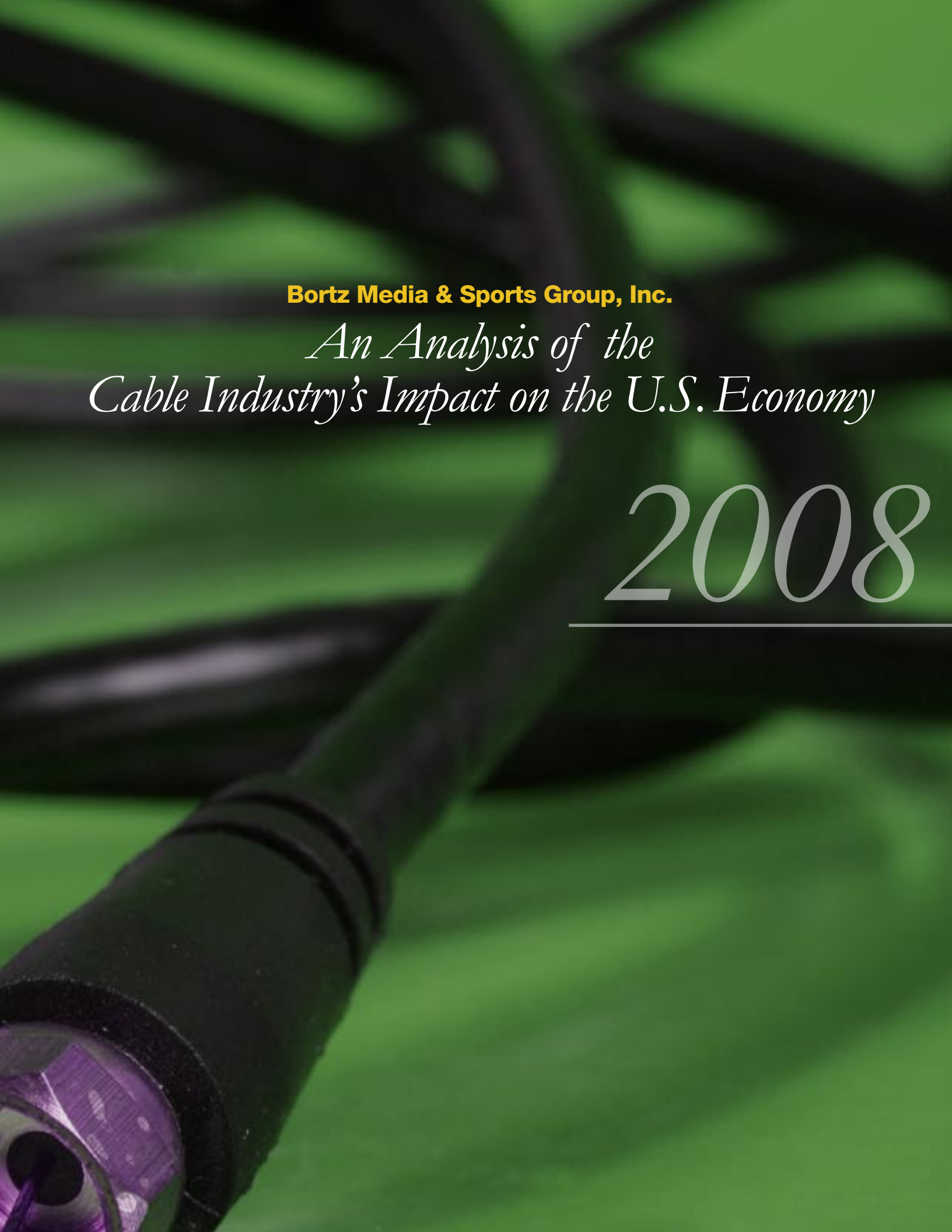

Bortz Media & Sports Group, Inc.

An Analysis of the Cable Industry's Impact on the U.S. Economy

2008

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INTRODUCTION

Bortz Media & Sports Group, Inc. was retained to update its 2002 study for Daniels & Associates that evaluated the impact of the cable industry on the United States economy. This report sets forth the results of that analysis, including estimates of the direct and indirect impact of the industry on employment, personal income and gross output in 2007. In addition, the economic impact of the subscription TV program network industry is also evaluated – recognizing the significant economic impact of this segment in its own right. Finally, an overview of other cable and program network industry contributions is provided, focusing on the role of these industries in spurring telecommunications competition, technological innovation and new services deployment; providing programming choice; and 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 industry in 2007, 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 2007.

- Section IV examines other cable and program network industry contributions and impacts, emphasizing competition, choice, viewing and the use of technology to bring new services to U.S. households. The role of the cable industry in stimulating broadband growth, and the economic impact of that growth, is specifically analyzed and highlighted.

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 industry's impacts in each 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 industry is an important provider in the delivery of entertainment and information to the American consumer, and has a significant and rapidly growing role in the delivery of telecommunications services. Through its aggressive re-investment of capital and its efforts to deploy new and innovative services to consumers, the 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.

In addition, the subscription television 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 industry.

Cable Industry Economic Impacts

As of 2007, the cable industry (directly and indirectly) accounted for 1.5 million U.S. jobs representing almost $62 billion in personal income. Gross economic output attributable to the industry amounts to nearly $227 billion.

Other measures of the industry's economic impact include:

- Cable operator revenues in 2007 totaled more than $78 billion, providing direct employment to 229,000 people. Compensation to cable industry employees totals $14.3 billion.

- These cable industry employees can be found in all 50 states, reflecting the overwhelmingly local character of an industry comprised of over 7,000 local cable systems. In fact, there are at least 300 cable industry employees in each U.S. Congressional District – and more than 2,000 cable employees in selected Districts.

- Cable industry suppliers provide another 136,000 cable-related jobs, representing personal income of $9.4 billion.

- Since 2002, direct and indirect employment attributable to the cable industry has increased by almost 367,000 jobs. This growth amounts to nearly five percent of all net new jobs created by the U.S. economy over this five-year period.

- Even considering only those employment increases attributable directly to cable operators, growth since 2002 totals about 53,000 jobs – or 0.7 percent of net U.S. job growth.

- Cable's economic impacts are spread throughout all major sectors of the U.S. economy. The largest impacts are in the information, services and manufacturing sectors, each of which are critical to both the growth and the overall health of the economy.

Program Network Industry Economic Impacts

As of 2007, the program network industry (directly and indirectly) accounted for 767,000 U.S. jobs representing almost $30 billion in personal income. Gross economic output attributable to the industry amounts to just over $100 billion.[1]

Other measures of the industry's economic impact include:

- Program network revenues in 2007 totaled more than $49 billion, providing direct employment to 46,500 people. Compensation to program network industry employees totaled $5.1 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 $18 billion in revenues, over 54,000 jobs, and $5.4 billion in employee compensation from the program network industry.

Other Cable and Program Network Industry Impacts

In addition to the purely economic impacts described above, the cable 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. The industry has also fundamentally altered the manner in which most Americans view television, and through a continuing pattern of innovation has introduced new content and services to consumers.

Specific indicators of these contributions include:

- Made possible by an infrastructure investment exceeding $130 billion over the last decade, the cable industry has led the development of broadband Internet service in the U.S. – providing service to 36 million customers as of year-end 2007. Moreover, cable's broadband offering continues to set the industry standard with data rates improving to a typical 6 Mbps and in some cases up to 15 Mbps while the majority of DSL customers continue to receive speeds of 3 Mbps or less.

- Bortz Media estimates that the cable industry's early and ongoing commitment to deploying broadband infrastructure and delivering the most advanced broadband service offerings could have resulted in U.S. broadband penetration that is on the order of four percentage points higher than it would have been if cable's commitment had been significantly reduced or delayed. Based on Brookings Institution estimates of the

[1] These total impact figures 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.

economic impact of broadband services, this additional penetration could have been responsible for on the order of 1.2 million additional U.S. jobs.

- In addition, cable has fostered true competition in local telephone service – capturing almost 15 million customers by the end of 2007 and adding over five million in the past year alone.

- At the same time, the industry's innovation has greatly improved the television services available to the American consumer. Nearly all digital cable customers have access to video-on-demand programming – with up to 10,000 titles available (most at no charge); nearly 11 million cable customers have digital video recording capability; and nearly 14 million cable homes had HDTV-enabled set-top boxes as of year-end 2007.

- In a period of just four years, the number of national basic and digital cable programming networks has grown from 308 (in 2002) to 565 (2006). The number of networks in 2006 is three times the number operating in 1997 and six times the number in operation in 1992.

- As of the 2006-07 television season, viewing of basic cable programming measured against all TV households was more than two and a half times the level of ad-supported cable network viewing during the 1994-95 season. In 2006-07, the aggregate total day viewing of ad-supported cable networks reached 51 percent, exceeding the combined viewership of all other television sources. Cable's share in prime time is an even higher 57 percent.

- As a measure of the industry's commitment to programming quality, the annual spending on programming by basic networks grew from $1.4 billion in 1990 to $18.8 billion in 2007. Spending has doubled in the last five years. The top 20 cable networks spent an average of $566 million per network during 2007, compared with $321 million in 2002 and $160 million in 1997.

- Finally, the cable industry annually contributes substantially to charities, non-profit organizations and state/municipal coffers on a nationwide basis. In 2007, the NCTA estimates that franchise fees totaled roughly $3.0 billion, reflecting funds paid directly to local municipalities. In addition, sales and use taxes associated with cable subscriptions amounted to over $1.7 billion in revenues to state and local government entities. Moreover, including both cable operators and programming networks, the industry's public service announcements as well as cash and "in-kind" contributions to local and national non-profit organizations for 2007 are estimated to have exceeded $1.99 billion.

SECTION I. CABLE 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 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 2007. These assumptions primarily include the structure of the industry, estimates of 2007 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 briefly addressed.

Overview/Methodology

The cable industry. This economic impact analysis traces the flow of cable industry 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 subscriber pays his or her local cable operator for a subscription to Home Box Office (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 industry 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.

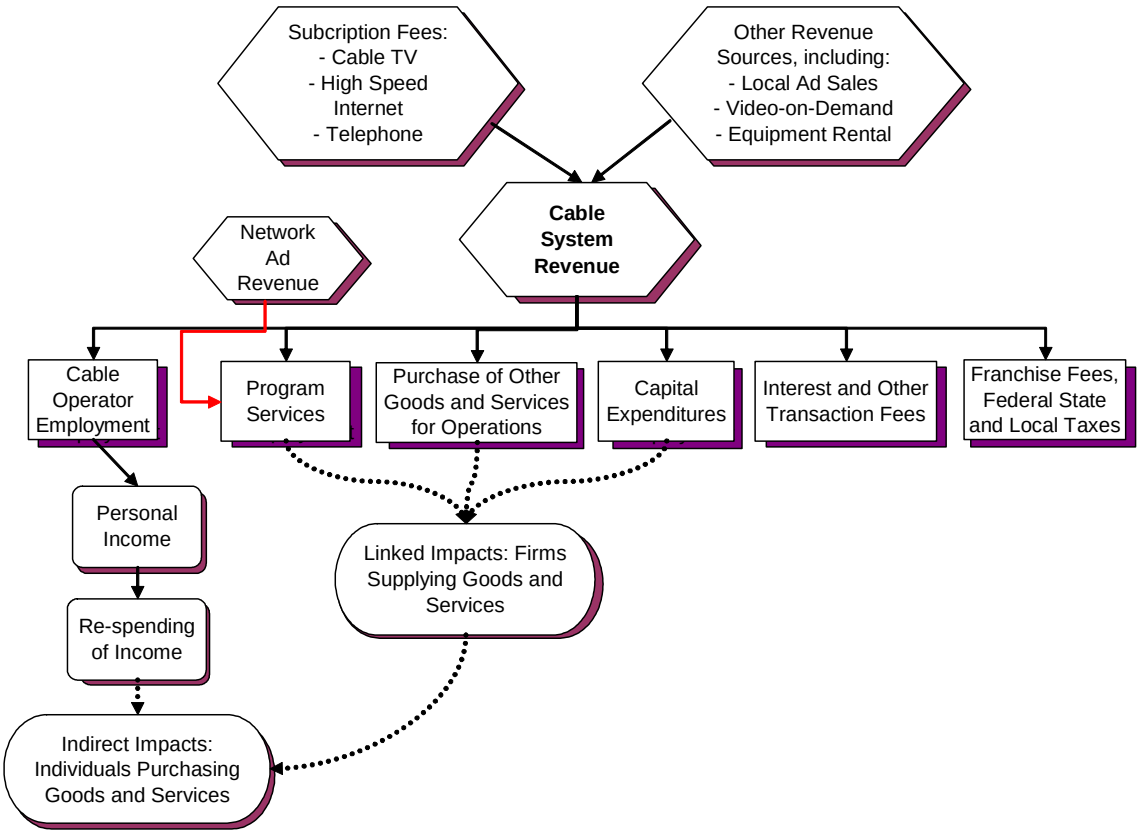
Bortz Media's impact estimation methodology is described in greater detail in Appendix A. Briefly, Bortz Media developed estimates of cable industry financial flows (including both direct and linked economic activity), and allocated these flows into more than 40 separate economic sectors. Aggregate economic 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 subscription TV program network industry is both a key supplier to the cable 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 industry's impact.

Cable Industry Structure and Financial Flows

Figure I-1 depicts the overall structure of the cable 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 cable television services, high-speed Internet access services and telephony services. In addition, both cable operators and program networks generate revenue from the sale of advertising, although the vast 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



These 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 7,000 local cable systems serving communities throughout the U.S. Revenues generated by these systems are estimated to have exceeded $78 billion in 2007, or more than four times the industry's revenues in 1990:[2]

[2] Revenues for 1990, 2002 and 2007 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, 1990-2007

Year	Cable System Revenues (Billions)
1990	$17.3
1996	26.9
2002	48.2
2007	78.6

The vast majority of these revenues consist of subscription fees paid by consumers for video programming, high-speed Internet access, telephone services, and related equipment. A small fraction of operator revenues (about six percent) come from the sale of national, regional and local advertising and from other sources such as video-on-demand and home shopping service commissions.

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 2007, 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 2007 and compares these funds' flows to those in both 1990 and 2002:[3]

Table I-2. Cable System Funds Flow Comparison, 1990-2007

	Billions		
	1990*	2002	2007
Operating Revenues	$17.3	$48.2	$78.6
Operating Expenses	9.8	30.4	48.7
Operating Cash Flow/EBITDA	$7.4	$17.8	$29.9
Operating Margin	43.0%	36.9%	38.0%

*Column does not add to total due to rounding.

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 17 years, operating expenses have increased at a faster rate. As a result, operating cash flow, or EBITDA, margins in the industry have declined.

[3] Bortz Media estimates based on 2007 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.

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.

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 2007, Bortz Media estimates that cable operator capital investment totaled $15.5 billion.[4]

Notably, the industry's capital investment in 2007 exceeds cable's absolute dollar commitment 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 cable and modem technology that is in increasing demand by subscribers.

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.

It is estimated that over $18 billion in new cable financing took place during 2007, with the issuance of private debt accounting for more than 80 percent of this total.[5] Public debt represents the industry's other principal source of financing.

Cable network advertising. "Basic" programming networks, such as ESPN and Cable News Network (CNN), 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.

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

[5] SNL Kagan, *Cable TV Investor: Deals & Finance*, December 21, 2007.

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 cable network advertising revenues. Since 1990, gross cable network ad revenues have increased from less than $2 billion to nearly $20 billion:[6]

Table I-3. Growth in Cable Network Gross Advertising Revenues, 1990-2007*

Year	Cable Network Gross Advertising Revenues (Billions)
1990	$1.9
1996	5.1
2002	11.2
2007	19.9

*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 $4.7 billion on a gross basis during 2007.

Advertising agency commissions on these cable network revenues are estimated at $3 billion for 2007. 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 cable networks are a function of the networks' total reach, including households receiving the networks from cable operators as well as from other distributors (i.e., primarily DBS providers). For the purpose of this analysis, Bortz Media estimates that about two-thirds of network advertising revenues can be attributed to the distribution provided by the cable industry.

Cable Industry Suppliers

Based on the funds' flows described above, cable operator expenditures during 2007 included nearly $49 billion in operating expenses, more than $10 billion in domestic capital expenditures[7] and over $150 million in commissions and other fees associated with operator financing activities. About $14 billion of these expenditures (or just under 25 percent) are paid directly to cable industry employees in the form of wages and other compensation, and close to $4 billion represent bad debt, certain taxes and other payments to governmental entities. Even so, the remaining $41 billion go to purchase goods and services from industry suppliers. In addition, advertising revenues flowing to

[6] Bortz Media estimate based on SNL Kagan, *Cable Program Investor*, July 31, 2007; and estimates of revenues generated by regional sports and news networks.

[7] 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 over 90 percent of their equipment and materials from U.S.-based companies. However, certain electronics and other components are manufactured outside the U.S.)

program networks (and related commissions to advertising agencies) as a result of distribution via cable system operators exceeded $13 billion in 2007.

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 2007 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 $55.6 billion during 2007:[8]

Table I-4. Cable Industry Linked Supplier Revenues, 2007

Economic Sector	2007 Linked Supplier Revenues (Billions)
Utilities	$0.7
Construction	3.4
Manufacturing	8.8
Transportation/Warehousing	0.1
Wholesale and Retail Trade	2.5
Information	31.1
Finance/Insurance	0.7
Real Estate	2.8
Prof./Mgmt./Admin. Services	5.4
Arts/Ent./Rec./Other Services	0.1
TOTAL	$55.6

Information. The information sector obtains by far the largest revenues from the cable industry, due primarily to the roughly $18 billion in cable industry expenditures captured

[8] 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.

by program networks in the form of license fees paid by cable operators and another $11 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 2007 are estimated to have exceeded $740 million, 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 more than $3.4 billion for 2007, are used primarily to acquire labor and services connected with system rebuilds 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 almost $9 billion in 2007.

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 $2.5 billion in wholesale and retail goods during 2007. 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. Retail sales of these companies during 2007 are estimated to have amounted to over $10 billion. These sales (and their resulting economic impacts), while achieved primarily through the cable medium, are not directly accounted for in this study.[9]

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,

[9] 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.

the *Television & Cable Factbook 2007* lists 135 firms offering brokerage or financing-related services to the television and cable industries.[10]

Bortz Media estimates that direct payments to the financial and insurance sector by the cable industry approached $600 million during 2007. Moreover, the industry is estimated to have paid more than $8 billion in interest payments in 2007 – 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 2007 are estimated to have totaled $2.8 billion.

Professional/technical/management/administrative services. Cable industry payments to services firms in 2007 exceeded $5.4 billion. Commissions to advertising agencies and rep firms were the largest single services category, accounting for roughly half of this 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 (just over $100 million in 2007), 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 $55 billion flowed directly to cable industry suppliers during 2007. 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 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

[10] Warren Communications News, *Television & Cable Factbook 2007*, Cable Volume 2, pp. E-94 to E-100.

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, and The Discovery Channel, while networks such as Fox Sports West and Madison Square Garden Network are illustrative of the many regional basic 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.

The program network also includes 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 $49 billion in domestic revenues in 2007, with operating expenses of $31 million. Nearly three-fourths of the industry's operating expenses went directly toward the creation or acquisition of programming:

Table I-5. Program Network Funds Flows, 2007*

	Billions		
	Basic Networks	**Premium/ VOD/PPV**	**Total**
Operating Revenues	$41.9	$7.2	$49.1
Operating Expenses:			
Programming/Production	18.8	3.7	22.6
All Other	6.9	1.5	8.4
Subtotal	$24.8	$5.2	$31.0
Operating Cash Flow/EBITDA	$16.1	$1.9	$18.0
Operating Margin	38.5%	27.1%	36.7%

*Rows and columns may not add to totals due to rounding.

SECTION II. ECONOMIC IMPACTS OF THE CABLE INDUSTRY

This section summarizes the impacts of the cable 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 7,000 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 selected major MSOs to a survey developed for the purpose of this study. Based on these data, Bortz Media estimates that 2007 cable operator employment approximated 229,000. *This reflects the creation of 53,000 net new cable industry jobs over the past five years*.

Growth over recent years results from significant structural changes in the industry, attributable to the extensive marketing of digital cable and high-speed Internet access services and the widespread deployment of residential telephony. 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 total $14.3 billion for 2007. Excluding capitalized labor costs, employee compensation accounts for approximately 28 percent of cable industry 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 the cable industry to these firms (see Section I), the cable-related activities of cable industry suppliers are estimated to have accounted for 136,000 jobs and $9.4 billion in employee compensation during 2007 (as summarized below on Table II-1):

Table II-1. Cable Industry Linked Supplier Employment and Employee Compensation, 2007

	2007 Linked Suppliers	
Economic Sector	**Employment**	**Employee Compensation (Millions)**
Utilities	1,000	$80
Construction	19,200	1,070
Manufacturing	26,600	1,370
Transportation/Warehousing	400	20
Wholesale and Retail Trade	4,400	170
Information	36,100	3,730
Finance/Insurance	1,200	90
Real Estate	6,500	300
Prof./Mgmt./Admin. Services	40,300	2,510
Arts/Ent./Rec./Other Services	600	50
TOTAL	136,300	$9,390

Professional/management/administrative services firms provide more than 40,000 cable-related jobs. The information sector (which includes program networks) has over 36,000 cable-related employees and this high paying sector is the largest linked supplier category in terms of employee compensation, with more than $3.7 billion in cable-related compensation.

Combined Direct and Linked Impacts

Combining direct and linked employment provides a particularly useful depiction of "the cable industry" (i.e., the employment and income generated by cable operators and their immediate suppliers of goods and services). In 2007, total employment on this basis approximated 365,000, while compensation of those employees amounted to nearly $24 billion:

Table II-2. Cable Industry Combined Direct and Linked Impacts, 2007

	Direct Plus Linked Impacts
Employment	365,300
Employee Compensation (Millions)	$23,640

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 industry (intermediate effects); and
- Economic activity stimulated by the purchase of goods and services by individuals employed as a result of the cable 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 industry during 2007 (including direct, linked and indirect effects), is estimated at more than 1.5 million. Total 2007 earnings attributable to the industry were almost $62 billion:

Table II-3. Cable Industry Total Economic Impacts, 2007*

	2007 Total Impacts	
Economic Sector	**Employment**	**Earnings (Millions)**
Agriculture/Mining	5,900	$190
Utilities	11,200	560
Construction	98,500	3,880
Manufacturing	157,300	7,310
Transportation/Warehousing	14,600	560
Wholesale and Retail Trade	99,500	3,600
Information	594,600	25,300
Finance/Insurance	32,200	1,430
Real Estate	22,400	780
Prof./Mgmt./Admin. Services	223,000	8,760
Arts/Ent./Rec./All Other Services	40,800	1,210
Public Administration	201,400	8,330
TOTAL**	1,501,200	$61,900

* 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.

** Columns 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, over 200,000 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.[11] The gross 2007 output associated with the cable industry is estimated at $220 billion. [See Table II-4.]

Impacts by Congressional District

Bortz Media also estimated cable employment and economic impacts by Congressional District. Estimates of employment and impact for each 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 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. However, Bortz Media utilized two approaches that we believe provide useful insight into impacts in each district:

- *Employee spending impact.* The first method calculates the impact attributable solely to spending by cable employees in a particular district. This method understates total impacts for all Districts since it ignores other expenditures made by individual cable systems. Even so, it provides a "floor" for the total impact of the industry in each district by illustrating impacts if no dollars other than those paid to local employees remain within a particular district.

- *Total spending impact.* The second method estimates impacts assuming all dollars spent by the local cable system remain within the District. This method allocates the full level of total industry impacts – but does not account for the fact that some districts receive substantial net inflows of cable dollars while others experience substantial net outflows.

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

- *Direct cable employment.* Bortz Media's analysis indicates that at least 300 direct cable industry employees reside in every Congressional District.

[11] 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.

Further, there are more than 140 Districts with at least 500 cable employees and some with more than 2,000.

- *Employment impacts.* Even accounting only for the spending of these direct cable employees, it is estimated that the industry accounts for at least 390 additional jobs in each district, and for more than 650 additional jobs in over 140 districts. Using the total impact approach, the industry is responsible for at least 1,980 jobs in each District, and upwards of 3,200 jobs in more than 140 Districts.

Cable Industry Growth: 2002-2007

As indicated in Sections I and III, the cable industry has experienced rapid growth over the last several years. The economic implications of this growth can be seen by comparing the industry's economic impacts in 2007 to those estimated in Bortz Media's 2002 impact analysis.[12] This comparison illustrates that the direct and linked employment attributable to the cable industry has grown from 307,000 employees in 2002 to 365,000 in 2007. Similarly, total employment impacts (including indirect effects) have increased from 1.1 million employees (2002) to more than 1.4 million for 2007. Similar growth patterns are evident in other major measures of the industry's impact:

Table II-4. Cable Industry Growth Indicators, 2002-2007

Economic Indicator	Year 2002	Year 2007	Absolute Growth	Percent Change: 2002-2007
Cable Operator Direct Impacts:				
Revenues	$48.2	$78.6	$30.4	63%
Employment	176,000	229,000	53,000	30%
Employee Comp. (Billions)	$8.9	$14.3	$5.4	60%
Direct plus Linked Supplier Impacts:				
Employment	307,200	365,300	58,100	19%
Employee Comp. (Billions)	$16.2	$23.4	$7.2	44%
Total Economic Impacts:				
Employment	1,134,400	1,501,200	366,800	32%
Earnings (Billions)	$42.3	$61.9	$19.6	46%
Gross Output (Billions)	$173.4	$226.7	$53.3	31%

[12] Changes in NAICS industry classifications necessitated certain methodical changes for the 2007 study 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.

The cable industry's direct employment gain of 53,000 net new jobs represents over 0.7 percent of all net U.S. jobs added over the last five years – an enormous contribution for any single industry. Further, in creating (directly and indirectly) almost 367,000 net new jobs in the last five years, the growth in the industry's total employment impact accounts for five percent of all net new jobs created in the U.S. during this period.

SECTION III. ECONOMIC IMPACTS OF THE PROGRAM NETWORK INDUSTRY

The program networks that represent the key suppliers to the cable 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.

Direct Impacts

Direct economic impacts include the jobs and personal income provided by nearly 600 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 a survey 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 2007 program network employment approximated 46,500.

Because Bortz Media's 2002 analysis did not directly address program network employment, a detailed analysis of program network employment growth has not been completed. 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 at least 40 percent (and likely more) since 2002 – resulting in the creation of at least 13,000 new jobs.

Direct employee compensation. Program network industry employees are highly compensated, with compensation in 2007 estimated to average approximately $110,000 per employee. Direct program network employee compensation is therefore estimated to total $5.1 billion for 2007. Employee compensation accounts for nearly 17 percent of program network operating expenses.[13]

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.

[13] For purposes of this analysis, commissions paid to advertising agencies and rep firms have been treated as program network operating expenses. If these expenses are excluded, employee compensation accounts for more than 18 percent of network operating costs.

The studio/production segment. For the studio/production industry, the role of basic and premium networks continues to increase in relation to theatrical exhibition, home video, broadcast television and other distribution modes. Whereas subscription TV was originally a secondary distributor (i.e., programming premiered on an alternative distribution vehicle), it is increasingly assuming a primary role. Major, award-winning original series such as *The Closer*, *Monk* and *The Sopranos* are an increasing part of the basic and premium network landscape, as are acclaimed mini-series' such as *Bury My Heart At Wounded Knee* and *Broken Trail*. Original films, such as the extraordinarily popular *High School Musical* trilogy, are also a central element of basic and premium network offerings.

Within the program syndication marketplace, basic networks are the primary outlets for off-network hour series such as *CSI* and *CSI Miami*, *The Sopranos* and *Law and Order*, as well as increasingly a primary outlet for half-hour series such as *The Office, Will & Grace, Scrubs* and *My Name is Earl* – 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 number of sports events, and, in general, have greatly increased the overall number of sporting events televised. The growth of sports on subscription TV networks is attributable to a combination of factors, including investment in high-profile sports content by major networks such as ESPN, TNT and HBO; the emergence of regional sports networks; and, more recently, the development of "niche" 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 examples of niche sports networks include The Golf Channel, NBA TV, The Tennis Channel, CBS College Sports Network, ESPNU, The Big Ten Network, and The NFL 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 nearly $23 billion during 2007, 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, 2007

	Billions
Basic Networks	$18.8
Premium Networks	2.6
Pay-Per-View/VOD Services	1.2
TOTAL	$22.6

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 about $13 billion of this total flows to the motion picture studios and other members of the production community. In addition, approximately $5 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 nearly 43,000 jobs in the motion picture and video industry sector and over 11,000 sports industry employees. These cable-related employees receive compensation totaling $1.9 billion (production) and $3.5 billion (sports):

Table III-2. Program Network Industry Production and Sports Links, 2007

	2007 Sector Links	
	Sports Teams & Clubs	**Motion Picture & Video Industries**
Revenues (Millions)	$5,050	$13,050
Employment	11,600	42,600
Employee Compensation (Millions)	$3,500	$1,900

Total Economic Impacts

Total economic activity associated with the program network industry extends far beyond the direct and linked impacts summarized above.[14] 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

[14]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.

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 2007 (including direct, linked and indirect effects), is estimated to be 767,000. Total 2007 earnings attributable to the industry were almost $30 billion:

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

Employment	767,000
Earnings (Billions)	$29.8
Gross Output (Billions)	$100.7

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 2007 output associated with the program network industry is estimated at just over $100 billion.

SECTION IV. OTHER CABLE AND PROGRAM NETWORK INDUSTRY PERSPECTIVES

The first three sections of this report detail the impact of the cable 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 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 develop of new and innovative television programming. Finally, the section reviews the substantial monetary and non-monetary contributions of both segments to the communities they serve.

The Cable Industry: Fostering Competition

As we outlined in our 2002 report *Reinvesting in America*, cable operators engage in a capital-intensive business that requires substantial investment to maintain and upgrade the extensive network infrastructure needed to provide service. In fact, following the passage of the Telecommunications Act of 1996, the industry undertook a massive infrastructure upgrade in the late 1990s and early 2000s (investing more than $75 billion over a 6-year period and incurring an $18 billion deficit in free cash flow) that has transformed the competitive landscape in telecommunications and continues to benefit American consumers in innumerable ways.[15] Over the last several years, the industry has continued to invest (another $59 billion since 2002) -- 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.

It is nearly impossible to overstate the impact that the cable industry has had in driving the adoption of broadband Internet access in this country, and in opening the nation's telephone market to true competition at the residential level:

- The cable industry's bold (and unquestionably risky) infrastructure commitment enabled it to "take the early lead" in the broadband services market and to attract over 36 million high-speed Internet customers as of year-end 2007.[16] Equally important, it forced a competitive response from reluctant regional telephone incumbents – such that the overwhelming majority of U.S. households now have 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 (from 1.5 Mbps to 3 Mbps to 6 Mbps and now in some locations 15 Mbps), cable has forced a further response from the telephone industry in the form of increased DSL capabilities and substantial investments in fiber optic infrastructure. As discussed in more detail later in

[15] Bortz Media estimates based on Kagan World Media, *Broadband Cable Financial Databook 2000* and *2002*, and company reports.

[16] Bortz Media estimate based on company data, SNL Kagan estimates and NCTA data.

this section, the cable industry's initial and ongoing commitment has increased access to broadband services and contributed to a larger number of households taking advantage of such services – resulting in significant economic impacts beyond those considered in the first three sections of this report.

- 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 – with cable now serving nearly 15 million telephone customers and adding over five million new customers in the last year alone.[17]

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

Advanced video services. As of year-end 2007, almost 60 percent of all cable homes subscribed to digital cable service, up from about 30 percent in 2002.[18] This represented more than 37 million digital cable customers. In addition to rapidly adopting cable's digital service tier, customers are also taking advantage of the advanced services available to digital subscribers:

- *Video-on-demand (VOD).* Nearly all digital cable customers have access to extensive libraries of VOD programming offered by cable companies – the vast majority of which can be ordered free of charge. Comcast, for example, makes over 10,000 VOD programs available to its subscribers each month, and recently announced that it will increase its collection of high-definition (HD) on-demand titles to over 1,000 in 2008. Comcast customers order more than 275 million playbacks of VOD programs each month – meaning that each Comcast digital subscriber orders an average of 18 VOD playbacks per month. Time Warner Cable's digital customers order more than 100 million VOD playbacks each month – or about 13 playbacks per digital customer per month.

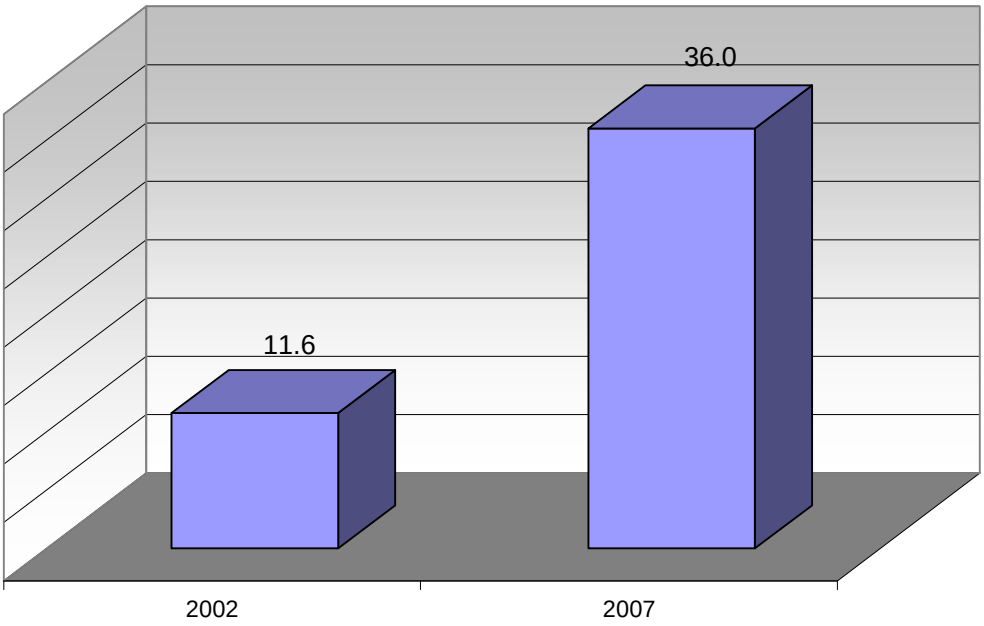
- *Digital video recording (DVR).* As of the end of 2007, an estimated 11 million cable customers had DVR service – an increase of more than three million since the end of 2006. DVR capability is significantly altering the way viewers watch television – enabling programs to be recorded and viewed at times more convenient to the customer, while also allowing programs to be paused and replayed when viewed "live."

- *High-definition television (HDTV).* Nearly 14 million cable homes had HD-enabled set-top boxes as of the end of 2007. The number of cable customers receiving HDTV increased by almost five million during the year.

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

High-speed Internet service. The cable industry has maintained its leadership in the delivery of high-speed Internet service – more than tripling its customer base over the past five years:

Figure IV-1. Cable High Speed Internet Customers, 2002-2007 (in millions)



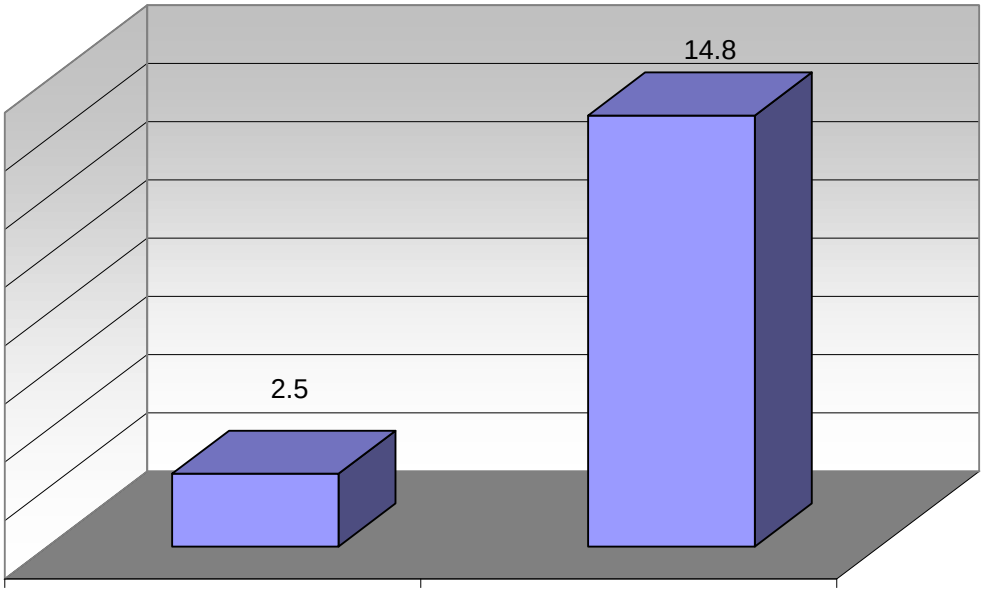
Source: Bortz Media compilation based on company reports and NCTA data.

The growth in the industry's high-speed Internet subscribers has resulted in part from an ongoing effort to increase the utility and value provided by the service. In particular, cable operators have steadily increased the data rates offered with their high-speed Internet services – growing the "industry standard" from 1.5 Mbps to 6 Mbps over the past several years, and in some cases offering speeds up to 15 Mbps. By contrast, the majority of customers served by telephone company broadband services still receive speeds of less than 3 Mbps.[19]

Digital voice service. As discussed above, the cable industry has emerged as the primary source of competition to the incumbent telephone companies in the local telephone market. 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 15 million at year-end 2007:

[19] Bortz Media estimates based on analysis of FCC data and company reports.

Figure IV-2. Cable Telephone Service Customers, 2002-2007 (in millions)



Source: Bortz Media compilation based on company reports and NCTA data.

Cable digital voice services added more than five million customers in 2007, and the industry's growth as a telephone service provider shows no signs of slowing. Comcast alone added 2.5 million customers in 2007, up from the gain of 1.6 million customers achieved during 2006. With 4.4 million telephone customers, Comcast is now the country's fourth largest local telephone company – trailing only AT&T, Verizon and Qwest.

Cable and Broadband: Translating Investment into Impact

The preceding discussion highlights the cable industry's role in stimulating the growth of broadband and the industry's leadership in serving 36 million high-speed Internet customers as of mid-2007 (up from 11.6 million in 2002). While this growth is impressive in its own right, it is especially notable when the critical role that broadband infrastructure occupies in the U.S. economy is taken into account. Specifically, a recent Brookings Institution analysis suggests that an increase of one percentage point in broadband penetration leads to an increase of about 300,000 jobs across the U.S. private non-farm economy.[20]

Given this finding, it appears likely that the cable industry's investment in broadband infrastructure has contributed to employment impacts that go well beyond those captured in the traditional impact analysis set forth in Section II of this report. In order to test this assumption, the key question that must be answered is whether broadband penetration is higher today because of the cable industry's commitment to broadband

[20] Robert Crandall, William Lehr and Robert Litan, "The Effects of Broadband Deployment on Output and Employment: A Cross-Sectional Analysis of U.S. Data," *Issues in Economic Policy*, The Brookings Institution, July 2007, p. 2.

infrastructure deployment than it would be had the cable industry not made such an investment. Within the scope of this research, Bortz Media has examined several characteristics of the broadband market, along with historical penetration trends, in order to draw broad conclusions about the effect of the cable industry's investment.[21]

Broadband market overview. The two leading providers of fixed broadband service in the U.S. today are the cable industry and the incumbent local exchange carriers or ILECs. As of June 2007, these entities served more than 95 percent of the roughly 66 million U.S. fixed broadband customers.[22] While cable operators and ILECs each have a large share of the market (cable's share of the total market is about 52 percent, compared to the ILEC share of roughly 43 percent), there are at least two important distinctions in the reach and nature of the fixed broadband services provided by these competing segments:

- *Access.* FCC data show that cable modem-based high-speed Internet service was available to 96 percent of residential end-users in areas where cable TV service was offered as of June 2007. By comparison, fixed broadband service offered by ILECs was available to only 82 percent of residential end-users in areas where the ILECs offered local telephone services. This "access gap" has persisted over time and is illustrative of the leadership role that the cable industry has played in bringing broadband to U.S. households:

The High-Speed Internet "Access Gap"

June	% Cable Modem Availability Where Cable TV Service Offered	% xDSL Availability Where ILEC Local Telephone Service Offered
2002	76%	55%
2003	83%	61%
2004	90%	72%
2005	91%	76%
2006	93%	79%
2007	96%	82%

Source: FCC data for 2005-07; Bortz Media estimates for prior years based on company reports and SNL Kagan data.

- *Speed.* In addition to offering greater access, the cable industry has consistently offered significantly greater speeds to most of its customers. As of mid-2007, 87 percent of cable-modem customers received downstream speeds of at least 2.5 Mbps. By comparison, for ADSL and fiber-delivered

[21] Bortz Media acknowledges that a more rigorous analysis of the evolution of the broadband market would be required in order to reach firm conclusions about the magnitude of the effects of the cable industry's broadband investment. However, we believe that this initial assessment provides strong directional indications of the cable industry's role and impact, and is a useful starting point for further analysis of this issue.

[22] Bortz Media estimate based on analysis of data contained in Federal Communications Commission, *High Speed Services for Internet Access: Status as of June 2007*, March 2008. There are also approximately 35 million mobile wireless broadband customers as of June 2007.

services combined (i.e., representing services provided by ILECs), just 40 percent of customers received speeds of 2.5 Mbps or greater.[23] As recently as mid-2005, the speed gap was even larger – with 85 percent of cable modem customers receiving speeds of 2.5 Mbps or greater compared with only 17 percent of ILEC customers.[24]

The Brookings analysis suggests that higher speed – or at least a minimum speed threshold of about 1 Mbps – is a consideration in analyzing the economic impact of broadband. Bortz Media shares this view, noting that higher speeds facilitate the types of advanced services that support broadband's role as a productivity enhancer and a creator of new economic opportunities.

Analysis and conclusions. Based on the above distinctions, there are at least three primary ways in which it could be surmised that the cable industry has stimulated growth in broadband penetration beyond that which would have been realized without the industry's commitment:

- *Early entry and the resulting competitive "leadership effect."* 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. At essentially every point in broadband's evolution, on the order of 20 percent fewer households would have had access to a broadband service offered by a major provider had cable not taken the early initiative or had cable chosen to only match the coverage provided by ILECs.[25] Analysis of penetration trends for both cable operators and ILECs suggests that penetration in the second year of availability of broadband service is significantly higher than in the first year, and that higher penetration among "early access" households persists for several years. This pattern of adoption (which is typical for technology-based products and services) is indicative of the penetration gains produced by cable's early entry.

- *The ongoing access effect.* As mentioned above, although ILECs have recently invested in broadening access to high-speed service, an "access gap" persists – leaving cable as the primary broadband option for on the order of 14 percent of homes offered cable TV service. Naturally, since cable operators and/or ILECs account for 95 percent of all broadband customers, it is reasonable to expect that broadband penetration would be significantly

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23 Ibid.

24 Ibid.

25 Arguably, had cable operators moved more slowly, ILECs would have in turn also moved more slowly – depressing the overall rate of growth in broadband access (and, in turn, depressing growth in broadband penetration) to an even greater degree.

reduced in the segment of households to which ILECs do not offer service if cable operators also did not offer broadband service to these homes.

- *The speed effect.* While more difficult to quantify, cable's provision of higher speeds of service throughout the evolution of the broadband market is likely to have increased interest among early adopters and improved retention of broadband services by increasing the utility and value of the services. Looking forward, the attempts of certain ILECs to match or surpass the cable industry through the use of fiber infrastructure are likely to continue to fuel improvements in the utility and value of broadband services – thereby further enhancing the economic benefits of broadband.

Bortz Media estimates that the cumulative broadband penetration gain attributable to these factors could be on the order of four percentage points. In other words, broadband penetration is about four percentage points higher today than it would be if the cable industry had significantly reduced or delayed its commitment to broadband infrastructure and service deployment. Based on the recent Brookings Institution findings, this suggests that the cable industry's broadband commitment could have resulted in on the order of 1.2 million additional U.S. jobs.

Cable, Program Networks and Viewing

To be sure, cable's ongoing infrastructure investment and its 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. Today, as it has for sometime now, cable primarily sells programming variety or choice – programming in addition to, and predominantly different from, broadcast television. (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.

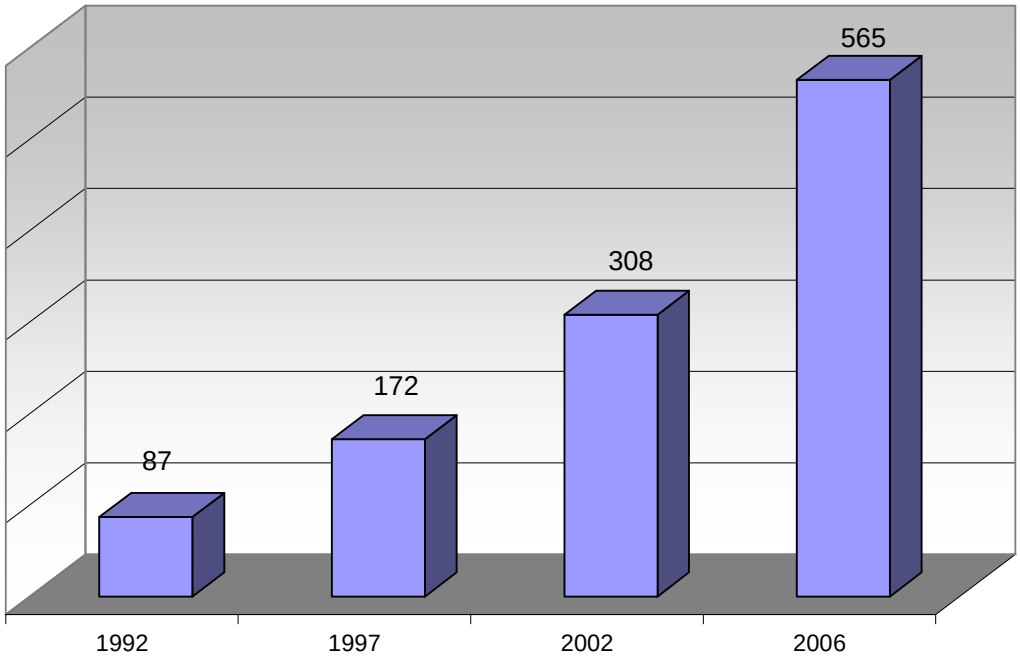
The commitment and success of the cable industry over the years in creating and providing choice to its customers can be measured a number of different ways.

Choice and flexibility. The infrastructure upgrades undertaken by the cable industry have 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 10 to 30 channels of video programming (i.e., "broadcast basic" subscribers), while others pay to receive 300 or more channels. Serving this range of consumer interests is the essence of choice – as measured by the combination of quantity and flexibility.

By expanding its bandwidth, the cable industry created the opportunity for the development of new program networks and the expansion of the program network industry. Figure III-2, below, illustrates the growth in the number of basic program networks over the past 15 years. In just four years from 2002 to 2006, the number of networks nearly doubled from just over 300 to 565:

Figure IV-3. Increased Number of National Program Networks, 1992-2006



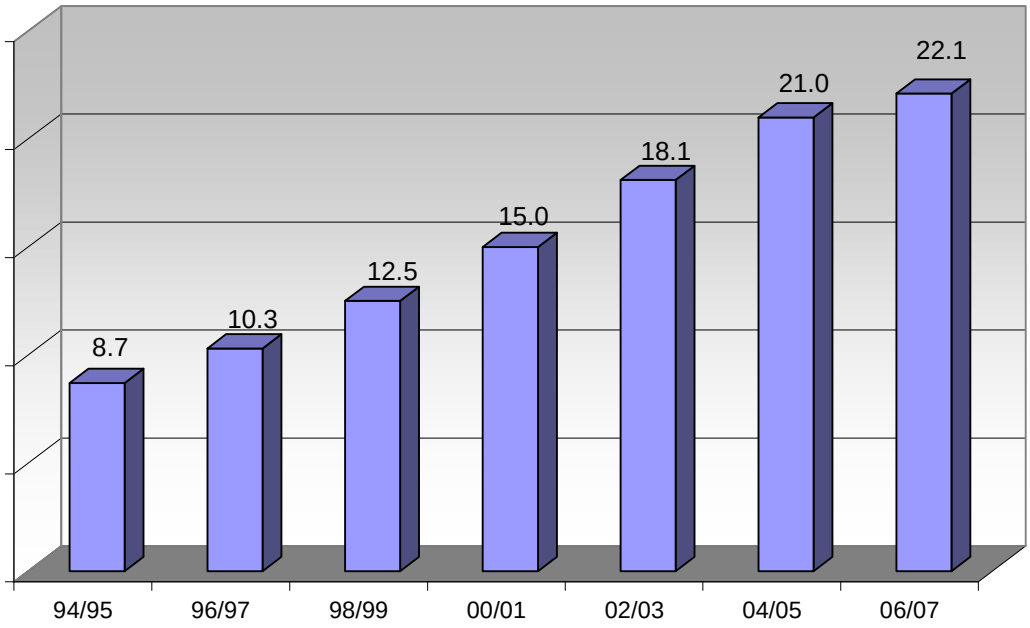
FCC data as compiled and reported by NCTA .

Combining variety with control. The sheer number of program networks noted above 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 up to 30 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 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 $270 million in public service announcements over the last three years to ensure that consumers are aware of the parental control capability.[26] The industry has also undertaken similar efforts – including Project Online Safety – to promote Internet safety for children.

Viewing. Viewing of subscription TV programming provides an even better indicator of the importance and value of the programming choices the cable industry and program networks now provide. As shown in Figure IV-4, total viewing of basic networks measured against all TV households has increased two and half times since the 1994-95 television season.

Figure IV-4. Basic Network Total Day Household Delivery (in millions)



Source: Nielsen data as reported by Cabletelevision Advertising Bureau, *CableTV Facts 2002 and 2008.*

During the 2006-07 television season, the total day viewing share of ad-supported basic networks surpassed 51 percent, exceeding that of all other television programming combined (including all broadcast sources, as well as premium networks). Basic networks' share in prime time is even higher – at 57.2 percent in the fourth quarter of 2007 (up from 55.6 percent in 2006). The average subscription TV home now devotes more than 38 hours weekly to watching basic networks, and another seven hours to other subscription programming sources.[27]

[26] NCTA.

[27] Bortz Media compilation based on Cabletelevision Advertising Bureau data and "A Year of Bests," *Multichannel News*, December 31, 2007, p. 6.

The continued growth in the audience appeal of basic networks was also reflected in several milestones achieved by individual networks and programs in 2007:[28]

- *Most-viewed movie.* The Disney Channel's *High School Musical 2* premiere attracted 18.6 million viewers, the highest ever for a basic network movie.

- *Most-viewed football telecast.* ESPN's telecast of the Patriots-Ravens NFL matchup attracted 17.5 million viewers, the most ever for a basic network football telecast.

- *Most-viewed baseball telecast.* Game 4 of the MLB Division Series between the Indians and Yankees attracted the largest subscription audience for a baseball telecast – 9.2 million viewers.

- *Most-viewed drama series.* TNT's *The Closer* averaged 8.1 million viewers, the most ever for a basic network drama series.

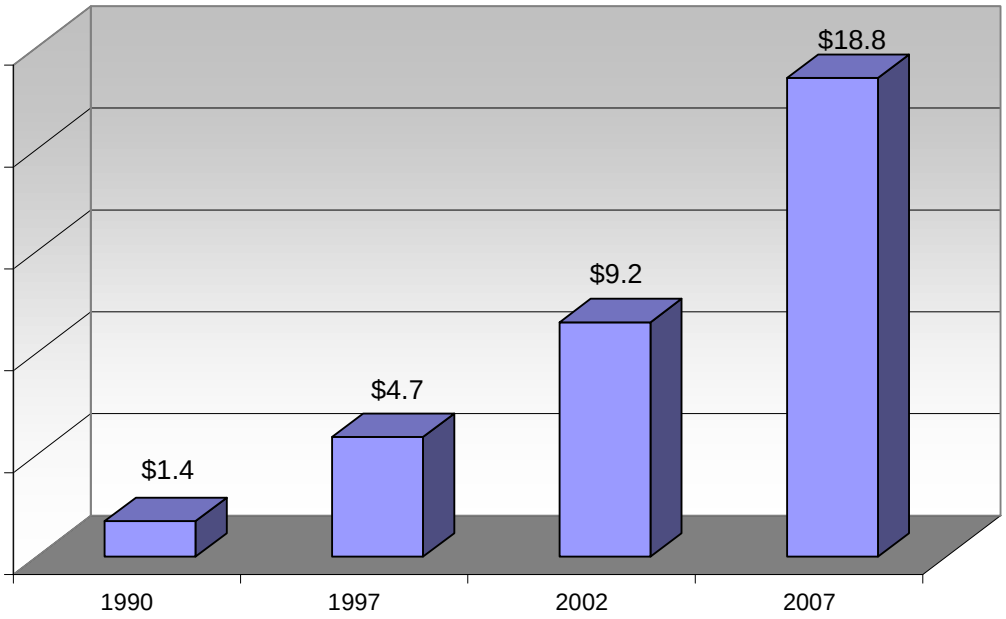
- *Most-viewed cable presidential primary debate.* The CNN/You Tube GOP debate held November 28th attracted the largest ever subscription TV audience for such programming – garnering 4.5 million viewers.

- *Highest-rated cable networks.* The Disney Channel achieved the highest average prime time rating and household delivery ever for a basic network in 2007 – with a 2.2 average rating and average viewership of 2.69 million homes. USA Network followed closely with the same prime time rating and average household delivery of 2.68 million homes.

Program quality. As summarized in Section II, the importance of this viewing shift, from an economic perspective, lies in the resultant increase in program network advertising revenues. By re-investing these funds (as well as the rapidly 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-5 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 more than doubled to almost $19 billion in 2007:

[28] "A Year of Bests," *Multichannel News*, December 31, 2007, p. 6.

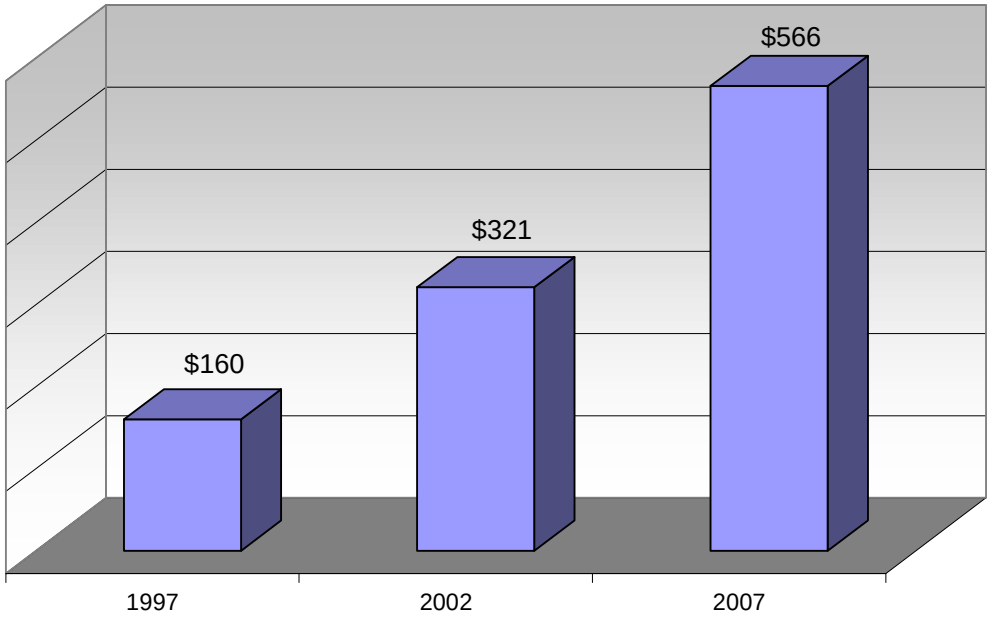
Figure IV-5. Total Basic Network Program Investment, 1990-2007 (in billions)



Source: SNL Kagan, *Cable Program Investor,* July 31, 2007; and *Econ. of Basic Cable Networks , 2002.*

It should be noted that growth in programming expenditures is not merely a reflection of the addition of new networks but also a reflection of increased spending on an individual network basis. As Figure IV-6 illustrates, average program spending for the top 20 basic networks has increased from $160 million in 1997 to $321 million in 2002 and to $566 million in 2007:

Figure IV-6. Average Program Investment for Top 20 Basic Networks, 1997-2007 (in millions)



Source: Bortz Media compilation based on SNL Kagan, *Cable Program Investor,* April 17, 2007; and *Economics of Basic Cable Networks 2003*

Apart from the industry's investment, the quality of basic and premium network programming is reflected in the number of major industry nominations garnered by these networks. The three most Emmy-nominated programs for 2007 were all from basic or premium networks, including HBO's *The Sopranos* and *Bury My Heart At Wounded Knee*, and AMC's *Broken Trail*.[29] In addition, HBO led all broadcast and subscription network companies in the number of nominations for the 2007 Emmy Awards with 86, and a total of 22 subscription networks overall garnered 211, or nearly half, of all nominations.[30] This recognition from the Academy of Television Arts and Sciences further underscores the high quality of subscription television programming and the resulting benefits to the subscription TV viewing audience.

Cable 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 over 7,000 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.

In addition, through its own initiatives, including the use of valuable airtime, the program network industry also makes substantial contributions.

Financial contributions. Franchise fees paid by cable operators in 2007 are estimated to have totaled roughly $3 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 $1.7 billion in revenues to state and local government entities.[32]

Moreover, The Association of Cable Communicators recently estimated that the cable industry (including both cable operators and program networks) contributes more than $1.99 billion in cash and "in-kind" contributions to local and national philanthropic, charitable and public service projects.[33]

"In-kind" contributions included time, equipment and services to the communities in which its systems operate. Extensive donations of airtime for public service announcements (PSAs) were also provided by cable systems and program networks. In total, cable provided nearly $900 million in PSAs.[34]

Community involvement. The cable industry's concerted effort to make sure that each of its systems becomes a positive, contributing member of the communities in which it operates frequently involves partnering between program networks and local affiliate cable systems to bring public affairs initiatives to their local communities. New programs are developed every year by the industry at both the national and local level, while many

[29] Multichannel News, "Three Cable Shows Top Emmy-Nomination List," July 19, 2007.

[30] Ibid.

[31] NCTA.

[32] Bortz Media estimate based on MSO survey responses.

[33] Association of Cable Communicators, http://www.cablecommunicators.org/press_release.php?id=85.

[34] Ibid.

industry-wide programs also have been in place for a decade or more now. A few examples of public affairs initiatives – providing an indication of both industry-wide and local efforts, along with long-standing and new activities -- include:

- *Cable in the Classroom (CIC)*. Founded in 1989, CIC represents the industry's effort to use cable content and new technologies to improve teaching and learning for children in schools, at home, and in their communities. Cable in the Classroom's contribution to schools has included, from the beginning, free cable service that provides access to commercial-free, copyright-cleared programming for taping (provided by about 40 cable networks), and more recently, high-speed Internet access through cable modems – a combined investment that is estimated at $125 million annually. More than 81,000 schools have access to cable's educational resources via CIC.

- *CablePositive*. The industry's AIDS action organization, founded in 1992, unifies the talents and resources of the industry to raise AIDS awareness and fund AIDS education, research and care. Industry support comes from every major programming network, MSO, system, industry vendors and suppliers, trade associations and media publications, and comes in the form of fundraising events, cash and in-kind donations, programming and public service announcements, and other types of support. Over the past decade, more than $1 billion in commercial airtime has been contributed by the industry to increase public awareness of HIV/AIDS. In addition, more than $18 million in cash has been raised and has been used to fund 250 AIDS service organizations in 38 states.

- *The Cable Hope Fund.* Established by the NCTA on behalf of its industry members, The Cable Hope Fund is an industry-wide response to the devastation caused by Hurricane Katrina and other natural disasters. Since its inception, the fund has awarded more than $1 million in grants to organizations responding to such disasters, as well as directly to victims of disasters.

- *C-SPAN.* Cable companies continue to fund the operation of C-SPAN, C-SPAN 2 and C-SPAN 3, which offer coverage of the U.S. Congress, and cable systems throughout the country offer channel space for distribution of C-SPAN on basic cable. The cost of these operations exceeds $50 million annually. In this same vein, the industry also supports and/or makes channel space available for the distribution of numerous "state C-SPANs," including The Pennsylvania Cable Network, The California Channel and The Cable TV Network of New Jersey. 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 organizations, the cable industry is actively pursuing diversity within its own ranks to better reflect the communities it serves. The Walter Kaitz Foundation administers the cable industry's diversity-focused website, which includes a job and resume bank, and contributes more than $1 million annually to organizations that promote diversity in the workplace. In addition, members of the National Association

of Minorities in Communications (NAMIC) include cable operators, programmers, hardware suppliers and others. NAMIC engages in education and advocacy in support of diversity, including providing an online job bank and executive leadership and development program, as well as overseeing a mentorship program. Another industry group, Women in Cable and Telecommunications (WICT) administers an institute that assists women in the cable industry in the development of professional skills. Finally, the Emma Bowen Foundation was established by the cable and broadcast industries to increase the access of minority students to permanent job opportunities.

- *Local initiatives*. The number of local cable philanthropic initiatives is too numerous to detail in this report. However, as just one example, Cablevision's Power To Learn program illustrates how one cable operator is extending and expanding upon the educational commitment reflected in cable's national CIC effort. With a $2.2 million operating budget supplemented by another $5.2 million in in-kind support, Power To Learn provides curriculum content and training as well as free video, data and voice services.

APPENDIX A. METHODOLOGY AND DATA SOURCES

This Appendix describes the overall methodology used to estimate the economic impact of the cable 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 system (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 supplier 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 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 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.

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 2007 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 major MSOs (representing over 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 the National Cable & Telecommunications Association (NCTA), SNL Kagan, the Cabletelevision Advertising Bureau (CAB), 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 industry and program network industry economic models for the year 2007. 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 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 2002 (as well as analyses for the years 1986,1988 and 1990). The methodology and data sources used for the 2007 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. Certain NAICS industry classifications have changed since the 2002 study, resulting in some changes in supplier classifications as compared with 2002.

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 2002 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 certain methodological differences exist between the 2002 and 2007 studies, we believe cable industry comparisons involving the overall estimates resulting from the two studies are both appropriate and instructive.

As noted in Section III, Bortz Media's earlier studies did not separately evaluate the economic impact of the program network industry. As such, prior year comparisons for this industry are not presented in this report.

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 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 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 CONGRESSIONAL DISTRICT						
			Employee Spending Impact*		Total Impact**	
State	Congressional District	Total Cable Industry Employees	Employment	Output (Millions)	Employment	Output
U.S.		**229,000**	**297,700**	**39,538**	**1,501,224**	**226,734**
AK	AL	1,321	1,717	$228	8,659	$1,308
AL	01	430	559	$74	2,819	$426
AL	02	429	558	$74	2,812	$425
AL	03	363	472	$63	2,380	$359
AL	04	385	500	$66	2,523	$381
AL	05	404	525	$70	2,646	$400
AL	06	371	482	$64	2,429	$367
AL	07	398	517	$69	2,608	$394
AR	01	422	549	$73	2,766	$418
AR	02	356	462	$61	2,330	$352
AR	03	467	607	$81	3,062	$463
AR	04	431	560	$74	2,825	$427
AZ	01	398	517	$69	2,609	$394
AZ	02	1,020	1,326	$176	6,687	$1,010
AZ	03	792	1,029	$137	5,189	$784
AZ	04	341	443	$59	2,233	$337
AZ	05	396	515	$68	2,596	$392
AZ	06	456	593	$79	2,989	$451
AZ	07	372	484	$64	2,441	$369
AZ	08	599	779	$103	3,928	$593
CA	01	411	534	$71	2,693	$407
CA	02	363	472	$63	2,380	$359
CA	03	577	751	$100	3,785	$572
CA	04	486	631	$84	3,183	$481
CA	05	519	675	$90	3,404	$514
CA	06	419	544	$72	2,744	$414
CA	07	753	979	$130	4,935	$745
CA	08	444	577	$77	2,911	$440
CA	09	398	517	$69	2,608	$394
CA	10	722	939	$125	4,734	$715
CA	11	693	900	$120	4,540	$686
CA	12	426	554	$74	2,795	$422
CA	13	449	584	$78	2,946	$445
CA	14	442	575	$76	2,898	$438
CA	15	377	489	$65	2,468	$373
CA	16	682	887	$118	4,473	$676
CA	17	318	413	$55	2,085	$315
CA	18	419	544	$72	2,744	$414
CA	19	366	476	$63	2,399	$362
CA	20	383	497	$66	2,507	$379
CA	21	438	570	$76	2,872	$434
CA	22	375	488	$65	2,458	$371
CA	23	317	413	$55	2,081	$314
CA	24	436	567	$75	2,857	$432
CA	25	417	543	$72	2,737	$413
CA	26	408	530	$70	2,675	$404
CA	27	428	556	$74	2,804	$424
CA	28	390	507	$67	2,557	$386
CA	29	432	562	$75	2,832	$428
CA	30	414	538	$71	2,714	$410
CA	31	327	425	$56	2,144	$324
CA	32	425	553	$73	2,786	$421
CA	33	416	541	$72	2,727	$412
CA	34	414	538	$71	2,714	$410
CA	35	464	603	$80	3,042	$460
CA	36	351	456	$61	2,301	$348
CA	37	302	393	$52	1,980	$299
CA	38	396	515	$68	2,596	$392
CA	39	359	466	$62	2,350	$355
CA	40	475	617	$82	3,114	$470

			Employee Spending Impact*		Total Impact**	
State	Congressional District	Total Cable Industry Employees	Employment	Output (Millions)	Employment	Output
U.S.		**229,000**	**297,700**	**39,538**	**1,501,222**	**226,734**
CA	43	471	613	$81	3,091	$467
CA	44	547	712	$95	3,589	$542
CA	45	640	831	$110	4,193	$633
CA	46	368	478	$63	2,409	$364
CA	47	327	425	$56	2,144	$324
CA	48	409	532	$71	2,681	$405
CA	49	459	597	$79	3,009	$454
CA	50	504	655	$87	3,303	$499
CA	51	727	945	$126	4,768	$720
CA	52	1,015	1,319	$175	6,653	$1,005
CA	53	640	831	$110	4,193	$633
CO	01	1,061	1,379	$183	6,954	$1,050
CO	02	551	716	$95	3,611	$545
CO	03	416	541	$72	2,727	$412
CO	04	390	507	$67	2,557	$386
CO	05	1,278	1,661	$221	8,378	$1,265
CO	06	2,143	2,786	$370	14,049	$2,122
CO	07	1,103	1,433	$190	7,228	$1,092
CT	01	545	708	$94	3,571	$539
CT	02	549	713	$95	3,597	$543
CT	03	677	880	$117	4,440	$671
CT	04	968	1,258	$167	6,346	$958
CT	05	359	467	$62	2,354	$355
DC	AL	411	534	$71	2,693	$407
DE	AL	1,558	2,025	$269	10,211	$1,542
FL	01	668	869	$115	4,380	$661
FL	02	424	552	$73	2,782	$420
FL	03	538	699	$93	3,524	$532
FL	04	725	943	$125	4,754	$718
FL	05	114	148	$20	747	$113
FL	06	532	692	$92	3,490	$527
FL	07	363	472	$63	2,380	$359
FL	08	434	564	$75	2,842	$429
FL	09	365	475	$63	2,393	$361
FL	10	359	467	$62	2,353	$355
FL	11	358	465	$62	2,347	$354
FL	12	398	517	$69	2,609	$394
FL	13	560	728	$97	3,671	$554
FL	14	763	992	$132	5,002	$755
FL	15	450	585	$78	2,950	$446
FL	16	537	697	$93	3,517	$531
FL	17	642	834	$111	4,206	$635
FL	18	429	558	$74	2,812	$425
FL	19	466	606	$80	3,056	$462
FL	20	446	580	$77	2,925	$442
FL	21	398	517	$69	2,608	$394
FL	22	428	557	$74	2,808	$424
FL	23	917	1,192	$158	6,011	$908
FL	24	402	523	$69	2,635	$398
FL	25	378	492	$65	2,480	$375
GA	01	330	429	$57	2,163	$327
GA	02	405	527	$70	2,655	$401
GA	03	447	582	$77	2,933	$443
GA	04	1,036	1,347	$179	6,794	$1,026
GA	05	602	782	$104	3,945	$596
GA	06	844	1,097	$146	5,530	$835
GA	07	766	996	$132	5,022	$758
GA	08	336	437	$58	2,201	$332
GA	09	448	582	$77	2,935	$443
GA	10	445	579	$77	2,918	$441
GA	11	782	1,017	$135	5,129	$775
GA	12	400	521	$69	2,625	$396

			Employee Spending Impact*		Total Impact**	
State	Congressional District	Total Cable Industry Employees	Employment	Output (Millions)	Employment	Output
U.S.		**229,000**	**297,700**	**39,538**	**1,501,224**	**226,734**
HI	01	542	704	$94	3,551	$536
HI	02	419	545	$72	2,746	$415
IA	01	390	507	$67	2,557	$386
IA	02	362	471	$63	2,373	$358
IA	03	462	601	$80	3,029	$457
IA	04	422	549	$73	2,766	$418
IA	05	343	446	$59	2,249	$340
ID	01	400	520	$69	2,622	$396
ID	02	341	443	$59	2,235	$338
IL	01	553	719	$95	3,624	$547
IL	02	1,016	1,321	$175	6,660	$1,006
IL	03	475	617	$82	3,111	$470
IL	04	377	489	$65	2,468	$373
IL	05	374	486	$64	2,448	$370
IL	06	493	640	$85	3,230	$488
IL	07	554	720	$96	3,631	$548
IL	08	563	732	$97	3,691	$557
IL	09	409	532	$71	2,681	$405
IL	10	424	551	$73	2,780	$420
IL	11	497	646	$86	3,256	$492
IL	12	450	585	$78	2,950	$446
IL	13	580	754	$100	3,805	$575
IL	14	462	601	$80	3,029	$457
IL	15	320	415	$55	2,094	$316
IL	16	439	571	$76	2,877	$435
IL	17	436	567	$75	2,857	$432
IL	18	425	553	$73	2,788	$421
IL	19	356	462	$61	2,330	$352
IN	01	415	540	$72	2,722	$411
IN	02	380	493	$66	2,488	$376
IN	03	401	521	$69	2,629	$397
IN	04	397	516	$69	2,601	$393
IN	05	373	485	$64	2,446	$369
IN	06	394	513	$68	2,586	$391
IN	07	439	571	$76	2,877	$435
IN	08	417	543	$72	2,737	$413
IN	09	443	576	$76	2,902	$438
KS	01	305	397	$53	1,999	$302
KS	02	303	394	$52	1,986	$300
KS	03	386	502	$67	2,533	$383
KS	04	952	1,237	$164	6,239	$942
KY	01	352	458	$61	2,308	$349
KY	02	402	523	$69	2,635	$398
KY	03	348	452	$60	2,281	$345
KY	04	408	530	$70	2,675	$404
KY	05	410	533	$71	2,688	$406
KY	06	344	447	$59	2,255	$341
LA	01	457	594	$79	2,996	$452
LA	02	349	453	$60	2,285	$345
LA	03	328	426	$57	2,149	$325
LA	04	447	582	$77	2,933	$443
LA	05	428	556	$74	2,804	$423
LA	06	807	1,049	$139	5,289	$799
LA	07	386	501	$67	2,528	$382
MA	01	438	570	$76	2,872	$434
MA	02	499	648	$86	3,270	$494
MA	03	448	582	$77	2,935	$443
MA	04	591	768	$102	3,872	$585
MA	05	1,059	1,376	$183	6,941	$1,048
MA	06	581	756	$100	3,811	$576
MA	07	494	642	$85	3,236	$489
MA	08	490	637	$85	3,215	$485

			Employee Spending Impact*		Total Impact**	
State	Congressional District	Total Cable Industry Employees	Employment	Output (Millions)	Employment	Output
U.S.		**229,000**	**297,700**	**39,538**	**1,501,222**	**226,734**
MD	01	519	675	$90	3,404	$514
MD	02	1,033	1,343	$178	6,774	$1,023
MD	03	735	956	$127	4,821	$728
MD	04	632	822	$109	4,146	$626
MD	05	697	906	$120	4,567	$690
MD	06	367	477	$63	2,403	$363
MD	07	520	676	$90	3,410	$515
MD	08	439	570	$76	2,875	$434
ME	01	828	1,077	$143	5,430	$820
ME	02	345	449	$60	2,262	$342
MI	01	442	574	$76	2,895	$437
MI	02	483	629	$83	3,169	$479
MI	03	432	562	$75	2,835	$428
MI	04	423	550	$73	2,774	$419
MI	05	419	544	$72	2,744	$414
MI	06	511	664	$88	3,350	$506
MI	07	431	560	$74	2,822	$426
MI	08	408	531	$70	2,676	$404
MI	09	454	591	$78	2,978	$450
MI	10	411	534	$71	2,691	$406
MI	11	759	987	$131	4,975	$751
MI	12	705	916	$122	4,620	$698
MI	13	399	519	$69	2,616	$395
MI	14	585	761	$101	3,838	$580
MI	15	578	752	$100	3,791	$573
MN	01	317	411	$55	2,075	$313
MN	02	453	588	$78	2,967	$448
MN	03	419	544	$72	2,744	$414
MN	04	663	862	$114	4,346	$656
MN	05	419	545	$72	2,746	$415
MN	06	400	521	$69	2,625	$396
MN	07	324	421	$56	2,124	$321
MN	08	356	462	$61	2,330	$352
MO	01	342	445	$59	2,242	$339
MO	02	371	482	$64	2,429	$367
MO	03	324	421	$56	2,124	$321
MO	04	376	488	$65	2,463	$372
MO	05	545	708	$94	3,571	$539
MO	06	381	495	$66	2,497	$377
MO	07	426	554	$74	2,793	$422
MO	08	397	516	$69	2,603	$393
MO	09	302	392	$52	1,976	$299
MS	01	429	558	$74	2,812	$425
MS	02	473	614	$82	3,097	$468
MS	03	406	528	$70	2,661	$402
MS	04	453	589	$78	2,970	$449
MT	AL	700	910	$121	4,587	$693
NC	01	372	484	$64	2,439	$368
NC	02	420	546	$72	2,752	$416
NC	03	442	575	$76	2,898	$438
NC	04	750	975	$129	4,915	$742
NC	05	377	489	$65	2,468	$373
NC	06	745	968	$129	4,881	$737
NC	07	542	704	$94	3,551	$536
NC	08	555	721	$96	3,638	$549
NC	09	1,275	1,658	$220	8,358	$1,262
NC	10	404	525	$70	2,648	$400
NC	11	354	460	$61	2,321	$350
NC	12	425	553	$73	2,788	$421
NC	13	458	595	$79	3,000	$453
ND	AL	470	611	$81	3,081	$465

			Employee Spending Impact*		Total Impact**	
State	Congressional District	Total Cable Industry Employees	Employment	Output (Millions)	Employment	Output
U.S.		**229,000**	**297,700**	**39,538**	**1,501,222**	**226,734**
NE	01	498	647	$86	3,263	$493
NE	02	912	1,185	$157	5,978	$903
NE	03	419	544	$72	2,744	$414
NE	99	0	0	$0	0	$0
NH	01	917	1,192	$158	6,011	$908
NH	02	667	867	$115	4,373	$660
NJ	01	1,352	1,757	$233	8,860	$1,338
NJ	02	632	822	$109	4,146	$626
NJ	03	958	1,245	$165	6,279	$948
NJ	04	529	688	$91	3,470	$524
NJ	05	373	485	$64	2,445	$369
NJ	06	1,043	1,356	$180	6,840	$1,033
NJ	07	429	558	$74	2,812	$425
NJ	08	407	529	$70	2,668	$403
NJ	09	703	914	$121	4,607	$696
NJ	10	1,260	1,638	$217	8,258	$1,247
NJ	11	395	514	$68	2,591	$391
NJ	12	616	801	$106	4,039	$610
NJ	13	369	480	$64	2,420	$366
NM	01	454	591	$78	2,978	$450
NM	02	379	493	$65	2,485	$375
NM	03	409	532	$71	2,681	$405
NV	01	718	934	$124	4,707	$711
NV	02	936	1,217	$162	6,138	$927
NV	03	692	899	$119	4,534	$685
NY	01	624	812	$108	4,092	$618
NY	02	1,044	1,358	$180	6,847	$1,034
NY	03	2,664	3,464	$460	17,466	$2,638
NY	04	389	506	$67	2,550	$385
NY	05	372	483	$64	2,437	$368
NY	06	587	762	$101	3,845	$581
NY	07	1,012	1,315	$175	6,633	$1,002
NY	08	353	458	$61	2,311	$349
NY	09	387	503	$67	2,537	$383
NY	10	318	413	$55	2,085	$315
NY	11	376	488	$65	2,463	$372
NY	12	375	488	$65	2,458	$371
NY	13	445	579	$77	2,919	$441
NY	14	402	522	$69	2,633	$398
NY	15	393	510	$68	2,574	$389
NY	16	375	488	$65	2,458	$371
NY	17	917	1,192	$158	6,011	$908
NY	18	432	562	$75	2,835	$428
NY	19	528	687	$91	3,464	$523
NY	20	446	580	$77	2,925	$442
NY	21	870	1,131	$150	5,704	$861
NY	22	702	912	$121	4,600	$695
NY	23	464	603	$80	3,042	$460
NY	24	373	485	$64	2,446	$369
NY	25	854	1,110	$147	5,597	$845
NY	26	477	620	$82	3,125	$472
NY	27	821	1,067	$142	5,383	$813
NY	28	631	821	$109	4,139	$625
NY	29	434	564	$75	2,843	$429
OH	01	419	544	$72	2,744	$414
OH	02	476	619	$82	3,123	$472
OH	03	764	993	$132	5,008	$756
OH	04	408	531	$70	2,676	$404
OH	05	388	504	$67	2,544	$384
OH	06	378	492	$65	2,480	$375
OH	07	452	588	$78	2,963	$447
OH	08	396	514	$68	2,593	$392

			Employee Spending Impact*		Total Impact**	
State	Congressional District	Total Cable Industry Employees	Employment	Output (Millions)	Employment	Output
U.S.		**229,000**	**297,700**	**39,538**	**1,501,222**	**226,734**
OH	09	422	549	$73	2,766	$418
OH	10	335	436	$58	2,199	$332
OH	11	510	663	$88	3,343	$505
OH	12	453	588	$78	2,967	$448
OH	13	468	609	$81	3,070	$464
OH	14	423	550	$73	2,774	$419
OH	15	634	825	$110	4,159	$628
OH	16	578	752	$100	3,791	$573
OH	17	393	510	$68	2,574	$389
OH	18	464	603	$80	3,042	$460
OK	01	683	887	$118	4,474	$676
OK	02	329	428	$57	2,157	$326
OK	03	344	447	$59	2,254	$340
OK	04	371	483	$64	2,434	$368
OK	05	1,033	1,343	$178	6,774	$1,023
OR	01	824	1,071	$142	5,403	$816
OR	02	404	526	$70	2,650	$400
OR	03	454	590	$78	2,974	$449
OR	04	415	540	$72	2,722	$411
OR	05	441	573	$76	2,891	$437
PA	01	621	808	$107	4,072	$615
PA	02	628	817	$108	4,119	$622
PA	03	389	506	$67	2,550	$385
PA	04	478	621	$82	3,132	$473
PA	05	354	460	$61	2,318	$350
PA	06	920	1,196	$159	6,031	$911
PA	07	1,073	1,395	$185	7,034	$1,062
PA	08	663	862	$114	4,346	$656
PA	09	362	470	$62	2,370	$358
PA	10	367	477	$63	2,406	$363
PA	11	391	508	$68	2,563	$387
PA	12	425	553	$73	2,787	$421
PA	13	887	1,154	$153	5,817	$879
PA	14	681	886	$118	4,467	$675
PA	15	443	576	$76	2,904	$439
PA	16	432	561	$75	2,829	$427
PA	17	477	621	$82	3,129	$473
PA	18	896	1,164	$155	5,871	$887
PA	19	634	825	$110	4,159	$628
RI	01	464	603	$80	3,042	$460
RI	02	799	1,038	$138	5,236	$791
SC	01	579	753	$100	3,798	$574
SC	02	780	1,014	$135	5,115	$773
SC	03	821	1,067	$142	5,383	$813
SC	04	773	1,005	$133	5,068	$766
SC	05	462	601	$80	3,029	$457
SC	06	427	556	$74	2,802	$423
SD	AL	568	738	$98	3,724	$562
TN	01	463	602	$80	3,036	$458
TN	02	690	896	$119	4,520	$683
TN	03	438	569	$76	2,870	$434
TN	04	459	597	$79	3,008	$454
TN	05	795	1,033	$137	5,209	$787
TN	06	477	621	$82	3,129	$473
TN	07	516	671	$89	3,383	$511
TN	08	430	559	$74	2,820	$426
TN	09	527	686	$91	3,457	$522

			Employee Spending Impact*		Total Impact**	
State	Congressional District	Total Cable Industry Employees	Employment	Output (Millions)	Employment	Output
U.S.		**229,000**	**297,700**	**39,538**	**1,501,222**	**226,734**
TX	01	1,056	1,372	$182	6,921	$1,045
TX	02	439	571	$76	2,877	$435
TX	03	417	542	$72	2,736	$413
TX	04	453	589	$78	2,970	$449
TX	05	475	617	$82	3,111	$470
TX	06	366	476	$63	2,399	$362
TX	07	577	751	$100	3,785	$572
TX	08	317	411	$55	2,075	$313
TX	09	352	458	$61	2,310	$349
TX	10	697	906	$120	4,567	$690
TX	11	354	460	$61	2,318	$350
TX	12	432	561	$75	2,829	$427
TX	13	378	492	$65	2,480	$375
TX	14	394	512	$68	2,582	$390
TX	15	368	478	$63	2,409	$364
TX	16	374	487	$65	2,454	$371
TX	17	419	545	$72	2,746	$415
TX	18	424	552	$73	2,782	$420
TX	19	491	638	$85	3,216	$486
TX	20	729	948	$126	4,781	$722
TX	21	585	761	$101	3,838	$580
TX	22	461	599	$80	3,022	$456
TX	23	439	571	$76	2,877	$435
TX	24	428	556	$74	2,804	$424
TX	25	506	658	$87	3,317	$501
TX	26	356	463	$62	2,335	$353
TX	27	393	511	$68	2,578	$389
TX	28	302	392	$52	1,976	$299
TX	29	406	527	$70	2,659	$402
TX	30	378	492	$65	2,480	$375
TX	31	698	907	$120	4,574	$691
TX	32	356	462	$61	2,330	$352
UT	01	392	509	$68	2,566	$388
UT	02	351	456	$61	2,301	$348
UT	03	454	590	$78	2,974	$449
VA	01	557	724	$96	3,651	$551
VA	02	946	1,229	$163	6,199	$936
VA	03	620	806	$107	4,065	$614
VA	04	692	899	$119	4,534	$685
VA	05	305	396	$53	1,996	$301
VA	06	368	479	$64	2,414	$365
VA	07	496	644	$86	3,250	$491
VA	08	362	471	$63	2,374	$359
VA	09	369	480	$64	2,419	$365
VA	10	975	1,268	$168	6,392	$965
VA	11	727	945	$125	4,763	$719
VT	AL	464	603	$80	3,042	$460
WA	01	445	579	$77	2,919	$441
WA	02	905	1,176	$156	5,931	$896
WA	03	438	569	$76	2,870	$434
WA	04	380	493	$66	2,488	$376
WA	05	395	514	$68	2,591	$391
WA	06	509	662	$88	3,337	$504
WA	07	333	433	$57	2,183	$330
WA	08	485	631	$84	3,180	$480
WA	09	690	896	$119	4,520	$683

			Employee Spending Impact*		Total Impact**	
State	Congressional District	Total Cable Industry Employees	Employment	Output (Millions)	Employment	Output
U.S.		**229,000**	**297,700**	**39,538**	**1,501,222**	**226,734**
WI	01	556	723	$96	3,644	$550
WI	02	391	509	$68	2,565	$387
WI	03	411	534	$71	2,691	$406
WI	04	756	983	$130	4,955	$748
WI	05	578	752	$100	3,791	$573
WI	06	517	672	$89	3,390	$512
WI	07	398	517	$69	2,608	$394
WI	08	569	740	$98	3,731	$564
WV	01	428	557	$74	2,808	$424
WV	02	364	473	$63	2,386	$360
WV	03	318	413	$55	2,085	$315
WY	AL	365	475	$63	2,395	$362
*Impacts attributable solely to spending by local cable industry employees.						
**Total impacts, unadjusted for net inflows or outflows of dollars expended by local cable systems.						

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