator Employees – 465
Total Local Impact – 4,236 jobs
$632 million economic impact

3rd Congressional District
Cable Operator Employees – 504
Total Local Impact – 4,592 jobs
$685 million economic impact

4th Congressional District
Cable Operator Employees – 507
Total Local Impact – 4,619 jobs
$689 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

California

Statewide

NCTA Member Companies
Charter, Comcast, Cox, Altice, Mediacom

Cable Operator Employees
24,919

Total Local Impact
227,272 direct and indirect jobs
$33.9 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 433
Total Local Impact – 3,949 jobs
$589 million economic impact

2nd Congressional District
Cable Operator Employees – 343
Total Local Impact – 3,124 jobs
$466 million economic impact

3rd Congressional District
Cable Operator Employees – 400
Total Local Impact – 3,650 jobs
$545 million economic impact

4th Congressional District
Cable Operator Employees – 373
Total Local Impact – 3,400 jobs
$507 million economic impact

5th Congressional District
Cable Operator Employees – 555
Total Local Impact – 5,057 jobs
$755 million economic impact

6th Congressional District
Cable Operator Employees – 343
Total Local Impact – 3,125 jobs
$466 million economic impact

7th Congressional District
Cable Operator Employees – 532
Total Local Impact – 4,849 jobs
$724 million economic impact

8th Congressional District
Cable Operator Employees – 477
Total Local Impact – 4,346 jobs
$649 million economic impact

9th Congressional District
Cable Operator Employees – 452
Total Local Impact – 4,119 jobs
$615 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

California

ncta
THE INTERNET & TELEVISION ASSOCIATION

10th Congressional District
Cable Operator Employees – 823
Total Local Impact – 7,508 jobs
$1,120 million economic impact

11th Congressional District
Cable Operator Employees – 775
Total Local Impact – 7,068 jobs
$1,055 million economic impact

12th Congressional District
Cable Operator Employees – 368
Total Local Impact – 3,356 jobs
$501 million economic impact

13th Congressional District
Cable Operator Employees – 431
Total Local Impact – 3,934 jobs
$587 million economic impact

14th Congressional District
Cable Operator Employees – 432
Total Local Impact – 3,935 jobs
$587 million economic impact

15th Congressional District
Cable Operator Employees – 447
Total Local Impact – 4,078 jobs
$609 million economic impact

16th Congressional District
Cable Operator Employees – 915
Total Local Impact – 8,341 jobs
$1,245 million economic impact

17th Congressional District
Cable Operator Employees – 316
Total Local Impact – 2,885 jobs
$431 million economic impact

18th Congressional District
Cable Operator Employees – 330
Total Local Impact – 3,008 jobs
$449 million economic impact

19th Congressional District
Cable Operator Employees – 359
Total Local Impact – 3,274 jobs
$489 million economic impact

20th Congressional District
Cable Operator Employees – 338
Total Local Impact – 3,083 jobs
$460 million economic impact

21st Congressional District
Cable Operator Employees – 356
Total Local Impact – 3,247 jobs
$485 million economic impact

22nd Congressional District
Cable Operator Employees – 401
Total Local Impact – 3,653 jobs
$545 million economic impact

23rd Congressional District
Cable Operator Employees – 338
Total Local Impact – 3,081 jobs
$460 million economic impact

24th Congressional District
Cable Operator Employees – 315
Total Local Impact – 2,873 jobs
$429 million economic impact

25th Congressional District
Cable Operator Employees – 471
Total Local Impact – 4,291 jobs
$640 million economic impact

26th Congressional District
Cable Operator Employees – 519
Total Local Impact – 4,734 jobs
$706 million economic impact

27th Congressional District
Cable Operator Employees – 503
Total Local Impact – 4,591 jobs
$685 million economic impact

California

ncta
THE INTERNET & TELEVISION ASSOCIATION

28th Congressional District
Cable Operator Employees – 492
Total Local Impact – 4,489 jobs
$670 million economic impact

29th Congressional District
Cable Operator Employees – 498
Total Local Impact – 4,540 jobs
$678 million economic impact

30th Congressional District
Cable Operator Employees – 525
Total Local Impact – 4,788 jobs
$715 million economic impact

31st Congressional District
Cable Operator Employees – 524
Total Local Impact – 4,781 jobs
$713 million economic impact

32nd Congressional District
Cable Operator Employees – 429
Total Local Impact – 3,913 jobs
$584 million economic impact

33rd Congressional District
Cable Operator Employees – 370
Total Local Impact – 3,375 jobs
$504 million economic impact

34th Congressional District
Cable Operator Employees – 427
Total Local Impact – 3,894 jobs
$581 million economic impact

35th Congressional District
Cable Operator Employees – 522
Total Local Impact – 4,760 jobs
$710 million economic impact

36th Congressional District
Cable Operator Employees – 525
Total Local Impact – 4,788 jobs
$715 million economic impact

37th Congressional District
Cable Operator Employees – 340
Total Local Impact – 3,099 jobs
$462 million economic impact

38th Congressional District
Cable Operator Employees – 471
Total Local Impact – 4,293 jobs
$641 million economic impact

39th Congressional District
Cable Operator Employees – 343
Total Local Impact – 3,129 jobs
$467 million economic impact

40th Congressional District
Cable Operator Employees – 379
Total Local Impact – 3,461 jobs
$516 million economic impact

41st Congressional District
Cable Operator Employees – 390
Total Local Impact – 3,558 jobs
$531 million economic impact

42nd Congressional District
Cable Operator Employees – 528
Total Local Impact – 4,811 jobs
$718 million economic impact

43rd Congressional District
Cable Operator Employees – 442
Total Local Impact – 4,028 jobs
$601 million economic impact

44th Congressional District
Cable Operator Employees – 389
Total Local Impact – 3,549 jobs
$530 million economic impact

45th Congressional District
Cable Operator Employees – 656
Total Local Impact – 5,986 jobs
$893 million economic impact

California

ncta
THE INTERNET & TELEVISION ASSOCIATION

46th Congressional District
Cable Operator Employees – 347
Total Local Impact – 3,167 jobs
$473 million economic impact

47th Congressional District
Cable Operator Employees – 371
Total Local Impact – 3,381 jobs
$505 million economic impact

48th Congressional District
Cable Operator Employees – 431
Total Local Impact – 3,931 jobs
$587 million economic impact

49th Congressional District
Cable Operator Employees – 535
Total Local Impact – 4,875 jobs
$728 million economic impact

50th Congressional District
Cable Operator Employees – 526
Total Local Impact – 4,799 jobs
$716 million economic impact

51st Congressional District
Cable Operator Employees – 569
Total Local Impact – 5,190 jobs
$775 million economic impact

52nd Congressional District
Cable Operator Employees – 842
Total Local Impact – 7,679 jobs
$1,146 million economic impact

53rd Congressional District
Cable Operator Employees – 707
Total Local Impact – 6,448 jobs
$962 million economic impact

The Cable Industry's Economic Impact

Colorado

Statewide

NCTA Member Companies
Comcast, Charter, Eagle Communications, Vyve

Cable Operator Employees
10,859

Total Local Impact
99,039 direct and indirect jobs
$14.8 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 2,341
Total Local Impact – 21,351 jobs
$3,187 million economic impact

2nd Congressional District
Cable Operator Employees – 619
Total Local Impact – 5,642 jobs
$842 million economic impact

3rd Congressional District
Cable Operator Employees – 314
Total Local Impact – 2,859 jobs
$427 million economic impact

4th Congressional District
Cable Operator Employees – 1,594
Total Local Impact – 14,540 jobs
$2,170 million economic impact

5th Congressional District
Cable Operator Employees – 1,951
Total Local Impact – 17,797 jobs
$2,656 million economic impact

6th Congressional District
Cable Operator Employees – 3,038
Total Local Impact – 27,710 jobs
$4,136 million economic impact

7th Congressional District
Cable Operator Employees – 1,002
Total Local Impact – 9,139 jobs
$1,364 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Connecticut

Statewide

NCTA Member Companies
Comcast, Altice, Cox, Charter

Cable Operator Employees
3,438

Total Local Impact
31,356 direct and indirect jobs
$4.7 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 639
Total Local Impact – 5,829 jobs
$870 million economic impact

2nd Congressional District
Cable Operator Employees – 497
Total Local Impact – 4,528 jobs
$676 million economic impact

3rd Congressional District
Cable Operator Employees – 784
Total Local Impact – 7,152 jobs
$1,067 million economic impact

4th Congressional District
Cable Operator Employees – 869
Total Local Impact – 7,926 jobs
$1,183 million economic impact

5th Congressional District
Cable Operator Employees – 649
Total Local Impact – 5,921 jobs
$884 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Delaware

ncta
THE INTERNET & TELEVISION ASSOCIATION

Statewide

NCTA Member Companies
Comcast, Mediacom

Cable Operator Employees
1,467

Total Local Impact
13,380 direct and indirect jobs
$2.0 billion economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

District of Columbia

ncta
THE INTERNET & TELEVISION ASSOCIATION

Districtwide

NCTA Member Companies
Comcast

Cable Operator Employees
312

Total Local Impact
2,846 direct and indirect jobs
$0.4 billion economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$250 Billion
Since 1996

The Cable Industry's Economic Impact

Florida

Statewide

NCTA Member Companies
Comcast, Charter, Cox, Mediacom

Cable Operator Employees
16,381

Total Local Impact
149,402 direct and indirect jobs
$22.3 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 803
Total Local Impact – 7,321 jobs
$1,093 million economic impact

2nd Congressional District
Cable Operator Employees – 321
Total Local Impact – 2,931 jobs
$437 million economic impact

3rd Congressional District
Cable Operator Employees – 316
Total Local Impact – 2,885 jobs
$431 million economic impact

4th Congressional District
Cable Operator Employees – 720
Total Local Impact – 6,568 jobs
$980 million economic impact

5th Congressional District
Cable Operator Employees – 486
Total Local Impact – 4,434 jobs
$662 million economic impact

6th Congressional District
Cable Operator Employees – 795
Total Local Impact – 7,246 jobs
$1,081 million economic impact

7th Congressional District
Cable Operator Employees – 847
Total Local Impact – 7,725 jobs
$1,153 million economic impact

8th Congressional District
Cable Operator Employees – 585
Total Local Impact – 5,332 jobs
$796 million economic impact

9th Congressional District
Cable Operator Employees – 669
Total Local Impact – 6,097 jobs
$910 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

ncta
THE INTERNET & TELEVISION ASSOCIATION

Florida

10th Congressional District
Cable Operator Employees – 685
Total Local Impact – 6,247 jobs
$932 million economic impact

11th Congressional District
Cable Operator Employees – 458
Total Local Impact – 4,173 jobs
$623 million economic impact

12th Congressional District
Cable Operator Employees – 733
Total Local Impact – 6,681 jobs
$997 million economic impact

13th Congressional District
Cable Operator Employees – 939
Total Local Impact – 8,564 jobs
$1,278 million economic impact

14th Congressional District
Cable Operator Employees – 621
Total Local Impact – 5,659 jobs
$845 million economic impact

15th Congressional District
Cable Operator Employees – 722
Total Local Impact – 6,588 jobs
$983 million economic impact

16th Congressional District
Cable Operator Employees – 781
Total Local Impact – 7,122 jobs
$1,063 million economic impact

17th Congressional District
Cable Operator Employees – 475
Total Local Impact – 4,334 jobs
$647 million economic impact

18th Congressional District
Cable Operator Employees – 449
Total Local Impact – 4,097 jobs
$611 million economic impact

19th Congressional District
Cable Operator Employees – 692
Total Local Impact – 6,310 jobs
$942 million economic impact

20th Congressional District
Cable Operator Employees – 790
Total Local Impact – 7,202 jobs
$1,075 million economic impact

21st Congressional District
Cable Operator Employees – 489
Total Local Impact – 4,455 jobs
$665 million economic impact

22nd Congressional District
Cable Operator Employees – 448
Total Local Impact – 4,087 jobs
$610 million economic impact

23rd Congressional District
Cable Operator Employees – 721
Total Local Impact – 6,573 jobs
$981 million economic impact

24th Congressional District
Cable Operator Employees – 747
Total Local Impact – 6,808 jobs
$1,016 million economic impact

25th Congressional District
Cable Operator Employees – 420
Total Local Impact – 3,828 jobs
$571 million economic impact

26th Congressional District
Cable Operator Employees – 364
Total Local Impact – 3,318 jobs
$495 million economic impact

27th Congressional District
Cable Operator Employees – 309
Total Local Impact – 2,817 jobs
$420 million economic impact

The Cable Industry's Economic Impact

Georgia

Statewide

NCTA Member Companies
Comcast, Charter, Mediacom, Cox, Vyve

Cable Operator Employees
9,490

Total Local Impact
86,553 direct and indirect jobs
$12.9 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 325
Total Local Impact – 2,960 jobs
$442 million economic impact

2nd Congressional District
Cable Operator Employees – 316
Total Local Impact – 2,885 jobs
$431 million economic impact

3rd Congressional District
Cable Operator Employees – 371
Total Local Impact – 3,381 jobs
$505 million economic impact

4th Congressional District
Cable Operator Employees – 1,121
Total Local Impact – 10,227 jobs
$1,526 million economic impact

5th Congressional District
Cable Operator Employees – 845
Total Local Impact – 7,705 jobs
$1,150 million economic impact

6th Congressional District
Cable Operator Employees – 1,618
Total Local Impact – 14,760 jobs
$2,203 million economic impact

7th Congressional District
Cable Operator Employees – 1,162
Total Local Impact – 10,598 jobs
$1,582 million economic impact

8th Congressional District
Cable Operator Employees – 331
Total Local Impact – 3,017 jobs
$450 million economic impact

9th Congressional District
Cable Operator Employees – 373
Total Local Impact – 3,403 jobs

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

Georgia

$508 million economic impact

10th Congressional District
Cable Operator Employees – 445
Total Local Impact – 4,054 jobs
$605 million economic impact

11th Congressional District
Cable Operator Employees – 1,085
Total Local Impact – 9,894 jobs
$1,477 million economic impact

12th Congressional District
Cable Operator Employees – 329
Total Local Impact – 3,001 jobs
$448 million economic impact

13th Congressional District
Cable Operator Employees – 798
Total Local Impact – 7,280 jobs
$1,086 million economic impact

14th Congressional District
Cable Operator Employees – 372
Total Local Impact – 3,388 jobs
$506 million economic impact

The Cable Industry's Economic Impact

Hawaii

Statewide

NCTA Member Companies
Charter

Cable Operator Employees
1,347

Total Local Impact
12,285 direct and indirect jobs
$1.8 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 729
Total Local Impact – 6,644 jobs
$992 million economic impact

2nd Congressional District
Cable Operator Employees – 619
Total Local Impact – 5,641 jobs
$842 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Idaho

Statewide

NCTA Member Companies
Charter, Altice, Cox, Comcast

Cable Operator Employees
706

Total Local Impact
6,439 direct and indirect jobs
$1.0 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 384
Total Local Impact – 3,502 jobs
$523 million economic impact

2nd Congressional District
Cable Operator Employees – 322
Total Local Impact – 2,937 jobs
$438 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Illinois

Statewide

NCTA Member Companies
Comcast, Mediacom, Charter

Cable Operator Employees
10,229

Total Local Impact
93,293 direct and indirect jobs
$13.9 billion economic impact

DISTRICT BY DISTRICT

1st Congressional District
Cable Operator Employees – 676
Total Local Impact – 6,163 jobs
$920 million economic impact

2nd Congressional District
Cable Operator Employees – 795
Total Local Impact – 7,254 jobs
$1,083 million economic impact

3rd Congressional District
Cable Operator Employees – 452
Total Local Impact – 4,121 jobs
$615 million economic impact

4th Congressional District
Cable Operator Employees – 379
Total Local Impact – 3,459 jobs
$516 million economic impact

5th Congressional District
Cable Operator Employees – 327
Total Local Impact – 2,985 jobs
$445 million economic impact

6th Congressional District
Cable Operator Employees – 1,349
Total Local Impact – 12,299 jobs
$1,836 million economic impact

7th Congressional District
Cable Operator Employees – 527
Total Local Impact – 4,811 jobs
$718 million economic impact

8th Congressional District
Cable Operator Employees – 874
Total Local Impact – 7,975 jobs
$1,190 million economic impact

9th Congressional District
Cable Operator Employees – 360
Total Local Impact – 3,281 jobs
$490 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

Illinois

ncta
THE INTERNET & TELEVISION ASSOCIATION

10th Congressional District
Cable Operator Employees – 323
Total Local Impact – 2,941 jobs
$439 million economic impact

11th Congressional District
Cable Operator Employees – 609
Total Local Impact – 5,557 jobs
$829 million economic impact

12th Congressional District
Cable Operator Employees – 1,135
Total Local Impact – 10,349 jobs
$1,544 million economic impact

13th Congressional District
Cable Operator Employees – 335
Total Local Impact – 3,052 jobs
$456 million economic impact

14th Congressional District
Cable Operator Employees – 585
Total Local Impact – 5,335 jobs
$796 million economic impact

15th Congressional District
Cable Operator Employees – 356
Total Local Impact – 3,245 jobs
$484 million economic impact

16th Congressional District
Cable Operator Employees – 323
Total Local Impact – 2,941 jobs
$439 million economic impact

17th Congressional District
Cable Operator Employees – 393
Total Local Impact – 3,583 jobs
$535 million economic impact

18th Congressional District
Cable Operator Employees – 432
Total Local Impact – 3,940 jobs
$588 million economic impact

The Cable Industry's Economic Impact

Indiana

Statewide

NCTA Member Companies
Comcast, Charter, Mediacom

Cable Operator Employees
3,652

Total Local Impact
33,308 direct and indirect jobs
$5.0 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 432
Total Local Impact – 3,940 jobs
$588 million economic impact

2nd Congressional District
Cable Operator Employees – 330
Total Local Impact – 3,010 jobs
$449 million economic impact

3rd Congressional District
Cable Operator Employees – 445
Total Local Impact – 4,057 jobs
$606 million economic impact

4th Congressional District
Cable Operator Employees – 311
Total Local Impact – 2,838 jobs
$424 million economic impact

5th Congressional District
Cable Operator Employees – 603
Total Local Impact – 5,503 jobs
$821 million economic impact

6th Congressional District
Cable Operator Employees – 362
Total Local Impact – 3,305 jobs
$493 million economic impact

7th Congressional District
Cable Operator Employees – 449
Total Local Impact – 4,092 jobs
$611 million economic impact

8th Congressional District
Cable Operator Employees – 332
Total Local Impact – 3,028 jobs
$452 million economic impact

9th Congressional District
Cable Operator Employees – 388
Total Local Impact – 3,536 jobs
$528 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Iowa

Statewide

NCTA Member Companies
Mediacom, Cox

Cable Operator Employees
1,928

Total Local Impact
17,584 direct and indirect jobs
$2.6 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 330
Total Local Impact – 3,005 jobs
$449 million economic impact

2nd Congressional District
Cable Operator Employees – 355
Total Local Impact – 3,233 jobs
$483 million economic impact

3rd Congressional District
Cable Operator Employees – 888
Total Local Impact – 8,094 jobs
$1,208 million economic impact

4th Congressional District
Cable Operator Employees – 357
Total Local Impact – 3,251 jobs
$485 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Kansas

Statewide

NCTA Member Companies
Cox, Charter, Comcast, Midco, Eagle Communications, Altice, Mediacom, Vyve

Cable Operator Employees
2,059

Total Local Impact
18,779 direct and indirect jobs
$2.8 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 341
Total Local Impact – 3,106 jobs
$463 million economic impact

2nd Congressional District
Cable Operator Employees – 364
Total Local Impact – 3,320 jobs
$495 million economic impact

3rd Congressional District
Cable Operator Employees – 379
Total Local Impact – 3,457 jobs
$516 million economic impact

4th Congressional District
Cable Operator Employees – 976
Total Local Impact – 8,897 jobs
$1,328 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Kentucky

Statewide

NCTA Member Companies
Charter, Comcast, Altice, Mediacom

Cable Operator Employees
3,569

Total Local Impact
32,551 direct and indirect jobs
$4.9 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 329
Total Local Impact – 3,001 jobs
$448 million economic impact

2nd Congressional District
Cable Operator Employees – 571
Total Local Impact – 5,211 jobs
$778 million economic impact

3rd Congressional District
Cable Operator Employees – 1,343
Total Local Impact – 12,250 jobs
$1,828 million economic impact

4th Congressional District
Cable Operator Employees – 576
Total Local Impact – 5,250 jobs
$784 million economic impact

5th Congressional District
Cable Operator Employees – 338
Total Local Impact – 3,080 jobs
$460 million economic impact

6th Congressional District
Cable Operator Employees – 412
Total Local Impact – 3,759 jobs
$561 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Louisiana

Statewide

NCTA Member Companies
Cox, Charter, Altice, Vyve, Comcast

Cable Operator Employees
2,908

Total Local Impact
26,522 direct and indirect jobs
$4.0 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 437
Total Local Impact – 3,987 jobs
$595 million economic impact

2nd Congressional District
Cable Operator Employees – 415
Total Local Impact – 3,783 jobs
$565 million economic impact

3rd Congressional District
Cable Operator Employees – 325
Total Local Impact – 2,961 jobs
$442 million economic impact

4th Congressional District
Cable Operator Employees – 377
Total Local Impact – 3,440 jobs
$513 million economic impact

5th Congressional District
Cable Operator Employees – 379
Total Local Impact – 3,452 jobs
$515 million economic impact

6th Congressional District
Cable Operator Employees – 976
Total Local Impact – 8,898 jobs
$1,328 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Maine

Statewide

NCTA Member Companies
Charter, Comcast

Cable Operator Employees
1,243

Total Local Impact
11,337 direct and indirect jobs
$1.7 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 813
Total Local Impact – 7,415 jobs
$1,107 million economic impact

2nd Congressional District
Cable Operator Employees – 430
Total Local Impact – 3,922 jobs
$585 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Maryland

Statewide

NCTA Member Companies
Comcast, Mediacom, Charter

Cable Operator Employees
4,582

Total Local Impact
41,790 direct and indirect jobs
$6.2 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 550
Total Local Impact – 5,017 jobs
$749 million economic impact

2nd Congressional District
Cable Operator Employees – 1,140
Total Local Impact – 10,393 jobs
$1,551 million economic impact

3rd Congressional District
Cable Operator Employees – 591
Total Local Impact – 5,387 jobs
$804 million economic impact

4th Congressional District
Cable Operator Employees – 626
Total Local Impact – 5,713 jobs
$853 million economic impact

5th Congressional District
Cable Operator Employees – 487
Total Local Impact – 4,444 jobs
$663 million economic impact

6th Congressional District
Cable Operator Employees – 363
Total Local Impact – 3,306 jobs
$493 million economic impact

7th Congressional District
Cable Operator Employees – 486
Total Local Impact – 4,429 jobs
$661 million economic impact

8th Congressional District
Cable Operator Employees – 340
Total Local Impact – 3,101 jobs
$463 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Massachusetts

ncta
THE INTERNET & TELEVISION ASSOCIATION

Statewide

NCTA Member Companies
Comcast, Charter, Cox

Cable Operator Employees
5,759

Total Local Impact
52,525 direct and indirect jobs
$7.8 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 593
Total Local Impact – 5,405 jobs
$807 million economic impact

2nd Congressional District
Cable Operator Employees – 784
Total Local Impact – 7,153 jobs
$1,068 million economic impact

3rd Congressional District
Cable Operator Employees – 660
Total Local Impact – 6,015 jobs
$898 million economic impact

4th Congressional District
Cable Operator Employees – 511
Total Local Impact – 4,657 jobs
$695 million economic impact

5th Congressional District
Cable Operator Employees – 777
Total Local Impact – 7,087 jobs
$1,058 million economic impact

6th Congressional District
Cable Operator Employees – 819
Total Local Impact – 7,470 jobs
$1,115 million economic impact

7th Congressional District
Cable Operator Employees – 535
Total Local Impact – 4,881 jobs
$728 million economic impact

8th Congressional District
Cable Operator Employees – 424
Total Local Impact – 3,864 jobs
$577 million economic impact

9th Congressional District
Cable Operator Employees – 657
Total Local Impact – 5,992 jobs
$894 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Michigan

Statewide

NCTA Member Companies
Comcast, Charter, Mediacom

Cable Operator Employees
7,182

Total Local Impact
65,503 direct and indirect jobs
$9.8 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 388
Total Local Impact – 3,539 jobs
$528 million economic impact

2nd Congressional District
Cable Operator Employees – 537
Total Local Impact – 4,899 jobs
$731 million economic impact

3rd Congressional District
Cable Operator Employees – 457
Total Local Impact – 4,170 jobs
$622 million economic impact

4th Congressional District
Cable Operator Employees – 311
Total Local Impact – 2,832 jobs
$423 million economic impact

5th Congressional District
Cable Operator Employees – 490
Total Local Impact – 4,471 jobs
$667 million economic impact

6th Congressional District
Cable Operator Employees – 310
Total Local Impact – 2,827 jobs
$422 million economic impact

7th Congressional District
Cable Operator Employees – 385
Total Local Impact – 3,508 jobs
$524 million economic impact

8th Congressional District
Cable Operator Employees – 346
Total Local Impact – 3,153 jobs
$471 million economic impact

9th Congressional District
Cable Operator Employees – 759
Total Local Impact – 6,920 jobs
$1,033 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

Michigan

ncta
THE INTERNET & TELEVISION ASSOCIATION

10th Congressional District
Cable Operator Employees – 354
Total Local Impact – 3,231 jobs
$482 million economic impact

11th Congressional District
Cable Operator Employees – 855
Total Local Impact – 7,802 jobs
$1,164 million economic impact

12th Congressional District
Cable Operator Employees – 868
Total Local Impact – 7,912 jobs
$1,181 million economic impact

13th Congressional District
Cable Operator Employees – 492
Total Local Impact – 4,490 jobs
$670 million economic impact

14th Congressional District
Cable Operator Employees – 630
Total Local Impact – 5,749 jobs
$858 million economic impact

The Cable Industry's Economic Impact

Minnesota

Statewide

NCTA Member Companies
Comcast, Charter, Mediacom, Midco, Sjoberg's

Cable Operator Employees
4,402

Total Local Impact
40,148 direct and indirect jobs
$6.0 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 1,028
Total Local Effects – 9,378 jobs
$1,400 million economic impact

2nd Congressional District
Cable Operator Employees – 528
Total Local Effects – 4,813 jobs
$718 million economic impact

3rd Congressional District
Cable Operator Employees – 558
Total Local Effects – 5,086 jobs
$759 million economic impact

4th Congressional District
Cable Operator Employees – 758
Total Local Effects – 6,915 jobs
$1,032 million economic impact

5th Congressional District
Cable Operator Employees – 491
Total Local Effects – 4,477 jobs
$668 million economic impact

6th Congressional District
Cable Operator Employees – 355
Total Local Effects – 3,240 jobs
$484 million economic impact

7th Congressional District
Cable Operator Employees – 315
Total Local Effects – 2,872 jobs
$429 million economic impact

8th Congressional District
Cable Operator Employees – 369
Total Local Effects – 3,367 jobs
$503 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Mississippi

Statewide

NCTA Member Companies
Comcast, Altice, Charter, Mediacom

Cable Operator Employees
2,164

Total Local Impact
19,737 direct and indirect jobs
$2.9 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 339
Total Local Impact – 3,095 jobs
$462 million economic impact

2nd Congressional District
Cable Operator Employees – 724
Total Local Impact – 6,603 jobs
$986 million economic impact

3rd Congressional District
Cable Operator Employees – 607
Total Local Impact – 5,535 jobs
$826 million economic impact

4th Congressional District
Cable Operator Employees – 494
Total Local Impact – 4,504 jobs
$672 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Missouri

Statewide

NCTA Member Companies
Charter, Altice, Mediacom, Comcast

Cable Operator Employees
5,756

Total Local Impact
52,497 direct and indirect jobs
$7.8 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 1,691
Total Local Impact – 15,418 jobs
$2,301 million economic impact

2nd Congressional District
Cable Operator Employees – 1,424
Total Local Impact – 12,987 jobs
$1,938 million economic impact

3rd Congressional District
Cable Operator Employees – 898
Total Local Impact – 8,189 jobs
$1,222 million economic impact

4th Congressional District
Cable Operator Employees – 319
Total Local Impact – 2,908 jobs
$434 million economic impact

5th Congressional District
Cable Operator Employees – 461
Total Local Impact – 4,200 jobs
$627 million economic impact

6th Congressional District
Cable Operator Employees – 332
Total Local Impact – 3,026 jobs
$452 million economic impact

7th Congressional District
Cable Operator Employees – 315
Total Local Impact – 2,868 jobs
$428 million economic impact

8th Congressional District
Cable Operator Employees – 318
Total Local Impact – 2,900 jobs
$433 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Montana

Statewide

NCTA Member Companies
Charter

Cable Operator Employees
749

Total Local Impact
6,831 direct and indirect jobs
$1.0 billion economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Nebraska

ncta
THE INTERNET & TELEVISION ASSOCIATION

Statewide

NCTA Member Companies
Cox, Charter, Eagle Communications

Cable Operator Employees
1,636

Total Local Impact
14,921 direct and indirect jobs
$2.2 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 381
Total Local Impact – 3,470 jobs
$518 million economic impact

2nd Congressional District
Cable Operator Employees – 862
Total Local Impact – 7,862 jobs
$1,173 million economic impact

3rd Congressional District
Cable Operator Employees – 394
Total Local Impact – 3,589 jobs
$536 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Nevada

Statewide

NCTA Member Companies
Cox, Charter, Altice

Cable Operator Employees
2,038

Total Local Impact
18,587 direct and indirect jobs
$2.8 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 430
Total Local Impact – 3,922 jobs
$585 million economic impact

2nd Congressional District
Cable Operator Employees – 437
Total Local Impact – 3,981 jobs
$594 million economic impact

3rd Congressional District
Cable Operator Employees – 588
Total Local Impact – 5,358 jobs
$800 million economic impact

4th Congressional District
Cable Operator Employees – 584
Total Local Impact – 5,326 jobs
$795 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

New Hampshire

ncta
THE INTERNET & TELEVISION ASSOCIATION

Statewide

NCTA Member Companies
Comcast, Charter

Cable Operator Employees
2,101

Total Local Impact
19,162 direct and indirect jobs
$2.9 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 1,321
Total Local Impact – 12,048 jobs
$1,798 million economic impact

2nd Congressional District
Cable Operator Employees – 780
Total Local Impact – 7,114 jobs
$1,062 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

New Jersey

Statewide

NCTA Member Companies
Comcast, Altice, Charter, Service Electric

Cable Operator Employees
8,717

Total Local Impact
79,503 direct and indirect jobs
$11.9 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 1,646
Total Local Impact – 15,015 jobs
$2,241 million economic impact

2nd Congressional District
Cable Operator Employees – 643
Total Local Impact – 5,863 jobs
$875 million economic impact

3rd Congressional District
Cable Operator Employees – 955
Total Local Impact – 8,710 jobs
$1,300 million economic impact

4th Congressional District
Cable Operator Employees – 372
Total Local Impact – 3,390 jobs
$506 million economic impact

5th Congressional District
Cable Operator Employees – 672
Total Local Impact – 6,127 jobs
$914 million economic impact

6th Congressional District
Cable Operator Employees – 1,189
Total Local Impact – 10,843 jobs
$1,618 million economic impact

7th Congressional District
Cable Operator Employees – 460
Total Local Impact – 4,195 jobs
$626 million economic impact

8th Congressional District
Cable Operator Employees – 479
Total Local Impact – 4,366 jobs
$652 million economic impact

9th Congressional District
Cable Operator Employees – 383
Total Local Impact – 3,495 jobs
$522 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

New Jersey

ncta
THE INTERNET & TELEVISION ASSOCIATION

10th Congressional District
Cable Operator Employees – 1,057
Total Local Impact – 9,636 jobs
$1,438 million economic impact

11th Congressional District
Cable Operator Employees – 361
Total Local Impact – 3,289 jobs
$491 million economic impact

12th Congressional District
Cable Operator Employees – 502
Total Local Impact – 4,574 jobs
$683 million economic impact

The Cable Industry's Economic Impact

New Mexico

ncta
THE INTERNET & TELEVISION ASSOCIATION

Statewide

NCTA Member Companies
Comcast, Altice, Charter

Cable Operator Employees
1,211

Total Local Impact
11,045 direct and indirect jobs
$1.6 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 446
Total Local Impact – 4,068 jobs
$607 million economic impact

2nd Congressional District
Cable Operator Employees – 412
Total Local Impact – 3,753 jobs
$560 million economic impact

3rd Congressional District
Cable Operator Employees – 354
Total Local Impact – 3,224 jobs
$481 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

New York

Statewide

NCTA Member Companies
Charter, Altice, Comcast

Cable Operator Employees
20,562

Total Local Impact
187,534 direct and indirect jobs
$28.0 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 1,197
Total Local Impact – 10,917 jobs
$1,629 million economic impact

2nd Congressional District
Cable Operator Employees – 2,679
Total Local Impact – 24,434 jobs
$3,647 million economic impact

3rd Congressional District
Cable Operator Employees – 1,020
Total Local Impact – 9,298 jobs
$1,388 million economic impact

4th Congressional District
Cable Operator Employees – 875
Total Local Impact – 7,980 jobs
$1,191 million economic impact

5th Congressional District
Cable Operator Employees – 760
Total Local Impact – 6,933 jobs
$1,035 million economic impact

6th Congressional District
Cable Operator Employees – 1,804
Total Local Impact – 16,452 jobs
$2,455 million economic impact

7th Congressional District
Cable Operator Employees – 340
Total Local Impact – 3,104 jobs
$463 million economic impact

8th Congressional District
Cable Operator Employees – 398
Total Local Impact – 3,629 jobs
$542 million economic impact

9th Congressional District
Cable Operator Employees – 347
Total Local Impact – 3,166 jobs
$472 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

New York

ncta
THE INTERNET & TELEVISION ASSOCIATION

10th Congressional District
Cable Operator Employees – 342
Total Local Impact – 3,118 jobs
$465 million economic impact

11th Congressional District
Cable Operator Employees – 355
Total Local Impact – 3,242 jobs
$484 million economic impact

12th Congressional District
Cable Operator Employees – 329
Total Local Impact – 3,004 jobs
$448 million economic impact

13th Congressional District
Cable Operator Employees – 443
Total Local Impact – 4,039 jobs
$603 million economic impact

14th Congressional District
Cable Operator Employees – 733
Total Local Impact – 6,682 jobs
$997 million economic impact

15th Congressional District
Cable Operator Employees – 499
Total Local Impact – 4,548 jobs
$679 million economic impact

16th Congressional District
Cable Operator Employees – 693
Total Local Impact – 6,323 jobs
$944 million economic impact

17th Congressional District
Cable Operator Employees – 388
Total Local Impact – 3,539 jobs
$528 million economic impact

18th Congressional District
Cable Operator Employees – 941
Total Local Impact – 8,582 jobs
$1,281 million economic impact

19th Congressional District
Cable Operator Employees – 582
Total Local Impact – 5,307 jobs
$792 million economic impact

20th Congressional District
Cable Operator Employees – 1,181
Total Local Impact – 10,770 jobs
$1,607 million economic impact

21st Congressional District
Cable Operator Employees – 403
Total Local Impact – 3,674 jobs
$548 million economic impact

22nd Congressional District
Cable Operator Employees – 642
Total Local Impact – 5,858 jobs
$874 million economic impact

23rd Congressional District
Cable Operator Employees – 310
Total Local Impact – 2,829 jobs
$422 million economic impact

24th Congressional District
Cable Operator Employees – 1,257
Total Local Impact – 11,466 jobs
$1,711 million economic impact

25th Congressional District
Cable Operator Employees – 628
Total Local Impact – 5,728 jobs
$855 million economic impact

26th Congressional District
Cable Operator Employees – 800
Total Local Impact – 7,296 jobs
$1,089 million economic impact

27th Congressional District
Cable Operator Employees – 616
Total Local Impact – 5,617 jobs
$838 million economic impact

The Cable Industry's Economic Impact

North Carolina

ncta
THE INTERNET & TELEVISION ASSOCIATION

Statewide

NCTA Member Companies
Charter, Altice, Mediacom, Comcast, Cox

Cable Operator Employees
8,711

Total Local Impact
79,448 direct and indirect jobs
$11.9 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 428
Total Local Impact – 3,900 jobs
$582 million economic impact

2nd Congressional District
Cable Operator Employees – 537
Total Local Impact – 4,901 jobs
$731 million economic impact

3rd Congressional District
Cable Operator Employees – 444
Total Local Impact – 4,046 jobs
$604 million economic impact

4th Congressional District
Cable Operator Employees – 747
Total Local Impact – 6,813 jobs
$1,017 million economic impact

5th Congressional District
Cable Operator Employees – 351
Total Local Impact – 3,202 jobs
$478 million economic impact

6th Congressional District
Cable Operator Employees – 578
Total Local Impact – 5,272 jobs
$787 million economic impact

7th Congressional District
Cable Operator Employees – 456
Total Local Impact – 4,159 jobs
$621 million economic impact

8th Congressional District
Cable Operator Employees – 581
Total Local Impact – 5,298 jobs
$791 million economic impact

9th Congressional District
Cable Operator Employees – 1,591
Total Local Impact – 14,508 jobs
$2,165 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

North Carolina

ncta
THE INTERNET & TELEVISION ASSOCIATION

10th Congressional District
Cable Operator Employees – 493
Total Local Impact – 4,496 jobs
$671 million economic impact

11th Congressional District
Cable Operator Employees – 322
Total Local Impact – 2,932 jobs
$438 million economic impact

12th Congressional District
Cable Operator Employees – 1,252
Total Local Impact – 11,419 jobs
$1,704 million economic impact

13th Congressional District
Cable Operator Employees – 932
Total Local Impact – 8,500 jobs
$1,269 million economic impact

The Cable Industry's Economic Impact

North Dakota

ncta
THE INTERNET & TELEVISION ASSOCIATION

Statewide

NCTA Member Companies
Midco

Cable Operator Employees
449

Total Local Impact
4,095 direct and indirect jobs
$0.6 billion economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Ohio

Statewide

NCTA Member Companies
Charter, Comcast, Cox, Altice, Mediacom

Cable Operator Employees
8,579

Total Local Impact
78,244 direct and indirect jobs
$11.7 billion economic impact

District

1st Congressional District
Cable Operator Employees – 597
Total Local Impact – 5,442 jobs
$812 million economic impact

2nd Congressional District
Cable Operator Employees – 442
Total Local Impact – 4,034 jobs
$602 million economic impact

3rd Congressional District
Cable Operator Employees – 741
Total Local Impact – 6,760 jobs
$1,009 million economic impact

4th Congressional District
Cable Operator Employees – 314
Total Local Impact – 2,862 jobs
$427 million economic impact

5th Congressional District
Cable Operator Employees – 318
Total Local Impact – 2,903 jobs
$433 million economic impact

6th Congressional District
Cable Operator Employees – 491
Total Local Impact – 4,474 jobs
$668 million economic impact

7th Congressional District
Cable Operator Employees – 536
Total Local Impact – 4,887 jobs
$729 million economic impact

8th Congressional District
Cable Operator Employees – 448
Total Local Impact – 4,087 jobs
$610 million economic impact

9th Congressional District
Cable Operator Employees – 351
Total Local Impact – 3,203 jobs
$478 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

Ohio

ncta
THE INTERNET & TELEVISION ASSOCIATION

10th Congressional District
Cable Operator Employees – 829
Total Local Impact – 7,562 jobs
$1,129 million economic impact

11th Congressional District
Cable Operator Employees – 533
Total Local Impact – 4,864 jobs
$726 million economic impact

12th Congressional District
Cable Operator Employees – 752
Total Local Impact – 6,860 jobs
$1,024 million economic impact

13th Congressional District
Cable Operator Employees – 682
Total Local Impact – 6,219 jobs
$928 million economic impact

14th Congressional District
Cable Operator Employees – 554
Total Local Impact – 5,056 jobs
$755 million economic impact

15th Congressional District
Cable Operator Employees – 622
Total Local Impact – 5,673 jobs
$847 million economic impact

16th Congressional District
Cable Operator Employees – 368
Total Local Impact – 3,358 jobs
$501 million economic impact

The Cable Industry's Economic Impact

Oklahoma

Statewide

NCTA Member Companies
Cox, Altice, Vyve

Cable Operator Employees
2,541

Total Local Impact
23,175 direct and indirect jobs
$3.5 billion economic impact

District

1st Congressional District
Cable Operator Employees – 699
Total Local Impact – 6,377 jobs
$952 million economic impact

2nd Congressional District
Cable Operator Employees – 308
Total Local Impact – 2,812 jobs
$420 million economic impact

3rd Congressional District
Cable Operator Employees – 330
Total Local Impact – 3,011 jobs
$449 million economic impact

4th Congressional District
Cable Operator Employees – 366
Total Local Impact – 3,338 jobs
$498 million economic impact

5th Congressional District
Cable Operator Employees – 837
Total Local Impact – 7,637 jobs
$1,140 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Oregon

Statewide

NCTA Member Companies
Comcast, Charter

Cable Operator Employees
2,885

Total Local Impact
26,312 direct and indirect jobs
$3.9 billion economic impact

District

1st Congressional District
Cable Operator Employees – 1,334
Total Local Effects – 12,168 jobs
$1,816 million economic impact

2nd Congressional District
Cable Operator Employees – 323
Total Local Effects – 2,941 jobs
$439 million economic impact

3rd Congressional District
Cable Operator Employees – 468
Total Local Effects – 4,265 jobs
$637 million economic impact

4th Congressional District
Cable Operator Employees – 328
Total Local Effects – 2,992 jobs
$446 million economic impact

5th Congressional District
Cable Operator Employees – 433
Total Local Effects – 3,946 jobs
$589 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Pennsylvania

ncta
THE INTERNET & TELEVISION ASSOCIATION

Statewide

NCTA Member Companies
Comcast, Service Electric, Altice, Charter

Cable Operator Employees
13,018

Total Local Impact
118,730 direct and indirect jobs
$17.7 billion economic impact

District

1st Congressional District
Cable Operator Employees – 1,625
Total Local Impact – 14,816 jobs
$2,211 million economic impact

2nd Congressional District
Cable Operator Employees – 1,388
Total Local Impact – 12,661 jobs
$1,890 million economic impact

3rd Congressional District
Cable Operator Employees – 337
Total Local Impact – 3,069 jobs
$458 million economic impact

4th Congressional District
Cable Operator Employees – 853
Total Local Impact – 7,780 jobs
$1,161 million economic impact

5th Congressional District
Cable Operator Employees – 331
Total Local Impact – 3,022 jobs
$451 million economic impact

6th Congressional District
Cable Operator Employees – 999
Total Local Impact – 9,107 jobs
$1,359 million economic impact

7th Congressional District
Cable Operator Employees – 1,363
Total Local Impact – 12,430 jobs
$1,855 million economic impact

8th Congressional District
Cable Operator Employees – 999
Total Local Impact – 9,114 jobs
$1,360 million economic impact

9th Congressional District
Cable Operator Employees – 311
Total Local Impact – 2,838 jobs
$424 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Pennsylvania

ncta
THE INTERNET & TELEVISION ASSOCIATION

10th Congressional District
Cable Operator Employees – 350
Total Local Impact – 3,192 jobs
$476 million economic impact

11th Congressional District
Cable Operator Employees – 359
Total Local Impact – 3,270 jobs
$488 million economic impact

12th Congressional District
Cable Operator Employees – 401
Total Local Impact – 3,660 jobs
$546 million economic impact

13th Congressional District
Cable Operator Employees – 1,070
Total Local Impact – 9,754 jobs
$1,456 million economic impact

14th Congressional District
Cable Operator Employees – 498
Total Local Impact – 4,542 jobs
$678 million economic impact

15th Congressional District
Cable Operator Employees – 327
Total Local Impact – 2,979 jobs
$445 million economic impact

16th Congressional District
Cable Operator Employees – 469
Total Local Impact – 4,278 jobs
$639 million economic impact

17th Congressional District
Cable Operator Employees – 816
Total Local Impact – 7,439 jobs
$1,110 million economic impact

18th Congressional District
Cable Operator Employees – 524
Total Local Impact – 4,779 jobs
$713 million economic impact

The Cable Industry's Economic Impact

Rhode Island

ncta
THE INTERNET & TELEVISION ASSOCIATION

Statewide

NCTA Member Companies
Cox

Cable Operator Employees
1,108

Total Local Impact
10,105 direct and indirect jobs
$1.5 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 407
Total Local Impact – 3,712 jobs
$554 million economic impact

2nd Congressional District
Cable Operator Employees – 701
Total Local Impact – 6,393 jobs
$954 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

South Carolina

Statewide

NCTA Member Companies
Charter, Comcast

Cable Operator Employees
4,041

Total Local Impact
36,856 direct and indirect jobs
$5.5 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 394
Total Local Impact – 3,589 jobs
$536 million economic impact

2nd Congressional District
Cable Operator Employees – 765
Total Local Impact – 6,973 jobs
$1,041 million economic impact

3rd Congressional District
Cable Operator Employees – 564
Total Local Impact – 5,147 jobs
$768 million economic impact

4th Congressional District
Cable Operator Employees – 813
Total Local Impact – 7,418 jobs
$1,107 million economic impact

5th Congressional District
Cable Operator Employees – 631
Total Local Impact – 5,753 jobs
$859 million economic impact

6th Congressional District
Cable Operator Employees – 551
Total Local Impact – 5,021 jobs
$749 million economic impact

7th Congressional District
Cable Operator Employees – 324
Total Local Impact – 2,955 jobs
$441 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

South Dakota

ncta
THE INTERNET & TELEVISION ASSOCIATION

Statewide

NCTA Member Companies
Midco, Mediacom

Cable Operator Employees
910

Total Local Impact
8,300 direct and indirect jobs
$1.2 billion economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Tennessee

Statewide

NCTA Member Companies
Comcast, Charter, Vyve, Mediacom

Cable Operator Employees
4,579

Total Local Impact
41,762 direct and indirect jobs
$6.2 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 430
Total Local Impact – 3,922 jobs
$585 million economic impact

2nd Congressional District
Cable Operator Employees – 559
Total Local Impact – 5,098 jobs
$761 million economic impact

3rd Congressional District
Cable Operator Employees – 472
Total Local Impact – 4,305 jobs
$642 million economic impact

4th Congressional District
Cable Operator Employees – 406
Total Local Impact – 3,703 jobs
$553 million economic impact

5th Congressional District
Cable Operator Employees – 978
Total Local Impact – 8,920 jobs
$1,331 million economic impact

6th Congressional District
Cable Operator Employees – 390
Total Local Impact – 3,554 jobs
$530 million economic impact

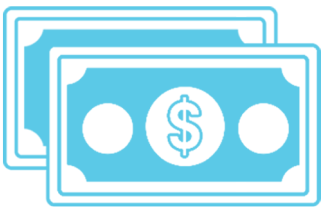
7th Congressional District
Cable Operator Employees – 413
Total Local Impact – 3,768 jobs
$562 million economic impact

8th Congressional District
Cable Operator Employees – 318
Total Local Impact – 2,903 jobs
$433 million economic impact

9th Congressional District
Cable Operator Employees – 613
Total Local Impact – 5,589 jobs
$834 million economic impact

National

ECONOMIC IMPACT



$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

ncta
THE INTERNET & TELEVISION ASSOCIATION

Texas

Statewide

NCTA Member Companies
Charter, Altice, Comcast, Vyve

Cable Operator Employees
16,614

Total Local Impact
151,527 direct and indirect jobs
$22.6 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 1,234
Total Local Impact – 11,252 jobs
$1,679 million economic impact

2nd Congressional District
Cable Operator Employees – 427
Total Local Impact – 3,895 jobs
$581 million economic impact

3rd Congressional District
Cable Operator Employees – 412
Total Local Impact – 3,753 jobs
$560 million economic impact

4th Congressional District
Cable Operator Employees – 352
Total Local Impact – 3,212 jobs
$479 million economic impact

5th Congressional District
Cable Operator Employees – 467
Total Local Impact – 4,256 jobs
$635 million economic impact

6th Congressional District
Cable Operator Employees – 353
Total Local Impact – 3,223 jobs
$481 million economic impact

7th Congressional District
Cable Operator Employees – 594
Total Local Impact – 5,421 jobs
$809 million economic impact

8th Congressional District
Cable Operator Employees – 386
Total Local Impact – 3,524 jobs
$526 million economic impact

9th Congressional District
Cable Operator Employees – 368
Total Local Impact –3,355 jobs
$501 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

ncta
THE INTERNET & TELEVISION ASSOCIATION

Texas

10th Congressional District
Cable Operator Employees – 500
Total Local Impact – 4,556 jobs
$680 million economic impact

11th Congressional District
Cable Operator Employees – 335
Total Local Impact – 3,051 jobs
$455 million economic impact

12th Congressional District
Cable Operator Employees – 312
Total Local Impact – 2,849 jobs
$425 million economic impact

13th Congressional District
Cable Operator Employees – 322
Total Local Impact – 2,934 jobs
$438 million economic impact

14th Congressional District
Cable Operator Employees – 322
Total Local Impact –2,934 jobs
$438 million economic impact

15th Congressional District
Cable Operator Employees – 346
Total Local Impact – 3,151 jobs
$470 million economic impact

16th Congressional District
Cable Operator Employees – 351
Total Local Impact – 3,201 jobs
$478 million economic impact

17th Congressional District
Cable Operator Employees – 542
Total Local Impact – 4,939 jobs
$737 million economic impact

18th Congressional District
Cable Operator Employees – 407
Total Local Impact – 3,711 jobs
$554 million economic impact

19th Congressional District
Cable Operator Employees – 651
Total Local Impact – 5,933 jobs
$885 million economic impact

20th Congressional District
Cable Operator Employees – 649
Total Local Impact – 5,916 jobs
$883 million economic impact

21st Congressional District
Cable Operator Employees – 735
Total Local Impact – 6,702 jobs
$1,000 million economic impact

22nd Congressional District
Cable Operator Employees – 313
Total Local Impact – 2,856 jobs
$426 million economic impact

23rd Congressional District
Cable Operator Employees – 667
Total Local Impact – 6,086 jobs
$908 million economic impact

24th Congressional District
Cable Operator Employees – 543
Total Local Impact – 4,952 jobs
$739 million economic impact

25th Congressional District
Cable Operator Employees – 381
Total Local Impact – 3,472 jobs
$518 million economic impact

26th Congressional District
Cable Operator Employees – 386
Total Local Impact – 3,522 jobs
$526 million economic impact

27th Congressional District
Cable Operator Employees – 316
Total Local Impact – 2,879 jobs
$430 million economic impact

Texas

ncta
THE INTERNET & TELEVISION ASSOCIATION

28th Congressional District
Cable Operator Employees – 396
Total Local Impact – 3,609 jobs
$539 million economic impact

29th Congressional District
Cable Operator Employees – 348
Total Local Impact – 3,173 jobs
$474 million economic impact

30th Congressional District
Cable Operator Employees – 310
Total Local Impact – 2,830 jobs
$422 million economic impact

31st Congressional District
Cable Operator Employees – 802
Total Local Impact – 7,318 jobs
$1,092 million economic impact

32nd Congressional District
Cable Operator Employees – 322
Total Local Impact – 2,934 jobs
$438 million economic impact

33rd Congressional District
Cable Operator Employees – 319
Total Local Impact – 2,908 jobs
$434 million economic impact

34th Congressional District
Cable Operator Employees – 511
Total Local Impact – 4,657 jobs
$695 million economic impact

35th Congressional District
Cable Operator Employees – 619
Total Local Impact – 5,646 jobs
$843 million economic impact

36th Congressional District
Cable Operator Employees – 320
Total Local Impact – 2,919 jobs
$436 million economic impact

The Cable Industry's Economic Impact

Utah

Statewide

NCTA Member Companies
Comcast

Cable Operator Employees
1,544

Total Local Impact
14,082 direct and indirect jobs
$2.1 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 319
Total Local Impact – 2,905 jobs
$434 million economic impact

2nd Congressional District
Cable Operator Employees – 312
Total Local Impact – 2,844 jobs
$424 million economic impact

3rd Congressional District
Cable Operator Employees – 315
Total Local Impact – 2,871 jobs
$429 million economic impact

4th Congressional District
Cable Operator Employees – 599
Total Local Impact – 5,462 jobs
$815 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Vermont

Statewide

NCTA Member Companies
Comcast, Charter

Cable Operator Employees
410

Total Local Impact
3,739 direct and indirect jobs
$0.6 billion economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Virginia

Statewide

NCTA Member Companies
Cox, Comcast, Charter, Altice

Cable Operator Employees
6,393

Total Local Impact
58,307 direct and indirect jobs
$8.7 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 448
Total Local Impact – 4,081 jobs
$609 million economic impact

2nd Congressional District
Cable Operator Employees – 967
Total Local Impact – 8,821 jobs
$1,316 million economic impact

3rd Congressional District
Cable Operator Employees – 740
Total Local Impact – 6,751 jobs
$1,008 million economic impact

4th Congressional District
Cable Operator Employees – 538
Total Local Impact – 4,908 jobs
$733 million economic impact

5th Congressional District
Cable Operator Employees – 372
Total Local Impact – 3,388 jobs
$506 million economic impact

6th Congressional District
Cable Operator Employees – 338
Total Local Impact – 3,083 jobs
$460 million economic impact

7th Congressional District
Cable Operator Employees – 448
Total Local Impact – 4,089 jobs
$610 million economic impact

8th Congressional District
Cable Operator Employees – 415
Total Local Impact – 3,783 jobs
$565 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

ncta
THE INTERNET & TELEVISION ASSOCIATION

Virginia

9th Congressional District
Cable Operator Employees – 343
Total Local Impact – 3,124 jobs
$466 million economic impact

10th Congressional District
Cable Operator Employees – 1,349
Total Local Impact – 12,303 jobs
$1,836 million economic impact

11th Congressional District
Cable Operator Employees – 436
Total Local Impact – 3,975 jobs
$593 million economic impact

The Cable Industry's Economic Impact

Washington

Statewide

NCTA Member Companies
Charter, Comcast

Cable Operator Employees
5,739

Total Local Impact
52,342 direct and indirect jobs
$7.8 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 655
Total Local Effects – 5,977 jobs
$892 million economic impact

2nd Congressional District
Cable Operator Employees – 900
Total Local Effects – 8,204 jobs
$1,224 million economic impact

3rd Congressional District
Cable Operator Employees – 979
Total Local Effects – 8,926 jobs
$1,332 million economic impact

4th Congressional District
Cable Operator Employees – 319
Total Local Effects – 2,909 jobs
$434 million economic impact

5th Congressional District
Cable Operator Employees – 653
Total Local Effects – 5,951 jobs
$888 million economic impact

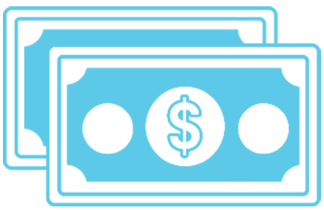
6th Congressional District
Cable Operator Employees – 388
Total Local Effects – 3,539 jobs
$528 million economic impact

7th Congressional District
Cable Operator Employees – 347
Total Local Effects – 3,160 jobs
$472 million economic impact

8th Congressional District
Cable Operator Employees – 537
Total Local Effects – 4,898 jobs
$731 million economic impact

National

ECONOMIC IMPACT



$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Washington

ncta
THE INTERNET & TELEVISION ASSOCIATION

9th Congressional District
Cable Operator Employees – 382
Total Local Effects – 3,482 jobs
$520 million economic impact

10th Congressional District
Cable Operator Employees – 581
Total Local Effects – 5,296 jobs
$790 million economic impact

The Cable Industry's Economic Impact

West Virginia

ncta
THE INTERNET & TELEVISION ASSOCIATION

Statewide

NCTA Member Companies
Altice, Comcast, Charter

Cable Operator Employees
1,103

Total Local Impact
10,060 direct and indirect jobs
$1.5 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 425
Total Local Impact – 3,876 jobs
$579 million economic impact

2nd Congressional District
Cable Operator Employees – 330
Total Local Impact – 3,005 jobs
$449 million economic impact

3rd Congressional District
Cable Operator Employees – 349
Total Local Impact – 3,178 jobs
$474 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Wisconsin

ncta
THE INTERNET & TELEVISION ASSOCIATION

Statewide

NCTA Member Companies
Charter, Comcast, Mediacom, Midco

Cable Operator Employees
4,303

Total Local Impact
39,245 direct and indirect jobs
$5.9 billion economic impact

Districts

1st Congressional District
Cable Operator Employees – 414
Total Local Impact – 3,776 jobs
$564 million economic impact

2nd Congressional District
Cable Operator Employees – 517
Total Local Impact – 4,711 jobs
$703 million economic impact

3rd Congressional District
Cable Operator Employees – 336
Total Local Impact – 3,063 jobs
$457 million economic impact

4th Congressional District
Cable Operator Employees – 722
Total Local Impact – 6,588 jobs
$983 million economic impact

5th Congressional District
Cable Operator Employees – 389
Total Local Impact – 3,548 jobs
$530 million economic impact

6th Congressional District
Cable Operator Employees – 1,064
Total Local Impact – 9,703 jobs
$1,448 million economic impact

7th Congressional District
Cable Operator Employees – 348
Total Local Impact – 3,174 jobs
$474 million economic impact

8th Congressional District
Cable Operator Employees – 514
Total Local Impact – 4,683 jobs
$699 million economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996

The Cable Industry's Economic Impact

Wyoming

Statewide

NCTA Member Companies
Charter, Vyve

Cable Operator Employees
353

Total Local Impact
3,220 direct and indirect jobs
$0.5 billion economic impact

National

ECONOMIC IMPACT

$421 Billion
In 2016

TOTAL JOBS

2.9 Million
In 2016

INDUSTRY INVESTMENT

$260 Billion
Since 1996