CHARTER COMMUNICATIONS: DELIVERING ECONOMIC IMPACT IN ALL 50 STATES

June 2018

Charter COMMUNICATIONS

OXFORD ECONOMICS

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June 2018

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EXECUTIVE SUMMARY

Charter's **$48 billion** contribution to national GDP exceeds that of several states.

Charter supports over **480,000 jobs** nationwide including 25,000 in manufacturing and 36,000 in the creative workforce.

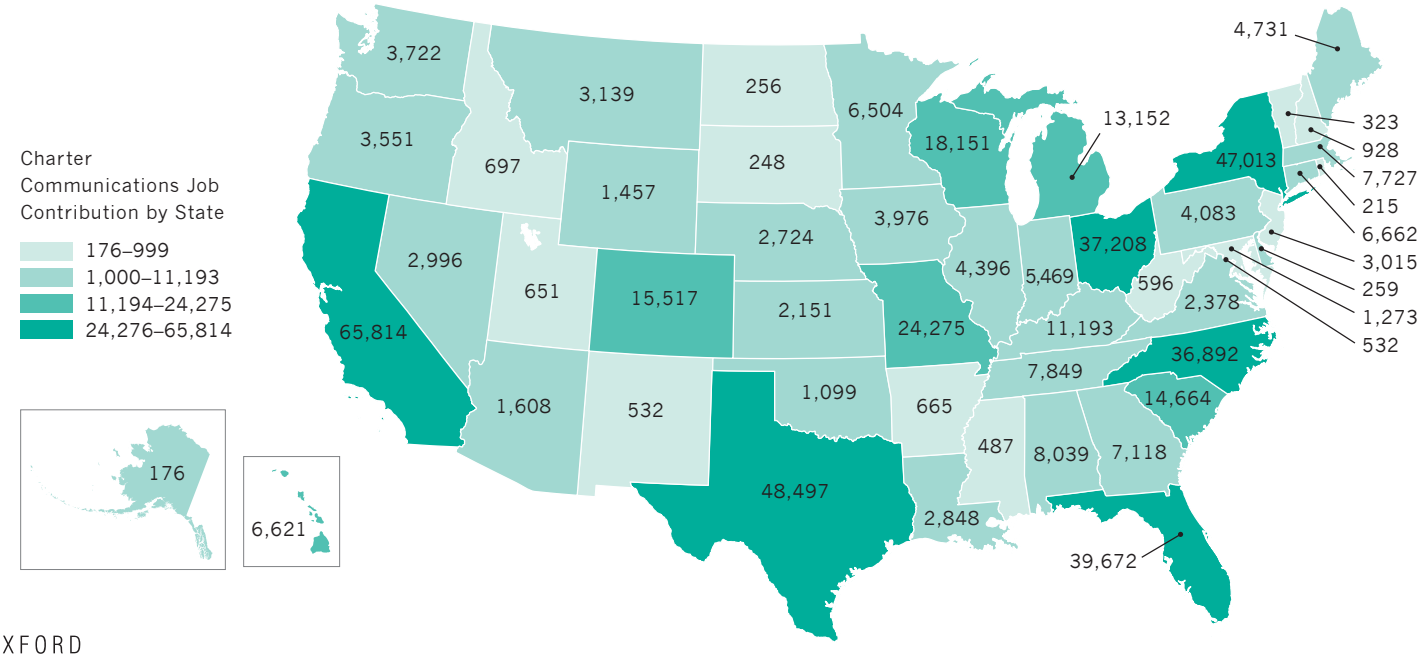
Charter's productive workforce drives output of **$438,000 per worker** and each Charter employee supports four additional jobs throughout the US.

Charter Communications is the second largest cable operator in the United States and employs more than 94,000 workers while serving more than 26 million customers in 41 states. Charter expects to hire 20,000 new employees by 2020. Moreover, the company announced earlier this year its intention to pay all employees at least $15 per hour, including target commissions, within the next year.

Charter delivers a wide range of TV, internet, and voice services to residential and business customers through the Spectrum brand and is the nation's fastest growing TV, internet, and voice provider. The company has invested more than $27 billion in the latest technology and infrastructure since 2014, and in 2017 Charter committed to investing $25 billion in capital infrastructure over the next few years. In 2017, Charter built out its high-speed network by an additional 13,382 miles, passing more than 514,970 new customer locations.

Charter's investments in its people, infrastructure, and operations create significant economic impact throughout the United States. To calculate this impact nationally and at the state-level, Oxford Economics examined the company's operations and activity. Among our key findings are that the company supports over 480,000 jobs that are distributed among all fifty states and contributes more than $48 billion to national GDP. In addition, economic activity generated by the company touches many sectors including technology, manufacturing, and the creative workforce.

Charter Supports Jobs in all 50 States



OXFORD ECONOMICS

INTRODUCTION

Most of Charter's 94,000 employees are serving customers or working out in the community.

Charter Communications is the second largest cable operator in the United States and a leading communications service company that provides video, internet, and voice services under the Spectrum brand to more than 26 million customers in 41 states. In addition to services and products for residential and small business customers, Charter's Spectrum Enterprise division offers a suite of specialized services and products such as network, cloud, and IT infrastructure solutions to large enterprises and organizations. Charter also owns and operates 27 local news and sports networks, and three regional sports networks that cover 17 states as part of its substantial and diverse products and services.

At the time of this report, Charter directly employed 94,000 workers in the United States, having added more than 22,000 employees to its U.S. based workforce since 2012.[1] Charter's stated commitment to grow a highly skilled and diverse workforce is a key component of meeting its core business objective of providing superior products and services with high quality customer care. Charter and its employees generate large economic impacts that benefit communities throughout the United States.

In this study, Oxford Economics examines the economic impact that Charter has at the national and state levels. As explained below, this includes both direct and indirect contributions, the latter of which includes creating hundreds of thousands of jobs outside the company through a multiplier effect that exceeds the national average for this sector.

As this report will demonstrate, Charter's positive impacts are geographically widespread. Most of Charter's employees live in the communities they serve and are engaged in jobs that include the building of new infrastructure, installing cable and broadband service in homes and businesses, and directly serving customers at locally based customer service call centers and Spectrum stores. These employees contribute to state economic growth and provide tax revenue to local and state governments.

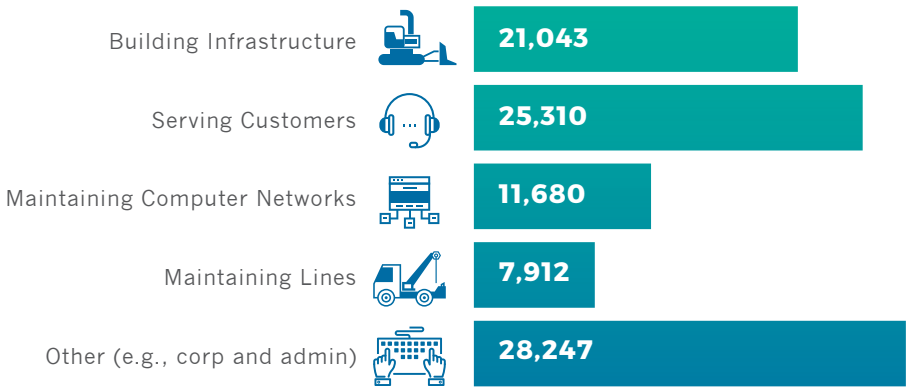
Building and maintaining a vast communications network, serving

1 Charter's employment was 94,000 as of October 2017 when data was compiled. It has since grown to 96,000 and as the company's employment grows, so, too, will its expected economic impact.

customers, and providing superior products is a large-scale effort that boosts economic activity nationwide.

In Figure 1, we highlight categories of jobs performed by Charter employees that take place in communities throughout the United States. These include customer service representatives, service technicians, engineers responsible for monitoring and maintaining the company's expansive network, product design teams, and corporate executives.[2]

FIGURE 1. Jobs done by Charter's employees



Source: Oxford Economics, BLS

2 Building Infrastructure is an estimate of the number of direct jobs, mostly construction, supported by Charter's capital expenditure program. It is calculated by dividing reported capitalized labor expense by an industry average construction wage. "Serving Customers", "Maintaining Lines" and "Maintaining Computer Networks" all apply industry average occupational profiles from the BLS Occupational Employment Survey to Charter's employment base; specifically, for Customer Service Representatives (43-4051); Telecommunications Equipment Installers and Repairers, Except Line Installers (49-2022). Maintaining Computer Networks includes Computer Network Support Specialists (15-1152), Network and Computer Systems Administrators (15-1142), Computer Network Architects (15-1143), Computer User Support Specialists (15-1151), Computer Systems Analysts (15-1121).

Occupations included in "other" are primarily those found in typical large corporate structures; for example, sales representatives, business operations specialists, first line supervisors of office workers, general and operations managers, and clerical office functions.

CASE STUDY

MCALLEN, TEXAS: CHARTER IN THE COMMUNITY

IN THE SPRING OF 2017, CHARTER OPENED its first fully bilingual call center in McAllen, Texas, following through on the company's commitment to bring customer service jobs back to the U.S. from offshore call centers and to provide better service to all its customers, including those whose primary language is Spanish.

Anabel Chavez, a McAllen native and vice president of the call center notes that "because 77 percent of [McAllen] residents here speak Spanish and are bilingual, we're going to be able to speak to our customers in the language that they prefer."

The McAllen call center will ultimately create approximately 600 jobs in that community, building on Charter's commitment to hiring 20,000 new employees in the US by 2020. Ms. Chavez said McAllen's unemployment rate is higher than average in Texas—4.9% compared to a statewide average of 4.1%*—and these jobs are a welcome sign that the economy will begin to grow and she adds, that "these are good-paying jobs with benefits like retirement accounts and healthcare coverage. You can support a family with these jobs."

The McAllen call center will ultimately create approximately 600 jobs in that community,

* Bureau of Labor Statistics – Local Area Unemployment Statistics February 2018.

Source: Case study content provided by Charter Communications

METHODOLOGICAL INTRODUCTION:
ECONOMIC IMPACT ANALYSIS

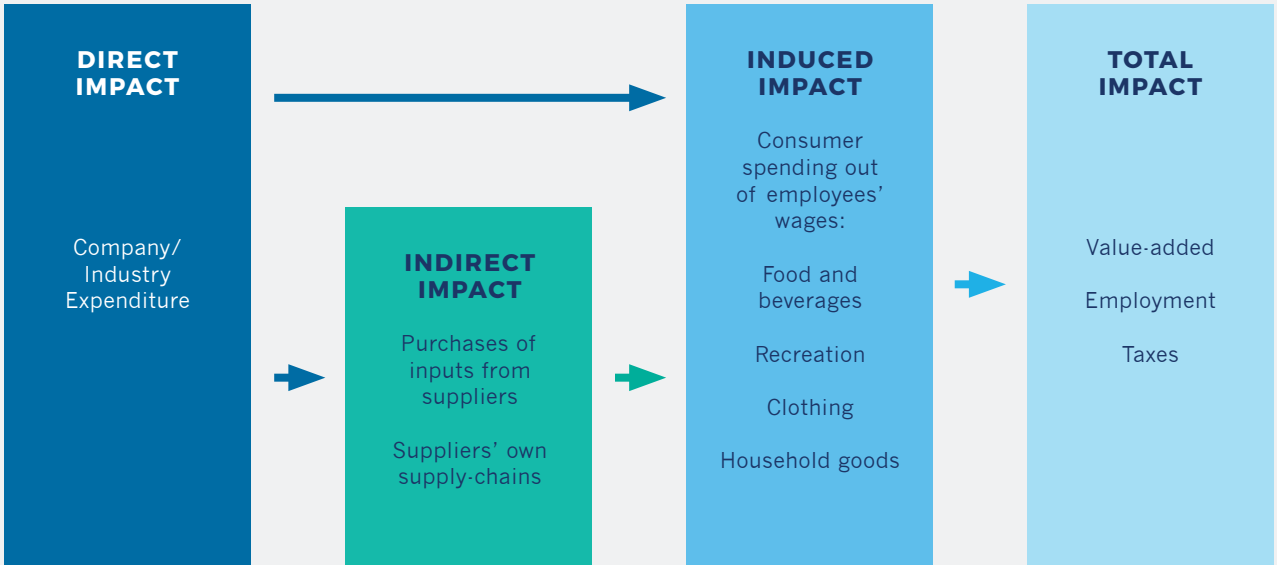
Standard economic impact assessments calculate the flow of economic activity across the following three channels:

- **Direct:** Measures the economic footprint of Charter's operations and activities at both the national and state level.
- **Indirect:** Calculates the economic activity that occurs as Charter buys goods and services from its suppliers. A company's "supply-chain" is the network of businesses that the company buys good and services from to be able to produce and bring to market its products. In Charter's case, this means a diverse range of companies providing everything from programming content to electricity and the equipment it needs to broadcast.
- **Induced:** This is commonly called the "multiplier effect". It measures the economic impact that results as the employees of Charter as well as those of its suppliers spend their wages and earnings throughout the broader economy.

For each of the three channels (above), we calculate the following metrics:

- **GDP:** This is a measure of economic activity measured as the total "value-added" contribution to Gross Domestic Product (national or state).
- **Employment:** This is a jobs calculation measured in terms of headcount.
- **Income:** The compensation paid to workers, and self-employment income.
- **Taxes:** Gross tax receipts paid at federal, state and local levels.

THE CHANNELS OF ECONOMIC IMPACT



NATIONAL ECONOMIC IMPACT

OVERVIEW

Charter's $48 billion contribution to national GDP is **larger than that of several states.**

Oxford Economics estimates that Charter Communications supports over 480,000 jobs throughout the United States, $48 billion in economic activity (GDP), and $30 billion in income each year. In Figure 2, these overall figures are broken down into their direct, indirect, and induced contributions:

FIGURE 2. Charter's National Economic Impact

Snapshot: Charter's National Economic Impact

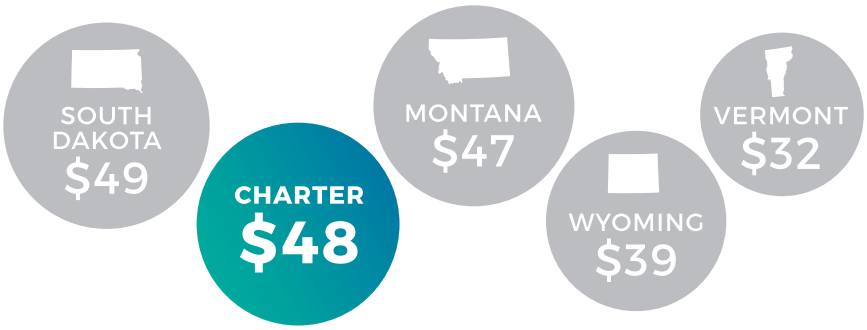
USA	Direct	Indirect	Induced	Total
Employment	94,192	201,437	188,124	**483,753**
GDP ($ mil)	$7,515	$23,589	$16991	**$48,096**
Labor income ($ mil)	$7,515	$12,823	$9,725	**$30,063**
Federal Tax ($ mil)				**$8,485**
State and Local Tax ($ mil)				**$5,206**
Community Franchise Fees ($ mil)				**$629**

Source: Oxford Economics, IMPLAN

Charter itself constitutes 100% of the impacts described in the direct channel (i.e., direct employees of Charter). The economic impact grows as the employment, GDP, and income that is attributable to Charter's supply-chain ("indirect effect") is included and grows further still when we consider the effect of Charter employees and those of its suppliers spending their wages and earnings in local communities ("induced effect").

When all three channels of activity are considered (direct, indirect, and induced), Charter's total contribution to national GDP is $48 billion. To help understand the scale of Charter's GDP contribution, we note in Figure 3 that Charter's total contribution to national GDP is larger than that of some states.

FIGURE 3. Charter's GDP Impact Matches Some States ($ Billions)



Source: Oxford Economics, US Department of Commerce

Charter's large contribution to GDP translates into significant job growth throughout the United States. Each direct Charter employee supports 4.1 additional jobs in the national economy; in economic terminology, this means that Charter Communications has a national jobs multiplier of 5.1.[3]

Charter's national jobs multiplier exceeds that of its industry.

There are several ways in which Charter supports jobs beyond just those it directly provides. For instance, the equipment Charter employees use to build new infrastructure or the in-home devices the company provides to its customers are primarily produced by third-party vendors, supporting jobs at supplier companies. One reason that Charter's jobs multiplier is high is because advanced manufacturing industries such as computer storage device and fiber-optic cable manufacturing are included in its supply-chain (considering only US-based positions).

Examining job multipliers across industries is a standard tool in economics, providing a relatively easy way to compare their economic contributions. Figure 4, on the next page, compares Charter's job multiplier to that of key industries in its supply-chain as well as its peer group, the "wired telecommunications carriers" sector.[4]

3 Charter's jobs multiplier is calculated by taking the total number of jobs it supports (483,753) and dividing it by the number of direct employees of the company (94,192), resulting in a jobs multiplier of 5.1. This analysis includes both Charter's operational and capital expenditures, and is based on data Charter provided to Oxford Economics about its direct employment and supply-chain spend. Traditional multipliers (other rows in Figure 4) include only operational impacts, both in the numerator and the denominator. Including capital expenditures is intended to capture the recurring (multi-year) nature of Charter's capital investment program.

4 NAICS Code 517110, Wired Telecommunications Carriers, is defined by the US Department of Census and includes companies that use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services; wired (cable) audio and video programming distribution; and wired broadband Internet services. Wired Telecommunications Carriers are further "rolled-up" into a larger industry sector called "Information Sector".

FIGURE 4. Charter's Job Multiplier Exceeds Industry Average

Driving Job Creation

	Multiplier
Computer storage device manufacturing	9.8
Fiber-optic cable manufacturing	5.7
Charter Communications	**5.1**
Wired telecommunications carriers	4.3
Construction of new power and communication structures	2.1
Business support services	1.7

Source: Oxford Economics, IMPLAN

Charter's job multiplier is a significant reason why the company's economic impact is large. Building new infrastructure, maintaining existing networks, and manufacturing sophisticated electronic and computer products are labor intensive activities. This expands the pool of jobs that Charter supports either directly or by association.

Not only does Charter and its supply-chain support many jobs, the women and men who work at Charter are extremely "productive." This is another important contributor to the company's large economic impact.

FIGURE 5. Charter's Productive Workforce*

Output per Worker

Fiber-optic cable manufacturing	$551,092
Other communications equipment manufacturing	$454,866
Charter Communications	**$438,618**
Scientific research and development services	$283,218
Truck transportation	$165,543
Gambling industries (except casino hotels)	$159,619
Warehousing and storage	$102,354

* Except for Charter Communications, the productivity statistics in this table are from BEA data collated by IMPLAN. The Charter numbers are derived from the company's 2017 SEC 10-K filing and represent revenue ($41.6 Billion) divided by employees (94,800) as of the date of that publication.

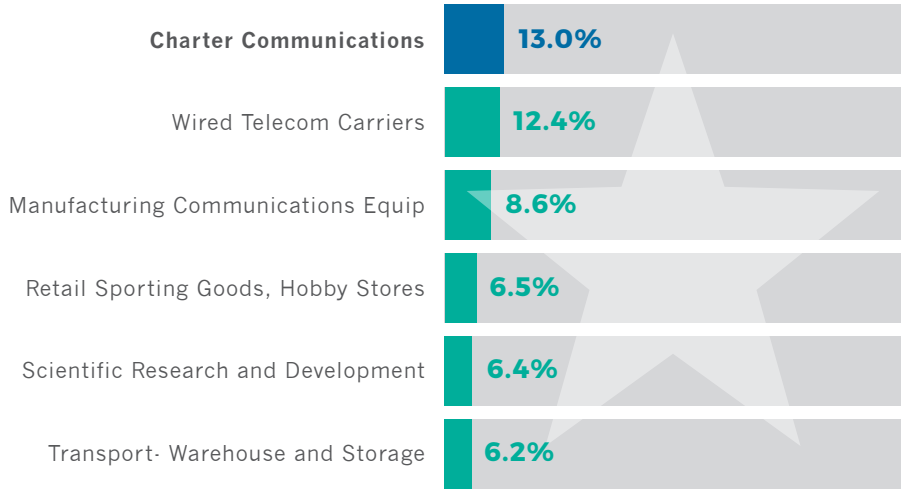
Source: Oxford Economics, IMPLAN

13% of Charter's employees are veterans.

One way to compare the productivity of workers in different sectors is to look at their individual outputs. Using this measure, we compare the average annual output (or revenue) earned by each Charter worker with that earned by workers in other sectors. In Figure 5, we see that Charter's worker productivity is higher than many industries that in many communities are commonly associated with economic development (such as distribution or gaming). In addition, some of the advance manufacturing industries that are important contributors to Charter's supply-chain also have very high output per worker; further contributing to Charter's very high economic impact.

Charter's workforce, as well as the communities it serves, also benefit from the company's commitment to hiring veterans. As shown in Figure 6, Charter reports that 13% of its workforce are veterans, which is well above the percentage of veteran employees reported in most all other industries.

FIGURE 6. Percentage Veterans in Charter's Workforce



Source: Charter, American Community Survey (2016)

CASE STUDY

A COMMITMENT TO VETERANS

CHARTER RECOGNIZES AND VALUES THE SKILLS individuals develop during military service. The company's commitment to hiring military veterans has brought significant benefits to both the company and the communities it serves. Across its **41-state footprint**, the company's workforce is comprised of nearly **12,000 veterans**, totaling **13 percent** of all employees.

Charter's goal is to help veterans build on their talents and translate them to a meaningful and viable civilian career within the company. Lisa Tate is a U.S. Navy veteran and Supervisor of Field Operations for the mid-west region at Charter and she has observed that military services sets "a higher expectation" and teaches veterans how to "adapt and overcome."

Charter's goal is to help veterans build on their talents and translate them to a meaningful and viable civilian career within the company.

Others, like Scott Feltmeyer, who serves concurrently in the U.S. Army National Guard while working as a Spectrum Field Technician, feel that the military gives them a "sense of integrity...as well as a sense of duty."

Charter offers its employees the Field Technician Apprenticeship Program, which has been certified by the U.S. Department of Labor, and nationally approved by the Department of Veteran's Affairs for GI Bill benefits under the Valor Act.

Eligible veterans enrolled in the program can receive GI Bill benefits in addition to their regular paycheck from Charter. This combination ensures a smoother transition to civilian life.

Charter is also expanding its recruiting, training, and hiring efforts as part of a commitment to increasing its veteran hiring by an additional **5 percent** by 2020.

Source: Case study content provided by Charter Communications

Charter's economic impact is so broad and diverse that many people are likely unaware of the contribution that the company makes to their personal and community well-being.

HOW CHARTER'S ECONOMIC IMPACT SPREADS

Charter's economic activity supports jobs and drives economic activity in related industries up and down its supply-chain. Using an input-output model, Oxford Economics calculated how Charter's economic impact is distributed across specific, different industries.[5]

Charter's supply-chain (indirect impact) also includes companies as diverse as electric utilities, leisure and hospitality, and manufacturing. These are the companies that support Charter and its operations. Many advanced manufacturers, for example, make the electronics equipment that allows the company to provide its video programming to Charter subscribers. Utilities provide the company with the electricity to conduct and maintain operations. When induced impacts are considered, even more industries are included in the economic impact. Figure 7 tracks how the 483,000 nationwide jobs supported by Charter are distributed by industry at each stage of evaluation (direct, indirect, and induced). Charter's economic impact is not only broad geographically, supporting jobs in all 50 states, but it is also broad in terms of the types of jobs that it supports. In fact, the company's economic impact is so broad and diverse that many people are likely unaware of the contribution that the company makes to their personal and community's well-being.

The diversity of industries that benefit from Charter's economic impact is hardly surprising when one considers the range of activities included in the company's operations. In 2017, for example, the company spent $10.6 billion on programming for its video service and another $8.7 billion on its capital investment program that includes building out its broadband network.[6]

The capital investment program allows the company to invest in the equipment and infrastructure needed to connect residents and businesses to the Charter network (e.g., investments in customer premise equipment, line extensions, the network costs associated with entering new markets).

5 This type of model relies on input-output tables to calculate the economic relationships among industries, and is widely used throughout the economics profession to estimate economic impacts. For this project, our calculations rely on a model produced by IMPLAN, a company providing economic impact software ultimately derived from US Bureau of Economic Analysis ("BEA").

6 Reported in Charter Communications' annual SEC 10K filing (programming reported on page 38; and capital reported on page 44). Please note that these numbers differ slightly from what was included in the Oxford Economics calculations; which, due to the timing of the project, are based on a 12-month trend calculation ending during the fourth quarter 2017.

In 2017, Charter spent **$10.6B** on programming and **$8.7B** on capital investment – resulting in widespread economic impact.

FIGURE 7. How Charter's Employment Impact Distributes Across Industries

	Employment			
	Direct	**Indirect**	**Induced**	**Total**
Natural Resources and Mining	0	1,123	4,428	5,552
Construction	0	13,731	2,299	16,030
Manufacturing	0	16,069	9,039	25,108
Trade, Transport, Utilities	0	11,552	38,254	49,806
Information (includes Charter)*	94,192	33,866	3,222	131,280
Financial Activities	0	10,172	22,404	32,576
Professional, Business Services	0	67,672	23,605	91,277
Education and Health Services	0	290	38,345	38,636
Leisure and Hospitality	0	39,434	27,392	66,826
Other Services	0	6,728	17,585	24,313
Government	0	800	1,550	2,350
Total	**94,192**	**201,437**	**188,124**	**483,753**

* For the purposes of this report, all of Charter's direct employees are classified as working in the information sector. A worker's industry of employment is based on the primary function of the establishment at which they work. Note that in Figure 7 (and figures that follow), the wired telecommunications companies (including Charter), are included as part of the larger "information sector". Therefore, the direct impact of Charter's 94,000 employees is included in the information sector (see also footnote 4).

Source: Oxford Economics, IMPLAN

When Charter purchases programming, it will usually turn to content-creation companies. Moreover, these content providers also have their own complex supply-chains. Closer examination of this investment reveals the extent of the economic impact "ripple effect." For example, video programming creators have studios, workers, and on-site filming expenses that all contribute to Charter's economic impact. Much of this activity is included in the leisure and hospitality sector (located in the indirect channel on Figure 7). Film crews and others involved in content production travel, stay in hotels, eat at restaurants, and engage in other activities that boost the broader economy, all to produce the content that Charter purchases and distributes.

In addition, the company's investments in infrastructure rely on a supply-chain that includes the construction and manufacturing sectors. This, too, is evident in Figure 7. Construction and buildout of

Charter's high-speed broadband network to reach additional homes and businesses involves not only the company's own direct employees, but also the third-party contractors that are used to lay the new cable and attach equipment to poles and other rights-of-way. Further, the company's decision to expand its network will drive demand for production of the cable that it intends to install.

The diversity of jobs supported by the company carries over into the services that the company provides and the communities that the company serves.

The company supports workers in a wide range of industries including skilled labor jobs, creative talent, and community, healthcare, and education workers.

FIGURE 8. Charter supports a wide range of jobs*

* In Figure 8, the 483,753 jobs were analyzed by standard occupational classification codes (SOCs) and then, as applicable, placed into the following groups:

Skilled Labor: 51-0000 Production; 47-0000 Construction and Extraction; 53-0000 Transportation and Material Moving; 49-0000 Installation, Maintenance, and Repair.

Creative: 27-0000 Arts, Design, Entertainment, Sports, and Media.

Community: 21-0000 Community and Social Service; 25-0000 Education, Training, and Library; 29-0000 Healthcare Practitioners and Technical; 31-0000 Healthcare Support.

Source: Oxford Economics, IMPLAN

CASE STUDY

PROVIDING CULTURALLY DIVERSE PROGRAMMING

THE MORE THAN $10 BILLION THAT Charter Communications spends on programming includes support for independent programmers and partnerships with multicultural networks to help ensure that it offers diverse news, education, and entertainment. Programming offered by multicultural networks can help inform, inspire, and empower viewing audiences across the country.

Charter's Spectrum Mi Plan Latino provides more than 75 Spanish-language networks that offer quality movies, sports, news, and entertainment from Mexico, Latin America and the Caribbean. Additionally, Charter-owned Spectrum NY1 Noticias provides continuous news throughout New York City and Spectrum Deportes is the first Spanish-language regional sports network in the country.

The company also strives to meet growing demand for diverse and targeted African-American programming. In 2017 Charter expanded its carriage of African-American owned or themed networks including ASPiRE, Revolt, Up, Bounce TV, The Impact Network, and soon-to-be-launched Black Television News Channel and these investments will help the company reach millions more customers in some of its largest markets.

The diversity of jobs and skill levels that Charter's business supports are wide-ranging. This includes traditional blue-collar and white-collar employees, engineering and high-tech jobs, performing arts and creative occupations, accounting and legal jobs, retail, business sales, and customer facing positions.

Source: Case study content provided by Charter Communications

HOW INCOME SPREADS

Charter's economic impact includes the addition of $30 billion to national income across a wide range of industries. In Figure 9, we see that $7.5 billion of that $30 billion is directly attributable to Charter. $22.5 billion of income is earned by the company's supply-chain (indirect) and throughout the broader economy (induced).

FIGURE 9. How Charter's Income Impact Spreads Across Industries

	Income (millions)			
	Direct	**Indirect**	**Induced**	**Total**
Natural Resources and Mining	$0	$97	$255	$351
Construction	$0	$798	$132	$930
Manufacturing	$0	$1,635	$667	$2,302
Trade, Transport, Utilities	$0	$781	$1,854	$2,636
Information	$7,515	$3,720	$367	$11,602
Financial Activities	$0	$626	$1,307	$1,932
Professional, Business Services	$0	$3,674	$1,458	$5,133
Education and Health Services	$0	$11	$2,171	$2,182
Leisure and Hospitality	$0	$1,017	$713	$1,730
Other Services	$0	$393	$667	$1,060
Government	$0	$72	$134	$206
Total	**$7,515**	**$12,823**	**$9,725**	**$30,063**

Source: Oxford Economics, IMPLAN

One can gain insight into employees' average earnings by combining the employment and income statistics previously reported. Combining the statistics presented in Figures 7 and 9 allows us to calculate average earnings for employees across each industry sector.[7]

7 Average earnings are obtained by dividing the income amount presented in Figure 9 by the corresponding employment count presented in Figure 7. Average earnings are industry averages included in the IMPLAN model (and derived from the Bureau of Labor Statistics). Average earnings are a blend of self-employment earnings and average salaries for those working in that particular industry.

Combining statistics presented in these earlier tables allows us to illustrate in Figure 10 the high average earnings that Charter's economic impact supports in the manufacturing and information sectors. Charter's direct jobs are excluded from Figure 10 to better illustrate the high paying jobs that are supported in the company's supply-chain. Charter's jobs multiplier is not only high, but many of the jobs that it supports are also well-paying.

FIGURE 10. Well-paying jobs in Charter's supply-chain

	Employees	Total Income (thousands)	Average Earnings
MANUFACTURING	25,108	$2,302	$91,671
INFORMATION (excluding Charter)	37,088	$4,086	$110,183

Source: Oxford Economics, IMPLAN

CASE STUDY

INVESTING IN THE NEXT-GENERATION OF CONNECTIVITY

CHARTER IS THE **SECOND LARGEST** CABLE BROADBAND provider in an industry undergoing rapid change. To provide the most innovative products and meet the evolving needs and interests of its customers Charter is **investing in its network and new technologies.**

Charter is well-positioned as a company to use its advanced high-speed network to deploy next-generation 5G and other next-gen wireless technologies and ultimately these improvements will enhance connectivity for millions of its customers. The company is an emerging wireless leader and is currently conducting **4G LTE** and **5G** trials in markets around the country.

> To provide the most innovative products and meet the evolving needs and interests of its customers Charter is investing in its network and new technologies.

Investments in high-speed connectivity generate more than sizable economic impact, they change the way customers interact with technology and drive new economic development activities tied to the digital economy.

Source: Case study content provided by Charter Communications

Charter has invested **$27 billion** in infrastructure and technology since 2014. In 2017 alone, the company connected 860 thousand additional homes and improved connectivity at over half a million customer locations.

CHARTER'S CONTRIBUTION TO TECHNOLOGY SECTOR

The high paying jobs that Charter supports in both the manufacturing and information sectors are indicative of the company's role as a leader in technology. Currently, for example, the company is in the field testing 5G technology, which will provide a platform for the so-called Internet of Things (IoT), and other breakthroughs in advanced connectivity. Similarly, Charter's CEO Tom Rutledge has stated that the company will be launching a mobile offering in 2018.

With respect to direct and indirect job creation, Charter's focus on technological innovation also pays dividends. To maintain its position as a leading communications company, Charter must maintain its technological edge which requires significant investments in state-of-the-art computer, electronics, and broadcast equipment.

Accordingly, a large portion of the manufacturing and information jobs profiled in Figure 10 are connected to the company's commitment to technology. Specifically, Charter's investment in new technology supports jobs in high-tech advanced manufacturing and communications, including the motion picture and video industries.

- **Advanced Manufacturing:** Charter's operations support over 25,000 manufacturing jobs that earn, on average, nearly $92,000 per year.[8] Nearly one third of these jobs are engaged in the production of the sophisticated video and communication equipment that Charter relies on to provide video content and internet services to its customers. For example, included in this category are nearly 7,000 workers that produce communications equipment.[9] These advanced manufacturing workers earn, on average, $129,677 per year.
- **Information:** Charter's large investment in programming supports nearly 22,000 jobs in the motion picture and video industry (average annual earnings of $75,546). These jobs are in addition to Charter's direct employment and those in the creative workforce described previously in Figure 8, which are part of the leisure and hospitality industry.

In addition, Charter's investments in technology are delivered to communities throughout the country in very direct ways. For example, in 2017 the company installed over 13,000 miles of new "passings" (improvements in the company's state-of-the-art network) and increased connectivity at over half a million new customer locations.

8 These figures include self-employed workers.

9 Computer and Electronics Product Manufacturing (NAICS 334) includes vendors that manufacture computers, computer peripherals, communications equipment, and similar electronic products that are utilized by Charter in its operations.

CASE STUDY

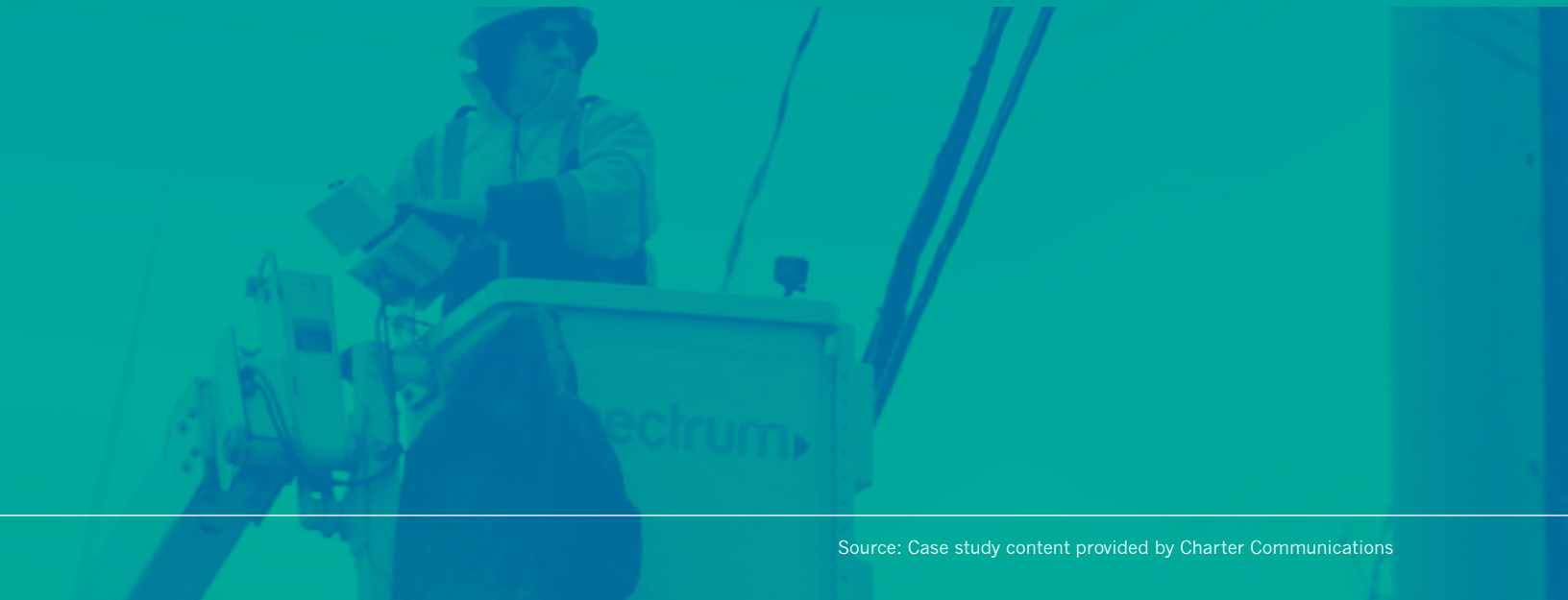
INVESTING IN INFRASTRUCTURE:

CHARTER'S COMMITMENT TO NEW YORK STATE

CHARTER HAS INVESTED MILLIONS OF dollars to bring high-speed internet service to communities throughout New York. As a result, tens of thousands of New Yorkers have a new, true broadband option that delivers the speeds and bandwidth necessary for families and businesses to succeed. In addition, broadband access allows New York businesses to enhance their services and improve business operations.

"Charter has made substantial commitments, not only in New York State, but across the country," said Charter VP Terence Rafferty. "Bringing broadband to people who don't have broadband is something that the company believes very strongly in and is very passionate about. This is a significant investment and project as we will be building an excess of **14,000 miles** of plant all at company cost."

Broadband access allows New York businesses to enhance their services and improve business operations.



Source: Case study content provided by Charter Communications

In many cases, this meant bringing high-speed broadband service to smaller rural communities for the very first time.

Providing high-speed broadband equips families with a vital tool for research and homework, entertainment, telecommuting, and staying connected with relatives. In addition, broadband access allows businesses to enhance their services and improve business operations while staying better connected to customers and suppliers.

CHARTER'S CONTRIBUTION TO INCREASING TAX BASE

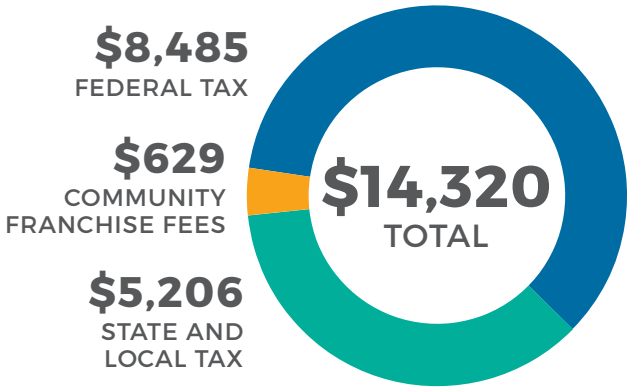
Charter's economic activity generates an additional **$13.7 billion** in tax revenue each year. In addition, the company also pays **$629 million** in community franchise fees.

Oxford Economics estimates the total economic impact generated by Charter generates $13.7 billion in annual state, local, and federal tax revenue.

Tax revenue is created because most of the $48 billion in increased economic activity that Charter supports is taxed at some, and often multiple, levels of government. For example, the 480,000 workers whose jobs are supported by Charter or its activities are subject to federal income tax.[10]

In addition to the $13.7 billion in federal, state, and local tax revenue attributable to Charter's economic impact, the company pays $629 million in franchise fees directly to the communities it serves.

FIGURE 11. Charter's Additional Tax Contributions ($mil)



Source: Oxford Economics, IMPLAN

10 Specifically, the IMPLAN software includes the following federal tax categories: social insurance (Social Security and Medicare), personal income, corporate income, excise taxes, customs duties, and other taxes on production and imports. These categories are all included in our results. In addition, IMPLAN software includes the following state and local tax categories: social insurance, personal income, taxes on corporate profits and dividends, personal and business property taxes, various sales and excise taxes, motor vehicle taxes, severance tax, and other personal and business taxes. These tax estimates include estimates of taxes paid directly by Charter, based on industry average data.

STATE-LEVEL SUMMARY

Charter's $48 billion contribution to national GDP is distributed throughout the United States and is felt in all 50 states. Last year alone, the company invested in 13,000 miles of new infrastructure throughout its network spanning 41 states.

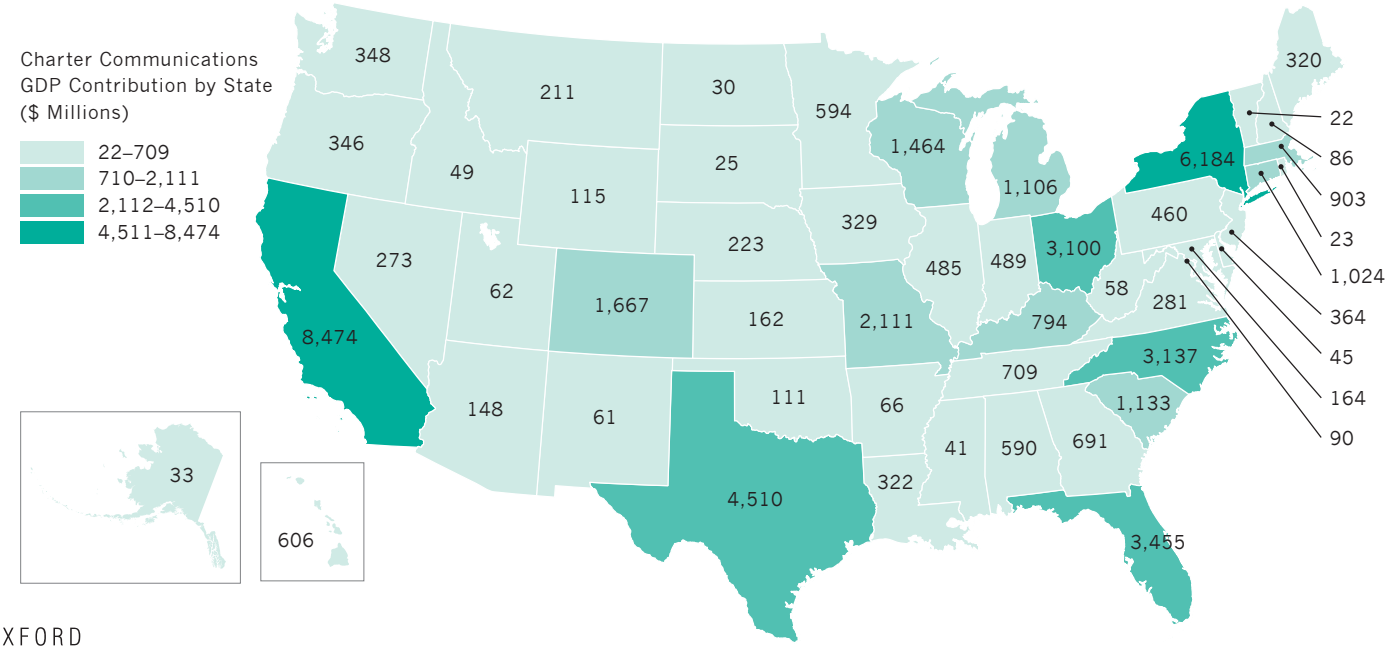
In addition, the company operates call centers in California, Colorado, Florida, Hawaii, Kentucky, Maine, Massachusetts, Missouri, New York, North Carolina, Ohio, Texas, Washington, and Wisconsin. Charter is headquartered in Stamford, Connecticut and has corporate operations in St. Louis, Missouri; Charlotte, North Carolina; Washington, D.C.; and outside of Denver, Colorado. Charter also operates infrastructure facilities throughout the country.

Investing in new infrastructure, maintaining lines and equipment, and serving customers generates economic activity throughout the country; and results in the company's economic impact being felt in every state, large and small.

- **Large States:** Charter's economic activity is felt in the highest-populated states including California ($8.4 billion); New York ($6.1 billion) and Texas ($4.5 billion).
- **Small States:** Charter makes big impacts even in less-populated states including Montana ($211 million); Maine ($320 million); and Hawaii ($606 million).

Appendix A presents detail on the company's economic impact in all fifty states plus the District of Columbia.

Charter's GDP Impact Touches all 50 States ($ Millions)



OXFORD ECONOMICS

CASE STUDY

CONNECTING THE NATION

BUILDING INFRASTRUCTURE ACROSS CHARTER'S FOOTPRINT

CHARTER IS EXPANDING ACCESS TO HIGH-SPEED BROADBAND IN THE COMMUNITIES IT SERVES, which allows more Americans to have the tools they need. That's particularly important in rural and other underserved areas, where the digital divide is a daily problem. Moreover, studies have empirically demonstrated the added value to expanding, or creating access to high-speed broadband in poor or rural communities.

Building Charter's fiber network out to unserved and underserved areas and connecting more Americans to broadband is a priority for the company. In 2017, Charter expanded broadband access in many rural communities.* They include:

- **California**: **29,000** underserved homes in six rural communities, including: Adelanto, Gonzales, Prunedale, Farmersville, Lindsay and Boron.
- **Colorado: 1,100** underserved homes and businesses in the rural Town of Meeker.
- **Massachusetts: 2,800** homes in the rural communities of Hinsdale, Lanesborough, and West Stockbridge.
- **Nevada: 2,000** homes in Hawthorne.
- **New York: 42,000** underserved homes and businesses across the state.
- **Oregon: 5,700** underserved homes and businesses in the rural communities of Dexter, Jasper, Lowell, Pleasant Hill and Veneta and more than **2,100** homes in Lakeview.
- **Washington: 2,400** underserved homes and business in the rural communities of Chewelah and Loon Lake.
- **Wisconsin:** Approximately **800** homes and businesses in Thorp, which became one of the first communities to be certified under Wisconsin's Broadband Forward! Initiative.

* Whitacre, Gallardo and Strover found that "high levels of broadband adoption in rural areas do causally (and positively) impact income growth...as well as (negatively) influence poverty and unemployment growth. Similarly, low levels of broadband adoption in rural areas lead to declines in the number of firms and total employment numbers in the county." Brian Whitacre, Roberto Gallardo, and Sharon Strover, "Broadband's Contribution to Economic Health in Rural Areas: A Causal Analysis," TPRC 41: The 41st Research Conference on Communication, Information and Internet Policy" (March 26, 2013),

Source: Case study content provided by Charter Communications

CONCLUSION

Charter's GDP Contribution exceeds that of several states.

Charter Communications is a leader in supporting economic growth in all fifty states. The company's economic impact contributes $48 billion to national GDP, supports 483,000 jobs, and generates $30 billion in income. Moreover, Charter's contributions go beyond its calculated economic impact. For example, one result of the company's commitment to expanding and improving its network is that it is bringing broadband connectivity to communities that until now lacked that service.

Charter's economic impact is considerable. In fact, its contribution to national GDP exceeds the total GDP contribution of several states. Part of the reason that Charter's impact is so large is a result of the company's large investments in state-of-the-art technologies. Included in the company's supply-chain, for example, are over 7,000 workers employed in the manufacturing of the sophisticated broadcast and communications equipment in which the company routinely invests. Charter's role as a technology company should not be overlooked.

The company's investment in high-speed broadband, and its commitment to providing this technology to unserved and underserved communities, brings additional benefits to communities; including, support for students, greater connectivity for families, and increased opportunities for local businesses.

As Charter Communications continues to expand its services and increase its employment, its economic impact will continue to grow. Most of the company's employees are out in the field building infrastructure, maintaining and repairing lines and serving customers. As a result, its economic impact is distributed and felt in the states and communities it serves.

Charter's Nationwide Economic Impact

GDP	JOBS	INCOME
$48 Billion	483,000	$30 Billion

APPENDIX A:

STATE ECONOMIC IMPACT DETAIL

Alabama	Direct	Indirect	Induced	Total
Employment	1,365	4,255	2,419	8,039
GDP ($ mil)	$86	$311	$192	$590
Labor income ($ mil)	$86	$184	$105	$375
Federal Tax ($ mil)				$102
State and Local Tax ($ mil)				$83
Community Franchise Fee ($ mil)				$20

Alaska	Direct	Indirect	Induced	Total
Employment	0	36	141	176
GDP ($ mil)	$0	$10	$23	$33
Labor income ($ mil)	$0	$3	$8	$11
Federal Tax ($ mil)				$6
State and Local Tax ($ mil)				$8
Community Franchise Fee ($ mil)				-

Arizona	Direct	Indirect	Induced	Total
Employment	63	599	946	1,608
GDP ($ mil)	$4	$61	$83	$148
Labor income ($ mil)	$4	$37	$48	$89
Federal Tax ($ mil)				$22
State and Local Tax ($ mil)				$11
Community Franchise Fee ($ mil)				$1

Please note that community franchise fees are generally paid to communities in those states in which Charter operates. A zero amount in this table indicates that franchise fees of less than $500,000 are paid in that state, whereas a hyphen indicates that no franchise fees are paid in that state.

Arkansas	Direct	Indirect	Induced	Total
Employment	0	180	485	665
GDP ($ mil)	$0	$21	$44	$66
Labor income ($ mil)	$0	$12	$24	$36
Federal Tax ($ mil)				$9
State and Local Tax ($ mil)				$5
Community Franchise Fee ($ mil)				-

California	Direct	Indirect	Induced	Total
Employment	9,957	28,917	26,940	65,814
GDP ($ mil)	$821	$4,987	$2,665	$8,474
Labor income ($ mil)	$821	$2,507	$1,525	$4,853
Federal Tax ($ mil)				$1,391
State and Local Tax ($ mil)				$605
Community Franchise Fee ($ mil)				$124

Colorado	Direct	Indirect	Induced	Total
Employment	4,176	3,890	7,451	15,517
GDP ($ mil)	$553	$476	$638	$1,667
Labor income ($ mil)	$553	$301	$369	$1,223
Federal Tax ($ mil)				$345
State and Local Tax ($ mil)				$132
Community Franchise Fee ($ mil)				$3

Connecticut	Direct	Indirect	Induced	Total
Employment	1,233	2,082	3,347	6,662
GDP ($ mil)	$266	$397	$360	$1,024
Labor income ($ mil)	$266	$201	$211	$678
Federal Tax ($ mil)				$198
State and Local Tax ($ mil)				$107
Community Franchise Fee ($ mil)				-

Delaware	Direct	Indirect	Induced	Total
Employment	0	59	201	259
GDP ($ mil)	$0	$14	$31	$45
Labor income ($ mil)	$0	$6	$14	$20
Federal Tax ($ mil)				$0
State and Local Tax ($ mil)				$0
Community Franchise Fee ($ mil)				-

District of Columbia	Direct	Indirect	Induced	Total
Employment	34	246	252	532
GDP ($ mil)	$11	$45	$34	$90
Labor income ($ mil)	$11	$31	$26	$69
Federal Tax ($ mil)				$13
State and Local Tax ($ mil)				$6
Community Franchise Fee ($ mil)				-

Florida	Direct	Indirect	Induced	Total
Employment	7,629	17,018	15,024	39,672
GDP ($ mil)	$550	$1,727	$1,178	$3,455
Labor income ($ mil)	$550	$967	$666	$2,183
Federal Tax ($ mil)				$638
State and Local Tax ($ mil)				$371
Community Franchise Fee ($ mil)				-

Georgia	Direct	Indirect	Induced	Total
Employment	781	3,145	3,192	7,118
GDP ($ mil)	$50	$353	$288	$691
Labor income ($ mil)	$50	$186	$157	$393
Federal Tax ($ mil)				$107
State and Local Tax ($ mil)				$46
Community Franchise Fee ($ mil)				$14

Hawaii	Direct	Indirect	Induced	Total
Employment	1,399	3,094	2,128	6,621
GDP ($ mil)	$148	$283	$175	$606
Labor income ($ mil)	$148	$143	$98	$388
Federal Tax ($ mil)				$99
State and Local Tax ($ mil)				$54
Community Franchise Fee ($ mil)				$16

Idaho	Direct	Indirect	Induced	Total
Employment	51	293	353	697
GDP ($ mil)	$4	$19	$26	$49
Labor income ($ mil)	$4	$12	$16	$32
Federal Tax ($ mil)				$8
State and Local Tax ($ mil)				$3
Community Franchise Fee ($ mil)				$1

Illinois	Direct	Indirect	Induced	Total
Employment	285	1,218	2,893	4,396
GDP ($ mil)	$15	$161	$308	$485
Labor income ($ mil)	$15	$99	$179	$294
Federal Tax ($ mil)				$71
State and Local Tax ($ mil)				$37
Community Franchise Fee ($ mil)				$6

Indiana	Direct	Indirect	Induced	Total
Employment	573	2,683	2,213	5,469
GDP ($ mil)	$33	$253	$203	$489
Labor income ($ mil)	$33	$129	$107	$269
Federal Tax ($ mil)				$76
State and Local Tax ($ mil)				$60
Community Franchise Fee ($ mil)				$6

Iowa	Direct	Indirect	Induced	Total
Employment	0	2,422	1,554	3,976
GDP ($ mil)	$0	$196	$134	$329
Labor income ($ mil)	$0	$105	$74	$178
Federal Tax ($ mil)				$14
State and Local Tax ($ mil)				$7
Community Franchise Fee ($ mil)				-

Kansas	Direct	Indirect	Induced	Total
Employment	290	949	912	2,151
GDP ($ mil)	$19	$69	$74	$162
Labor income ($ mil)	$19	$43	$43	$106
Federal Tax ($ mil)				$26
State and Local Tax ($ mil)				$15
Community Franchise Fee ($ mil)				$4

Kentucky	Direct	Indirect	Induced	Total
Employment	3,262	4,489	3,442	11,193
GDP ($ mil)	$192	$340	$262	$794
Labor income ($ mil)	$192	$205	$147	$545
Federal Tax ($ mil)				$159
State and Local Tax ($ mil)				$142
Community Franchise Fee ($ mil)				-

Louisiana	Direct	Indirect	Induced	Total
Employment	330	1,269	1,250	2,848
GDP ($ mil)	$20	$175	$126	$322
Labor income ($ mil)	$20	$71	$62	$154
Federal Tax ($ mil)				$46
State and Local Tax ($ mil)				$33
Community Franchise Fee ($ mil)				$6

Maine	Direct	Indirect	Induced	Total
Employment	748	2,627	1,355	4,731
GDP ($ mil)	$51	$171	$97	$320
Labor income ($ mil)	$51	$97	$55	$204
Federal Tax ($ mil)				$51
State and Local Tax ($ mil)				$28
Community Franchise Fee ($ mil)				$9

Maryland	Direct	Indirect	Induced	Total
Employment	7	422	844	1,273
GDP ($ mil)	$6	$70	$88	$164
Labor income ($ mil)	$6	$40	$50	$95
Federal Tax ($ mil)				$24
State and Local Tax ($ mil)				$12
Community Franchise Fee ($ mil)				$0

Massachusetts	Direct	Indirect	Induced	Total
Employment	1,013	3,393	3,321	7,727
GDP ($ mil)	$99	$469	$335	$903
Labor income ($ mil)	$99	$276	$215	$590
Federal Tax ($ mil)				$157
State and Local Tax ($ mil)				$56
Community Franchise Fee ($ mil)				$0

Michigan	Direct	Indirect	Induced	Total
Employment	2,131	6,228	4,793	13,152
GDP ($ mil)	$162	$552	$392	$1,106
Labor income ($ mil)	$162	$303	$229	$695
Federal Tax ($ mil)				$194
State and Local Tax ($ mil)				$128
Community Franchise Fee ($ mil)				$24

Minnesota	Direct	Indirect	Induced	Total
Employment	1,361	2,344	2,799	6,504
GDP ($ mil)	$94	$241	$259	$594
Labor income ($ mil)	$94	$156	$152	$401
Federal Tax ($ mil)				$112
State and Local Tax ($ mil)				$80
Community Franchise Fee ($ mil)				$10

Mississippi	Direct	Indirect	Induced	Total
Employment	0	140	347	487
GDP ($ mil)	$0	$13	$28	$41
Labor income ($ mil)	$0	$7	$15	$23
Federal Tax ($ mil)				$6
State and Local Tax ($ mil)				$4
Community Franchise Fee ($ mil)				$0

Missouri	Direct	Indirect	Induced	Total
Employment	5,793	9,440	9,042	24,275
GDP ($ mil)	$486	$918	$707	$2,111
Labor income ($ mil)	$486	$538	$401	$1,425
Federal Tax ($ mil)				$372
State and Local Tax ($ mil)				$221
Community Franchise Fee ($ mil)				$23

Montana	Direct	Indirect	Induced	Total
Employment	732	1,447	960	3,139
GDP ($ mil)	$49	$99	$63	$211
Labor income ($ mil)	$49	$57	$37	$143
Federal Tax ($ mil)				$41
State and Local Tax ($ mil)				$24
Community Franchise Fee ($ mil)				$5

Nebraska	Direct	Indirect	Induced	Total
Employment	443	1,290	991	2,724
GDP ($ mil)	$27	$106	$90	$223
Labor income ($ mil)	$27	$58	$50	$135
Federal Tax ($ mil)				$36
State and Local Tax ($ mil)				$16
Community Franchise Fee ($ mil)				$6

Nevada	Direct	Indirect	Induced	Total
Employment	472	1,428	1,097	2,996
GDP ($ mil)	$36	$143	$95	$273
Labor income ($ mil)	$36	$78	$51	$164
Federal Tax ($ mil)				$47
State and Local Tax ($ mil)				$32
Community Franchise Fee ($ mil)				$5

New Hampshire	Direct	Indirect	Induced	Total
Employment	83	428	417	928
GDP ($ mil)	$6	$43	$36	$86
Labor income ($ mil)	$6	$28	$23	$57
Federal Tax ($ mil)				$14
State and Local Tax ($ mil)				$6
Community Franchise Fee ($ mil)				$1

New Jersey	Direct	Indirect	Induced	Total
Employment	113	1,058	1,844	3,015
GDP ($ mil)	$11	$144	$209	$364
Labor income ($ mil)	$11	$92	$126	$229
Federal Tax ($ mil)				$62
State and Local Tax ($ mil)				$33
Community Franchise Fee ($ mil)				$1

New Mexico	Direct	Indirect	Induced	Total
Employment	0	255	277	532
GDP ($ mil)	$0	$36	$25	$61
Labor income ($ mil)	$0	$13	$13	$26
Federal Tax ($ mil)				$6
State and Local Tax ($ mil)				$5
Community Franchise Fee ($ mil)				$0

New York	Direct	Indirect	Induced	Total
Employment	11,666	18,099	17,248	47,013
GDP ($ mil)	$971	$3,307	$1,905	$6,184
Labor income ($ mil)	$971	$1,640	$1,139	$3,751
Federal Tax ($ mil)				$1,199
State and Local Tax ($ mil)				$792
Community Franchise Fee ($ mil)				$111

North Carolina	Direct	Indirect	Induced	Total
Employment	9,340	14,714	12,838	36,892
GDP ($ mil)	$693	$1,412	$1,031	$3,137
Labor income ($ mil)	$693	$780	$558	$2,032
Federal Tax ($ mil)				$534
State and Local Tax ($ mil)				$226
Community Franchise Fee ($ mil)				$1

North Dakota	Direct	Indirect	Induced	Total
Employment	0	61	195	256
GDP ($ mil)	$0	$9	$21	$30
Labor income ($ mil)	$0	$5	$11	$16
Federal Tax ($ mil)				$4
State and Local Tax ($ mil)				$3
Community Franchise Fee ($ mil)				-

Ohio	Direct	Indirect	Induced	Total
Employment	7,784	16,391	13,033	37,208
GDP ($ mil)	$527	$1,493	$1,080	$3,100
Labor income ($ mil)	$527	$865	$594	$1,986
Federal Tax ($ mil)				$552
State and Local Tax ($ mil)				$379
Community Franchise Fee ($ mil)				$63

Oklahoma	Direct	Indirect	Induced	Total
Employment	0	259	840	1,099
GDP ($ mil)	$0	$33	$78	$111
Labor income ($ mil)	$0	$21	$50	$71
Federal Tax ($ mil)				$15
State and Local Tax ($ mil)				$10
Community Franchise Fee ($ mil)				-

Oregon	Direct	Indirect	Induced	Total
Employment	400	1,729	1,422	3,551
GDP ($ mil)	$27	$191	$128	$346
Labor income ($ mil)	$27	$88	$70	$184
Federal Tax ($ mil)				$53
State and Local Tax ($ mil)				$24
Community Franchise Fee ($ mil)				$6

Pennsylvania	Direct	Indirect	Induced	Total
Employment	182	1,352	2,548	4,083
GDP ($ mil)	$12	$191	$257	$460
Labor income ($ mil)	$12	$121	$157	$290
Federal Tax ($ mil)				$72
State and Local Tax ($ mil)				$42
Community Franchise Fee ($ mil)				$4

Rhode Island	Direct	Indirect	Induced	Total
Employment	0	63	153	215
GDP ($ mil)	$0	$8	$15	$23
Labor income ($ mil)	$0	$5	$9	$15
Federal Tax ($ mil)				$4
State and Local Tax ($ mil)				$2
Community Franchise Fee ($ mil)				-

South Carolina	Direct	Indirect	Induced	Total
Employment	3,031	7,141	4,492	14,664
GDP ($ mil)	$222	$573	$337	$1,133
Labor income ($ mil)	$222	$318	$183	$723
Federal Tax ($ mil)				$186
State and Local Tax ($ mil)				$113
Community Franchise Fee ($ mil)				$27

South Dakota	Direct	Indirect	Induced	Total
Employment	0	58	191	248
GDP ($ mil)	$0	$6	$18	$25
Labor income ($ mil)	$0	$3	$10	$13
Federal Tax ($ mil)				$3
State and Local Tax ($ mil)				$1
Community Franchise Fee ($ mil)				-

Tennessee	Direct	Indirect	Induced	Total
Employment	953	3,705	3,191	7,849
GDP ($ mil)	$62	$382	$264	$709
Labor income ($ mil)	$62	$217	$162	$442
Federal Tax ($ mil)				$110
State and Local Tax ($ mil)				$56
Community Franchise Fee ($ mil)				$15

Texas	Direct	Indirect	Induced	Total
Employment	11,285	18,629	18,583	48,497
GDP ($ mil)	$783	$2,031	$1,697	$4,510
Labor income ($ mil)	$783	$1,178	$989	$2,950
Federal Tax ($ mil)				$869
State and Local Tax ($ mil)				$822
Community Franchise Fee ($ mil)				$73

Utah	Direct	Indirect	Induced	Total
Employment	0	193	458	651
GDP ($ mil)	$0	$22	$40	$62
Labor income ($ mil)	$0	$12	$22	$34
Federal Tax ($ mil)				$9
State and Local Tax ($ mil)				$4
Community Franchise Fee ($ mil)				-

Vermont	Direct	Indirect	Induced	Total
Employment	25	163	135	323
GDP ($ mil)	$2	$11	$10	$22
Labor income ($ mil)	$2	$7	$6	$15
Federal Tax ($ mil)				$4
State and Local Tax ($ mil)				$2
Community Franchise Fee ($ mil)				$1

Virginia	Direct	Indirect	Induced	Total
Employment	276	691	1,411	2,378
GDP ($ mil)	$55	$86	$140	$281
Labor income ($ mil)	$55	$59	$85	$199
Federal Tax ($ mil)				$50
State and Local Tax ($ mil)				$18
Community Franchise Fee ($ mil)				-

Washington	Direct	Indirect	Induced	Total
Employment	939	1,263	1,520	3,722
GDP ($ mil)	$57	$141	$149	$348
Labor income ($ mil)	$57	$84	$83	$225
Federal Tax ($ mil)				$62
State and Local Tax ($ mil)				$35
Community Franchise Fee ($ mil)				$4

West Virginia	Direct	Indirect	Induced	Total
Employment	37	237	322	596
GDP ($ mil)	$3	$25	$30	$58
Labor income ($ mil)	$3	$13	$15	$31
Federal Tax ($ mil)				$8
State and Local Tax ($ mil)				$6
Community Franchise Fee ($ mil)				$1

Wisconsin	Direct	Indirect	Induced	Total
Employment	3,672	8,534	5,945	18,151
GDP ($ mil)	$283	$698	$484	$1,464
Labor income ($ mil)	$283	$384	$269	$935
Federal Tax ($ mil)				$275
State and Local Tax ($ mil)				$284
Community Franchise Fee ($ mil)				$36

Wyoming	Direct	Indirect	Induced	Total
Employment	278	813	367	1,457
GDP ($ mil)	$17	$64	$34	$115
Labor income ($ mil)	$17	$37	$16	$71
Federal Tax ($ mil)				$22
State and Local Tax ($ mil)				$13
Community Franchise Fee ($ mil)				$4

APPENDIX B:

ECONOMIC IMPACT AND CASE STUDY METHODOLOGIES

DISCUSSION OF KEY ASSUMPTIONS

Charter Communications' operational expenditure and direct employment data were provided to Oxford Economics directly by Charter at the state level. These operational data were then aligned to IMPLAN categories, and economic impacts were calculated in IMPLAN at the state level using separate Multi-Regional Input-Output models for each state. Total impacts across states were then scaled to a national impact model by channel of impact and broad industry category.

Capital investment expenditures by Charter were included in the impact analysis alongside operational ones. Charter's direct gross operating surplus (profits) were excluded from the total impact calculations. Direct taxes were estimated using the default industry profile for wired telecommunications in IMPLAN.

DISCUSSION OF CASE STUDIES

Several case studies are presented in this report and they are intended to highlight and help contextualize some of the economic impact findings presented in this report. Please note that all content presented in each of these case studies was prepared by Charter Communications and Oxford Economics did not independently verify the material presented in any of these case studies.

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