

THE ECONOMIC IMPACT OF U.S. CABLE PROVIDERS

2022 NATIONAL, STATE,
AND CONGRESSIONAL
DISTRICT ESTIMATES





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EXECUTIVE SUMMARY

The U.S. cable industry helps to power the national economy by providing high-speed fiber-rich networks across all of America and by creating high quality programming. Cable providers have, in the 20 years prior to 2022, invested some \$310 billion in infrastructure, generating direct benefits in the economy as well as impacts in areas such as technical services, real estate, and repair & maintenance industries.

This report, commissioned by NCTA, shows that cable providers and cable programming providers had a significant impact on the U.S. economy in 2022 in terms of their contribution to GDP, the number of jobs they support, and the tax revenue they stimulate.

KEY FINDINGS

Estimated **impacts of cable provider services** in 2022:

- Providers of cable internet and TV services (“cable providers”) directly employed 263,000 workers, and directly generated \$96 billion in GDP.
- In total, cable providers supported over 1 million jobs across the U.S., which is greater than the workforces in 15 states.
- These workers earned \$83 billion in income.
- Including all channels of impact, cable providers supported the generation of \$196 billion of U.S. GDP, equivalent to \$1 in every \$130 of GDP generated across the U.S. economy.
- Cable providers contribute to the economies of all 50 states and the District of Columbia, supporting at least 500 jobs within 96% of all congressional districts.
- The total economic activity stemming from cable providers supported almost \$41.4 billion in taxes.

263K direct, 1m+ total

Jobs supported by cable providers



\$96 bn direct, \$196 bn total

Cable provider-supported GDP



The economic importance of U.S. cable internet service is also seen through the host of firms that depend upon and use cable-provided internet services as a key component of their business operations. This greatly expands the impact of cable providers on the economy.

- In 2022, the direct **downstream impact** of internet services provided by cable broadband providers amounted to \$132 billion in GDP and 549,000 jobs.



\$132 bn Downstream GDP impact of cable internet services



549,000 Downstream jobs supported by cable broadband providers

Estimated **impacts of cable TV programming** in 2022:¹

- Cable programming providers directly employed 32,000 workers, generating \$44 billion in GDP in the U.S.
- The total employment impact of cable programming providers across the U.S. amounted to 495,000 workers, earning \$46 billion in income.
- Cable programming providers supported the generation of \$104 billion of GDP, equivalent to \$1 in every \$246 of GDP generated across the U.S.
- The total economic activity stemming from cable programming supported activities supported \$16.4 billion in taxes.

¹ Since providers of cable programming are suppliers to cable broadband and TV providers, a portion of the total impact of cable programming is included in the total impacts of cable providers. As such, the total impacts for both providers and programmers as presented in this report are not additive.

1. INTRODUCTION

Having a fast internet connection at home opens up a world of opportunities; it is vital for learning, working from home, interacting with friends and family, and so much more. Over the past several decades, U.S. cable broadband providers have constructed high-speed networks spreading across all of America and continue to work on extending access to previously unserved homes. With cable's dedicated determination to reach unserved communities, the objective of connecting all Americans to the internet is within reach.

NCTA commissioned Oxford Economics to conduct an analysis of cable's U.S.-based operations and the economic impacts that are felt all across the domestic economy. Cable broadband providers not only make high-speed internet available to approximately 85% of all U.S. homes, offering gigabit internet speeds in both urban and rural communities, but they also provide access to more than 200 TV networks and streaming video services, many created by cable programming providers, with a rich history of popular and award-winning television content. Having invested hundreds of billions of dollars in infrastructure and programming over the last several decades, cable providers' commitment to powering the country's digital economy is clear. The remainder of this section describes the components of the industry, as defined within this study.



1.1 CABLE PROVIDERS OVERVIEW

Providers of cable internet and TV services (“cable providers”) offer broadband internet and entertainment products and services to residential and business consumers. Of the 88% of U.S. households estimated to subscribe to fixed broadband internet access at home, almost two-thirds subscribe to a cable provider.²

Most of the revenue of cable providers consists of fees paid by consumers and businesses for high-speed internet, multichannel video, voice, and mobile services. While revenue from multichannel video has declined over the past few years, the provision of services to businesses and residential high-speed internet has grown substantially, with mobile services increasingly providing a key source of additional growth. Cable providers also generate revenue from the sale of advertising.

Cable providers have, between 2002 and 2022, invested some \$310 billion in infrastructure, generating impacts in areas such as technical services, real estate, and repair & maintenance industries. They also create economic impact in the entertainment industry, through their purchase of programming to show on their video services, and add value to the U.S. economy by providing broadband access for streaming services and other businesses that use broadband as a production input.

1.2 OVERVIEW OF DOWNSTREAM EFFECTS

A host of downstream industry sectors depend upon and use internet services from cable providers as a key component of their business operations. This makes the cable-impacted share of the economy even larger than what is created through its direct activities and its purchases of goods and services. Wired and wireless telecommunications providers are naturally large purchasers of cable internet services, but industries such as hospitality leverage cable internet services to manage and streamline booking processes, while also subscribing to cable television as a value-added amenity for their customers. Streaming video services, such as Netflix, Disney+, Peacock, and HBO Max also rely heavily on cable broadband networks as a way of delivering their programming to consumers.

² Federal Communications Commission, 2022 Communications Marketplace Report, Fig. II.A.1, 2022.

1.3 CABLE PROGRAMMING PROVIDERS OVERVIEW

Providers of cable programming produce entertainment, lifestyle, news and sports content, which is then distributed via cable video and broadband networks and other multichannel video programming distributors. Traditional cable programming includes the following types of networks:

- Basic cable channels, which include networks such as ESPN, TNT, USA, CNN, Nickelodeon, and FX.
- Premium cable channels, which offer specialized content beyond basic cable, including original series, movies, and special events (e.g., HBO, Showtime, Starz).
- Regional sports networks (RSN), which hold the broadcasting rights for regional sports. Some of the largest are Spectrum Sports, Bally Sports (previously Fox Sports), NBC Sports, and MSG.

Major content producing companies, like Warner Bros. Discovery, Disney, NBCU, and Paramount also have created streaming platforms for online content delivery. However, in this report, as mentioned above, the effects of these streaming networks are generally captured as downstream services that use cable and other broadband providers as an input to reach their customers.³

Most of the revenue generated by cable programming providers still comes from basic cable services. Across all three network segments, affiliate revenue (or licensing fees) generates most of the revenue, while for basic cable channels, advertising constitutes an additional important portion of the revenue stream. However, the breakdown of revenue among the types of cable programming providers has changed substantially over the last few years; last year, basic cable and RSN revenue contracted, while premium cable channels displayed a 10% annual revenue growth, continuing the trend of high growth from the prior year.⁴

The success of cable programming relies upon the quality of the content. Because of this, cable programming providers invest heavily in content production and acquisition. In 2022, basic cable networks spent \$33.8 billion on content, supporting upstream economic impacts with studios, producers, artists, and performers, as well as for the sports industry in the case of RSNs and some of the basic cable channels.⁵

³ Given that many cable programming providers also own streaming services, it is conceivable that some employment or output effects from these services could be captured here. However, programming providers generally keep streaming services separate as lines of business, and the data that is used in this report to estimate the output and employment effects of programming providers is meant to be limited to traditional cable networks.

⁴ Estimates from Kagan, a division of S&P Global Market Intelligence.

⁵ Ibid.

2. THE ECONOMIC IMPACT OF CABLE PROVIDERS

2.1 THE IMPACT OF CABLE PROVIDERS ON THE U.S. ECONOMY

With over 82 million cable broadband customers and tens of millions of video, voice, and mobile customers, cable providers directly created nearly \$96 billion worth of GDP for the American economy in 2022. This represents over half of the GDP generated by all U.S. wired telecommunications carriers.⁶

In addition to their direct impacts, the expenditures of cable providers within their U.S.-based supply chains also generates an enormous amount of economic activity across all sectors and regions of the economy. In 2022, these supply-chain effects totaled approximately \$54 billion of GDP. Moreover, the economic activity supported by the spending of the workers employed by cable providers and their supply chains generated a further \$46 billion in GDP in 2022.⁷

Combining all channels of impact, cable providers contributed \$196 billion to U.S. GDP in 2022. This is equivalent to \$1 in every \$130 of GDP generated across the U.S. economy.

As the total economic impact of cable providers was two times the direct impact alone, the GDP multiplier was 2.0. That is, for every \$1 of GDP generated by cable providers themselves, a further \$1 of GDP is supported in other parts of the U.S. economy as a result of supply chain linkages and wage-funded spending effects.

\$96 bn

U.S. cable providers' direct GDP contribution in 2022

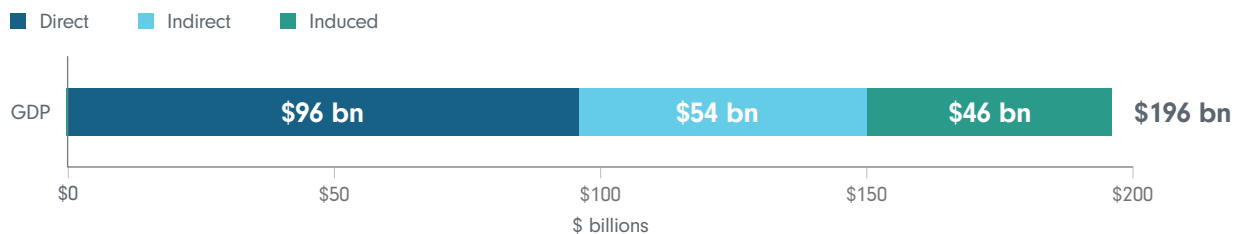


2.0x

GDP multiplier of cable providers in 2022



Fig. 1. Cable providers' GDP impact in the U.S., 2022



Source: NCTA, Oxford Economics

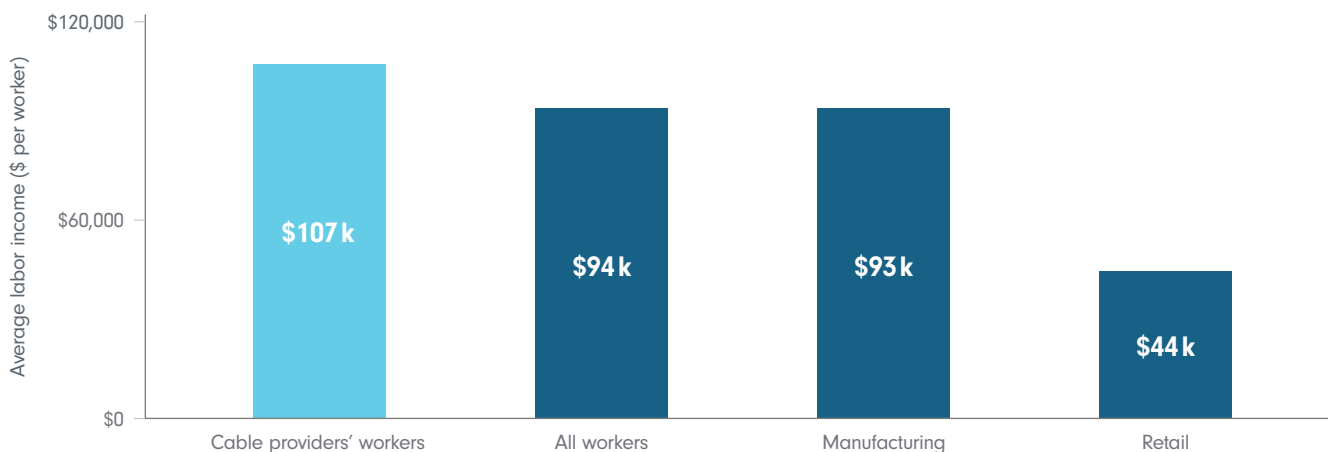
⁶ Over and above cable providers, the wired telecommunications industry also includes other non-cable wired broadband Internet service providers (e.g., fiber, DSL), direct-to-home satellite system (DTH) services, local and long-distance wired telephone carriers, multichannel multipoint distribution services (MMDS), satellite television distribution systems, and VoIP service providers using their own wired telecommunications infrastructure.

⁷ The expenditures within supply chains generate "indirect effects" in the economy, while the expenditures by workers generate "induced effects." See Appendix A for more detail about these concepts.

2.2 THE IMPACT OF CABLE PROVIDERS ON JOBS AND WAGES

Cable providers in the U.S. employed 263,000 workers in 2022, accounting for 46% of the entire wired telecommunications industry workforce. These workers are estimated to have earned some \$28 billion in labor income in 2022 and their average compensation was approximately 13% higher than the compensation of the average American worker and 14% higher than the average for all manufacturing workers.

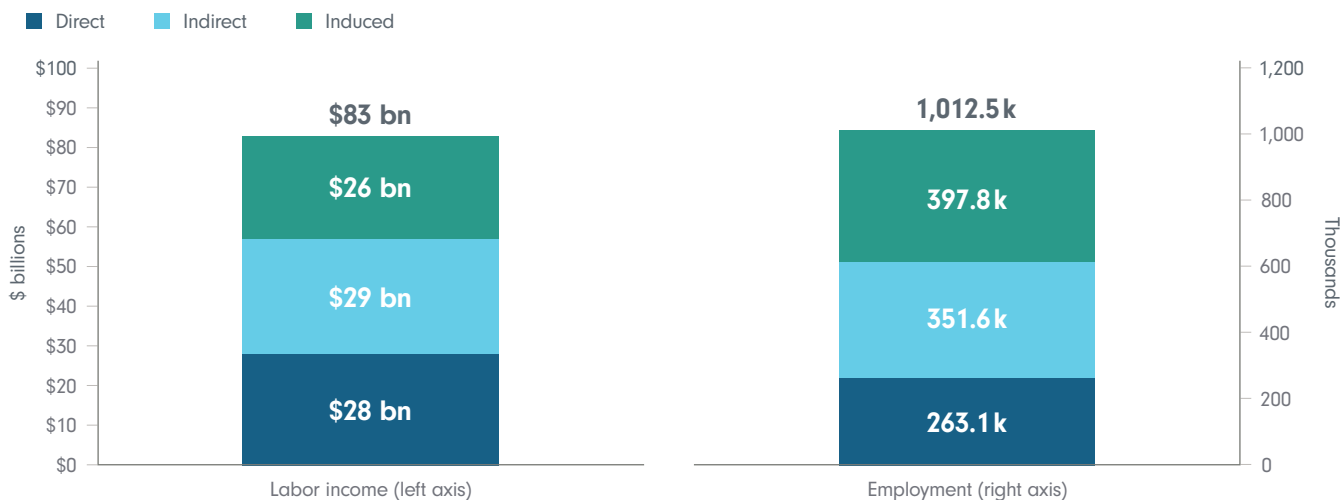
Fig. 2. Comparison of average labor income by industry, 2022



Source: Oxford Economics, IMPLAN

The supply chain expenditures of cable providers supported a further 351,600 jobs through the economy and wage-based spending supported an additional 397,800 jobs. Adding all the channels together, cable providers supported 1,012,500 jobs across the U.S. in 2022. These workers received an estimated \$83 billion in labor income.

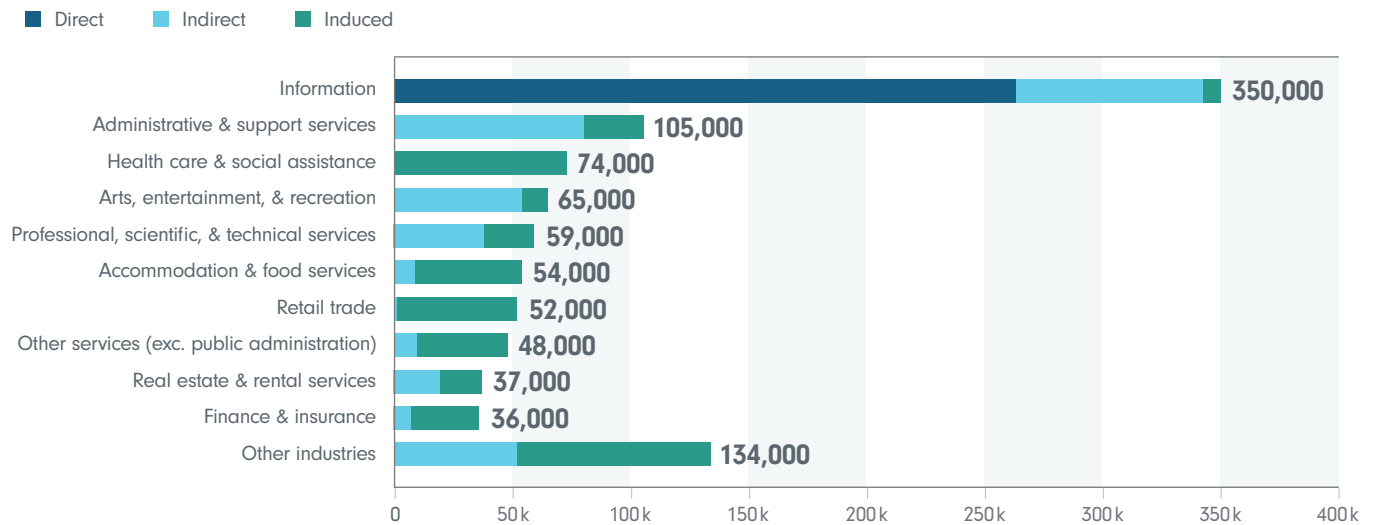
Fig. 3. Cable providers' employment impact in the U.S., 2022



Source: NCTA, Oxford Economics

Cable providers' spending creates jobs across the U.S. economy. For every individual directly employed by cable providers in 2022, 2.8 additional jobs were supported in other areas within the U.S.—a jobs multiplier of 3.8. This includes an estimated 350,000 information jobs, 105,000 administrative jobs, and employment for 74,000 healthcare and social workers.

Fig. 4. Total cable providers' employment impact by industry, 2022⁸



2.3 THE IMPACT OF CABLE PROVIDERS ON TAX REVENUE

The economic activity supported by cable providers sustained almost \$41.4 billion in taxes at all levels of government in 2022.

Fig. 5. Total tax contribution of cable providers

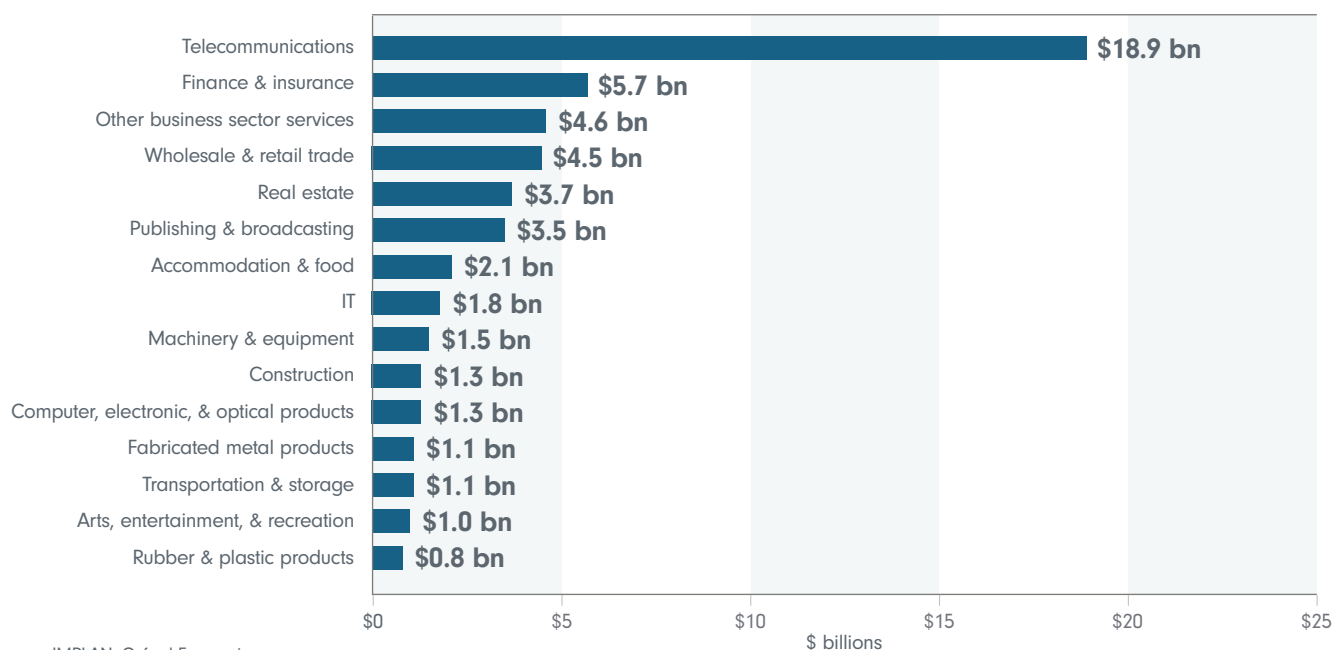


⁸ The industries listed in these table are based on categories in the North American Industry Classification System ("NAICS") 2-digit codes.

3. DOWNSTREAM IMPACT OF CABLE PROVIDERS

The economic importance of U.S. cable providers is even larger than what is supported through their direct activity, supply chain purchases, and the spending of their employees. In this section, we profile the downstream use of cable-provided internet services by other industries using input-output (IO) economic data similar to that used to calculate the upstream economic impacts described earlier. These IO data identify which industries rely most heavily on cable providers based on those that spend the most (in absolute and relative terms) on wired telecommunications services.⁹

Fig. 6. Top industries that purchase from U.S. cable providers, ranked by amount



Source: IMPLAN, Oxford Economics

In 2022, U.S. firms spent approximately \$118.3 billion on wired telecommunications services, which include an estimated \$58.6 billion spent with cable providers. The types of companies that spent the largest amounts with U.S. cable providers were wireless and wired telecommunications carriers and satellite and telecommunications resellers. These same industries were also the ones that depended most heavily on cable provider services in relative terms, measured as the proportion of intermediate consumption spent with wired telecommunication carriers. Cable broadband services, however, are used in a host of other

⁹ We cannot identify which industries purchase their wired telecommunications services from cable providers as opposed to other ISPs. To fill this gap, we have used cable providers' estimated share of the sector (50% when measured in terms of output) to estimate cable's share of total wired telecommunications services spending.

industry sectors, as demonstrated by Fig. 6. For example, the hospitality sector leverages cable internet services to manage and streamline booking processes, while also subscribing to cable television as a value-added amenity for their customers.

This spending in turn supports jobs and economic activity within those downstream sectors, as it enables those sectors to operate more productively or provides opportunities for additional value added. For example, satellite and telecommunications resellers are estimated to spend 14% of their total intermediate consumption with U.S.-based cable providers, while wireless telecommunications carriers purchase 5% of their intermediate goods and services from the industry. This could imply that 14% and 5% of those industry's operations are directly dependent on cable-provided internet services.

\$132 bn

**Downstream GDP impacts supported
by cable providers in 2022**



549,000

**Downstream cable-dependent jobs
supported by cable providers in 2022**



By applying this approach to every industry, we estimate that the direct downstream impact of cable providers in 2022 amounts to \$132 billion in GDP and to 549,000 jobs.¹⁰ In terms of GDP, telecommunications is by far the most cable-dependent sector, followed by finance and business services (Fig. 7). In terms of employment, the retail and hospitality sectors are major beneficiaries, with 68,000 and 48,000 cable-dependent jobs, respectively (Fig. 8).

These figures do not take into account the contributions made by sectors that do not directly purchase cable provider services but indirectly depend on and use wired telecommunications services. This could represent hundreds of billions in additional GDP, as well as hundreds of thousands of additional workers. A host of downstream market segments indirectly rely upon the services of cable providers, including search engines, digital advertising agencies, and social networking sites. The internet services offered by cable providers are, therefore, an important contributing factor to the growth of these sectors. In addition, by being the main source of residential internet in the U.S., cable providers indirectly enable the work of thousands of sellers on platforms like eBay, Etsy, and Craigslist, as well as the activity of hundreds of thousands of content creators (e.g., YouTubers) and digital entertainers (e.g., podcast creators).

¹⁰ In this study, we only assess the value of the direct (or first-round) downstream impacts of cable providers. While a methodology exists to calculate the full range of downstream multipliers (also known as Ghoshian multipliers), such an approach is only appropriate in limited circumstances, for example when assessing a fresh injection of a supply-constrained commodity. In a supply-constrained economy, increased activity in one sector allows other sectors (that use its products as inputs) to expand. In addition, it is important to note that the upstream multiplier effects estimated in the previous sections of this report and the first-round of downstream impacts presented in this chapter should not be combined into an all-encompassing "total impact." These effects measure the impacts of different kinds of disturbances to the economy and, in choosing one or the other, we are making a judgement about the kind of economy being investigated.

Fig. 7. Cable providers' direct downstream GDP impact, by sector

Industry	Downstream cable-dependent GDP (\$ billions)
Telecommunications	\$35.8
Financial and insurance activities	\$13.8
Other business sector services	\$13.6
Wholesale and retail trade; repair of motor vehicles	\$12.3
Real estate activities	\$9.2
Publishing, audiovisual, and broadcasting activities	\$6.8
Accommodation and food services	\$4.7
Transportation and storage	\$3.8
IT and other information services	\$3.5
Machinery and equipment	\$3.1
Human health and social work	\$2.6
Computer, electronic, and optical products	\$2.6
Construction	\$2.5
Arts, entertainment, recreation, and other service activities	\$2.3
Fabricated metal products	\$2.1
Rubber and plastic products	\$2.1
Other	\$10.9
Total	\$131.8

Fig. 8. Cable providers' direct downstream jobs impact, by sector

Industry	Downstream cable-dependent jobs (Thousands)
Other business sector services	78.4
Wholesale and retail trade; repair of motor vehicles	68.5
Telecommunications	49.6
Accommodation and food services	47.7
Financial and insurance activities	45.4
Real estate activities	36.4
Transportation and storage	35.2
Human health and social work	34.4
Arts, entertainment, recreation, and other service activities	25.6
Education	21.3
Construction	13.7
Machinery and equipment	13.2
Computer, electronic, and optical products	12.4
IT and other information services	10.0
Other	57.2
Total	548.9

4. THE ECONOMIC IMPACT OF CABLE PROGRAMMING PROVIDERS

4.1 CABLE PROGRAMMING PROVIDERS' IMPACT ON THE U.S. ECONOMY

Cable programming providers directly created nearly \$44 billion of GDP in the U.S. in 2022. In addition to the direct economic impacts, expenditures by cable programming providers across their U.S. supply chains further generated \$35 billion in GDP. Finally, the economic activity supported by the wage spending of workers supported another \$25 billion in GDP in 2022.

Across all channels of activity, cable programming providers contributed a total of \$104 billion in GDP to the U.S. economy in 2022. This is equivalent to \$1 in every \$246 of GDP generated across the U.S. economy.

The total economic impact of cable programming providers is equivalent to almost 2.4 times the direct impact. This GDP multiplier indicates that for every \$1 of GDP generated by cable programmers, a further \$1.40 of GDP is supported across other U.S. industries as a result of supply chain expenditure and wage-induced spending.

\$44 bn

U.S. cable programming providers' direct GDP contribution in 2022



2.4x

GDP multiplier of cable programming providers' operations in 2022



Fig. 9. Cable programming providers' GDP impact in the U.S., 2022



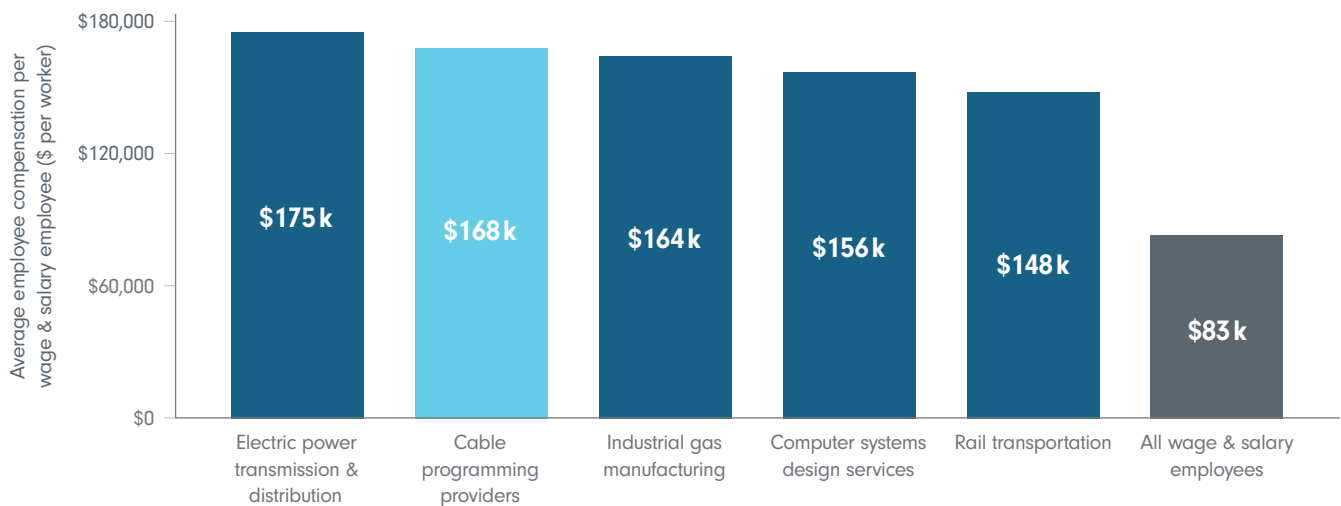
Source: NCTA, Oxford Economics

4.2 THE IMPACT OF CABLE PROGRAMMING PROVIDERS ON JOBS AND WAGES

We estimate that cable programmers employed 32,000 workers in 2022 who earned over \$13 billion in labor income across the U.S.

In common with all other U.S. industries, cable programming providers employ both salaried and wage-earning workers. Some 21% of the workforce of cable programming providers are estimated to be made up of proprietors. Our analysis indicates that there is significant variability between average compensation of salaried or wage-earning employees and proprietors, with the former earning \$168,000 on average, while the latter had a mean income of over \$1.2 million per year. Given this discrepancy, Fig. 10 compares only the salaried and wage-earning cable programming provider employees with employees in other industry sectors and illustrates that cable programming providers pay salaries that are twice the economy-wide average and that are on par with electricity transmission and distribution and computer systems design services.

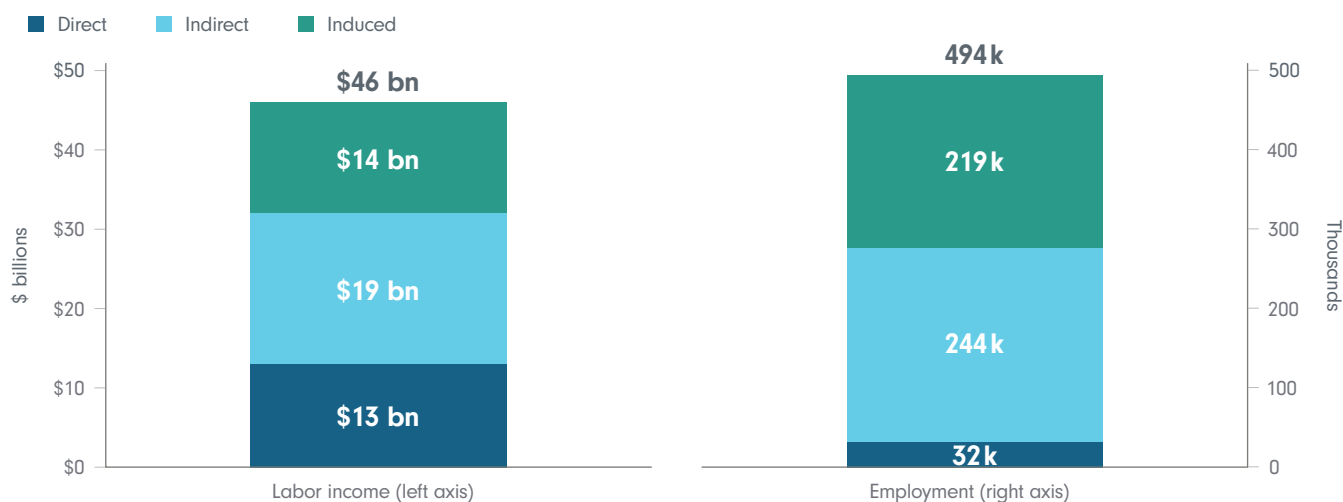
Fig. 10. Comparison of average employee compensation per wage and salary employee by industry, 2022



Source: Oxford Economics, IMPLAN

Cable programming providers supported an additional 244,000 jobs across the U.S. economy as a result of their supply chain expenditures and 219,000 jobs through wage-supported spending. In total, cable programming providers supported 495,000 jobs across the U.S., with these workers earning nearly \$46 billion in labor income in 2022.

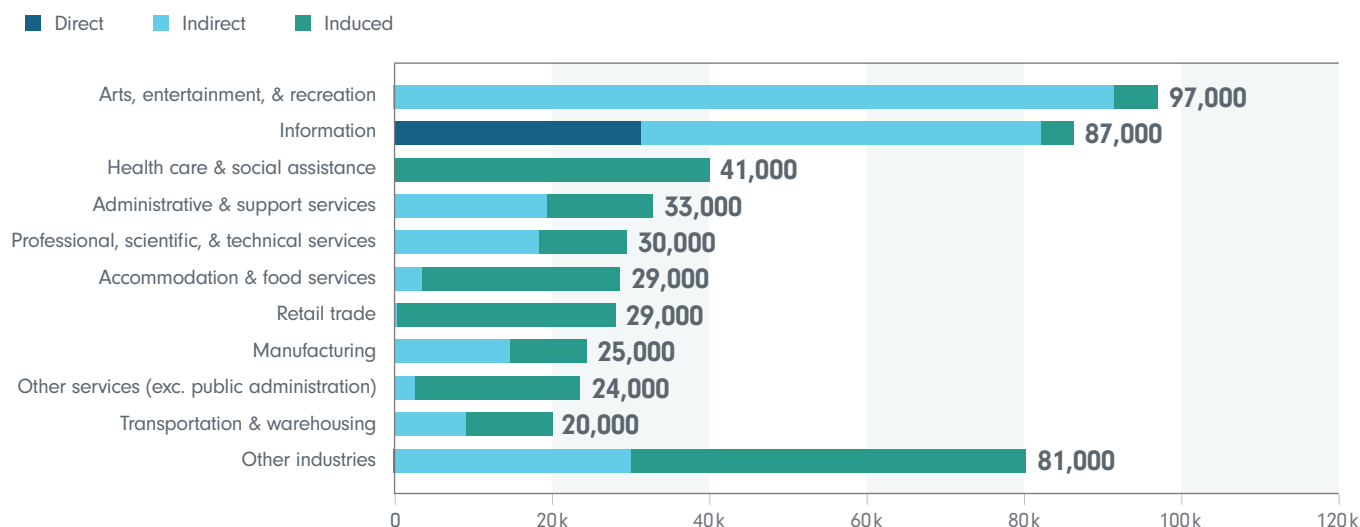
Fig. 11. Impact of cable programming providers' employment in the U.S., 2022



Source: NCTA, Oxford Economics

For each worker employed by cable programming providers in 2022, 14.5 additional jobs were supported in other industries across the U.S. This employment footprint includes an estimated 97,000 creative industries' jobs, 87,000 information jobs, and employment for 41,000 healthcare and social workers. The fact that the highest number of jobs was supported in the arts, recreation, and entertainment sector—a highly labor-intensive industry—helps contribute to this very large employment multiplier.

Fig. 12. Total cable programming providers' employment impact by sector, 2022¹¹

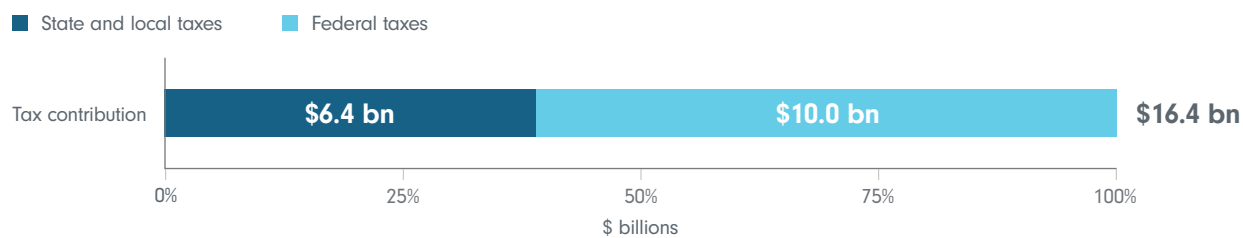


¹¹ NAICS 2-digit code.

4.3 THE IMPACT OF CABLE PROGRAMMING PROVIDERS ON TAX REVENUE

The direct, indirect, and induced economic activity supported by cable programming providers supported almost \$16.4 billion in taxes at all levels of government in 2022.

Fig. 13. Total tax contribution of cable programming providers, 2022



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