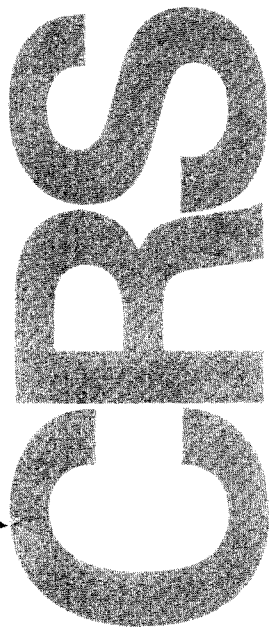
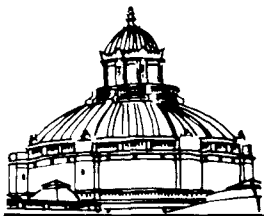


COMMERCIAL TELEVISION BROADCASTING:  
AN ECONOMIC ANALYSIS OF ITS STRUCTURE AND COMPETITIVE ALTERNATIVES

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## ABSTRACT

The following report analyzes the economic structure of both the conventional commercial television broadcasting industry as well as the significant commercial competitive alternatives. Federal Communications Commission policies and their effect on the competitive structure and development of the television industry are also discussed

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COMMERCIAL TELEVISION BROADCASTING:  
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INTRODUCTION -

Television viewing has become an integral part of the American lifestyle, supplying both entertainment and information. The average American home watches television for 6 hours and 13 minutes a day, according to A. C. Nielsen statistics, and the latest survey by the Roper Organization shows that 67 percent of the U.S. public turns to television as the source of most of its news. More than 76 million U.S. homes (98 percent of all homes) have television sets, with 49 percent of those homes having more than one set.

The following report not only analyzes the development, economic structure, and future outlook of the conventional television broadcast system, but also examines the structure and status of the viable competitive alternatives contending for significant audience shares. The final section considers the effects that Federal Communications Commission policies have on the present and future competitive structure of the television broadcasting industry.

## I. CONVENTIONAL COMMERCIAL BROADCAST TELEVISION

Unlike most broadcast systems throughout the world which are owned by governments and are national in scope, the U.S. broadcast television network is privately owned and, to a degree, locally oriented. Because of these characteristics, the U.S. television system encompasses a wide variety of broadcast arrangements and technology comprising its industry structure. In this section of the report the analysis is confined to the conventional commercial broadcast sector of the television broadcast industry. Those in the field define conventional broadcast television to include that which is "free" to the viewer in the sense that any quantity of viewing is available at no cost other than the cost of operating the receiver. 1/

A. INDUSTRY STRUCTURE AND OPERATION

According to Standard and Poor's industry survey data, as of June 30, 1979, there were on the air in the United States 737 commercial television stations (517 VHF stations and 220 UHF stations) which comprise the conventional commercial television broadcast sector. These stations fall into three operational categories: network-owned-and-operated, network-affiliated, and independent.

1. Network-Owned-and-Operated (O & O) Stations

By far the smallest category of stations is network-owned. The three national television networks--ABC, CBS, and NBC (a subsidiary of RCA, Inc.)--each own five VHF stations, the maximum allowed under law, and presently do not

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1/ Due to unique structure and relationship of educational/public television, we have chosen to eliminate this category from this report and restrict the analysis to commercial broadcast television.

own any UHF stations. These VHF stations are totally owned and operated by the networks and are subsidiaries. Although each network owns only five VHF stations, they are dominant stations in high-revenue areas. (See Table 1 in Appendix A for a complete listing and history of network-owned television stations.) As expected, the three networks own stations located in the more populous urban areas, with each network owning three of its five stations in the top three television markets (Los Angeles, New York, and Chicago). Of the fifteen network-owned stations, only two--CBS's St. Louis station and NBC's Cleveland station--are not in the top ten television markets.

Although each network has acquired a similar grouping of VHF stations, the method by which each network developed its owned and operated station structure has been unique. The newest network, ABC, is the only network which has developed its five stations solely through construction. ABC began as the Blue Network of NBC but became its own network in 1944, when NBC was forced to divest its Blue Network as a result of the passage of the FCC's Chain Broadcasting Rule [47 C.F.R. Sec. 73.65.8(g)], which prohibited dual network operation. ABC then proceeded to acquire television construction permits in the five cities (New York, Chicago, Los Angeles, San Francisco, and Detroit) in which it presently owns stations.

CBS began its television acquisition much earlier, when it constructed its first television station in New York in 1941. Because of CBS's color proposal for UHF stations, submitted to the FCC in 1946, and the FCC's "freeze" on television applications (see page 46 for more detail on the FCC's "freeze"), CBS did not construct or fully purchase any stations until the next decade. CBS did, however, acquire large minority interests in three stations in Los Angeles (1948), Washington, D.C., (1950), and Minneapolis (1952), owing to an

FCC-proposed ruling which permitted an entity to own up to 10 minority interests in VHF stations. CBS proceeded to purchase its presently owned Los Angeles station (KNXT) and sell its minority interest in its previously owned Los Angeles station. After the termination of the "freeze" in 1952 and the FCC's 1954 decision to limit any entity to interests in no more than five VHF stations, CBS proceeded to dispose of its remaining minority interests and acquired full ownership of three more VHF stations over the next 4 years (Chicago, 1953, St. Louis, 1957, and Philadelphia, 1958).

NBC has had the most interesting acquisition history of the networks because of its attempt to acquire a group ownership lineup in the largest markets. The network constructed its first television station in New York in 1941 and in 1946 received construction permits for VHF stations in Los Angeles, Washington, D.C., Chicago, and Cleveland. Although this is the current ownership pattern for NBC, in 1955 NBC threatened the independent Group W with loss of affiliation if it did not trade Group W's Philadelphia station (KYW, which was in a larger and therefore more profitable market) for NBC's Cleveland station plus \$3 million in consolation payments. After initial approval by the FCC, the Department of Justice filed a complaint against the transaction on the basis that it was a violation of the Sherman Anti-Trust Act. NBC entered into a consent decree whereby it agreed to sell the Philadelphia outlet and purchase a fifth station elsewhere. After unsuccessful attempts to purchase a station in the Boston and San Francisco markets, it was not until 1965 that NBC returned to its Cleveland station (WKYC), and Group W not only had its Philadelphia station returned but also was permitted to keep the \$3 million consolation money (37 FCC 427 [1964]).



In an attempt to make the UHF spectrum become a more viable alternative (added expense for both viewer and transmitter as well as limited reception have hampered UHF audience growth), in 1954 the FCC increased ownership limits on television stations from five to seven, as long as two of them were UHF. In response to this extension of the ownership rule, both CBS and NBC immediately bought two UHF stations each. Both bought a station in Hartford, Connecticut, an area which had only one VHF station for competition; CBS bought the only UHF station in Milwaukee; and NBC bought an equivalent station in Buffalo. Nevertheless, both networks determined that because of these difficulties, UHF stations were not economically feasible, and all their UHF stations were sold by the end of the decade.

Since 1965, the networks have maintained their present structure of station ownership, and the struggle for dominance has been focused on the growth of affiliated stations.

## 2. Network-Affiliated Stations

The vast majority of commercial television stations (84 percent in 1978) are affiliated with one of the three television networks. Under this arrangement the affiliated station is entitled to first option on a daily schedule of varied programs supplied by the network. Although the station is not obligated to telecast any of these programs and may opt to telecast local or syndicated programs, most stations do carry most of their networks' schedule. 2/ (Previous

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2/ In 1970 the FCC adopted its prime-time access rule, which basically prohibits the three network affiliates in the top 50 markets from broadcasting more than three hours of network programming during prime time (7-11 p.m.). These affiliates are also prohibited from showing any syndicated program episodes that were formerly aired on a network during the access hour.

to a mid-1960s ruling by the FCC, affiliated stations were required to take all network offerings during favored time segments.) The networks lease and administer most of the facilities that interconnect the stations on a full-time, national basis; through these stations the network programs reach a national audience.

The networks finance the development of entertainment programs and pay for the rights to present them. Actual network-produced and -owned programs represent a very small percentage of the programs; most entertainment programs are produced and owned by independent suppliers. Except for the few network-produced and -owned programs, networks are not allowed to have any financial interest in the programs they underwrite and in effect are buying the right to present the program one or two times (the financial-interest rule). The independent producer/suppliers own the programs and hold them for later sale to individual stations for syndication. The FCC forbids the network from engaging in the domestic syndication business and from sharing in the syndication revenues of independent producers (the syndication rule). <sup>3/</sup> In addition, the networks sell commercials in network programs to national advertisers and pay the stations an agreed monthly amount, called network compensation, based on the number of network commercials the station carries. The networks also provide commercial openings in their programming for stations to sell directly to local and national advertisers. (For additional information on advertising structure and revenues, see section I,B,2, pages 18-22.)

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<sup>3/</sup> An FCC Network Inquiry preliminary report released in June 1980 entitled *An Analysis of Television Program Production, Acquisition and Distribution* questions the effectiveness of the prime-time access, syndication, and financial-interest rules which were passed in 1970 to decrease network dominance and control over evening programming, promote station independence, and increase access for new producers.

Table 2 in Appendix A summarizes the expansion of total commercial stations, both network-affiliated and independent, which comprise the total conventional commercial network sector from 1947-1978. The growth of commercial television stations since World War II from a mere 12 stations to 727 in 1978 has been remarkable. It has taken only a few decades for a once limited and experimental industry to develop into one of the most ever pervasive media forms in the Nation. The development of television has exerted on all phases of our lifestyle and economy an extensive impact.

On looking at the data supplied in Table 2, two dominant trends can be noted--the rapid expansion of commercial stations during the mid-1950s, and the development of network dominance. This rapid growth in the number of stations during the mid-1950s can be attributed to the lifting of the "freeze" the FCC placed on market expansion during the 1948-1952 period [13 Fed. Reg. 5860 (1948)]. While pending applications were processed, no new television applications were granted during the "freeze" period. During this period the FCC studied the television market and proposed comprehensive changes to improve and extend television service. In April 1952, the FCC reopened television to expansion, added 70 UHF channels to the already existing 12 VHF, and adopted a table making more than 2,000 channel assignments to nearly 1,300 communities [41 FCC 148 (1952)]. As a result of these FCC actions, the number of commercial television stations increased 273.8 percent to a total 471 between 1953 and 1957, with CBS affiliates increasing 445.5 percent (to a total 180 stations), NBC affiliates increasing 188.7 percent (to a total 205 stations), ABC affiliates increasing 150.0 percent (to a total 60 stations), and independents increasing 250.0 percent (to a total 26 stations) during that same period.

In 1947, network affiliates comprised only one-third of total commercial stations; however, by 1948 network dominance was total (100 percent), with all commercial stations (16) affiliated with one or more of the three networks. (During the late 1940s and through the 1950s, when there were fewer television outlets per market, it was not uncommon for a station to have a multiple affiliation.) This pattern of almost total network dominance continued until the vast growth of television stations in the mid-1950s brought about an increase of independent stations to total 10 percent (37 stations) of total commercial stations during the 1954-1955 period. After 1955 to the mid-1960s, network-affiliated stations once again began to increase their percentage of total stations. Since that period, however, while the pattern of network affiliation has been slightly erratic on a year-to-year basis, the overall trend has been toward the gradual decrease of network dominance, with network affiliates declining to 84 percent of total commercial television stations in 1978. Despite this decline, it is evident that the television industry developed as, and continues to remain, a network-dominated system. NBC has been the major network and continues to have the largest number of affiliated stations, representing 29.2 percent of total commercial stations in 1978. CBS has shown a consistent level of expansion and, until 1978, remained the second-largest network. A loss of 12 affiliates caused CBS to fall into third place, representing 27.2 percent of total commercial stations in 1978. ABC, the youngest of the three networks, which developed as an outgrowth of NBC, has grown at a slower rate, acquiring its affiliates gradually over the 30-year period. The recent ability of ABC to acquire additional affiliates at the expense of the other two networks and to move past CBS into second place, representing

affiliation with 27.5 percent of total commercial stations in 1978, can probably be attributed to its recently increased ratings performance.

### 3. Independent Stations

The remaining commercial stations, which totalled 117 in 1978, are called "independents," that is, those which do not have a primary affiliation with one of the three networks, ABC, CBS, or NBC. Although an independent station may occasionally carry a network program when the primary affiliate station fails to pick up a program and the network and its advertisers seek another local outlet for its program, for the most part the independent station operator is directly responsible for his total program schedule. Independent stations can be of three types: full-service stations, which comprise the majority of stations and provide a wide selection of programming; specialized stations, which provide services such as full-time religious or Spanish-speaking programming; and combination stations, which provide "free" broadcasting until 7 p.m. and then offer only subscription programming for evening hours (see section II, B, pages 42-44, for more information on subscription television). The majority of full-service independent station programming consists of off-network reruns, feature pictures, original programs, talk shows, and sports events.

The growth in the number of independent (nonaffiliated) stations has been slowly re-emerging over the past two decades. As can be seen in Table 2 of Appendix A, since the saturation levels reached in the early 1950s (1951-1952), when all commercial television stations were network-affiliated, the number of independent commercial television stations has been advancing steadily to total 117 stations in 1978. Since the corresponding rapid growth in network-affiliated stations also occurred during the same period, it is evident that

for the most part independent station growth has not been at the expense of network affiliation but due to the rapid expansion of the television industry.

While a definitive listing of all independent stations is not available owing to constant fluctuations, Table 3 in Appendix A supplies a listing of independent television stations in operation or due to be operating by early 1979, according to data supplied by the 1979 edition of Television Factbook. As can be seen by the listing, only 16 major U.S. cities--New York, Los Angeles, Chicago, San Francisco, Washington, Las Vegas, Seattle, Portland, Minneapolis, St. Louis, Indianapolis, Denver, Dallas, Miami, Tucson, and Phoenix--have commercial independent stations on the VHF frequency (channels 2-13). The remaining locations which are serviced by the majority of the 111 listed stations are located on the UHF frequency. One of the major problems facing the development of strong independent station competition with network and network-affiliated stations is the lack of space in the more desirable VHF frequency.

As mentioned previously, because of the inability of a UHF station to command an audience share equal to that of a VHF station, many independent stations are relegated to a second-place market position. Because of this smaller audience share, the independent UHF station must charge less for commercial time, which results in less revenues and ultimately less money to spend on competing programming. Therefore it is extremely difficult for the UHF independent station to compete with the network and affiliated stations which are not only supplied network programming but can reach larger audiences due to a VHF frequency. 4/

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4/ In 1979 the FCC set up a task force funded with \$610,000, to work toward improving UHF comparability. The first report released in September that year discussed the problem and evaluated alternatives for improved UHF  
(4/ continued)

According to A. Frank Reed, a former President of Metromedia Producers Corp., UHF stations have been able to prosper in the following three situations: 5/

1. In all-UHF markets (Fresno and Bakersfield, California; South Bend and Fort Wayne, Indiana; Scranton-Wilkes Barre, Pennsylvania; Peoria, Illinois; Lexington, Kentucky; Youngstown, Ohio; Yakima, Washington; Elmira, New York; and Huntsville, Alabama are the only cities where there is no VHF competition).
2. Where they are network affiliates (usually because there are not sufficient VHF stations to take care of the three networks, as in San Diego, Louisville, Toledo, Hartford, and Madison, Wisconsin).
3. As independent stations in the twenty-five largest cities, especially where there is no nonnetwork VHF (Cleveland, Cincinnati, Atlanta, Detroit).

Given these restraints, it is not surprising that the most influential independent stations are the VHF stations found in the 16 major cities mentioned previously. As expected, the two largest 1978 television markets by both broadcast revenue and audience--Los Angeles and New York--have the largest number of independent commercial television stations, six (including two speciality stations) and three, respectively, with all of the seven nonspeciality stations located on a VHF frequency. New York City's WNEW, part of the Metromedia chain, has always been the number one independent station and has offered many prime-time specials. 6/ The desirability of a VHF frequency over a similarly located

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(4/ continued) reception. A second report, released in March 1980, discussed a number of technical transmitter improvements which would enhance UHF transmission and decrease VHF advantages.

5/ Reed, A. Frank. The Networks: How They Stole the Show. New York, Charles Scribner's Sons, 1979. pp. 27-28.

6/ Group ownership of television stations occurs among the independent television stations as well as among the three major networks. For example,  
(6 continued)

UHF frequency is evident when one considers that of the 737 commercial television outlets on the air in the United States as of June 30, 1979, approximately 200 are on the UHF band despite the availability of 70 channels in UHF compared to only 12 in VHF.

Despite these disadvantages, independent stations, while still representing only 16 percent of the commercial broadcast network in 1978, are becoming an increasingly significant factor in the industry structure. Technology is moving toward greater parity of UHF with VHF; it is estimated that 93 percent of television homes can receive UHF signals, and according to Arbitron's November 1978 figures, 4 of the top 10 independents in total audience share were UHF. FCC financial data for 1978 showed an increase in UHF profits over the previous year of 32.3 percent to total approximately \$94 million (UHF affiliates \$41.5 million, up 53.7 percent; UHF independents \$52.4 million, up 19.1 percent). Of the 182 UHF stations reporting, 135 claimed profitability. Independent stations often claim large parts of the viewing audience during the early evening hours (5-8 p.m.); however, the network schedules continue to dominate during peak prime time (8-11 p.m.).

According to the Association of Independent Television Stations, Inc., an industry association which represents a large portion of the major independent television stations, independent stations feel that they represent the network alternative in conventional broadcasting and have recently become more aggressive in an effort to develop a fourth market distinctive from the network

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(6 continued) the Metromedia chain is the fourth largest chain by 1979 net weekly circulation, with seven independent stations, followed by the Westinghouse chain, which owns five such stations. For a listing of television station group ownership, see Herbert H. Howard, Ph.D., Television Station Group Ownership: 1979. College of Communications, the University of Tennessee, Knoxville.



market, but not a fourth network per se. 7/ While much of the independents' success is a result of their acquiring high-priced, off-network syndicated programs, independents alone and in conjunction with individual affiliated stations are joining together to directly finance first-run projects to compete during prime time (i.e., Program Development Group, a consortium of the licensees representing seven independent stations and Operation Prime Time, a project sponsored by a group of independent and affiliated stations to finance first-run major productions). 8/ Although it is still too early to assess how effective and serious the challenge to network programming by the independents will be, signs of a growing audience awareness and interest appear to be developing; the challenge on the part of the independent stations and other sources to the present network dominance of the structure of conventional television broadcasting seems to be apparent.

#### 4. Major Television Markets

FCC and Arbitron data show that the top 10 television markets in 1978, ranked by revenue, are located, as can be expected, in the larger urban areas.

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7/ It should be noted that over the past two decades there have been a number of attempts to create a fourth competitive network. However, due to the inability to attract enough primary affiliates, the necessity to produce only low-budget programs, and the lack of available VHF channels, these attempts failed. For a good discussion of the development of the two major fourth-network systems, the Liberty Broadcasting System and the Dumont Network, see Lawrence W. Lichty and Malachi C. Topping. *American Broadcasting: A Source Book on the History of Radio and Television*. New York, Hastings House Publishers, 1975.

8/ WPIX (TV), New York and 29 other independents are producing their own half-hour newscast in prime time entitled Independent Network News, for television stations unaffiliated with a network. The program will be beamed via satellite and is scheduled to begin June 9, 1980. General Foods and Bristol Meyers have already committed advertising time.

(See Table 4 in Appendix A, which ranks the top 10 television markets by revenue for 1978.) The New York market, with 10 reporting television stations, is the leading revenue market, with 1978 broadcast revenues of \$282.7 million and a prime-time 1978-1979 season audience of 6.4 million. The Los Angeles market closely follows with 1978 broadcast revenues of \$265.8 million and a prime-time audience of 3.9 million. As can be seen, the markets with the largest revenues are not necessarily the most profitable, with the second-ranked Los Angeles market the most profitable with before-tax profit of \$79.5 million and the eighth-ranked Dallas-Fort Worth market the fourth most profitable (\$49.9 million). The top 10 markets represent total broadcast revenues of \$1.4 billion; before-tax profits of \$482.5 million; 75 stations; and a prime-time audience of 16.5 million persons.

## B. ECONOMIC INDICATORS AND FUTURE OUTLOOK

### 1. Revenues, Expenses, and Income

According to FCC annual statistics compiled in Table 5, Appendix A, with the exception of the 1970-1971 period, revenues of the television broadcast industry have shown a continual increase from 1952's \$324.2 million to an estimated \$7,880.0 million for 1979. Although expenses also continued to increase over that same period to total \$5,265.9 million for 1978, pretax income totaled \$1,647.1 million in 1978 and is estimated to increase 14 percent to total \$1,877.0 million for 1979. According to the Department of Commerce, revenues are expected to increase 15 percent in 1980 to total \$9.1 billion, and a rise of 15 percent to total \$2.17 billion is forecast for 1980 pretax income. Revenues are expected to increase over the next 5 years at a compound annual rate

rate of 13.5 percent to nearly \$15 billion in 1984, and in spite of rising costs pretax income may reach \$3.5 billion.

Although television broadcast industry revenues increased 17.4 percent to total \$6.9 billion from 1977 to 1978 and profits for 1978 surpassed \$1.6 billion, the rate of gain for various segments of the industry differs dramatically. When analyzing data in Table 6, Appendix A, which breaks down industry data by network, network O & O stations, affiliates, and independents for 1977 and 1978, a different picture emerges. The most obvious disparity is the decrease of network profits by 8 percent between 1977 and 1978 from 1977's \$406 million to 1978's \$373.5 million. Even though network revenues increase 14.8 percent to total \$2.96 billion, network expenses increase 19.1 percent to total \$2.59 billion to result in the network profit decline.

The VHF stations' 1978 profit gain of 29.5 percent to total \$1.18 billion stemmed from profit increases by all three VHF categories, with network affiliates contributing the largest share (up 29.6 percent to \$891 million), followed by network O & O stations (up 24.8 percent to \$186 million) and independent VHFs (up 17.5 percent to \$102 million). Of the total 1978 revenues for VHF stations (\$3.44 billion, an increase of 18.3 percent over 1977), network affiliates contributed the largest amount (\$2.48 billion) and had the largest increase (20.4 percent); network O & Os followed with revenues of \$584.5 million (up 16.1 percent) and independent VHFs contributed \$375.2 million, an increase of 9 percent. Expenses for VHF stations in 1978 totaled \$2.7 billion, an increase of 13.9 percent. The VHF stations breakdown for expenses was comprised of network O & O stations (\$398.2 million, up 12.4 percent), network affiliates (\$1.6 billion, up 15.7 percent), and independents (\$273.2 million, up 6.1 percent).

As regards percentage, UHF stations fared the best with a 1978 profit increase of 32.3 percent to total \$93.9 million. UHF 1978 revenues increased 27.3 percent to total \$510.3 million, and expenses increased 26.3 percent to total \$416.4 million. Profits of UHF network affiliates increased 53.7 percent to total \$41.5 million, while expenses increased 21.3 percent to total \$212.3 million. Although revenues for UHF independents increased 29.0 percent to total \$256.5 million in 1978, an increase in expenses of 31.8 percent kept profits down to \$52.4 million, an increase of 19.1 percent.

A further breakdown of profit and loss figures for individual reporting stations found in Table 7, Appendix A, provides further insight into the economics of the industry on a micro level. Of the total number of VHF stations reporting to the FCC (460), 92.2 percent, or 424, reported profits (7 with more than \$15 million and another 57 between \$5 million and \$15 million), and 36 reported losses (7 of them claiming losses of \$400,000 or more). Of this total six, or 20 percent, of the independent VHF stations reported losses, with four of them falling in the \$25,000-\$200,000 range and two reporting losses of \$400,000 or over. Nineteen, or 63.3 percent, reported profits of \$1 million to \$15 million.

Only 7 percent (30) network-affiliated VHFs reported losses, 20 in the less than \$100,000-\$200,000 range and 10 in the \$200,000 to over \$400,000 range. Of the 400 profitable VHF affiliated stations, over half (233) reported profits of \$1 million or more, and 7 reported profits of \$15 million or more.

Of the 182 UHF stations reporting 135, or 74.2 percent, claimed profits, and 25.8 percent (47) claimed losses, with over half (29) incurring losses of \$100,000 or more. Comparing network-affiliated UHFs with independent UHFs, the

picture varies dramatically. Of the total reporting affiliated UHF's, 82.5 percent (94) were profitable in 1978, with almost half (46 stations) reporting profits of \$200,000-\$300,000. Of the 20 stations (17.5 percent) reporting losses, only 4 had losses of \$400,000 or over.

Slightly more than 60 percent (60.3 percent) of independent UHF's reported a profit in 1978, leaving 39.7 percent (27 stations) incurring losses. Of those stations reporting profits, more than half (24 stations) had profits ranging from \$1,000,000 to less than \$25,000, and one station reported profits of between \$5,000,000 and \$10,000,000. Of the 27 stations incurring a loss, more than half (17 stations) reported losses of \$200,000 or less, but 7 stations reported losses of \$400,000 and over.

Although the profitability of individual stations appears to differ dramatically, given the information reported to the FCC for 1978 as a whole VHF stations fare better than UHF, and among VHF and UHF stations network-affiliated stations fare better than independents.

## 2. Advertising Revenues

Conventional television station revenues are almost exclusively derived through advertising; therefore the selling and value of advertising time is of vital interest to all stations. The market for television advertising consists of three parts: (a) network television advertising, that is, the sale of network time to national advertisers; (b) national spot television, that is, the sale of time by individual stations to national or regional advertisers; and (c) local spot television, that is, the sale of time by individual stations to local advertisers. According to the Television Bureau of Advertising (TVB), the 1979 advertising market for television amounted to almost \$10 billion

(\$9,711,077.00), with the network advertising representing 48 percent (\$4.7 billion), national spot representing 30 percent (\$2.9 billion), and local spot representing 22 percent (\$2.1 billion). All television advertisers in 1979 spent \$7,578.7 million, for network and national spot advertising, an increase of 13.1 percent over the 1978 spending level of \$6,698.0 million. Local advertising for 1979 increased approximately 12 percent, to total \$2,132.4 million, from \$1,864.2 million in 1978.

Table 8 in Appendix A provides a listing of television advertising spending on network and national spot advertising for the top 20 companies for 1979 (information on local advertising expenditures is not available). According to these data, supplied by the TVB, Procter & Gamble continues to be television's largest advertiser by far, allotting a total of \$463.4 million in network (\$289.6 million) and national spot (\$173.8 million) advertising for 1979, an increase of 10 percent over 1978 allotments. The remaining four television advertisers which comprise the top five include General Foods (\$296.7 million), a 20 percent increase; American Home Products (\$165.1 million), up 10 percent; General Mills (\$156.8 million), up 16 percent; and General Motors (\$147.2 million), up 11 percent. The top 20 firms' network and national spot advertising represent 27.1 percent of total television advertising expenditures for 1979, 40.4 percent of network advertising, and 30.9 percent of national spot advertising. Every firm, with the exception of seventh-ranked McDonald's, places the majority of its advertising expenditures in network advertising. The national spot and network expenditures of the top 100 advertisers represent 56.9 percent of total television advertising expenditures.

Consumer-oriented markets are extremely important in television advertising. The five largest television advertisers by product category for national

spot and network advertising for 1979 were: (a) food and food products, \$1,370.8 million; (b) toiletries, \$898.2 million; (c) automotive, \$750.1 million; (d) proprietary medicine, \$570.9 million; and (e) confectionary/soft drinks, \$494.1 million. Because of the different thrust of local advertising, the five largest categories of local spot advertising include: restaurants and drive-ins, banks and savings and loans, food stores and supermarkets, auto dealers, and department stores. (Owing to the widespread nature of local spot advertising, no expenditure data are available.)

According to Department of Commerce projections, television advertising expenditures are expected to continue their upward climb, reaching nearly \$12 billion by 1980 (a 15 percent increase over 1979 figures). Despite the present economic downturn, television advertising will continue its upward trend thanks to 1980 Winter Olympics coverage, the presidential election, and the desire of advertisers to improve their market share during slower times through advertising. Both network and spot advertising are expected to increase by 15 percent, and local advertising is expected to rise 17 percent for 1980. Pricing for network commercials for the 1979-1980 season should be stable, since a large portion (75-80 percent) of the prime-time schedule was sold in the up-front or advance buying market at prices 15 percent or more higher than in the previous season. While the independent stations do not command the higher advertising prices that network O & O and affiliated stations obtain, in 1978 the independents represented 12 percent (\$360 million) of the spot television ads, up from a total of \$290 million in 1973 and, according to the INTV, independent station advertising revenues hope to hit \$1 billion by 1980-1981. The independents' ability to offer an advertiser various time slots and their programming flexibility during prime time make them attractive alternatives. This

is particularly true when large corporations wish to be an exclusive sponsor for a program which will often enhance their public image (for example, the Mobil-sponsored mini-series "Edward the King").

During the early phases of television, the advertiser owned or controlled his program and usually produced it himself. The advertiser, often a large corporation, would arrange to buy air time and get the program he desired to be affiliated with on selected stations. The network would arrange this by clearing time with the individual stations; in turn for this service, the networks would collect a fee from the advertiser/sponsor, and the individual stations would be given a certain percentage of the fee. These sponsors were concerned with image and target audiences for their product, as well as overall size of audience. By the late 1950s and early 1960s, however, the advertiser/sponsor no longer controlled the shows, but the networks produced or bought the program and sold time to the advertiser, and the network was supplying the broadcast station with a large section of the programming.

While the producer, who often today is not a network, sells the finished show to the network or station, the network or individual station sells "time" to the advertiser. The selling of "time" has resulted in the birth of "ratings." In a sense, audiences are sold like a commodity: advertisers pay a certain price for air "time" based on the exposure rate for their commercial; that is, advertisers pay a unit price to reach every 1,000 homes, and therefore the more people who watch a selected program, the higher the price for a commercial spot during it. According to Broadcasting Yearbook data, prices for 1979-1980 prime-time television programs range from \$45,000 for low-rated spots to \$150,000 for top-rated series spots per 30-second commercial unit. Thirty-second announcements for the 1980 Superbowl, with an estimated audience of 100 million



people, cost \$234,000. Thirty-second announcements on individual television stations range from \$15,000 in top-rated specials in major markets to as low as \$10 for television stations ranked in the second-hundred markets (that is, the television stations located in markets 101-200, when ranked by audience size).

While there is no direct substitute for television advertising, television stations must also compete with other forms of media for advertising revenues. Market-share data in Table 9, Appendix A, show that newspapers continue to be the most favored advertising medium, representing 29.0 percent of the advertising media market share in 1978, with television the second most popular representing 20.2 percent. The overall trend has been towards a declining market share for newspapers, however, from 30.1 percent in 1972 to 29.0 percent in 1978, in favor of an increase in market share for television, from 17.6 percent to 20.2 percent, respectively. Estimates for 1979 appear to confirm this trend, with newspapers' market share decreasing to 28.5 percent and television's share increasing to 20.4 percent. National advertising continues to dominate the market, representing 55 percent of the advertising media market in 1978.

### 3. Employment and Payroll

The growth in U.S. commercial television industry employment parallels the growth of television stations. As can be seen in Table 10 in Appendix A, with the exception of the 1970-1971 period there has been a continual increase in the number of employees to total 70,492 by 1978. The rapid expansion of the television industry during the early to mid-1950s resulted in a tripling of employment figures from 9,000 to 29,400 during that 5-year period (1950-1954). While employment levels continued to increase, it took approximately 20 years before the total doubled. A breakdown of both network and television station

employment patterns shows that network employment (that is, those employed at ABC, CBS, and NBC home base) increased 51.5 percent from 1960 (the first time data were available) to 1978 to total 14,542, but slightly decreased as a percentage of total television employees representing 20.6 percent in 1978 in comparison with 23.6 percent of total employees in 1960. As can be expected, given the continual expansion in the number of television stations, employment figures for all stations (that is, not networks) increased 80.5 percent from 1960 to 1978 to total 55,950 and represented 79.4 percent of all employees in 1978. According to the Department of Commerce, full- and part-time employment is expected to increase 5 percent in 1980, to total approximately 76,600 persons.

A more detailed breakdown of network and station employment figures in Table 11 of Appendix A shows that in 1978 VHF stations employed 65.8 percent of the television industry workforce, with the network-affiliated stations employing the largest percentage, 52.6 percent. While this is not surprising, considering that affiliated stations make up the majority of the stations, network O & O stations, though totaling only 15, make up the second largest percentage of VHF employees (7.9 percent), with the VHF independent totaling 5.4 percent. All VHF stations employed 65.8 percent of the television industry workforce, in comparison to 13.5 percent for UHF stations. Part-time employees comprise 9.4 percent (6,644) of the industry workforce and, while VHF stations employ the largest number of part-time workers (4,031), UHF stations employ the largest percentage of part-time employees (11.0 percent) in their workforce mix.

Industry workforce payroll totaled \$1,362.7 million in 1978. The network employees (that is, those at ABC, CBS, and NBC home base) represented 28.9 percent of the payroll (\$394.2 million) and those employed at all the broadcast stations represented the remaining 71.1 percent of payroll (\$968.4 million).

The breakdown for all television broadcast stations shows that VHF stations represented 61.2 percent (\$834.0 million) of total industry payroll, and UHF station employees represented 9.9 percent (\$134.4 million) of total industry payroll. Even though network 0 & 0 stations total only 15, their employees represented 10.7 percent (\$145.2 million) of 1978 total industry payroll; independent VHF's represented 5.6 percent (\$76.4 million) and VHF network affiliates' industry payroll represented 44.9 percent (\$612.4 million). According to the National Association of Broadcasters' 1979 Television Financial Report, for the second year in a row payroll costs took a doubledigit jump, 13.7 percent in 1977 and 14.4 percent in 1978. According to their data the typical station's payroll dollar is divided up in the following way: 40 cents to programming, 25 cents to selling, 20 cents to technical, and 15 cents to general and administrative.

Female and minority employment in commercial television stations continues to increase. Table 12 in Appendix A compiles FCC data showing the percentage of female and minority employees 9/ in the U.S. commercial television stations with five or more full-time employees. Female employees comprised 34 percent (16,977) of the workforce in 1977, an increase of 12 percent since 1971, while total minority employees increased 6 percent over the same period to total 15 percent (7,426) of the workforce. (Even though percentage increases remained constant for minority employees between 1976 and 1977, there was a slight increase in the number of both part-time employees (37) and full-time employees (583).) Part-time employees continue to make up the largest percentage of both minority and female employees and have increased at a more rapid rate than full-time employees (7 percent and 11 percent, respectively).

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9/ Minorities include blacks, orientals, American Indians, and Hispanic Americans.

FCC data collected on full-time employment at all commercial television stations by job categories for 1979 show that while the percentage of women and minorities in the higher paying job categories has increased, 89.3 percent (6,872) of women employees and 25.1 percent of minority employees still remain in the lower paying office and clerical posts. In 1979 female employees held 21.9 percent of the positions in the official and manager category (19.7 percent in 1977), 28.9 percent of the professional jobs (20.1 percent in 1977), 25.7 percent in sales (23.1 in 1977), and 8.8 percent of technicians (6.1 percent in 1977); for the same period and categories, minority employees held 8.5 percent (7.4 percent in 1977), 15.2 percent (12.2 in 1977), 8.3 percent (7.3 percent in 1977), and 16.5 percent (13.5 percent in 1977), respectively.

A further breakdown of FCC 1979 employment data at the three television networks and their 15 O & O stations combined shows that as a percentage of total employees, 16.5 percent of the total employees at all three are minorities, and 32.5 percent are women. When data are broken down by network, ABC leads with 18.2 percent of its employees minorities and 35.2 women. NBC follows with 16 percent of its employees minorities and 31.5 percent women. And CBS is last with 14.7 percent minorities and 29.8 percent women. Ranking the network O & O stations separately alters the order. NBC O & O stations lead with 26.6 percent minorities and 31.7 percent women; CBS O & O stations follow with 22.8 percent minorities and 31.6 percent women; and ABC O & O stations become third, with 19.8 percent of employees minorities and 30.2 percent women.

## II. SIGNIFICANT COMMERCIAL COMPETITIVE ALTERNATIVES TO CONVENTIONAL TELEVISION BROADCASTING

Alternatives to conventional television broadcasting are rapidly expanding and are beginning to achieve recognition as viable contenders for significant audience shares. While some of these alternatives, such as basic cable television and subscription television, have been evolving for over two decades, other alternatives, such as cable superstations, two-way cable, home video-cassette players and prerecorded videodiscs, are relatively new to the market. While the goal of providing entertainment and information to the home is one shared by both conventional television broadcasting and its competitors, the operating methods differ. While conventional broadcasting tries to achieve maximum audience viewing to increase its rate base for advertising revenues, competitive alternatives obtain most of their revenues through direct payment from the consumer for their services. <sup>10/</sup> While many alternatives to conventional television broadcasting are in various stages of development, this analysis confines itself to the most dominant or familiar commercial alternatives to conventional television: basic cable, pay cable, cable superstations, per-program pay cable, subscription television, and other home devices (that is, videocassettes, home recorders, videodiscs, and direct broadcast satellite service).

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<sup>10/</sup> There has recently been a growing trend by cable television producers to sell commercial time during their programs to increase revenues. See pages 32-33 of this report.

## A. CABLE TELEVISION

Cable television was originally developed in the 1950s to bring conventional television programming to remote areas which, because of distance or difficult terrain, were unable to pick up station programming on home receivers. Large antennas were built to collect broadcast signals, and for a subscriber fee a cable wire was brought into the home to feed in these broadcast signals. Since the 1950s cable television has not only expanded its audience to include suburban and urban centers but has also developed a wide range of services and a variety of programming alternatives. According to the National Cable Television Association (NCTA), cable television subscribers totaled 16 million at the end of 1979, a 23 percent increase over the previous year; according to the Department of Commerce, a 9 percent increase in subscribers (1.4 million) is predicted for 1980. Basic subscriber revenues for 1979 totaled \$1.5 billion, an increase of 21 percent over 1978; such revenues are expected to increase 16 percent in 1980 to total \$1.69 billion and are projected to reach \$3.0 billion by 1984. Pay cable revenues are expected to add substantially to total cable industry revenues.

### 1. Basic Cable

#### a. Growth, Size, and Distribution

Table 1 in Appendix B tracks the growth of cable systems over the past decade (1968-1979). The growth of cable system penetration has been extraordinary, with cable systems serving approximately 21 percent of all U.S. households in 1979, up from 4.9 percent in 1968. The number of cable systems has more than doubled over this same period to total 4,100, and the number of

subscribers has increased 471.4 percent to total almost 16 million. It is also interesting to note that according to the NCTA, in 1979, of the approximately 27.3 million homes where cable was available, 55 percent have subscribed.

While there are over 4,000 cable systems in the United States, they vary from over 50,000 subscribers down to under 249 subscribers. Data supplied by the NCTA in Table 2, Appendix B, show that as of September 1978 there were 12 systems with 50,000 or more subscribers and approximately 500 systems with fewer than 250 subscribers. Even though there is this wide range, the largest number of systems--1,210--fall in the 1,000-3,499 subscriber range. A listing of the 20 largest U.S. cable systems in Table 3, Appendix B, shows that, as can be expected, the largest systems are located in the more densely populated urban and suburban areas. Many of the small systems are the systems which developed in rural areas and were in many cases the earlier cable systems. The 1979 Television Factbook information shows that the States of California, New York, and Ohio have the largest number of systems and the largest number of subscribers.

b. Ownership

Ownership of cable systems falls into a variety of categories. Table 4 in Appendix B lists the eight ownership categories as reported in Television Factbook for systems operating in September 1978. Broadcasters were the largest ownership group, representing 30.4 percent of cable systems (1,216) and program producers/distributors were the second largest, owning 17.5 percent. The FCC prohibits cable "system ownership by telephone companies within their local exchange areas (except in sparsely populated rural areas), by television stations within the same market, by national television networks anywhere in

the country, and by television stations in the same community." 11/ Although the FCC is currently investigating whether cable ownership by radio stations and local daily newspapers should be prohibited, at this time there are no FCC regulations limiting newspaper/cable television ownership, and therefore it is not surprising that newspapers are the third largest ownership category at 12.7 percent. The remaining ownership categories include books or magazine publishers (10.8 percent), cable or broadcast equipment (5.3 percent), theater (4.1 percent), community or subscriber (2.5 percent), and telephone companies (1.9 percent). Since most cable systems attach their transmission wires to telephone poles, FCC regulation regarding telephone company/cable television ownership is very restrictive; however, the FCC has recently relaxed cable/telephone restrictions in unpopulated rural areas. A listing of the top 25 cable system operators supplied by the NCTA can be found in Table 5, Appendix B. As of October 1, 1979. Teleprompter Corporation, with 1.2 million subscribers, was the largest cable multiple system operator. 12/ It is not surprising to see many large media conglomerates such as Warner, Times-Mirror Co., Cox and Storer among those listed, since many cable systems have multiple crossownership ties. 13/ The top 25 companies represent a total of 8,839,438 subscribers, over 50 percent of total cable industry figures.

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11/ In 1975 the FCC redefined these rules and prohibited cable television crossownership only in markets where there was no significant competition. At that time, the FCC also resubmitted these rules for further study. A further notice of proposed rulemaking was announced in June 1980, which would once again prohibit ownership of a cable system and local television station in the same market. See pages 58-60 for more detail.

12/ For a listing of multiple system operators, see Broadcasting Yearbook 1980, pp. A66-A79.

13/ For a listing of broadcasters in cable, see Broadcasting Yearbook 1980, pp. A61-A66.



systems have multiple-crossownership ties. <sup>13/</sup> The top 25 companies represent a total of 8,839,438 subscribers, over 50 percent of total cable industry figures.

c. Financial Aspects

Unlike conventional television broadcasting, the set-up costs for cable television systems are extremely high and can severely affect cable system profitability. The major cost components of a cable system are the "head-end" complex (that is, the tower and electronic equipment, as well as the office and studios), the distribution system (the trunk cable and electronics, which reaches various locations in the immediate area), the "feeder" cables, which branch out to local neighborhoods, and "drop" cables, which connect the feeder lines to the subscribers. The distribution system is the most significant cost element, and these costs can vary substantially, depending on whether it is strung aurally or placed underground. According to cable industry sources, the average cost of an aerial system, which is the more common, is \$6,300 a mile, while the average cost of an underground system is \$12,000 a mile. Since a large part of the system costs is fixed, and cost per mile does not differ except for "drop" charges (that is, charges incurred to connect individual subscribers to the system), the system's financial success depends largely on penetration levels. For basic cable service the rule of thumb for the pretax break-even point for aerial construction systems was a penetration of 40 percent of homes. The development of pay cable and its supplemental subscriber fee has made the return on investment much more profitable (for a discussion of

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<sup>13/</sup> For a listing of broadcasters in cable, see Broadcasting Yearbook 1980, pp. A61-A66.

pay cable, see section II B of this report, pages 41-43). The original appeal of cable systems was the improvement of conventional broadcast reception and the benefit of obtaining additional far-off signals. As cable systems began to offer additional services, however, penetration into the larger suburban and urban markets, which already had three or more stations, became more desirable.

FCC financial data, supplied by the cable industry, showed that cable television operating revenues in 1978 were \$1,511.0 million, an increase of \$305 million over 1977 figures. <sup>14/</sup> A 28.1 percent increase in operating expenses to total \$918.0 million during that same period, however, left only a 2.5 percent profit gain. Subscriber fees are by far the largest source of cable income (\$1,109.4 million for the 91 percent of cable firms reporting for 1978), followed by pay television revenues of \$174.9 million. Installation revenues of \$63.2 million was the third largest revenue category. A typical one-time installation fee averaged \$16.35 and the national average monthly subscriber rate for basic service was \$7.03 in 1978. The lowest average subscriber rate was in Pennsylvania (\$6.06), and the highest in Alaska (\$18.35).

Many cable systems are looking for new revenue sources, and an increasing number of cable operators are turning to commercial advertising. Although advertising represents only a very small part of cable revenue (\$4.8 million in 1978), and as of this time the majority (70 percent) of cable systems accept advertising only on their local origination channels, cable television has the potential to be a viable advertising medium on the national, regional, and

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<sup>14/</sup> FCC data include both basic cable and pay television data.

local levels. <sup>15/</sup> According to an A. C. Nielsen survey commissioned by WTCG, Atlanta, covering 22 markets to determine the demographics of the typical cable subscriber, Nielsen found that compared with the average conventional television viewer he: "was better educated, earned more money, had more disposable income, and purchased more cars, appliances, and groceries." Some operators, however, such as Time, Inc., feel that cable success is due to the absence of commercial advertisements and are at this time opposed to commercial interruptions. Cable system operators are also experimenting with the possibility of providing home security services, such as fire and burglar alarms, as well as data channels to provide additional revenue. Former NCTA chairman Robert Schmidt has announced the formation of a company, Communications Technology Management, which will provide a host of nonentertainment two-way cable services. As can be seen, while basic cable systems continue to be the dominant form of cable systems in operation, new services, such as pay cable, and various two-way service options, as well as some form of local origination, are developing.

d. Channel Capacity and Cable Origination

As of September 1978, 70 percent of cable systems had 6- to 12-channel capacity, and 25 percent (1,034) had capacity for over 12 channels. Previously the FCC required that by 1986 systems in larger markets with 3,500 subscribers or more, build plants with a minimum of 20 channels, some of which were to be available for programming by persons other than the cable operator. Channels

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<sup>15/</sup> For a listing of advertising revenues on local origination or automated channels by cable system, see Broadcasting Yearbook, pp. G5-291, key number 14.

were assigned to the general public, educational institutions and local government; channels could also be leased by private parties. In 1979, however, the Supreme Court ruled that the FCC lacked the jurisdiction to impose access rules on cable systems (FCC v. Midwest Video Corp., 440 U.S. 689[1979]), but local franchise authorities could require such a service as a condition of franchise. Data in Table 6, Appendix B, show that of the 2,650 cable systems involved in local origination, 60.9 percent (1,615) are involved with automatic originations, of which the largest category was time-weather, followed by newsticker. Systems that offer both automatic and nonautomatic originations (929) totaled 35.1 percent. Of the nonautomatic originations, local live programming, followed by taped programming, represented the largest categories.

The number of systems involved in local origination has increased 200 percent from 1969's 883 systems, representing 38 percent of all systems, to 1978's 2,650, representing 66 percent of all systems. The number of systems offering nonautomated local originations represents 26 percent of all systems operating, while in 1969 only 12 percent (282 systems) offered nonautomated local programming. <sup>16/</sup> It is also interesting to note that of the 1,347 cable systems with no originations as of 1978, 284 of those surveyed (7.1 percent) were planning originations, the majority of which will be a combination of both automatic and nonautomatic originations. It is in this area of cable originations that many see vast growth potential for cable systems, and not in the simple broadcasting of conventional programming and films.

Of recent interest, CBS announced its intention to enter cable programming on May 16, 1980, through the formation of a separate CBS cable unit, CBS Cable.

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<sup>16/</sup> For a listing of automated and other origination supplied by cable systems, see Broadcasting Yearbook 1980, pp. G4-291, key numbers 11-14.

According to spokesmen for CBS, the new cable unit will have three basic functions: "(1) to provide a unique, high-quality program[m]ing service for cable systems; (2) to develop and produce original program[m]ing for cable; and (3) to present program[m]ing currently not available in any other medium." CBS Cable will provide basic cable service, not pay cable, and will sell advertising time. Former CBS Chief Executive Backe stated that through CBS Cable, CBS would be supplying programming to "very selective demographic groups" without posing a "major threat" to commercial conventional network television. At this time it is too early to predict whether the other two networks will become involved in cable television programming.

## 2. Pay Cable

The fastest growing cable television ancillary service is pay cable. Cable operators lease a channel to a pay television supplier and, for an additional monthly fee (average \$8.20), a special decoder box is installed at the home receiver and a basic cable subscriber can see all the programs offered on the pay channel. Most pay channel offerings include feature motion pictures, sports events, and pay cable-produced entertainment specials, which are not available on conventional television. <sup>17/</sup> Through pay cable a basic cable supplier can greatly improve profitability, since the service can be brought to subscribers with a minimum of capital investment. At this time the option of at least one pay cable channel is offered to about 50 percent of basic cable subscribers.

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<sup>17/</sup> For a listing of cable stations which provide pay cable service, see Broadcasting Yearbook 1980, pp. G4-291, key number 10.

a. Industry growth

The growth of the pay cable industry since its inception in 1972 has been dramatic. Table 7 in Appendix B maps the rate of growth in subscribers, number of systems carrying pay cable, and penetration levels. According to industry sources, in 1973 only 35,000 homes subscribed to pay cable; as of the end of 1979 the figure had increased to total 5.7 million. In an equally significant increase, cable systems that offered the pay cable option increased from 150 in 1975 to 2,115 by the end of 1979, and the percentage of pay cable penetration of homes passed almost doubled, to total 22.3 percent, between 1976 and 1979. When pay cable was offered to basic cable subscribers in its early years, only 24.3 percent of cable subscribers selected the service; however, as of the end of 1979 more than 40 percent of basic cable subscribers are taking the pay cable option. Data on newly enacted systems show stronger trends with basic cable getting close to 40 percent penetration levels, with 75 percent or more subscribers taking the pay option. It appears that the recent (January 1978) domestic satellite delivery to distribute programming, and the development of more innovative and first-run programming have all helped to encourage the rapid expansion of the pay cable industry.

b. Revenues

Coupled with pay cable's large growth in subscribers is its dramatic growth in revenues. In 1976 the FCC reported total pay cable revenues of \$41 million, 4 percent of total cable television revenues. The most recent FCC cable data for 1978 report that pay cable revenues totaled \$191.9 million and represented 13 percent of total cable industry revenues. Additional FCC data for that same period stated that pay cable services were offered in 760 cable entities (that

is, one or more cable systems that report to the FCC as one business entity) comprising 3,079 communities. California, New York, and New Jersey led in the receipt of pay cable revenues. The national average monthly fee for pay cable subscribers was \$8.60 (lowest--\$5.00, Vermont; highest--\$15.99, Alaska). The U.S. Department of Commerce estimates that pay cable revenues will total \$350 million for 1979, and an increase in subscribers to total 6.5 million in 1980 will bring pay cable revenues to \$550 million. Pay cable subscribers are projected to increase at a compound rate of 25.3 percent annually to total 14.5 million by 1984, and subscriber revenues are estimated to increase annually at 32.4 percent to total \$1.6 billion in that same period.

c. Major pay cable programmers

Although there are a number of pay cable programmers (see listing in Table 8, Appendix B), Home Box Office and Showtime are by far the largest. Home Box Office, a subsidiary of the media conglomerate Time, Inc., services 1,700 affiliates with 4 million subscribers. Showtime, a joint venture of Teleprompter and Viacom International, while significantly smaller than Home Box Office with 600 affiliates and 1 million subscribers, is still much larger than the remaining 16 pay cable programmers. Given the data available, these two companies combined represent 85 percent of the total affiliates and 86.9 percent of total subscribers.

The recent (April 22, 1980) announcement by Getty Oil Co. and four major Hollywood motion picture studios of plans to form a new national pay cable service has caused severe consternation in the pay cable sector. Getty Oil Co. and four major picture studios--Columbia Pictures Industries, Inc., Universal Pictures, Paramount Pictures Corp., and Twentieth Century-Fox Film Corp.--will form a joint venture entitled Premiere, which will begin operation in January

1981 offering 150 movies a year to cable systems. Between 60 and 80 of the films will come from the above four studios, and the remainder from other sources. The controversy surrounds an agreement the four motion picture companies made that prohibits the selling of their product to any other national, satellite-delivered pay service for 9 months after it becomes available to the new venture. The 9 month clause will apply only to competing satellite services, such as Home Box Office or Showtime. Single systems, subscription television operations, and multiple system operators who do not deliver their pay programming via satellite may still negotiate for the films. In addition, films not from the four movie companies which will appear on Premiere will be available to other services. Both Home Box Office and Showtime have attacked the agreement as a violation of the antitrust laws and have taken their complaints to the Justice Department. The Justice Department Antitrust Division plans to investigate the Getty Oil Co. proposal, but in conjunction with an investigation of the entire pay television industry begun in 1978. Showtime estimates that 40-50 percent of its present film schedule comes from the four movie firms, and Home Box Office estimates that 60 percent of its movie schedule comes from those firms.

d. Audience

A Ted Bates & Co. analysis (The Emerging Electronic Technologies, Ted Bates & Co., February 1980, p. 59) of a recently released first pay cable audience report by A. C. Nielsen concludes that ratings reached by pay cable programs in prime time can pose serious competition to the three major networks' O & Os and affiliates during prime time. Nielsen data from its February 1979 sweep measurements show that



in pay cable homes in prime time, pay cable programs got 14%-17% shares of total viewing, or one-fifth to one-fourth of the homes of network affiliates combined. In one week, for example, during the average prime-time quarter-hour, 11% of pay cable homes were watching pay cable, 21% were watching ABC stations, 14% CBS, 12% NBC, 3% independents and 1% PBS. In addition, 9% were watching programs from distant stations (which may have included some network programming) and 1% were watching programs from superstations. In late night (11:30-1), pay cable ratings tended to be one-fourth to one-third as high as the combined networks. (No significant viewing of pay cable appears before 6 p.m.). The voluminous Nielsen report also has separate breakouts for Home Box Office homes and Showtime homes. HBO and Showtime offerings sometimes outrate some of the highest-rated network series. Some broadcaster sources say pay cable ratings seem higher than they'd expected, but that homes that subscribe to pay cable have a special interest in it, so their viewing patterns may not be typical.

It is also interesting to note that pay cable homes have larger families, composed of more young people, than noncable homes.

e. Per-program pay cable

Per-program pay cable is a further refinement of pay cable television where the subscriber pays on a per-program basis; that is, the subscriber selects the programs he desires to view and pays only on a pay-as-you-watch basis. This is made possible through installing a two-way active system. Warner Cables' Qube system in Columbus, Ohio, is the best known of such systems. Qube is a two-way cable system of 30 channels, which not only permits viewers to choose motion pictures and sports events on a per-program basis but also enables them to participate in live local programs by pushing buttons on a home computer console. This added dimension enables the expansion of the television set into, for example, catalog shopping and instant poll-taking. Although many industry sources feel that such two-way systems are the future of cable television, the added capital costs of activating and installing two-way technology have hampered its expansion. Despite the system's cost of over \$20 million, Warner also plans test-market studios for a Qube system in Houston, Texas.

### 3. Cable Superstations

Cable superstations are actually conventional television stations whose programs are relayed nationwide by satellite to participating cable television stations. <sup>18/</sup> The first superstation was Ted Turner's WTCG, Channel 17, in Atlanta, a local station without affiliation that provides a large mix of sports, movies, and syndicated reruns. In 1977 WTCG's signal began being bounced off a space satellite to cable television systems that in turn feed the station's programming to its subscribers throughout the United States. Some carry the complete 24-hour programming, while other cable systems carry WTCG from midnight to 6 a.m. only. As of July 1979, the superstation had a total of 4.8 million cable subscribers receiving its signal, in addition to another 556,000 cable homes that receive WTCG broadcasts through other ways besides satellite.

Because of an October 1978 relaxation of FCC regulations pertaining to the resale carriers that relay signals of independent television stations to cable systems via satellite, as of July 1979, an additional three stations were being delivered to cable systems nationwide--WGN-TV Chicago, KTVU (TV) San Francisco, and WOR-TV New York.

Only WTCG (Atlanta) actively pursues its cable audience as well as its local audience, and solicits advertising rates based on its coverage of the more than 5 million homes it reaches in its combined local and national market. Revenues come from: (a) cable system fees of 10 cents per subscriber per month

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<sup>18/</sup> A number of other major independent stations, such as WPIX, New York, are received by cable stations outside their area by traditional cable-carrying and microwave lines. However, these stations tend to have regional power and do not have nationwide coverage, as satellite stations do.

for full-time service and 2 cents per subscriber per month for nighttime service, with a maximum of \$2,000 per month per system; and (b) advertising revenues. WTCG falls between a local spot buy and a full network buy when it comes to advertising, but comes closer to resembling the latter. As of February 1979, more than 75 major national advertisers were advertising on WTCG.

Ted Turner, the owner of Atlanta superstation WTCG, launched his Cable News Network (CNN) on June 1, 1980, a national, all news, 24-hour-a-day, cable television network. This is the first all-news network, and industry competitors and experts are following its programs closely. Early computer tabulations showed 209 systems were carrying CNN for a possible penetration of 1.9 million households. It is projected that CNN will eventually be available to about 3 million subscribers. CNN will be charging subscribers 15-20 cents per subscriber per month, and the cable system operator provides the "news channel" free to subscribers as part of the basic cable package. Local operators are allotted 2 minutes an hour to sell advertising, and CNN keeps 6 minutes an hour for itself to sell national advertising. Proctor and Gamble, the Nation's largest conventional television advertiser, recently negotiated an advertising contract to begin in July with CNN. While no figures have been discussed, industry sources estimate the contract, which is comprised of minutes scattered throughout the 24-hour period for a variety of products, is worth \$1 million. While additional national corporations as Bristol-Myers, Warner-Lambert, Sears, Nestle, Chrysler, and Time-Life Publications have also bought national advertising time, many corporations are having a wait-and-see attitude, and other funding will have to be provided by Turner to keep the system afloat.

The National Association of Broadcasters feels that while cable superstations will not have much impact on network television, its possible focus on

nationwide marketing at the expense of local orientation may destroy localism and damage FCC efforts to promote local UHF development.

B. SUBSCRIPTION TELEVISION

Subscription television (STV) is an over-the-air broadcast service which delivers pay television to its subscribers. A decoder on subscriber television sets unscrambles the signals, permitting viewers to watch the programs. STV is broadcast over the air, through an allocated television channel with a broadcast licensee. The STV franchisee leases time, generally prime time, on a broadcast station (while a UHF or VHF signal can be used, all currently operating STV systems and all pending applications are for UHF channels). Conventional nonpay television is aired during the time the STV signal is not being aired. Systems vary in their ability to charge on a per-program basis; therefore some charge on a monthly basis and others charge on a per-program basis.

The FCC authorized experimentation with over-the-air pay television in 1950, and a demonstration station was established in Connecticut in 1962, but it was not until 1968 that regular service was authorized, and the first formally licensed STV station went on the air in Newark, New Jersey, in March 1977. As of April 1980, there were only eight operating STV stations: WQTV, Boston; WBTI, Cincinnati; KBSC, Corona, California; WXON, Detroit; WKID, Fort Lauderdale, Florida; KWHY, Los Angeles; WWHT, Newark, New Jersey; and KNXV-TV, Phoenix. Nineteen additional STV applications had been granted, and 35 STV applications were pending (some are competing applicants for the same frequency).

STV service is delivered to approximately 400,000 homes and as of the beginning of 1980 was generating gross annual revenues of \$96 million. Experts in the field predict that by the end of this year, STV services will reach one

million households via 14 stations, generating annual revenues up to \$240 million. While the STV experience has been so limited that it is difficult to project future trends, it is expected that by 1985 more than 90 stations will be broadcasting subscription services to three million homes, generating annual revenues of \$720 million. Owing to the relatively inexpensive set-up costs, profits in the STV business generally average at 20-25 percent of revenues.

STV has been growing on independent UHF stations, which have had minimal audience shares in major television markets. By paying monthly rates ranging from \$19 to \$23 and one-time installation charges which can cost up to \$90, STV audiences are able to watch up to 50 hours a week of films, sporting events, and occasional special programs without commercial interruption. 19/

STV systems are seeking to operate in markets that do not have any other forms of competing pay media (that is, basic cable or pay cable). The development of competition between STV services and pay cable has brought questions about the future of STV service. While some in the field believe the STV and pay cable are mutually exclusive, others feel that STV's extremely local orientation will make it compatible with pay cable's more national orientation. Still others feel that STV's opportunities for development are in the markets in which it is physically difficult to set up cable services.

A recent study on pay television sponsored by the National Association of Broadcasters and conducted by Herbert H. Howard and Sidney L. Carroll of the University of Tennessee concluded that, because of the multiplicity of channels available on cable systems in contrast to a single channel availability on STV services, cable television will be dominant in the pay television market.

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19/ Original programming solely for STV is extremely rare, but is expected to expand as the number of subscribers increases.

Nevertheless, the study predicts that there will be vigorous competition between all types of pay television services over the next few years, and that the most favorable markets for STV development are those with limited cable services. The study also notes that in markets without pay television, STV has the advantage in the speed in which its operation can be developed and its relatively lower start-up costs. The study concluded that "[i]n all likelihood STV broadcasting will be available in all of the top 50 markets, except those with excessively high CATV penetration, within the next 10 years."

C. OTHER

1. Videocassette Recorders and Videodiscs

Other alternatives, such as videocassette recorders and videodiscs, are extremely new and untested in the broadcast market. Their market penetration is consequently still very low, with the number of home videotape recorders in use estimated at 1.3 million in the beginning of 1978. According to JVC Corp., however, a major producer of home video recorders, sales gains for the first half of 1980 are 60 percent ahead of a year ago, and industry sales for the full year are expected to total 600,000 units, an increase of 50 percent. A study on broadcasting made for Petry Television, Inc., cites among its many conclusions that the effects of videocassette recorders and videodiscs will be minimal on the broadcasting industry. <sup>20/</sup> The study predicted market penetration

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<sup>20/</sup> The report, entitled Broadcasting in the 1980s, is based on a study by Management Analysis Center, Cambridge, Massachusetts, for Petry Television, Inc., New York.

at slightly more than 10 percent by 1985, citing the high cost of equipment and unavailability of prerecorded cassettes and discs as major obstacles. 21/

Videodiscs, first introduced into the market in 1978, resemble a phonograph-type record that plays both pictures and words and can be spun into a standard television set. Unlike the VCR, which can record programs being broadcast on television, the videodisc system can only play prepared material. The videodisc systems, however, are less expensive than, and have a clearer picture than, VCRs. In addition, videodisc prerecorded programs cost about one-third as much as VCR videotapes and will never wear out from use. As of this time, Magnavox, RCA, and Japan's Pioneer Electronics Corp. have introduced home videodisc systems.

A. C. Nielsen recently released its first report on videocassette recorder usage (Nielsen Home Video Index) based on telephone interviews held in November 1979 with 516 households owning videocassette recorders (VCRs). Nielsen found that VCR homes were younger and larger than regular television households, 59 percent of the homes had annual incomes of more than \$25,000, and more than 50 percent of heads of households had attended college. The Nielsen study showed that 39 percent of the households claimed to view more television after

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21/ In June, CBS Inc. and MGM Film Co. announced the formation of a joint venture (MGM/Home Video) which will develop and distribute videodiscs and videocassettes by year-end. Each company will be responsible for the costs entailed in the manufacture of and the revenues derived from the distribution of its own products. CBS will draw its material from its recording artists under contract as well as from its cultural, news and sports programs, while MGM will draw material from its current library of over 1,600 films. CBS/Records Group will manufacture the videodiscs and distribute both the discs and cassettes worldwide. Eventually the new company intends to acquire other products and become involved in original productions. This aspect of the venture will be jointly shared by both partners. In addition, Great Britain's BBC Enterprises, the export arm for the British television network, has also announced plans to enter the home video market, pending negotiations with the artistic unions.

the purchase of VCRs; 52 percent claim the same television viewing patterns; and only 8 percent claim less. The major reason for the purchase of VCRs was "time-shift convenience" to enable the viewing of a program which would have been missed and to watch competing programs. Twenty-six percent of the sample used prerecorded material, and feature films were the most common of all cassettes purchased (classic films 41 percent, adult films 25 percent). Although 95 percent of those who own VCRs were satisfied with their purchase, Nielsen places penetration levels at only 1 to 2 percent.

## 2. Direct Broadcast Satellite Service

Direct broadcast satellite service (DBS)--that is, direct broadcasting from a satellite to the home--while approved by the FCC, is not yet offered in the United States. The Communications Satellite Corp. (COMSAT) has, however, notified the FCC of its desire to offer satellite-to-home subscription television service. COMSAT announced its plan for such a system last August (1979), by which customers for a monthly charge could receive movies, sports events, educational/cultural programs, and data and textual transmission without commercial interruption. Attached to each subscriber's roof would be a three-foot diameter dish antenna designed to receive signals beamed from satellites. While initial negotiations between COMSAT and Sears, Roebuck and Co. have been discontinued, COMSAT still plans to find another partner for the venture and has announced the creation of a new subsidiary Satellite Television Corp. to pursue its plans. While it is impossible to assess the impact such a service will have, a survey by Petry Television, Inc., of television station managers (77 out of 170 questionnaires to television stations were returned) shows that 41 percent felt that direct-to-home broadcasting will have a major impact on broadcasting during the next 5 years.



### III. SELECTED FEDERAL COMMUNICATIONS COMMISSION POLICIES AFFECTING THE COMPETITIVE STRUCTURE OF THE TELEVISION BROADCASTING INDUSTRY

The Communications Act of 1934 (47 U.S.C. Sec. 151, et seq. [1976]) established the Federal Communications Commission as an independent Federal agency headed by seven commissioners appointed by the President with the advice and consent of the Senate. The FCC's responsibility encompasses the regulation of all interstate and foreign communication entering and leaving the United States by wire and radio, including telephone, telegraph, and broadcast. It is under this mandate that the FCC, among its major activities, regulates and formulates broadcast policies. 22/ Although the FCC has a wide range of responsibility in the broadcast area, this section of the report will attempt to synthesize selected major FCC policies which have had a major effect on the competitive structure and development of the U.S. commercial television broadcasting industry. 23/

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22/ Other Federal Government agencies such as the Federal Trade Commission and the Justice Department also have oversight responsibilities which affect the broadcast industry. The Justice Department has presently pending two suits, one filed in 1972 against the three major networks for alleged monopoly practices (CBS and NBC have reached out-of-court settlements), and one filed in 1979 against the National Association of Broadcasters television code, charging that it unfairly manipulates the marketplace by restricting advertising time. In addition to Government regulation, industry self-regulation governing programming and advertising practices is administered by the National Association of Broadcasters in the form of voluntary compliance to radio and television codes.

23/ Background information on the FCC policies discussed in section III is largely obtained from the following reports completed in conjunction with the FCC's Network Inquiry:

- 1) The Effect of the Federal Communications Commission's Spectrum Management Policies Upon the Number of Television Networks, by Thomas L. Schussler, Professor of Law, University of Arizona;
- 2) FCC Determinations on Networking Issues in Multiple Ownership Proceedings, by L. A. Powe, Jr., Professor of Law, University of Texas;
- 3) Recent Trends in Cable Television Related to the Prospects for New Television Networks, by Yale Braunstein, Assistant Professor of Economics, Brandeis University;
- 4) Report on Subscription Television, by Kristin Booth Glen, Professor of Law, Hofstra University.

signals.) Both these policies, localism and intermixture, resulted in the development of an artificial scarcity of television outlets, leaving the prefreeze, largely network-owned and -affiliated stations in an entrenched monopoly position.

When it became evident that UHF frequencies would continue to remain at an extreme disadvantage and impede full UHF development, the FCC took actions to attempt to put UHF frequencies on a more competitive and equal basis with VHF. The FCC moved to "selectively deintermix" six communities-- Peoria, Illinois; Elmira, New York; Springfield, Illinois; Evansville, Indiana; Fresno, California; and the Albany-Troy-Schenectady area of New York--in an attempt to develop all UHF television areas to promote UHF development (13 R.R. 1571 [1956]). The Commission then continued to investigate the possible deintermixture of additional locations.

In another move to make UHF more viable, the FCC requested that Congress pass legislation which would give the FCC the authority to require that all television receivers in the United States be capable of receiving both UHF and VHF signals. In response to this request, in 1962 the Congress passed the All-Channel Television Receiver Act (47 U.S.C. Sec. 303(s), 330 [1962]), which gave the FCC such power. In 1962 the FCC acted on this authority and passed a ruling that all television receivers must have this dual UHF-VHF capability by April 30, 1964 (47 C.F.R. Sec. 15.65-15.68; 24 R.R. 1585). <sup>25/</sup> As a result of this ruling, the FCC abandoned the policies of selective deintermixture and assignment of temporary short-spaced VHF stations in selected markets, since the Commission felt that all-channel receiver legislation would resolve the

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<sup>25/</sup> During the 1970s the FCC enacted further rules which required UHF receivers to have "click" tuning as VHF did, and required that both VHF and UHF antennas be affixed to television sets.

problem of VHF-UHF incompatibility and open up television markets to additional competition.

In June 1965 the FCC adopted a new table of UHF assignments, which resulted in the expansion of the number of UHF stations (both commercial and educational) to total 1080 (Fourth Report and Order 5 R.R. 2d 1587 [1965]). Some of these channels were reserved for future use, others were selectively placed in cities whose populations were 25,000 or more, in the hope that these UHF stations would provide additional channels for the growth of independent or fourth-network competition. What resulted was a reduction in the total number of UHF commercial assignments but a restructuring of such assignments in more favorable growth markets. 26/

The FCC has also attempted to control the competitive structure of the television broadcasting industry through the formulation of ownership rules. 27/ Basically these rules control the number and type of outlets that can be owned, the location of these outlets, and, in the case of one rule, the limits to what a network can own. The FCC has promoted the philosophy that diversity of ownership of communications sources is in the best interest of the public, and a significant part of the FCC's Report on Chain Broadcasting (Commission Order No. 37, Docket No. 5060, May 1941), issued in 1941, discussed ownership regulation. While the FCC did not regulate the number of stations licensed, it did restrict

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26/ For a detailed discussion of FCC policies regarding allocation and assignment of spectrum space, see Thomas L. Schuessler, University of Arizona. The Effect of the Federal Communications Commission's Spectrum Management Policies Upon the Number of Television Networks. Preliminary Report on Prospects for Additional Networks. FCC. February 1980.

27/ For a detailed discussion of FCC ownership rules, see L. A. Powe, Jr., University of Texas. FCC Determinations on Networking Issues in Multiple Ownership Proceedings. Preliminary Report on Prospects for Additional Networks. FCC. February 1980.

the licensing of two stations in the same area to a single network (duopoly). (This ruling affected NBC, which at that time had two networks, the Red and the Blue; see page 4 for discussion of the divestiture of the Blue network.) Later in 1941 the FCC limited to three the number of stations which could be under common ownership (6 Fed. Reg. 2282 [1941]). At the request of NBC, the ownership limitation was increased from three to five (NBC had asked for seven) in 1944 (9 Fed. Reg. 5442 [1944]). It is interesting to note that no explanation was given as to how the FCC arrived at the ownership numbers or why it later revised them. In addition, there was no consideration given as to the desirability of the specific markets in which the stations were located.

In November 1953 the FCC established multiple ownership rules to promote diversification of ownership, prevent undue concentration of economic power, and maximize opportunities to express various viewpoints (18 Fed. Reg. 7796 [1953]). <sup>28/</sup> The limit on television station ownership remained at five, and the regulation encompassed in the 1948 proposal, that two minority interests in a station equaled one station, was set aside. In order to assist the rapid development of UHF, the FCC modified ownership regulations and announced its new regulation to expand television station ownership to seven stations, to be made up of five VHF and two UHF (43 FCC 2797 [1954]). The Commission felt that even though such a regulation would expand ownership concentration, the long-term benefits to the public of the development of UHF broadcasting would outweigh any harm which might occur.

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<sup>28/</sup> The FCC established ownership and cross-ownership rules with regard to all facets of the media; however, for the purpose of this report we will discuss only regulations which affect the television broadcasting competitive market structure.

After the pressure of congressional investigations in 1964, the FCC decided to examine multiple ownership policy from the standpoint of outlet location by initiating a Top 50 Policy (3 R.R. 2d 909 [1964]). The FCC noted that, since multiple ownership of VHF television outlets was occurring in the major markets, where diversity of opinion was desirable, all applications for a second VHF station in the top 50 markets would be subject to a hearing. Six months later the FCC initiated its rulemaking which, while maintaining current ownership rules of five VHF and two UHF stations, would in the future limit group owners to only three stations in the top 50 markets, of which no more than two could be VHF (5 R.R. 2d 1609 [1965]). All existing group ownership patterns which exceeded the newly established limit were grandfathered. The proposed rule was not formally adopted, but all applications which did not meet the proposed criteria, while not automatically rejected, would be subject to a hearing to assure that the public interest was protected by any proposed transfers. The Commission began giving waivers to the hearing requirements as early as 1966 and in effect was negating its own Top 50 Policy. Finally, in November 1979, the FCC abolished its Top 50 Policy, (BC Docket No. 78-101, Nov. 29, 1979), a policy invoked only once, really never becoming an active factor in multiple-ownership policy.

In 1969, as part of its general investigation of cable television, the FCC announced proposed rulemaking on cable ownership (15 FCC 2d 417 [1969]). Following that investigation, the FCC, among other actions, promulgated a rule that national television networks could not own a cable television system (23 FCC 2d 816, 823 [1970]). <sup>29/</sup> According to the FCC's 1970 annual report, this

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<sup>29/</sup> For further information on cable television ownership regulations affecting individual television stations and other forms of media, see pages 29-31 59-61.

rule was promulgated since cable systems were becoming program originators, and the Commission wanted to guarantee competition in mass media and insure diversity of control over local media. This was the first general FCC ruling that required a group television owner to divest some of its holdings. Even in this case the divestiture was relatively minor, however, since ABC held no cable systems, NBC owned only 5 systems with 18,000 subscribers, and CBS had the largest holdings with 18 cable systems and over 100,000 subscribers.

In another move to enhance marketplace competition, in 1975 the FCC issued another notice of inquiry regarding the possibility of dropping in short-spaced VHF stations (that is, allowing the addition of a number of VHF channel allocations in between already designated VHF's) to add to the number of VHF stations available in the spectrum (Notice of Inquiry; Memorandum Opinion and Order, 40 Fed. Reg. 17321 [1975]). <sup>30/</sup> The petitioners for the rulemaking requested the addition of 62 new VHF channels, but, after receiving comments, the FCC proposed to add only 4 new channels, one each in Charleston, West Virginia, Altoona, Pennsylvania, Knoxville, Tennessee, and Salt Lake City (63 FCC 2d 840, 892 [1977]). On December 19, 1978, the FCC staff recommended that all four VHF station drop-ins be denied, because of technical problems and negative effects on UHF competition; however, the Commissioners sent the matter back for further study. While the approval of these four VHF stations is eventually possible, and while they might make an impact in their immediate market areas, they are so few that there will be no significant effect on the competitive structure of the television broadcast industry.

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<sup>30/</sup> In the 1950s the FCC had explored the possibility of dropping in VHF stations but dropped the plan as technically infeasible.

It can be seen that the FCC's general television broadcasting policies of localism and intermixture have largely contributed to the development of a limited competitive structure for the industry. The allocation of channels based on a localism policy results in a severe limitation in the number of stations available, and leads to the development of limited monopolies based on scarcity. The decision to intermix station assignments between VHF and UHF frequencies further compounded the problem by creating two classes of stations. While the FCC has attempted to raise the parity of UHF stations through rulemaking, the potential for UHF is just beginning to develop. The Commission has promulgated ownership regulations which have prevented the growth of massive television chains; however, the effect of these regulations has been questionable, since, with the exception of cable ownership regulations, the FCC did not attempt to break up already established dominant market patterns. Nevertheless, recent FCC rulings in cable and subscription television and satellite transmission, coupled with the growth of new technological developments, may eliminate the scarcity issue and enhance the competitive structure of the industry.

#### B. CABLE TELEVISION POLICIES

While indirect regulation of cable television began on an ad hoc basis with Carter Mountain Transmission Corp. v. FCC, 32 FCC 459 (1962), affirmed 321 F.2d 359 (1963), the FCC began to directly regulate cable television in 1965, when it developed regulations for microwave-served cable systems. It was not until this time that the FCC permitted cable operators to own and operate facilities that would not be offered for public use but would be used exclusively by the cable operator. Previous to this, a 1954 FCC authorization required that, among other provisions, a public need for the system besides that of the cable operator's had to be established, and reasonable rates for

the public use of the facilities had to be established as well. The 1965 FCC decision marked the transition of cable systems from common-carrier to private-carrier status when the FCC permitted the development of a microwave network for the private use of cable systems (Docket 15586, 1 FCC 2d 897 [1965]).

The FCC continued to use its statutory mandate to control the authorization of microwave facility construction as an indirect method of regulating cable television. In 1965 the FCC released regulations requiring all microwave carriers of distant signals to cable systems to prove that the cable system had agreed to carry all local television signals (38 FCC 683 [1965]). In addition, the FCC required that with applications in markets with four or more commercial assignments, the microwave applicant had to show that delivery of the signals would not harm the potential development of UHF services (1 FCC 2d 453 [1965]). Since this was virtually impossible to prove, it had the effect of stopping cable development in major markets.

In 1966 the FCC decided to discontinue its indirect regulation of cable systems via common-carrier microwave regulations in favor of a direct regulatory approach and issued further specific cable television regulations for all cable systems (Second Report and Order in Docket 14895, 2 FCC 2d 725 [1966]).

Under these new regulations, cable systems were

required to carry all local television stations; prohibited from duplicating, on the same day, via signals originating in another city, a program broadcast by a local station; and prohibited from bringing distant signals into the 100 major television markets without a hearing on the probable effect on local broadcasting. In all other markets, no restrictions were placed on the signals a cable system might carry, but procedures were adopted permitting threatened stations to challenge proposed importation of distant signals. 31/

The FCC's authority to regulate cable television was challenged in the courts,

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31/ Cable Television Information Bulletin. FCC. May 1978. p. 2.



but in June 1968 the Supreme Court affirmed the FCC's jurisdiction over cable, finding that the Commission needed authority over cable systems to assure the preservation of local broadcast service and regulate the distribution of broadcast service on a regional and national level (United States v. Southwestern Cable Co., 392 U.S. 157 [1968]). In the wake of this decision, the FCC decided to revise and expand its cable regulations and adopted "interim procedures" for use during the proceeding. These procedures included:

suspension of distant signal hearings, deferral of processing of all petitions or applications seeking authorization of service inconsistent with the proposed signal carriage rules, and grant of carriage requests consistent with the proposed rules. 32/

The new rules, which were adopted February 2, 1972, and became effective March 31, 1972, were the most inclusive regulations issued on cable regulation and remain the basic framework for cable regulation (Cable Television Report and Order, 36 FCC 2d 143 [1972]). While this report will not attempt to go into detail on these regulations, it will mention the significant factors which affected cable television development. These regulations set up standards for service according to market size, dividing television markets into three categories: 1-50, 51-100, and 101 and up, based on audience size. The size of the market for which a system provides service determines the number of broadcast signals the system could carry. The Commission assumed that the importation of distant signals into a community already served by one or more television stations would harm the local broadcasters. Assuming that the larger markets could withstand more competition, they were permitted to import more signals. Cable systems in major markets are also permitted to carry two independent stations, but, if these independent stations were distant signals they would have

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32/ Cable Television Information Bulletin. FCC. May 1978. p. 2.

to be counted in already allocated totals. Cable stations not located within a 35-mile radius of any commercial television station could carry an unlimited number of broadcast signals. Imported signals were also limited to signals from the closest markets (leap-frogging restrictions). That is, the imported signals the cable system was permitted to bring into its market were limited to only those available from markets closest to that of the cable system. These leapfrogging restrictions were designed to prevent cable operators from importing the same signals. It was feared that, if left unrestricted, cable operators would all seek out the network stations or those from the major markets for their imported signals. Cable systems in major markets were also required to maintain channels for programming by persons other than the cable operator. These channels were assigned for public, local government, and educational leased access (see pages 61-62 for information on the Supreme Court ruling declaring the illegality of such access requirements).

It can be seen by the above regulations that the major thrust of FCC cable regulation was concern for the impact that cable television would have on conventional television markets. The FCC restricted the number and type of signals cable television could carry, as well as the signal which could be chosen for importation. The Commission's concern for the impact on local broadcasters prompted them to make regulations contingent on market size and program exclusivity, and their concern for, among other things, diversity resulted in leap-frogging and public access restrictions.

Regulations concerning cable system ownership were promulgated in 1970. In separate proceedings concluded in February 1970 (Docket 18509) and in June 1970 (Docket 18397), the Commission prohibited cable system ownership by telephone companies within their local exchange areas, by television stations within

the same market, by national television networks anywhere in the country, and by television translator stations (a television repeater station which picks up existing television signals and rebroadcasts them over the air locally) in the same community.

The Commission has been concerned with telephone company ownership because of the potential anticompetitive and discriminatory practices which could evolve from the local telephone company's monopoly position in the community it serves and its ownership of utility poles, which usually carry the cable system's distribution cables. 33/ This rule, however, does not prevent telephone companies from owning cable systems outside their local exchange area or from providing cable facilities (channel distribution service) on a lease or tariff basis for use by an unaffiliated system.

The FCC's prohibition of certain types of television-cable crossownerships reflects the Commission's concern that as cable systems increasingly become originators, vigorous competition among the mass media and the greatest possible diversity of control over local mass communications media should exist.

In January 1973 the Commission denied petitions for reconsideration of these television-cable crossownership rules. At the same time, however, it extended the grace period for divestitures 2 years, to August 10, 1975, and invited station licensees affected by the rules to file petitions for waiver of the mandatory divestiture requirement. In June 1975 (Docket 20423) the Commission indefinitely suspended the divestiture requirement for television

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33/ In November 1979 the FCC relaxed telephone/cable rules by automatically granting waivers for telephone companies wishing to establish a cable franchise in its local service area in communities with 30 or fewer homes per square mile, unless a cable company or other source can show it could provide the service.

licensees, except for cases where there was a serious lack of competition, and also announced its intention to re-examine limited aspects of the crossownership rules. After a re-examination of Docket No. 20423, in June 1980 the FCC reversed itself and adopted a proposed rulemaking which would require the divestiture of all commonly owned television stations and cable television systems located in the same broadcast area. Divestiture was proposed within 1 year of final action in the rule change, but requests for waivers, which must be filed no later than 60 days after final action, will be considered. This proposed rulemaking was based on the FCC's policy to promote competition in the "economic and ideological marketplace."

While the FCC presently prohibits the formation of any future co-located newspaper-broadcast combinations (47 C.F.R. 73.35, 73.240, 73.636; rule affirmed F.C.C. v. Nat'l Citizens Comm. for Broadcasting, 436 U.S. 775 [1979]), the Commission continues to be concerned with patterns of media ownership and is also investigating (Docket 18891) whether present cable system ownership by radio stations and local daily newspapers should be prohibited. Whether there should be an upper limit on the number of cable systems owned by a single entity nationally or regionally is another question which the FCC is addressing.

In 1972 the FCC began gradually relaxing cable television rules, and cable regulation continues to be selectively reduced. <sup>34/</sup> In 1974 the FCC permitted

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<sup>34/</sup> A recent action taken July 22, 1980, by the FCC has the potential to greatly enhance the role of cable television. In a sweeping decision, the Commission has agreed to virtually eradicate all cable programming regulation through the elimination of the syndicated exclusivity and distant carriage rules. Once promulgated, the decision leaves only two major FCC regulations dealing with programming: the sports blackout rule, which prohibits cable television systems from carrying local sports events not available on local stations, and simultaneous network programming regulations, which prohibit a cable system from offering a network program at the same time a local affiliate is showing it.

the unlimited importation of late-night programming by cable television systems. Under this new regulation, cable systems were allowed to import as many distant signals as they desired after all local "must carry" signals had signed off, or at 1 a.m. (54 FCC 2d 1182 [1975]). The FCC felt that cable subscribers would benefit from expanded program hours, local broadcasters would not be significantly harmed, and it would encourage local broadcasters to program on a 24-hour basis.

In 1976 the FCC released three additional decisions which promoted cable expansion. Almost all leapfrogging restrictions invoked in 1972 were removed from cable operators based on the premises that it resulted in burdensome costs for the cable operator, that it resulted in the importation of signals irrelevant to the functioning to the community, and cable systems were likely to choose the closest independent station to import (57 FCC 2d 625 [1976]).

Two additional FCC rulings in 1976 greatly enhanced cable systems' development. The first was the establishment of procedures for the installation of 4.5-meter receiver-only earth stations. (Previously the smallest authorized earth station was 9 meters.) This decision enabled many more cable systems to purchase earth stations, since these smaller stations cost less than half of what the 9-meter stations cost (62 FCC 2d 901 [1976]). In that same year, the FCC issued its decision in "Southern Satellite System." In this decision the FCC for the first time authorized a common carrier to use satellite for the delivery of a distant signal to cable systems (62 FCC 2d 153 [1976]). The relaxation of FCC regulations since 1972 has enabled the cable industry to expand its programming selection and coverage. The late-night programming decision and the removal of leapfrogging restrictions enabled cable operators to select from a larger choice of available programs. Decisions on small earth

station and satellite usage opened up the possibility of distant cable programming at affordable cost, resulting in a further increase in programming alternatives and resulted in the birth of the cable superstation (see pages 40-42).

The question of control of access in the form of free access and leased access on cable systems has been a subject of continual controversy. The FCC has established and revised cable access rules a number of times during the 1970s. The FCC regulations stated that all cable systems of 3,500 subscribers or more were required to maintain up to 4 access channels (on public access channel for free, one educational and one local government channel free for the first five years, and one leased channel) if they have a sufficient channel capacity and if there is demand for full-time use of these channels. Otherwise they are required to provide a minimum of one combined access channel. System operators were also required to have equipment available for public use in the production of local programming, but reasonable charges could be made for usage. Cable operators were also permitted to supply leased-access channels, but as in the case of public channels, they are to be provided on a "first-come, first-serve" basis. (Cable Television Channel Capacity and Access Channel Requirements, Docket 20508, 59 FCC 2d 294 [1976]). The major controversy has arisen when pay (STV) programmers have sought to gain access on the cable system's unused channels. Many cable operators feel that it would be unfair competition to their pay programming and provides a subsidy to a competitor. The FCC was reviewing the problem when the Commission's access rules, which were subject to court review, were declared illegal. In April 1979, the Supreme Court decided that the FCC had exceeded its authority when it imposed public access requirements on cable system operators (FCC v. Midwest Video Corp., 440 U.S. 689 [1979]). The Court stressed that the FCC may not impose common-carrier type

regulation on cable systems or broadcasters; local franchising authorities, however, can require access rules as a condition of gaining the franchise.

The FCC first began addressing the regulation of pay cable in the late 1960s, when it preempted State and local regulation of pay cable rates. (As of this time, the FCC has decided not to regulate pay cable rates.) The Commission expanded its regulation of pay cable in 1970, when it enacted rules that governed pay cable airing of movies and sports (Memorandum Opinion and Order on CATV, 23 FCC 2d 825 [1970]). These rules were later more specifically addressed in the FCC's 1972 report and order (Cable Television Report and Order, 36 FCC 2d 143 [1972]). In 1976 the Justice Department filed for the lifting of these restrictions on pay cable, and these rules were struck down by the U.S. Court of Appeals in Washington because of failure of the FCC to demonstrate a genuine problem of siphoning off conventional broadcast programming (Home Box Office Inc. v. FCC, 567 F. 2d [D.C. Cir. 1977]). Since the Supreme Court declined to review the case (cert. denied 434 U.S. 829 [1977]), the FCC formally withdrew its pay cable rules, effective January 24, 1978. Currently the FCC does not regulate pay cable programming.

#### C. SUBSCRIPTION TELEVISION POLICIES

After issuing various notices of inquiry during the 1950s which established field demonstrations and authorized trial applications and issuing notices of proposed rulemaking in the 1960s, on December 12, 1968, the FCC issued its Fourth Report and Order on Subscription Television (15 FCC 466 [1968]). This report firmly established the Commission's view that it had the power to authorize permanent development of a nationwide STV service and enumerated rules for such a service. These rules included:

- 1) The so-called "complement of 4" rule, i.e., that only markets with 5 Grade A commercial signals are eligible for STV. 15 FCC 2d at 529.
- 2) The "one to a community rule," . . . i.e., no more than one STV authorization will be issued to any "community," 15 FCC 2d at 531. [This has since been abandoned.]
- 3) A requirement that stations authorized to offer STV must continue to program the minimum number [28 per week] of "free" hours required by the rules, 15 FCC 2d at 525, 526.
- 4) Both UHF and VHF licensees would be eligible to apply for STV authorization, although it was seen as unlikely that the latter would do so, 15 FCC 2d at 527.
- 5) That no one technical system would be authorized, and that the marketplace would, at least for the time being, be permitted to encourage technological development, 15 FCC 2d at 535-536. 35/

In addition to the above rules, the FCC developed extensive antisiphoning rules which required that:

- 1) No advertising could be broadcast during subscription operations, except for announcements promoting STV programs;
- 2) Sports events which had been regularly broadcast live on free television in the two years preceding their proposed subscription broadcast could not be shown on STV;
- 3) No series program with interconnected plots or substantially the same cast of characters could be offered on a subscription basis;
- 4) Not more than 90 percent of the total STV broadcasting hours could consist of feature films and sports events combined. 15 FCC 2d at 597-598. 36/

It is clear when one reviews these rules that the FCC was extremely concerned with the protection of the present television structure and the fear that STV would siphon away programming which would have been available on conventional "free" television. By limiting STV stations to communities with five

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35/ Glen, Kristin Booth. Report on Subscription Television. In Preliminary Report on Prospects for Additional Networks. FCC. January 1980. p. 20.

36/ Ibid., p. 22. These regulations are no longer in effect.



or more stations, limiting STV stations to no more than one per community, requiring that a minimum number of "free" television hours be broadcast on all STV stations and limiting the type of programming which could be offered, the FCC felt that STV was to develop as a supplemental broadcasting service and not an established alternative to conventional broadcasting.

As a result of the striking down of similar FCC-established antisiphoning rules for pay cable by the courts, the FCC initiated proceedings to delete STV antisiphoning regulations. Based on the premise that pay cable and STV services are in direct competition, the FCC felt that equal treatment should be given to both services. Therefore, on November 22, 1977, the FCC deleted restrictions regarding what feature films could be shown on STV (42 Fed. Reg., 62372, 41 R.R. 2d 1491), and on April 7, 1978, repealed all remaining program restrictions on STV (43 Fed. Reg. 15322, 42 R.R. 2d 1207 [1978]). Currently there are no restrictions on the type of programming STV operators may show, other than general broadcaster restrictions, except the requirement that a minimum of 28 hours per week of "free" conventional television must be broadcast.

Another significant step towards the deregulation of STV was the abandonment of the one to a community rule, which was promulgated as part of the FCC's 1968 Fourth Report and Order on STV (see pages 60-61). On October 12, 1979, the FCC released its First Report and Order in Docket no. 21502, which among other provisions removed the rule that limited communities to one STV service and allowed an unlimited number of STV stations in a community. The four conventional stations per market rule (that is, that at least four conventional stations must operate in the market before STV is permitted to enter as the fifth station), while under study, will still remain in effect. The FCC stated that such a policy of permitting more than one STV station per community will

provide greater program choice for consumers, will promote greater use of UHF channels, and will provide more opportunities in broadcasting for minorities and women, as well as small and independent businesses. The Commission stated that further STV matters will remain under study.

The "Must Carry Rule," an issue of extreme importance to both the STV and cable industry originally brought up in the FCC's 1968 Fourth Report and Order on STV and a subject of a proposed rulemaking in 1968, is once again before the FCC. The issue is whether cable television operators should be required to carry the STV signal and enable cable subscribers the opportunity to gain access to STV stations. While the STV industry strongly endorses such a regulation, cable operators have strongly opposed such a rule. The Commission's final ruling in this area could greatly influence the future growth of the STV industry.

FCC policies toward STV systems have changed dramatically since their inception. During the 1950s and early 1960s, the FCC was unsure of the desirability of initiating such a system on a nationwide basis. By the mid-1960s, Commission rules promulgated for the regulation of STV service were greatly concerned with the negative impact a pay system would have on local television market structure and its siphoning effect on "free" television programming. In recent years, FCC policy has moved toward a deregulatory posture, and the Commission now sees STV service as a positive force to provide greater programming choice, develop UHF station market power, and promote participation of previously unheard-from citizens in television broadcasting. 37/

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37/ For a detailed analysis of FCC subscription television policies, see Glen, Kristin Booth. Report on Subscription Television. In Preliminary Report on Prospects for Additional Networks. FCC. January 1980.

## CONCLUSION

All indicators point to the coming decade as one of significant change for the television broadcasting industry. How the conventional television broadcast system will respond to these changes and what impact the competitive alternatives will have on the industry as we know it today are still uncertain. Most experts in the field, however, predict a positive growth pattern for all sectors of the industry, given the increasing demand for a variety of services and the continued growth of the viewing audience.

Vast technological developments in communications and broadcasting have eliminated the scarcity which greatly contributed to the development of a limited number of broadcasting sources, but what this ultimately means for the structure of the industry is unclear. Within the conventional broadcast sector, independent stations are challenging network dominance, and programming alternatives are expanding.

Alternatives to conventional broadcasting, such as basic and pay cable television, cable superstations, and subscription television, continue to gain larger audience shares, competing not only with conventional broadcasting services but also among themselves. In addition, conventional broadcasters are entering into such competitive markets as cable programming. The expansion of television broadcasting away from programming towards ancillary services such as information retrieval, fire/burglar alarms, catalogue shopping, and the like, and the possibility that the television will become, more than an entertainment medium, a communications center, should also be considered.

Finally, FCC and other Government policies will continue to be a direct force on the structure and development of the television industry.

## APPENDIX A

APPENDIX A, TABLE 1: Network-owned television stations

<u>Network</u>	<u>Number of Stations</u>	<u>Location</u>	<u>Date and Method Acquired</u>
American Broadcasting Co.	5	WABC-TV, New York WLS-TV, Chicago KABC-TV, Los Angeles KGO-TV, San Francisco WXYZ-TV, Detroit	1948, C 1948, C 1949, C 1949, C 1948, C
CBS, Inc.	5	WCBS-TV, New York KNXT, Los Angeles WBBM-TV, Chicago WCAU-TV, Philadelphia KMOX-TV, St. Louis	1941, C 1951, P 1953, P 1958, P 1957, P
National Broadcasting Co.	5	WNBC-TV, New York WRC-TV, Washington, D.C. WMAQ-TV, Chicago WKYC-TV, Cleveland KNBC, Los Angeles	1941, C 1947, C 1948, C 1948-1955, C, 1965, P 1947, P
C = Constructed P = Purchased			

Sources: Television Factbook, Services Volume, No. 48, 1979 edition; and Christopher H. Sterling and Timothy R. Haight, The Mass Media: Aspen Institute Guide to Communication Industry Trends, p. 98 (data on date and method acquired).

APPENDIX A, TABLE 2: Growth of commercial network-affiliated and independent television stations in the United States, 1947-1978

Year 1/	NBC Affiliates		CBS Affiliates		ABC Affiliates		Total Independent Stations	Total Commercial Stations	Total Network-Affiliated Stations 2/	
	Number	Percent	Number	Percent	Number	Percent			Number	Percent
1947	2	16.7%	1	8.3%	1	8.3%	8	12	4	33%
1948	9	56.3	3	18.8	6	37.5	0	16	16	100
1949	25	49.0	15	29.4	11	21.6	1	51	50	98
1950	56	57.1	27	27.6	13	13.3	2	98	96	98
1951	63	58.9	30	28.0	14	13.1	0	107	107	100
1952	64	59.3	31	28.7	15	13.9	0	108	108	100
1953	71	56.3	33	26.2	24	19.0	1	126	125	99
1954	164	46.3	113	31.9	40	11.3	37	354	317	90
1955	189	46.0	139	33.8	46	11.2	37	411	374	91
1956	200	45.4	168	38.1	53	12.0	20	441	421	95
1957	205	43.5	180	38.2	60	12.7	26	471	445	94
1958	209	42.2	191	38.8	69	13.9	30	495	469	95
1959	213	41.8	193	37.8	79	15.5	25	510	485	95
1960	214	41.6	195	37.9	87	16.9	19	515	496	96
1961	201	38.1	198	37.6	104	19.7	24	527	503	95
1962	201	37.2	194	35.9	113	20.9	33	541	508	94
1963	203	36.4	194	34.8	117	21.0	43	557	514	92
1964	212	37.6	191	33.9	123	21.8	38	564	526	93
1965	198	34.8	190	33.4	128	22.5	53	569	516	91
1966	202	34.5	193	33.0	137	23.4	53	585	532	91
1967	205	33.6	191	31.3	141	23.1	73	610	537	88
1968	207	32.6	192	30.2	148	23.3	88	635	547	86
1969	211	31.9	190	28.7	156	23.6	105	662	557	84
1970	215	31.8	193	28.5	160	23.6	109	677	568	84
1971	218	32.0	207	30.4	168	24.6	89	682	593	87
1972	218	31.5	209	30.2	172	24.8	94	693	599	86
1973	218	31.3	210	30.1	176	25.3	93	697	604	87
1974	218	31.3	212	30.4	181	26.0	86	697	611	88
1975	219	30.8	213	30.0	185	26.0	94	711	617	87
1976	218	30.7	213	30.0	182	25.6	97	710	613	86
1977	212	29.1	210	28.8	190	26.1	116	728	612	84
1978	212	29.2	198	27.2	200	27.5	117	727	610	84

1/ All data are as of January 1 of each year.

2/ Separate network affiliation figures may be larger than total network-affiliated stations, since multiple affiliations were common in the days of fewer television outlets per market.

Source: Christopher H. Sterling and Timothy R. Haight. The Mass Media: Aspen Institute Guide to Communication Industry Trends. p. 53; 1978 data from Broadcasting Yearbook, 1979 edition.

APPENDIX A, TABLE 3: Independent television stations  
in operation or due to be operating by early 1979

<u>State</u>	<u>City</u>	<u>Call Letters</u>	<u>Channel</u>
Arizona	Phoenix	KPHO-TV	5
		KPAZ-TV*	21
		KTVW-TV	33
	Tucson-Nogales	KZAZ	11
California	Corona-Los Angeles	KBSC-TV	52
	Los Angeles	KTLA	5
		KHJ-TV	9
		KTTV	11
		KCOP	13
		KWHY-TV*	22
		KMEX-TV*	34
	Modesto	KLOC-TV*	19
	Oakland-San Francisco	KTVU	2
	Sacramento	KMUV-TV*	31
	Sacramento-Stockton	KTXL	40
	San Bernardino	KSCI	18
		KHOF-TV*	30
	San Francisco	KEMO-TV*	20
		KTSF-TV*	26
		KVOF-TV*	38
KBHK-TV*		44	
San Jose	KGSC-TV	36	
Tijuana-San Diego	XEWT-TV (Mexican)	12	
Tulare-Fresno	KMPH	26	
Colorado	Denver	KWGN-TV	2
Connecticut	Hartford	WHCT-TV*	18
Dist. of Columbia	Washington	WTTG	5
		WDCA-TV	20
Florida	Fort Lauderdale	WKID*	51
	Miami	WCIX-TV	6
		WLTV*	23
		WHFT*	45
	St. Petersburg-Tampa	WTOG	44
Georgia	Atlanta	WTCG	17
		WATL-TV	36
		WANX-TV*	46

\*Indicates speciality station.

<u>State</u>	<u>City</u>	<u>Call Letters</u>	<u>Channel</u>	
Hawaii	Honolulu	KIKU-TV*	13	
Illinois	Chicago	WGN-TV	9	
		WCIU-TV*	26	
		WFLD-TV	32	
		WCFC-TV*	38	
		WSNS-TV	44	
	Rockford	WQRF-TV	39	
Indiana	Bloomington-			
	Indianapolis	WTTV	4	
	Fort Wayne	WFFT-TV	55	
	Indianapolis	WHMB-TV*	40	
	South Bend	WHME-TV*	46	
Kentucky	Louisville	WDRB-TV	41	
Louisiana	New Orleans	WGNO-TV	26	
Maryland	Baltimore	WBFF	45	
Massachusetts	Boston	WXNE-TV*	25	
		WSBK-TV	38	
		WQTV	68	
		Cambridge	WLVI-TV	56
		Worcester	WSMW-TV	27
Michigan	Detroit	WXON	20	
		WKBD-TV	50	
		WGPR-TV	52	
Minnesota	Minneapolis-St. Paul	WTCN-TV <u>1/</u>	11	
		KMSP-TV <u>2/</u>	9	
Missouri	Kansas City	KBMA-TV	41	
		KYFC	50	
	St. Louis	KPLR-TV	11	
		KDNL-TV	30	
Nevada	Henderson-Las Vegas	KVVU-TV	5	
New Mexico	Albuquerque	KMXN-TV*	23	

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1/ Became an NBC affiliate on March 5, 1979.

2/ Incorrectly listed as an ABC affiliate in directory.

<u>State</u>	<u>City</u>	<u>Call Letters</u>	<u>Channel</u>
New York	Buffalo	WUTV	29
	New York	WNEW-TV	5
		WOR-TV	9
		WPIX	11
		WNJU-TV*	47
	New York-Newark	WTVG*	68
	Smithtown	WSNL-TV	67
North Carolina	Ashville	WANC-TV*	21
	Charlotte	WCCB	18
	Hickory	WHKY-TV*	14
	Winston-Salem	WGNN-TV	45
Ohio	Canton	WJAN*	17
	Cincinnati-Newport	WXIX-TV	19
	Lorain-Cleveland	WUAB	43
Oregon	Portland	KPTV	12
Pennsylvania	Allentown	WFMZ-TV	69
	Greensburg	WPCB-TV	40
	Philadelphia	WPHL-TV	17
		WTAF-TV	29
	Philadelphia (Burlington, N.J.)	WKBS-TV	48
	Pittsburgh	WPTT-TV	22
		WPGH-TV	53
South Carolina	Greenville	WGGG-TV*	16
Tennessee	Chattanooga	WRIP-TV*	61
	Crossville	WCPT-TV	55
	Memphis	WPTY-TV	24
	Nashville	WZTV	17
Texas	Corpus Christi	KORO	28
	Dallas-Fort Worth	KXTX-TV*	39
	El Paso	KCIK	14
	El Paso-Juarez	XEPM-TV (Mexican)	2
		XEJ-TV (Mexican)	5
	Fort Worth- Dallas	KTVT	11
	Houston	KRIV-TV	26
		KHTV	39
	Laredo (Nuevo Laredo)	XEFE-TV (Mexican)	2
	San Antonio	KWEX-TV*	41
Utah	Salt Lake City	KSTU	20
Virginia	Manassas	WTKK	66



<u>State</u>	<u>City</u>	<u>Call Letters</u>	<u>Channel</u>
Virginia	Portsmouth	WYAH-TV*	27
Washington	Tacoma-Seattle	KSTW	11
Wisconsin	Green Bay	WLRE	26
	Milwaukee	WVTV	18
Wyoming	Rock Springs	KTUX	13

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Source: Information compiled from: Handy Pocket Directory of Television Stations in Operation--1979. Special Supplement of Television Factbook and Television Digest.

APPENDIX A, TABLE 4: The top ten television markets by broadcast revenue--1978

<u>Market</u>	<u>Broadcast Revenue (\$ Millions)</u>	<u>Prime-Time Audience (1978-1979 Season, in Thousands)</u>	<u>Number of Stations Reporting</u>	<u>Total Broadcast Profit Before Federal Income Tax (\$ Thousands)</u>
New York	282.7	6,375	10	73,899
Los Angeles	265.8	3,883	14	79,453
Chicago	177.9	2,807	8	59,566
San Francisco	123.2	1,831	9	42,285
Philadelphia	115.8	2,364	7	42,018
Boston	104.0	1,788	6	34,573
Detroit	93.8	1,591	6	32,987
Dallas-Fort Worth	87.3	1,115	5	49,942
Houston-Galveston	81.5	1,010	5	46,694
Washington, D.C.	79.7	1,364	5	21,083

Source: Standard and Poor's Industry Surveys--Communication, November 29, 1979, p. C64; profit figures from Broadcasting, July 30, 1979. Prime-time audience figures from Broadcasting Yearbook, 1979 edition, p. B-77.

APPENDIX A, TABLE 5: Television revenues, expenses, and income: 1952-1978  
(In Millions of Dollars)

<u>Year</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Income</u> 1/
1952	\$ 324.2	\$ 268.7	\$ 55.5
1953	431.8	360.5	71.3
1954	592.9	502.6	90.3
1955	744.7	594.5	150.2
1956	896.9	707.3	189.6
1957	943.2	783.2	160.0
1958	1,030.0	858.1	171.9
1959	1,163.9	941.6	222.3
1960	1,268.6	1,024.5	244.1
1961	1,318.3	1,081.3	237.0
1962	1,486.2	1,174.6	311.6
1963	1,597.2	1,254.0	343.2
1964	1,793.3	1,377.7	415.6
1965	1,964.8	1,516.9	447.9
1966	2,203.0	1,710.1	492.9
1967	2,275.4	1,860.8	414.6
1968	2,520.9	2,026.1	494.8
1969	2,796.2	2,242.6	553.6
1970	2,808.2	2,354.4	453.8
1971	2,750.3	2,361.2	389.2
1972	3,179.4	2,627.3	552.2
1973	3,464.8	2,811.7	653.1
1974	3,781.5	3,043.2	738.3
1975	4,094.1	3,313.8	780.3
1976	5,198.5	3,948.3	1,250.2
1977	5,889.0	4,488.0	1,401.0
1978	6,913.0	5,265.9	1,647.1
1979*	7,880.0	6,003.0	1,877.0

1/ Before Federal income tax.

\*Estimated.

Source: Broadcasting Yearbook. 1980 edition. p. D-108; 1978 data from Broadcasting, July 30, 1979: p. 38; 1979 data from U.S. Industrial Outlook. 1980. Chapter 40, Broadcasting.

APPENDIX A, TABLE 6: Total figures for television revenues, expenses, and income by station category, 1977 and 1978

	<u>1978</u>	<u>1977</u>	<u>Percent Change From 1977</u>
<b>BROADCAST REVENUES <sup>1/</sup></b>			
Industry Total <sup>2/</sup>	\$6,913,000,000	\$5,889,000,000	17.4%
Networks	2,964,600,000	2,581,400,000	14.8
VHF Total	3,438,000,000	2,906,900,000	18.3
Network O&O	584,500,000	503,500,000	16.1
Other affiliates	2,478,300,000	2,059,000,000	20.4
Independents	375,200,000	344,400,000	9.0
UHF Total	510,300,000	400,900,000	27.3
Affiliates	253,800,000	202,000,000	25.6
Independents	256,500,000	198,900,000	29.0
<b>BROADCAST EXPENSES</b>			
Industry Total	5,265,900,000	4,488,000,000	17.3
Networks	2,591,100,000	2,175,300,000	19.1
VHF Total	2,258,400,000	1,982,900,000	13.9
Network O&O	398,200,000	354,200,000	12.4
Other affiliates	1,586,900,000	1,371,000,000	15.7
Independents	273,300,000	257,700,000	6.1
UHF Total	416,400,000	329,800,000	26.3
Affiliates	212,300,000	175,000,000	21.3
Independents	204,100,000	154,800,000	31.8
<b>BROADCAST INCOME</b>			
(before Federal income tax)			
Industry Total	1,647,100,000	1,401,000,000	17.6
Networks	373,500,000	406,100,000	(8.0)
VHF Total	1,179,600,000	924,000,000	29.5
Network O&O	186,300,000	149,300,000	24.8
Other affiliates	891,400,000	688,000,000	29.6
Independents	101,900,000	86,700,000	17.5
UHF Total	93,900,000	71,000,000	32.3
Affiliates	41,500,000	27,000,000	53.7
Independents	52,400,000	44,000,000	19.1

<sup>1/</sup> Last digits may not add to totals due to rounding.

<sup>2/</sup> Figures include three national TV networks, 511 VHF stations (15 network O&Os, 466 other affiliates, and 30 independents), and 197 UHF stations (126 affiliates and 71 independents).

APPENDIX A, TABLE 7: Profit and loss figures for individual stations--1978

	Total		Network-Affiliated		Independent	
	VHF	UHF	VHF	UHF	VHF	UHF
Total number of stations reporting <sup>1/</sup>	460	182	430	114	30	68
Number of stations reporting profits	424	135	400	94	24	41
Profitable stations as percent of total	92.2	74.2	93.0	82.5	80.0	60.3
Number of stations reporting profits of:						
\$15,000,000 and more	7		7			
10,000,000 to 15,000,000	16		13		3	
5,000,000 to 10,000,000	41	1	38		3	1
3,000,000 to 5,000,000	63	9	54		9	9
1,500,000 to 3,000,000	78	10	75	4	3	6
1,000,000 to 1,500,000	47	10	46	9	1	1
600,000 to 1,000,000	56	24	56	16		8
400,000 to 600,000	37	19	37	17		2
200,000 to 400,000	33	21	29	15	4	6
100,000 to 200,000	15	11	15	10		1
50,000 to 100,000	21	10	20	8	1	2
25,000 to 50,000	3	8	3	7		1
Less than 25,000	7	12	7	8		4
Number of stations reporting losses	36	47	30	20	6	27
Unprofitable stations as percent of total	7.8	25.8	7.0	17.5	20.0	39.7
Number of stations reporting losses of:						
Less than \$10,000	4	3	4	2		1
10,000 to 25,000	43	8	4	2		1
25,000 to 50,000	3	5	2	1	1	4
50,000 to 100,000	4	7	3	4	1	3
100,000 to 200,000	9	10	7	2	2	8
200,000 to 400,000	5	8	5	5		3
400,000 and over	7	11	5	4	2	7

<sup>1/</sup> Stations operating full year only, excluding satellites. Profits (broadcast income) are before Federal income tax.

APPENDIX A, TABLE 8: Network and national spot-advertising expenditures by firm--1979

<u>Firm</u>	(1) <u>National Spot</u>	(2) <u>Network</u>	(3) <u>Total (1 + 2)</u>
1. Proctor & Gamble	\$173,760,200	\$289,609,800	\$463,370,000
2. General Foods	93,456,300	203,237,800	296,694,100
3. American Home Products	42,464,800	122,588,400	165,053,200
4. General Mills	71,199,000	85,648,200	156,847,200
5. General Motors	29,904,700	117,313,700	147,218,400
6. Bristol Meyers	23,647,400	116,974,400	140,621,800
7. McDonald's	75,334,300	62,456,300	137,790,600
8. PepsiCo.	57,877,000	72,302,700	130,179,700
9. Ford Motor	30,919,700	97,016,000	127,935,700
10. Lever Brothers	40,402,900	71,709,100	112,112,000
11. Coca Cola	46,699,600	58,482,300	105,181,900
12. Philip Morris	16,767,400	86,445,400	103,212,800
13. AT&T	42,945,200	54,883,400	97,828,600
14. Pillsbury	39,607,700	53,396,400	93,004,100
15. Ralston Purina	19,722,900	69,062,900	88,785,800
16. Johnson & Johnson	4,880,400	83,736,100	88,616,500
17. Warner-Lambert	20,034,000	63,692,900	83,726,900
18. Chrysler	14,022,700	69,589,800	83,612,500
19. Sears, Roebuck	17,052,900	65,955,900	83,008,800
20. Colgate Palmolive	28,352,100	52,998,700	81,350,800
Total for Top 20	889,051,200	1,897,100,200	2,786,151,400
Total for Nation	2,881,297,900	4,697,353,200	7,578,651,100

Source: Broadcasting, April 28, 1980. p. 62. Data compiled from computations provided by Television Bureau of Advertising, Broadcast Advertisers Reports.

APPENDIX A, TABLE 9: Advertising media: shares of market, 1972-1979

<u>Media</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979*</u>
Newspapers	30.1%	30.2%	29.9%	29.9%	29.4%	29.2%	29.0%	28.5%
Television	17.6	17.8	18.2	18.6	19.9	20.0	20.2	20.4
Radio	6.9	6.9	6.9	7.0	6.9	6.8	6.8	6.5
Magazines	6.2	5.8	5.6	5.2	5.3	5.7	5.9	5.9
All Other	39.2	39.3	39.4	39.3	38.5	38.3	38.1	38.7
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
National	55.9	54.8	55.1	54.5	55.1	55.4	55.0	N.A.
Local	44.1	45.2	44.9	45.5	44.9	44.6	45.0	N.A.
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	N.A.

\*Estimated

N.A. = Not Available

Source: Standard and Poor's Industry Surveys. Communication. November 29, 1979: p. C61; from data supplied by McCann-Erickson.

APPENDIX A, TABLE 10: Number of television network and station employees, 1950-1978

<u>Year</u>	<u>Networks 1/</u>	<u>All Stations</u>	<u>Total Television Employees 2/</u>
1950	N.A.	N.A.	9,000
1951	N.A.	N.A.	N.A.
1952	N.A.	N.A.	14,000
1953	N.A.	N.A.	18,200
1954	N.A.	N.A.	29,400
1955	N.A.	N.A.	32,300
1956	N.A.	N.A.	35,700
1957	N.A.	N.A.	37,800
1958	N.A.	N.A.	39,400
1959	N.A.	N.A.	40,300
1960	9,600	31,000	40,600
1961	8,800	31,300	40,100
1962	9,100	32,800	41,900
1963	9,700	34,000	43,700
1964	10,700	35,000	45,700
1965	11,000	36,700	47,700
1966	11,200	39,100	50,300
1967	11,500	40,200	51,700
1968	12,200	43,100	55,300
1969	12,900	44,900	57,800
1970	13,200	45,200	58,400
1971	12,000	46,100	58,100
1972	12,400	46,900	59,300
1973	12,400	47,800	60,200
1974	13,200	48,800	61,900
1975	13,300	49,000	62,300
1976	13,800	51,000	64,800
1977	14,153	53,025	67,178
1978	14,542	55,950	70,492

1/ ABC, CBS, and NBC home base.

2/ Total television employment data for the 1970s include public television station employees, who represent about 15 percent of the total.

N.A. = Not Available.

Sources: Christopher H. Sterling and Timothy R. Haight, *The Mass Media: Aspen Institute Guide to Communication Industry Trends*, pp. 264-265; 1977 and 1978 data from *Broadcasting*, August 14, 1978, and July 30, 1979.



APPENDIX A, TABLE 11: Network and station employment--1978

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	<u>Number of Employees</u>			<u>Total Payroll 1/</u>
	<u>Full-Time</u>	<u>Part-Time</u>	<u>Total</u>	
Industry Total	63,848	6,644	70,492	\$1,362,669,000
Networks <u>2/</u>	12,983	1,559	14,542	394,240,000
VHF total	42,373	4,031	46,404	833,987,000
Network owned and operated	5,293	251	5,544	145,167,000
Other affiliates	33,659	3,393	37,052	612,425,000
Independents	3,421	387	3,808	76,395,000
UHF total	8,492	1,054	9,546	134,442,000
Station total	50,865	5,085	55,950	968,429,000

1/ Last digits may not add due to rounding.

2/ Represents ABC, NBC, and CBS home base.

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Source: Broadcasting, July 30, 1979: p. 52.

APPENDIX A, TABLE 12: Percentage of minority and female employees  
in U.S. commercial television stations, 1971-1977

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
Minority employees							
Full-time employees	8%	10%	11%	12%	13%	14%	14%
Part-time employees	15	18	20	20	21	22	22
Total, all minority employees	9	11	12	13	13	15	15
Female employees							
Full-time employees	22	22	23	24	25	26	28
Part-time employees	24	26	27	30	31	33	35
Total, all female employees	22	23	23	25	26	27	34

Source: Christopher H. Sterling and Timothy R. Haight, *The Mass Media: Aspen Institute Guide to Communication Industry Trends*, Partial table, p. 268; 1977 data from Office of Communication of the United Church of Christ, New York, New York.

## APPENDIX B

TABLE 1: Growth of U.S. cable systems, 1968-1979

<u>Year</u>	<u>TV Homes</u>	<u>Cable Systems</u>	<u>Subscribers</u>	<u>Percent of Cable Penetration of TV Homes</u>
1968	56,374,000	2,000	2,800,000	4.9%
1969	57,514,000	2,260	3,600,000	6.3
1970	59,389,000	2,490	4,500,000	7.6
1971	60,775,000	2,639	5,300,000	8.7
1972	62,969,000	2,841	6,000,000	9.5
1973	65,244,000	2,991	7,300,000	11.2
1974	66,575,000	3,158	8,700,000	13.1
1975	68,771,000	3,506	9,800,000	14.3
1976	70,573,000	3,651	10,800,000	15.3
1977	71,556,000	3,832	11,900,000	16.6
1978	73,307,000	3,997	13,000,000	17.7
1979	76,240,000	4,100	16,000,000	21.0

Source: National Cable Television Association (NCTA), from data in Television Factbook 1979, Services Volume; 1979 data from NCTA.

APPENDIX B, TABLE 2: U.S. cable systems by subscriber size  
(As of September 1, 1978)

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<u>Size</u>	<u>Number of Systems</u>
50,000 and over	12
20,000 to 49,999	89
10,000 to 19,999	227
5,000 to 9,999	390
3,500 to 4,999	261
1,000 to 3,499	1,210
500 to 999	725
250 to 499	557
249 and under	501
Not available	<u>25</u>
TOTAL	3,997

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Source: Television Factbook 1979,  
Services Volume, p. 90-a.

APPENDIX B, TABLE 3: 20 largest U.S. cable systems by subscribers  
(As of September 1, 1978)

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<u>System</u>	<u>Subscribers</u>
San Diego, CA (Mission Cable TV, Inc.)	152,880
New York, NY (Manhattan Cable TV)	90,000
Los Angeles, CA (Theta Cable of California)	87,000
Oyster Bay, NY	76,000
San Jose, CA	69,400
Suffolk County, NY	67,300
Austin, TX	65,087
Allentown, PA	59,350
Northampton, PA (Twin County Trans-Video, Inc.)	57,000
Erie County, NY	56,900
New York, NY (Teleprompter)	54,500
Toledo, OH	50,000
Wilmington, DE	48,500
San Francisco, CA	46,092
Harrisburg, PA	44,311
Santa Barbara, CA	44,231
West Orange, NJ	42,000
San Rafael, CA	41,200
Reading, PA (Berks TV Cable Co.)	37,689
Medford, MA	37,538

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Source: Television Factbook 1979, Services Volume, p. 84-a, partial table.

APPENDIX B, TABLE 4: Ownership of U.S. cable systems--1978  
(As of September 1, 1978)

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<u>Category</u>	<u>Systems</u>	<u>Percent</u>
Broadcaster	1,216	30.4
Newspaper	506	12.7
Book or magazine publisher	431	10.8
Program producer or distributor	701	17.5
Theater	162	4.1
Telephone	74	1.9
Community or subscriber	101	2.5
Cable or broadcast equipment	213	5.3

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Systems with any degree of cross-ownership are counted.

Systems with ownership in more than one category are counted in each.

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Source: Television Factbook 1979, Services Volume, p. 83-a.

APPENDIX B, TABLE 5: 25 Largest U.S. cable multiple system operators  
by number of subscribers--1979  
(As of October 1979)

<u>Rank</u>	<u>System Operator</u>	<u>Number of Subscribers</u>
1.	Teleprompter Corporation	1,234,800
2.	American TV & Communications Corporation	975,000
3.	Community Tele-Communications Inc.	781,000
4.	Warner Amex Cable Corporation	660,000
5.	Cox Cable Communications Inc.	655,871
6.	Times-Mirror Company	459,000 <sup>1/</sup>
7.	Viacom Communications	415,000
8.	Sammons Communications	362,008
9.	Storer Cable TV Inc.	328,000
10.	UA-Columbia Cablevision Inc.	301,273
11.	United Cable TV Corporation	281,473
12.	Continental Cablevision Inc.	261,750
13.	Cablecom-General Inc.	211,999
14.	Service Electric Cable TV Inc. <sup>2/</sup>	210,200
15.	General Electric Cablevision Inc.	198,000
16.	TeleCable Corporation	193,000
17.	Daniels & Associates	191,000
18.	Midwest Video Corporation	184,912
19.	NewChannels Corporation	180,590
20.	Liberty Communications Inc.	156,000
21.	Western Communications Inc.	123,900
22.	Texas Community Antennas Group	122,370
23.	Vision Cable Communications Inc.	118,500
24.	Comcast Corporation	117,800
25.	Century Communications Corporation	116,103
	TOTAL, top 25	8,839,438

<sup>1/</sup> Includes Communications Properties Inc. acquisition.

<sup>2/</sup> No recent figures available.

Source: National Cable Television Association, from Television Digest Western Show Supplement, December 1979.

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APPENDIX B, TABLE 6: Cable originations by existing U.S. cable systems--1978  
(As of September 1978)

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<u>CURRENT</u>	
TOTAL SYSTEMS OPERATING	3,997
TOTAL SYSTEMS ORIGINATING	2,650
Systems with automatic originations only	1,615
Systems with nonautomatic originations only	106
Systems with automatic and nonautomatic originations	929
Automatic Originations, by Type	
Time-weather	2,412
News ticker	650
Stock ticker	302
Sports ticker	230
Message wheel	370
Advertising	334
Channel guide	80
Community bulletin board	53
Emergency alert	90
Other	276
Nonautomatic Originations, by Type	
Local live	665
Film	170
Tape	394
Educational access	252
Public access	205
Government access	116
Advertising	87
Cable network	61
Other	224
Systems With No Originations	1,347
<u>PLANNED</u>	
TOTAL SYSTEMS PLANNING ORIGINATIONS	284
Systems planning automatic originations only	105
Systems planning nonautomatic originations only	133
Systems planning automatic and nonautomatic originations	46

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Source: Television Factbook 1979, Services Volume, p. 83-a.



APPENDIX B, TABLE 7: Pay cable industry growth, 1973-1979

<u>Date of Census</u>	<u>Pay Cable Subscribers (In Millions)</u>	<u>Systems With Pay Cable</u>	<u>Percent of Pay Cable Penetration of Homes Passed</u>	<u>Percent of Penetration of Pay Cable in Basic Cable Systems</u>
7/15/73	0.035			
9/1/74	0.100			
6/30/75	0.265	150		
6/30/76	0.766	253	11.5	24.3
6/30/77	1.174	441	11.5	22.5
6/30/78	2.353	789	16.2	30.9
6/30/79	4.334	1,498	19.9	37.7
12/30/79	5.731	2,115	22.3	41.3

Source: National Cable Television Association, from chart compiled by Paul Kagan Associates, Inc. from their Pay TV Censuses, and the April 11, 1980, issue of Pay TV Newsletter.

APPENDIX B, TABLE 8: Major pay cable programmers

<u>Programmer</u>	<u>Affiliates</u>	<u>Subscribers</u>
Bestvision	22	55,000
Bravo (Daniels)	3	12,935
Cinevue (Continental Cablevision)	15	20,000
GalaVision	7	2,000
Hollywood Home Theatre	3	6,000
Home Box Office	1,700	4,000,000 <sup>1/</sup>
Home Theater Network	57	41,000
Home Premiere Cinema (Optical Systems)	NA	NA
Impact Theatre (TeleMine)	2	NA
Pay TV Services	NA	NA
PRISM	41	102,671
Showcase (Daniels)	4	33,544
Showtime <sup>2/</sup>	600	1,000,000
Take 2	38	13,000
Telemation Program Services	40	185,000
The Movie Channel (Warner Amex)	172	195,000
Uptown (TPT Manhattan)	2	14,500
Z Channel	NA	70,000
Total for 15 with available data	2,706	5,750,650

<sup>1/</sup> HBO's subscriber total includes Marquee (an MDS pay service), which is accounted for separately, but adjusted for in the total survey subscriber counts.

<sup>2/</sup> Also includes Showtime Plus Sports.

Source: National Cable Television Association, from Cablevision, February 11, 1980.