BEFORE THE

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In re:		
Review of the Prime Time Access Rule, Section 73.658 (k) of the Commission's Rules	}	MM Docket No. 94-123

AN ECONOMIC ANALYSIS OF THE PRIME TIME ACCESS RULE

March 7, 1995

ECONOMISTS INCORPORATED

WASHINGTON, D.C.

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I. Introduction

The Prime Time Access Rule (hereinafter PTAR or the Rule), by restricting the ability of ABC, CBS and NBC affiliates to broadcast successful programs during part of the day, was intended to increase the level of competition in program production by increasing the output of independent producers, to reduce network control over affiliates, to promote the growth of independent stations, and to increase diversity. Instead, PTAR has impeded competition and reduced viewer welfare.

For many years before adoption of the Rule in 1970, CBS and NBC had been the only significant broadcast networks. At the time of the Rule, ABC had only recently succeeded in achieving parity with CBS and NBC. The FCC's Prime Time Access Rule was a response to concerns that ABC, CBS and NBC dominated the program production market, controlled viewer choices, and fostered barriers to competing program sources.

An unstated but central element of the theory underlying PTAR is the notion that the success—whether measured in audiences or profits—of ABC, CBS and NBC was attributable to market failures or economic misbehavior. In fact, it is now understood that the success of broadcast networks—as opposed to non-network distributors or local producers—is attributable to economic characteristics of the marketplace that make network distribution more efficient. Further, the fact that there were in 1970 only three networks was chiefly the result of the Commission's own spectrum allocation policies. Nevertheless, in 1970 the Commission decided to achieve its public policy goals by handicapping its most successful broadcast licensees.

The Commission ordered ABC, CBS and NBC affiliates in the top-50 markets not to show network programming for more than three-quarters of the prime-time hours each day, resulting in withdrawal of all network programming in what became known as the "access period." Further, the Commission forbade ABC, CBS and NBC affiliates in the top-50 markets to broadcast off-network shows during the access period.[1] These provisions were intended to create opportunities for independent (and especially UHF) stations and for independent producers and syndicators.[2] The opportunities were created, of course, by denying television viewers the programs that had been provided by ABC, CBS, NBC and syndicators of off-network programs.

An analogy may be useful in understanding the theory of PTAR. It is as if the government had sought to deal with IBM's perceived dominance of mainframe computers in the 1970s by forbidding IBM to sell computers in 13 of the 50 states, and by forbidding also the sale of used IBM computers in those states. Such a remedy would make little sense, especially if IBM's dominance was attributable to superior products and better customer service. Further, the effect of the policy obviously would be to deny customers an option that they might have preferred. Finally, even if such a remedy could have been defended in the 1970s, it could hardly, in the case of IBM, be defended today, when IBM is beset by numerous energetic competitors.

The analogy with IBM suggests another feature of the PTAR debate. IBM, a single firm, apparently did "dominate" the market for mainframe computers, largely because of the superiority of its System 360 products.[3] ABC, CBS and NBC are not one firm, but three, and three keen rivals. Yet both the Commission and various commentators, simply by using the phrase "the networks" as one would use "IBM" in the analogy, imply that the three networks act as one—in respects relevant to the Rule. This tacit assumption cannot be accepted without proof, and no one has offered such proof. If the assumption is rejected, and if one then asks whether any of the *individual* firms, such as ABC, to whom the Rule is applied, *ever* had "dominance," the answer is that they did not.

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1 The Rule appears at 47 C.F.R. §73.658(k) (1993). This summary of the Rule omits various details and exceptions. For purposes of this Report, the terms "access period" and "access hour" are used interchangeably to refer to 7–8 p.m. Eastern Time. Occasionally, where noted, "access period" is used to refer to the half hour from 7:30-8:00 p.m.

2 To the FCC in 1970, independent producers seems to have meant not merely producers, but also distributors, packagers and syndicators other than ABC, CBS and NBC—in short, non-network "sources."

3 *See generally,* GERALD W. BROCK, THE U.S. COMPUTER INDUSTRY: A STUDY OF MARKET POWER (1975).

Economic research in the twenty-five years since the Rule was adopted has shed considerable light on the premises and likely effects of the Rule. It is now clear, for example, that the Commission's own spectrum allocation policies (in conjunction with the economies of scale of television networking) limited the number of program choices and sources available to viewers in 1970.[4] At least with respect to prime-time entertainment programming, the viewing public appears to prefer high-quality, expensive productions that are broadcast nationwide to less expensive productions purchased or produced by local stations.[5] Expensive, high-quality programs can be supported only by distributors who can aggregate many viewers and corresponding advertising revenue. In a competitive struggle between national advertiser-supported network programming and locally produced or syndicated first-run programming, viewers' tastes and economies of scale are such that network programming will often do better than non-network programming.[6] It was such forces, rather than any economic or competitive pathology in the structure or behavior of the broadcast networks, that explained the relative success of ABC, CBS and NBC at the expense of locally produced or syndicated first-run programming.

Consequently, when the Commission adopted the Prime Time Access Rule, it constrained the television industry away from what was (given the spectrum allocated to broadcasting) the competitive equilibrium outcome. There is a general presumption that such policies reduce consumer welfare. In this case, theory predicts that the quality

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4 *See* THOMAS G. KRATTENMAKER & LUCAS A. POWE, JR., REGULATING BROADCAST PROGRAMMING 72-73, 287, 290 (1994); Krattenmaker, *The Prime Time Access Rule: Six Commandments for Inept Regulation,* 7 HASTINGS COMM. & ENT. L.J. 19 (1984); STANLEY M. BESEN, ET AL., MISREGULATING TELEVISION: NETWORK DOMINANCE AND THE FCC 37ff (1984); FCC, NETWORK INQUIRY SPECIAL STAFF, 1 NEW TELEVISION NETWORKS: ENTRY, JURISDICTION, OWNERSHIP, AND REGULATION 507-13 (1980) [hereinafter NISS].

5 The term "high-quality" with respect to television programs does not imply an aesthetic judgment. In this report "high-quality" is used synonymously with "expensive." Higher production expenses are incurred to increase the appeal of programming to potential viewers, and more popular programs tend to increase in cost as those involved in production accrue greater bargaining power. *See* BRUCE M. OWEN & STEVEN S. WILDMAN, VIDEO ECONOMICS 42ff (1992).

6 This outcome is not inevitable. If viewers preferred, for example, local-interest broadcast programming to national programming regardless of quality or expense, the result would be local programming. In contrast, daily newspapers have substantial economies of scale and yet there are few national newspapers in this country and hundreds of local ones. This reflects readers' preference for local news content and a sufficiency of advertiser demand for local audiences.

of programming available to the viewing public will decline, making viewers worse off. Conceivably, such a price might be worth paying if there were a more than compensating increase in diversity or other non-economic values. But in no way could or did PTAR increase the number of viewer choices available at any time, because the number of broadcast stations remained unaffected.

This report examines the following issues related to PTAR: (1) Are any of the original economic bases for the Rule valid today? For example, does ABC, CBS or NBC dominate the markets in which each operates? (2) What has been the effect of the Rule on competition, diversity and viewer welfare? The analysis and the empirical evidence lead to the conclusion that the Rule, if it was ever justified by economic conditions in this industry, is no longer justified. Further, the evidence is overwhelming that television viewers were from the beginning harmed by the Rule.

II. Is ABC, CBS or NBC Dominant Today?

A. No single network dominates any market

Whether "dominance" refers to program selection and distribution or to program production, clearly none of the networks has ever enjoyed dominance. Even in the 1960s, when ABC, CBS and NBC each averaged about a third of national TV audiences and advertising revenues, the share of each network was less than what today would be regarded as the strictest antitrust standard for market dominance.[7] Even in the years immediately preceding the adoption of PTAR, no network had a share[8] of prime-time television audiences that rose much above one-third, and each faced two rivals of almost equal size. The only way that ABC, CBS or NBC could ever have been perceived as having "dominance" was to assume that the networks were under unitary control or acted in concert. Such an assumption cannot be supported with any facts, and

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7 There is no single standard for market dominance in antitrust, even when there are barriers to entry. Learned Hand concluded that a 60 percent market share was insufficient to infer monopoly power. *United States v. Aluminium Co. of America*, 148 F.2d 416 (2d Cir. 1945). Various commentators concerned with dominant firms (as distinguished from monopolies) suggest market shares from 60 percent (Williamson) to 50 percent (Shepherd) to 40 percent (Stigler, Scherer, Pascoe, Weiss and Geroski). The 1992 DOJ/FTC HORIZONTAL MERGER GUIDELINES use a 35 percent threshold for purposes of defining a "leading firm," but only in a Clayton §7 context where the relevant standard is "incipiency," and even then only for purposes of identifying mergers that require closer scrutiny. Oliver E. Williamson, *Dominant Firms and the Monopoly Problem: Market Failure Considerations*, 85 HARVARD LAW REVIEW 1512-1531 (1972); William G. Shepherd, *Causes of Increased Competition in the U.S. Economy*, 1939-1980, 64 REVIEW OF ECONOMICS AND STATISTICS 613-626 (1982); George J. Stigler, *The Kinky Oligopoly Demand Curve and Rigid Prices*, 55 JOURNAL OF POLITICAL ECONOMY 432-449 (1947); F. M. SCHERER, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE, 232 (2d ed. 1980); George Pascoe & Leonard W. Weiss, *The Extent and Permanence of Market Dominance* (1983) (FTC Bureau of Economics Working Paper); and P.A. Geroski, *Do Dominant Firms Decline?* in THE ECONOMICS OF MARKET DOMINANCE 143-167 Donald Hay & John Vickers, eds. (1987).

8 As used herein, when referring to audiences, "share" means television sets tuned to a particular station or network as a percentage of homes using television (HUTs) in a relevant geographic area. Shares can add to more than 100 percent because homes often have more than one switched-on set. "Rating" means television sets tuned to a particular station or network as a percentage of all television households (TVHHs), whether viewing or not, in a relevant geographic area.

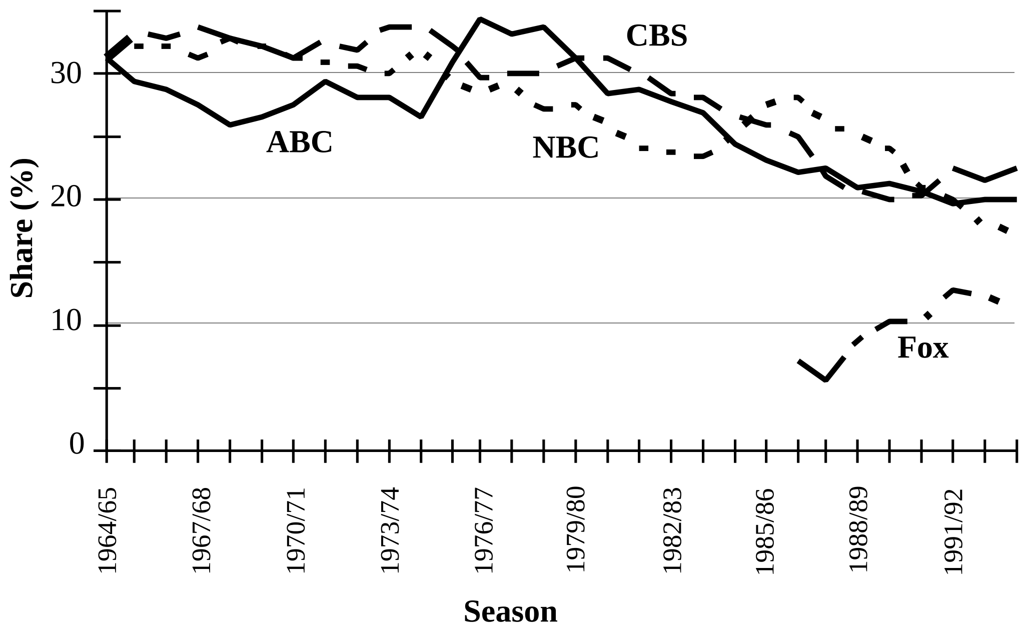
would run counter to the many manifestations of vigorous competition among the networks, particularly in their programming decisions.

The landscape of video distribution and production has been transformed completely since PTAR was established. This transformation includes the development of new television networks, the growth of independent television stations, and the explosion of programming delivered by cable and other distribution media. Because of these phenomena, ABC, CBS and NBC cannot be viewed as "dominant" today even if they were baselessly viewed as a single entity instead of three distinct, competing firms.

That no broadcast network has ever achieved "dominance" is due in part to the well-known rivalry among them. Though ABC, CBS and NBC have had similar audience shares, their rivalry for audiences and advertising dollars has caused a continual shifting of their relative positions. Figure 1 shows prime-time audience shares for the past 30 seasons. CBS had the largest share in the first part of this period, but led the other two networks by only 0.2 share points in 1964/65 and was virtually matched by NBC in 1968/69–1970/71. CBS had the largest share again until 1976/77, when it was overtaken by ABC. As recently as two years before taking the lead, ABC had the lowest share of the three networks. ABC maintained its lead for four seasons, after which CBS regained the lead for five seasons. Beginning in 1985/86, NBC had the highest share for six years. Recently, the lead has passed again to CBS. Such changes in relative position are not likely to have occurred if the networks were not competing intensely for audiences and advertising dollars.

Competition among ABC, CBS and NBC is further indicated by the quality and expense of their programming. As discussed below, programming expenditures by ABC, CBS and NBC per half-hour show are several times those of independent syndicators.

Figure 1 Prime-time shares by season, 1964/65–1993/94[9]



B. Factors facilitating the growth of competing video distributors

1. Cable penetration

Outlets for video programming grew chiefly because of the vast swelling in the number of cable subscribers. In 1970, fewer than 5 million households subscribed to cable television.[11] Up to that time, cable television was principally useful for improving the reception of broadcast television. The expanding availability of video programming from satellite-delivered cable networks considerably increased the appeal of cable television. After years of steady growth, approximately 59 million households subscribed to cable television in 1994.

These subscribers represent almost 62 percent of TV households (TVHH).[12] In no income class is penetration less than 50 percent, except for those with incomes under

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9 Source: Appendix A, Table A-1.

10 Source: Appendix A, Table A-1.

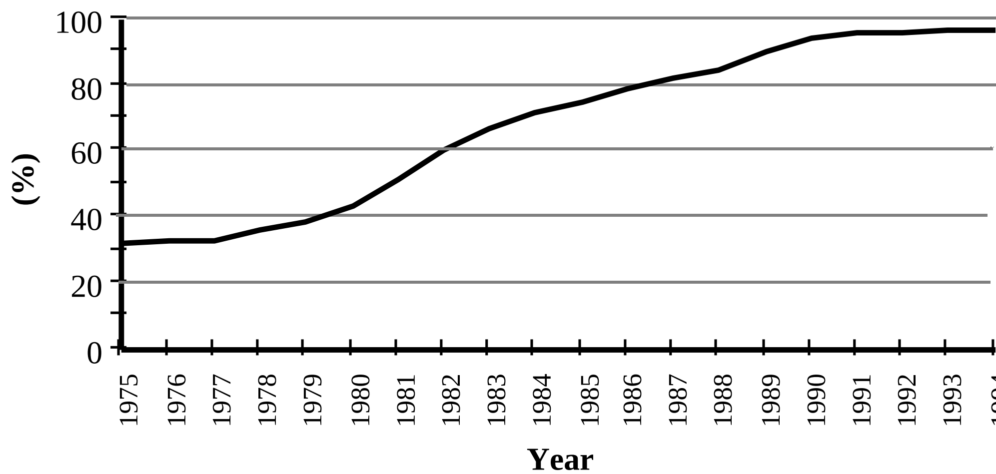
11 TELEVISION & CABLE FACTBOOK 1994, SERVICES at I-68.

12 *See* Appendix A, Table A-6.

$10,000. Even for that group penetration is 46 percent.[13] Including households that are passed by cable but do not currently subscribe, over 91 million households, or 97 percent of television households, have *access* to video programming through cable television.[14] See Figure 2. Further, the number of cable channels available to subscribers has been growing. Today, 95 percent of cable subscribers receive 30 or more channels, and 38 percent receive 54 or more channels.[15]

Figure 2 Homes passed by cable[16]

(As a percentage of television households)



Not only is cable programming widely available, it is heavily viewed by those households that choose to subscribe. In cable households, "basic" (advertiser- and cable operator-supported) and pay-cable networks have an all-week audience share of 49, greater than the sum of ABC, CBS and NBC affiliates' shares at 47.[17] Cable networks have a high audience share in cable households even in prime time. Their all-week prime-time share is 48, comparable to 53 for the combined share of ABC, CBS and

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13 According to Cabletelevision Advertising Bureau, penetration among households with incomes under $20,000 is 50.3 percent. Higher income classes have higher penetration. CAB computations based on NIELSEN TELEVISION INDEX, January 1995 and Mediamark Research Inc., Fall 1994 data.

14 *See By the Numbers*, BROADCASTING & CABLE, Jan. 9, 1995, at 61.

15 NATIONAL CABLE TELEVISION ASSOCIATION (NCTA), CABLE TELEVISION DEVELOPMENTS Fall 1994, 10-A.

16 Source: Appendix A, Table A-6.

17 Based on NIELSEN TELEVISION INDEX. *See* Appendix K, Table K-1.

NBC affiliates. See Table K-2. With such a wide variety of programming options available to and actively viewed by such a large portion of the nation, it would be ridiculous to assert that ABC, CBS and NBC "dominate" video programming even when taken together; the role played by each network is even more modest.

The growth of independent television stations referred to below is explained in significant part by their carriage on cable systems into an ever growing number of households. The rising number of subscribers to cable has also served to eliminate or reduce greatly the so-called "UHF handicap." This handicap refers to a disadvantage UHF independent stations have had in attracting a large audience in the past, principally due to the technical limitations television viewers have had in receiving over-the-air signals from UHF stations. Cable television, as well as other television delivery modes, greatly reduces or eliminates those technical limitations. See Appendix C.

2. Number and strength of independent stations

One of the most remarkable changes since PTAR was adopted has been the steady growth since 1980 in the number of independent commercial television stations, those not affiliated with ABC, CBS or NBC. In 1970, there were only 62 independent television stations in the United States.[18] See Figure 3. This number had increased by only 50 percent by 1978, but tripled to 186 stations by 1983. By 1993, the number had more than doubled again, reaching a total of 438. Now all top-50 markets are reached by Fox affiliates, and there is at least one non-Fox independent in all but one of the top-50 markets.[19] See Table 1. The average number of independent stations in the top-50 markets has increased from 1.3 per market in 1970 to 5.8 today.[20] To these independent stations should be added over 1,300 low-power television stations, most of which do not obtain programming from any of the broadcast networks. See Figure 4. Together, the increase in independent and low-power stations represents a huge increase in the demand for video programming.

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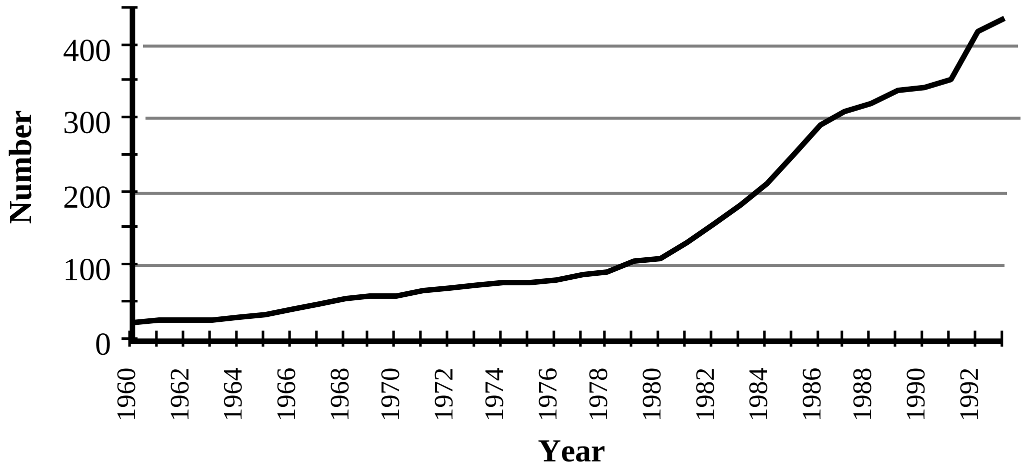
18 FCC, Notice of Proposed Rule Making, MM Docket 94-123, released Oct. 25, 1994 reports at ¶16 that there were 82 independent stations in 1970.

19 The current 50 markets subject to PTAR restrictions were determined based on average prime-time audiences in February 1989 and February 1990. *See* FCC Public Notice, *Top 50 Markets for the Prime Time Access Rule, 1992-1995,* issued April 16, 1990. This report will use the term "top-50 markets" to refer to the "PTAR 50 markets," unless otherwise indicated.

20 FCC, Notice of Proposed Rule Making, *supra* note 17, ¶16.

Figure 3 U.S. independent commercial stations[21]



21 Source: Appendix A, Table A-3.

22 Source: Appendix A, Table A-3.

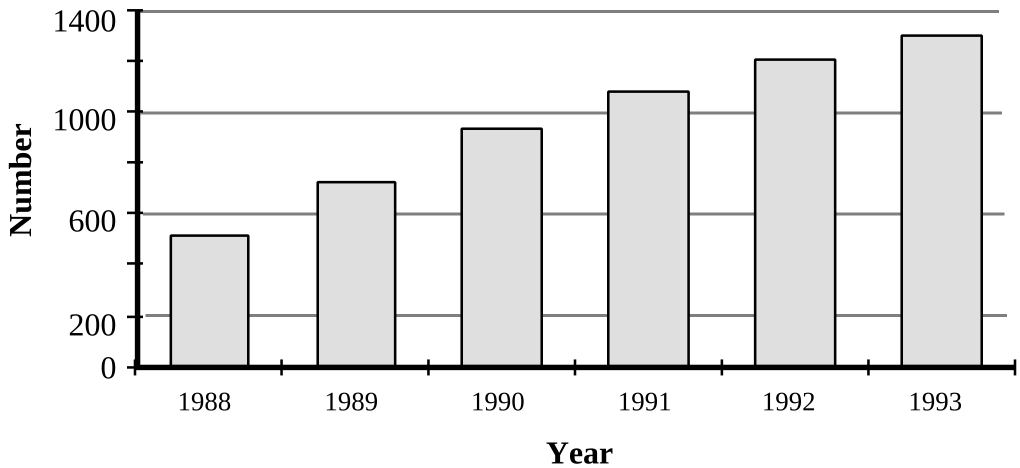
Table 1 Fox and non-Fox independent stations in the top-50 markets[23]

Market	Fox			Non-Fox independent		
	VHF	UHF	Total	VHF	UHF	Total
Atlanta	1	0	1	0	6	6
Baltimore	0	1	1	0	2	2
Birmingham	1	0	1	0	2	2
Boston	0	1	1	0	8	8
Buffalo	0	1	1	0	1	1
Charleston-Huntington	1	0	1	0	1	1
Charlotte	0	1	1	0	2	2
Chicago	0	1	1	1	8	9
Cincinnati	0	1	1	0	1	1
Cleveland	1	0	1	0	7	7
Columbus, OH	0	1	1	0	2	2
Dallas-Ft. Worth	1	0	1	0	10	10
Denver	0	1	1	1	6	7
Detroit	1	0	1	0	4	4
Grand Rapids-Kal'mzoo-B.Crk	0	1	1	0	2	2
Greensboro-H.Point-W. Salem	1	0	1	0	4	4
Greenv'll.-Spart.-Ashevll-And	0	1	1	0	2	2
Harrisburg-Lncstr-Leb-York	0	1	1	0	2	2
Hartford & New Haven	0	1	1	0	2	2
Houston	0	1	1	0	9	9
Indianapolis	0	1	1	1	5	6
Kansas City	1	0	1	0	3	3
Little Rock-Pine Bluff	0	1	1	0	3	3
Los Angeles	1	0	1	3	10	13
Louisville	0	1	1	0	1	1
Memphis	1	0	1	0	3	3
Miami-Ft. Lauderdale	1	0	1	0	8	8
Milwaukee	1	0	1	0	5	5
Minneapolis-St. Paul	0	1	1	1	2	3
Nashville	0	1	1	0	4	4
New Orleans	1	0	1	0	2	2
New York	1	0	1	2	8	10
Norfolk-Portsmth-Newpt Nws	0	1	1	0	3	3
Oklahoma City	0	1	1	0	3	3
Orlando-Daytona Bch-Melbrn	0	1	1	0	5	5
Philadelphia	0	1	1	0	8	8
Phoenix	1	0	1	4	4	8
Pittsburgh	0	1	1	0	3	3
Portland, OR	0	1	1	1	2	3
Providence-New Bedford	0	1	1	0	0	0
Raleigh-Durham	0	1	1	0	4	4
Sacramnto-Stkton-Modesto	0	1	1	0	5	5
Salt Lake City	1	0	1	0	2	2
San Antonio	0	1	1	0	5	5
San Diego*	1	0	1	0	2	2
San Francisco-Oak-San Jose	1	0	1	0	11	11
Seattle-Tacoma	1	0	1	2	4	6
St. Louis	1	0	1	1	2	3
Tampa-St. Petersburg	1	0	1	0	5	5
Washington, D.C.	1	0	1	0	6	6
Total	22	28	50	17	209	226

*San Diego receives Fox from XETV, a station broadcasting from Tijuana, Mexico.

23 Source: NIELSEN STATION INDEX, 1993, updated from BROADCASTING & CABLE, Dec. 5, 1994, at 50-56.

Figure 4 Low-power television stations in the U.S.[24]



3. Other video outlets

Though large, the numbers of cable subscribers and homes passed by cable understate the availability of video programming by means other than broadcast television. About 2.1 million households subscribed to video services through backyard dishes at the end of 1994, and even more receive non-subscription services such as shopping and religious channels by this means. SMATV serves another 1.1 million subscribing households, and another 600,000 households subscribe to wireless cable (MMDS). See Figure 5. Service from direct broadcast satellite systems (DBS) is now well underway, with service provided today by DirecTV, USSB and PrimeStar, with others planning to launch.

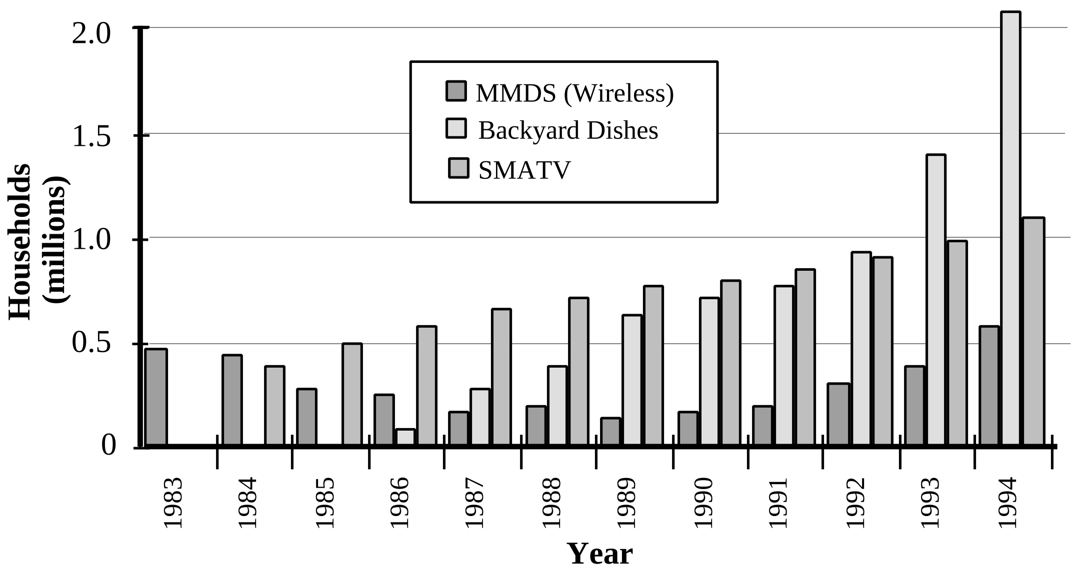
Like cable, DBS is ubiquitous, offering an alternative to virtually every household, whether or not it subscribes. Many sources estimate that DBS subscribers will exceed 1 million in 1995, and may exceed 10 million by 2000.[25] This growth is significant not only because it will expand the number of households obtaining video programming from a source other than ABC, CBS or NBC, but also because the large channel

24 Source: Appendix A, Table A-4. Low-power television service was established March 4, 1982.

25 *See*, for example, *DBS Disagreements Emerge*, CABLEVISION, Nov. 14, 1994, at 6.

capacity on DBS services will create demand for still more video programming.[26] A similar expansion of video channels will likely result from video dial tone (VDT) offerings now in pilot stages with six of the seven RBOCs as well as GTE and a number of other independent telephone companies.

Figure 5 **Households subscribing to video programming via backyard dishes, SMATV and MMDS**[27]



The growth in these video outlets, together with increases in independent stations and cable penetration, has enhanced the potential for new broadcast networks, increased the demand for video programming, and increased the competition for viewers among video media.

C. Competing video distributors

1. New broadcast networks

The remarkable growth in the number of video outlets has been matched by a mushrooming of new video distributors, including new broadcast networks. The first of these new networks,[28] Fox Broadcasting Company, began supplying network

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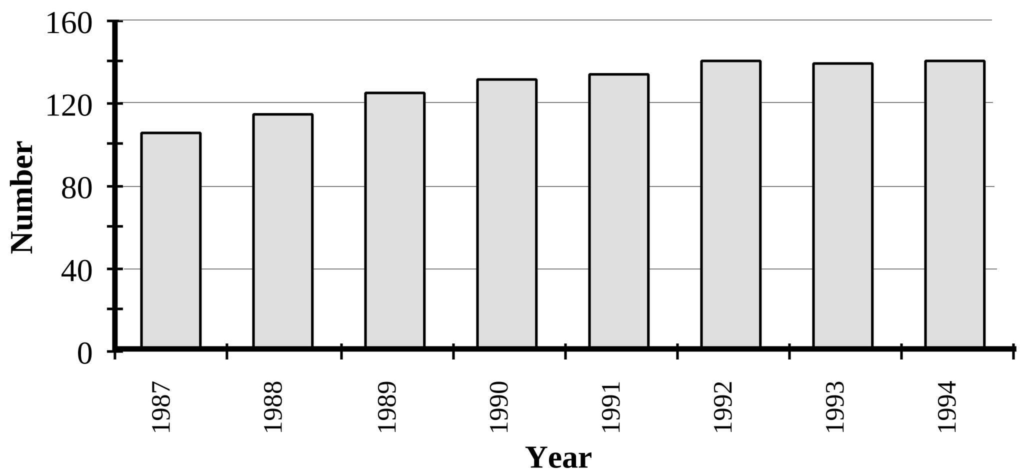
26 For example, DBS service providers expect to obtain programming from producers not now selling to cable or television networks. *See DBS Systems Expected to Seek New Programming Sources*, SATELLITE WEEK, Sept. 26, 1994.

27 Source: Appendix A, Table A-7.

28 Fox has all of the economic characteristics of a network, even though it is not considered a network under the Commission's PTAR definition.

programming during prime time in April 1987, programming a single night aired by over 100 affiliated stations.[29] Figure 6 shows the growth of Fox affiliated stations. By the 1989 season, Fox was offering three nights of programming through 125 affiliates. Fox began programming prime time every night of the week in 1993. It currently programs 15 hours of prime time per week, and 29 hours per week overall, excluding football. Its affiliate count has grown to 199 stations, including those with secondary affiliation.[30] All top-50 markets are reached by Fox affiliates. Fox currently reaches 98.7 percent of the national audience.[31]

Figure 6 Fox affiliates[32]



Fox competes with ABC, CBS and NBC to acquire programming, to attract audiences, and to sell advertising time. Fox also competes to attract and retain affiliated stations. Since May 1994, 68 television stations have changed network affiliation.[33] Of these stations, 21 have moved to Fox from ABC, CBS or NBC. Changes in affiliation occurred in 37 markets.

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29 Sources for this paragraph: *The Fox Trots Faster*, TIME, Aug. 27, 1990, at 64; *Fox TV 'no longer a weblet,'* TELEVISION DIGEST, July 19, 1993, at 5; BROADCASTING & CABLE MARKETPLACE 1992, at lxix; and Table 1.

30 A secondary affiliate is a station that broadcasts primarily the programming of one network but also broadcasts part or all of another network's offerings.

31 ELECTRONIC MEDIA, Dec. 19-26, 1994, at 55.

32 Source: Appendix A, Table A-2.

33 Julie A. Zier, *Fog of War Engulfs Affiliation Battles*, BROADCASTING & CABLE, Dec. 5, 1994, at 50-56.

Even those stations that did not change affiliation were affected, benefiting from improved compensation packages offered by the competing networks. Besides the financial incentives offered by Fox, it is estimated that the three networks will pay $200 million or more in additional compensation.[34] Fox's ability to attract additional affiliates stems in part from its success in buying broadcast rights to NFL football games. Fox reportedly paid $1.6 billion for four seasons, beginning in 1994, outbidding CBS, which had a relationship with professional football for 40 years.[35]

ABC, CBS, Fox and NBC have now been joined by two more new networks.[36] The United Paramount Network (UPN), owned by Paramount Television and Chris-Craft/United Television, began service on January 16, 1995.[37] It has 96 affiliates, including secondary affiliates, and reaches 79 percent of U.S. TV households.[38] It offers two hours of prime-time programming on both Monday and Tuesday nights, and expects that within four to five years it will offer programming five nights per week, following the pattern of Fox's development. The other new network, WB Television, affiliated with Warner Brothers, a studio owned by Time Warner, began broadcasts on January 11, 1995.[39] It initially offers programming only on Wednesday nights, but ex-

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34 CBS's Tony Malara: *In the Storm of the Eye*, BROADCASTING & CABLE, Dec. 19, 1994, at 34. *See also* Paul Kagan Associates, *Network Profits Impacted for a Decade by Comp Hikes*, TV PROGRAM INVESTOR, Aug. 31, 1994.

35 Joe Flint, *Fox to Pitch Older Viewers*, BROADCASTING & CABLE, Jan. 3, 1994, at 14-18, and Steve McClellan, *Fox's NFL Bid Drove Up Prices, Drove out CBS*, BROADCASTING & CABLE, Jan. 3, 1994, at 18-19.

36 "Who'd have thought the day [would come] when CBS beat ABC and NBC and yet still finished third in the ratings? It happened in Los Angeles and several other metered markets Monday night, as the UPN network soared to first place from 8-10 p.m. with the premiere of 'Star Trek: Voyager' and Fox placed second with a two-hour episode of 'Melrose Place.' " SHOPTALK for Thursday, Jan. 19, 1995 (Don Fitzpatrick Associates, San Francisco) (Internet Newsletter). In addition, according to A.C. Nielsen, Fox won the November 1994 sweep in Washington, D.C.

37 Information on United Paramount is from Eric Schmuckler, *New Network Ready to Roll*, MEDIAWEEK, Oct. 10, 1994, at 3; and Michael Freeman, *Fifth Net Race Takes Turn*, MEDIAWEEK, Aug. 1, 1994, at 5.

38 Elizabeth Jensen, *Building a Network: 50 Stations, 4 Shows, 1 Frog*, WALL STREET JOURNAL, Jan. 3, 1995, at A-11-12. *See also Anxious Parents Await Birth of a TV Network*, NEW YORK TIMES, Jan. 15, 1995, Section 2 at H-1 and ELECTRONIC MEDIA, Jan. 16, 1995, at 5.

39 Information on WB network is from Austin Evans Fenner, *Paramount Television CEO Faces Struggle to Develop Network Market Share*, KNIGHT RIDDER/TRIBUNE BUSINESS NEWS, Sept. 15, 1994; and Jensen, *supra* note 36. BROADCASTING & CABLE, Jan. 2, 1995, at 36, puts UPN's audience reach at 78 percent.

pects to cover all nights in several years. WB expects to achieve an 80 percent reach using approximately 50 affiliates along with superstation WGN.[40]

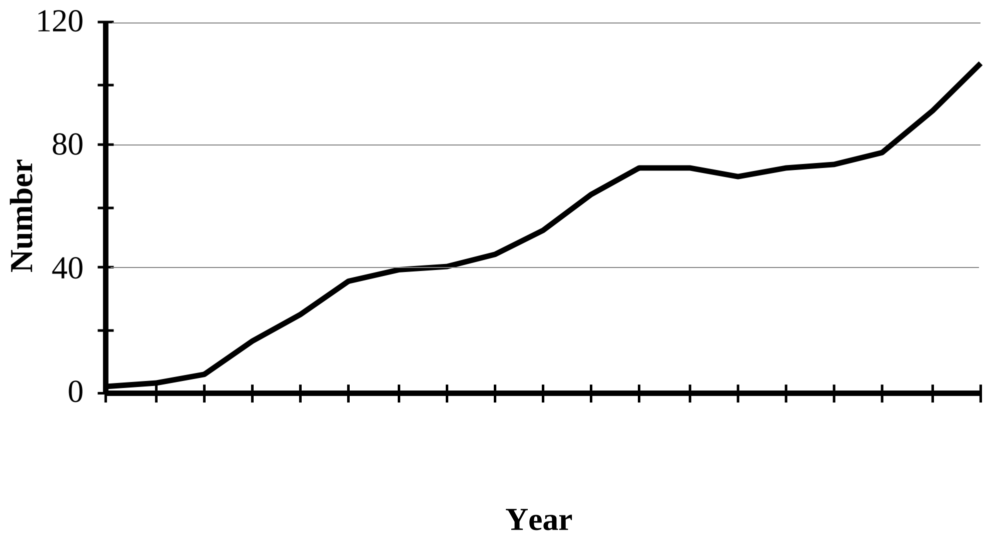
It is worth noting that all three of the new broadcast networks are affiliated with Hollywood studios. This vertical integration balances the increased ability of ABC, CBS and NBC to produce their own programs or finance outside production as the restrictions associated with the financial interest and syndication rules and the network consent decrees are removed.

2. New cable networks

The spread of cable television across the nation has been both the cause of and a response to a tremendous increase in the number of cable networks. The first national cable television network, Home Box Office, was launched in 1972. As Figure 7 shows, the number of national cable video networks began to expand rapidly in the late 1970s, exceeding 40 pay and basic networks by 1982. In 1994, national basic cable networks alone numbered 79. Another 30 networks offered national non-basic service, and over 40 networks offered cable service regionally. These cable networks represent an explosion in the number of buyers seeking video programming.

40 COMMUNICATIONS DAILY, Dec. 23, 1994, at 4, reports 47-48 WB affiliates. ELECTRONIC MEDIA, Jan. 16, 1995, at 5, lists 47 WB affiliates besides WGN.

Figure 7 U.S. national video cable networks[41]



Most of these cable networks do not rely on programming originally shown by ABC, CBS or NBC. Instead, they rely on theatrical and original made-for-television movies, sports, syndicated programming not originally shown on ABC, CBS and NBC, and original made-for-cable programming. Indeed, of the 94 cable networks analyzed for this report, only four rely on off-network programming for a majority of their program hours. See Appendix B.

3. First-run syndication

Syndicators of video programming for broadcast television are numerous and competitive. In 1994, television stations chose to air 259 different programs supplied by syndicators, not counting infomercials. These programs were packaged and distributed to stations by over 48 separate syndicators. First-run programming accounted for 75 percent of these shows, including over half of the 50 syndicated shows with the largest weekly gross market share.[42] According to a trade source, the current first-run market includes dozens of new shows.[43] The enormous growth of new broadcast and cable networks, both full and part-time, including providers of syndicated programming, has

41 Source: Appendix A, Table A-5.

42 *See* PAUL KAGAN ASSOCIATES, TV PROGRAM STATS, Jan. 23, 1995.

43 *See* BROADCASTING & CABLE, Jan. 23, 1995 at 88, listing new shows offered at NAPTE for the 1995/96 season.

been facilitated by the increased use of satellites to deliver video programming from the mid 1970s through today. Satellite delivery has greatly reduced the costs of interconnection relative to previous landline technology and has also narrowed the differences in costs between full-time and part-time interconnection.[44]

D. Impact on networks of increased competition

1. Audience shares

As pointed out previously, neither ABC, nor CBS nor NBC could credibly be described as dominant. None of the networks has had a share of prime-time viewing even as high as 40 in the past 30 seasons. Furthermore, increasing competition from other video distributors has steadily eroded their audiences. See Figure 1. In the 1971/72 season, the first in which PTAR became effective, the three networks had an average share of 31.1 during prime time.[45] PTAR itself appears to have had little if any effect on overall network shares of the viewing audience, since the average share of ABC, CBS and NBC changed little in the first years after the Rule's adoption, and was still above 30 in the 1979/80 season. Thereafter, the effects of increased competition from cable, independent stations and other media became apparent, causing ABC's, CBS's and NBC's average share of prime-time viewing to fall almost continuously. By 1993/94, the average share in prime time for ABC, CBS and NBC was 20.2, less than two thirds its level in 1971/72.

Focusing on prime-time audiences overstates the role of ABC, CBS and NBC in television viewing as a whole. As recently as 1980, ABC, CBS and NBC affiliates' weekly average total-day share was 80.[46] See Figure 8. Viewing of affiliates during dayparts in which network programming was available made up 51 of the 80 share points. In other words, ABC, CBS and NBC served as video distributors for about half of all television viewing. By 1982, affiliates' share had dropped by 9 share points, principally due to a tripling of cable's share. Significant increases in cable's share of viewing have occurred in most of the subsequent years. In the 1990s, the share of independent stations (including Fox affiliates) has also increased significantly. As a result of

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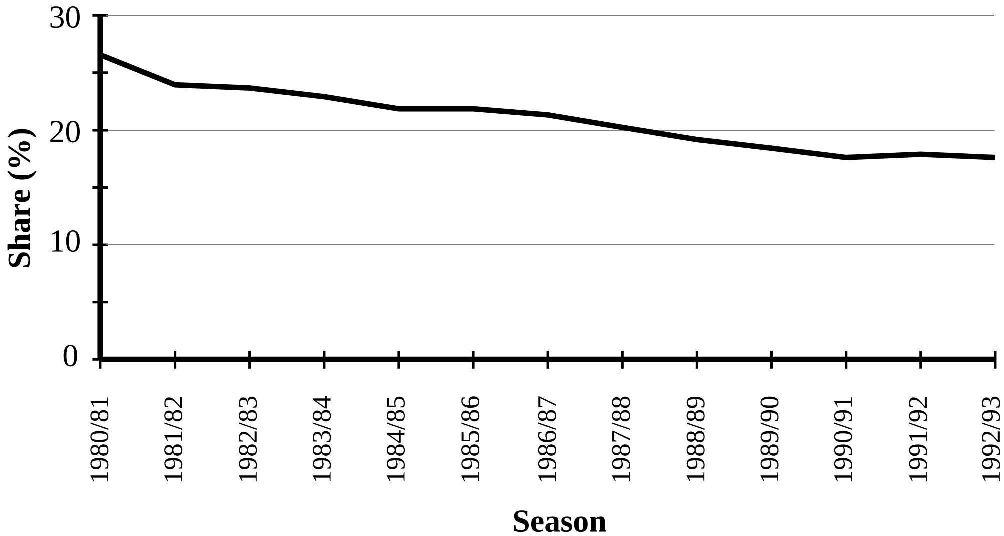
44 NISS, *supra* note 4 at 123, 128.

45 *See* Appendix A, Table A-1.

46 *See* Appendix A, Table A-9.

the increased popularity of their competitors, ABC, CBS and NBC affiliates' share of the viewing audience has dropped by a third since 1980, to a level of 52. Of these 52 all-day share points, only 35 are attributable to dayparts programmed by the networks. The 35 share, rather than the 52 share, is the better indicator of networks' roles as video distributors. On this basis, the average share of each network is under 12 share points.

Figure 8 **Average ABC, CBS and NBC affiliate share of all-day viewing by season**[47]



2. Advertising shares

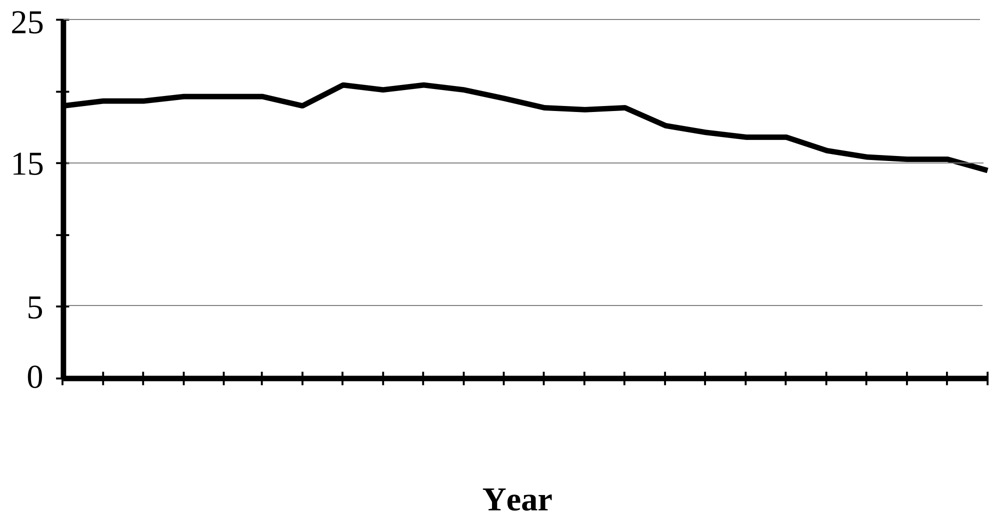
As with audiences, no network is dominant in national television advertising revenues. Probably the most sensible way to talk about dominance of advertising revenues is to use the "relevant market" paradigm of antitrust analysis. It is assumed for present purposes that the relevant market in which ABC, CBS and NBC compete includes only national television advertising, such as national cable, national spot and barter-syndication sales. This undoubtedly understates the true extent of the market because it excludes other national media, such as magazines and radio networks.

In 1970, ABC, CBS and NBC each had a share of national television advertising revenues equal to roughly one third of the total network share of 57.3 percent, or 19.1 percent each. See Figure 9. Ever since, the average network share has trended downward relative to national spot, national cable and national syndicated advertising.

47 Source: Appendix A, Table A-9.

By 1993 the ABC, CBS and NBC average was only 14.6 percent of national television advertising. ABC, CBS and NBC cannot be said to dominate national television advertising even collectively, much less individually. In another proceeding, the Commission has put forward the tentative view that the relevant national advertising market in which TV broadcasters compete does not include national spot sales.[48] This tentative definition ignores the important competitive constraint imposed on network advertising rates by national spot advertising rates.[49] ABC, CBS and NBC combined once had a 100 percent share in this excessively narrow market; today their average share has declined to less than 23 percent.[50]

Figure 9 **Average ABC, CBS and NBC share of U.S. national television advertising**[51]



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48 *See* Further Notice of Proposed Rule Making, MM No. 91-221 & 87-8, released Jan. 17, 1995, ¶37.

49 OWEN & WILDMAN *supra* note 5 at 153, 158; J. Peterman, *Differences between the Levels of Spot and Network Television Advertising Rates*, (1979)(Working Paper No. 22, Federal Trade Commission, Bureau of Economics); and NISS, THE MARKET FOR TELEVISION ADVERTISING, PRELIMINARY REPORT (1980).

50 *See* Appendix A, Table A-10.

51 Source: Appendix A, Table A-10.

3. Relations with affiliates

The balance of bargaining strength between networks and affiliates has shifted significantly in favor of affiliates since 1970. Complaints about dominance of affiliates' program choices arise from a fundamental misunderstanding of network efficiencies.[52]

Both the network and the affiliate derive benefits from the affiliation and from the mutual restraints set out in their affiliation agreements, as in any voluntary economic relationship. These agreements, like most contracts, restrict the parties' freedom of action so as to increase the overall return that they will share. The network benefits because it gains access to a potential television audience in the local market that, if it can be attracted with popular programs, can be combined with audiences in other markets and sold to national advertisers. The affiliate benefits because it shares in the advertising revenues generated by this process through the sale of adjacencies, through network compensation payments, and in other ways. In setting the terms of the affiliation, the network and affiliate agree on how the benefits of affiliation will be shared between them, and how each should behave to maximize the joint benefits of the affiliation. The economics of networking dictate that affiliate clearance of network programming will increase the joint benefits of the affiliation relationship. How these joint benefits are divided between the parties is another matter, one dependent on the relative bargaining strengths of the parties.

Each network seeks to affiliate with one station in each market, and (except in very small markets) stations typically affiliate with only one network. Each network competes with other networks to attract an affiliate in each market, and stations compete among themselves to affiliate with a network on favorable terms. When the number of networks exceeds the number of stations in a particular market, each network risks having no affiliate in that market. The bargaining power of stations is considerably enhanced in such settings. The appearance of the Fox network has created such a situation in many markets. The emergence of WB and UPN has now further strengthened stations' bargaining positions.[53] The recent upheaval in network-affiliate

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52 For a discussion of network efficiencies, see OWEN & WILDMAN *supra* note 5 at 53-54, 151ff.

53 The number of *new* networks seeking affiliates—three—exceeds the growth in the average number of *new* independents per market since 1970, which is less than two.

relations referred to above, in which at least 68 stations have changed affiliation since May 1994, is another strong indicator that networks do not “control” affiliates.

The increased bargaining power of affiliates in recent years, vis-à-vis ABC, CBS and NBC, means that a greater portion of the joint benefits of network affiliation will flow to the stations. It should be noted, however, that this has little or no bearing on the economic efficiency of the broadcast market. Maximizing the joint benefits from affiliation is the important goal from the point of view of consumers and society as a whole.

Affiliates are not compelled to broadcast the programming supplied by their network. Each station can, and especially in non-prime-time dayparts frequently does, choose not to “clear” network programming.[54] Affiliates clear most network programming because it is generally of much higher quality relative to cost than alternative programming that the station could obtain. Therefore, it is more cost-effective in generating audiences. The network efficiencies that produce this result are further explained below. It is high program popularity or quality for the price, not “control” exercised by the networks, that is responsible for the high clearance rates of ABC, CBS and NBC prime-time programs.[55]

Perhaps the best evidence of the lack of network control over affiliates’ program choice is found in the dayparts that ABC, CBS and NBC do *not* program. If networks “controlled” their affiliates, networks could program throughout the broadcast day and compel affiliates to clear the programming. Instead, many affiliates have told their networks that they prefer to program these dayparts on their own. ABC, CBS and NBC recognize that if affiliates do not clear at a high rate, it is not desirable to offer programming during those dayparts. Indeed, the three networks offer 25 fewer hours of weekly programming today than they did in 1977. See Appendix D. The decision by ABC, CBS and NBC not to program in certain dayparts is a direct result of affiliates’ freedom to choose. Moreover, many affiliates do not broadcast the network schedule at the times it is offered. For example, nearly a third of the affiliate clearances obtained by ABC in 1995 of its morning talk show, *Mike and Maty*, were not live. Instead many

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54 For recent data on clearance rates, see Appendix D.

55 KRATTENMAKER & POWE, *supra* note 4 at 73; NISS, 2 BACKGROUND REPORTS 199 (1980).

affiliates chose to broadcast the program on a delayed basis, typically during late night. Affiliates often treat network non-prime-time programs like syndicated fare and broadcast these programs when they choose.

4. Purchasers and producers of programming

PTAR was not needed to decrease network "dominance" of program production. Indeed, one would not expect PTAR to have such an effect. First, no network dominated program production before 1970. Neither ABC, nor CBS nor NBC has ever been dominant in the production of prime-time entertainment programming. Indeed, each of these networks has relied principally on outside sources to supply the programming offered to its affiliates. Second, the financial interest and syndication rules (adopted contemporaneously with PTAR) and the DOJ consent decrees, rather than PTAR, were the vehicles designed to deal with this issue. Finally, there is no evidence that any network today is seeking to dominate prime-time entertainment program production, even with respect to its own needs.

Table 2 ABC, CBS and NBC production of prime-time entertainment series as share of all hours aired[56]

Year	Share of all hours (percentage)
1969/70	1.2
1974/75	1.7
1979/80	2.1
1984/85	0.9
1989/90	3.0
1993/94	6.3

Table 2 shows the percentage of prime-time entertainment series aired by ABC, CBS and NBC that was produced in-house. Since as long ago as 1969, before PTAR, the financial interest and syndication rules or the DOJ consent decrees were instituted, the average network in-house share of prime-time entertainment series programming has never exceeded 10 percent in any year.[57] Even these small shares overstate the role of the networks as video producers. In constructing a database of first-run network and syndicated television series, specials, mini-series and made-for-TV movies, Economists

56 Source: Appendix A, Table A-11.

57 *See* Appendix A, Table A-11.

Incorporated identified 1,399 production companies producing shows that were either broadcast or carried on cable in 1994. ABC, CBS and NBC are only three of a vast number of television production companies, and their role in overall television production is quite small. See Appendix F.

As noted above, Fox, United-Paramount and Warner Brothers, the three new broadcast networks, are each vertically integrated into program production. Even if vertical integration conveyed an advantage arising from exclusion of competitors (as opposed to efficiencies), neither ABC, nor CBS nor NBC could disadvantage new entrants that are similarly integrated.[58]

There is also the issue of ABC, CBS or NBC dominance in the *purchase* of video programming. In its Report and Order instituting PTAR, the Commission invoked the image of a "three-network funnel" through which programming had to pass.[59] This metaphor implied that most, if not all, video programming had to pass through the networks before it could reach the public, and that the networks acted as one. Today only a small part of first-run video programming is produced or bought by ABC, CBS or NBC.

Out of an identified 1,729 first-run television series, specials, mini-series and made-for-TV movies appearing on broadcast or cable television in 1994, ABC aired 160, CBS aired 188 and NBC aired 180. These three networks combined aired only 30.5 percent of the identified television programs of these types. See Appendix F.

In 1994 the video entertainment programming purchased by ABC, CBS and NBC each accounted for approximately 9.4 percent of aggregate expenditures on video programming in the United States, after taking into account distribution fees associated with syndicated programming and home videos. Programming produced in-house by ABC, CBS and NBC amounted to 5.7 percent, or on average 1.9 percent per network, of aggregate expenditures. See Appendix G.

A significant portion of video programming is created for theatrical exhibition, followed shortly by release in windows for pay-per-view, home video rental, and

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58 *See Hollywood Studios' Growing Clout Scares Big Networks*, WALL STREET JOURNAL, Feb. 13, 1995, at B-1.

59 Report and Order in No. 12782, 23 FCC 2d 382 (1970) ¶23.

premium cable networks. Even within that portion intended for first-run television exhibition, ABC, CBS and NBC face strong rivalry from other purchasers of video programming, such as cable networks. Cable networks have purchasing power out of proportion to the size of their audiences. Unlike broadcast networks, which must rely on advertising revenues, cable networks obtain some or all of their revenues from subscriber or operator fees. These fees permit viewers directly or indirectly to pay for programming they want to see. It appears that television households' willingness to pay for entertainment programming greatly exceeds advertisers' willingness to pay for entertainment audiences.[60] As a result, cable networks can buy a greater portion of video programming than their share of the television audience alone would suggest.

Analysis of programming broadcast by 94 national and regional cable networks for a sample week in 1995 indicates the following patterns: 28 percent of programming hours is movies, some of which were made-for-television; 5 percent is original sports programming; 3 percent is infomercials; 56 percent of program hours is other programming not originally shown on ABC, CBS or NBC; and only 8 percent is programming originally broadcast by ABC, CBS or NBC. See Figure 14 and Appendix B. Thus, the vast majority of cable programming never passes through any three-network "funnel."

Another area of video entertainment in which ABC, CBS and NBC have virtually no influence, much less dominance, is home video rental and sales. It is estimated that in 1994 over 84 million households in the United States had a VCR.[61] Videos for home use are a major source of demand for video programming. Households spent more than $14 billion on video rentals and purchases in 1994. See Figure 10. A substantial portion of these expenditures went to pay for programming expenses. (Appendix G.) Some comparison can be made to other sources of video demand using revenue figures. Total revenues of basic cable networks were estimated at $4.6 billion in 1993.[62] The revenues of ABC, CBS and NBC in 1993 were estimated to total $9.4 billion.[63]

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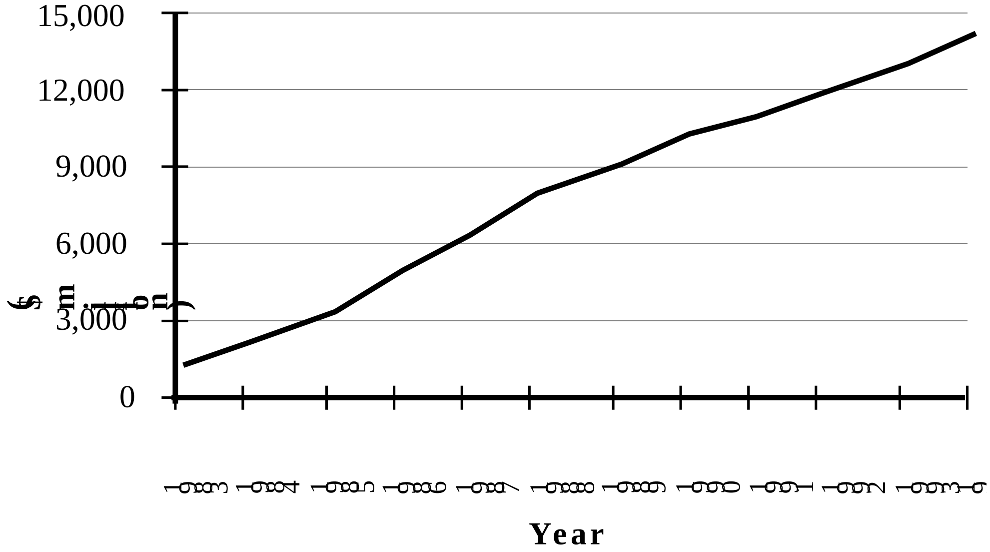
60 Compare, for example, the willingness-to-pay estimates of ROGER G. NOLL, ET AL., ECONOMIC ASPECTS OF TELEVISION REGULATION 277-288 (1973), discussed *infra* §III.B.5, with per-household television advertising expenditures.

61 *See* Appendix A, Table A-8.

62 Paul Kagan Associates, KAGAN MEDIA INDEX, Dec. 29, 1994, at 14.

63 *See* Appendix A, Table A-10.

Figure 10 **U.S. household video cassette expenditure**[64]



64 Includes rentals and sales of pre-recorded video cassettes. Source: Appendix A, Table A-8.

III. Effects of PTAR on Viewers and Competition

A. Network efficiencies

Because of PTAR, ABC, CBS and NBC affiliates are unable to show first-run network programming during the access period. This restriction harms viewers, advertisers and producers. It ignores the economic efficiencies that explain the existence of broadcast networks, prevents the realization of those efficiencies during the access period, and causes ABC, CBS and NBC affiliates to substitute programming that is cheaper and lower-rated than first-run network programming.

Broadcast networks perform an important transactional function among program sources, local television stations, viewers and advertisers. Television programs are bought by the networks from independent sources or, much less frequently, produced by the networks themselves. Each network then delivers programs to its affiliates in return for access to the affiliates' local audiences. Finally, both networks and affiliates sell the accumulated audiences to advertisers.

Economies of scale in a number of dimensions are important to understanding network economics. Television programs are "public goods" in that "consumption" by one viewer does not prevent or reduce the programs' availability to other viewers. Programs of general interest typically involve high fixed costs; the greater the audience for each, the lower the cost per viewer. Thus, program distributors that can generate large audiences will have lower costs per viewer for the same programming outlay, or conversely can afford to make larger outlays for programming at the same cost per viewer as distributors that attract smaller audiences.

The forces in favor of mass audiences for television programming are reinforced by the desire of many advertisers to reach large segments of the total population rather than regional or local audiences. Supplying very large audiences at one time avoids unwanted duplicative exposure for those advertisers seeking to reach or "cover" a large percentage of the population. Unwanted duplication, as well as higher transactions cost per viewer, can occur when such advertisers buy access to a number of smaller audiences.

Competition to sell advertising time benefits viewers because networks and others compete for audiences by increasing the attractiveness of their programming. Such competition results in greater expenditures on programming by increasing the level of inputs used in program production and, for scarce inputs, by bidding up their prices.

Full-time networks benefit from a number of efficiencies. First, full-time networks enjoy lower program distribution costs. Commitments for full-time, dedicated use of transmission facilities for delivery to local outlets, by either satellite or fiber optic networks, result in lower average costs per program distributed than part-time use of such facilities.

Second, full-time networks allow advertisers to purchase time on many stations for a number of different programs in a single up-front transaction before the season. This is clearly less costly than negotiating separate contracts with each station, numerous station representatives or providers of individual programs, as happens in the case of the national spot and barter-syndication markets. Full-time networks also make effective use of advertising availabilities to promote upcoming programs to their existing large audiences, sustaining their ability to deliver large numbers of viewers. Effective scheduling can also reinforce a network's ability to deliver a mass audience. This occurs because the popularity of a program depends in part upon the popularity of adjacent programs, although the advent of channel "grazing" may have reduced the importance of this effect. Audience flow from one program to the next is an externality among programs that each network internalizes. Because full-time networks have demonstrated the ability to manage schedules of programs that deliver large, unduplicated audiences through simultaneous broadcast, advertisers have greater assurance that they will reach the audiences they are seeking. Advertising on barter-syndication programs and advertising purchased in the national spot market lack the benefits of such coordination and necessarily involve higher transactions costs.[65]

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65 If barter-syndication and national spot advertising are inherently more expensive or less desirable than network advertising, why do these forms of advertising exist? One answer is that, for some advertisers, such as those with a need to reach regional audiences, the spot market pro-

Barter-syndication advertising, while often like network advertising in terms of national coverage and transaction costs, cannot guarantee that the advertising will be broadcast simultaneously at a preferred time in all markets, or that particular and predictable lead-in programming will be present. Nevertheless, barter-syndication advertising has become an increasingly close substitute for network advertising, and this fact helps explain the growth of first-run syndication.

Third, full-time networks negotiate single contracts with their affiliates covering the acquisition of and compensation for a large number of programs, greatly reducing the transactions costs of obtaining clearance on a large number of stations on a program-by-program basis.[66] Finally, a full-time network can spread over its entire portfolio of programs the considerable risk that any given program will fail and more accurately determine its expected rate of success. Networks are therefore likely to be superior risk-bearers.

Because of these efficiencies, ABC, CBS and NBC can offer advertisers very large audiences at favorable prices. In particular, advertisers seeking to reach large nationwide audiences enjoy lower costs per audience member for advertising time on network prime-time programs than with other national television advertising. For example, the estimated CPM (cost per thousand households) for a 30-second spot on a network prime-time program in 1994 was $7.64. In contrast, the CPM for audiences bought through national spot markets on individual television stations in prime time was $12.29.[67] Thus, by reducing the number of prime-time network spots available to

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vides advantages offsetting its higher cost. For example, many advertisers do not need to reach the entire nation and may find national spot advertising to be comparable in cost to network advertising in reaching their desired target audience. Barter-syndication offers a national product with some deficiencies at a lower price than network advertising.

66 Affiliation agreements between ABC, CBS and NBC and their respective affiliates are subject to a number of Commission restrictions, many of which probably reduce efficiency and lower program quality. NISS, *supra* note 53 at 246-53 (1980).

67 TV BUREAU OF ADVERTISING, TRENDS IN MEDIA: AUDIENCE COST CPM'S 1994 (utilizing data from A.C. Nielsen). As noted above, these price differences do not necessarily mean that national spot and network advertising are not good substitutes for a significant number of advertisers. From the point of view of advertisers, a national network buy, while having a low CPM for delivered households, may have a high CPM per delivered member of the advertiser's target audience. That audience, if geographically concentrated, may be reached at an equivalent or lower CPM via the national spot market.

advertisers, PTAR has harmed those advertisers who otherwise would have enjoyed lower costs from purchasing the additional inventory of network advertising.

B. Effects of PTAR on viewers

1. Reduction in program quality and loss of options

ABC, CBS and NBC compete with other sources of programming for clearances on their affiliate stations. Network efficiencies make it likely that, without PTAR, many affiliates would find network programming more profitable than syndicated fare in the access period. In other words, network efficiencies make it likely that ABC, CBS and NBC would be able to offer their respective affiliates programming of higher quality and more attractive to viewers than programming being obtained from syndicators.[68] These efficiencies are not unfair advantages that ABC, CBS and NBC have somehow captured at the expense of their rivals; they are economic advantages inherent in networking. Because first-run syndicated programs do not benefit from network economies, they necessarily incur higher transaction costs, reach fewer stations and smaller audiences, earn less money, and must be produced on smaller budgets than network programming. By contrast, it was doubtless the advantages of networking over syndication, among other things, that led syndicators Fox, Paramount and Time Warner to form new broadcast networks. Competition for advertising revenues for large national audiences leads ABC, CBS and NBC to buy very expensive prime-time first-run network programming.

Estimates of the production costs for first-run syndicated news magazines and “reality” shows, which are among the types of first-run syndicated programs commonly broadcast by network affiliates during the access period, range from $30,000 to $125,000 per half-hour segment.[69] Prime-time network programs involve much higher production cost. Production cost for a typical network prime-time half-hour situation comedy is about $625,000 per episode.[70] One-hour prime-time programs normally cost

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68 It is, of course, impossible to predict with certainty that ABC, CBS and NBC affiliates will find it profitable to choose network programs in the access period, based simply on practices prior to 1970, because relevant conditions may have changed.

69 BROADCASTING & CABLE, Apr. 12, 1993, at 34.

70 Paul Kagan Associates, TV PROGRAM INVESTOR, Aug. 31, 1994.

over $1 million per episode to produce,[71] and the average network made-for-TV movie costs $2.8 million.[72] Because program cost, quality and popularity tend to be highly correlated,[73] more expensive first-run network programs tend to attract larger audiences than lower-cost syndicated fare.

2. Loss of efficiencies and audiences

Because PTAR constrains ABC, CBS and NBC from programming in the access period, the benefits of network efficiencies, manifest in higher quality programming, are simply lost, to the detriment of the viewing public. As a result, many viewers are deprived by government fiat of their preferred viewing option—first-run network programming—during the access period. Viewers lose because the Rule requires ABC, CBS and NBC affiliates to air less expensive, less attractive programs than the network programs that can never be broadcast because of the Rule.

Not surprisingly, ABC, CBS and NBC affiliates are unable to attract as many viewers with the lower-quality programming the Rule requires them to broadcast. These affiliates' share of the viewing audience is lower during the access period (here, 7:30–8:00 p.m.) than it is during the rest of prime time. This is demonstrated clearly in Table 3. One would expect that ABC, CBS and NBC affiliates would attract a larger audience, and viewing shares comparable to those in the rest of prime time, were they able to broadcast first-run network programming during the access period. That is equivalent to saying many viewers would prefer first-run network programming during the access period rather than the choices available to them under the Rule.

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71 Paul Kagan Associates, TV PROGRAM INVESTOR, Apr. 26, 1994.

72 Paul Kagan Associates, TV PROGRAM INVESTOR, Nov. 15, 1994.

73 OWEN & WILDMAN, *supra* note 5, at 166; KRATTENMAKER & POWE, *supra* note 4 at 73.

Table 3 Network affiliate shares Monday–Friday[74]

	7:30–8:00 p.m.	Prime time
	All markets	
ABC, CBS and NBC Total	55	59
	Top-50 markets	
ABC, CBS and NBC Total	52	58

Preventing viewers from seeing what they prefer in order to promote the fortunes of particular segments of the industry has two direct, undesirable effects that are harmful to viewers. First, during the access period some viewers watch programming other than what they would prefer to watch. This necessarily reduces these viewers' welfare, and that of society as a whole.[75] Second, some viewers choose not to watch television *at all* because their preferred option, first-run network programming, is unavailable.[76] A later section discusses measurement of the welfare loss from both of these effect, based on dollar measures. The next two sections consider the second effect only, based on viewing measures. PTAR's effect on viewing is analyzed by contrasting viewing during the access period in the two years before the Rule with what happened during the first two years when the Rule was in effect. During the first year of the Rule, PTAR's effect can be measured directly because the networks continued to offer network programming that year from 7:30–8:00 p.m. on Tuesday nights but not on the other weekday nights. After that first year, network programming was discontinued on all nights during

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74 Source: NIELSEN TELEVISION INDEX. *See* Appendix K. As Table K-6 indicates, viewing on affiliates remains depressed during 8:00-8:30. This can be attributed at least in part to the lower lead-ins resulting from smaller access period audiences.

75 This welfare loss arises from a government-imposed restraint that prevents the market from achieving a competitive equilibrium. No similar welfare inference can be drawn from voluntary private contracts with analogous restrictions; indeed, in a competitive environment such contracts generally promote welfare.

76 The IBM analogy in the introduction to this report can help illustrate the problems in measuring the effects of the Rule. Computer users in the 13 states where IBM is, hypothetically, forbidden to sell computers fall into three classes: (1) those who would prefer IBM, but settle for an inferior substitute, (2) those who would not have chosen IBM in any event and (3) those who go without a computer altogether when denied an IBM computer. There is no loss of welfare for group (2), unless (freed of competition from IBM) other suppliers offer fewer alternatives. But groups (1) and (3) suffer a welfare loss which may be considerable. Probably group (1) will be much larger than group (3). In practice it would be difficult to measure the size of group (1) because of the difficulty of distinguishing members of groups (1) and (2). It is easier to identify group (3), which is what has been done with respect to television viewers affected by PTAR.

the access period, so to measure PTAR's effect after the first season, viewing must be contrasted with viewing levels before the rule went into effect.

3. Reduced viewing in the 1971/72 season (the Tuesday test)

Before the 1971/72 television season, ABC, CBS and NBC each usually offered prime-time entertainment programming from 7:30–11:00 p.m. Eastern Time. PTAR first restricted first-run network programming in 1971/72 and then banned the use of off-network programming by affiliates in the top-50 markets in 1972/73. In response to the Rule, during the 1971/72 season the networks offered prime-time programming from 7:30–10:30 p.m. Eastern Time on Tuesday evenings and from 8–11 p.m. on other weeknights. The networks offered prime-time programming in subsequent seasons only from 8–11 p.m. each weeknight. Economists Incorporated examined data on weekday viewing[77] during 7:30–8:00 p.m., 8:00–8:30 p.m. and 8:30–9:00 p.m. for the last two seasons before the Rule went into effect[78] and the first two seasons under the Rule.[79] The 1976/77 season was also examined to determine whether the observed initial effects of the Rule persisted.[80] HUT data measure all viewing of television programming during a period, not just ratings of ABC, CBS and NBC affiliates.[81]

Because the networks continued to offer network programming on Tuesday nights from 7:30–8:00 p.m. (but not on other weeknights) during the first season under PTAR, it is possible to examine directly PTAR's effect on television viewing during that season. Table 4 displays data on the average percentage of television households using television on Tuesday evenings and the average for other weekday evenings during various periods in selected television seasons.

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77 Viewing is measured by national households using television ("HUTs") as a percentage of total television households ("TVHH"). For these purposes, television seasons run from September through April.

78 1969/70 and 1970/71.

79 1971/72 and 1972/73.

80 The 1976/77 season was chosen as a point of comparison based on ready availability of data. Economists Incorporated is aware of no evidence that the results would be materially different for other proximate years.

81 *See* Appendix I for a detailed description of the data and methodology of this viewing study.

Table 4 Viewing by period, selected TV seasons[82]

Television season	7:30–8:00 p.m.	8:00–8:30 p.m.	8:30–9:00 p.m.
		Tuesdays	
1969/70	63.26	66.17	67.42
1970/71	63.16	66.23	67.35
1971/72	62.79	65.93	67.22
		Other weekdays	
1969/70	60.49	63.83	65.11
1970/71	61.48	64.43	65.46
1971/72	58.96	62.93	64.70

Table 4 shows that when PTAR was imposed in 1971/72, the percentage of households using television during 7:30–8:00 and 8:00–8:30 p.m. declined slightly on Tuesday evenings, when network programming continued to be presented, but declined substantially more on other weekdays, when network programming was removed. This is what one would expect, given the substitution of lower quality programming on ABC, CBS and NBC affiliates on nights other than Tuesday. The reduction in 8:00–8:30 p.m. viewing on those other nights may be explained by lower audience lead-ins to programs for 8:00–8:30 p.m. due to lower television viewing in the immediately preceding period. If so, then the lower percentage of television households using television during 8:00–8:30 p.m. after the Rule went into effect should also be attributed to the effects of the Rule.

One way to measure the effect of the Rule during the 1971/72 season is to determine the difference between Tuesday television viewing and television viewing on other weekday nights. The two seasons prior to the Rule serve as a baseline. Television viewing on Tuesday night during 7:30–8:00 p.m. during the 1971/72 season did not differ significantly from the average level in that period in the previous two seasons. Viewing

82 Units are percentages of all television households. Source: Appendix I, Table I-1.

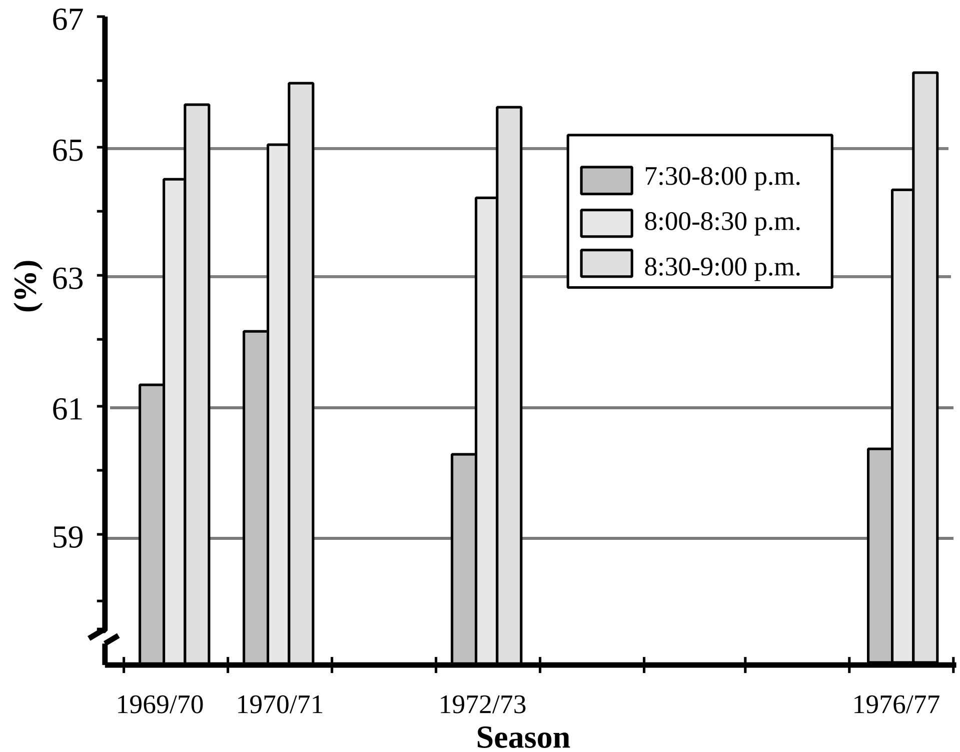
on the *other* weekdays from 7:30–8:00 p.m. in 1971/72 declined two share points, however, compared to the average of the previous two seasons, and this decline was statistically highly significant.[83] Television households numbered 62.1 million during the 1971/72 season. A loss of two share points suggests that *on average one-and-a-quarter million households turned off their television sets on weekday nights other than Tuesday during 7:30–8:00 p.m. in 1971/72 as a result of the Rule!* These stark data indicate one dimension of the social costs and viewer harm caused by the Rule.

4. Viewing reduction after the 1971/72 season

After the 1971/72 season, none of the three major networks offered regularly scheduled entertainment programming during 7:30–8:00 p.m. on any weeknight. A Tuesday comparison test is therefore not available for later years. To measure the effect of PTAR after the 1971/72 season, one simply compares HUT levels before the Rule with HUT levels afterward. Relevant data on the average weekly HUTs by period, expressed as a percentage of all television households (TVHH) are presented in Figure 11.

83 It is not appropriate simply to measure the difference between viewing on Tuesday night and all other weekdays in 1971/72 to determine the effect of the Rule because, as Table 4 indicates, viewing was normally higher on Tuesday than the average on all other weekdays. Rather, PTAR's effect can best be measured by the *relative* falloff in viewing on other weekdays compared to what it was during the two seasons before the Rule, and it is this result that is reported here.

Figure 11 **Percentage of TV households using television before and after PTAR**[84]



As can be seen in Figure 11, household television viewing behavior during 7:30–8:00 p.m. remained altered beyond the 1971/72 season. There are two ways to quantify the effects of the Rule on television viewing after the 1971/72 season. The first uses the two seasons before the Rule as a baseline, and assumes that, but for the Rule, viewing would have stayed the same for 7:30–8:00 p.m., as in fact it did during 8:30–9:00 p.m. In 1969/70 and 1970/71, viewing during the access period (for this purpose 7:30–8:00 p.m.) averaged 61.7 percent of TV households. In 1972/73 viewing was 1.46 percentage points lower than the average of the previous two seasons, and this decline is statistically significant. As there were 64.8 million TVHH during that season, this translates into approximately 950,000 television households that simply turned off their televisions every night in 1972/73 during 7:30–8:00 p.m.

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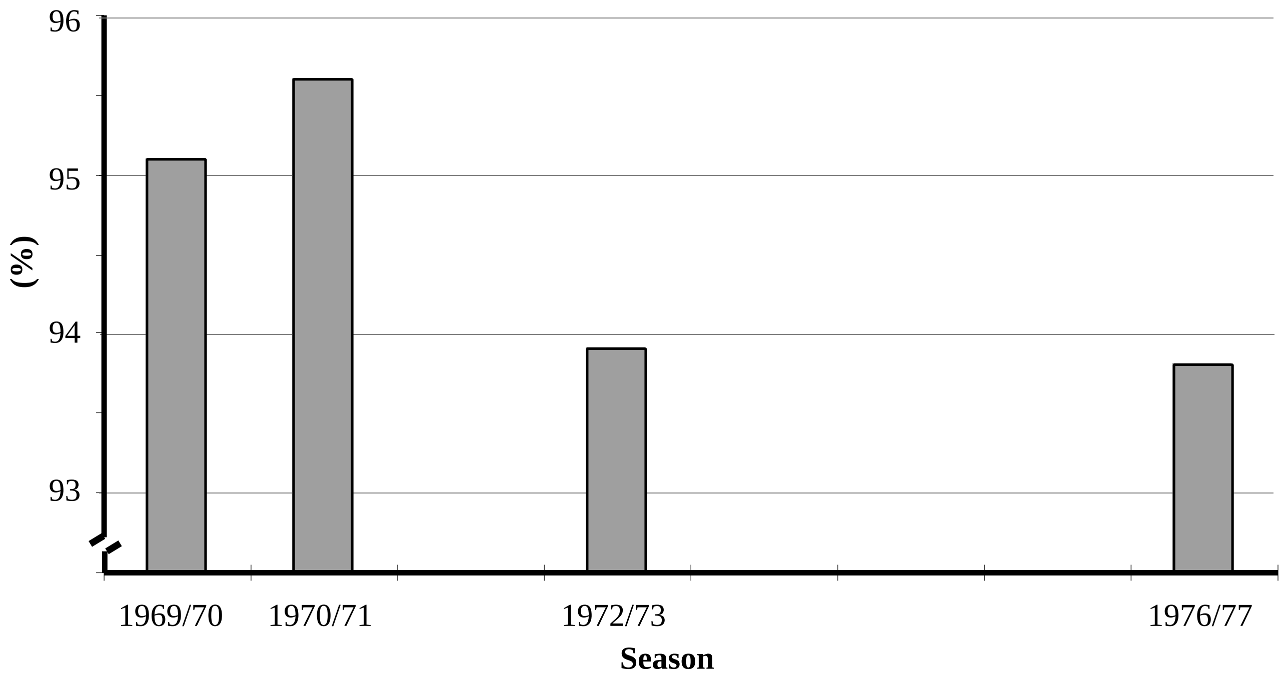
84 Source: Appendix A, Table A-13.

Figure 12 **Access period viewing as percentage of 8:00–8:30 p.m. viewing**[85]



The preceding measure uses the years before the Rule as a reference point for television viewing. A second, and more conservative, method to estimate the Rule's effect on television viewing is to assume that the Rule had no impact on 8:00–8:30 p.m. and that the ratio of viewing between 7:30–8:00 p.m. and 8:00–8:30 p.m. measures the impact of the Rule. If the Rule had no effect on television viewing, it would be expected that the ratio between those two periods would be the same in each of the four television seasons.

In fact the ratio of viewing in the half hour before 8 p.m. to viewing in the half hour after 8 p.m. fell from its average during 1969/70 and 1970/71 to lower levels in 1972/73 and 1976/77, and the difference between the pre-Rule ratio and the post-Rule ratios is statistically highly significant. This is illustrated in Figure 12. The average of the ratios for 1969/70 and 1970/71 is .954. The ratio for 1972/73 is .939, remarkably similar to the ratio in 1976/77 (.938). This means that television viewing during the access period in 1972/73 and 1976/77 was about 1.5 percentage points below the pre-Rule norm. Because this method controls for the various other factors that might have affected viewing between 7:30 and 8:30 p.m. in the seasons after the Rule, it is reasonable to

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85 Source: Appendix A, Table A-14.

attribute all of this 1.5 percentage point difference to the effects of the Rule. Those effects include the elimination of first-run network programming during the access period and the inability of network affiliates in the top-50 markets to show off-network programming during the access period. Put slightly differently, for the ratio of viewing before 8 p.m. to viewing after 8 p.m. to have stayed constant, the number of HUTs during 7:30–8:00 p.m. would have to have been approximately 1 percent larger than it was during the two post-Rule seasons considered here. Given the number of TV households in this period, this implies that about 600,000 additional households would have been watching television during 7:30–8:00 p.m. but for the Rule.

5. Estimating the dollar welfare loss to viewers

As noted above, counting only those households that turned off their television sets is an understatement, and probably a substantial understatement, of the impact of the Rule, because it omits the losses suffered by those who mitigated their loss with lower-value programs. Moreover, counting households is of course not the ideal way to measure the welfare effect of any public policy. From an economic point of view, the impact on viewers is best measured by changes in their consumer surplus, or willingness to pay.[86] There is no way to measure these consumer surplus changes directly for the Rule, but it is possible to perform a rough calculation that at least illustrates the viewer losses imposed by the Rule.

There appears to be only one study of viewer willingness to pay for television that is contemporaneous with PTAR. In a Brookings volume, Noll, Peck and McGowan concluded that viewers in 1971 valued network signals at 5.1 percent of income.[87] This result has not been reproduced or checked. It is simply accepted as an assumption for purposes of the calculation below.

The effect of PTAR was to replace network programming with non-network programming, so one must subtract from the preceding estimate 1.3 percent of income, which is the collective value Noll, Peck and McGowan attribute to three independent signals.

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86 *See*, for example, JACK HIRSCHLEIFER & AMIHAI GLAZER, PRICE THEORY AND APPLICATIONS, 189 (5th ed. 1992).

87 NOLL et al., *supra* note 58, at 288.

The difference in value between three network signals and three independent signals is 3.7 percent of income.

In 1971 there were 62.1 million TVHHs, and approximately 57 percent of all network viewing was in prime time. Given personal income in 1971 of $4,302 per capita, and 3.1 persons per household, it is possible to calculate the incremental value to viewers of having to give up prime-time network programming in exchange for independent station programming. One seventh of prime-time network programming was lost due to PTAR. The result is lost consumer surplus of $2.5 billion per year, in 1971 dollars. This translates into $8.5 billion per year in 1994 dollars.[88]

In short, this rough calculation suggests that over $8 billion per year in viewer welfare was lost because of the Rule, starting in 1971. Even if Noll, Peck and McGowan's estimates are too high by an order of magnitude, there was still a very considerable adverse impact on viewer welfare from the Rule. There appear to be no later measures of viewer valuation of network versus independent broadcasts, and therefore there is no basis to calculate this loss in later years. But if the estimates above are accurate, and if the loss has continued at its initial rate, the Prime Time Access Rule has cost American viewers more than $200 billion.

C. Effects on competition

A market economy relies on competition among rival suppliers to produce at the lowest cost the quantity and quality of goods and services that society desires. Competition spurs firms to serve their customers efficiently and to innovate. When competition is hindered, society is deprived of these benefits. PTAR restrains competition in several ways. By its effective prohibition on network programming during the access period, PTAR reduces competition among ABC, CBS and NBC and between these networks and other sources of video entertainment. By creating perverse incentives, PTAR reduces the competition provided by new networks. It also reduces the competition facing producers of first-run programming and competition among television stations. In addition, PTAR interferes with the competitive functioning of the market for off-network programming. Harm to competition in each of these areas results in obvious injury to consumers and to society as a whole.

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88 These calculations are set out in more detail in Appendix J.

The viewing public chiefly bears the injury caused by these obstacles to competition. Viewers tuning to a network affiliate during the access period will not see network programming. This causes a loss for many viewers because such programming is likely to have been of higher quality and greater appeal than what is offered. If viewers tune to an independent station during the access period, they will likely see lower quality programming than would have been offered if these stations had to respond to network programming or, in the top-50 markets, to off-network programming on the network affiliates.

1. Competition among ABC, CBS and NBC

The classic example of reduced competition is a cartel or collusive agreement among competitors. Typically, such an agreement seeks to raise prices in the market by reducing the amount of goods or services provided. Though there is no evidence of collusion among the broadcast networks, PTAR has ironically achieved a reduction in competition among them similar to what might have been achieved if they had agreed among themselves to reduce output. Before PTAR, the networks provided their affiliates with first-run programming during the access period. By preventing the broadcast networks from providing programming in the access period to affiliates in the top-50 markets, PTAR has made it uneconomical for ABC, CBS and NBC to provide any programming at all in this period. The reduction in first-run prime-time programming (and consequently of network audiences for sale to national advertisers) achieved by PTAR is one that could otherwise only have been achieved through the suspension of normal competition among the networks.

A restriction of output, especially one enforced by an outside agency, should be welcomed by sellers. In urging the repeal of PTAR, ABC, CBS and NBC are seeking relief from this anticompetitive restriction. If these networks competed only among themselves, such a position would be paradoxical because it would be contrary to the networks' interests. This paradox is resolved when it is recognized that ABC, CBS and NBC compete today not just among themselves but with many other advertising vehicles and sources of video entertainment, including new and emerging broadcast networks, cable networks, pay-per-view movies and home video. ABC, CBS and NBC thus seek to be freed from the artificial constraint PTAR imposes on their programming activity so they can respond more effectively to present and future competition.

2. Competition from new networks

Among the sources of competition facing ABC, CBS and NBC are new broadcast networks. As noted earlier, Fox has established a successful network and several other networks have just been launched. In the absence of regulatory distortions of the competitive process, Fox and other networks would have the ability to offer a full range of network programming, similar to that of ABC, CBS and NBC. Fox has chosen, however, to limit its prime-time programming to 15 hours per week, far less than the 22 hours per week currently offered in prime time by ABC, CBS and NBC. It can be postulated that the principal reason that Fox has capped its programming hours is to avoid being classified as a network, because Fox would then be subject to the FCC PTAR strictures that now reduce the competitive effectiveness of ABC, CBS and NBC. In this way, PTAR provides incentives for new networks to remain small, thus limiting the competition Fox and other new networks would otherwise provide to ABC, CBS and NBC.

3. Sources of first-run programming

Competition provides a spur to greater creativity, efficiency and performance. Non-network producers, packagers and syndicators of first-run programming for the access period compete among themselves, but PTAR has restricted the range of competition they would otherwise face. Specifically, independent producers and syndicators can sell programming to ABC, CBS and NBC affiliates during the access period without competition from programming that these networks might offer or produce or, in the top-50 markets, from off-network programming. Even though many affiliates might choose network programming in preference to the alternatives, the competitive process itself is important in maximizing consumer welfare.

4. Independent stations

Television stations, like program producers, are spurred by competition. Television stations compete for audiences primarily through the quality of their programming. PTAR has artificially handicapped network affiliates' ability to compete during the access period by reducing their programming options. These handicaps reduce the competition facing Fox, UPN, and WB affiliates and whatever independent stations remain, thus reducing the incentives for these stations to provide desirable programming in the access period. Likewise, the competition that ABC, CBS and NBC would provide to cable networks during the access period is reduced, thus decreasing their incentives to provide desirable programming. Although PTAR handicaps ABC, CBS and NBC affiliates to benefit independent stations, there is no evidence that this benefit has been sufficient, given the many other factors at work, to account for any portion of the growth of independent stations. Further, nowadays audiences lost to ABC, CBS and NBC affiliates on account of the Rule go in large measure to benefit cable networks rather than independent broadcast stations. Finally, even if PTAR continues to benefit Fox affiliates and independent stations, surely continued sheltering is unwarranted.

5. Off-network syndication

By prohibiting ABC, CBS and NBC affiliates in the top-50 markets from carrying off-network programming during the access period, PTAR has reduced the overall demand for off-network programming. This reduction in demand translates directly into reduced earnings for off-network programming. Off-network earnings are a significant part of the total return that a network show, whether produced by the network or supplied by others, can expect to make. According to one analysis, the present value of network license fees from a successful 30-minute sitcom is estimated at around $50 million during the first five years.[89] The estimated present value of syndication rights for episodes produced in those five years ranges from $32 million to $126 million. In other words, syndication revenues can range from about two thirds to over 2.5 times the value of original network broadcast. When curtailed syndication opportunities reduce total earnings, the incentive that a program producer has to invest in program quality is reduced. By reducing this incentive, PTAR reduces the quality of first-run shows the public sees on ABC, CBS and NBC.

6. Competition for programs

While programs that have been shown on ABC, CBS and NBC may not be shown on network affiliates in the access period in the top-50 markets, programs previously shown on the Fox network may. Discriminating against off-network programming

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89 Derived from Paul Kagan Associates, *Big Risk, Big Rewards in Syndication Business*, TV PROGRAM INVESTOR, Aug. 31, 1994, at 35.

increases the back-end value of Fox programming, since it faces reduced competition from ABC, CBS and NBC off-network programming. As pointed out above, increasing the total amount that a program can earn is likely to lead program producers to increase the cost and quality of the programming for any given network license fee. This means that programs shown on Fox will benefit from an artificial impetus to their quality, just as the quality of ABC, CBS and NBC programming is depressed. This distortion in quality results in further warping of the competition between Fox and ABC, CBS and NBC.

7. Program suppliers

Reducing the back-end value of off-network programs is a consequence of the restriction on broadcasting off-network programs during the access period in the top-50 markets. Total payments to suppliers of network programs are reduced. PTAR's effective prohibition on network programming in the access period likewise reduces the demand for programming by restricting purchases by the networks. Both distortions reduce revenues flowing to program suppliers, a group PTAR was ostensibly intended to benefit.[90] For the reasons indicated above, expenditures on the programming that replaces ABC, CBS and NBC broadcasts are not likely to compensate fully for this lost revenue.

8. Multiple advantages for Fox and Fox affiliates

Because affiliates of ABC, CBS and NBC cannot show off-network programming during the access period, Fox and Fox affiliates gain a competitive advantage in several ways, some mentioned above. First, Fox affiliates are shielded from the competition of affiliates of ABC, CBS and NBC that would choose to show off-network programming during the access period. A second, related benefit is that Fox affiliates are able to buy off-network programming at a lower price, since demand by ABC, CBS and NBC affiliates is reduced. Third, as a network, Fox is able to attract more desirable programming than it otherwise would because PTAR increases the syndication value of off-Fox programming both absolutely and relative to off-ABC, off-CBS or off-NBC programming. Fourth, this increase in syndication value benefits Fox as a studio when it

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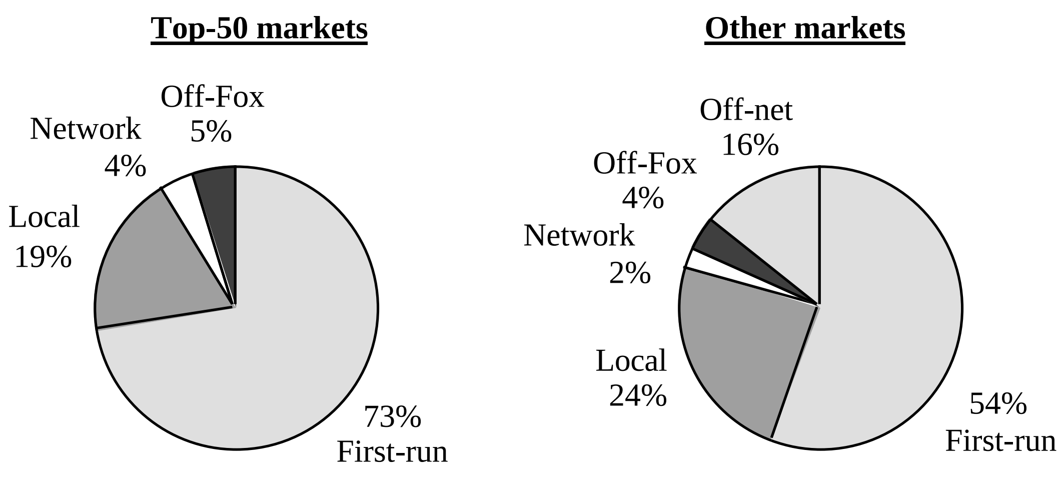
90 Even though total payments to program producers would increase in the absence of PTAR, some producers may advocate that PTAR be retained. The interests of a relatively small group of producers that have prospered in a sheltered environment should not be confused with the interests of producers as a whole.

produces shows for its own network. Fifth, Fox is given an artificial advantage in competing for independent stations seeking network affiliation. Stations that affiliate with Fox will be free of the Rule, while stations that affiliate with ABC, CBS or NBC will not. Of course, all of these points apply as well to the two newest broadcast networks, UPN and WB.

9. Top-50 market affiliates

PTAR's prohibition of off-network programming on top-50-market network affiliates during the access period has clearly moved these stations away from their normal and presumably economically efficient competitive equilibrium. This is best demonstrated by comparing network affiliates in the top-50 markets with those in smaller markets. Among network affiliates outside the top-50 markets, 16 percent of broadcast hours in the access period consisted of off-network programming. See Figure 13. It seems clear that if PTAR were not in place, a significant number of network affiliates in the top-50 markets would also be showing off-network programming in place of what is currently shown. Eliminating PTAR would permit these stations to compete for the most attractive programming. Stations also would be better able to choose programming that maximizes the audience flow from one program to another, thereby competing more effectively for audiences during prime time and possibly increasing the size of the total television audience.

Figure 13 Access hour programming of network affiliates[91]



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91 Source: NIELSEN NSI NOV. 1994 SWEEP, Appendix H, Table H-1. News and other PTAR-exempt programming accounts for the indicated network share.

IV. Costs and Benefits of PTAR: An Assessment

Analysis and data show that PTAR does not achieve any of its stated purposes: PTAR does not enhance competition in the independent production of television programs; PTAR does not effectively address any perceived problem of network power over affiliates; PTAR is not necessary to insulate independent stations from competition today; and PTAR does not enhance diversity. There simply are no offsetting benefits to justify PTAR's anticompetitive effects and harm to viewers' interests.

A. Insulating first-run suppliers from competition

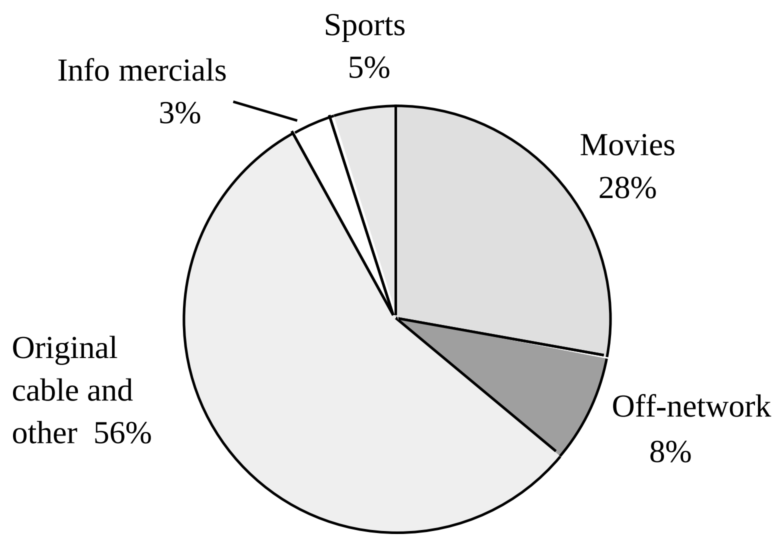
One of the purposes of PTAR was to stimulate a healthy industry of producers, distributors, packagers and syndicators independent of ABC, CBS and NBC. Yet it is far from clear that PTAR was in any sense necessary to achieve this. For example, the creation and development of a first-run syndication industry, contrary to the Commission's apparent belief in 1970, did not require PTAR. As Krattenmaker and Powe put it, "[the first-run syndication] industry has always been viable, capable of supplying programs to stations that could not or would not choose network or local programming. The rule gave more business to the first-run syndication industry but did not empower it to produce programs that it lacked capacity to create."[92]

Even if one assumes PTAR was once useful in accomplishing the Commission's goal, clearly the non-network program production and distribution industry would continue to flourish if the Rule were abolished. As shown above, competition in the independent production industry is robust, as is competition among broadcast networks and other national distributors of video program services. In particular, as indicated above, cable networks now have a substantial demand for non-network programming. Data on program schedules for 94 national and regional English-language cable networks were analyzed for a representative week in 1995. The breakdown of programming is shown

92 KRATTENMAKER & POWE, *supra* note 4 at 287, citation omitted.

in Figure 14. Cable's demand for video programming will doubtless remain strong absent the Rule.

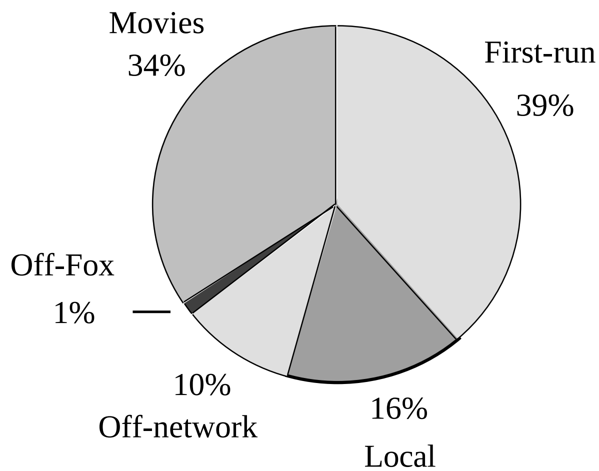
Figure 14 Sources of programming on 94 cable networks[93]



There is no basis for concern that ABC, CBS and NBC could inhibit competing program sources given the vast growth in outlets since the Rule was promulgated. In particular, there is no basis today for the belief that the producers of original video programs require government-aided access to the top-market affiliates of ABC, CBS and NBC to get their programs before the public. There is no other basis for continuing protectionist treatment of first-run syndicators. Absent the Rule, independent broadcasters would likely counter-program first-run network programs on ABC, CBS or NBC affiliates with first-run syndicated programming during the access period. Many independents already broadcast first-run syndicated programs in prime time opposite first-run network broadcasts. See Figure 15. Among non-Fox independent stations in the top-50 markets, 39 percent of prime-time hours were first-run syndication. Indeed, at this point the overall impact of PTAR on the production industry is negative because the Rule prevents the networks from buying more independently-produced programming, which artificially reduces the total revenues of the production industry.

93 Source: Appendix B. Also see Appendix A, Table A-15.

Figure 15 **Program sources for prime-time broadcasts of top-50-market non-Fox independents**[94]



B. Network power over affiliates

As shown above, ABC, CBS and NBC do not dominate their respective affiliates. Instead, networks and their affiliates are engaged in a mutually beneficial economic relationship to which each contributes. There is no reason, based on market structure, to suppose that any network could dominate the relationship. Nor is there behavioral evidence of dominance. In particular, high clearances by affiliates of network-supplied prime-time programming enhance viewer welfare as well as network and affiliate profits. Even if it were felt that ABC, CBS and NBC continued to dominate their affiliates, PTAR does not correct the problem. The enforced "freedom" from the networks afforded to affiliates by PTAR clearly is not in the public interest. ABC, CBS and NBC affiliates are artificially encouraged, indeed compelled, by PTAR to show less desirable, less costly programming knowing that no competitor can offer more desirable, *i.e.*, first-run network, programming. This result is perverse from a public policy standpoint. To "protect" affiliates from alleged network dominance "so that the public interest in diverse broadcast service may be served,"[95] PTAR reduces affiliates' choice of program sources, with the result that the public is made to suffer by denying viewers what they most want to see.

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94 Source: Appendix H.

95 Report and Order in No. 12782, 23 FCC 2d 382, 397 (1970).

C. Insulating independent stations from competition

It is neither necessary nor desirable today to insulate independent stations from competition. Further, protection such as that offered by PTAR distorts economic efficiency and viewer welfare. The infant industry argument that independent stations require insulation from competition made little sense in 1970 and makes none today. Infant industry protection, in some specialized circumstances, can provide net economic benefits to society if some firms could not otherwise weather initial competitive pressures and need time to develop to minimum efficient size. In some cases the gains to consumers in future competition from the nurtured "infants" can warrant a temporary government-mandated lessening in competition. There is no basis whatever to believe that the infant industry model applies to television stations of any sort, and no such showing was made in 1970. Moreover, in no case is it prudent public policy to maintain a protected industry segment as perpetual infants. If full competition is never restored, the public can never recover the lost benefits from diminished competition.

Independent television licensees now have had 25 years to grow in number from 62 to over 400 stations. Independents as a group have grown strong, a result of forces to which PTAR can hardly have contributed materially, and the independent industry is no longer an infant. Nor will the independent industry be inappropriately disadvantaged if PTAR is removed. The burden should be on those who want "protection" to continue beyond 25 years to show how the public could gain from continued anticompetitive regulations.

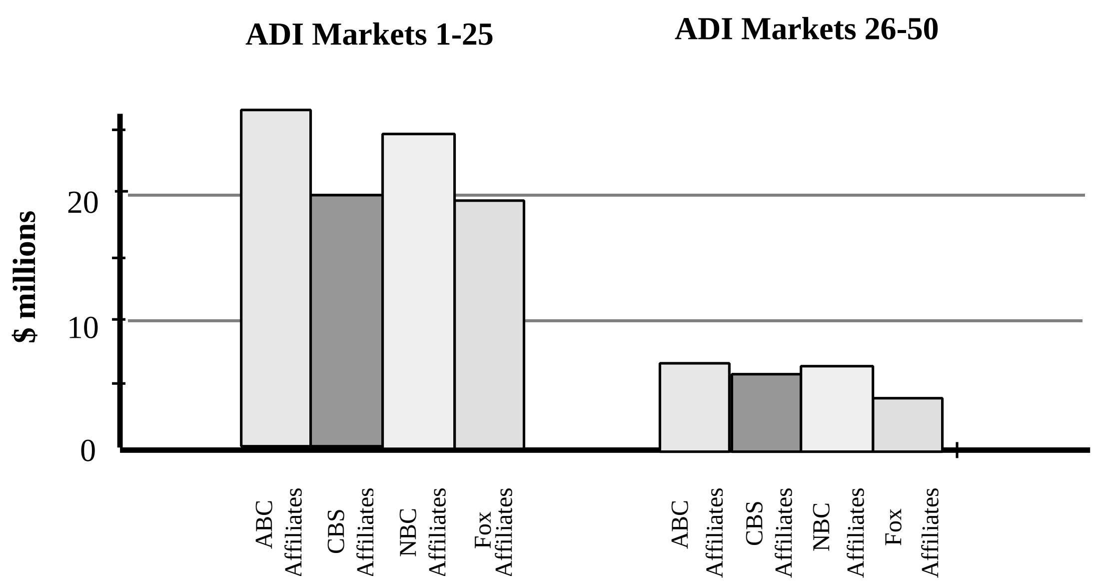
The Commission has candidly admitted that PTAR has distorted competition and afforded independent stations a competitive advantage.[96] This competitive distortion is not justified today, and given the emergence of alternative media and networks, the distortion results in ever greater competitive harm. In particular, PTAR hampers the ability of ABC, CBS and NBC affiliates to compete with cable networks and other media, almost all of which are supported at least in part by direct payments from viewers. As a result, restrictions that reduce the competitiveness of affiliates and their networks threaten the vitality of free, over-the-air television. Moreover, PTAR does not insulate independent stations from the true long-term competitive threats to all

96 FCC, Notice of Proposed Rule Making, MM Docket 94-123, released Oct. 25, 1994, ¶45.

broadcasters: national cable networks, DBS and other new video media. These new viewer-supported media promise an ever-increasing array of diverse programming, much of which will cater to specific, narrow viewer tastes and afford direct competition to the fare of many independent television stations.

PTAR indiscriminately insulates *all* independents from competition, regardless of their economic status. There can be no reasoned basis for protecting successful independent stations, particularly independent VHF stations and “independent” stations affiliated with the Fox network. There were 18 independent VHF stations and an additional 8 VHF Fox affiliates in the top-50 markets in 1993; further, there were 25 independent VHF stations and an additional 22 VHF Fox affiliates nationwide. There were 152 “independent” Fox primary affiliates nationwide.[97] These “independent” stations appear to do extremely well financially, as Figure 16 suggests.

Figure 16 **Average cash flow of U.S. television stations, by network affiliation**[98]



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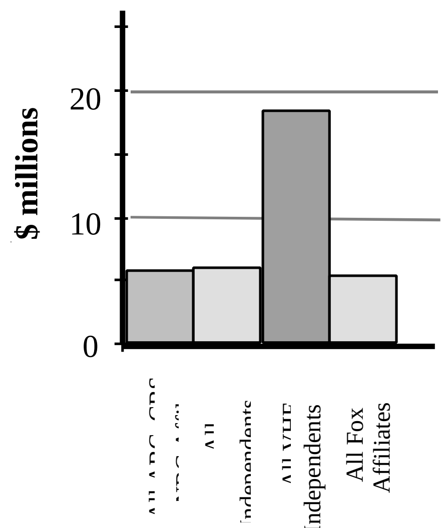
97 NIELSEN STATION INDEX, DIRECTORY, 1993-94. The considerable increase in the number of Fox’s VHF affiliates is worth noting. Compare Table 1, *supra*.

98 Source: Appendix A, Table A-12.

Many independent stations artificially “protected” by the Rule are highly profitable, as the data in Figure 17 indicate, both on an absolute basis and compared to affiliates of ABC, CBS and NBC. The average financial performance of VHF independents far exceeds that of ABC, CBS and NBC affiliates. This difference should not be surprising, because the VHF independents tend to be in larger markets than the average affiliate. This comparison is appropriate, however, as PTAR attempts to benefit all independents at the expense of all affiliates, without regard to their actual financial circumstances. Continuing to insulate these successful independent stations from competition is no longer necessary and cannot be justified on any legitimate public policy basis.

Figure 17 **Average cash flow of independent and affiliated television stations**[99]

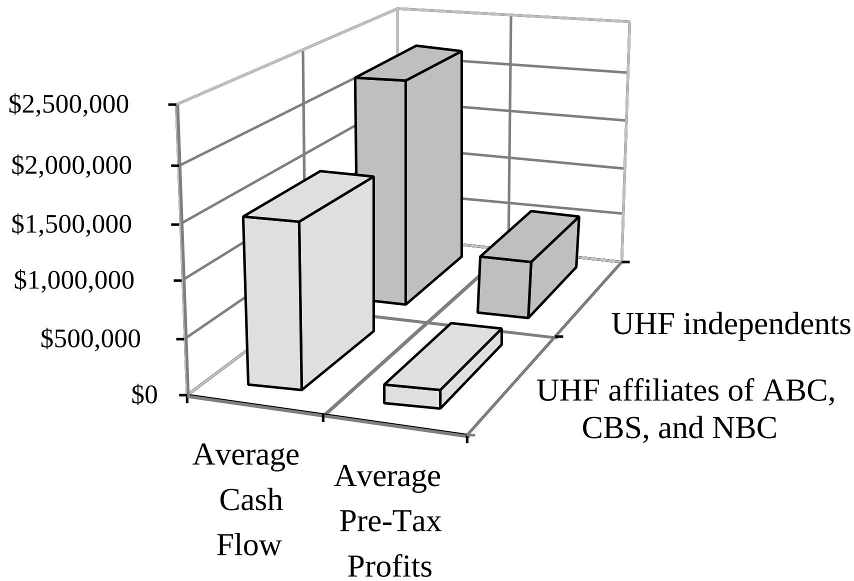


Similarly, it is difficult to justify competitive insulation for allegedly weaker UHF independents when much of the cost of that insulation falls on UHF affiliates of ABC, CBS and NBC. UHF network affiliates are denied the right to broadcast first-run network programming during the access period. Figure 18 below demonstrates that a policy of favoring one set of UHF stations (independents) at the expense of another set of UHF stations (ABC, CBS and NBC affiliates) cannot be supported by a supposed greater financial strength of UHF network affiliates. Independent UHF stations tend to have better financial performance than UHF network affiliates because the independent UHF

99 Source: Appendix A, Table A-12. Includes all ADI markets.

stations are found in larger markets than the average affiliate. PTAR ignores such factors in its attempt to benefit all independent stations relative to affiliated stations.

Figure 18 1992 UHF station profitability[100]



Similarly, insulation of weaker, marginal independent stations makes no sense if it is at the cost of viewer welfare. While it is surely true that handicapping network affiliates helps independents, there is no evidence that the Rule has been crucial to the survival of any independent station.[101] Indeed, because the Rule's impact is restricted to one hour of the broadcast day, half of which had no network programming in the years prior to the Rule, it is difficult to see how such evidence could exist. Special insulation for UHF independents cannot be justified today given the great reduction or elimination of their "UHF handicap," referred to earlier and discussed in Appendix C. Moreover, there is no basis to believe that the long-run competitiveness or economic performance of the broadcasting industry has been significantly enhanced by those marginal independents, if any, that owe their existence to the artificial competitive advantage of PTAR. Further,

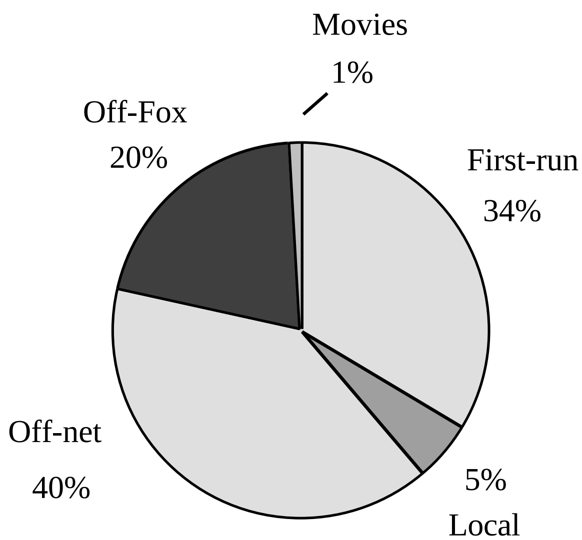
100 Source: Appendix A, Table A-16. UHF independents include Fox affiliates.

101 To put the matter somewhat more rigorously, it is doubtful that the marginal contribution of PTAR to independent station profitability has been sufficient to make the difference between viability and non-viability for any material number of stations.

conferring advantages on independents is no longer necessary because of the explosion in new networks and media available to the viewing public.

The failure of many independents to take advantage of their special status to show off-network programming during the access hour also calls into question the need for PTAR as a means to afford a competitive advantage to independent stations in the top-50 markets. Off-network programming accounted for only 40 percent of programming hours by Fox affiliates and other independent stations in the top-50 markets during the access period. See Figure 19.

Figure 19 **Access hour broadcasts of top-50-market independents, by source**[102]



If independent stations are at a disadvantage today, that disadvantage is largely attributable to the success of ABC, CBS and NBC affiliates, a success based entirely on competitive merit. Because of their affiliation with national networks with high penetration, ABC, CBS and NBC affiliates can attract larger audiences with higher quality network programming. There is nothing regrettable about this from a public policy perspective. Broadcast networks take advantage of efficiencies to distribute programming with greater viewer appeal. PTAR handicaps these networks and their affili-

102 Includes Fox affiliates. Source: Appendix H.

ates by restricting the realization of these efficiencies and thereby harms viewers, advertisers, the production industry, and society as a whole. PTAR provides no compensating benefits to any but special interest groups made up of well-off independent stations and successful game show and news magazine producers.

D. Diversity is not enhanced by PTAR

From the beginning, supporters of PTAR have attempted to justify the Rule by arguing that it promotes diversity.[103] Diversity concerns cannot justify retaining PTAR. This section shows that PTAR does not increase diversity. Even if PTAR were marginally to promote diversity, economic forces other than PTAR have now created so much diversity that there is no longer any need for PTAR.

In a recent Notice, the Commission identified three relevant types of diversity: viewpoint, outlet and source.[104] Viewpoint diversity apparently is synonymous with diversity of program content, because the Commission uses its now-defunct program content regulations to illustrate "direct" regulation of viewpoint diversity.[105] These "direct" regulations required broadcasters to offer minimum amounts of various program types, and to present a variety of viewpoints, but did not require broadcasters to offer access to others. Outlet diversity "refers to a variety of delivery services (*e.g.*, broadcast stations) that select and present programming directly to the public."[106] Source diversity "... refers to ensuring a variety of program producers and owners."[107] According to the Commission, "... the Prime Time Access Rule [was] designed to foster 'source' diversity ..."[108] Finally, according to the Commission, its "core concern with respect to diversity is news and public affairs programming especially with regard to local issues and events."[109]

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103 For instance, see FCC Report and Order adopted May 4, 1970, ¶21, ¶23 and ¶25.

104 FCC, Further Notice of Proposed Rule Making, MM No. 91-221 & 87-8, Released Jan. 17, 1995, ¶¶53-80.

105 *Id*. ¶¶57-59.

106 *Id*. ¶61.

107 *Id.*

108 *Id*.

109 *Id*. ¶72.

1. Outlet diversity

Outlet diversity is measured by the number of independent "gatekeepers" controlling what is available to consumers. To be an effective source of diversity it is not necessary that any given consumer or any threshold fraction of consumers actually subscribe to, see or hear the messages of any given outlet; the reasonable availability of options is sufficient.

Diversity of outlets for individual viewers has not been enhanced by PTAR. The number of stations in the viewer's market determines the broadcast television options available to each viewer. Each station typically provides programming that is different from the others, and viewers can choose among them.[110] PTAR has the effect of prohibiting network affiliates from showing network programming during the access period; moreover it restricts network affiliates in the top-50 markets from showing off-network programming. In no way does this restriction increase the number of options available to a viewer. Consequently, PTAR has no effect on the diversity of outlets for individual viewers. From the perspective of an individual viewer, PTAR did not change the number of "gatekeepers" governing the options available on broadcasting television.[111] Instead, it *reduced* the number of programming sources available to the gatekeepers.

Although the diversity of broadcast television options available to a viewer is limited by the number of stations, there has been enormous growth in the number of independent commercial stations since 1970. See Figure 3. In 1993, the average television household could receive 13.3 stations.[112] PTAR may have increased slightly the profitability of independent stations by insulating them from the competition of network affiliates. However, the growth in the number of independent stations is explained chiefly by an increase in the demand for television advertising, changes in FCC television spectrum management policies, and the reduction or elimination of the UHF handicap. The

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110 Some PBS stations in the same market duplicate programs.

111 In principle, PTAR might have increased the number of gatekeepers, and therefore outlet diversity, in those markets where the slight increase in independent station profitability due to PTAR made the difference between having one more independent station and not having one. There is no evidence that any such markets exist.

112 NIELSEN MEDIA RESEARCH, TELEVISION AUDIENCE 1993, at 9.

growth would have occurred even had there been no PTAR. Furthermore, most viewers today have access to cable programming, VCRs and two DBS services, which further increase the number of viewing options. Future developments, including VDT, will further expand the options available to many viewers. Even if there had been a need to increase outlet diversity at the time PTAR was instituted, PTAR would now be obsolete because that need has been filled many times over.

In short, because local stations decide what programming to broadcast and with what network to affiliate, there are as many independent sources of broadcast programming as there are local stations in each market. As PTAR has done nothing to affect the number of local stations, it has had no effect on outlet diversity.

2. Source diversity

Contrary to what might have been hoped by the architects of PTAR, broadcasters themselves do not face a greater diversity of program sources. First-run programming in the access period has not been produced by a broad, diverse set of firms. Just as in the case of network distribution, to produce popular shows profitably syndicators need to clear a relatively large number of stations. The importance of scale economies dictates that relatively few first-run shows can be profitable in the access period. In practice, three program suppliers account for 89 percent of non-news and public affairs programming shown on affiliates in the top-50 markets during the access period. See Appendix H. These scale economies are what leads the broadcast networks to seek affiliations in as many markets as possible. But syndicators do not offer as much programming, tend to have less stable relationships with their customers, have lower audience reach than ABC, CBS and NBC, and cannot offer advertisers the same range of availabilities. Consequently, the syndicators do not enjoy all the efficiencies of networks and so cannot afford to produce as much high-cost, popular programming as the networks do.

The Commission in 1970 used the image of a (single) "funnel" to describe ABC, CBS and NBC. The funnel was intended to suggest that the broadcast networks stood between the program suppliers and packagers and the stations, restricting the source diversity available to stations. From an economic point of view it is difficult to make sense of this. The economic structure that the Commission faced was created, on the one hand by the Commission's own spectrum policies, and, on the other, by a marketplace in which broadcast stations chose network affiliation in preference to the purchase of programs from syndicators. Nothing prevented syndicators or local producers from making deals with stations; it simply was more profitable, at least in prime time, for the affiliates to broadcast network programs than non-network programs.

Networks select the programs to offer their affiliates; in this sense they are "gatekeepers" vis-à-vis the affiliates, just as the affiliates are gatekeepers vis-à-vis the viewers. Yet the affiliates always have had the option of buying their programming elsewhere. In this sense, the number of sources is as great as the number of potential suppliers. When a station exercises one of many options it makes little sense to say that its own choice has restricted its options.

3. Viewpoint diversity

PTAR also was intended to foster diversity of viewpoints (program content). It was hoped that restricting networks' ability to program would create a greater variety of programs. There is no reliable way to measure the diversity of program content or viewpoints, so it is impossible to state definitively whether PTAR has achieved greater viewpoint diversity. But if there has been an increase in program diversity it is not at all obvious. The types of first-run programs shown during the access period—principally game and news magazine shows—were developed before PTAR and have been widely used during prime time outside the access period and in other dayparts. Indeed, several of the programs now most widely carried in the access period—including *Wheel of Fortune, Jeopardy! and Family Feud*—were developed as network programs.[113]

In at least one important sense, however, PTAR may have *reduced* diversity of program content. Before PTAR, during the portion of the access period programmed by the networks, it was most common to present a different program each night. Most of the first-run programs now shown by network affiliates in the access period have been "stripped," *i.e.*, the same program airs each weekday night, with a different game, edition or episode shown each night. If such "stripping" was caused or encouraged by

113 TIM BROOKS & EARLE MARSH, THE COMPLETE DIRECTORY TO PRIME-TIME NETWORK TV SHOWS 1946-PRESENT, (4th ed. 1988).

PTAR, the number of different ideas being turned into television programming has probably been reduced.

As noted above, the Commission has stated that its “core concern with respect to diversity is news and public affairs programming especially with regard to local issues and events.”[114] If the Commission’s core diversity objective is to increase local news and public affairs programming, PTAR clearly has not been successful. During the first half of the access period, 7:00–7:30 p.m., affiliates of ABC, CBS and NBC showed local news and public affairs programming during 43 percent of all affiliate hours in the November 1994 sweep. This activity cannot be attributed to PTAR, however, since many affiliates broadcast local news during 7:00–7:30 p.m. even before PTAR. In contrast, affiliates offered very little local news and public affairs programming during the second half of the access period, from 7:30–8:00 p.m.—only 2 percent of all affiliate hours. Fox affiliates and other independent stations devoted similarly small percentages of their time to news. During the access hour from 7–8 p.m., local news and public affairs programming accounted for only 3 percent of total Fox affiliate and other independent station hours. See Appendix H.

Moreover, if PTAR increases the profitability of independent stations, there is no reason to suppose that the stations use their higher profits to subsidize local news and public affairs programming. Broadcast stations have no reason (without Commission “direct” regulation of program content) to increase their broadcasts of news and public affairs because of increases in the profitability of entertainment programming. Indeed, the reverse may be true.

Since PTAR has caused no demonstrable increase in viewpoint or content diversity, it is unlikely that diversity would be reduced by the repeal of PTAR. Indeed, it is likely that without PTAR, first-run syndicated programming akin to that now being carried on ABC, CBS and NBC affiliates would simply air instead on independent stations. The use of first-run syndicated programming to compete with network programming during prime time demonstrates this point. As shown in Figure 15, first-run syndication accounts for 39 percent of the prime-time programming shown on non-Fox independents in the top-50 markets. If the affiliates of ABC, CBS and NBC were to show network

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114 FCC, Further Notice of Proposed Rule Making, *supra* note 102, ¶ 72.

programming during the access period, independents probably would counter-program with first-run syndicated programming.

Finally, it makes no sense to limit consideration of viewpoint diversity to what is available on television, let alone broadcast television. Consumers have available to them and consume many other types of video programming, the content of much of which in no way duplicates broadcast television programming. The emergence of more than 100 new cable networks and alternative media clearly makes the Commission's 1970 diversity concerns irrelevant today.[115] A subset of these cable networks provided in a representative week in 1995 over 11,000 hours of programming that did not originally appear on ABC, CBS or NBC.[116] Even though not all viewers subscribe to cable, DBS or other video media, these sources of diversity are reasonably available to them, just as print media are on the newsstand.

The enormous increase in video programming available through cable networks, home video and other sources has had a great role in expanding the diversity of video viewpoints. Cable networks have been created offering programming specializing in diverse subjects, from golf to gardening, and from science to science fiction. It is not credible to argue that PTAR is needed to increase content diversity, since viewers now have much more content diversity available to them than could ever be created by PTAR.

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115 As noted above, the Commission in another proceeding has tentatively proposed to ignore the multiplicity of cable channels in terms of their contribution to viewpoint diversity because they are under the control of the cable operator. There are reasons to disagree with this view, including the difficulty of reconciling it with the Commission's long insistence that broadcasters, no less in control of what they offer the public than cable operators, can increase viewpoint diversity by reacting to various "direct" and "indirect" FCC regulations. *See* FCC, Further Notice of Proposed Rule Making, *supra* note 102, ¶¶53-80.

116 *See* Appendix A, Table A-15.

V. CONCLUSION

The Prime Time Access Rule, if it ever made sense as an element of sound economic policy, makes no sense today. The premise that ABC, CBS and NBC acted as one never had any basis. In any event, these networks' collective economic power no longer qualifies as "dominant" in an industry experiencing explosive growth of new entrants. Where there once were three broadcast networks, now there are six. Where cable television once provided only retransmission service, today it provides dozens of channels of original programming. The bargaining relationship between networks and local affiliates has shifted dramatically in the affiliates' favor. Neither ABC, nor CBS nor NBC dominated the purchase or production of prime-time programming before the Rule's adoption in 1970, and there is no sign that any of them could do so today. Further, all three of the new broadcast networks are vertically integrated into program production, and horizontally integrated into syndication.

Stations choose to affiliate with broadcast networks because in a competitive market they work diligently to provide superior service, taking advantage of the economies of networking to offer high-quality, popular programming to affiliates and viewers, and effective advertising vehicles to advertisers. To handicap the most successful broadcasters, as PTAR does, leads inevitably to a loss of economic efficiency and consumer welfare. While this is difficult to measure, one indication of the cost of the Rule is the loss of audience in the access period after the Rule became effective. Nearly 600,000 television households by the most conservative estimate, and more likely 1.25 million, *turned off their sets* rather than watch the material that was substituted for network first-run shows in the access period. The overall welfare loss, by one measure, exceeds $200 billion over the past 25 years. The Rule created a restriction of output that has been no less anticompetitive in its effects than an agreement in restraint of trade. Further, by placing its thumb on the scale of competition, the Commission by this Rule has distorted and restricted competition in other ways affecting program producers, syndicators, independent stations, new networks, and network affiliates.

The Rule has come to be seen largely as a measure to promote the fortunes of independent and UHF stations. The evidence shows that today many independent stations are more profitable than affiliates. Further, UHF affiliates of ABC, CBS and NBC are victims of the Rule, yet on average are financially weaker than UHF independents, intended beneficiaries of the Rule. Furthermore, any “handicap” affecting independent UHF stations in the past has been reduced or eliminated, due to forces other than PTAR.

The economic costs, penalties, restrictions and consumer harms caused by PTAR cannot be justified by an increase in diversity, because PTAR has not increased diversity. The number of outlets for local broadcast programming is unchanged by the Rule. The number of sources of programming available to those outlets is reduced by the terms of the Rule. There is no basis to believe that the Rule enhances the diversity of prime-time broadcast program content (or the variety of viewpoints), and there are some reasons to believe that diversity has been reduced. In any event, the flowering of new media alternatives makes irrelevant whatever marginal change in broadcast network affiliate content diversity, if any, can be attributed to the Rule.

Appendix A Data tables

Table A-1 Prime-time shares by season 1964/65 to 1993/94

Date	ABC	CBS	NBC	Fox	ABC, CBS, NBC average
1964/65	31.3	31.5	31.3		31.4
1965/66	29.5	33.3	32.2		31.7
1966/67	28.8	32.9	32.3		31.3
1967/68	27.5	34.0	31.4		31.0
1968/69	26.0	33.1	33.0		30.7
1969/70	26.7	32.3	32.2		30.4
1970/71	27.8	31.3	31.3		30.1
1971/72	29.5	32.6	31.1		31.1
1972/73	28.2	32.0	30.9		30.4
1973/74	28.4	33.8	30.0		30.7
1974/75	26.8	33.8	32.3		31.0
1975/76	31.1	32.2	29.1		30.8
1976/77	34.4	29.9	29.0		31.1
1977/78	33.4	30.3	29.2		31.0
1978/79	34.0	30.1	27.4		30.5
1979/80	31.4	31.3	27.8		30.2
1980/81	28.7	31.3	26.2		28.7
1981/82	28.8	30.3	24.2		27.8
1982/83	27.9	28.7	23.8		26.8
1983/84	27.1	28.4	23.5		26.3
1984/85	24.4	26.7	25.6		25.6
1985/86	23.4	26.2	27.5		25.7
1986/87	22.4	25.1	28.2	7.3	25.2
1987/88	22.5	22.0	26.2	5.9	23.6
1988/89	21.0	20.8	25.6	8.9	22.5
1989/90	21.5	20.2	24.1	10.6	21.9
1990/91	20.8	20.5	21.1	10.5	20.8
1991/92	19.9	22.6	20.2	13.0	20.9
1992/93	20.3	21.8	18.0	12.4	20.0
1993/94	20.1	22.7	17.8	11.4	20.2

Source: ABC Affiliate Relations, based on NIELSEN TELEVISION INDEX (various years), network season.

Table A-2 Fox affiliates in the U.S.

Year	Number
1987	106
1988	115
1989	125
1990	131
1991	134
1992	140
1993	139
1994	141
1994 (Sept.)	199

Source: Fox Broadcasting Company, May of year noted. Fox began to include its secondary affiliates in September 1994.

Table A-3 Independent commercial stations in the U.S.

Year	Number	Year	Number	Year	Number
1960	25	1971	69	1982	160
1961	26	1972	73	1983	186
1962	28	1973	75	1984	214
1963	29	1974	77	1985	255
1964	32	1975	79	1986	293
1965	36	1976	84	1987	310
1966	41	1977	89	1988	321
1967	50	1978	94	1989	339
1968	58	1979	106	1990	345
1969	59	1980	113	1991	355
1970	62	1981	135	1992	422
				1993	438

Source: INTV. All data through 1991 are year-end. The 1992 figure is from March 1993. The 1993 figure is from February 1994.

Table A-4 Low-power television stations in the U.S.

Fiscal year	Number
1988	523
1989	726
1990	935
1991	1085
1992	1211
1993	1310

Source: FCC Annual Report to Congress. The low-power television service was established March 4, 1982.

Table A-5 Cable networks in the U.S.

	National					Regional networks†
Year	Basic	Pay	Pay-per view	Combina-tion	Total	Total
1976	2	2			4	
1977	3	2			5	
1978	6	2			8	
1979	14	5			19	
1980	19	8		1	28	
1981	29	9			38	
1982	30	11	1		42	
1983	31	11	1		43	
1984	36	10	1		47	
1985	40	9	4	2	55	18
1986	52	8	5	2	67	20
1987	59	9	6	1	75	24
1988	61	8	5	1	75	30
1989	60	5	4	3	72	37
1990	61	5	5	4	75	37
1991	61	7	4	4	76	39
1992	64	8	4	4	80	41
1993	73	9	7	5	94	42
1994*	79	17	8	5	109	43

Source: NCTA, CABLE TELEVISION DEVELOPMENTS Fall 1994. *1994 data are through September. †TELEVISION & CABLE FACTBOOK, SERVICES (various years).

Table A-6 Cable service in the U.S.

Year	TV households	Homes passed	Cable subs	Homes passed per TVHH	Cable subs per TVHH
	(millions)	(millions)	(millions)	(percentage)	
1975	68.5	21.8	9.8	31.8	14.3
1976	71.2	23.1	11.8	32.4	16.6
1977	72.9	24.2	12.6	33.2	17.3
1978	74.5	26.8	14.2	36.0	19.1
1979	76.3	29.3	15.8	38.4	20.7
1980	79.9	34.9	19.2	43.7	24.0
1981	81.3	41.8	23.0	51.4	28.3
1982	81.9	49.5	27.5	60.4	33.6
1983	83.3	55.9	31.4	67.1	37.7
1984	84.9	60.5	34.2	71.3	40.3
1985	86.5	64.7	36.7	74.8	42.4
1986	87.7	69.4	39.7	79.2	45.3
1987	89.2	73.1	42.6	81.9	47.8
1988	90.9	77.2	45.7	85.0	50.3
1989	91.6	82.8	49.3	90.4	53.8
1990	90.9	86.0	51.7	94.7	57.0
1991	92.0	88.4	53.4	96.1	58.1
1992	93.1	89.4	55.2	96.1	59.3
1993	93.9	90.6	57.2	96.5	60.9
1994	94.9	91.6	59.0	96.5	62.0

Source: KAGAN MEDIA INDEX, Jan.11, 1995, at 7, 14; Feb. 26, 1993, at 2.

Table A-7 Households subscribing to video programming through backyard dishes, SMATV and MMDS (in millions)

Year	Backyard dishes	SMATV	MMDS (wireless)
1983			0.5
1984		0.4	0.4
1985		0.5	0.3
1986	0.1	0.6	0.3
1987	0.3	0.7	0.2
1988	0.4	0.7	0.2
1989	0.6	0.8	0.1
1990	0.7	0.8	0.2
1991	0.8	0.9	0.2
1992	0.9	0.9	0.3
1993	1.4	1.0	0.4
1994	2.1	1.1	0.6

Source: KAGAN MEDIA INDEX, Jan. 11, 1995, at 7, 14.

Table A-8 U.S. video cassette expenditures (consumer rentals and sales in millions of dollars)

Year	Households with VCRs (millions)	Household video cassette expenditures	Household video cassette rental revenue	Total household video cassette revenue
1983	9.4	218	1,065	1,283
1984	16.9	381	1,827	2,208
1985	27.5	656	2,910	3,566
1986	38.1	853	4,173	5,026
1987	47.6	1,108	5,245	6,353
1988	55.3	1,591	6,377	7,968
1989	61.3	2,258	7,052	9,310
1990	66.0	2,829	7,616	10,445
1991	71.2	3,229	7,770	10,999
1992	76.1	3,739	8,230	11,969
1993	80.5	4,386	8,840	13,226
1994	84.5	5,008	9,389	14,397

Source: KAGAN MEDIA INDEX, Dec. 29, 1994 at 14, Jan. 11, 1995 at 7.

Table A-9 **Average ABC, CBS and NBC shares of all dayparts by season**

Season	ABC, CBS, NBC affiliates Total	Net. dayparts	Non-net. dayparts	Ave.	Cable Total	Basic	Pay	Independents Total	Local	Distant	Super stations	Public
1980/81	80	51	29	27	3	1	2	16			3	3
1981/82	72	46	26	24	9	4	5	17			3	3
1982/83	71			24	9	4	5	16			5	3
1983/84	69			23	11	6	5	16			6	3
1984/85	66	43	23	22	14	8	6	15	12	3	6	3
1985/86	66	43	23	22	13	8	5	15	13	2	6	3
1986/87	64	41	23	21	19	13	6	16	14	2	4	4
1987/88	61	39	22	20	22	15	7	17	15	2	3	4
1988/89	58	39	19	19	24	17	7	16	14	2	4	3
1989/90	55	37	18	18	27	21	6	16	14	2	4	3
1990/91	53	36	17	18	30	24	6	18			3	3
1991/92	54	36	18	18	30	24	6	18			2	3
1992/93	53	36	17	18	30	25	5	21			0	4
1993/94	52	35	17	17	31	26	5	21			0	4

Sources: NIELSEN TELEVISION INDEX for 1980/81 and 1981/82. CABLETELEVISION ADVERTISING BUREAU, INC., CABLE TV FACTS, 1984-1995, (based on NIELSEN TELEVISION INDEX) for 1982/83 through 1993/1994 data. Notes: Shares are not equivalent to percentages of TVHH and sum to more than 100 percent because some households operate more than one TV set at a time. Independents excludes superstations, and includes Fox affiliates. TBS is counted as a basic cable network starting 1989/90. Superstation WWOR is included in Independents and superstation WGN is included as a basic cable network starting 1992/93.

Table A-10 **Average ABC, CBS and NBC shares of U.S. national television advertising revenue** **($ figures in millions)**

Year	Network	Nat'l spot	Nat'l cable*	Nat'l synd'n**	National total	Net. as % of total	Ave. net. share (%)
1970	$1,658	$1,234			$2,892	57.3	19.1
1971	1,593	1,145			2,738	58.2	19.4
1972	1,804	1,318			3,122	57.8	19.3
1973	1,968	1,377			3,345	58.8	19.6
1974	2,145	1,495			3,640	58.9	19.6
1975	2,306	1,623			3,929	58.7	19.6
1976	2,857	2,154			5,011	57.0	19.0
1977	3,460	2,204			5,664	61.1	20.4
1978	3,975	2,607			6,582	60.4	20.1
1979	4,599	2,873			7,472	61.5	20.5
1980	5,130	3,269	$45	$50	8,494	60.4	20.1
1981	5,540	3,746	100	75	9,461	58.6	19.5
1982	6,144	4,364	181	150	10,839	56.7	18.9
1983	6,955	4,827	282	300	12,364	56.3	18.8
1984	8,318	5,488	458	420	14,684	56.6	18.9
1985	8,060	6,004	594	520	15,178	53.1	17.7
1986	8,342	6,570	676	600	16,188	51.5	17.2
1987	8,500	6,846	760	762	16,868	50.4	16.8
1988	9,172	7,147	942	901	18,162	50.5	16.8
1989	9,110	7,354	1,197	1,288	18,949	48.1	16.0
1990	9,383	7,788	1,393	1,589	20,153	46.6	15.5
1991	8,933	7,110	1,521	1,853	19,417	46.0	15.3
1992	9,549	7,551	1,685	2,070	20,855	45.8	15.3
1993	9,415	7,793	1,940	2,380	21,528	43.7	14.6

Source: TELEVISION BUREAU OF ADVERTISING, TRENDS IN GDP AD VOLUME, 1960-1993.
* National Cable data are from VERONIS, SUHLER & ASSOCIATES, COMMUNICATIONS INDUSTRY FORECAST, 1994. **Includes Fox.

Table A-11 Average ABC, CBS and NBC shares of prime-time entertainment series broadcast

	Network in-house productions as share of broadcast hours (percentage)			
Season	ABC	CBS	NBC	Average
1969/70	0.00	1.85	1.78	1.21
1970/71	0.00	2.75	1.87	1.54
1971/72	0.00	2.40	3.11	1.84
1972/73	0.00	2.59	0.83	1.14
1973/74	0.00	3.38	0.00	1.13
1974/75	0.00	2.49	2.49	1.66
1975/76	0.00	2.27	0.00	0.76
1976/77	0.00	3.38	2.09	1.82
1977/78	0.00	0.00	2.59	0.86
1978/79	0.00	2.10	4.62	2.24
1979/80	0.00	1.07	5.22	2.10
1980/81	0.00	0.00	3.80	1.27
1981/82	0.00	0.00	8.11	2.70
1982/83	0.00	0.00	2.68	0.89
1983/84	0.00	0.00	0.46	0.15
1984/85	0.67	0.00	1.91	0.86
1985/86	2.13	2.29	0.99	1.80
1986/87	2.24	0.55	0.19	0.99
1987/88	1.79	0.99	0.73	1.17
1988/89	0.79	0.00	0.00	0.26
1989/90	0.88	4.37	3.87	3.04
1990/91	2.46	7.04	1.83	3.78
1991/92	4.07	7.77	1.53	4.46
1992/93	6.65	9.03	4.54	6.74
1993/94	5.01	11.37	2.65	6.34

Source: Appendix E.

Table A-12 Average cash flow for U.S. television stations

	Ave. cash flow
All markets	**$**
All ABC, CBS, NBC Affil.	6,137,332
All independents	6,243,501
All VHF independents	18,677,101
All Fox affiliates	5,711,547
ADI markets 1–25	
ABC affiliates	26,907,958
CBS affiliates	20,090,028
NBC affiliates	25,052,565
Fox affiliates	19,605,441
ADI markets 26–50	
ABC affiliates	7,137,498
CBS affiliates	6,324,157
NBC affiliates	6,828,460
Fox affiliates	4,560,791

Source: NATIONAL ASSOCIATION OF BROADCASTERS, 1994 TELEVISION FINANCIAL REPORT. The NAB surveyed all commercial television stations. Usable responses were received from 773 television stations, a response rate of 69.5 percent. Independent stations in this table refer to those stations without an affiliation with ABC, CBS, NBC or Fox.

Table A-13 Percent of TV households using television

TV Season	7:30–8:00 p.m.	8:00–8:30 p.m.	8:30–9:00 p.m.
		Pre–rule base period	
1969/70	61.31	64.47	65.65
1970/71	62.14	65.03	65.98
		Post–rule seasons	
1972/73	60.26	64.20	65.60
1976/77	60.28	64.28	66.11

Source: Appendix I.

Table A-14 Access period (7:30–8:00 p.m.) viewing as percentage of 8:00–8:30 p.m. viewing

TV Season	Viewing 7:30–8:00 as percentage of viewing 8:00–8:30 p.m.
1969/70	95.1
1970/71	95.6
1972/73	93.9
1976/77	93.8

Source: Calculated based on data in Appendix I.

Table A-15 Hours of programming on 94 cable networks, by source

Source	Hours	Percent of total
Movies	3,464	28
Network	1,006	8
Original cable and other	6,913	56
Infomercials	338	3
Sports	585	5
Total	12,306	100

Source: Calculated based on data in Appendix B.

Table A-16 1992 UHF station profitability

Station group	Average cash flow	Average pre-tax profits
UHF affiliates of ABC, CBS and NBC	$1,480,265	$165,852
UHF independents	$2,194,166	$552,222

SOURCE: NATIONAL ASSOCIATION OF BROADCASTERS, 1993 TELEVISION FINANCIAL REPORT. NAB reports that the usable response rate from all commercial television stations was 72.2 percent for the 1993 Report, which covers 1992 financial results. This is the most recent report with financial results for the UHF affiliates of ABC, CBS and NBC. The 1992 data for UHF independents include Fox affiliates.

Appendix B Programming on cable networks

In order to examine the types of programming appearing on cable networks, Economists Incorporated analyzed the program schedules for 94 basic, regional and premium cable networks. Each program was categorized as either movie, sports, paid programming, off-network (programs originally airing on either ABC, CBS or NBC) or non-network. Non-network programming includes programs that have their original airing on a cable network, first-run syndicated programs and programs that originally appeared in syndication on the Fox network. The results are presented in Table B-1. Of the 12,306 hours of programming examined, 28 percent of the time was movies, 5 percent was sports, 3 percent was paid programming, 8 percent was off-network and 56 percent was non-network.

Table B-1 Summary of cable programming by type

	Movies	Off-network	Original cable and other	Paid	Sports	Total
Total Minutes	207,825	60,365	414,780	20,250	35,115	738,335
Percent	28.1	8.2	56.2	2.7	4.8	100.0

The sample of cable networks examined included 60 national basic cable services, 14 regional cable services and 20 national pay cable services.[117] The national basic cable services included all but 2 of the 20 largest national networks, and all but 10 of the 50 largest national networks.[118] The regional cable services reflect a sample of the larger regional basic and pay services. Most regional networks offer either sports or news

117 No pay-per-view services were included in the analysis.

118 The ranking of networks is based on the network subscriber counts reported in Cablevision, Dec. 12, 1994, at 65. Of the fifty largest networks, the ten excluded networks are: The Weather Channel, which presents live programming on weather information; Headline News, which presents live news summaries; C-SPAN II, which provides live coverage of the US Senate; The Box, an interactive, viewer-programmed music video network; Q2, a lifestyle, home-shopping network; Home Shopping Network II, another shop-at-home service; Kaleidoscope: America's Disability Channel, which presents informational programming by and for people with disabilities; Univision, a Spanish-language network; Telemundo, another Spanish language network; and, Z Music, which offers Christian music videos.

programming. All of the large premium cable services are included.[119] Most of these networks offer movies.

Data on each network's programming schedule were obtained from Tribune Media Services TV Listings (TMS).[120] The data cover programs scheduled to start between 6 a.m. and 2 a.m. the following morning for one week, January 8 through January 14, 1995. The TMS data provided the date, start time, title and length of each program. In addition to providing the program schedule for each cable network, TMS provided information as to the type of the program, *e.g.*, movie, sports, paid programming or show. For shows, TMS also supplied the source for the program, *i.e.*, where the show originally aired in the United States. For example, the source for "The Waltons," which airs on the Family Channel, is listed as CBS, while the source for "That's My Dog," which also airs on the Family Channel, is listed as the Family Channel. In this way it is possible to identify which programs on these cable networks originally aired on the ABC, CBS or NBC network.[121]

For each cable network, the total number of programming minutes that were movies, sports, paid programming, off-network (programs originally airing on ABC, CBS or NBC), and other were calculated. The other category includes programs that either aired for the first time on a cable network or originally were released as syndicated programming. The results of the analysis for each network are presented in Table B-2.

The aggregate number of minutes and the percentage of total minutes for each category are presented in Table B-1. From Table B-1, only 8 percent of the 12,306 programming

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119 Premium services excluded from the analysis include ANA Television Network/Arab-Net, Canal Sur, The Fillipino Channel, Playboy, Spice, Spice 2, TV Asia, and TV-Japan.

120 Tribune Media Services TV Listings is a division of Tribune Media Services, a wholly owned subsidiary of The Tribune Company. Tribune Media Services TV Listings has more than 13 years of experience in providing TV listings. Its clients include USA Today, the New York Times, the Los Angeles Times, the Chicago Tribune and the Philadelphia Inquirer. It provides TV listings to about 70 of the top 100 circulation papers in the country. It supplies cable programming guides to cable systems nationwide. It also electronically serves cable systems, DirecTV, USSB, America On-Line, e-World and GTE Main Street. It also provides programming data to ASCAP for purposes of music royalty calculations.

121 Some shows were listed without a source. For these programs, two sources were used, ALEX MCNEIL, TOTAL TELEVISION, (1991) and BROOKS & MARSH, *supra* note 111, to determine if the program originally aired on ABC, CBS or NBC. It is also possible that some programs listed as movies are made-for-television movies.

hours on these 94 cable networks was originally aired on ABC, CBS or NBC. Considering the types of programming on the cable networks not included in the sample, this estimate is likely to overstate the actual percentage of programming on all cable networks that originally appeared on ABC, CBS or NBC.[122]

An analysis of Table B-2 reveals that only four cable networks, USA, fX, WGN and WWOR (two of which are broadcast superstations), rely on off-network programming for the majority of their program hours.

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122 *See* notes 116 and 117, *supra*, for a partial list of the cable networks excluded. Other national basic cable networks excluded are: America's Collectibles Network, Americana Television Network, Canal de Noticias, Caribbean Satellite Network, Cable Health Club, Classic Arts Showcase, Crime Channel, Deep Dish TV Network, Fox Net, fxM, Galavision, The Game Channel, The Game Show Network, Gaming and Entertainment Network, GEMS Television, Golden American Network, The Golf Channel, The Gospel Network, The Idea Channel, Jewish TV Network, Jones Computer Network, KTVT, Las Vegas Television Network, MOR Music Television, MTV Latino, NASA Television, National Access Television, Network 1, The '90s Channel, Product Information Network, SCOLA/News of All Nations, SingleVision, The Talk Channel, TeleNoticias, tv!, TV Food Network, U Network, ValueVision, Via TV Network and the Worship Network. Excluded regional networks are: Arizona Sports, Atlanta Interfaith, Bay Area Religious Channel, Bay TV, Cable TV Network of New Jersey, The California Channel, ChicagoLand Television News, The Ecumenical Channel, La Cadena Deportiva/Prime Ticket, Meadows Racing Network, New York 1 News, NewsChannel 8, News 12 Long Island, Orange County News Channel, Pennsylvania Cable Network, Pittsburgh Cable News Network, PenVision, Prism, Pro-Am Sports, SportsChannel Cincinnati, SportsChannel Florida, SportsChannel Hawaii, SportsChannel New England, SportsChannel Ohio, SportsChannel Philadelphia, Sunshine Network and WFIT.

Table B-2 Minutes of programming on cable networks by type

Channel	Movies	Off-net-work	Original cable and other	Paid	Sports	Total
3 Angels Broadcasting Net.	0	0	8,400	0	0	8,400
Adam & Eve	8,640	0	180	0	0	8,820
American Independent Net.	2,400	510	6,510	60	300	9,780
All News Channel	0	0	8,400	0	0	8,400
American Movie Classics	8,065	0	465	0	0	8,530
Arts & Entertainment	960	3,960	3,630	0	0	8,550
Atlantic Satellite Network	1,735	1,620	4,290	240	0	7,885
America's Talking	0	0	6,540	1,860	0	8,400
Black Entertainment TV	0	360	7,020	1,020	0	8,400
Bravo	3,420	300	3,240	0	0	6,960
Channel America	2,040	300	4,410	1,440	0	8,190
Cinemax	8,310	0	90	0	0	8,400
Cinemax2	8,130	0	30	0	0	8,160
Country Music Television	0	0	10,080	0	0	10,080
CNBC	0	0	7,440	960	0	8,400
CNN	0	30	8,280	0	0	8,310
Comedy Central	480	870	6,330	720	0	8,400
Court TV	0	0	8,400	0	0	8,400
CSPAN	0	0	8,880	0	0	8,880
Disney	3,040	930	4,740	0	0	8,710
Empire Sports Net.	0	0	2,010	30	1,500	3,540
Encore-Action	6,940	550	950	0	0	8,440
Encore	8,415	0	0	0	0	8,415
ESPN	0	0	6,510	0	1,920	8,430
ESPN2	0	0	6,240	0	2,310	8,550
E! Entertainment TV	120	1,110	7,170	0	0	8,400
Eternal Word TV Net.	0	0	8,460	0	0	8,460
The Family Channel	600	2,280	4,110	510	0	7,500
FamilyNet	450	210	6,870	420	0	7,950
First Choice	8,565	0	180	0	0	8,745
Flix	8,240	0	0	0	0	8,240
FX	0	4,500	3,480	420	0	8,400
HBO	7,145	0	1,410	0	0	8,555
HBO2	7,555	0	835	0	0	8,390
HBO3	7,100	0	1,245	0	0	8,345
The History Channel	1,440	240	6,900	0	0	8,580
Home Sports Entertainment	0	0	90	0	300	390
Home Shopping Network	0	0	8,820	0	0	8,820
Home Team Sports	0	0	2,445	1,380	2,595	6,420
Independent Film Channel	8,250	0	180	0	0	8,430
The New Inspirational Net.	120	0	6,600	840	0	7,560
International Channel	0	0	8,370	30	0	8,400

Table B-2, continued

Channel	Movies	Off-net-work	Original cable and other	Paid	Sports	Total
KBL Sports Network	0	120	2,340	450	1,380	4,290
Keystone Inspirational Net.	0	0	7,170	180	0	7,350
KTLA	1,320	2,010	2,040	240	0	5,610
Lifetime	2,130	2,550	2,550	1,170	0	8,400
Encore-Love Stories	8,360	0	115	0	0	8,475
Mind Extension University	0	0	8,310	0	0	8,310
Much Music USA	0	0	7,920	0	0	7,920
Midwest Sports Channel	0	0	3,660	60	3,030	6,750
Madison Square Garden Net.	0	0	1,650	60	2,070	3,780
Main Street TV	3,810	30	3,000	930	540	8,310
MTV	0	0	8,640	0	0	8,640
Encore-Mystery	6,435	1,045	830	0	0	8,310
New England Sports Network	0	0	4,800	30	3,750	8,580
National Empowerment TV	0	60	7,560	660	0	8,280
New England Cable News	0	0	8,550	0	0	8,550
Nickelodeon	0	3,420	4,980	0	0	8,400
NewSport Television	0	0	7,620	300	480	8,400
The Outdoor Channel	1,240	0	6,320	750	0	8,310
Prime Ticket Network	0	0	4,830	1,290	2,340	8,460
Prime Sports Network	0	0	6,300	0	2,100	8,400
QVC Network	0	0	8,400	0	0	8,400
SportsChannel Chicago	0	0	4,680	120	3,300	8,100
Sci-Fi Channel	750	4,080	2,910	660	0	8,400
Shepherds Chapel Network	0	0	8,400	0	0	8,400
SportsChannel New York	0	0	5,550	60	2,970	8,580
SportsChannel Pacific	0	0	1,740	120	900	2,760
Showtime	7,400	0	985	0	0	8,385
Showtime2	8,325	0	160	0	0	8,485
Sportsouth Network	0	0	2,160	270	2,640	5,070
Starz!	7,490	700	510	0	0	8,700
Trinity Broadcasting Network	0	0	8,520	0	0	8,520
Turner Classic Movies	8,490	0	240	0	0	8,730
The Discovery Channel	0	0	7,140	0	0	7,140
The Learning Channel	0	0	8,040	0	0	8,040
The Movie Channel	8,575	0	0	0	0	8,575
The Nostalgia Channel	2,280	3,090	2,010	780	0	8,160
The Nashville Network	0	180	7,110	0	0	7,290
Turner Network TV	3,680	3,180	1,710	0	300	8,870
The Cartoon Network	0	2,730	5,670	0	0	8,400
The Travel Channel	0	0	8,400	0	0	8,400
Encore-True Stories	8,525	0	95	0	0	8,620
USA Network	1,200	4,380	2,520	270	0	8,370

Table B-2, continued

Channel	Movies	Off-net-work	Original cable and other	Paid	Sports	Total
VH1	0	0	8,370	0	0	8,370
Faith & Values Channel	0	0	7,950	420	0	8,370
Encore-Wam!	1,160	255	7,080	0	0	8,495
Encore-Western	8,000	255	220	0	0	8,475
WGN	360	2,010	540	60	0	2,970
World Harvest Television	360	240	8,610	60	0	9,270
WPIX	1,320	1,260	2,760	210	0	5,550
WSBK	1,230	2,310	1,350	630	240	5,760
TBS Superstation	3,225	3,410	1,505	180	150	8,470
WWOR	0	5,280	30	360	0	5,670

Appendix C The UHF handicap

Part of the justification for the implementation of PTAR was the FCC's concern over the weakness of independent UHF stations.[123] This concern was reinforced by academic studies in the 1970s that consistently found that independent UHF stations had smaller audience shares than corresponding VHF stations.[124] The difference in audience share, holding other factors constant, is often referred to as the "UHF handicap." The existence of a UHF handicap has sometimes been used to justify a differing regulatory treatment of the ABC, CBS and NBC affiliates, which account for most VHF stations. As described below, this rationale for separate regulatory treatment of major network affiliates is no longer plausible.

The most commonly cited measure of the UHF handicap is based on research conducted by R.E. Park for the FCC.[125] Using 1977/78 audience share data, Park found that VHF network affiliates had by far the greatest audience appeal, and UHF independent stations had by far the least appeal. Park found a much smaller UHF handicap for cable subscribers.

Park attempted to measure the effect of cable carriage on the UHF handicap, but he had only county-level viewing data. Cable systems within a county do not, in general, carry the same signals. Park dealt with this problem by selecting a sample of counties with only one cable system. These turned out to be chiefly rural counties in the Southeastern United States. For comparability, this study uses the same sample.

The structure of local broadcast television competition has changed substantially since 1978. Then there were 94 independent stations, or an average of less than one half for each of the more than 200 Nielsen designated market areas (DMAs); by 1993 there were 438 full-power independent stations—or more than two per DMA—and more than 1,300 low-power stations.

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123 FCC, In the Matter of Amendment of Part 73 of the Commission's Rules and Regulations with Respect to Competition and Responsibility in Network Television Broadcasting, 23 FCC 2d 394-395 (May 4, 1970) (No. 12782).

124 *See* Rolla E. Park, *Audience Diversion Due to Cable Television: Response to Industry Comments,* RAND, N-1334-FCC, Nov. 1979.

125 *Id.*

Television viewing options have also changed since 1978. Then, 80 percent of households watched television from off-the-air signals only, for which the UHF handicap was the most severe. Nearly two thirds of U.S. households were not passed by cable, and even where cable was available, the programming options were largely limited to retransmitted broadcast signals. By 1994, more than 96 percent of U.S. households had access to cable television, and more than 60 percent of all households subscribed to cable. Broadcast signals are now only part of an extensive menu of programming choices available to households that can subscribe to cable television, DBS, MMDS or TVRO services. For these and other reasons alone, the UHF handicap for total audience share may have changed substantially since 1978.

This study replicated the Park study as closely as possible with data from 1993/94. While the handicap of UHF affiliates of ABC, CBS and NBC remained relatively unchanged since the late 1970s, the handicap of other UHF stations disappeared entirely. This result, combined with the substantial increase in the number of stations unaffiliated with one of the three major networks, indicates that these independent and Fox stations can and do compete more effectively for audience share than just fifteen or twenty years ago. The continuing handicap of UHF network affiliates may reflect their status as small-market stations, perhaps unable economically to invest in the extra broadcast facilities necessary to overcome the handicap. Further, both Park's and the present results may be affected by the nature of the sample of markets, and this may explain the unexpected persistence of a UHF handicap for affiliated stations. A more representative sample doubtless would confirm the common-sense hypothesis that the UHF handicap has been greatly reduced for all classes of station.

Park estimated a model of the following general form to explain the observed audience share of broadcast stations in 121 different counties:

$$Share_{jk} = (\Sigma\, a_{ij}D_{ik} / \Sigma\, a_{ij}M_{im}) \quad (1)$$

where $Share_{jk}$ refers to the audience share of the kth broadcast station during the jth period of the day;

D_{ik} refers to a dummy variable for the kth broadcast station equal to 1 if the station is of type i and equal to zero otherwise;

M_{im} is a count of the number of broadcast stations of type i in the mth county; and

a_{ij} is a set of estimated parameters that differ for the jth period and the ith type of broadcast station.

Park estimated separate equations for cable and non-cable households and by daypart. Using a similar data set,[126] only one equation was estimated for each period for all households.[127] Park examined 10 types of broadcast stations,[128] and this study examined 8 different types of broadcast stations.[129] Equation (1) was estimated first under the assumption that coefficients for each type of VHF and UHF station were different. Then a restriction was tested that, while coefficients may vary among independent, Fox and PBS stations, the coefficients were the same for VHF and UHF signals within each of these station categories.[130] The hypothesis that the VHF and UHF coefficients were the same could not be rejected. That is, no UHF handicap was found for independent, Fox and PBS stations in the 1993/94 data set.

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126 Park used county-level audience share data from Arbitron for all broadcast signals received in 121 counties. Arbitron no longer produces such data. This study uses instead Nielsen county-level audience share data for the same 121 counties.

127 The purpose of estimating separate parameters for cable and non-cable households is that cable-households may have better reception of distant broadcast signals, particularly UHF signals, than non-cable households. Many non-cable households in the 1993-1994 Nielsen data set, however, watched programming that was not received from local broadcast stations such as cable networks and broadcast signals from hundreds of miles away. Some Nielsen non-cable households may have had satellite dishes, SMATV, MMDS or some form of non-cable access to distant signals. Some cable households may simply have been mislabeled as non-cable households. Because many non-cable households in the sample were not necessarily excluded from distant signals, all households were treated equally.

128 Specifically, Park examined for VHF and UHF separately the following categories of broadcast stations: local network affiliates, local independent stations, distant network affiliates not blacked out, distant network affiliates that were blacked out and distant independent stations.

129 VHF and UHF were examined separately for the following categories of broadcast stations: affiliates of ABC, CBS or NBC; public broadcasting stations; Fox affiliates; and independent stations. Only those stations were examined that could likely be received off the air: those for which most of the county was within the Grade B contour or those which had a non-cable household all-day share of 5 percent or greater.

130 For both dayparts, the restriction for each of the three types of stations was tested separately, and all three restrictions were tested jointly. The null hypothesis tested was that the VHF and UHF coefficients were the same for a particular type of station. In none of the tests could the null hypothesis be rejected. In no test was the significance level of the test statistic below 0.50, whereas the significance level would have to be less than 0.05 to reject the null hypotheses.

The tables below contrast the all-day and prime-time results with those of Park. These estimates of audience attractiveness are similar to Park's estimates of audience attractiveness for local signals offered on cable. The Economists Incorporated estimates indicate that Fox stations have higher attractiveness than independent stations, and public broadcasting stations have lower attractiveness. The only substantial difference between the Economists Incorporated estimates and Park's estimates is the parameter for the attractiveness of UHF independent stations during prime time. The UHF independent stations in the 1993/94 sample are far more attractive during prime time than those in the 1977/78 data base.

Table C-1 Broadcast station attractiveness parameters for all dayparts

Household type†	Park Non-cable	Park Cable	Economists Incorporated All
VHF Network Affiliates	1	1	1
UHF Network Affiliates	.47	.64	.653
	(10.1)	(*)	(8.3)
VHF Independent	.57	.56	.482
	(3.3)	(3.4)	(2.57)
UHF Independent	.23	.32	.352
	(4.0)	(*)	(3.76)
VHF Fox			.456
			(3.56)
UHF Fox			.491
			(10.19)
VHF PBS			.352
			(3.76)
UHF PBS			.324
			(5.86)

Source: See text. Asymptotic t-statistics are in parentheses. Notes: * Constrained estimation, no t-statistic. † Park distinguished between "local" and "distant" signals whereas Economists Incorporated does not. All parameter estimates reported in the table from Park are for local signals. Distant signals had lower audience estimates.

Table C-2 Broadcast station attractiveness parameters for prime time

Household type†	Park		Economists Incorporated
	Non-cable	Cable	All
VHF network Affiliates	1	1	1
UHF network Affiliates	.58 (12.3)	.84 (*)	.786 (8.37)
VHF independent	.53 (3.7)	.41 (3.1)	.412 (2.33)
UHF independent	.11 (2.6)	.15 (*)	.371 (3.60)
VHF Fox			.482 (3.41)
UHF Fox			.549 (10.83)
VHF PBS			.361 (6.05)
UHF PBS			.343 (5.97)

Source: See text. Asymptotic t-statistics are in parentheses. Notes: * Constrained estimation, no t-statistic. † Park distinguished between "local" and "distant" signals whereas Economists Incorporated does not. All parameter estimates reported in the table from Park are for local signals. Distant signals had lower audience estimates.

Appendix D An analysis of program clearances

This appendix presents an analysis of network affiliate station program clearances. The analysis was carried out using data for virtually all ABC, CBS and NBC affiliates in markets with three or more commercial broadcast stations and for all network-owned stations. ABC, CBS and NBC each provided data on the hours of programs it offered and the number cleared by each of its affiliates for four weeks during 1994. The sample weeks were the seven-day periods commencing on the first Sunday of March and the second Sunday of July, October and November. Obviously, only those programs offered and cleared during the sample weeks were counted. "Live" and delayed clearances were combined.

Clearance data for 446 network affiliates located in markets with 3 or more commercial stations and 21 network-owned stations for the year 1994 were employed in carrying out this study.[131] Clearance behavior of stations in markets with less than three commercial stations is likely to be different from that of stations in markets with three or more commercial stations. In particular, in the former situation a station is likely to be affiliated with more than one network. Since these stations can take the most popular programs from more than one network, they may carry more network programs, while taking less from any single network, than do stations in markets where each of the three networks has a primary affiliation. In these situations, failure to clear a network program need not mean that a non-network program is being carried in its place.

Average clearance rates by daypart are shown in Table D-1. The clearance rate is defined as the number of hours of network programming cleared divided by the number of hours of network programming offered. Clearance rates are higher for prime-time than for non-prime-time programs. The average clearance rate for prime time was .98 and for non-prime-time it was .90. While there is a relatively narrow range of clearance rates among stations despite differences in the sizes and structures of the various television markets, the variation in clearance rates among stations is somewhat higher in non-prime time than in prime time.

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131 A few network affiliates in these markets were excluded from the analysis if they changed affiliation during 1994. Stations that agreed to affiliation changes during 1994 but did not change affiliation until Jan. 1995 are included in the analysis. In addition, a few markets were excluded from the analysis if they contained more than one affiliate of the same network.

Table D-1 Average clearance rates by daypart, 1994

Prime time	.977 (.060)
Non-prime time	.897 (.084)
All dayparts	.918 (.067)

Figures in parentheses are standard deviations.

ABC, CBS and NBC have been able to maintain relatively high clearance rates during non-prime-time only by ceasing to offer programming that would obtain low clearances. Table D-2 shows the decrease in the number of non-prime-time hours of programming offered by each network from 1977 to 1994.[132] In the aggregate, total programming offered by ABC, CBS and NBC has declined by 25 hours per week since 1977, from a total of 278.5 hours to 253.5 in 1994. The decline in network programming offered reflects the affiliates' decision to choose programs from the variety of alternative programming available instead of choosing to clear the programming offered by the networks. For certain dayparts, the networks have lost the competition and have conceded these low clearance portions of the day to other programming.

Table D-2 Average weekly hours of network programs offered in March, July, October, November 1977 and 1994 (rounded to nearest half hour)

	1977				**1994**			
	ABC	**CBS**	**NBC**	**Total**	**ABC**	**CBS**	**NBC**	**Total**
Prime time	22	22	22	66	22	22	22	66
Non-prime time	64	74.5	74	212.5	59.5	63	65	187.5
Total	86	96.5	96	278.5	81.5	85	87	253.5

Source: 1977 data: FCC NISS, 2 AN ANALYSIS OF THE NETWORK-AFFILIATE RELATIONSHIP IN TELEVISION 197; 1994 data: see text.

132 1977 is the most recent year studied by NISS for which data on the number of hours of network programs offered are available.

Appendix E Suppliers of prime-time entertainment series to ABC, CBS and NBC 1969–93

This appendix contains an analysis of prime-time series program supply data from the 1969/70 season through the 1993/94 season, and presents for each television season a table listing each packager's share of program hours supplied.

For the broadcast years 1992/93 and 1993/94, ABC, CBS and NBC each provided the following data for each prime-time entertainment series they aired: the name of the series, the packager, the program length, the number of original episodes aired and the number of repeat episodes aired. Data for the 1969/70 season through the 1991/92 season are taken from previous filings with the Commission.[133]

Full credit for supplying a particular entertainment series was given to the packager of the series. That is, the entity that assumed contractual responsibility to a network for production or delivery of a series was credited with supplying that series.

133 Data for the 1969/70 through 1988/89 seasons are from Robert W. Crandall, *The Economic Case against the FCC's Television Network Financial Interest and Syndication Rules*, Appendix E, MM No. 90-162 (June 14, 1990). Data for the 1989/90 through the 1991/92 season are from Bruce Owen, *Affidavit*, Appendix B, filed as Exhibit A to Comments of Capital Cities/ABC Inc., on Second Further Notice of Proposed Rulemaking, MM No. 90-162 (Feb. 1, 1993).

Table E-1 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1969/70

Packager	Percent of packager hours
20th Century Fox	9.24
Arwin	0.89
Ashland	0.20
Barnaby	1.52
Bill Burrud	0.35
Bing Crosby	0.91
Burngood	1.41
CBS	1.85
Chuck Barris	1.20
Columbia	5.24
Daisy	0.93
Don Meier	0.63
Family Affair	0.91
Filmways	4.39
Glenco	1.44
Greg Garrison	2.15
Hanna Barbera	0.20
Harbour-UTV	1.74
Ilson/Chambers	0.37
Independent TV	2.96
Jemmin	0.89
Kraft/T.V.	0.59
Leonard Freeman	1.82
Lucille Ball	0.74
Mac Fedd	0.91
Maryco	1.30
MGM	4.48
Monty Hall	0.93
Naborly	1.33
NBC	1.78
Paramount	6.35
Peekskill	1.63
Phillip	0.30
R.F.D.	0.87
Rome	0.74
Schlatter/Friendly	1.44
Screen Gems	0.74
Sheldon Leonard	0.93
Smothers	0.41

1969/70 continued Packager	Percent of packager hours
Spelling/Thomas	2.25
Sullivan	1.78
Talent	2.15
Teleklew	1.93
Timkel Andromeda	0.24
Universal	14.38
Van Bernard	1.48
Walt Disney	1.85
Warner Bros.	1.93
Wrather	0.82
Xanadu	1.63
Youngstreet	1.41
Zodiak	0.67
Stan Harris/Ken Fritz	0.47
N/A	0.06
Creative Management	0.24

Table E-2 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1970/71

Packager	Percent of packager hours
20th Century Fox	3.92
4 Star/Jack Barry	0.25
Aaron Spelling	0.80
Ada	0.92
Adrena	1.03
Arwin	0.97
ATV	0.38
Barnaby	1.61
Bing Crosby	0.71
Bob Henry	1.38
Bristol Myers	0.32
Burngood	1.38
CBS	2.75
Chuck Barris	0.86
Claude	1.80
Columbia	6.50
Daisy Prod.	0.86
Danny Thomas	3.69
Don Meir	0.55
Family Affair	0.99
Filmways	3.36
Glenco	1.38
Harbour-UTV	1.83
Hovue	0.69
Independent TV	0.99
Jemmin	1.80
L. Freeman	3.71
Lucille Ball	0.80
M.T.M.	0.97
Mac Fedd	0.96
Metromedia	0.31
MGM	1.99
Monty Hall	0.80
Morpics	0.34
Naborly	1.34
NBC	1.87
Orion	0.59
Paramount	8.52
Pearl Bailey	0.61
Peekskill	0.54
1970/71 continued Packager	**Percent of packager hours**
Quinn Martin	1.83
R.F.D.	0.96
Rome	0.92
Savanah/Hanncarr	0.63
Schlatter/Friendly	1.45
Screen Gems	0.32
Stan Harris	0.31
Sullivan	1.34
Talent	0.25
Tandem	0.50
Teleklew	1.87
Time-Life Films	0.34
Timkel	0.50
Universal	13.59
Van Bernard	0.73
Walt Disney	1.87
Warner Bros.	1.91
Wrather	0.88
Xanadu	1.64
Yosh	0.23
Youngstreet	2.87

Table E-3 **Suppliers of prime-time entertainment series to ABC, CBS and NBC,1971/72**

Packager	Percent of packager hours
20th Century Fox	5.00
Alan King	0.25
Arwin	1.22
Blye	0.25
Cave Creek	1.30
CBS	2.40
Claude	2.40
Clerow	1.94
Columbia	2.52
Concept II	0.61
Filmways	0.66
Glenco	2.24
Harbour-UTV	2.45
Hovue	1.12
Independent TV	3.26
L. Freeman	2.50
Lorimar	0.38
Lucille Ball	1.22
Mac Fedd	1.02
Metromedia	0.25
MGM	3.47
Milton	0.25
M.T.M.	1.30
NBC	3.11
Orion	0.64
Paramount	12.62
Punkin	1.73
Quinn Martin	2.40
R.A.I.	0.38
S.Leonard	0.36
Schlatter/Friendly	1.89
Talent	0.28
Tandem	2.01
Thomas/Spelling	2.45
Universal	23.69
Viacom	0.25
Yosh	1.27

Table E-4 **Suppliers of prime-time entertainment series to ABC, CBS and NBC,1972/73**

Packager	Percent of packager hours
20th Century Fox	2.78
Alan King	0.16
Amusement	0.67
Arwin	1.22
Banner/Stigwood	0.23
Blye/BeardGuinjoe	2.39
Cave Creek	1.25
CBS	2.59
Clemont	0.42
Clerow	1.87
Columbia	3.43
Grace	0.52
Greg Harrison	2.39
Harbor	1.25
Herman Rush	0.23
Independent TV	1.92
JAB	0.52
Jemmin	1.45
L. Freeman	2.59
Lorimar	2.39
Lucille Ball	1.19
Metromedia	0.57
MGM	3.43
MTM	2.67
NBC	0.83
Paramount	9.81
Punkin	1.66
Quinn Martin	8.15
Romart	1.87
Screen Gems	3.06
Spelling/Thomas	4.77
Tandem	3.81
Universal	17.20
Walt Disney	2.49
Warner Brothers	8.23

Table E-5 Suppliers of prime-time entertainment series to ABC, CBS and NBC,1973/74

Packager	Percent of packager hours
20th Century Fox	3.03
Blye-Beard Prod.	1.84
Bob Henry Prod.	2.17
Cave Creek Ent.	1.25
CBS	3.38
Chuck Barris Prod.	0.14
Columbia	2.00
Concept II Prod.	0.84
Dick Clark	0.19
Gentry, Ltd.	0.22
Greg Garrison Prod.	2.14
Ilson/Chambers	0.22
Leonard Freman Prod.	2.71
Lorimar	5.58
Lucille Ball Prod.	1.27
Metromedia	0.70
MGM	2.63
MTM	2.82
Norton Simon, Inc.	0.41
Paramount	8.07
Punkin Prod.	1.84
Quinn Martin	7.53
Screen Gems	2.92
Skyjay Inc.	0.27
Spelling/Goldberg	3.09
Sullivan Prod.	0.41
Tandem	4.82
Universal	28.37
Walt Disney Prod.	2.60
Warner Bros.	6.58

Table E-6 Suppliers of prime-time entertainment series to ABC, CBS and NBC,1974/75

Packager	Percent of packager hours
20th Century Fox	2.49
Aaron Russo	0.21
APIS	0.95
Blye/Einstein	0.21
CBS	2.49
Columbia	7.34
Daphne	0.21
Dreams	0.90
Four D	0.66
Fun House	0.21
Groverton	1.91
Helix	0.34
Jocar	0.79
Kodiak	0.13
L. Freeman	2.33
Lorimar	3.60
MGM	2.38
MTM	5.03
NBC	2.49
Paramount	6.91
Punkin	1.80
Quinn Martin	10.33
Skyjay/Gank	0.69
Spelling/Goldberg	4.18
Stafford	0.32
T.A.T.	1.22
Tandem	5.16
Tony Orlando	1.96
Universal	22.40
Walt Disney	2.54
Warner Brothers	4.45
Wolper	3.34

Table E-7 Suppliers of prime-time entertainment series to ABC, CBS and NBC,1975/76

Packager	Percent of packager hours
20th Century Fox	2.46
3-J Company	0.09
APIS	1.99
Cauchemar	0.47
CBS	2.27
Columbia	8.63
D'Antonio-Weitz	1.99
Deezdemandoze	0.24
Dick Clark Tele	0.28
Douglas Cramer	0.35
Four D	1.02
Goodson-Todman	0.09
Huggins/Public Arts	0.99
Ilson Chambers	1.61
International TV	0.24
Jackson TV	0.09
Jiliary	0.85
Joe Cates	0.19
King-Hitzig	0.12
Lorimar	3.69
MGM	5.65
MTM	6.34
Osmond	1.28
Paramount	4.54
Punkin	1.66
Quinn Martin	7.19
Rich	0.78
Spelling/Goldberg	5.91
Stigwood Org.	0.52
Sumo	0.19
T.A.T.	1.96
Tandem	4.54
Toy	0.09
Tullahoma	0.38
Universal	24.44
Walt Disney	2.06
Warner	1.80
Wolper	2.77
Yorkin	0.21

Table E-8 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1976/77

Packager	Percent of packager hours
3 Girls 3	0.20
20th Century Fox	1.63
APIS	1.69
Catspaw	0.56
CBS	3.38
Columbia	6.33
El Jefe	0.36
Four D	1.17
Fours	0.13
Jackson TV	0.15
Junebug	0.15
Komack	0.23
Largo	0.36
Lorimar	3.78
M & M	0.28
Marstar	0.56
MGM	1.15
Mimus Corp.	0.64
Moonlight & Magnolia	1.02
MTM	5.72
NBC	2.09
Neile	0.13
Osmond	2.25
Paramount	4.72
Pierre Cosette	0.10
Quinn Martin	4.85
R & R	0.66
Schick Sunn	1.23
Solow	0.38
Spelling/Goldberg	6.13
Starland TV	0.15
Steve Binder	0.15
T.A.T.	3.45
Tandem	4.78
Tony Orlando	0.51
Toy	0.92
TTC	0.26
Universal	27.76
Walt Disney	2.81
Warner Brothers	2.89
Whacko	1.74
Wolper	2.12
	0.41

Table E-9 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1977/78

Packager	Percent of packager hours
20th Century Fox	3.36
CED	2.12
Chas. Fries	0.66
Chrisma	0.11
Chuck Barris	0.32
Columbia	4.26
Danchuck	0.37
David Paradine	0.32
Filmways	0.32
Four D's	1.38
Hanna-Barbera	0.21
Hope	0.11
Komack	0.40
Lorimar	5.87
Mark VII	1.38
MGM	4.48
Mimus	0.71
MTM	5.56
NBC	2.59
Osmond	0.08
Paramount	3.76
Quinn Martin	2.80
R & R	0.85
Redd Foxx	0.87
Richard Pryor	0.21
Schick Sunn	1.64
Solow	1.11
Spelling/Goldberg	9.74
T.A.T.	2.57
Tandem	3.12
The Mgt. Co.	0.21
Time/Life	0.87
Toy	2.86
Transworld	0.13
Triseme	0.13
TTC	1.32
Universal	20.35
Walt Disney	3.15
Warner Brothers	4.17
Whacko	1.80
Witt/Thomas/Harris	0.79
Wolper	1.91
	0.13

Table E-10 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1978/79

Packager	Percent of packager hours
20th Century Fox	3.28
Aaron Spelling	10.56
Boiney Stoones	0.11
CBS	2.10
Columbia	6.44
Dick Clark	0.74
Four D	1.29
Hope	0.11
LBS	0.71
Little Bear	0.53
Lorimar	8.78
Luwalla	0.21
Marble Arch	0.16
Mark Corliner	0.79
Mark VII	1.00
MGM	3.73
MTM	5.83
NBC	4.62
Osmond	1.21
Paramount	8.83
Quinn Martin	3.10
Roper	0.26
Schick Sunn	0.21
Schlatter	0.63
Tandem	3.15
TAT	3.89
THC	0.18
Time/Life	0.18
Tomorrow	0.79
TTC	1.47
Universal	15.82
Viacom	0.53
Walt Disney	3.07
Warner Brothers	4.20
Witt/Thomas/Harris	0.66
Wolper	0.84

Table E-11 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1979/80

Packager	Percent of packager hours
20th Century Fox	3.84
Aaron Spelling	8.39
Alan Lansburg	1.61
Boiney Stoones	0.26
CBS	1.07
Columbia	6.21
Conway	0.61
Daydream	0.51
Elmar	0.15
Embassy	2.51
Filmways	1.30
Four D	1.20
Gordon/Eisner	0.23
James Komack	0.33
Kroft	0.31
Little Bear	0.28
Lorimar	8.29
MGM	2.92
MTM	6.83
NBC	5.22
Nick Vanoff	1.38
O.T.P.	0.33
Paramount	7.42
Quinn Martin	2.81
Roper	0.66
Schlatter	2.63
Stephen Cannell	0.61
Tandem	3.22
TAT	2.48
TML	0.15
TTC	1.20
Universal	14.78
Viacom	0.26
Walt Disney	2.86
Warner Brothers	5.35
Witt/Thomas/Harris	1.76

Table E-12 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1980/81

Packager	Percent of packager hours
20th Century Fox	4.28
Aaron Spelling	8.84
Alan Landsburg	3.52
Columbia	5.63
Conway Enterprises	0.87
David Gerber	0.25
Donald Taffner	1.02
Embassy	2.32
Filmways	0.31
Four D Prod	1.12
Frankel Films	0.31
George Schlatter	2.73
Kroft	2.09
Lorimar	10.07
Marble Arch	0.15
Meadowlane Enterprises	0.46
MGM	2.45
Miller/Milkins/Boyett	0.25
MTM	6.40
NBC	3.80
Ohlmeyer	1.66
Osmond	0.66
Paramount	7.82
Schlatter	0.66
Stephen Cannell	0.87
Tandem	2.73
TAT Communications	1.53
TML Productions	0.36
TTC Productions	1.48
Universal	12.00
Viacom	0.89
Walt Disney	2.24
Warner Bros.	7.03
Witt/Thomas/Harris	2.34
Ziffren/Hanger	0.87

Table E-13 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1981/8

Packager	Percent of packager hours
20th Century Fox	5.90
Aaron Spelling	8.37
Alan Landsburg	2.85
Brillstein Co.	0.30
Carson	1.26
Columbia	5.75
Consolidated	0.30
David Gerber	1.78
Dick Clark	0.20
Donald Taffner	1.09
Embassy	2.06
EMI Television	0.15
Four D Prod	1.02
George Schlatter	2.60
Halmi/Viacom	0.99
Hanna-Barbara	0.17
Kroft	1.78
Lorimar	8.10
Marble Arch	0.79
Mark Carliner	0.40
MGM	5.72
MTM	4.98
Nashville Palace Prod	0.59
NBC	8.11
Orion	0.35
Paramount	6.64
QM Productions	0.20
RJMB Productions	0.30
Stephen Cannell	2.03
Tandem	2.43
TAT Communications	1.24
TTC Productions	1.24
Universal	9.34
Walt Disney	2.53
Warner Bros.	6.44
Witt/Thomas/Harris	1.61
Hanna-Barbera	0.15
Rona Barrett	0.25

Table E-14 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1982/83

Packager	Percent of packager hours
20th Century Fox	6.63
Aaron Spelling	6.61
Alan Landsburg	4.10
Carson	0.34
Columbia	10.06
Conway Enterprises	0.12
David Gerber	1.32
Donald Taffner	1.15
Embassy	3.35
Hill/Mandelker	0.86
Joe Hamilton	0.65
Lorimar	5.96
MGM	4.17
MTM	7.50
NBC	2.68
Orion	1.87
Paramount	11.04
Schlatter	2.28
Stampede	0.31
Stephen Cannell	2.73
Tandem	3.19
TAT	1.10
TTC	1.08
Universal	9.77
Viacom	0.93
Walt Disney	1.87
Warner Brothers	5.63
Witt/Thomas/Harris	2.13
Comworld	0.48
Sargent	0.10

Table E-15 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1983/84

Packager	Percent of packager hours
20th Century Fox	8.00
Aaron Spelling	8.35
Above Average	0.51
Alan Landsburg	3.80
Carsey/Werner	0.61
Carson/Clark	1.52
Columbia	11.14
Comworld	0.51
Embassy	2.53
George Schlatter	1.82
Glen Larson	1.37
Joe Hamilton	1.14
Lorimar	7.64
MCA	8.61
MGM	1.97
MTM	8.02
NBC	0.46
Nederlander	0.20
Ohlmeyers	0.33
Orion	2.15
Paramount	6.99
Reeves	0.25
Stampede	0.43
Stephen J. Cannell	6.99
T.A.T.	1.04
Tandem	1.24
TTC Productions	1.09
Viacom	1.32
Warner Brothers	8.91
Witt/Thomas/Harris	1.09

Table E-16 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1984/85

Packager	Percent of packager hours
20th Century Fox	4.60
Aaron Spelling	11.70
ABC Circle	0.67
Alan Landsburg	2.60
Blatt-Singer	1.43
Carsey-Werner/Bill Cosby	1.26
Carson/Dick Clark	2.62
Centerpoint	0.12
Columbia	6.94
Embassy	3.55
F.L. Productions	1.72
Joe Hamilton	0.29
Lorimar	5.43
MCA	14.80
MGM	1.19
Michael Landon	2.24
MTM Productions	7.46
NBC Productions	1.91
Orion	2.05
Paramount	6.91
Reeves	1.00
Stephen J. Cannell	7.91
T.A.T. Communications	1.07
Taft	0.14
Tandem	1.02
TTC	1.14
Viacom	0.29
Walt Disney	0.29
Warner Brothers	6.17
Witt/Thomas/Harris	1.48

Table E-17 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1985/86

Packager	Percent of packager hours
20th Century Fox	2.61
Aaron Spelling	8.09
ABC Circle	2.13
Carsey-Werner/Cosby	1.23
Carson/Dick Clark	1.11
CBS	2.29
Columbia	10.63
D. Arnold	0.14
Glen Larson	1.16
Goodson	0.28
Lorimar	6.68
MCA	23.30
MGM	0.65
Michael Landon	2.27
MMC	0.14
MTM	7.30
NBC Productions	0.99
Orion	1.99
Paramount	6.59
Reeves	2.17
Rosenweig	0.28
Stephen J. Cannell	6.20
Taft/Lawson	0.60
Walt Disney	3.28
Warner Brothers	6.87
Witt/Thomas/Harris	1.04

Table E-18 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1986/87

Packager	Percent of packager hours
20th Century Fox	5.56
Aaron Spelling	4.75
ABC Circle	2.24
Alien	1.22
Carsey-Werner/Cosby	1.24
Carson	1.07
CBS	0.55
Centerpoint	0.29
Columbia	10.73
Imagine	0.05
Lorimar	10.07
MCA	13.62
MGM	1.50
Michael Landon	2.29
MMC	0.31
MTM	4.79
NBC	0.19
New World	3.63
Orion	2.67
Paramount	7.42
Phoenix	0.52
Reeves	1.86
Stephen J. Cannell	3.44
Taft/Lawson	0.33
Viacom	3.03
Walt Disney	5.92
Warner Brothers	9.78
Witt/Thomas	0.31
You and Me, Kid	0.62

Table E-19 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1987/88

Packager	Percent of packager hours
20th Century Fox	4.58
Aaron Spelling	2.74
ABC Circle	1.79
Alien	1.23
Black Sheep	1.13
Carsey-Werner/Cosby	2.34
Carson/Dick Clark	1.63
CBS	0.99
Century Tower	0.07
Columbia	8.07
Fries	0.80
Lorimar	9.82
MCA	12.79
MGM	2.36
Michael Landon	1.63
MTM	2.81
NBC	0.73
New West	0.42
New World	5.15
Orion	1.84
Paramount	5.40
Phoenix	0.38
Reeves	2.01
SanDollar	1.18
Schlatter	0.28
Smothers Brothers	0.42
Stephen J. Cannell	4.89
Viacom	5.38
Walt Disney	4.30
Warner Brothers	10.01
Witt/Thomas	2.27
You and Me, Kid	0.57

Table E-20 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1988/89

Packager	Percent of packager hours
20th Century Fox	5.05
Aaron Spelling	2.66
ABC Circle	0.79
Alan Landsburg	0.26
Alien	1.34
Black Sheep	0.37
Carsey/Werner	3.74
Carson	1.05
Cates Films	0.63
Columbia	7.29
Cosgrove Meurer	2.47
Dick Clark	0.32
ELP	0.18
Finnegan-Pinchuk	0.26
GTG	1.08
Henson Assoc.	0.26
Imagine	0.18
Mandy Films	0.18
MCA	8.74
MGM/UA	4.55
Michael Landon	0.68
MTM	2.11
New World	4.68
Paramount	8.91
Pieratt	0.13
Reeves	2.71
Smothers Brothers	0.21
Stephen J. Cannell	5.37
Vestron	0.32
Viacom	4.42
Walt Disney	4.53
Warner Brothers	21.08
Witt/Thomas	3.42

Table E-21 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1989/90

Packager	Percent of packager hours
20th Century Fox	3.53
ABC	0.88
Alien	0.76
Bernie Brillstein Prod.	0.31
Bochco	1.22
Carsey/Werner	4.27
Carson	0.98
Castle Rock	0.72
CBS	4.37
Columbia	5.30
Cosgrove Meurer	2.63
Disney	4.63
DWT Productions	0.14
Grant/Tribune Productions	0.41
GTG	1.62
King-Phoenix	0.19
Lynch/Frost	0.72
MCA	8.33
MGM	6.16
Mitchill	0.26
MTM	1.43
NBC	3.87
New World	3.51
Orion	0.76
Paramount	6.40
Patrick Hasburgh	0.10
Reeves	0.41
Stephen J. Cannell	3.82
Tom Patchett Prod.	0.19
Viacom	7.71
Warner Brothers	23.54
Witt/Thomas	0.81

Table E-22 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1990/91

Packager	Percent of packager hours
20th Century Fox	2.96
ABC	2.46
ACT II Televbision	0.15
Barney Rosezweig Prods.	1.61
Bernie Brillstein Prod.	0.38
Bochco	1.86
Carsey/Werner	4.70
Carson	0.90
Castle Rock	0.70
CBS	7.04
Columbia	3.92
Cosgrove Meurer	2.81
Dick Clark	0.50
Disney	6.33
Imagine	0.35
Kushner/Locke	0.10
Laurel King Inc.	0.30
Lynch Frost	0.95
MCA	10.95
MGM	6.83
MTV	0.15
NBC	1.83
New World	1.21
Ohimeyer	0.50
Orion	0.65
Paramount	7.09
Reeves	0.40
Stephen J. Cannell	2.31
Viacom	6.93
Vin Di Bona	1.13
Warner Brothers	21.96

Table E-23 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1991/92

Packager	Percent of packager hours
20th Century Fox	2.67
Aaron Spelling	0.58
ABC	4.07
Barney Rosenzweig Prod.	0.95
Bochco	2.83
Carsey/Werner	5.26
Castle Rock	1.29
CBS	7.77
Columbia	4.68
Cosgrove Meurer	3.17
Dick Clark	0.69
Disney	9.83
Gina Communications	1.24
Hanna-Barbers Prod. Inc.	0.08
Hearst	0.63
L.T.M.N. Productions	0.11
Lynch Frost	0.08
MCA	13.52
MGM	3.75
NBCP	1.53
New World	1.69
Paramount	6.31
Stephen J. Cannell	0.16
The Arthur Company	1.03
Viacom	3.78
Warner Brothers	22.32

Table E-24 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1992/93

Packager	Percent of packager hours
20th Century Fox	4.05
ABCP	6.65
Barnold	1.26
Bochco	2.08
Cannell	0.63
Cannon	0.22
Carsey/Warner	2.30
Castle Rock	1.78
CBS	9.03
Columbia	3.58
Cosgrove-Meurer	3.42
Disney	3.69
Disney/Witt Thomas	1.09
Grant/Tribune	0.14
Hearst	0.16
Hearts Afire	0.74
Konigsb'rg/Sanitsky	0.22
MCA	13.05
MGM Worldwide	2.41
NBCP	4.54
New World	1.37
Orion	0.74
Papazian/Hirsch	0.44
Paramount	5.47
Paramount/Ubu	0.36
Reeves	0.93
RHI ENT	0.22
Shukovksy/English	2.63
Spelling	0.27
Tarses	0.14
Viacom	2.84
Vin Di Bona	0.77
Warner Bros.	18.30
Witt-Thomas	4.51

Table E-25 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1993/94

Packager	Percent of packager hours
20th Century Fox	3.89
ABCP	5.01
Barney Rosenzweig	0.77
Bochco	3.18
Cannell	1.30
Carsey/Warner	3.15
Castle Rock	2.83
CBS	11.37
Columbia	5.30
Cosgrove-Meurer	2.94
Disney	4.53
Gracie	1.50
Hearts Afire	0.68
Konigsb’g/Sanitsky	0.12
Kuschner-Locke	0.88
Magnum	0.53
MCA	11.87
McGregor	0.88
MGM Worldwide	2.06
NBCP	2.65
New World	0.32
Paramount	6.24
Reeves	0.29
Shukovsky/English	2.47
Spelling	1.65
Viacom	4.83
Vin Di Bona	1.27
Warner Bros.	12.69
Witt-Thomas	4.80

Table E-26 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1994/95†

Packager	Percent of packager hours
20th Century Fox	5.21
ABCP*	9.90
Alliance Entertainment	2.08
Bochco	2.08
Brillstein-Grey*	0.10
Carsey/Warner	2.92
Castle Rock	1.54
CBS	10.17
Columbia	5.00
Cosgrove-Meurer	2.42
MCA*	12.38
Mozark	0.63
NBCP	5.75
Paramount	5.88
RHI/Black Sheep	0.58
Rosenzweig	0.42
Shukovsky/English	2.46
Spelling	.92
Teddy	.33
Viacom	3.75
Disney	5.29
Warner Bros.*	16.50
Witt-Thomas	3.08
YBL	0.63

*ABCP and MCA co-produced "A Whole New Ballgame," "Blue Skies," and "Extreme." ABCP and Brillstein-Grey co-produced "Newsradio." Half thepackager hours for these shows was allocated to each producer

† Packager hours for the 1994/95 season run from the beginning of the season until April 30, 1995.

Table E-27 Suppliers of prime-time entertainment series to ABC, CBS and NBC, 1995/96†

Packager	Percent of packager hours
20th Century Fox	4.44
ABCP*	3.89
Bochco	4.44
Brillstein-Grey*	1.67
Carsey/Warner	2.22
Castle Rock*	1.67
CBS	12.22
Columbia	7.78
Cosgrove-Meurer	2.22
Disney	5.56
MCA	10.00
NBCP*	6.11
Paramount*	8.89
Warner Bros.	23.33
Witt-Thomas	3.33
Worldwide Pants	1.11
YBYL Productions	1.11

*ABCP and Brillstein-Grey co-produced "Wilde Again," "Somewhere in America," and "Newsradio." NBCP co-produced "JAG" with Paramount and "The Single Guy" with Castle Rock. Half the packager hours for these shows was allocated to each producer.

† Packager hours for the 1995/96 season are based on one week of the announced fall line-up from all three networks.

Appendix F Television program producer data

This appendix describes efforts to quantify the number of firms producing programming for cable and broadcast television in the U.S. and the relative importance of various programming purchasers, including broadcast networks. Baseline, a subsidiary of Paul Kagan Associates, maintains a database that includes shows on all broadcast networks, many cable networks and some syndicated programming. The database includes information on television series, specials, mini-series, and made-for-TV movies. Some sports and news programming is also included. Data are compiled based on contacts with production and distribution companies, networks, cable organizations and PBS, which supply press releases, press kits and other information. Key newspapers and trade press are also monitored for additional leads, which are confirmed with industry sources.

Baseline provided to Economists Incorporated information about all television shows in its database that aired as first-run programming in 1994. This includes ongoing series showing new material in 1994 even if the series had originated in earlier years, (*e.g.*, *Murphy Brown*) but excludes reruns from earlier years (*e.g.*, *I Love Lucy*). Baseline has made every effort to achieve complete coverage of shows on ABC, CBS, NBC and Fox. Baseline believes the data offer fairly complete coverage for national cable networks, syndicated programming and PBS.

For each show, Baseline supplied the name of the show, the network(s) on which the show was aired, and the names of production companies involved in producing the show. These data are the basis for the list of production companies in Table F-1. Without extensive research, it was not possible to group together all production companies with common ownership. With assistance from Baseline personnel, those production companies with very similar names have been grouped together, (*e.g.*, Broadway Video Entertainment, Broadway Video International and Broadway Video Productions), as have those which appeared to include the name of a parent organization (*e.g.*, ABC Television and ABC Entertainment) or were known to have a single parent (*e.g.*, Buena Vista and Walt Disney Television). A total of 1,399 production companies are listed in Table F-1. ABC, CBS and NBC, three of the companies, together make up far less than 1 percent of the companies producing television programming in 1994.

Table F-2 is based on the same data. Each show in the data is associated with one or more networks on which it was shown. Table F-2 presents the networks that occurred in the data together with the number of times each appeared. A total of 1,729 shows appear in the data. Because some shows are listed as appearing on more than one network, the total number of networks/show combinations appearing in the data is 1,778. The network airing a show is identified as ABC 160 times, as CBS 188 times, and as NBC 180 times. Combined, these three networks aired only 30.5 percent of the shows in the data. These data demonstrate that there are many outlets for video programming other than ABC, CBS and NBC.

Table F-1 Producers of 1994 first-run television shows

Production company	Production company
10dB Inc	American Artists Prods.
3SAT & Voyages Inc	American Film Institute (AFI)
4MN Prods.	American Hobbies and Pastimes
5 Babies Inc	American Playhouse
90210 Prods.	American Program Service
A H Belo Corp.	Amethyst Entertainment
A La Carte Communications	Amuse Video
A Shane Prods.	Amy Prods.
ABC	Anabase Prods.
Acad. for St. and Local Government	Anaid Film Prods.
Acad. of Interactive A & S	Anasazi Prods.
Acad. of Motion Pictures A & S	Anderson/Hassan Entertainment
Acad. of Natural Sciences	Andrea Baynes Prods.
Acad. of Television A & S	Andrew Adelson Company
Accent Entertainment	Andrew Solt Prods.
ACI	Anglia Television
Act III Television	Animation City (United Kingdom)
Adam Prods.	Ann-Margret Prods.
Adelson Baumgarten Prods.	Another Tibor Rudas Prods.
Adventure World Prods.	Antelope Prods.
Aegis Entertainment	Antena 3 (Spain)
Aerial Pictures	Arbus 'N' Ross Prods.
Agent Orange (Canada)	Archipelago Film
Ailes Communications	Archive Films
aka Cartoon Inc	Ark Trust Inc
Al Howard Prods.	Arkansas Educational Television
Alan Barnette Prods.	Arkios Prods.
Albert Wallace Enterprises	Arkoff/Kutner Prods.
Alexander/ Enright and Associates	Arnold Kopelson Prods.
Alive From Off Center	Arnold Shapiro Prods.
All American Television	Arsenio Hall Communications
Allan Albert Prods.	Arts & Entertainment (A&E)
Allegra Films	Ascato Television
Alliance Communications (Canada)	Associated Television Int'l
Allyn Films	Associates Images
Alma Associates	Atlanta Symphony Orchestra
Alvin H Perlmutter Inc	Atlantic Information Services
Amalgamated Talking Pictures	Atlantic-Cinecom Prods.
Amaya Distribution (France)	Atlantique Prods.
Amblin Entertainment	Atlantis Films
Ambrica Prods.	Atlas Video
AMBROCO Media Group	Australian Broadcasting Corp.
Amer. Community Service Network	Australian Opera
	Automatic Films

Table F-1, continued

Production company	Production company
Avenue Pictures	BJW Inc
AVRO Television	Black Canyon Prods.
Axis Films International	Black Entertainment Television
B&G Communications	Black Sheep Prods.
Babylonian Prods.	Black/Marlens Company
Babymaker Prods. Limited	Blackside Inc
Bakrie Group	Blanki & Bodi Prods.
Banco Prods.	Bloomberg News
Bar-Gene Prods.	Blowback Prods.
Barbara Newman Prods.	BLT Prods.
Barbour/Langley Prods.	Blue Andre Prods.
Barraclough Carey Prods.	Blue Earth Films
Barry Weitz Films	Blue Note Records
Barwall Prods.	Blue Puddle Prods.
Baton Broadcasting Inc.	Blue Wave Prods.
Baywatch Prods.	BMG N. America Entmt/Classics
BBC	Boardwalk Entertainment
BBK Prods.	Bob Banner Associates
Bedford Falls Company	Bob Jaffe Prods.
Bedi Films	Bob Myer Prods.
Bell-Phillip Television Prods.	Bond Street Prods.
Bellamy Prods.	Bonnie Raskin Prods.
Belo Prods.	Boston Symphony Orchestra
Berger Queen Prods.	Boston U's Certificate Program
Berk/Schwartz/Bonann Etmt Prods	Brad Lachman Prods.
Berlin Prods.	Brand/Falsey Prods.
Bernard Zukerman Prods.	Brandenburg Prods.
Bertelsmann Music Group Video	Brazos Prods.
Best Brains Inc	BRC Prods.
Best Shot Prods.	Brian Lapping Associates
Beta-Taurus (Germany)	Brian Pike Prods.
BetaFilm	Bright/ Kauffman/ Crane Prods.
BetaFilm (Germany)	Brillstein/Grey Entertainment
Betty Prods.	British Columbia Film (BC Film)
Beyond Distribution	British Film Institute
Beyond International Group	British Sky Broadcasting
Beyond Prods.	Britt Allcroft Prods.
Beyond Television	Broadcast News Networks
Biblical Prods.	Broadway Video
Bickley-Warren Prods.	Brook Associates
Big Daddy Prods.	Bruce Leddy Independent Prods.
Big Dog Prods.	Bungalow 78 Prods.
Bill Boggs Prods.	Bunim-Murray Prods.
Bill Graham Presents	Burns & Burns Management

Table F-1, continued

Production company	Production company
Burt Reynolds Prods.	Ctr For Investigative Reporting
Busboy Prods.	Central City Prods.
Buy Me That!	Central Independent Television
Byrum Power & Light	Centre National de la Cinematog.
Califon Prods.	Century of Progress Prods.
Calvada Prods.	Chameleon Television
Cambridge Studios	Channel Four (United Kingdom)
Camelot Entertainment Sales	Chanticleer Films
Camenzind Prods.	Charles Dabney Perez Prods.
Cameras Continentales	Charles Grinker and Company
Campbell Soup Company	Charles M Schultz Creative Ass.
Campbell-Martin Associates	Chauncey Street Prods.
Campfire Prods.	Chedd-Angier Prods.
Canada France Prods.	Chesler-Perlmutter Prods.
Canada-Israel Co-Prods.	Chestnut Hill Prods.
Canadian Broadcasting Corp. (CBC)	Chief Television Prods.
Canal J	Children's Films
Canal Plus (France)	Children's Television Workshop
CanWest Broadcasting	Chris Craft
Capital of TX Pub. Telecom. Council	Chris/Rose Prods.
Capitol Films	Christian Science Monitor
Cappy Prods.	Christmas TV & Film Company
Carden Company	Ciak Studio (Italy)
Carla Singer Prods.	Cicada Prods.
Carlton Television	Cinar
Carlyon & Rivette Pictures	Cine-Nevada Prods.
Carnegie Hall	Cinematique
Carnival Films	Cinestage Prods.
Carroll Newman Prods.	Cinetel Prods.
Carsey-Werner Company	Circle Associates
Cartoon Network	Citadel Entertainment
Caruso-Mendelsohn Prods.	City TV Prods.
Castle Rock Entertainment	CityKids Foundation
Cat Run Prods.	Clairol on Broadway
Catalyst Entertainment (Canada)	Clairol Prods.
Catalyst International Prods.	Clara Films
Cates/ Doty Prods.	Classic Pictures Ltd Prods.
Catfish Prods.	Claypoint Prods.
Catholic Communication Campaign	CLC Prods.
CBC Newsworld	Clio Awards
CBS	CND Prods.
CC-M Prods.	CNM Entertainment
CEL Communications	CNN
Celebrity Entertainment	Coast to Coast Prods.

Table F-1, continued

Production company	Production company
Cohen/DeLaurentiis Prods.	Darkheart Prods.
Columbia Grad. Scl of Journalism	Darren Star Prods.
Columbia/TriStar	Dave Bell Associates
Comedy Central	David Brooks Prods.
Comedy Partners	David E Kelley Prods.
Comic Relief	David Fein Prods.
Comweb Prods.	David Grubin Associates
Concorde-New Horizons Corp	David Paradine Television
Connecticut Public Television	David Salzman Entertainment
Constant C Prods.	Davis Entertainment
Consumer Reports Television	Davis-Panzer Prods.
Corday Prods.	DBA Entertainment Inc
Corymore Prods.	DCDI Prods.
Cosgrove-Meurer Prods.	DDF Films
Cotton Panties Inc	Dean Hargrove Prods.
Country Music Association (CMA)	Delilah Music Pictures
Country Music Hall of Fame	Delux Prods. (Luxembourg)
Court TV	DePasse Entertainment
Cove Enterprises	Deutsche Grammophon
Cowlip Prods.	DEWE Television Prods.
Cox Broadcasting	Dialogue Systems
CPI	Diana Karew Prods.
CPT Holdings Inc	Dick Clark Prods.
Craig Anderson Prods.	Discovery Channel
Cramer Company	Discovery Prods.
Crawfords Australia	Disney/Buena Vista
Cream Cheese Prods.	DLIN Film Prods.
Creative Horizons	Documentary Consortium
Creative Network Studios	Documentary Inst.-U of West
Creative Producers Group	Dog Eat Dog Films
Credo Group	Dolshor Prods.
Crest Films	Don Cornelius Prods.
Cronkite Ward & Company	Don Johnson Company
Crossways Inc	Don Mischer Prods.
Crouse Communications	Donna Mills Prods.
CST Featurizations	Dorothea G Petrie Prods.
CTV Television Network (Canada)	Dorothy Hamill Int'l Prods.
Czech TV	Doug Bertran Prods.
D'Alessio Prods.	Downtown Community TV Center
Daedalus Prods.	Drive-In Classics Cinema Prods.
Dan Wigutow Prods.	DSL Prods.
Danger Prods.	Dualstar Prods.
Daniel H Blatt Prods.	Duncan Group
Daniel Wilson Prods.	E Tenn. Public Comm. Corp.

Table F-1, continued

Production company	Production company
E! Entertainment Television	Fenny's Films
Easting Down Prods.	Fifteen Prods.
Echo Cove Prods.	Fil-Cartoons Inc
ECNZ Prods.	Film Australia
Edgar J Scherick Associates	Film Roman
Educational Film Center	Film Two Prods.
EGM Film International	Filmline International
Elan Prods.	Financial News Network (FNN)
Elegant Films Prods.	Fine Art Prods.
Elektra Entertainment	Fine Cut Prods.
Elevator Pictures Inc	Fingerhut
Ellen M Krass Prods.	Fingertip Film Prods.
Ellipse Programme Prods.	Finnegan/Pinchuk Company
ELP Communications	First Look Pictures
EMI Record Group	First Media Entertainment
EMK Prods.	Flattery Yukich Inc
Empath Films	Flavor Unit
Empire Television (Canada)	FLF Films
English Channel Prods.	Florentine Films
Enigma Prods. (United Kingdom)	Flores-Roffiel-Senyal (Mexico)
Entertainment Group	Flowers Not Commerce
Entertainment Partnership	Focus Video Prods.
Epic Prods.	Fonda Films
Epoch Films	Force Majeure Prods.
Epstein/Callie Prods.	Foresight Communications
Equilibrium Films	Four Point Entertainment
Eric Lieber Prods.	Fox Broadcasting Company
Esparza/ Katz Prods.	Fox West Pictures
Essence Television Prods.	Foxstar Prods.
EuroArts Entertainment (Germany)	Fragile Films
Everyman Prods.	France 3
Evolution Entertainment	Francine LeFrak Prods.
EZTV	Franklin/Waterman/Marvelous TV
Faded Denim Prods.	Fred Barron Prods.
Fair Dinkum Inc	Fred Berner Films
Falahey/Austin Street Prods.	Fred Dryer Prods.
Familiar Prods.	Fred Rappoport Company
Family Channel	Fred Roggin Prods.
Family Communications	Fred Silverman Company
Family Prods.	Fred Tatashore Prods.
Family Tree Prods.	Fred Wolf Films
FarWorks Inc	Frederick S Pierce Company
Fast Track Films	Freedman/Greene Prods.
Fenneman Prods.	Freyda Rothstein Prods.

Table F-1, continued

Production company	Production company
Frontline	Gracie Films
Frostback Prods.	Graeme Clifford Films
FTS Prods.	Grammnet Prods.
Full Moon & High Tide Prods.	Granada Television
Gabco Prods.	Grandview Prods.
Gaelic Television Committee	Granite Prods.
Galen Films	GrantVision Prods.
Gallant Entertainment	Gravity Unlimited
Games Prods.	Graz Entertainment
Garen Entertainment	GRB Entertainment
Gary Hoffman Prods.	Great Amer. Broadcasting Comp.
Gary L Pudney Company	Great Chefs Television
Gasby Inc	Great Plains National
Gaumont Television (France)	Green Umbrella Films
Gay Rosenthal Prods.	Green/Epstein Prods.
Gaylord Broadcasting	Greg Sills Prods.
Gekko Film Corp.	Greyfox Entertainment
Gemini Films	Greystone Communications
Genesis Entertainment	Griffin Prods.
George Paige & Associates	Gross-Weston Prods.
George Schlatter Prods.	Grossbart/Barnett/Iezman Entmt
Georgia Public Television	Grosso-Jacobson Prods.
Gerard Paquet Prods.	Group W Prods.
Gerber/ITC Prods.	Grove Television Enterprises
Gerry Anderson Prods.	Grub Street Prods.
Getting Out Prods.	Gunther-Wahl Animation
Giant Prods.	Gurtman and Murtha Associates
Gibson Group (New Zealand)	H Winkler/J Rich/Daniels Prods.
Gideon Prods.	H-TV Prods.
Giff & Golda Prods.	Haft/Nasatir Company
Giggling Goose Prods.	Hal Roach Prods.
Gillian Prods.	Hallmark Entertainment
Gimbel-Adelson Prods.	Hallway Prods.
Gina Communications Corp.	Hamel-Somers Prods.
Glen Warren Prods./Entmt.	Hamm and Kitchen Company
Global Television Network	Hanna-Barbera Prods.
Globe TV	Hannibal Films Ltd
Gold Coast Television Entmt	Happy Family Prods.
Gold Mountain Prods.	Harlequin
Golden Gaters Prods.	Harpo Inc (starting 9/88)
Golfin Dolphin Prods.	Hart, Thomas & Berlin Prods.
Gone Gator Prods.	Hat Trick Prods.
Goodman/ Rosen Prods.	HB Pictures
Gospel Music Association	HBO

Table F-1, continued

Production company	Production company
Hearst Entmt/Animation Prods.	Integrated Communications Entmt
Heartfelt Prods.	Interbang Inc
Heartlove Prods.	Interfaith B'casting Commission
Hearts Afire Prods.	InterMedia Prods.
Heartstar Prods.	Internal Revenue Service
Hedrick Smith Prods.	Int'l Cultural Programming
Helios Prods.	International Management Group
Hemisphere Group Prods.	International Rocketship
Herbert B Leonard Prods.	Interprod Inc
Heritage Films	Interscope Communications
Herkimer Pond Prods.	Intersport Television
Heyman/Moritz Prods.	Investigative News Group
Hidden Room Prods.	Invision
High Five Prods.	Iowa Public Television
Highlander Inc	IPS Prods.
Hill-Fields Entertainment	Iris Arts and Educational Group
Hill/Arkoff/Kutner Prods.	Irish Broadcast Partnership
Historical Society of West. Penn.	Irvin Feld & Kenneth Feld Prods.
History Channel	Ishi Film Project
History Television Prods.	Island Visual Arts
Hollywood Foreign Press Association	ITC Entertainment Group
Home Box Office	ITEL
Hometime Video Publishing	ITN Prods.
Hope Enterprises	ITV
Horse of Troy Prods.	Ivory Way Prods.
Hourglass Pictures	J Marc Group
Howard Hall Prods.	Jack Haley Jr Prods.
Howard West/George Shapiro Prods.	Jack Meyer-Pac. Video Industries
Hudlin Bros	Jackson Communications Inc
Huey Lewis & the News Partners	JADDA Prods.
Hummingbird Prods.	Jaffe-Braunstein Films
Hyperion Studios	Janek Prods.
ICFT Prods.	Janet Faust Krusi Prods.
Idaho Public Television	Janicek Entertainment
IDDH Groupe (France)	JAS Prods.
Imagex Limited	Jay Bernstein Prods.
Imagination Prods.	Jean Doumanian Prods.
Impact Zone Prods.	Jeff Franklin Prods.
In Front Prods.	Jeff Margolis Prods.
INA (France)	Jeff Wald Entertainment
Independent Television Service	JEG Prods.
Indigo Entertainment	JFK Center For the Performing Arts
Ingle Prods.	Jim Henson Prods.
Insight Prods.	Jim Owens & Associates

Table F-1, continued

Production company	Production company
JN Filmes (Brazil)	KLRU (Austin)
Joan Rivers Prods.	KMW Prods.
John Charles Walters Prods.	Knight Prods.
John Leekley Prods.	Koch TV Prods.
John McGreevy Prods.	Konigsberg / Sanitsky Company
Jonathan Donald Prods.	KPNX (Phoenix)
Jonathan M Shiff Prods.	KQED (San Francisco)
Jones Entertainment Group	Kreiscluesco Industries
Joni Levin Prods.	KRLU (Austin)
Jordan Television Corp.	KRMA (Denver)
Joseph Feury Prods.	KRO (Netherlands)
JP Sports & Entertainment	Krofft Entertainment
Juanita Bartlett Prods.	KRON Video Enterprises
Jumbo Pictures	KTCA (Minneapolis/St Paul)
K-Rule Prods.	KTTV (Los Angeles)
KAET (Phoenix)	KUED (Salt Lake City)
Kalola Prods.	KUHT (Houston)
Kareem Prods.	Kurtis Prods.
Karen Danaher-Dorr Prods.	Kushner-Locke Company
Katie Face Prods.	KUSM (Bozeman)
Katz/Rush Entertainment	KVIE (Sacramento)
KBDI (Broomfield CO)	KXTV (Sacramento)
KCET (Los Angeles)	L'Esquisse (France)
KCTS (Seattle)	La Cinq
Keith Griffiths/Koninck Studios	La Sept/ARTE (France)
Ken Ehrlich Prods.	Lakeside Prods.
Ken Wolfe Prods.	Lancit Media Prods. Ltd
Kennedy Center	Landau Entertainment
Kenneth Johnson Prods.	Landmark Entertainment Group
Kenny Rogers Prods.	Landsburg Company
KERA (Dallas/Fort Worth)	Larry Levinson Prods.
KETC (St Louis)	Larry Thompson Entertainment
Kevin Bright Prods.	Larson Entertainment
Keyser/Lippman Prods.	Late Night Entertainment Prods.
Kicking Horse Prods. (Canada)	Latham/Lechowick Prods.
Kilroy Television	Laugh Smith Prods.
King Motion Picture Corp.	Laurel Entertainment
King Street Entertainment	Lava Films
King World Prods.	Lawrence-Schultz Prods.
Kip Walton Prods.	LBS
Kirchgroup (Germany)	Le Sabre Groupe
Klasky-Csupo Inc	Le Studio Ellipse
Klassika Studios	Leach Entertainment Features
Kline & Friends Inc	Learning Designs Inc

Table F-1, continued

Production company	Production company
Lee Mend'son/Bill Melendez Prods.	Magnolia Prods.
Lee Rich Company	Magnum Prods.
Lemli Prods.	Main Sequence Limited
Les Choux Company	Maison de la Culture du Havre
LeSabre Groupe	Malone Gill Prods.
Leucadia Film Corp.	Manitoba Cultural Devel. Office
Levy Prods.	Maravilla Prods.
Lewis B Chesler Prods.	Marcor International Prods.
Libra Pictures	Margit Nance Prods.
Library of Congress	Marian Rees Associates
Lifetime	Marjorie Poore Prods.
Lighthearted Entertainment	Mark Goodson Prods.
Lightkeeper Prods.	Martindale-Hillier Prods.
Lightyear Entertainment	Marvel Prods.
Lillian Gallo Entertainment	Maryland Public Television (MPT)
Limelight Prods.	Marz Inc
Lincoln Center For the Perf. Arts	MasterVision Prods.
Linda Yellen Company	Maysh Ltd Prods.
Linkletter Enterprises	Maysles Films
Little Eagle Prods.	MBH Prods.
LMNO Prods.	MCA Music Entertainment Group
Lobo Prods.	MCA Television Entertainment
Logo Prods.	MDT Prods.
London Weekend Television (LWT)	Media Group International
Longbow Prods.	Media Investment Club
Longreturn Ltd (United Kingdom)	Media Prods. International (MPI)
Lorimar Television	Media Resource Associates
Lou Reda Battle Classic Prods.	MEL Entertainment Company
Louis Rudolph Family Films	Melkis Prods.
Lovett Prods.	Mentorn Films
LUBE Prods.	Meridian Broadcasting
Lucasfilm Ltd Television	Merv Griffin Enterprises
Lucinda Prods.	Messina Baker Prods.
Lucky Duck Prods.	Metromedia Inc
LUX Television (Italy)	Metropolitan Opera Television
LWT Prods.	MGB Prods.
LXD Inc	MGI
Lynch Entertainment	MGM Pathe Communications
Lynch/Biller Prods.	MGM/UA
M3D Prods. Inc	Michael Crichton Prods.
MacNeil/Lehrer Prods.	Michael Filerman Prods.
Madison Square Garden Prods.	Michael Hirsh Prods.
Magdelene Prods.	Michael Jacobs Prods.
Magic Beans Inc	Michael Linder Prods. (to 3/90)

Table F-1, continued

Production company
Michael Phillips Prods.
Michael Sloan Prods.
Michael Sporn Animation
Mike Mansfield Television
Mike Young Prods.
Millenial Entertainment
Millenium Prods.
Miller-Boyett Prods.
Mind Extension U
Minos SA
Miss America Organization
Miss Universe Inc
MJW Prods.
Moffitt-Lee Prods.
Mohawk Prods.
Moira Prods.
Mojo Prods.
Moon River Enterprises
Moonglow Entertainment
Moonwater Prods.
MoPo Prods.
Morash Associates
Morgan Hill Films
Morgan Prods.
Morra Brezner Steinbg & T'baum
Morrow/Heus Prods.
Mosaic Group
Moving Target Prods.
Moviworld Inc
Mozark Prods.
MPI
Mr Big Cartoons
MTM Enterprises
MTV Prods.
Mug-Shot Prods.
Mugar Prods.
Multimedia Entertainment
Murakami-Wolf-Swenson (MWS) Inc
Murder Inc
MUSE Film and Television
Museum of Television & Radio
Musical Arts Association
Muskegon Lake Television
NAACP Prods.

Production company
Nash & Zullo Prods.
Nat'l Acad. of Recording A & S
Nat'l Acad. of Television A & S
Nat'l Audubon Society Prods.
Nat'l Council of Churches
Nat'l Enquirer Inc
Nat'l Film Board of Canada
Nat'l Geographic Television
Nat'l Nine Network
Nat'l Symphony Orchestra
Nat'l Television Prod. Center
Nat'l Video Corp.
Nat. History Unit-TV N. Zealand
Nathan Kaufman Prods.
Nation's Capital Television Inc
NBA Entertainment
NBC
Nebraska Educational Television
Nederlander TV & Film Prods.
Nederlandse Omroep Stichting
Nelvana Entertainment
Neo Motion Pictures
Network Ten Australia
New City Prods.
New Dominion Pictures
New England Research Institutes
New Film Company
New Hampshire Public Television
New Jersey Channel (NJN)
New Liberty Prods.
New Life Entertainment
New Line Television
New River Media
New Screen Concepts
New Television Workshop
New World Television
New York Board of Rabbis
Newport-Balboa Prods.
News Group InterNat'l
NFL Films
Nick Knight Prods.
Nickelodeon
Nightwatch Prods.
Nippon Hoso Kyokai

Table F-1, continued

Production company	Production company
No Sleep Prods.	Parco Prods.
Non Fiction Films	Parker/ Runnnels Prods.
Norddeutscher Rundfunk	Partners With Boundaries Prods.
Norstar Entertainment	Partridge Films
North American Pictures	Party Crashers Inc
North Carolina Public Television	Patchett-Kaufman Entertainment
Northern Light Prods.	Pathmakers Inc
Northstar Entertainment Group	Patricia K Meyer Prods.
Norway Corp.	Patterdale Prods.
Nova Prods.	Paul Klein Organization (PKO)
Noyes & Laybourne	Paws Inc
Nuance Prods.	Pearson Lamb Prods.
Nuell/Riley Prods.	Pendick Enterprises
Nugus/Martin Prods. Ltd	Pennebaker Associates
NVC Arts	Perennial Prods.
NW Territories Econ. Development	Perez Minton Prods.
NY Center For Motion Picture Arts	Perpetual Motion Films
O'Hara-Horowitz Prods.	Perry Films
O'Sullivan/Forde Company	Persona Grata Prods.
Obenhaus Films	Pet Fly Prods.
Ocean Girl Prods.	Peter Brennan Prods.
Oklahoma Educ. TV Authority	Peter Engel Prods.
Olmos Prods.	Peter Frankovich Prods.
Once Upon a Time Films	Peter Gelb Prods.
One World Entertainment	Peter Jones Prods.
Ontario Film Development Corp.	Peter Leone Prods.
Opryland USA	Peter Rosen Prods.
Oregon Public Broadcasting	Pew Global Stewardship Initiative
Oren Rudavsky Prods.	PGHM Prods.
Osterreichscher Rundfunk Ferns'n	Picture Vision
Otmoor Prods.	Pierre Cossette Prods.
Out of My Way Prods.	Pileggi/Couturie Prods.
OWL Television	Pioneer Prods.
Oxford Film Prods.	PKO Television
Pacific Motion Pictures	Planet Grande Prods.
Pacific St. Films & H. School Project	Playing With Time Inc
Pacific Western Prods.	Pleograf Ev Ltd
Paley-Price Prods.	PM Entertainment
Palomar Pictures	PMP (Stolpa) Prods. Inc
Paneikon ("Horse Tigers")	Poco Prods.
Papazian-Hirsch Entertainment	Point Blank Prods.
Paragon Entertainment	Point of View Prods.
Parallel Lives Inc	Polar Entertainment
Paramount	Polongo Prods.

Table F-1, continued

Production company	Production company
Polygram Diversified Entertainment	Rebel Entertainment
Polyphon Film (Germany)	Reborn Prods.
Popular Arts Entertainment	Red Carnelian Prods.
Power Pictures	Red Cliff Motion Pictures
Primedia Prods./Primedia (Canada)	Rd Rooster Film & TV Entmt Prods
Primetime	Red-Eye Flight Prods.
Principal Film Company	Reeves Entertainment
Pro Television Prods.	Regal Communications
Procter & Gamble Prods.	Reid-Land Prods.
Producers Entertainment Group	Remote Broadcasting
Producers Group InterNat'l	Renaissance Pictures
Producers Inc. For Television	Renee Valente Prods.
Production Partners	Reno & Osborn Prods.
Production Services InterNat'l	Republic Pictures
Promark Entertainment Group	Reserve Room Prods.
Propaganda Films	Reteitalia Prods. (Italy)
PSI Partners	RGO/Greenhurst Prods.
Psychology News (United Kingdom)	RHI Entertainment
Public Affairs Television	Rhino Entertainment
Public Policy Prods.	Ripper Prods.
Public Television Outreach Alliance	River Films
Pursuit Prods.	River Tower Prods.
PYN Consortium	RM Arts/Associates
QED Communications	Road Trip Prods.
Qintex Enterprises	Roaring Fork Prods.
QRT Enterprises	Rob Cohen Prods.
Quality Family Entertainment	Robert Dalrymple Prods.
Quentin Aanenson	Robert Halmi Prods.
Quest Prods.	Robert Paradine Prods.
Quiet Stream Inc	Robert Wagner Prods.
Quincy Jones/D. Salzman Entmt	Robert Ward Prods.
Quint Film Prods.	Robert Yuhas Prods.
Quinta Communications	RoboCop Prods.
QVC Network	Rodan Prods.
Qwerty Prods.	ROJA Prods.
RA Prods.	Ronald J Kahn Prods.
Rabbit Ears Prods.	Roni Weisberg Prods.
Radio Telefis Eireann	Rose Communications Inc
RAI-1 (Italy)	Rosemarie Reed Prods.
Ralph Emery Prods.	Rosemont Prods.
Randall James Johnson Prods.	Rosenzweig Company
Rapide Prods.	Roundelay Prods.
Rattlesnake Prods. Inc	Royal Shakespeare Company
Reader's Digest Home Entmt	Rozon Films USA

Table F-1, continued

Production company	Production company
RPM Prods.	SFP Prods.
RSR Prods.	SGP
RSTV	Shadow Dancer & Hill Prods.
RTL-Plus (Germany)	Shari Lewis Enterprises
RTP (Portugal)	Sheldon Leonard Enterprises
Ruby-Spears Prods.	Showboat Prods.
Rush Communications	Showtime
Rush Limbaugh Prods.	Shukovsky/English Entertainment
Russell Simmons Television	Signature Prods.
Rysher	Signboard Hill Prods.
S. Educational Communications Ass.	Silver Lion Films
S4C Enterprises (United Kingdom)	Silverback Prods.
Saban Entertainment	Silvio Berlusconi Communications
SAE Prods.	Sky Television
SAH Enterprises	Skyvision Entertainment Prods.
Samuel Goldwyn Company	SLBG Entertainment
San Francisco Opera	Slick/Mac Prods.
Sandollar Prods.	SLVP Inc
Sanford/Pillsbury Prods.	Smith-Hemion Prods.
SAT1 (Germany)	Smithsonian Institution
Satel (Australia)	Snowball Prods.
Saunders & French Prods.	Soap Opera Digest
Saunders/King Prods.	Societe Francaise de Production
Savage Cake Prods.	Socratic Seminars Inc
Savage Studios	Sojourn Pictures
SBS TV (Australia)	Sony Classical Film & Video
Scarlett Prods. (Ireland)	Sony Wonder Prods.
Scholastic Prods.	South Carolina Educational TV
Scicom	South Pacific Pictures
Scientific American	Southern Baptist Convention
Scott Sternberg Prods.	Space Films
Scottish Television	Space Prods.
Screen Partners	Spectator Films
Screen Ventures VI Prods.	Spelling Television
Screenlife Inc	Spitting Swanns Prods.
Scripps Howard Prods.	Spofford Films
Seabrook Prods. II	Sports Illustrated Television
Sei Young Animation Company	Spring Creek Prods.
Set PPV	Spumco Inc
SET Prods.	St Clare Entertainment
Seven Mile Rd Prods.	Stan Rogow Prods.
Seventh Art Prods.	Starstruck Entertainment
7th Day Adventist Church in N.A.	State Hermitage Museum
SFM Entertainment	Statler-Grant Prods.

Table F-1, continued

Production company	Production company
Steel River Prods.	Telefilm Canada
Steinhardt Baer Pictures	Telegenic Programs Inc
Steinkellners & Sutton Prods.	TeleImages/ITI
Stephen J Cannell Prods.	TeleMunchen (Germany)
Steve Clements Prods.	Telepictures Prods.
Steve Krantz Prods.	TeleRep
Steve White Prods.	Telescene Prods.
Steven Bochco Prods.	Telesis Prods.
Steven DeNure Prods.	TeleVideo Ltd
STF Prods.	Televisio de Catalunya (Spain)
Stillwater Prods.	Television Program Enterprises
Stonehenge Company	Tenth Planet Prods.
Stonehenge Prods.	Terra Nova Television
Straight Shooter Prods.	Tetra Film Prods.
Straight Throw Limited	TF1 (France)
Stratford-Barbicon Television Prods.	Thames Television
Strathmore Prods.	The Advertising Council
Strawberry Vale Film and TV Prods.	The Backe Group Inc
Stu Segall Prods.	The Berkeley Group
Stuart Benjamin Prods.	The Blackwell Corp.
Stuffed Dog Company	The Cramer Company
Sullivan Entertainment	The Entertainment Group
Sun InterNat'l Pictures	The Family Channel
Sunbow Prods.	The Kellman Company
Super Shot Prods.	The Learning Channel (TLC)
Superchannel	The Lyons Group
Surge Entertainment	The Movie Network (TMN)
Survival Anglia	The Nashville Network (TNN)
Susan Baerwald Prods.	The Paltrow Group
SW Texas Public B'casting Council	The Pinky Ring Prods.
Swedish Television	The Polone Company
Sweet Freedom Prods.	The Production Companies
Sweetland Film Corp.	The Sports Network (Canada)
T & C Films (Switzerland)	The Storyteller Group
Taft Broadcasting Company	The Thomas Carter Company
Tales From the Crypt Ventures	The Wolper Organization
Talisman Films	Their Own Prods. Ltd Partnership
Tall Pony Prods.	There Goes the N'borhood Prods.
TASC Representation	Think Entertainment
Taylor Prods.	Third Coast Media Group
Teen Dream Prods.	Thirteen/WNET (New York)
Tele Images	Thomas & Friends Prods.
Tele-5	Thomas Horton Associates
TeleAmerica Entertainment	Three-Putt Prods.

Table F-1, continued

Production company	Production company
Thunder Pictures	UNC Center For Public Television
Tiger Television	Unicorn Projects Inc
Tigress Prods.	United Artists Investments
Time Code	United Image Entertainment
Time Travelers	United Media
Time/Warner	United Producers
Timothy Marx Prods.	U.S. Catholic Conference
TNT Sports	United Television Prods.
Todman/Simon Prods.	Universal Belo Prods.
Together Again Prods. (TAP)	Universal Cartoon Studios
Tomlin/ Wagner Theatricalz	Universal City Studios
Tomorrow Entertainment	Universal Family Entertainment
Tony Awards Prods.	Universal Pictures Television
Tony Brown Prods.	Universal Studios (Florida)
Torand Prods.	Universal Television
Toronto Life Fashion Magazine	Urban Television Network
Toto Prods.	US News Prods.
Touchstone Television	USA Network
Tower 12 Prods.	USA Pictures
Towers Prods.	USAA
Trans Pacific Films	Valleycrest Prods.
Trans World InterNat'l	Van Cliburn Foundation
TransTel (Germany)	Vanguard Films
Tribune Entertainment	Vanity Logo Prods.
Trimark Pictures	Varied Directions InterNat'l
Trinifold Management Ltd	Velvet Star Prods.
Tropix	Vertigo Pictures
Trotwood Prods.	VH-1
Tsuburaya Prods.	Viacom
Tudor/Evenmore Entertainment	Videoarts Japan
Turner Broadcasting System (TBS)	Vienna Prods.
Turner Network Television (TNT)	Vin DiBona Prods.
Turner Pictures	Vincent Pictures Prods.
Turtleback Prods.	Virtue/Rekert Prods.
TV Asahi (Japan)	Vision
TVC London	Visualize Prods.
TVNZ Limited	Von Zerneck/Sertner Films
Twentieth Television	Voyager Films
Twin Cities Public Television	VPRO Television
U of Nebraska/Lincoln Television	VU Prods.
Uden Associates	V3 (Spain)
Ufa (Germany)	WABC-TV (New York)
Ultra Entertainment	Wall-to-Wall Television
Unapix Entertainment	Walter Mirisch Prods.

Table F-1, continued

Production company
Wapello County Prods.
Warner Bros
Warren Steibel Prods.
Watts Works Prods.
Way North Prods.
WCET (Cincinnati)
WCVB (Boston)
WEDU (Tampa)
Weller/Grossman Prods.
West 175 Enterprises
Westcom Entertainment Group
Western Int'l Communications
Western Renaissance Pictures
Western Sky Prods.
WETA (Washington DC)
WGBH (Boston)
Wharton Center For the Perf. Arts
WHYY (Philadelphia)
Wilbur Force Prods.
Wild Max Prods.
Wildlife Film Prods.
WildRice Prods.
WildStorm Prods.
Willenborg Prods.
William A Landers Television Prods.
Wilmont Prods.
Wilshire Court Prods.
Wind Dancer Prods.
Windgrass Prods.
Windyville Prods.
Wisconsin Collaborative Project
Wisconsin Public Television
WITF (Harrisburg)
Witt/Thomas/Harris Prods.
Witzend/McShane Prods.
Witzend/Tamariska Prods.
WJCT (Jacksonville)
WKAR (East Lansing)
WLS (Chicago) (9/86-9/88)
WMVS (Milwaukee)
WNED (Buffalo)

Production company
WNYC (New York)
WNYW (New York)
Wolf Films
Wolf Trap Television
Wolfgang Bayer Prods.
Wolfshead Prods.
Wolper Organization
Wombat Prods.
WonderWorks Family Movie
Woody Fraser Prods.
Wooten & Cherry Prods.
Working Title Prods.
World Cup USA 1994
World International Network
World Wildlife Fund (WWF)
Worldvision Enterprises
Worldwide Pants Inc.
WOSU (Columbus)
WPBT (Miami)
WPIX-TV
WQED (Pittsburgh)
WQEX-16
Wrightwood Entertainment Group
WSIU (Carbondale)
WTTW (Chicago)
WVIZ (Cleveland)
WWOR-TV Inc
WYES (New Orleans)
Yahi Prods.
YLE (Finland)
Yorkshire Television
YTV Canada
Zacharias/Buhai Prods.
Zalman King Company
Zaloom-Mayfield Prods.
Zenith Prods.
Zev Braun Pictures
ZM Prods.
Zweites Deutsches Fernsehen

Table F-2 Distributors of 1994 first-run television shows

Network	Shows
ABC	160
America's Talking	14
American Movie Classics (AMC)	4
Arts & Entertainment (A&E)	143
Baton Broadcasting (Canada)	1
Black Entertainment Television (BET)	10
Bravo	6
Cable (Pay Per View)	2
Canadian Broadcasting Corporation (CBC)	1
Cartoon Network	2
CBS	188
CBS Owned & Operated Stations	1
Channel Four	1
CNBC (Consumer News & Business Channel)	19
CNN	19
Comedy Central	17
Comedy Channel	1
Court TV	2
CTV Television Network	3
CTV Television Network (Canada)	1
Discovery Channel	32
Disney Channel	51
E! Entertainment Television	8
ESPN/ESPN2	3
Family Channel	28
Fox Broadcasting Company	84
Fox Owned & Operated Stations	3
FX	2
HBO	69
Home & Garden Television	5
Independent Film Channel	1
Lifetime	29
MTV	21
NBC	180
Nickelodeon	29
PBS	301
Prime Ticket	1
Sci-Fi Channel	3
Showtime	62
Syndicated	134
The Learning Channel (TLC)	21
The Nashville Network (TNN)	34
Turner Broadcasting System (TBS)	26
Turner Network Television (TNT)	15
TV Food Network	1
USA Network	29
VH-1	7
WNET/Thirteen (New York)	4
Total	1,778

Appendix G ABC, CBS and NBC'S share of video programming purchases

The purpose of this appendix is to estimate ABC's, CBS's and NBC's respective shares of all purchases of video programming in the United States. This appendix also explains how the data were prepared, including sources, assumptions and methods of estimation.

The starting point is data on the 1994 revenues of U.S. distributors of television programs and television rights to theatrical films, broken down by category of media outlet. Only entertainment programming has been considered; news, sports, and other non-entertainment programming are excluded. Table G-1 presents a breakdown of these expenditures.

Table G-1 Expenditures on video programming

	Expenditures ($ millions)	**Share of total expenditures (percentage)**
Total ABC, CBS and NBC	3,447	23.0
Fox	689	4.6
Basic cable	1,618	10.8
Syndication	3,695	24.6
Pay cable	1,255	8.4
Home video	4,300	28.7
TOTAL	**15,004**	**100.0**

Source: See text.

ABC, CBS and NBC each provided data on their 1994 program expenditures for relevant television programs and for broadcast rights to theatrical films. Aggregated across these three networks, such expenditures totaled $3,447 million. This figure includes $696 million, aggregated across the three networks, associated with programming produced internally. Expenditures of Fox Broadcasting Company on television programs and films were estimated at $689 million in 1993.[134] Fox's total expenditures were assumed, conservatively, to have remained at this same level for 1994.

The 1994 expenditures of basic cable networks on relevant television programs were estimated at $1,618 million. This is based on an estimate by Paul Kagan Associates, Inc. (*Cable TV Programming*, May 23, 1994) that 29 basic cable networks spent $2,417

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134 Paul Kagan Associates, Inc., TV PROGRAM INVESTOR, Oct. 31, 1994.

million on programming in 1994. It was assumed that news programming accounted for $297 million of this, based on Kagan's estimate for combined expenditures of CNN, Headline News, CNBC and The Weather Channel. Further, it was assumed that sports programming accounted for $502 million based on Kagan's estimate for expenditures by ESPN and Prime Sports Channel America. Programming expenditures of $0.3 million by the Prevue and Sneak Prevue channels also are excluded.

All remaining data in Table G-1 are based on estimates obtained from Wilkofsky Gruen Associates. The syndication expenditure figure includes barter syndication.

The expenditures reported in Table G-1 are amounts paid to distributors. Table G-2 reports expenditures on programming after subtracting estimated expenses associated with distribution fees. In the case of expenditures by broadcast networks, basic cable networks and pay cable networks, it is assumed that none went to distribution fees. Distribution fees were assumed to absorb 40 percent of U.S. distributor revenues in the case of domestic syndication (excluding barter syndication) and 45 percent in the case of home video. The 45 percent figure is based on an estimate by Paul Kagan Associates, Inc. that the studios receive about 55 percent of the gross revenues from factory sales of pre-recorded video cassettes.

Table G-2 Expenditures on video programming net of distribution fees

	Expenditures ($ millions)	**Share of total expenditures (percentage)**
Total ABC, CBS and NBC	3,447	28.1
Fox	689	5.6
Basic cable	1,618	13.2
Syndication	2,897	23.6
Pay cable	1,255	10.2
Home video	2,365	19.3
TOTAL	**12,271**	**100.0**

Source: See text.

Results

Based on the estimates reported in Table G-1, in 1994 the video entertainment programming purchased by ABC, CBS and NBC each accounted for approximately 7.7 percent of total expenditures on video programming. Taking into account distribution fees associated with syndicated programming and home videos, ABC, CBS and NBC each accounted for approximately 9.4 percent of total expenditures on video programming.

Of the total expenditures, total programming produced in-house by ABC, CBS and NBC amounted to 4.6 percent, or on average 1.5 percent for each network. Taking into account distribution fees, ABC, CBS and NBC's in-house programming expenditures each accounted for approximately 1.9 percent of total expenditures on video programming.

Appendix H Sources and types of broadcast programming

Data from the Nielsen November 1994 sweep were examined to determine the types of programming being aired by affiliates of ABC, CBS, Fox and NBC and independent stations during the prime-time access period. In addition, data on programming on Fox affiliates and independent stations from the November 1994 sweep during prime time also were examined. This appendix describes the data and methodology employed, and presents the results.

Access-hour programming

Access-hour programming data were analyzed for 839 commercial stations.[135] For each station, the data indicate the station's DMA, its call letters, whether the station was an ABC, CBS, Fox or NBC affiliate, and what programs the station broadcast each day, Monday through Friday, during each half-hour of the access period.[136]

For each station, the program typically broadcast during each half hour of each day was categorized by Economists Incorporated as either first-run syndication, off-network syndication (*i.e.*, programs that originally aired on ABC, CBS or NBC), off-Fox syndication (*i.e.*, programs that originally aired on Fox), network (*e.g.*, ABC, CBS or

135 The November sweep reported data on 1,079 broadcast stations. Satellite stations, independent stations that fail to meet Nielsen's reporting standards, and some foreign language stations are not covered by the sweep. The 221 stations in the Nielsen database that were coded as being PBS were excluded from the analysis. Also, a station identified as LTVV in Toledo was excluded because it did not appear to be a broadcast station. Eighteen stations were eliminated from the remaining sample of 857 stations because they have dual network affiliations, are independent stations located outside the United States or are non-commercial. The following stations were excluded because they have a dual affiliation: WBKB, WLOV, KATN, KXGN, KREX, KTGF, KTMF, WAGM and KKVI. The following stations were excluded because they are independent stations in either Mexico or Canada: CBET, XERV, XHAB and XRIO. The following stations were excluded because they are non-commercial: WRET, KTLC, WUNE, KVPT and KIPT.

136 The access period generally was defined as the hour before network prime-time programming, *i.e.*, 7-8 p.m. Eastern and Pacific, 6-7 p.m. Central and Mountain. KPIX in San Francisco, however, shows its access hour programming at 10 p.m. Pacific time and it is that programming which was included in the analysis. KCLO in Rapid City broadcasts its access-hour and prime-time programming one hour earlier than the other two affiliates in Rapid City. Its access-hour programming was also included despite the time difference.

NBC network news), local programming or movies.[137] The average daily number of hours of each type of program was then calculated.[138] For example, a "stripped" half-hour program, *i.e.*, a half-hour program shown all five weekdays, was counted as 0.5 hours. If a station did not broadcast the same program in a given period each weekday, then each program was counted as 0.1 hours for each half hour of each day shown. For example, during one half hour some stations broadcast a local sports-talk show one day and a syndicated program the other four days. In this case, the sports-talk show is credited with 0.1 hours and the syndicated program with 0.4 hours.

The results of the analysis for the access hour appear in Table H-1. Stations are either in a PTAR market or a non-PTAR market, and a network (ABC, CBS or NBC) affiliate, a Fox affiliate or an independent station. Data are reported separately for each half hour of the access hour. For example, the data indicate that network affiliates in the 50 PTAR markets showed 44 hours of first-run syndicated programming during the first half of the access hour. This means that 88 network affiliates in the PTAR markets were broadcasting first-run syndicated programming during this time. The total hours row at the bottom of the table aggregates the hours across each half hour, and also equals the total number of stations in each category.

Local programming was analyzed separately to determine the amount of news and public affairs programming. The Nielsen data identify local news broadcasts. Local public affairs programming is identified based upon telephone calls with individual television stations. The data in Table H-1 indicate a total of 28.6 hours of local programming on network affiliates in the PTAR markets, with the majority of these programs being broadcast during the first half hour. All but 1.2 of these hours represent local news broadcasts. The remaining 1.2 hours are comprised of two local public affairs programs each airing five nights a week and two sports-talk shows each airing once a week. In the non-PTAR markets, network affiliates broadcast 96.3 hours of local

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137 Sources used to classify programming include MCNEIL, *supra* note 119, and BROOKS & MARSH, *supra* note 111. In some cases programs were classified based on telephone calls to individual television stations.

138 Non-regularly scheduled programs, such as election coverage and Thanksgiving holiday specials, were not counted. Rather, the analysis focused on the regularly scheduled programs. On the west coast, the regularly scheduled access-hour programming was counted on Monday evenings, even though ABC Monday Night Football postponed the access-hour programming on ABC affiliates.

programming during the access period. Of this, 95.5 hours are local news broadcasts, an additional 0.1 hours is a local public affairs show, and seven other sports or outdoor shows comprise the remaining 0.7 hours.

During the access hour, local programming accounts for only 10.4 hours, or less than 4 percent, of the 287 total hours of programming on Fox affiliates and independents nationwide. Of these 10.4 hours, 8.4 hours are local news and public affairs programs, or about 3 percent of access hour programming on Fox affiliates and independents.

Table H-2 presents an analysis of the syndicated programs (first-run and off-Fox) carried by the network affiliates in the PTAR markets during the access hour. For each syndicated program, the table lists the program's packager and the average daily number of hours the program was broadcast. For example, *Inside Edition* was broadcast 10 hours per day, or alternatively, was carried by 20 network affiliates in the PTAR markets each day.

The data in Table H-2 indicate that three packagers, King World, Paramount and 20th Century-Fox, account for 106 hours of the 119 hours, or 89 percent of the syndicated programming broadcast by network affiliates in the PTAR markets.

Prime-time programming

Prime-time programming data were analyzed for the 152 PTAR-market Fox affiliate and independent stations in the November sweep.[139] For each station, the data indicate the station's DMA, its call letters, whether the station was a Fox affiliate or an independent, and certain programming information.

For Fox affiliates, the programming data indicate what program the station broadcast each day, Monday through Friday, during each half hour of prime time. The program typically broadcast during each half hour of prime time each day is categorized as Fox network, first-run syndication, off-network syndication, off-Fox syndication, local programming or movies. The average daily number of hours of each type of program was then calculated. These results appear in the first column of Table H-3.

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139 Prime time was defined as 8-11 p.m. Eastern and Pacific, 7-10 p.m. Central and Mountain.

For independent stations, the type of program broadcast varies not only day-by-day, but also week-by-week. For this reason, a more detailed listing of programming was obtained. For each station, the listing presents every program aired on that station during prime time, Monday through Friday, during the sweep period, and the total number of quarter hours the program aired.[140] For example, if a station broadcast a two-hour movie every Monday night of the sweep period, that would be reported as a total of 32 quarter hours, 8 quarter hours each Monday for four weeks.

Each program is categorized as first-run syndication, off-network syndication, off-Fox syndication, local programming, network (ABC, CBS or NBC) programming or movies.[141] The total number of quarter hours for each type of program was calculated and then converted into an average daily number of hours. These results appear in the second column of Table H-3.

The largest category of prime-time programming on independent stations in the PTAR markets, 39 percent, is first-run syndication. The second largest category, accounting for 34 percent, is movies. Local programming, which includes sports, makes up 16 percent, and off-network programming accounts for 10 percent. The other categories account for the remaining 1 percent.

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140 For some stations, the listing did not account for all 240 quarter hours. When a program received too small an audience, fewer than 1,000 households, the listing did not credit the program with a quarter hour.

141 Some independent stations broadcast ABC, CBS or NBC network programming if the local network affiliate pre-empts the network program.

Table H-1 **Average weekday access-hour hours of programming on commercial stations, by source, November 1994**

	PTAR markets			Other markets		
	Network affiliates	**Fox affiliates**	**Ind. Stations**	**Network affiliates**	**Fox affiliates**	**Ind. Stations**
			First half hour			
First-run	44.0	3.5	19.2	75.9	9.5	13.7
Local	23.5	1.0	3.8	95.2	—	1.1
Network	5.5	—	—	4.0	—	—
Off-network*	—	11.5	23.5	19.9	20.5	9.7
Off-Fox**	3.5	9.0	4.0	4.5	11.0	2.0
Movies	—	—	0.5	—	—	—
			Second half hour			
First-run	67.4	6.0	22.5	138.1	13.5	15.1
Local	5.1	0.5	2.8	1.1	—	1.2
Network	—	—	—	4.0	—	—
Off-network*	—	5.5	19.8	43.3	19.0	8.7
Off-Fox**	4.0	13.0	5.0	13.0	8.5	1.5
Movies	—	—	0.9	—	—	—
Total hours	**153.0**	**50.0**	**102.0**	**399.0**	**82.0**	**53.0**

* Programs that originally aired on ABC, CBS or NBC network.
** Programs that originally aired on the Fox network.
Source: NIELSEN STATION INDEX, NOVEMBER 1994 SWEEP, (Nov. 3–Nov. 30, 1994).

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Table H-2 **Suppliers of access-hour syndicated programming to PTAR-market-network affiliates, typical weekday, November 1994**

Packager	**Program**	**Hours of syndicated programming supplied**
King World	American Journal	4.0
King World	Inside Edition	10.0
King World	Jeopardy!	17.5
King World	Wheel of Fortune	24.0
Paramount	Entertainment Tonight	21.5
Paramount	Hard Copy	10.0
Paramount	Price is Right	4.5
Paramount	Star Trek-Next Generation	1.0
20th Century-Fox	Cops	4.5
20th Century-Fox	Current Affair	7.5
20th Century-Fox	Simpsons	1.5
Warner Brothers	Extra	8.0
Genesis	Real Highway Patrol	2.5
Columbia	Married…With Children	1.5
All American	Family Feud	0.5
MTM/IFE	Rescue 911	0.5

Source: NIELSEN STATION INDEX, NOVEMBER 1994 SWEEP, (Nov. 3–30, 1994).

Table H-3 **Average weekday prime-time hours of programming on commercial stations, by source, November 1994***

	PTAR Markets	
	Fox affiliates	**Independent stations**
First-run	20.3	116.2
Local	18.0	47.0
Fox network	100.0	0.0
Network**	0.0	0.5
Off-network†	8.0	30.2
Off-Fox††	3.7	2.5
Movies	0.0	102.7

* Prime time is defined as 8–11 p.m. Eastern and Pacific, 7–10 p.m. Central and Mountain.
** Some independent stations broadcast ABC, CBS or NBC network programming if the local network affiliate pre-empts the network program.
† Programs that originally aired on ABC, CBS or NBC network.
†† Programs that originally aired on the Fox network.
Source: NIELSEN STATION INDEX, NOVEMBER 1994 SWEEP, (Nov. 3–30, 1994).

Appendix I Access hour viewing dropped dramatically after the imposition of PTAR

Before the 1971/72 television season, ABC, CBS and NBC each offered prime-time entertainment programming usually from 7:30–11:00 p.m. Eastern Time on weekdays.[142] The Prime Time Access Rule restricted the number of hours of network programming during prime time, and consequently the networks in the 1971/72 season offered prime-time programming from 7:30–10:30 p.m. Eastern Time on Tuesday evenings and from 8–11 p.m. on other weekday nights. In subsequent seasons, prime-time programming has been offered only from 8–11 p.m. on all weekday nights. After the imposition of PTAR, American television households altered their viewing habits by watching less television during the prime-time periods from which network programming was removed. This Appendix describes how this change in viewing behavior was measured.

142 All references in this appendix to time periods for television viewing are based on Eastern or Pacific time zones. Access-hour and prime-time television viewing in the Central and Mountain time zones are one hour earlier, and appropriate adjustments have been made in the data. For example, a reference to 7:30 p.m. includes 7:30 p.m. for Eastern and Pacific time and 6:30 p.m. for Central and Mountain time zones.

During the 1971/72 season ABC, CBS and NBC continued to offer network programming from 7:30–8:00 p.m. on Tuesdays but not on other weeknights. The partition of the week into those days with and without network programming during that period provides a natural experiment on the effect of PTAR on household viewership. Table I-1 displays the average percentage of television households using television on Tuesday evenings and the average for other weekday evenings during various periods in selected television seasons. After the imposition of PTAR in 1971/72, the percentage of households using television during 7:30–8:00 and 8:00–8:30 p.m. declined slightly on Tuesday evenings, when network programming continued to be presented, but declined substantially for other weekdays, when network programming was removed.

Table I-1 Average viewing by period: selected TV seasons[143]
(HUTs as percent of all TVHH)

Television season	TVHHs (in millions)	7:30–8:00 p.m.	8:00–8:30 p.m.	8:30–9:00 p.m.
			Tuesdays	
1969/70	58.5	63.26	66.17	67.42
1970/71	60.1	63.16	66.23	67.35
1971/72	62.1	62.79	65.93	67.22
			Other weekdays	
1969/70	58.5	60.49	63.83	65.11
1970/71	60.1	61.48	64.43	65.46
1971/72	62.1	58.96	62.93	64.70

The first column of Table I-2 presents the decline in the percentage of households viewing television in the 1971/72 season relative to the average of the two pre-PTAR seasons on Tuesday nights and on other weekday nights. The statistical significance of these declines was evaluated as follows. First, each week's observation from the two

143 For these calculations, the television season is assumed to run from the fourth week of September through the third week of April. The underlying data are based on the national percentage of households using television by quarter hour during each time period as published in the NIELSEN POCKETPIECE REPORT, various years. To calculate half-hour shares, quarter-hour shares were averaged for each day. For each week of each season, a share of households using television during each time period was calculated based on the average of share data for each day of that week that was not otherwise excluded. Christmas week was excluded from each season. For each season, there are thus 28 or 29 weekly observations of the average percentage of households using television for each time period.

pre-PTAR seasons was averaged. Then, the difference between the pre- and post-PTAR value was computed for each week. A pairwise t-test on the series of weekly differences was conducted. The standard error used to calculate the t-statistic was adjusted to account for serial correlation, which was observed in some of the series. The second column of Table I-2 presents the calculated t-statistics, and the third column presents p-values for a one-tailed test that the mean of the percentage is lower than the pre-PTAR sample.[144] A p-value represents the smallest significance level for which one fails to reject the hypothesis that the mean of the pre-PTAR average is the same as its post-PTAR counterpart.[145]

Table I-2 Tests for the significance of the decline in HUTs after the imposition of PTAR: Tuesdays vs. other weekdays

Period	Average change in viewing relative to the pre-PTAR sample	t-statistic for pairwise difference in means	p-value for the hypothesis that the means of ratios are the same (1-tailed test)	Average reduction in HUTs (in millions)
		Tuesdays		
7:30–8:00 p.m.	–0.42	–0.72	0.2549	
8:00–8:30 p.m.	–0.27	–0.41	0.3433	
8:30–9:00 p.m.	–0.16	–0.29	0.3888	
		Other weekdays		
7:30–8:00 p.m.	–2.02	–8.28	0.0000	1.254
8:00–8:30 p.m.	–1.20	–4.69	0.0000	0.747
8:30–9:00 p.m.	–0.58	–1.95	0.0313	0.363

The reduction in the percentage of households viewing television in the 1971/72 season was not significantly different from zero on Tuesday nights, when network programming was offered during 7:30–8:00 p.m., but was significantly greater than zero for *all* three half-hour periods for other weeknights. On weekdays other than Tuesday during the 1971/72 season—but not in subsequent seasons—the decline in

144 The approach was to compute a standard error that is robust to autocorrelation of three lags. The formula is well-known, and is presented in JAMES D. HAMILTON, TIME SERIES ANALYSIS, 188 (1994). To be conservative, p-values are based on the t-distribution with n–4 degrees of freedom to account for the estimation of the covariances.

145 Common critical levels for one-tailed tests are 0.01 and 0.05. If the p-value is less than these critical values, one can reject the hypothesis that the means are the same.

HUTs during 7:30–8:00 p.m. may have had spillover effects in reducing television viewership in successive half hour periods. Based on the average decline in the percentage, the fourth column presents the estimated reduction in the number of TV households using television relative to the pre-PTAR sample. During 7:30–8:00 p.m. on weeknights other than Tuesday, the reduction exceeds one million households.

After the 1971/72 season, none of the three major networks offered regularly scheduled entertainment programming during 7:30–8:00 p.m. on any weeknight. Household television viewing behavior during this period remained altered beyond the 1971/72 season. Table I-3 displays the average weekday percentage of television households using television during various periods in selected television seasons. The percentage of households using television during 7:30–8:00 p.m. dropped after the 1970/71 season, the last season with regular network programming during that period for all weekdays.

Table I-3 Average weekday viewing by period: selected TV seasons[146]
(HUTs as percent of all TVHH)

Television season	TVHHs (millions)	7:30–8:00 p.m.	8:00–8:30 p.m.	8:30–9:00 p.m.
1969/70	58.5	61.31	64.47	65.65
1970/71	60.1	62.14	65.03	65.98
1972/73	64.8	60.26	64.20	65.60
1976/77	71.2	60.28	64.28	66.11

The average percentage of households using television declined during 7:30–8:00 p.m.—but not during the subsequent two half hours—after the imposition of PTAR. To test whether the decline was statistically significant, a pre-PTAR base sample consisting of the average percentage of households using television for each week of the season averaged over the 1969/70 and 1970/71 seasons was formed. The weekly percentage in the pre-PTAR sample and the weekly percentage in both the 1972/73 and the 1976/77 were compared in a pairwise fashion.

146 The data are similar to those in Table I-1, and the sources are described *supra*, note 141. The data for the 1972/73 season only begin with the first week of October. Consequently, for Tables I-3 through I-5, the first week of October is used as the beginning of the television season. Daily observations after the 1970/71 season were excluded if either ABC, CBS or NBC offered entertainment programming during 7:30-8:00 p.m.

The first column of Table I-4 presents the average decline in the percentage of households viewing television during various periods on weekdays relative to the pre-PTAR sample. Whether the decline is statistically significant was again determined using a pairwise t-test, using the same autocorrelation-corrected methodology used to generate the figures in Table I-2. The second column of Table I-4 presents the calculated t-statistic, and the third column presents a p-value for a test of equality of pre- and post-PTAR viewing percentages. Based on the average decline in the percentage, the fifth column presents the reduction in the number TV households using television relative to the pre-PTAR sample. In the 1972/73 and 1976/77 seasons, the average percentage of households viewing television declined significantly during 7:30–8:00 p.m., when PTAR had effectively removed network programming, but did not decline significantly during the following half-hour periods. The average number of households watching television declined by approximately one million during 7:30–8:00 p.m.

Table I-4 Tests for the significance of the decline in HUTs after the imposition of PTAR in selected seasons: comparison of declines in weekday averages by period

Period and television season	Average decline in viewing relative to the pre-PTAR sample	t-statistic for pairwise difference in means	p-value for the hypothesis that the means of ratios are the same (1-tailed test)	Average reduction in HUTs (millions)
7:30–8:00 p.m.				
1972/73	–1.46	–2.29	0.0156	0.946
1976/77	–1.44	–1.90	0.0350	1.026
8:00–8:30 p.m.				
1972/73	–0.54	–0.75	0.2314	
1976/77	–0.47	–0.57	0.2867	
8:30–9:00 p.m.				
1972/73	–0.21	–0.31	0.3801	
1976/77	0.30	n.a.	n.a.	

The change in the percentage of households using television during the access hour between the pre-PTAR sample and later seasons may have been the result of secular trends in television viewing affecting all periods and unrelated to PTAR. To isolate the effect of PTAR during 7:30–8:00 p.m., the changes in the weekly *ratio* of the percentage of households using television during 7:30–8:00 p.m. to the percentage of households 8:00–8:30 p.m. were examined. Secular changes in viewing habits unrelated to PTAR should leave this ratio relatively unchanged. If, however, PTAR reduced television audiences during 7:30–8:00 p.m. when network programming was withdrawn, the ratio should have fallen immediately after the imposition of the rule.

The analysis compared the ratio for each week of the pre-PTAR sample with the corresponding weekly ratio for the 1972/73 and 1976/77 seasons. The first column of Table I-5 presents the average change in this ratio relative to the pre-PTAR sample. A pairwise t-test is used to test whether the mean of the weekly ratios in each season is statistically significantly lower than the mean of the weekly ratios in the pre-PTAR sample. The second column of Table I-5 presents the autocorrelation-corrected t-statistic, and the third column presents the p-value for the test that the pre- and post-PTAR means are equal. For both seasons, the decline in the ratio was statistically significant. Based on the average decline in the viewership ratio, the fourth column presents the lost percentage share of TV households during 7:30–8:00 p.m., and the fifth column calculates the reduction in the number of TV households using television relative to the pre-PTAR sample. The ratio method reveals a decline in television viewership during 7:30–8:00 p.m. of approximately 600 to 700 thousand households.

Table I-5 Tests for the significance of the decline in the ratio of HUTs from 7:30–8:00 p.m. to 8:00–8:30 p.m. after the imposition of PTAR in selected seasons

Television season	Average weekly decline in ratio relative to the pre-PTAR sample	t-statistic for pairwise difference in means	p-value for the hypothesis that the means of ratios are the same (1-tailed test)	Average reduction in 7:30–8:00 p.m. viewing as percentage of TVHH	Average reduction in HUTs 7:30–8:00 p.m. (in millions)
1972/73	–0.015	–6.46	0.0000	0.9	.607
1976/77	–0.016	–10.62	0.0000	1.0	.710

Appendix J Impact of PTAR on viewer welfare

One impact of PTAR was to reduce the number of hours of network programming available to viewers. To the extent that viewers valued the displaced network programming more than the programming that was aired in its place, PTAR reduced thier welfare. This appendix develops an estimate of the loss in consumer surplus of viewers resulting from the adoption of PTAR. The estimate is developed using data on the value of viewing options and viewing patterns from the period when the Rule initially took effect.

When television is provided free to an individual, the maximum price the individual would pay for the quality of viewing available rather than go without is a measure of the individual's welfare gain from free television of that quality. An estimate of cable household valuations of viewing alternatives was developed in 1971 by Noll, Peck and McGowan (NPM) based on data from the 1960s.[147] Their model permits the computation of the share of income that households would give up in order to obtain a given level of free television programming rather than have no service at all, and hence provides a measure of the value of viewing options. NPM find that network programming is highly valued compared to the programming of independents, and that welfare increases, although at a rapidly diminishing rate, with the addition of either networks or independents.

NPM's estimate of the consumer surplus of households generated by providing a given level of free television differs for affiliated and independent stations, and depends on the number and mix of stations available. For instance, NPM estimate that viewers would give up 5.07 percent of their total income to receive three affiliated stations. On the other hand, viewers would only give up 1.34 percent of their income to receive three independent stations.

This difference between viewers' valuation of affiliated stations and independent stations provides a method to estimate the loss in viewer welfare resulting from PTAR. By restricting viewers' access to network programming, PTAR effectively turns a network affiliate station into an independent station for the period affected by the Rule.

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147 NOLL et al., *supra* note 58.

Given NPM's estimates, viewers are willing to pay 3.73 percent of their total income (5.07 minus 1.34) to view network programming on ABC, CBS and NBC affiliates rather than the programming available on three independent stations.

While viewers are willing to pay 3.73 percent of their total income to view network rather than independent programming, PTAR did not eliminate all network programming. Therefore, an estimate of the percent of network viewing affected by the Rule has been developed. Network programming is available not only during prime time, but also during other dayparts. Viewers' valuation of network programming during prime time relative to other dayparts has been estimated based on the ratio of the broadcast networks' advertising revenues from prime time relative to their total advertising revenues. Since advertising revenues are related to audience size, they serve as a proxy for viewership patterns. Based on BAR estimates, 56.7 percent of ABC, CBS and NBC advertising revenue during 1971 was from prime-time sales.[148] The Rule reduced the number of prime-time hours of network programming by approximately one seventh.[149] Hence, about 8.1 percent of the viewers' valuation of network programming (one seventh of 56.7 percent) was eliminated by the Rule. This translates into a reduction of consumer surplus equal to 0.3 percent of total viewer income (8.1 percent of 3.73 percent).

To translate this estimate of the impact of PTAR on viewer welfare from a percentage of income to dollars, an estimate of total viewer income has been developed. In 1971, per capita personal income was $4,302.[150] This is multiplied by 3.14, the national average size of a household in 1971,[151] and by 62.1 million, the number of television

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148 BROADCAST ADVERTISERS REPORTS network-TV dollar revenue estimates as reported in BROADCASTING, Jan. 15, 1973, at 22. Prime-time revenues were $895,497,900 out of total 1971 revenues of $1,580,489,200.

149 At the start of the 1970/71 television season, the season prior to the Rule, ABC, CBS and NBC combined offered 74.5 hours of prime-time programming. At the start of the 1971/72 season, the first season under PTAR, this number was reduced to 63 hours. It remained at 63 hours for the next two television seasons. Beginning in the 1975/76 season, the amount increased to 66 hours. *See* McNeil, *supra* note 119, at 929-934.

150 1994 ECONOMIC REPORT OF THE PRESIDENT 277.

151 U.S. BUREAU OF THE CENSUS, STATISTICAL ABSTRACT OF THE UNITED STATES 40 (1973).

households in 1971,[152] to arrive at an estimated $839 billion in total viewer income in 1971.

Combining the estimate of total viewer income with the estimate of the impact of PTAR on consumer surplus measured as a percent of income, it is estimated that PTAR reduced viewer welfare by $2.5 billion per year. This estimate is in 1971 dollars. Adjusted for inflation, this amounts to $8.5 billion in 1994 dollars.[153] Since 1971, several factors have changed which might affect this estimate. For example, increasing household income would tend to increase the welfare loss in dollar terms, but this might be offset by the growth of cable networks. Ignoring the various factors that may have changed since 1971, the present value of the total consumer surplus lost since 1971 due to the Rule is over $200 billion.

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152 THE POCKETPIECE REPORT, NIELSEN TELEVISION INDEX, 1971-72 television season.

153 The inflation adjustment is based on the GDP Implicit Price Deflator. The index was 37.1 in 1971 and was 126.1 in 1994. 1995 ECONOMIC REPORT OF THE PRESIDENT 278.

Table K-1 Audience share Monday–Sunday 7 a.m. – 1 a.m.

All television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	18	18	17
CBS affiliates	18	16	21
NBC affiliates	17	16	19
Fox affiliates	11	12	10
Independents	9	12	3
PBS	4	4	3
Basic cable	31	29	33
Pay cable	4	5	4

Cable television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	16	17	15
CBS affiliates	15	14	16
NBC affiliates	16	15	17
Fox affiliates	9	10	8
Independents	7	9	2
PBS	3	3	3
Basic cable	43	42	46
Pay cable	6	7	6

Non-cable television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	22	22	23
CBS affiliates	24	21	31
NBC affiliates	20	19	23
Fox affiliates	15	15	13
Independents	14	19	3
PBS	5	6	5
Basic cable	2	2	3
Pay cable	–	–	1

Source: NIELSEN TELEVISION INDEX, SPECIAL ANALYSIS, (Oct. 31, 1994–Nov. 27, 1994).

Table K-2 **Audience share Monday–Saturday 8–11 P.M. and Sunday 7–11 P.M.**

All television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	20	20	21
CBS affiliates	21	20	23
NBC affiliates	19	18	19
Fox affiliates	11	12	9
Independents	8	11	2
PBS	4	4	3
Basic cable	28	27	32
Pay cable	5	5	4

Cable television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	18	18	17
CBS affiliates	18	18	19
NBC affiliates	17	17	17
Fox affiliates	10	11	9
Independents	6	8	2
PBS	3	3	3
Basic cable	41	39	45
Pay cable	7	7	6

Non-cable television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	24	23	28
CBS affiliates	26	24	32
NBC affiliates	22	21	23
Fox affiliates	14	15	11
Independents	12	16	2
PBS	6	6	5
Basic cable	2	2	3
Pay cable	1	-	1

Source: NIELSEN TELEVISION INDEX, SPECIAL ANALYSIS, (Oct. 31, 1994–Nov. 27, 1994).

Table K-3 **Audience share Monday–Sunday 7 a.m. – 1 a.m. except prime time**

All television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	17	18	16
CBS affiliates	16	14	20
NBC affiliates	16	15	18
Fox affiliates	11	11	10
Independents	10	13	3
PBS	4	4	3
Basic cable	31	30	34
Pay cable	4	4	4

Cable television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	16	16	14
CBS affiliates	13	12	15
NBC affiliates	15	14	16
Fox affiliates	9	9	8
Independents	7	10	2
PBS	3	3	3
Basic cable	44	43	47
Pay cable	6	6	6

Non-cable television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	21	21	20
CBS affiliates	23	19	31
NBC affiliates	20	18	23
Fox affiliates	15	15	14
Independents	15	20	3
PBS	5	5	5
Basic cable	3	2	4
Pay cable	-	-	1

Source: NIELSEN TELEVISION INDEX, SPECIAL ANALYSIS, (Oct. 31, 1994–Nov. 27, 1994).

Table K-4 Audience share Monday–Friday 7:00–7:30 P.M.

All television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	22	23	19
CBS affiliates	19	17	22
NBC affiliates	17	14	22
Fox affiliates	12	13	12
Independents	11	15	3
PBS	3	3	2
Basic cable	22	22	24
Pay cable	3	3	3

Cable television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	20	22	18
CBS affiliates	16	15	18
NBC affiliates	16	13	21
Fox affiliates	11	11	11
Independents	11	14	3
PBS	2	3	2
Basic cable	32	32	34
Pay cable	4	4	4

Non-cable television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	25	26	23
CBS affiliates	23	20	30
NBC affiliates	19	16	24
Fox affiliates	15	15	15
Independents	13	18	2
PBS	4	5	3
Basic cable	2	2	3
Pay cable	-	-	1

Source: NIELSEN TELEVISION INDEX, SPECIAL ANALYSIS, (Oct. 31, 1994–Nov. 27, 1994).

Table K-5 Audience share Monday–Friday 7:30–8:00 P.M.

All television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	21	22	19
CBS affiliates	18	17	20
NBC affiliates	16	13	22
Fox affiliates	12	13	10
Independents	11	15	3
PBS	3	4	3
Basic cable	25	23	27
Pay cable	3	3	3

Cable television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	19	21	16
CBS affiliates	16	15	17
NBC affiliates	15	13	20
Fox affiliates	11	11	9
Independents	10	14	3
PBS	3	3	3
Basic cable	36	34	39
Pay cable	4	5	4

Non-cable television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	25	25	27
CBS affiliates	23	22	27
NBC affiliates	19	15	26
Fox affiliates	15	16	12
Independents	13	18	2
PBS	5	5	4
Basic cable	2	2	3
Pay cable	-	-	1

Source: NIELSEN TELEVISION INDEX, SPECIAL ANALYSIS, (Oct. 31, 1994–Nov. 27, 1994).

Table K-6 Audience share Monday–Friday 8:00–8:30 P.M.

All television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	18	18	19
CBS affiliates	18	17	20
NBC affiliates	19	18	20
Fox affiliates	13	14	11
Independents	9	12	3
PBS	4	4	4
Basic cable	27	26	31
Pay cable	4	4	4

Cable television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	16	17	16
CBS affiliates	15	15	16
NBC affiliates	17	17	18
Fox affiliates	12	13	11
Independents	8	10	3
PBS	3	3	3
Basic cable	39	37	43
Pay cable	5	6	5

Non-cable television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	23	21	27
CBS affiliates	24	22	29
NBC affiliates	21	20	23
Fox affiliates	15	16	12
Independents	13	18	2
PBS	6	7	5
Basic cable	2	2	3
Pay cable	-	-	1

Source: NIELSEN TELEVISION INDEX, SPECIAL ANALYSIS, (Oct. 31, 1994–Nov. 27, 1994).

Table K-7 Audience share Monday–Friday 8–11 P.M.

All television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	21	21	22
CBS affiliates	19	18	21
NBC affiliates	19	19	20
Fox affiliates	11	12	9
Independents	9	12	3
PBS	4	4	3
Basic cable	27	26	31
Pay cable	4	4	4

Cable television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	20	20	19
CBS affiliates	17	16	17
NBC affiliates	18	18	18
Fox affiliates	10	11	8
Independents	7	9	3
PBS	3	3	3
Basic cable	39	37	43
Pay cable	6	6	5

Non-cable television households

Program source	All markets	PTAR markets	Non-PTAR markets
ABC affiliates	25	23	29
CBS affiliates	24	22	30
NBC affiliates	22	22	24
Fox affiliates	14	15	11
Independents	13	17	2
PBS	6	6	5
Basic cable	2	1	3
Pay cable	-	-	1

Source: NIELSEN TELEVISION INDEX, SPECIAL ANALYSIS, (Oct. 31, 1994–Nov. 27, 1994).